2022

Doctorate Recipients from U.S. Universities

Data Tables and Resources

National Center for Science and Engineering Statistics
Directorate for Social, Behavioral and Economic Sciences

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Data Tables

These tables present detailed data on the demographic characteristics, educational history, sources of financial support, and postgraduation plans of doctorate recipients. The Survey of Earned Doctorates (SED) data tables were reorganized and renumbered in 2021; see table B-1 in the "Technical Notes" for a crosswalk comparing the current tables with those prior to 2021. Explore SED data further via the interactive data tool and the Restricted Data Analysis System.

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Table 1-1

Research doctorate recipients from U.S. colleges and universities: 1958–2022

(Number and percent)

Year	Doctorate recipients	% change from previous year
1958	8,773	-
1959	9,213	5.0
1960	9,733	5.6
1961	10,413	7.0
1962	11,500	10.4
1963	12,728	10.7
1964	14,325	12.5
1965	16,340	14.1
1966	17,949	9.8
1967	20,403	13.7
1968	22,937	12.4
1969	25,743	12.2
1970	29,498	14.6
1971	31,867	8.0
1972	33,041	3.7
1973	33,755	2.2
1974	33,047	-2.1
1975	32,952	-0.3
1976	32,946	*
1977	31,716	-3.7
1978	30,875	-2.7
1979	31,238	1.2
1980	31,019	-0.7
1981	31,355	1.1
1982	31,108	-0.8
1983	31,280	0.6
1984	31,334	0.2
1985	31,295	-0.1
1986	31,897	1.9
1987	32,365	1.5
1988	33,497	3.5
1989	34,325	2.5
1990	36,065	5.1
1991	37,530	4.1
1992	38,886	3.6
1993	39,800	2.4
1994	41,034	3.1
1995	41,747	1.7
1996	42,437	1.7
1997	42,539	0.2
1998	42,636	0.2
1999	41,101	-3.6
2000	41,369	0.7
2001	40,744	-1.5
2002	40,031	-1.7
2003	40,762	1.8
2004	42,122	3.3
2005	43,385	3.0
2006	45,620	5.2
2007	48,132	5.5
2008	48,776	1.3

Table 1-1

Research doctorate recipients from U.S. colleges and universities: 1958–2022

(Number and percent)

Year	Doctorate recipients	% change from previous year
2009	49,552	1.6
2010	48,028	-3.1
2011	48,909	1.8
2012	50,943	4.2
2013	52,703	3.5
2014	53,986	2.4
2015	54,886	1.7
2016	54,809	-0.1
2017	54,552	-0.5
2018	55,078	1.0
2019	55,609	1.0
2020	55,208	-0.7
2021	52,194	-5.5
2022	57,596	10.3

* = value between -0.05% and 0.05% and not equal to 0.0%.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-2

Research doctorate recipients, by historical broad field of doctorate and 2018 Carnegie Classification of doctorate institution: 2012–22

(Number)

Field and 2018 Carnegie Classification	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
All doctorate recipients	50,943	52,703	53,986	54,886	54,809	54,552	55,078	55,609	55,208	52,194	57,596
R1: doctoral universities - very high research	41,251	42,639	43,190	43,624	43,351	43,259	43,600	43,933	43,442	41,004	45,592
R2: doctoral universities - high research	6,126	6,460	6,973	7,280	7,475	7,442	7,406	7,465	7,564	7,058	7,466
Doctoral/ professional universities	1,436	1,506	1,797	1,787	1,872	1,874	1,934	1,911	2,051	2,044	2,101
Other universities	2,130	2,098	2,026	2,195	2,111	1,977	2,138	2,300	2,151	2,088	2,437
Life sciences[a]	11,964	12,207	12,484	12,493	12,539	12,554	12,754	12,748	12,541	11,800	13,211
R1: doctoral universities - very high research	9,400	9,653	9,603	9,555	9,619	9,749	9,796	9,763	9,688	9,049	10,109
R2: doctoral universities - high research	1,148	1,183	1,361	1,346	1,385	1,331	1,421	1,384	1,371	1,328	1,415
Doctoral/ professional universities	196	225	314	326	336	357	329	326	375	306	363
Other universities	1,220	1,146	1,206	1,266	1,199	1,117	1,208	1,275	1,107	1,117	1,324
Physical sciences and earth sciences	5,419	5,584	5,910	5,916	6,251	6,082	6,329	6,579	6,241	5,776	6,649
R1: doctoral universities - very high research	4,757	4,882	5,108	5,153	5,433	5,323	5,525	5,738	5,410	5,049	5,840
R2: doctoral universities - high research	590	635	744	701	745	701	726	766	757	653	727
Doctoral/ professional universities	8	2	7	5	6	5	7	4	10	8	10
Other universities	64	65	51	57	67	53	71	71	64	66	72
Mathematics and computer sciences	3,496	3,660	3,862	3,818	3,954	3,842	4,022	4,230	4,387	4,370	4,854
R1: doctoral universities - very high research	3,060	3,175	3,346	3,316	3,365	3,259	3,469	3,618	3,721	3,764	4,179
R2: doctoral universities - high research	390	438	472	442	536	519	491	558	601	543	591
Doctoral/ professional universities	25	20	26	37	29	37	43	24	34	31	37
Other universities	21	27	18	23	24	27	19	30	31	32	47
Psychology and social sciences	8,498	8,580	8,748	9,073	9,037	9,034	8,875	9,043	8,928	8,655	9,235
R1: doctoral universities - very high research	6,365	6,413	6,367	6,664	6,603	6,612	6,510	6,535	6,440	6,242	6,714
R2: doctoral universities - high research	1,242	1,275	1,383	1,423	1,409	1,474	1,329	1,379	1,344	1,289	1,308
Doctoral/ professional universities	582	591	708	666	694	664	733	764	777	790	851
Other universities	309	301	290	320	331	284	303	365	367	334	362
Engineering	8,469	9,000	9,626	9,875	9,459	9,776	10,164	10,298	10,468	10,233	11,530
R1: doctoral universities - very high research	7,531	7,930	8,546	8,604	8,230	8,521	8,746	8,893	8,984	8,795	9,907
R2: doctoral universities - high research	845	967	996	1,176	1,140	1,135	1,293	1,279	1,361	1,301	1,441
Doctoral/ professional universities	26	22	30	32	31	41	39	31	30	33	35
Other universities	67	81	54	63	58	79	86	95	93	104	147
Education	4,802	4,934	4,789	5,098	5,146	4,826	4,818	4,633	4,714	4,252	4,509
R1: doctoral universities - very high research	3,372	3,406	3,274	3,334	3,339	3,129	3,128	2,998	3,021	2,659	2,943
R2: doctoral universities - high research	1,043	1,098	1,093	1,291	1,277	1,299	1,214	1,198	1,191	1,097	1,080
Doctoral/ professional universities	282	306	339	374	420	326	373	345	396	402	392
Other universities	105	124	83	99	110	72	103	92	106	94	94
Humanities and arts	5,561	5,715	5,524	5,594	5,482	5,286	5,139	5,051	4,924	4,134	4,464
R1: doctoral universities - very high research	4,554	4,774	4,596	4,628	4,480	4,329	4,215	4,143	3,979	3,319	3,600

Table 1-2

Research doctorate recipients, by historical broad field of doctorate and 2018 Carnegie Classification of doctorate institution: 2012–22

(Number)

Field and 2018 Carnegie Classification	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
R2: doctoral universities - high research	569	520	535	549	615	550	526	498	515	426	459
Doctoral/ professional universities	152	123	117	108	132	115	109	104	111	105	88
Other universities	286	298	276	309	255	292	289	306	319	284	317
Other[b]	2,734	3,023	3,043	3,019	2,941	3,152	2,977	3,027	3,005	2,974	3,144
R1: doctoral universities - very high research	2,212	2,406	2,350	2,370	2,282	2,337	2,211	2,245	2,199	2,127	2,300
R2: doctoral universities - high research	299	344	389	352	368	433	406	403	424	421	445
Doctoral/ professional universities	165	217	256	239	224	329	301	313	318	369	325
Other universities	58	56	48	58	67	53	59	66	64	57	74

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[b] Includes other non-science and engineering fields not shown separately.

Note(s):
Carnegie classification is based on the 2018 Carnegie Classifications: Doctoral universities - very high research (R1), Doctoral universities - high research (R2), Doctoral/ professional universities, and other universities, which includes all other Carnegie classifications (e.g., special focus institutions) and institutions without Carnegie classifications. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-3

Research doctorate recipients, by historical major field of doctorate: Selected years, 1992–2022

(Number and percent)

Field of doctorate	1992		1997		2002		2007		2012		2017		2022	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fields	38,886	100.0	42,539	100.0	40,031	100.0	48,132	100.0	50,943	100.0	54,552	100.0	57,596	100.0
Life sciences	7,172	18.4	8,421	19.8	8,478	21.2	10,702	22.2	11,964	23.5	12,554	23.0	13,211	22.9
Agricultural sciences and natural resources	1,261	3.2	1,212	2.8	1,129	2.8	1,321	2.7	1,255	2.5	1,493	2.7	1,434	2.5
Biological and biomedical sciences	4,799	12.3	5,788	13.6	5,695	14.2	7,238	15.0	8,322	16.3	8,566	15.7	9,218	16.0
Health sciences	1,112	2.9	1,421	3.3	1,654	4.1	2,143	4.5	2,387	4.7	2,495	4.6	2,559	4.4
Physical sciences and earth sciences	4,517	11.6	4,550	10.7	3,875	9.7	4,956	10.3	5,419	10.6	6,082	11.1	6,649	11.5
Chemistry	2,213	5.7	2,148	5.0	1,922	4.8	2,318	4.8	2,416	4.7	2,699	4.9	3,060	5.3
Geosciences, atmospheric sciences, and ocean sciences	767	2.0	803	1.9	689	1.7	875	1.8	941	1.8	1,169	2.1	1,181	2.1
Physics and astronomy	1,537	4.0	1,599	3.8	1,264	3.2	1,763	3.7	2,062	4.0	2,214	4.1	2,408	4.2
Mathematics and computer sciences	1,927	5.0	2,032	4.8	1,729	4.3	3,042	6.3	3,496	6.9	3,842	7.0	4,854	8.4
Computer and information sciences	869	2.2	909	2.1	809	2.0	1,654	3.4	1,793	3.5	1,998	3.7	2,606	4.5
Mathematics and statistics	1,058	2.7	1,123	2.6	920	2.3	1,388	2.9	1,703	3.3	1,844	3.4	2,248	3.9
Psychology and social sciences	6,562	16.9	7,369	17.3	6,925	17.3	7,309	15.2	8,498	16.7	9,034	16.6	9,235	16.0
Psychology	3,262	8.4	3,557	8.4	3,207	8.0	3,276	6.8	3,599	7.1	3,925	7.2	3,990	6.9
Anthropology	320	0.8	434	1.0	496	1.2	512	1.1	547	1.1	446	0.8	415	0.7
Economics	910	2.3	1,030	2.4	908	2.3	1,004	2.1	1,243	2.4	1,239	2.3	1,287	2.2
Political science and government	513	1.3	665	1.6	606	1.5	588	1.2	724	1.4	743	1.4	678	1.2
Sociology	495	1.3	577	1.4	547	1.4	576	1.2	633	1.2	683	1.3	611	1.1
Other social sciences	1,062	2.7	1,106	2.6	1,161	2.9	1,353	2.8	1,752	3.4	1,998	3.7	2,254	3.9
Engineering	5,438	14.0	6,114	14.4	5,081	12.7	7,749	16.1	8,469	16.6	9,776	17.9	11,530	20.0
Aerospace, aeronautical, and astronautical engineering	234	0.6	273	0.6	209	0.5	267	0.6	307	0.6	379	0.7	374	0.6
Bioengineering and biomedical engineering	147	0.4	211	0.5	246	0.6	637	1.3	943	1.9	1,032	1.9	1,228	2.1
Chemical engineering	607	1.6	662	1.6	607	1.5	817	1.7	840	1.6	931	1.7	1,142	2.0
Civil engineering	540	1.4	592	1.4	540	1.3	703	1.5	495	1.0	713	1.3	898	1.6
Electrical, electronics, and communications engineering	1,278	3.3	1,460	3.4	1,212	3.0	1,967	4.1	1,938	3.8	1,879	3.4	2,193	3.8
Industrial and manufacturing engineering	196	0.5	246	0.6	230	0.6	279	0.6	226	0.4	249	0.5	381	0.7
Materials science engineering	365	0.9	483	1.1	364	0.9	646	1.3	743	1.5	937	1.7	1,136	2.0
Mechanical engineering	855	2.2	929	2.2	771	1.9	1,071	2.2	1,220	2.4	1,398	2.6	1,676	2.9
Other engineering	1,216	3.1	1,258	3.0	902	2.3	1,362	2.8	1,757	3.4	2,258	4.1	2,502	4.3
Education	6,677	17.2	6,577	15.5	6,508	16.3	6,448	13.4	4,802	9.4	4,826	8.8	4,509	7.8
Education administration	1,984	5.1	2,050	4.8	2,351	5.9	2,161	4.5	1,057	2.1	922	1.7	734	1.3
Education research	2,503	6.4	2,695	6.3	2,776	6.9	2,671	5.5	2,516	4.9	2,373	4.3	2,289	4.0
Teacher education	407	1.0	291	0.7	262	0.7	297	0.6	156	0.3	114	0.2	110	0.2
Teaching fields	1,008	2.6	919	2.2	686	1.7	873	1.8	757	1.5	925	1.7	890	1.5
Other education	775	2.0	622	1.5	433	1.1	446	0.9	316	0.6	492	0.9	486	0.8
Humanities and arts	4,387	11.3	5,285	12.4	5,297	13.2	5,085	10.6	5,561	10.9	5,286	9.7	4,464	7.8

Table 1-3

Research doctorate recipients, by historical major field of doctorate: Selected years, 1992–2022

(Number and percent)

Field of doctorate	1992		1997		2002		2007		2012		2017		2022	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Foreign languages and literature	562	1.4	652	1.5	627	1.6	607	1.3	684	1.3	618	1.1	442	0.8
History	724	1.9	965	2.3	1,031	2.6	937	1.9	1,086	2.1	1,058	1.9	750	1.3
Letters	1,278	3.3	1,550	3.6	1,455	3.6	1,340	2.8	1,638	3.2	1,462	2.7	1,292	2.2
Other humanities and arts	1,823	4.7	2,118	5.0	2,184	5.5	2,201	4.6	2,153	4.2	2,148	3.9	1,980	3.4
Other	2,206	5.7	2,191	5.2	2,138	5.3	2,841	5.9	2,734	5.4	3,152	5.8	3,144	5.5
Business management and administration	1,248	3.2	1,245	2.9	1,113	2.8	1,506	3.1	1,404	2.8	1,565	2.9	1,450	2.5
Communication	330	0.8	331	0.8	397	1.0	560	1.2	595	1.2	622	1.1	580	1.0
Non-science and engineering fields nec	628	1.6	615	1.4	628	1.6	775	1.6	735	1.4	965	1.8	1,114	1.9

nec = not elsewhere classified.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-4

Research doctorate recipients, by historical broad field of doctorate and sex: Selected years, 1992–2022

(Number and percent)

Field and sex	1992		1997		2002		2007		2012		2017		2022	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All fields[a]	38,886	100.0	42,539	100.0	40,031	100.0	48,132	100.0	50,943	100.0	54,552	100.0	57,596	100.0
Male	24,232	62.3	24,942	58.6	21,806	54.5	26,202	54.4	27,362	53.7	29,446	54.0	30,522	53.0
Female	14,435	37.1	17,242	40.5	18,140	45.3	21,904	45.5	23,526	46.2	25,084	46.0	27,069	47.0
Life sciences[b]	7,172	100.0	8,421	100.0	8,478	100.0	10,702	100.0	11,964	100.0	12,554	100.0	13,211	100.0
Male	4,322	60.3	4,613	54.8	4,443	52.4	5,197	48.6	5,335	44.6	5,662	45.1	5,729	43.4
Female	2,819	39.3	3,752	44.6	4,022	47.4	5,497	51.4	6,614	55.3	6,887	54.9	7,482	56.6
Physical sciences and earth sciences	4,517	100.0	4,550	100.0	3,875	100.0	4,956	100.0	5,419	100.0	6,082	100.0	6,649	100.0
Male	3,545	78.5	3,489	76.7	2,812	72.6	3,447	69.6	3,684	68.0	4,103	67.5	4,300	64.7
Female	941	20.8	1,033	22.7	1,059	27.3	1,508	30.4	1,730	31.9	1,978	32.5	2,349	35.3
Mathematics and computer sciences	1,927	100.0	2,032	100.0	1,729	100.0	3,042	100.0	3,496	100.0	3,842	100.0	4,854	100.0
Male	1,588	82.4	1,594	78.4	1,290	74.6	2,307	75.8	2,638	75.5	2,906	75.6	3,569	73.5
Female	325	16.9	413	20.3	433	25.0	734	24.1	855	24.5	935	24.3	1,285	26.5
Psychology and social sciences	6,562	100.0	7,369	100.0	6,925	100.0	7,309	100.0	8,498	100.0	9,034	100.0	9,235	100.0
Male	3,386	51.6	3,441	46.7	3,083	44.5	3,028	41.4	3,539	41.6	3,718	41.2	3,593	38.9
Female	3,144	47.9	3,858	52.4	3,829	55.3	4,278	58.5	4,955	58.3	5,312	58.8	5,641	61.1
Engineering	5,438	100.0	6,114	100.0	5,081	100.0	7,749	100.0	8,469	100.0	9,776	100.0	11,530	100.0
Male	4,860	89.4	5,315	86.9	4,174	82.1	6,141	79.2	6,565	77.5	7,449	76.2	8,415	73.0
Female	506	9.3	750	12.3	893	17.6	1,605	20.7	1,887	22.3	2,321	23.7	3,115	27.0
Education	6,677	100.0	6,577	100.0	6,508	100.0	6,448	100.0	4,802	100.0	4,826	100.0	4,509	100.0
Male	2,688	40.3	2,394	36.4	2,196	33.7	2,103	32.6	1,500	31.2	1,535	31.8	1,285	28.5
Female	3,976	59.5	4,123	62.7	4,299	66.1	4,344	67.4	3,298	68.7	3,289	68.2	3,224	71.5
Humanities and arts	4,387	100.0	5,285	100.0	5,297	100.0	5,085	100.0	5,561	100.0	5,286	100.0	4,464	100.0
Male	2,443	55.7	2,798	52.9	2,676	50.5	2,605	51.2	2,741	49.3	2,606	49.3	2,191	49.1
Female	1,933	44.1	2,450	46.4	2,610	49.3	2,478	48.7	2,818	50.7	2,679	50.7	2,271	50.9
Other[c]	2,206	100.0	2,191	100.0	2,138	100.0	2,841	100.0	2,734	100.0	3,152	100.0	3,144	100.0
Male	1,400	63.5	1,298	59.2	1,132	52.9	1,374	48.4	1,360	49.7	1,467	46.5	1,440	45.8
Female	791	35.9	863	39.4	995	46.5	1,460	51.4	1,369	50.1	1,683	53.4	1,702	54.1

[a] Includes doctorate recipients who did not report sex.
[b] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[c] Includes other non-science and engineering fields not shown separately.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-5

Research doctorate recipients, by historical major field of doctorate and sex: 2012–22

(Number and percent)

Field and sex	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
All doctorate recipients[a]	50,943	52,703	53,986	54,886	54,809	54,552	55,078	55,609	55,208	52,194	57,596	13.1
Life sciences	11,964	12,207	12,484	12,493	12,539	12,554	12,754	12,748	12,541	11,800	13,211	10.4
Agricultural sciences and natural resources	1,255	1,324	1,338	1,434	1,379	1,493	1,442	1,488	1,469	1,334	1,434	14.3
Biological and biomedical sciences	8,322	8,354	8,868	8,783	8,863	8,566	8,782	8,678	8,403	8,138	9,218	10.8
Health sciences	2,387	2,529	2,278	2,276	2,297	2,495	2,530	2,582	2,669	2,328	2,559	7.2
Physical sciences and earth sciences	5,419	5,584	5,910	5,916	6,251	6,082	6,329	6,579	6,241	5,776	6,649	22.7
Chemistry	2,416	2,484	2,673	2,666	2,703	2,699	2,807	2,939	2,761	2,552	3,060	26.7
Geosciences, atmospheric sciences, and ocean sciences	941	989	1,098	1,057	1,227	1,169	1,185	1,272	1,241	1,064	1,181	25.5
Physics and astronomy	2,062	2,111	2,139	2,193	2,321	2,214	2,337	2,368	2,239	2,160	2,408	16.8
Mathematics and computer sciences	3,496	3,660	3,862	3,818	3,954	3,842	4,022	4,230	4,387	4,370	4,854	38.8
Computer and information sciences	1,793	1,843	1,988	2,003	2,082	1,998	2,000	2,220	2,363	2,360	2,606	45.3
Mathematics and statistics	1,703	1,817	1,874	1,815	1,872	1,844	2,022	2,010	2,024	2,010	2,248	32.0
Psychology and social sciences	8,498	8,580	8,748	9,073	9,037	9,034	8,875	9,043	8,928	8,655	9,235	8.7
Psychology	3,599	3,592	3,724	3,776	3,910	3,925	3,821	3,909	3,868	3,779	3,990	10.9
Anthropology	547	550	523	492	460	446	424	445	447	400	415	-24.1
Economics	1,243	1,183	1,196	1,255	1,236	1,239	1,244	1,247	1,212	1,229	1,287	3.5
Political science and government	724	803	775	859	745	743	734	707	636	581	678	-6.4
Sociology	633	636	678	741	613	683	668	632	605	560	611	-3.5
Other social sciences	1,752	1,816	1,852	1,950	2,073	1,998	1,984	2,103	2,160	2,106	2,254	28.7
Engineering	8,469	9,000	9,626	9,875	9,459	9,776	10,164	10,298	10,468	10,233	11,530	36.1
Aerospace, aeronautical, and astronautical engineering	307	348	386	361	370	379	383	379	399	372	374	21.8
Bioengineering and biomedical engineering	943	1,039	1,046	1,125	1,089	1,032	1,133	1,163	1,082	1,064	1,228	30.2
Chemical engineering	840	824	973	1,002	921	931	981	980	994	1,022	1,142	36.0
Civil engineering	495	542	617	632	564	713	675	700	795	621	898	81.4
Electrical, electronics, and communications engineering	1,938	1,897	1,952	1,997	1,823	1,879	1,943	1,799	1,971	2,081	2,193	13.2
Industrial and manufacturing engineering	226	241	298	243	256	249	272	234	304	361	381	68.6
Materials science engineering	743	815	832	871	984	937	992	992	879	934	1,136	52.9
Mechanical engineering	1,220	1,277	1,331	1,466	1,297	1,398	1,503	1,532	1,633	1,444	1,676	37.4
Other engineering	1,757	2,017	2,191	2,178	2,155	2,258	2,282	2,519	2,411	2,334	2,502	42.4
Education	4,802	4,934	4,789	5,098	5,146	4,826	4,818	4,633	4,714	4,252	4,509	-6.1
Education administration	1,057	965	893	920	824	922	895	839	931	710	734	-30.6
Education research	2,516	2,638	2,490	2,717	2,328	2,373	2,457	2,253	2,275	2,198	2,289	-9.0
Teacher education	156	109	152	156	180	114	96	104	113	111	110	-29.5
Teaching fields	757	892	915	953	1,166	925	959	957	938	797	890	17.6
Other education	316	330	339	352	648	492	411	480	457	436	486	53.8
Humanities and arts	5,561	5,715	5,524	5,594	5,482	5,286	5,139	5,051	4,924	4,134	4,464	-19.7
Foreign languages and literature	684	701	674	656	599	618	617	610	564	377	442	-35.4

Table 1-5

Research doctorate recipients, by historical major field of doctorate and sex: 2012–22

(Number and percent)

Field and sex	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
History	1,086	1,148	1,186	1,146	1,148	1,058	948	912	884	725	750	-30.9
Letters	1,638	1,606	1,551	1,583	1,531	1,462	1,439	1,386	1,389	1,192	1,292	-21.1
Other humanities and arts	2,153	2,260	2,113	2,209	2,204	2,148	2,135	2,143	2,087	1,840	1,980	-8.0
Other	2,734	3,023	3,043	3,019	2,941	3,152	2,977	3,027	3,005	2,974	3,144	15.0
Business management and administration	1,404	1,551	1,584	1,582	1,509	1,565	1,473	1,533	1,468	1,389	1,450	3.3
Communication	595	645	663	667	672	622	630	543	591	508	580	-2.5
Non-science and engineering fields nec	735	827	796	770	760	965	874	951	946	1,077	1,114	51.6
Male	27,362	28,326	29,008	29,532	29,572	29,446	29,742	30,111	29,846	28,056	30,522	11.5
Life sciences	5,335	5,492	5,514	5,563	5,628	5,662	5,648	5,806	5,543	5,232	5,729	7.4
Agricultural sciences and natural resources	698	702	691	746	755	763	746	758	745	672	694	-0.6
Biological and biomedical sciences	3,891	3,941	4,088	4,100	4,154	4,088	4,079	4,192	3,883	3,811	4,219	8.4
Health sciences	746	849	735	717	719	811	823	856	915	749	816	9.4
Physical sciences and earth sciences	3,684	3,717	3,968	3,928	4,285	4,103	4,211	4,363	4,173	3,751	4,300	16.7
Chemistry	1,521	1,497	1,642	1,592	1,712	1,676	1,741	1,788	1,668	1,471	1,806	18.7
Geosciences, atmospheric sciences, and ocean sciences	538	539	622	600	716	657	659	738	736	594	634	17.8
Physics and astronomy	1,625	1,681	1,704	1,736	1,857	1,770	1,811	1,837	1,769	1,686	1,860	14.5
Mathematics and computer sciences	2,638	2,792	2,912	2,877	2,994	2,906	3,036	3,137	3,295	3,227	3,569	35.3
Computer and information sciences	1,419	1,502	1,580	1,581	1,662	1,566	1,565	1,711	1,861	1,774	1,958	38.0
Mathematics and statistics	1,219	1,290	1,332	1,296	1,332	1,340	1,471	1,426	1,434	1,453	1,611	32.2
Psychology and social sciences	3,539	3,501	3,507	3,757	3,741	3,718	3,634	3,666	3,582	3,481	3,593	1.5
Psychology	1,040	997	1,063	1,057	1,133	1,132	1,095	1,113	1,079	1,064	1,055	1.4
Anthropology	187	188	195	185	171	159	126	155	144	120	128	-31.6
Economics	840	767	785	821	819	827	848	818	808	820	850	1.2
Political science and government	420	469	433	527	462	456	429	433	387	339	399	-5.0
Sociology	230	259	247	284	257	266	250	229	243	211	231	0.4
Other social sciences	822	821	784	883	899	878	886	918	921	927	930	13.1
Engineering	6,565	6,946	7,401	7,578	7,267	7,449	7,710	7,830	7,875	7,576	8,415	28.2
Aerospace, aeronautical, and astronautical engineering	268	293	330	308	314	337	337	323	329	310	309	15.3
Bioengineering and biomedical engineering	608	684	660	698	686	613	687	720	652	631	671	10.4
Chemical engineering	583	566	682	685	624	665	688	664	695	695	745	27.8
Civil engineering	388	417	465	457	437	520	505	541	586	429	598	54.1
Electrical, electronics, and communications engineering	1,594	1,616	1,614	1,704	1,529	1,550	1,599	1,501	1,628	1,720	1,793	12.5
Industrial and manufacturing engineering	164	176	209	154	185	169	204	172	209	245	262	59.8
Materials science engineering	556	598	617	648	721	698	718	701	637	648	771	38.7
Mechanical engineering	1,042	1,081	1,126	1,265	1,096	1,179	1,285	1,283	1,372	1,182	1,361	30.6
Other engineering	1,362	1,515	1,698	1,659	1,675	1,718	1,687	1,925	1,767	1,716	1,905	39.9
Education	1,500	1,570	1,468	1,605	1,545	1,535	1,494	1,422	1,457	1,239	1,285	-14.3

Table 1-5

Research doctorate recipients, by historical major field of doctorate and sex: 2012–22

(Number and percent)

Field and sex	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
Education administration	389	372	371	344	304	349	323	342	349	247	233	-40.1
Education research	751	802	701	837	703	764	751	644	664	640	633	-15.7
Teacher education	43	22	35	36	43	21	18	20	28	18	20	-53.5
Teaching fields	229	275	265	294	313	265	271	259	291	216	256	11.8
Other education	88	99	96	94	182	136	131	157	125	118	143	62.5
Humanities and arts	2,741	2,829	2,760	2,763	2,639	2,606	2,564	2,478	2,506	2,113	2,191	-20.1
Foreign languages and literature	238	271	248	238	228	239	247	215	223	170	177	-25.6
History	602	632	664	632	621	602	513	529	510	409	396	-34.2
Letters	659	665	657	647	600	593	585	560	587	489	504	-23.5
Other humanities and arts	1,242	1,261	1,191	1,246	1,190	1,172	1,219	1,174	1,186	1,045	1,114	-10.3
Other	1,360	1,479	1,478	1,461	1,473	1,467	1,445	1,409	1,415	1,437	1,440	5.9
Business management and administration	837	909	909	934	932	900	863	872	851	793	808	-3.5
Communication	244	244	277	256	261	200	234	205	228	213	197	-19.3
Non-science and engineering fields nec	279	326	292	271	280	367	348	332	336	431	435	55.9
Female	23,526	24,365	24,813	25,347	25,222	25,084	25,308	25,488	25,356	24,128	27,069	15.1
Life sciences	6,614	6,712	6,930	6,929	6,908	6,887	7,100	6,941	6,997	6,566	7,482	13.1
Agricultural sciences and natural resources	554	622	646	688	623	728	693	730	723	662	740	33.6
Biological and biomedical sciences	4,422	4,410	4,747	4,682	4,707	4,476	4,700	4,485	4,520	4,325	4,999	13.0
Health sciences	1,638	1,680	1,537	1,559	1,578	1,683	1,707	1,726	1,754	1,579	1,743	6.4
Physical sciences and earth sciences	1,730	1,864	1,924	1,987	1,963	1,978	2,115	2,212	2,066	2,023	2,349	35.8
Chemistry	894	985	1,021	1,074	991	1,022	1,066	1,151	1,091	1,081	1,254	40.3
Geosciences, atmospheric sciences, and ocean sciences	403	449	475	457	510	512	526	533	505	470	547	35.7
Physics and astronomy	433	430	428	456	462	444	523	528	470	472	548	26.6
Mathematics and computer sciences	855	868	934	939	959	935	982	1,092	1,092	1,143	1,285	50.3
Computer and information sciences	374	341	400	422	420	432	434	508	502	586	648	73.3
Mathematics and statistics	481	527	534	517	539	503	548	584	590	557	637	32.4
Psychology and social sciences	4,955	5,077	5,217	5,315	5,295	5,312	5,239	5,377	5,346	5,171	5,641	13.8
Psychology	2,558	2,594	2,648	2,719	2,776	2,793	2,726	2,796	2,789	2,715	2,935	14.7
Anthropology	360	362	328	307	289	287	298	290	303	280	287	-20.3
Economics	402	416	404	434	417	410	396	429	404	408	437	8.7
Political science and government	303	333	341	332	283	287	304	274	249	242	279	-7.9
Sociology	402	377	431	457	356	416	418	403	362	349	380	-5.5
Other social sciences	930	995	1,065	1,066	1,174	1,119	1,097	1,185	1,239	1,177	1,323	42.3
Engineering	1,887	2,052	2,184	2,297	2,189	2,321	2,450	2,466	2,591	2,656	3,115	65.1
Aerospace, aeronautical, and astronautical engineering	39	55	55	53	56	42	46	56	70	62	65	66.7
Bioengineering and biomedical engineering	335	355	384	427	403	419	445	443	430	432	557	66.3
Chemical engineering	256	258	290	317	296	265	293	316	299	327	397	55.1

Table 1-5

Research doctorate recipients, by historical major field of doctorate and sex: 2012–22

(Number and percent)

Field and sex	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
Civil engineering	106	125	147	175	127	191	170	159	209	192	300	183.0
Electrical, electronics, and communications engineering	336	279	325	293	293	329	344	297	343	361	400	19.0
Industrial and manufacturing engineering	62	65	89	89	71	79	68	62	95	116	119	91.9
Materials science engineering	184	217	211	223	262	239	274	290	242	286	365	98.4
Mechanical engineering	177	196	197	201	201	219	216	249	261	262	315	78.0
Other engineering	392	502	486	519	480	538	594	594	642	618	597	52.3
Education	3,298	3,364	3,311	3,492	3,601	3,289	3,323	3,211	3,256	3,012	3,224	-2.2
Education administration	665	593	522	576	520	573	572	497	581	463	501	-24.7
Education research	1,765	1,836	1,783	1,879	1,625	1,608	1,705	1,609	1,611	1,558	1,656	-6.2
Teacher education	113	87	117	120	137	92	78	84	85	93	90	-20.4
Teaching fields	527	617	649	659	853	660	688	698	647	580	634	20.3
Other education	228	231	240	258	466	356	280	323	332	318	343	50.4
Humanities and arts	2,818	2,885	2,760	2,830	2,842	2,679	2,572	2,571	2,418	2,020	2,271	-19.4
Foreign languages and literature	446	430	424	418	371	379	370	394	341	207	265	-40.6
History	484	516	521	514	527	456	435	383	374	316	354	-26.9
Letters	978	941	894	936	931	869	853	826	802	702	787	-19.5
Other humanities and arts	910	998	921	962	1,013	975	914	968	901	795	865	-4.9
Other	1,369	1,543	1,553	1,558	1,465	1,683	1,527	1,618	1,590	1,537	1,702	24.3
Business management and administration	564	641	669	648	575	664	607	661	617	596	642	13.8
Communication	350	401	383	411	410	422	395	338	363	295	383	9.4
Non-science and engineering fields nec	455	501	501	499	480	597	525	619	610	646	677	48.8

nec = not elsewhere classified.

[a] Includes doctorate recipients who did not report sex.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-6

Research doctorate recipients, by historical broad field of doctorate and citizenship status: Selected years, 1977–2022

(Number)

Field and citizenship status	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
All fields	31,716	31,108	32,365	38,886	42,539	40,031	48,132	50,943	54,552	57,596
U.S. citizen or permanent resident	27,561	25,689	24,585	28,005	31,097	27,737	29,501	32,981	35,736	35,311
Temporary visa holder	3,489	4,254	5,660	9,980	9,194	9,747	15,123	14,784	16,288	19,633
Unknown	666	1,165	2,120	901	2,248	2,547	3,508	3,178	2,528	2,652
Life sciences[a]	4,977	5,762	5,783	7,172	8,421	8,478	10,702	11,964	12,554	13,211
U.S. citizen or permanent resident	4,197	4,852	4,529	5,106	5,987	5,850	7,009	8,184	8,827	9,230
Temporary visa holder	679	763	939	1,956	2,058	2,121	3,039	3,197	3,331	3,493
Unknown	101	147	315	110	376	507	654	583	396	488
Physical sciences and earth sciences	3,361	3,298	3,811	4,517	4,550	3,875	4,956	5,419	6,082	6,649
U.S. citizen or permanent resident	2,798	2,627	2,657	2,857	3,034	2,358	2,567	3,148	3,715	3,868
Temporary visa holder	510	587	929	1,572	1,297	1,330	2,059	1,959	2,160	2,533
Unknown	53	84	225	88	219	187	330	312	207	248
Mathematics and computer sciences	964	940	1,189	1,927	2,032	1,729	3,042	3,496	3,842	4,854
U.S. citizen or permanent resident	775	654	673	997	1,150	868	1,241	1,627	1,748	1,911
Temporary visa holder	170	252	445	876	771	789	1,591	1,617	1,926	2,741
Unknown	19	34	71	54	111	72	210	252	168	202
Psychology and social sciences	6,353	6,090	6,063	6,562	7,369	6,925	7,309	8,498	9,034	9,235
U.S. citizen or permanent resident	5,615	5,207	4,846	5,189	5,796	5,363	5,272	6,319	6,843	6,670
Temporary visa holder	585	592	726	1,158	1,080	1,110	1,482	1,601	1,668	2,071
Unknown	153	291	491	215	493	452	555	578	523	494
Engineering	2,643	2,646	3,712	5,438	6,114	5,081	7,749	8,469	9,776	11,530
U.S. citizen or permanent resident	1,803	1,469	1,915	2,521	3,333	2,169	2,546	3,579	4,311	4,729
Temporary visa holder	780	1,044	1,539	2,749	2,555	2,650	4,591	4,355	5,037	6,253
Unknown	60	133	258	168	226	262	612	535	428	548
Education	7,455	7,251	6,453	6,677	6,577	6,508	6,448	4,802	4,826	4,509
U.S. citizen or permanent resident	6,923	6,440	5,665	6,018	5,748	5,417	5,358	4,040	4,052	3,679
Temporary visa holder	388	576	430	559	411	479	601	460	534	581
Unknown	144	235	358	100	418	612	489	302	240	249
Humanities and arts	4,434	3,520	3,478	4,387	5,285	5,297	5,085	5,561	5,286	4,464
U.S. citizen or permanent resident	4,133	3,165	2,929	3,745	4,452	4,320	3,894	4,434	4,297	3,462
Temporary visa holder	192	199	282	542	561	705	797	761	692	765
Unknown	109	156	267	100	272	272	394	366	297	237
Other[b]	1,529	1,601	1,876	2,206	2,191	2,138	2,841	2,734	3,152	3,144
U.S. citizen or permanent resident	1,317	1,275	1,371	1,572	1,597	1,392	1,614	1,650	1,943	1,762
Temporary visa holder	185	241	370	568	461	563	963	834	940	1,196
Unknown	27	85	135	66	133	183	264	250	269	186

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.

[b] Includes other non-science and engineering fields not shown separately.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-7

Research doctorate recipients, by historical major field of doctorate and citizenship status: 2012–22

(Number)

Field and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
All doctorate recipients[a]	50,943	52,703	53,986	54,886	54,809	54,552	55,078	55,609	55,208	52,194	57,596	13.1
Life sciences	11,964	12,207	12,484	12,493	12,539	12,554	12,754	12,748	12,541	11,800	13,211	10.4
Agricultural sciences and natural resources	1,255	1,324	1,338	1,434	1,379	1,493	1,442	1,488	1,469	1,334	1,434	14.3
Biological and biomedical sciences	8,322	8,354	8,868	8,783	8,863	8,566	8,782	8,678	8,403	8,138	9,218	10.8
Health sciences	2,387	2,529	2,278	2,276	2,297	2,495	2,530	2,582	2,669	2,328	2,559	7.2
Physical sciences and earth sciences	5,419	5,584	5,910	5,916	6,251	6,082	6,329	6,579	6,241	5,776	6,649	22.7
Chemistry	2,416	2,484	2,673	2,666	2,703	2,699	2,807	2,939	2,761	2,552	3,060	26.7
Geosciences, atmospheric sciences, and ocean sciences	941	989	1,098	1,057	1,227	1,169	1,185	1,272	1,241	1,064	1,181	25.5
Physics and astronomy	2,062	2,111	2,139	2,193	2,321	2,214	2,337	2,368	2,239	2,160	2,408	16.8
Mathematics and computer sciences	3,496	3,660	3,862	3,818	3,954	3,842	4,022	4,230	4,387	4,370	4,854	38.8
Computer and information sciences	1,793	1,843	1,988	2,003	2,082	1,998	2,000	2,220	2,363	2,360	2,606	45.3
Mathematics and statistics	1,703	1,817	1,874	1,815	1,872	1,844	2,022	2,010	2,024	2,010	2,248	32.0
Psychology and social sciences	8,498	8,580	8,748	9,073	9,037	9,034	8,875	9,043	8,928	8,655	9,235	8.7
Psychology	3,599	3,592	3,724	3,776	3,910	3,925	3,821	3,909	3,868	3,779	3,990	10.9
Anthropology	547	550	523	492	460	446	424	445	447	400	415	-24.1
Economics	1,243	1,183	1,196	1,255	1,236	1,239	1,244	1,247	1,212	1,229	1,287	3.5
Political science and government	724	803	775	859	745	743	734	707	636	581	678	-6.4
Sociology	633	636	678	741	613	683	668	632	605	560	611	-3.5
Other social sciences	1,752	1,816	1,852	1,950	2,073	1,998	1,984	2,103	2,160	2,106	2,254	28.7
Engineering	8,469	9,000	9,626	9,875	9,459	9,776	10,164	10,298	10,468	10,233	11,530	36.1
Aerospace, aeronautical, and astronautical engineering	307	348	386	361	370	379	383	379	399	372	374	21.8
Bioengineering and biomedical engineering	943	1,039	1,046	1,125	1,089	1,032	1,133	1,163	1,082	1,064	1,228	30.2
Chemical engineering	840	824	973	1,002	921	931	981	980	994	1,022	1,142	36.0
Civil engineering	495	542	617	632	564	713	675	700	795	621	898	81.4
Electrical, electronics, and communications engineering	1,938	1,897	1,952	1,997	1,823	1,879	1,943	1,799	1,971	2,081	2,193	13.2
Industrial and manufacturing engineering	226	241	298	243	256	249	272	234	304	361	381	68.6
Materials science engineering	743	815	832	871	984	937	992	992	879	934	1,136	52.9
Mechanical engineering	1,220	1,277	1,331	1,466	1,297	1,398	1,503	1,532	1,633	1,444	1,676	37.4
Other engineering	1,757	2,017	2,191	2,178	2,155	2,258	2,282	2,519	2,411	2,334	2,502	42.4
Education	4,802	4,934	4,789	5,098	5,146	4,826	4,818	4,633	4,714	4,252	4,509	-6.1
Education administration	1,057	965	893	920	824	922	895	839	931	710	734	-30.6
Education research	2,516	2,638	2,490	2,717	2,328	2,373	2,457	2,253	2,275	2,198	2,289	-9.0
Teacher education	156	109	152	156	180	114	96	104	113	111	110	-29.5
Teaching fields	757	892	915	953	1,166	925	959	957	938	797	890	17.6
Other education	316	330	339	352	648	492	411	480	457	436	486	53.8
Humanities and arts	5,561	5,715	5,524	5,594	5,482	5,286	5,139	5,051	4,924	4,134	4,464	-19.7
Foreign languages and literature	684	701	674	656	599	618	617	610	564	377	442	-35.4

Table 1-7

Research doctorate recipients, by historical major field of doctorate and citizenship status: 2012–22

(Number)

Field and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
History	1,086	1,148	1,186	1,146	1,148	1,058	948	912	884	725	750	-30.9
Letters	1,638	1,606	1,551	1,583	1,531	1,462	1,439	1,386	1,389	1,192	1,292	-21.1
Other humanities and arts	2,153	2,260	2,113	2,209	2,204	2,148	2,135	2,143	2,087	1,840	1,980	-8.0
Other	2,734	3,023	3,043	3,019	2,941	3,152	2,977	3,027	3,005	2,974	3,144	15.0
Business management and administration	1,404	1,551	1,584	1,582	1,509	1,565	1,473	1,533	1,468	1,389	1,450	3.3
Communication	595	645	663	667	672	622	630	543	591	508	580	-2.5
Non-science and engineering fields nec	735	827	796	770	760	965	874	951	946	1,077	1,114	51.6
U.S. citizen or permanent resident	32,981	33,964	34,003	35,071	35,678	35,736	35,349	35,227	34,462	31,891	35,311	7.1
Life sciences	8,184	8,352	8,390	8,470	8,683	8,827	9,028	9,035	8,699	8,261	9,230	12.8
Agricultural sciences and natural resources	675	737	754	774	771	822	792	821	796	747	817	21.0
Biological and biomedical sciences	5,790	5,768	5,993	6,029	6,215	6,147	6,396	6,368	5,999	5,833	6,633	14.6
Health sciences	1,719	1,847	1,643	1,667	1,697	1,858	1,840	1,846	1,904	1,681	1,780	3.5
Physical sciences and earth sciences	3,148	3,247	3,300	3,481	3,669	3,715	3,768	3,900	3,739	3,366	3,868	22.9
Chemistry	1,385	1,443	1,447	1,572	1,581	1,696	1,710	1,780	1,696	1,515	1,800	30.0
Geosciences, atmospheric sciences, and ocean sciences	623	654	722	704	803	790	760	808	809	683	740	18.8
Physics and astronomy	1,140	1,150	1,131	1,205	1,285	1,229	1,298	1,312	1,234	1,168	1,328	16.5
Mathematics and computer sciences	1,627	1,631	1,738	1,663	1,729	1,748	1,736	1,785	1,734	1,681	1,911	17.5
Computer and information sciences	785	758	807	774	783	801	742	799	807	783	909	15.8
Mathematics and statistics	842	873	931	889	946	947	994	986	927	898	1,002	19.0
Psychology and social sciences	6,319	6,464	6,389	6,685	6,798	6,843	6,691	6,702	6,594	6,218	6,670	5.6
Psychology	3,046	3,067	3,042	3,103	3,341	3,376	3,309	3,326	3,309	3,155	3,366	10.5
Anthropology	445	457	405	397	360	349	336	360	366	301	334	-24.9
Economics	517	505	469	552	522	547	483	491	458	438	476	-7.9
Political science and government	536	593	574	621	579	572	544	504	459	408	465	-13.2
Sociology	512	516	544	596	506	562	557	511	487	460	485	-5.3
Other social sciences	1,263	1,326	1,355	1,416	1,490	1,437	1,462	1,510	1,515	1,456	1,544	22.2
Engineering	3,579	3,767	4,066	4,219	4,181	4,311	4,213	4,251	4,153	4,095	4,729	32.1
Aerospace, aeronautical, and astronautical engineering	181	194	246	216	233	241	221	212	221	187	192	6.1
Bioengineering and biomedical engineering	602	637	674	723	746	695	743	771	688	734	841	39.7
Chemical engineering	377	365	445	488	470	469	469	480	465	464	546	44.8
Civil engineering	159	182	229	231	219	231	200	200	244	191	295	85.5
Electrical, electronics, and communications engineering	614	603	575	632	548	581	543	518	552	595	608	-1.0
Industrial and manufacturing engineering	75	77	91	65	82	85	62	84	82	115	111	48.0
Materials science engineering	350	349	363	381	456	470	462	501	399	415	539	54.0
Mechanical engineering	505	547	558	620	585	591	608	600	601	580	734	45.3
Other engineering	716	813	885	863	842	948	905	885	901	814	863	20.5
Education	4,040	4,118	3,934	4,196	4,303	4,052	4,025	3,848	3,897	3,478	3,679	-8.9

Table 1-7

Research doctorate recipients, by historical major field of doctorate and citizenship status: 2012–22

(Number)

Field and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
Education administration	936	844	763	797	727	792	783	755	822	613	643	-31.3
Education research	2,107	2,165	2,064	2,234	1,942	1,995	2,026	1,874	1,853	1,800	1,857	-11.9
Teacher education	134	90	132	134	158	97	87	87	94	90	91	-32.1
Teaching fields	613	741	732	762	950	763	785	769	750	630	703	14.7
Other education	250	278	243	269	526	405	344	363	378	345	385	54.0
Humanities and arts	4,434	4,535	4,361	4,478	4,450	4,297	4,145	3,988	3,908	3,155	3,462	-21.9
Foreign languages and literature	472	467	469	463	399	430	405	383	350	237	271	-42.6
History	889	947	968	944	950	890	800	741	745	570	604	-32.1
Letters	1,383	1,354	1,304	1,353	1,314	1,277	1,232	1,187	1,163	950	1,073	-22.4
Other humanities and arts	1,690	1,767	1,620	1,718	1,787	1,700	1,708	1,677	1,650	1,398	1,514	-10.4
Other	1,650	1,850	1,825	1,879	1,865	1,943	1,743	1,718	1,738	1,637	1,762	6.8
Business management and administration	736	831	849	892	845	859	740	748	710	609	662	-10.1
Communication	426	471	473	479	472	458	434	349	411	347	377	-11.5
Non-science and engineering fields nec	488	548	503	508	548	626	569	621	617	681	723	48.2
Temporary visa holder	14,784	15,674	15,839	16,129	16,477	16,288	17,582	18,324	18,473	17,771	19,633	32.8
Life sciences	3,197	3,177	3,169	3,264	3,352	3,331	3,360	3,395	3,427	3,089	3,493	9.3
Agricultural sciences and natural resources	529	516	504	555	561	607	607	646	632	548	575	8.7
Biological and biomedical sciences	2,166	2,154	2,229	2,266	2,304	2,180	2,157	2,129	2,173	2,029	2,289	5.7
Health sciences	502	507	436	443	487	544	596	620	622	512	629	25.3
Physical sciences and earth sciences	1,959	2,032	2,196	2,099	2,313	2,160	2,373	2,484	2,311	2,197	2,533	29.3
Chemistry	880	888	1,000	929	1,000	919	1,021	1,071	993	944	1,150	30.7
Geosciences, atmospheric sciences, and ocean sciences	281	290	326	307	390	332	392	429	391	345	392	39.5
Physics and astronomy	798	854	870	863	923	909	960	984	927	908	991	24.2
Mathematics and computer sciences	1,617	1,833	1,850	1,917	2,053	1,926	2,128	2,303	2,475	2,472	2,741	69.5
Computer and information sciences	870	990	1,029	1,094	1,201	1,105	1,163	1,328	1,455	1,431	1,587	82.4
Mathematics and statistics	747	843	821	823	852	821	965	975	1,020	1,041	1,154	54.5
Psychology and social sciences	1,601	1,634	1,549	1,622	1,753	1,668	1,768	1,915	1,834	1,904	2,071	29.4
Psychology	254	282	249	260	305	286	284	339	257	338	347	36.6
Anthropology	74	76	86	68	76	65	70	66	63	81	60	-18.9
Economics	656	615	627	606	656	641	707	708	690	731	760	15.9
Political science and government	150	163	145	178	128	140	159	173	152	139	187	24.7
Sociology	85	92	90	101	89	93	88	104	102	83	109	28.2
Other social sciences	382	406	352	409	499	443	460	525	570	532	608	59.2
Engineering	4,355	4,759	4,961	5,108	4,842	5,037	5,575	5,680	5,950	5,673	6,253	43.6
Aerospace, aeronautical, and astronautical engineering	107	138	124	132	121	123	146	153	163	163	152	42.1
Bioengineering and biomedical engineering	292	352	318	348	301	300	362	359	364	302	343	17.5
Chemical engineering	414	409	482	461	401	426	478	478	482	517	555	34.1

Table 1-7

Research doctorate recipients, by historical major field of doctorate and citizenship status: 2012–22

(Number)

Field and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	% change 2012–22
Civil engineering	303	333	339	359	307	427	442	461	513	386	549	81.2
Electrical, electronics, and communications engineering	1,181	1,160	1,217	1,237	1,160	1,215	1,316	1,198	1,342	1,400	1,482	25.5
Industrial and manufacturing engineering	140	156	185	161	164	157	196	140	199	235	251	79.3
Materials science engineering	334	435	419	448	494	428	500	461	463	478	544	62.9
Mechanical engineering	631	664	686	783	652	741	831	879	983	793	884	40.1
Other engineering	953	1,112	1,191	1,179	1,242	1,220	1,304	1,551	1,441	1,399	1,493	56.7
Education	460	515	478	539	562	534	611	615	659	557	581	26.3
Education administration	46	44	39	35	33	51	52	54	59	47	55	19.6
Education research	269	307	255	313	266	297	353	303	370	310	310	15.2
Teacher education	13	17	14	13	13	12	8	16	18	20	17	30.8
Teaching fields	101	116	134	145	181	132	155	165	163	134	141	39.6
Other education	31	31	36	33	69	42	43	77	49	46	58	87.1
Humanities and arts	761	779	731	713	712	692	739	826	742	738	765	0.5
Foreign languages and literature	160	179	142	151	164	159	181	202	185	120	154	-3.8
History	136	134	147	131	142	125	112	130	120	130	109	-19.9
Letters	141	150	140	122	126	122	139	149	132	175	162	14.9
Other humanities and arts	324	316	302	309	280	286	307	345	305	313	340	4.9
Other	834	945	905	867	890	940	1,028	1,106	1,075	1,141	1,196	43.4
Business management and administration	542	600	589	546	553	588	642	689	658	689	703	29.7
Communication	107	133	137	137	160	122	165	163	153	142	174	62.6
Non-science and engineering fields nec	185	212	179	184	177	230	221	254	264	310	319	72.4

nec = not elsewhere classified.

[a] Includes doctorate recipients who did not report citizenship status.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-8

Research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22

(Number)

Ethnicity, race, and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
All doctorate recipients	50,943	52,703	53,986	54,886	54,809	54,552	55,078	55,609	55,208	52,194	57,596
U.S. citizen or permanent resident	32,981	33,964	34,003	35,071	35,678	35,736	35,349	35,227	34,462	31,891	35,311
Temporary visa holder	14,784	15,674	15,839	16,129	16,477	16,288	17,582	18,324	18,473	17,771	19,633
Unknown citizenship	3,178	3,065	4,144	3,686	2,654	2,528	2,147	2,058	2,273	2,532	2,652
Hispanic or Latino	3,064	3,073	3,147	3,422	3,572	3,566	3,592	4,000	4,108	4,042	4,619
U.S. citizen or permanent resident	2,144	2,135	2,190	2,449	2,548	2,536	2,572	2,844	2,850	2,876	3,354
Temporary visa holder	916	921	944	964	1,016	997	1,016	1,146	1,253	1,153	1,262
Unknown citizenship	4	17	13	9	8	33	4	10	5	13	3
Not Hispanic or Latino											
American Indian or Alaska Native	107	126	109	141	136	111	116	124	100	105	106
U.S. citizen or permanent resident	104	119	103	131	128	109	115	119	97	100	98
Temporary visa holder[a]	D	7	6	10	8	D	D	5	D	D	8
Unknown citizenship	D	0	0	0	0	D	D	0	D	D	0
Asian	12,850	13,430	13,556	13,833	14,052	14,260	14,801	15,181	15,086	14,645	16,464
U.S. citizen or permanent resident	2,943	2,892	2,881	3,072	3,084	3,499	3,302	3,418	3,212	3,034	3,586
Temporary visa holder	9,889	10,514	10,662	10,741	10,931	10,731	11,464	11,718	11,842	11,587	12,862
Unknown citizenship	18	24	13	20	37	30	35	45	32	24	16
Black or African American	2,528	2,655	2,654	2,773	2,866	2,952	3,050	3,092	3,090	3,074	3,389
U.S. citizen or permanent resident	2,055	2,172	2,172	2,275	2,358	2,400	2,449	2,512	2,453	2,462	2,647
Temporary visa holder	469	479	477	493	502	530	595	570	625	596	740
Unknown citizenship	4	4	5	5	6	22	6	10	12	16	2
White	26,982	27,871	27,947	28,619	28,766	28,347	28,553	28,079	27,770	24,819	26,879
U.S. citizen or permanent resident	24,010	24,749	24,829	25,375	25,502	24,844	24,924	24,214	23,929	21,436	23,320
Temporary visa holder	2,931	3,070	3,086	3,180	3,224	3,428	3,595	3,770	3,785	3,345	3,551
Unknown citizenship	41	52	32	64	40	75	34	95	56	38	8
More than one race	868	929	939	971	1,116	1,110	1,211	1,266	1,250	1,203	1,334
U.S. citizen or permanent resident	807	858	879	903	1,033	1,015	1,100	1,121	1,134	1,089	1,210
Temporary visa holder	61	71	60	67	83	D	D	145	D	D	124
Unknown citizenship	0	0	0	1	0	D	D	0	D	D	0
Other race or race not reported	462	447	411	458	470	788	861	894	831	982	964
U.S. citizen or permanent resident	293	279	272	249	272	471	371	381	353	389	425
Temporary visa holder	D	147	125	171	174	279	476	475	454	541	532
Unknown citizenship	D	21	14	38	24	38	14	38	24	52	7
Ethnicity not reported	4,082	4,172	5,223	4,669	3,831	3,418	2,894	2,973	2,973	3,324	3,841
U.S. citizen or permanent resident	625	760	677	617	753	862	516	618	434	505	671
Temporary visa holder	355	465	479	503	539	228	324	495	395	430	554
Unknown citizenship	3,102	2,947	4,067	3,549	2,539	2,328	2,054	1,860	2,144	2,389	2,616

D = suppressed to avoid disclosure of confidential information.

[a] In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-9

Male research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22

(Number)

Ethnicity, race, and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Male doctorate recipients	27,362	28,326	29,008	29,532	29,572	29,446	29,742	30,111	29,846	28,056	30,522
U.S. citizen or permanent resident	16,072	16,550	16,660	17,218	17,530	17,565	17,312	17,263	16,770	15,313	16,798
Temporary visa holder	9,556	10,103	10,204	10,395	10,671	10,601	11,308	11,767	11,868	11,476	12,366
Unknown citizenship	1,734	1,673	2,144	1,919	1,371	1,280	1,122	1,081	1,208	1,267	1,358
Hispanic or Latino	1,549	1,523	1,588	1,758	1,766	1,805	1,865	2,011	2,047	2,019	2,292
U.S. citizen or permanent resident	948	905	999	1,119	1,134	1,152	1,196	1,302	1,266	1,289	1,517
Temporary visa holder	599	612	580	634	630	634	666	706	778	727	773
Unknown citizenship	2	6	9	5	2	19	3	3	3	3	2
Not Hispanic or Latino											
American Indian or Alaska Native	42	62	54	64	63	49	44	58	39	40	44
U.S. citizen or permanent resident	41	56	49	58	57	48	43	56	39	38	39
Temporary visa holder[a]	D	D	D	D	6	D	D	D	0	D	D
Unknown citizenship	D	D	D	D	0	D	D	D	0	D	D
Asian	7,730	8,038	8,091	8,235	8,538	8,670	8,902	9,182	9,187	8,953	9,857
U.S. citizen or permanent resident	1,312	1,264	1,243	1,359	1,432	1,656	1,562	1,626	1,532	1,447	1,718
Temporary visa holder	6,405	6,761	6,842	6,867	7,081	6,998	7,315	7,532	7,636	7,490	8,130
Unknown citizenship	13	13	6	9	25	16	25	24	19	16	9
Black or African American	1,047	1,101	1,151	1,113	1,205	1,205	1,324	1,261	1,317	1,251	1,422
U.S. citizen or permanent resident	741	801	821	807	863	850	923	893	917	886	950
Temporary visa holder	303	297	329	306	341	347	398	365	396	359	471
Unknown citizenship	3	3	1	0	1	8	3	3	4	6	1
White	14,041	14,608	14,624	15,101	15,155	14,950	14,982	14,887	14,566	12,917	13,669
U.S. citizen or permanent resident	12,168	12,582	12,590	12,978	13,033	12,667	12,608	12,366	12,085	10,715	11,429
Temporary visa holder	1,859	2,005	2,021	2,101	2,103	2,246	2,360	2,477	2,449	2,186	2,239
Unknown citizenship	14	21	13	22	19	37	14	44	32	16	1
More than one race	384	432	451	436	511	517	556	588	606	550	626
U.S. citizen or permanent resident	347	388	411	394	455	462	485	495	530	485	558
Temporary visa holder	37	44	40	42	56	D	D	D	76	D	D
Unknown citizenship	0	0	0	0	0	D	D	D	0	D	D
Other race or race not reported	260	243	249	291	278	476	528	521	478	615	575
U.S. citizen or permanent resident	148	148	162	152	149	269	215	207	175	215	228
Temporary visa holder	D	D	D	D	118	191	305	298	293	375	343
Unknown citizenship	D	D	D	D	11	16	8	16	10	25	4
Ethnicity not reported	2,309	2,319	2,800	2,534	2,056	1,774	1,541	1,603	1,606	1,711	2,037
U.S. citizen or permanent resident	367	406	385	351	407	461	280	318	226	238	359
Temporary visa holder	243	290	305	320	336	129	192	294	240	272	337
Unknown citizenship	1,699	1,623	2,110	1,863	1,313	1,184	1,069	991	1,140	1,201	1,341

D = suppressed to avoid disclosure of confidential information.

[a] In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-10

Female research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22

(Number)

Ethnicity, race, and citizenship status	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Female doctorate recipients	23,526	24,365	24,813	25,347	25,222	25,084	25,308	25,488	25,356	24,128	27,069
U.S. citizen or permanent resident	16,909	17,414	17,343	17,853	18,147	18,170	18,036	17,963	17,692	16,576	18,508
Temporary visa holder	5,224	5,571	5,633	5,734	5,805	5,686	6,274	6,556	6,605	6,295	7,267
Unknown citizenship	1,393	1,380	1,837	1,760	1,270	1,228	998	969	1,059	1,257	1,294
Hispanic or Latino	1,515	1,550	1,559	1,664	1,806	1,761	1,726	1,989	2,061	2,023	2,327
U.S. citizen or permanent resident	1,196	1,230	1,191	1,330	1,414	1,384	1,375	1,542	1,584	1,587	1,837
Temporary visa holder	317	309	364	330	386	363	350	440	475	426	489
Unknown citizenship	2	11	4	4	6	14	1	7	2	10	1
Not Hispanic or Latino											
American Indian or Alaska Native	65	64	55	77	73	62	72	66	61	65	62
U.S. citizen or permanent resident	63	63	54	73	71	61	72	63	58	62	59
Temporary visa holder[a]	D	D	D	D	D	D	0	D	D	D	D
Unknown citizenship	D	D	D	D	D	D	0	D	D	D	D
Asian	5,117	5,392	5,465	5,598	5,513	5,588	5,899	5,999	5,899	5,692	6,606
U.S. citizen or permanent resident	1,631	1,628	1,638	1,713	1,652	1,842	1,740	1,792	1,680	1,587	1,867
Temporary visa holder	3,481	3,753	3,820	3,874	3,849	3,732	4,149	4,186	4,206	4,097	4,732
Unknown citizenship	5	11	7	11	12	14	10	21	13	8	7
Black or African American	1,481	1,554	1,503	1,660	1,661	1,747	1,726	1,831	1,773	1,823	1,967
U.S. citizen or permanent resident	1,314	1,371	1,351	1,468	1,495	1,550	1,526	1,619	1,536	1,576	1,697
Temporary visa holder	166	182	148	187	161	183	197	205	229	237	269
Unknown citizenship	1	1	4	5	5	14	3	7	8	10	1
White	12,941	13,263	13,323	13,518	13,611	13,397	13,571	13,191	13,204	11,900	13,207
U.S. citizen or permanent resident	11,842	12,167	12,239	12,397	12,469	12,177	12,316	11,847	11,844	10,719	11,888
Temporary visa holder	1,072	1,065	1,065	1,079	1,121	1,182	1,235	1,293	1,336	1,159	1,312
Unknown citizenship	27	31	19	42	21	38	20	51	24	22	7
More than one race	484	497	488	535	605	593	655	678	644	653	707
U.S. citizen or permanent resident	460	470	468	509	578	553	615	626	604	604	651
Temporary visa holder	24	27	20	25	27	D	40	D	D	D	D
Unknown citizenship	0	0	0	1	0	D	0	D	D	D	D
Other race or race not reported	202	204	162	167	192	312	333	373	353	367	389
U.S. citizen or permanent resident	145	131	110	97	123	202	156	174	178	174	197
Temporary visa holder	D	D	D	D	D	88	171	177	161	166	189
Unknown citizenship	D	D	D	D	D	22	6	22	14	27	3
Ethnicity not reported	1,721	1,841	2,258	2,128	1,761	1,624	1,326	1,361	1,361	1,605	1,804
U.S. citizen or permanent resident	258	354	292	266	345	401	236	300	208	267	312
Temporary visa holder	111	175	172	183	203	99	132	200	155	158	217
Unknown citizenship	1,352	1,312	1,794	1,679	1,213	1,124	958	861	998	1,180	1,275

D = suppressed to avoid disclosure of confidential information.

[a] In most cases, non-U.S. American Indians are citizens of Canada or of a Latin American country.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-11

U.S. citizen and permanent resident research doctorate recipients, by historical broad field of doctorate, ethnicity, and race: Selected years, 1977–2022

(Number)

Field, ethnicity, and race	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
All fields, U.S. citizens and permanent residents	27,561	25,689	24,585	28,005	31,097	27,737	29,501	32,981	35,736	35,311
Hispanic or Latino	490	615	709	909	1,203	1,370	1,655	2,144	2,536	3,354
Not Hispanic or Latino										
American Indian or Alaska Native	66	77	115	149	167	142	140	104	109	98
Asian[a]	893	1,007	1,169	1,755	3,109	2,091	2,308	2,943	3,499	3,586
Black or African American	1,187	1,150	908	1,109	1,476	1,666	1,891	2,055	2,400	2,647
White	23,533	22,185	21,121	23,626	23,964	21,035	22,067	24,010	24,844	23,320
More than one race	na	na	na	na	na	269	505	807	1,015	1,210
Other race or race not reported[b]	192	60	136	151	509	387	304	293	471	425
Ethnicity not reported	1,200	595	427	306	669	777	631	625	862	671
Life sciences[c]	4,197	4,852	4,529	5,106	5,987	5,850	7,009	8,184	8,827	9,230
Hispanic or Latino	38	71	90	140	207	237	356	493	605	940
Not Hispanic or Latino										
American Indian or Alaska Native	9	12	16	19	18	16	30	24	25	17
Asian[a]	183	215	252	361	888	677	725	934	1,013	1,062
Black or African American	76	79	109	115	198	206	316	448	568	594
White	3,679	4,333	3,954	4,390	4,517	4,474	5,301	5,880	6,054	6,061
More than one race	na	na	na	na	na	40	113	215	281	340
Other race or race not reported[b]	37	10	24	22	84	77	71	79	104	91
Ethnicity not reported	175	132	84	59	75	123	97	111	177	125
Physical sciences and earth sciences	2,798	2,627	2,657	2,857	3,034	2,358	2,567	3,148	3,715	3,868
Hispanic or Latino	45	31	61	85	86	77	114	159	215	315
Not Hispanic or Latino										
American Indian or Alaska Native	6	3	7	13	12	7	6	6	6	4
Asian[a]	175	156	160	250	459	217	203	257	360	370
Black or African American	34	29	21	31	57	71	90	102	92	98
White	2,351	2,331	2,328	2,421	2,316	1,896	2,029	2,470	2,815	2,840
More than one race	na	na	na	na	na	22	43	72	113	128
Other race or race not reported[b]	13	6	16	16	52	36	34	23	53	39
Ethnicity not reported	174	71	64	41	52	32	48	59	61	74
Mathematics and computer sciences	775	654	673	997	1,150	868	1,241	1,627	1,748	1,911
Hispanic or Latino	12	7	16	20	36	26	41	74	80	119
Not Hispanic or Latino										
American Indian or Alaska Native	1	2	3	4	2	5	3	2	1	3
Asian[a]	42	44	68	137	204	114	175	200	275	308
Black or African American	9	7	13	9	11	31	49	56	50	73

Table 1-11

U.S. citizen and permanent resident research doctorate recipients, by historical broad field of doctorate, ethnicity, and race: Selected years, 1977–2022

(Number)

Field, ethnicity, and race	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
White	672	573	547	804	841	653	918	1,191	1,183	1,239
More than one race	na	na	na	na	na	7	14	42	50	78
Other race or race not reported[b]	1	4	4	5	22	11	22	15	40	38
Ethnicity not reported	38	17	22	18	34	21	19	47	69	53
Psychology and social sciences	5,615	5,207	4,846	5,189	5,796	5,363	5,272	6,319	6,843	6,670
Hispanic or Latino	85	136	165	207	265	314	350	542	570	725
Not Hispanic or Latino										
American Indian or Alaska Native	13	21	23	27	35	34	40	23	26	27
Asian[a]	108	134	152	186	351	277	314	437	531	533
Black or African American	221	227	174	231	299	337	320	369	530	583
White	4,908	4,560	4,230	4,446	4,588	4,131	3,923	4,570	4,738	4,361
More than one race	na	na	na	na	na	59	122	176	207	226
Other race or race not reported[b]	39	8	24	34	118	73	51	47	68	91
Ethnicity not reported	241	121	78	58	140	138	152	155	173	124
Engineering	1,803	1,469	1,915	2,521	3,333	2,169	2,546	3,579	4,311	4,729
Hispanic or Latino	24	36	34	71	97	98	126	190	282	389
Not Hispanic or Latino										
American Indian or Alaska Native	1	3	7	11	17	6	7	6	10	7
Asian[a]	247	246	328	451	707	406	394	556	725	735
Black or African American	15	21	25	49	98	83	92	150	165	192
White	1,420	1,102	1,459	1,879	2,287	1,465	1,790	2,474	2,807	3,050
More than one race	na	na	na	na	na	19	47	75	113	181
Other race or race not reported[b]	13	16	5	20	65	38	32	42	65	63
Ethnicity not reported	83	45	57	40	62	54	58	86	144	112
Education	6,923	6,440	5,665	6,018	5,748	5,417	5,358	4,040	4,052	3,679
Hispanic or Latino	143	188	201	214	257	321	343	257	337	384
Not Hispanic or Latino										
American Indian or Alaska Native	29	29	41	50	51	42	37	29	23	22
Asian[a]	66	112	94	143	180	135	177	178	224	192
Black or African American	688	615	415	501	553	641	711	578	595	647
White	5,746	5,382	4,817	5,050	4,460	3,914	3,852	2,835	2,657	2,233
More than one race	na	na	na	na	na	51	76	81	84	103
Other race or race not reported[b]	49	10	36	22	65	66	32	24	38	27
Ethnicity not reported	202	104	61	38	182	247	130	58	94	71
Humanities and arts	4,133	3,165	2,929	3,745	4,452	4,320	3,894	4,434	4,297	3,462
Hispanic or Latino	119	127	119	130	212	250	251	331	309	342

Table 1-11

U.S. citizen and permanent resident research doctorate recipients, by historical broad field of doctorate, ethnicity, and race: Selected years, 1977–2022

(Number)

Field, ethnicity, and race	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Not Hispanic or Latino										
American Indian or Alaska Native	5	5	12	21	20	21	11	10	15	8
Asian[a]	43	49	55	116	192	185	205	206	182	186
Black or African American	90	100	79	93	158	163	175	182	149	203
White	3,625	2,799	2,603	3,335	3,696	3,463	3,064	3,463	3,360	2,488
More than one race	na	na	na	na	na	59	67	113	114	107
Other race or race not reported[b]	33	4	17	14	84	66	42	47	77	43
Ethnicity not reported	218	81	44	36	90	113	79	82	91	85
Other[d]	1,317	1,275	1,371	1,572	1,597	1,392	1,614	1,650	1,943	1,762
Hispanic or Latino	24	19	23	42	43	47	74	98	138	140
Not Hispanic or Latino										
American Indian or Alaska Native	2	2	6	4	12	11	6	4	3	10
Asian[a]	29	51	60	111	128	80	115	175	189	200
Black or African American	54	72	72	80	102	134	138	170	251	257
White	1,132	1,105	1,183	1,301	1,259	1,039	1,190	1,127	1,230	1,048
More than one race	na	na	na	na	na	12	23	33	53	47
Other race or race not reported[b]	7	2	10	18	19	20	20	16	26	33
Ethnicity not reported	69	24	17	16	34	49	48	27	53	27

na = not applicable; doctorate recipients were instructed to indicate only one race.

[a] Includes Native Hawaiians or Other Pacific Islanders through 2000 but excludes them since 2001.
[b] Before 2001, this category included doctorate recipients who selected more than one race. Since 2001, this category has included Native Hawaiians or Other Pacific Islanders, who previously had been included in the category Asian.
[c] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[d] Includes other non-science and engineering fields not shown separately.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
All fields											
Since earning bachelor's	8.2	8.9	9.7	10.5	10.6	10.6	10.3	9.5	9.0	8.8	8.6
Since starting graduate school	6.9	7.7	8.0	8.7	8.7	8.7	8.6	7.9	7.7	7.5	7.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.8	5.7
Life sciences											
Since earning bachelor's	7.0	7.3	7.7	8.9	9.5	9.4	9.0	8.6	8.5	8.3	8.3
Since starting graduate school	6.0	6.2	6.7	7.2	7.9	7.7	7.4	7.0	6.9	6.8	6.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.7	5.4
Agricultural sciences and natural resources											
Since earning bachelor's	8.0	8.3	8.3	9.6	10.4	10.7	10.8	9.4	9.3	8.7	8.5
Since starting graduate school	6.4	6.5	6.7	7.5	8.2	8.2	8.7	7.7	7.9	7.4	7.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.0
Biological and biomedical sciences											
Since earning bachelor's	6.9	7.0	7.3	8.2	8.7	8.5	8.0	8.0	8.0	7.8	7.9
Since starting graduate school	5.9	6.2	6.2	6.9	7.2	7.0	6.7	6.7	6.6	6.5	6.4
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.7	5.8
Health sciences											
Since earning bachelor's	8.5	8.9	10.3	12.3	14.1	14.7	14.2	12.0	11.5	11.0	11.0
Since starting graduate school	6.7	7.4	8.7	9.9	11.7	11.7	11.1	9.6	8.9	8.9	8.5
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.6	5.0
Physical sciences and earth sciences											
Since earning bachelor's	6.5	7.0	6.9	7.2	7.8	7.8	7.5	7.5	7.3	6.9	6.9
Since starting graduate school	5.7	6.2	6.1	6.2	6.7	6.7	6.7	6.5	6.4	6.2	6.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.7	5.6
Chemistry											
Since earning bachelor's	6.0	6.3	6.0	6.6	7.1	7.0	6.6	7.0	6.8	6.3	6.3
Since starting graduate school	5.3	5.7	5.3	5.7	6.2	5.9	5.7	6.0	6.0	5.8	5.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Geosciences, atmospheric sciences, and ocean sciences											
Since earning bachelor's	8.0	8.0	8.4	9.1	9.7	10.6	9.8	9.0	8.6	8.0	7.9
Since starting graduate school	6.7	6.8	7.3	7.9	8.2	8.7	8.2	7.4	7.3	6.8	6.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.5	5.4
Physics and astronomy											
Since earning bachelor's	6.9	7.5	7.4	7.5	7.7	7.8	7.8	7.5	7.3	7.0	7.0
Since starting graduate school	6.2	6.7	6.7	6.7	6.7	6.9	6.9	6.7	6.7	6.5	6.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.9	6.0

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Mathematics and computer sciences											
Since earning bachelor's	6.9	7.0	7.3	8.4	9.0	9.2	8.4	8.3	8.0	7.9	7.7
Since starting graduate school	6.0	6.2	6.4	7.1	7.7	7.8	7.3	7.0	7.0	7.0	6.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.7	5.6
Computer and information sciences											
Since earning bachelor's	-	7.4	7.9	9.3	9.3	9.8	9.5	8.8	8.8	8.9	8.3
Since starting graduate school	-	6.7	6.7	7.7	7.7	8.3	8.1	7.4	7.4	7.8	7.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.8	5.7
Mathematics and statistics											
Since earning bachelor's	6.9	7.0	7.2	8.0	8.9	8.7	7.7	7.5	7.2	7.0	7.0
Since starting graduate school	6.0	6.2	6.2	6.9	7.4	7.2	6.7	6.7	6.3	6.3	6.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Psychology and social sciences											
Since earning bachelor's	7.6	8.1	9.3	10.5	10.9	10.2	10.0	9.7	9.5	9.3	9.5
Since starting graduate school	6.7	6.9	7.7	8.7	8.7	8.2	8.2	8.0	7.7	7.8	7.9
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.0	6.0
Psychology											
Since earning bachelor's	6.7	7.2	8.6	10.0	10.3	9.3	9.2	8.7	8.4	8.4	8.5
Since starting graduate school	5.9	6.1	7.2	8.2	8.4	7.7	7.7	7.0	6.9	6.9	6.9
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.9	5.9
Anthropology											
Since earning bachelor's	8.0	9.4	10.5	13.0	12.6	12.6	11.4	12.0	11.2	11.6	11.3
Since starting graduate school	7.2	8.0	9.1	10.7	10.7	10.2	9.7	9.7	9.0	9.7	9.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.7	7.5
Economics											
Since earning bachelor's	7.5	8.0	8.5	9.0	9.3	9.3	9.0	8.3	8.6	8.4	8.9
Since starting graduate school	6.7	6.9	7.2	7.7	7.7	7.5	7.2	7.0	7.0	7.3	7.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.8	5.8
Political science and government											
Since earning bachelor's	8.3	9.3	9.9	11.0	10.6	10.5	11.0	10.3	9.9	9.9	10.0
Since starting graduate school	7.7	8.1	8.7	9.4	9.0	8.9	8.9	8.3	8.3	8.0	8.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	6.0
Sociology											
Since earning bachelor's	8.1	9.0	10.3	12.1	12.1	10.9	11.2	11.0	10.6	11.0	10.7
Since starting graduate school	7.2	7.7	9.2	10.5	10.0	8.9	8.9	9.2	8.7	9.0	9.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.0	6.8

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Other social sciences											
Since earning bachelor's	8.9	9.9	11.1	12.0	12.9	12.1	11.9	12.0	11.3	11.5	11.4
Since starting graduate school	7.7	8.5	9.2	9.8	10.2	9.7	9.7	9.8	9.3	9.5	9.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	6.0
Engineering											
Since earning bachelor's	7.6	7.5	8.0	8.2	8.9	8.9	8.6	8.0	7.6	7.3	7.5
Since starting graduate school	6.2	6.2	6.7	6.7	7.2	7.2	7.2	6.7	6.7	6.7	6.6
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Aerospace, aeronautical, and astronautical engineering											
Since earning bachelor's	8.0	7.6	8.4	8.2	8.5	8.3	7.9	7.9	7.2	7.0	7.1
Since starting graduate school	6.7	6.7	6.9	6.7	7.2	6.7	6.9	7.0	6.6	6.6	6.5
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Bioengineering and biomedical engineering											
Since earning bachelor's	7.0	8.0	8.0	7.9	8.5	8.0	7.5	7.2	7.0	6.6	6.8
Since starting graduate school	6.5	6.5	7.7	6.5	6.7	7.2	6.7	6.3	6.2	5.9	6.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.4
Chemical engineering											
Since earning bachelor's	6.3	6.8	7.0	6.8	7.2	6.8	6.5	6.6	6.6	6.1	6.3
Since starting graduate school	5.5	5.7	5.7	5.7	6.2	5.8	5.7	5.7	5.7	5.5	5.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.0	5.1
Civil engineering											
Since earning bachelor's	8.0	8.5	8.5	9.3	9.4	10.9	9.8	8.7	8.8	8.3	8.3
Since starting graduate school	6.1	6.7	6.7	7.1	7.7	8.5	8.0	7.5	7.7	7.5	7.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.0
Electrical, electronics, and communications engineering											
Since earning bachelor's	-	-	-	7.9	8.5	8.6	8.6	8.1	7.7	7.8	7.9
Since starting graduate school	-	-	-	6.2	6.7	7.2	7.3	7.1	6.9	7.0	6.9
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.6
Industrial and manufacturing engineering											
Since earning bachelor's	8.4	8.9	8.9	10.2	9.9	9.9	10.0	9.1	8.9	8.7	8.7
Since starting graduate school	6.7	6.8	7.2	7.9	7.2	7.7	7.9	7.7	7.7	7.7	7.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.0	5.0
Materials science engineering											
Since earning bachelor's	8.0	7.0	7.8	8.0	8.8	7.9	8.0	7.4	6.8	6.5	6.8
Since starting graduate school	6.5	6.1	6.2	6.4	7.0	6.3	6.7	6.7	6.0	6.0	6.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.0	5.3

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Mechanical engineering											
Since earning bachelor's	7.5	7.9	8.3	8.2	9.3	9.3	9.0	7.9	7.5	7.3	7.6
Since starting graduate school	6.3	6.7	6.7	6.7	7.7	7.2	7.6	7.0	6.7	6.7	6.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Other engineering											
Since earning bachelor's	7.7	7.4	8.0	9.0	9.5	9.9	9.4	8.5	8.2	8.0	8.0
Since starting graduate school	6.5	6.2	6.7	6.9	7.7	7.7	7.7	7.1	7.2	6.9	7.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.3	5.3
Education											
Since earning bachelor's	12.7	12.7	13.7	16.2	19.0	20.0	19.0	16.6	15.0	14.9	15.0
Since starting graduate school	10.0	10.2	11.2	13.5	15.6	15.7	14.1	12.6	11.9	12.0	11.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	5.5
Education administration											
Since earning bachelor's	14.2	14.6	15.0	17.9	20.9	22.9	23.0	20.1	18.6	18.0	18.4
Since starting graduate school	11.7	11.7	12.7	15.2	17.6	18.5	16.7	14.7	14.7	14.9	14.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	5.8
Education research											
Since earning bachelor's	11.3	11.9	13.2	15.6	18.0	18.3	16.8	15.0	14.0	13.9	14.0
Since starting graduate school	9.1	9.6	10.9	12.9	14.5	13.7	12.7	11.6	11.0	11.3	11.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.1	5.6
Teacher education											
Since earning bachelor's	13.3	12.9	14.7	17.0	19.2	20.4	21.9	15.9	18.2	17.0	17.3
Since starting graduate school	10.5	9.9	11.7	13.3	15.6	16.7	16.2	12.7	13.7	12.8	14.0
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.7	5.7
Teaching fields											
Since earning bachelor's	12.2	12.3	12.5	14.6	16.9	17.0	15.4	13.9	14.2	14.0	15.0
Since starting graduate school	9.9	10.0	10.2	11.9	13.0	12.7	11.7	10.7	11.2	11.2	11.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.0	5.3
Other education											
Since earning bachelor's	13.3	13.7	14.3	16.1	18.6	18.9	18.8	15.9	15.9	15.3	14.6
Since starting graduate school	10.7	10.8	11.0	12.7	14.9	14.9	13.9	11.8	11.9	12.6	11.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	5.7
Humanities and arts											
Since earning bachelor's	9.0	10.0	11.3	12.2	12.3	12.0	11.7	11.5	11.0	11.0	11.2
Since starting graduate school	7.9	8.9	10.0	10.7	10.5	9.7	9.7	9.7	9.2	9.3	9.7
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.0	6.8

Table 1-12

Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022

(Median years)

Field and time to degree	1972	1977	1982	1987	1992	1997	2002	2007	2012	2017	2022
Foreign languages and literature											
Since earning bachelor's	9.0	10.0	11.5	12.5	11.0	11.0	11.0	11.2	11.0	10.6	10.9
Since starting graduate school	7.9	9.2	10.0	10.7	9.7	9.2	9.2	9.1	8.9	9.0	9.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.9	6.8
History											
Since earning bachelor's	8.9	9.8	11.0	12.2	12.2	11.5	11.8	11.7	11.0	11.0	11.0
Since starting graduate school	7.8	8.7	10.1	10.7	10.2	9.7	9.7	9.7	9.2	9.3	9.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.0	7.0
Letters											
Since earning bachelor's	8.9	9.9	11.0	12.1	11.9	11.5	11.2	11.0	10.6	10.7	10.9
Since starting graduate school	7.7	8.7	9.7	10.1	9.7	9.2	9.2	9.3	8.7	9.0	9.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.0	6.7
Other humanities and arts											
Since earning bachelor's	9.9	10.6	11.6	12.2	13.0	12.6	12.7	11.8	11.4	11.3	11.7
Since starting graduate school	8.7	9.7	10.2	10.7	11.2	10.7	10.7	9.7	9.7	9.8	9.9
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	7.3	6.8
Other											
Since earning bachelor's	9.9	10.5	11.5	12.6	13.2	13.4	13.0	12.2	11.5	11.4	11.3
Since starting graduate school	7.7	8.7	9.3	9.9	10.7	10.2	10.2	9.4	8.9	9.3	9.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.8	5.3
Business management and administration											
Since earning bachelor's	9.0	9.8	11.0	11.5	12.0	12.6	12.5	11.2	11.2	11.2	10.6
Since starting graduate school	7.2	8.0	8.7	8.9	9.7	9.7	9.7	8.9	8.7	8.9	8.8
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	5.0	5.0
Communication											
Since earning bachelor's	9.5	8.9	10.1	12.0	12.5	12.5	11.5	12.0	10.1	11.0	10.0
Since starting graduate school	8.1	7.7	8.7	8.9	10.0	9.2	9.2	9.3	8.0	8.6	8.3
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.0	5.0
Non-science and engineering fields nec											
Since earning bachelor's	13.6	12.5	13.0	14.9	17.1	16.2	15.5	14.8	13.3	12.6	13.3
Since starting graduate school	10.2	10.3	10.7	12.7	13.9	13.3	11.9	11.3	10.9	10.3	11.2
Since starting doctoral program[a]	na	na	na	na	na	na	na	na	na	6.3	5.7

- = not calculable. na = not applicable; data were not collected prior to 2014.

nec = not elsewhere classified.

[a] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-13

Education-related graduate debt of research doctorate recipients, by historical broad field of doctorate: 2012–22

(Number)

Education-related debt level and field	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Doctorate recipients reporting education-related debt	46,490	46,449	46,819	48,759	49,778	49,231	50,041	50,731	50,367	47,279	52,071
No debt	29,297	28,883	29,333	30,890	31,987	32,604	33,847	34,713	35,081	33,847	38,237
$10,000 or less	4,030	3,931	3,842	4,189	4,071	3,801	3,831	3,469	3,399	2,740	2,864
$10,001–$30,000	4,565	4,609	4,435	4,464	4,376	3,897	3,720	3,791	3,411	2,941	3,241
$30,001–$70,000	4,789	4,782	4,735	4,500	4,528	4,107	3,902	3,675	3,482	3,176	3,223
$70,001 or more	3,809	4,244	4,474	4,716	4,816	4,822	4,741	5,083	4,994	4,575	4,506
Life sciences[a]	11,115	10,867	10,917	11,306	11,636	11,617	11,788	11,899	11,682	10,855	12,184
No debt	7,658	7,318	7,427	7,812	8,100	8,213	8,401	8,489	8,429	8,114	9,289
$10,000 or less	943	904	860	940	914	913	875	836	803	646	658
$10,001–$30,000	1,001	1,016	997	943	940	818	815	852	724	586	686
$30,001–$70,000	906	945	917	857	904	846	836	791	790	676	712
$70,001 or more	607	684	716	754	778	827	861	931	936	833	839
Physical sciences and earth sciences	5,009	5,005	5,203	5,328	5,748	5,625	5,870	6,123	5,801	5,369	6,142
No debt	3,833	3,831	4,023	4,164	4,530	4,584	4,824	5,023	4,909	4,608	5,304
$10,000 or less	426	421	404	460	484	392	446	394	359	281	316
$10,001–$30,000	377	380	365	324	335	298	269	317	234	224	228
$30,001–$70,000	265	244	268	237	243	217	200	206	171	153	164
$70,001 or more	108	129	143	143	156	134	131	183	128	103	130
Mathematics and computer sciences	3,149	3,273	3,415	3,407	3,589	3,468	3,675	3,889	4,036	3,984	4,397
No debt	2,505	2,633	2,685	2,747	2,885	2,835	3,045	3,250	3,404	3,375	3,796
$10,000 or less	202	204	238	222	190	218	215	211	208	203	181
$10,001–$30,000	187	182	189	175	217	175	170	169	189	166	174
$30,001–$70,000	163	142	177	144	165	115	139	141	112	122	125
$70,001 or more	92	112	126	119	132	125	106	118	123	118	121
Psychology and social sciences	7,598	7,442	7,435	7,853	8,073	7,956	7,920	8,062	7,971	7,656	8,251
No debt	3,560	3,446	3,431	3,635	3,966	4,057	4,168	4,339	4,442	4,356	5,006
$10,000 or less	657	615	609	670	687	644	609	550	569	445	457
$10,001–$30,000	983	880	860	947	881	840	736	724	699	639	663
$30,001–$70,000	1,167	1,186	1,138	1,125	1,064	977	918	840	759	747	731
$70,001 or more	1,231	1,315	1,397	1,476	1,475	1,438	1,489	1,609	1,502	1,469	1,394
Engineering	7,747	7,964	8,445	8,827	8,549	8,854	9,288	9,429	9,649	9,394	10,415
No debt	5,907	5,981	6,426	6,787	6,555	7,034	7,488	7,573	7,876	7,735	8,677
$10,000 or less	692	706	746	774	759	679	716	639	635	549	566
$10,001–$30,000	549	615	617	613	568	520	516	577	494	492	519
$30,001–$70,000	401	422	413	420	416	361	341	345	317	339	373
$70,001 or more	198	240	243	233	251	260	227	295	327	279	280
Education	4,397	4,300	4,079	4,490	4,621	4,300	4,356	4,204	4,268	3,780	3,946

Table 1-13

Education-related graduate debt of research doctorate recipients, by historical broad field of doctorate: 2012–22

(Number)

Education-related debt level and field	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
No debt	2,115	1,898	1,725	1,942	2,038	1,893	1,952	1,979	2,004	1,874	1,928
$10,000 or less	373	361	347	396	369	340	339	267	292	228	243
$10,001–$30,000	534	574	502	555	557	483	480	422	433	337	383
$30,001–$70,000	742	728	732	711	718	673	667	622	601	496	534
$70,001 or more	633	739	773	886	939	911	918	914	938	845	858
Humanities and arts	5,059	4,974	4,771	4,939	4,953	4,735	4,614	4,507	4,369	3,661	3,980
No debt	2,451	2,431	2,325	2,437	2,551	2,544	2,550	2,564	2,511	2,233	2,495
$10,000 or less	539	525	450	543	466	444	457	402	355	244	271
$10,001–$30,000	671	667	629	633	611	509	483	476	429	286	370
$30,001–$70,000	792	727	726	649	657	554	513	466	473	409	361
$70,001 or more	606	624	641	677	668	684	611	599	601	489	483
Other[b]	2,416	2,624	2,554	2,609	2,609	2,676	2,530	2,618	2,591	2,580	2,756
No debt	1,268	1,345	1,291	1,366	1,362	1,444	1,419	1,496	1,506	1,552	1,742
$10,000 or less	198	195	188	184	202	171	174	170	178	144	172
$10,001–$30,000	263	295	276	274	267	254	251	254	209	211	218
$30,001–$70,000	353	388	364	357	361	364	288	264	259	234	223
$70,001 or more	334	401	435	428	417	443	398	434	439	439	401

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[b] Includes other non-science and engineering fields not shown separately.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 1-14

Highest educational attainment of either parent of research doctorate recipients: 1970–2022

(Percent)

Year	High school or less	Some college[a]	Bachelor's degree	Master's degree	Professional doctorate[b]	Research doctoral degree
1970	47.9	16.7	19.3	11.7	na	4.4
1971	46.9	16.6	19.3	12.6	na	4.7
1972	46.2	16.4	19.7	12.8	na	4.9
1973	45.7	16.8	19.5	13.2	na	4.8
1974	45.3	16.8	19.7	13.3	na	4.8
1975	44.2	16.1	20.7	13.7	na	5.2
1976	43.8	16.3	20.1	14.3	na	5.4
1977	43.1	16.5	20.5	14.3	na	5.7
1978	41.6	16.4	20.9	15.2	na	5.9
1979	41.1	16.6	21.0	15.3	na	6.0
1980	40.8	16.0	21.7	15.4	na	6.1
1981	39.9	15.8	21.8	16.0	na	6.4
1982	39.4	15.8	21.6	16.3	na	7.0
1983	38.1	15.7	22.2	16.9	na	7.1
1984	38.3	15.0	22.5	16.9	na	7.3
1985	37.9	14.7	22.6	17.5	na	7.3
1986	37.1	14.6	22.6	17.8	na	7.9
1987	36.4	14.5	22.6	18.0	na	8.6
1988	35.2	14.7	22.8	18.6	na	8.7
1989	34.5	13.9	23.4	19.0	na	9.1
1990	32.9	15.2	20.9	13.8	7.0	10.3
1991	32.5	15.3	20.3	12.5	8.7	10.8
1992	31.4	15.4	20.9	12.4	8.8	11.1
1993	31.2	15.1	20.8	12.8	8.6	11.4
1994	30.0	15.2	21.1	12.9	8.9	11.9
1995	28.7	15.1	21.6	14.0	8.8	11.8
1996	28.2	14.3	21.9	14.4	8.6	12.5
1997	26.5	13.9	22.6	15.1	8.6	13.4
1998	25.8	13.7	22.4	15.5	8.9	13.7
1999	25.1	13.6	21.9	16.1	9.1	14.2
2000	25.2	13.3	22.4	16.2	9.0	14.0
2001	23.9	13.6	22.3	17.0	8.9	14.2
2002	23.6	13.5	22.9	17.0	8.9	14.2
2003	23.2	13.3	23.2	17.2	9.0	14.0
2004	22.8	13.4	23.9	18.8	8.9	12.1
2005	22.3	13.5	24.8	19.0	8.8	11.6
2006	21.8	13.4	25.6	19.4	8.6	11.3
2007	21.3	13.5	26.0	19.7	9.3	10.3
2008	20.9	13.4	25.5	20.5	9.3	10.4
2009	20.2	13.0	25.4	21.3	10.0	10.2
2010	19.2	13.1	25.5	21.3	10.4	10.5
2011	19.2	13.0	25.6	21.7	9.9	10.6
2012	19.0	12.5	25.7	21.8	10.3	10.7
2013	18.6	12.7	25.5	22.5	10.0	10.6
2014	18.2	12.3	26.2	22.3	10.3	10.6
2015	18.1	12.3	26.7	22.2	10.0	10.7
2016	17.7	12.8	26.1	22.7	10.0	10.7
2017	17.4	13.4	26.3	22.1	9.4	11.4
2018	16.3	12.9	26.5	22.2	9.6	12.4
2019	16.6	13.1	26.5	22.3	9.4	12.1
2020	16.1	13.2	27.1	22.5	9.2	11.9

Table 1-14

Highest educational attainment of either parent of research doctorate recipients: 1970–2022

(Percent)

Year	High school or less	Some college[a]	Bachelor's degree	Master's degree	Professional doctorate[b]	Research doctoral degree
2021	14.9	13.1	26.1	22.0	8.7	15.2
2022	15.7	13.1	26.9	22.8	8.8	12.7

na = not applicable; added to survey in 1990.

[a] Includes those who attended college but did not earn a bachelor's degree.
[b] Includes professional doctorates such as MD, DDS, DVM, JD, PsyD, DDiv.

Note(s):
Excludes doctorate recipients who did not report parental education for either parent or reported "not applicable or unknown" for both parents' education. If data were provided for one parent, that response is used; when data were provided for two parents, the higher attainment is used. Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-1

Postgraduation commitment of research doctorate recipients, by historical broad field of doctorate: Selected years, 1992–2022

(Number and percent)

Commitment status and year	All fields	Science and engineering						Non-science and engineering			
		Total	Life sciences[a]	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Total	Education	Humanities and arts	Other[b]
All doctorate recipients (number)											
1992	38,886	25,616	7,172	4,517	1,927	6,562	5,438	13,270	6,677	4,387	2,206
1997	42,539	28,486	8,421	4,550	2,032	7,369	6,114	14,053	6,577	5,285	2,191
2002	40,031	26,088	8,478	3,875	1,729	6,925	5,081	13,943	6,508	5,297	2,138
2007	48,132	33,758	10,702	4,956	3,042	7,309	7,749	14,374	6,448	5,085	2,841
2012	50,943	37,846	11,964	5,419	3,496	8,498	8,469	13,097	4,802	5,561	2,734
2017	54,552	41,288	12,554	6,082	3,842	9,034	9,776	13,264	4,826	5,286	3,152
2022	57,596	45,479	13,211	6,649	4,854	9,235	11,530	12,117	4,509	4,464	3,144
All postgraduation commitments											
1992	35,803	23,505	6,726	4,157	1,768	5,934	4,920	12,298	6,177	4,112	2,009
1997	37,872	25,542	7,631	4,109	1,815	6,411	5,576	12,330	5,701	4,706	1,923
2002	36,058	23,772	7,746	3,567	1,600	6,227	4,632	12,286	5,552	4,860	1,874
2007	43,369	30,588	9,832	4,525	2,766	6,499	6,966	12,781	5,788	4,543	2,450
2012	46,544	34,652	11,156	5,015	3,152	7,603	7,726	11,892	4,415	5,072	2,405
2017	49,518	37,715	11,673	5,649	3,492	8,008	8,893	11,803	4,336	4,766	2,701
2022	52,232	41,510	12,228	6,149	4,419	8,281	10,433	10,722	3,966	3,989	2,767
Definite commitment for employment or postdoctoral training (%)											
1992	69.3	68.2	74.5	69.9	64.9	67.7	60.0	71.3	75.3	62.5	76.9
1997	67.4	67.7	71.1	69.8	68.9	64.2	65.3	66.8	72.9	56.7	73.5
2002	72.5	73.0	73.6	76.1	76.1	72.2	69.6	71.5	75.1	64.9	78.3
2007	68.7	68.7	66.4	71.9	73.0	72.5	64.7	68.8	71.6	62.8	73.4
2012	65.9	66.0	62.8	66.9	70.2	70.1	64.0	65.6	69.3	58.5	73.7
2017	66.7	67.0	64.6	65.6	72.7	72.2	64.1	65.6	69.5	57.2	74.3
2022	73.2	73.9	71.7	73.8	77.9	76.3	72.8	70.5	75.2	62.4	75.6
No definite commitment for employment or postdoctoral training (%)											
1992	30.7	31.8	25.5	30.1	35.1	32.3	40.0	28.7	24.7	37.5	23.1
1997	32.6	32.3	28.9	30.2	31.1	35.8	34.7	33.2	27.1	43.3	26.5
2002	27.5	27.0	26.4	23.9	23.9	27.8	30.4	28.5	24.9	35.1	21.7
2007	31.3	31.3	33.6	28.1	27.0	27.5	35.3	31.2	28.4	37.2	26.6
2012	34.1	34.0	37.2	33.1	29.8	29.9	36.0	34.4	30.7	41.5	26.3
2017	33.3	33.0	35.4	34.4	27.3	27.8	35.9	34.4	30.5	42.8	25.7
2022	26.8	26.1	28.3	26.2	22.1	23.7	27.2	29.5	24.8	37.6	24.4

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[b] Includes other non-science and engineering fields not shown separately.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-2

Postgraduation commitment of research doctorate recipients, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

Commitment status and year	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
All doctorate recipients (number)													
1992	38,886	24,232	14,435	28,005	9,980	909	149	1,755	1,109	23,626	na	151	306
1997	42,539	24,942	17,242	31,097	9,194	1,203	167	3,109	1,476	23,964	na	509	669
2002	40,031	21,806	18,140	27,737	9,747	1,370	142	2,091	1,666	21,035	269	387	777
2007	48,132	26,202	21,904	29,501	15,123	1,655	140	2,308	1,891	22,067	505	304	631
2012	50,943	27,362	23,526	32,981	14,784	2,144	104	2,943	2,055	24,010	807	293	625
2017	54,552	29,446	25,084	35,736	16,288	2,536	109	3,499	2,400	24,844	1,015	471	862
2022	57,596	30,522	27,069	35,311	19,633	3,354	98	3,586	2,647	23,320	1,210	425	671
All postgraduation commitments													
1992	35,803	22,405	13,393	26,704	9,093	843	141	1,620	1,019	22,740	na	130	211
1997	37,872	22,492	15,362	29,168	8,648	1,095	156	2,878	1,387	23,009	na	473	170
2002	36,058	19,749	16,306	26,736	9,281	1,312	140	2,035	1,604	20,660	268	351	366
2007	43,369	23,578	19,790	28,656	14,613	1,597	131	2,276	1,832	21,733	502	284	301
2012	46,544	24,957	21,583	32,096	14,288	2,070	102	2,889	2,007	23,686	803	271	268
2017	49,518	26,841	22,676	33,527	15,814	2,401	100	3,193	2,286	24,111	1,014	303	119
2022	52,232	27,771	24,456	33,465	18,521	3,202	83	3,424	2,522	22,561	1,191	301	181
Definite commitment for employment or postdoctoral training (%)													
1992	69.3	68.6	70.3	72.2	60.6	68.4	70.2	60.6	69.6	73.4	na	65.4	63.0
1997	67.4	68.1	66.6	68.7	63.2	68.4	74.4	62.9	66.6	69.6	na	65.1	67.1
2002	72.5	73.8	70.9	73.2	70.5	71.6	75.7	68.4	68.0	74.4	68.3	71.2	68.9
2007	68.7	69.6	67.7	70.2	65.9	68.4	67.2	63.1	64.2	71.7	70.3	66.5	66.8
2012	65.9	67.4	64.1	66.4	64.7	61.4	67.6	59.4	55.6	68.6	68.4	55.7	66.8
2017	66.7	67.4	65.8	67.1	65.7	66.8	64.0	63.1	62.3	68.3	65.5	63.7	62.2
2022	73.2	73.7	72.5	72.6	74.0	72.2	81.9	68.5	70.6	73.6	74.0	62.8	65.2
No definite commitment for employment or postdoctoral training (%)[d]													
1992	30.7	31.4	29.7	27.8	39.4	31.6	29.8	39.4	30.4	26.6	na	34.6	37.0
1997	32.6	31.9	33.4	31.3	36.8	31.6	25.6	37.1	33.4	30.4	na	34.9	32.9
2002	27.5	26.2	29.1	26.8	29.5	28.4	24.3	31.6	32.0	25.6	31.7	28.8	31.1
2007	31.3	30.4	32.3	29.8	34.1	31.6	32.8	36.9	35.8	28.3	29.7	33.5	33.2
2012	34.1	32.6	35.9	33.6	35.3	38.6	32.4	40.6	44.4	31.4	31.6	44.3	33.2
2017	33.3	32.6	34.2	32.9	34.3	33.2	36.0	36.9	37.7	31.7	34.5	36.3	37.8
2022	26.8	26.3	27.5	27.4	26.0	27.8	18.1	31.5	29.4	26.4	26.0	37.2	34.8

na = not applicable; doctorate recipients were instructed to indicate only one race.

[a] Includes doctorate recipients who did not report sex or citizenship status.
[b] Includes Native Hawaiians or Other Pacific Islanders through 2000 but excludes them since 2001.
[c] Before 2001, this category included doctorate recipients who selected more than one race. Since 2001, this category has included Native Hawaiians or Other Pacific Islanders, who previously had been included in the category Asian.
[d] Includes doctorate recipients who indicated "other" in all years, doctorate recipients who indicated "do not plan to work or study" in 2004 and later years, and doctorate recipients who indicated definite plans for "other full-time degree program" in 2007 and later years.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-3

Postgraduation plans of research doctorate recipients with definite commitments, by historical broad field of doctorate: Selected years, 1992–2022

(Number and percent)

Definite commitment, plan, and year	All fields	Science and engineering						Non-science and engineering			
		Total	Life sciences[a]	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Total	Education	Humanities and arts	Other[b]
All definite commitments (number)											
1992	24,795	16,031	5,008	2,906	1,147	4,017	2,953	8,764	4,652	2,568	1,544
1997	25,541	17,304	5,424	2,867	1,251	4,119	3,643	8,237	4,156	2,668	1,413
2002	26,144	17,354	5,704	2,716	1,217	4,495	3,222	8,790	4,167	3,156	1,467
2007	29,812	21,013	6,524	3,253	2,018	4,713	4,505	8,799	4,147	2,854	1,798
2012	30,656	22,858	7,011	3,357	2,212	5,333	4,945	7,798	3,058	2,968	1,772
2017	33,008	25,263	7,540	3,704	2,538	5,784	5,697	7,745	3,014	2,725	2,006
2022	38,219	30,657	8,766	4,537	3,444	6,317	7,593	7,562	2,982	2,489	2,091
Reported type of plan											
1992	24,635	15,982	4,998	2,904	1,142	3,994	2,944	8,653	4,565	2,549	1,539
1997	24,987	17,030	5,329	2,843	1,229	4,033	3,596	7,957	4,001	2,583	1,373
2002	26,037	17,303	5,691	2,709	1,212	4,478	3,213	8,734	4,144	3,140	1,450
2007	29,399	20,753	6,456	3,224	2,001	4,629	4,443	8,646	4,068	2,811	1,767
2012	28,749	21,633	6,638	3,249	2,101	4,978	4,667	7,116	2,800	2,734	1,582
2017	32,227	24,785	7,402	3,671	2,490	5,650	5,572	7,442	2,875	2,629	1,938
2022	38,147	30,597	8,735	4,534	3,440	6,307	7,581	7,550	2,981	2,482	2,087
Employment plans (%)											
1992	72.0	59.0	37.3	37.9	76.4	82.5	77.9	96.2	96.8	94.7	96.8
1997	71.6	60.4	39.0	43.0	76.9	79.0	79.4	95.5	96.3	93.5	97.0
2002	69.5	57.8	40.5	42.6	67.6	74.0	75.2	92.7	94.4	90.0	93.8
2007	63.8	52.2	34.5	33.3	68.4	67.4	68.3	91.8	94.1	88.0	92.5
2012	59.8	50.0	34.0	31.8	64.3	63.1	65.2	89.5	92.6	84.4	93.1
2017	60.9	53.1	40.3	40.7	68.8	61.6	62.8	87.0	91.3	79.0	91.3
2022	61.5	56.0	46.9	45.9	67.0	56.7	67.1	83.9	89.1	75.2	86.8
Postdoctoral training plans (%)											
1992	28.0	41.0	62.7	62.1	23.6	17.5	22.1	3.8	3.2	5.3	3.2
1997	28.4	39.6	61.0	57.0	23.1	21.0	20.6	4.5	3.7	6.5	3.0
2002	30.5	42.2	59.5	57.4	32.4	26.0	24.8	7.3	5.6	10.0	6.2
2007	36.2	47.8	65.5	66.7	31.6	32.6	31.7	8.2	5.9	12.0	7.5
2012	40.2	50.0	66.0	68.2	35.7	36.9	34.8	10.5	7.4	15.6	6.9
2017	39.1	46.9	59.7	59.3	31.2	38.4	37.2	13.0	8.7	21.0	8.7
2022	38.5	44.0	53.1	54.1	33.0	43.3	32.9	16.1	10.9	24.8	13.2

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[b] Includes other non-science and engineering fields not shown separately.

Note(s):
Percentages based on number of doctorate recipients reporting definite postgraduation commitments and the type of plan (employment or postdoctoral study). A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-4

Postgraduation plans of research doctorate recipients with definite commitments, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

Definite commitment, plan, and year	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
All definite commitments (number)													
1992	24,795	15,378	9,412	19,284	5,506	577	99	981	709	16,700	na	85	133
1997	25,541	15,307	10,227	20,044	5,463	749	116	1,810	924	16,023	na	308	114
2002	26,144	14,578	11,565	19,574	6,545	939	106	1,391	1,090	15,363	183	250	252
2007	29,812	16,417	13,394	20,116	9,629	1,092	88	1,436	1,176	15,581	353	189	201
2012	30,656	16,819	13,834	21,308	9,238	1,271	69	1,716	1,115	16,258	549	151	179
2017	33,008	18,091	14,916	22,495	10,385	1,603	64	2,016	1,424	16,457	664	193	74
2022	38,219	20,478	17,738	24,300	13,706	2,311	68	2,346	1,781	16,606	881	189	118
Reported type of plan													
1992	24,635	15,306	9,324	19,150	5,480	565	99	974	689	16,607	na	85	131
1997	24,987	15,008	9,975	19,609	5,346	727	113	1,782	886	15,691	na	301	109
2002	26,037	14,514	11,522	19,512	6,502	938	106	1,388	1,084	15,315	183	250	248
2007	29,399	16,210	13,188	19,804	9,534	1,071	86	1,417	1,144	15,354	349	184	199
2012	28,749	15,799	12,947	19,881	8,763	1,177	68	1,609	1,023	15,185	501	144	174
2017	32,227	17,687	14,539	21,898	10,210	1,539	62	1,969	1,352	16,074	644	188	70
2022	38,147	20,437	17,707	24,251	13,686	2,307	67	2,339	1,776	16,582	877	187	116
Employment plans (%)													
1992	72.0	69.2	76.7	75.3	60.5	76.6	80.8	63.9	83.3	75.6	na	77.6	68.7
1997	71.6	69.8	74.4	74.4	61.4	77.2	88.5	63.1	81.8	75.1	na	73.8	67.0
2002	69.5	67.2	72.5	72.3	61.4	72.9	82.1	61.2	77.0	72.9	67.2	70.0	77.0
2007	63.8	61.8	66.3	67.1	57.0	64.6	74.4	57.3	76.6	67.5	61.6	62.0	71.9
2012	59.8	59.0	60.8	62.3	54.2	59.9	75.0	55.3	71.8	62.8	54.5	56.9	65.5
2017	60.9	60.3	61.8	62.9	56.8	59.6	67.7	59.3	70.4	63.2	57.9	61.2	68.6
2022	61.5	61.7	61.4	62.7	59.3	60.8	64.2	61.9	73.9	62.1	57.2	65.8	72.4
Postdoctoral training plans (%)													
1992	28.0	30.8	23.3	24.7	39.5	23.4	19.2	36.1	16.7	24.4	na	22.4	31.3
1997	28.4	30.2	25.6	25.6	38.6	22.8	11.5	36.9	18.2	24.9	na	26.2	33.0
2002	30.5	32.8	27.5	27.7	38.6	27.1	17.9	38.8	23.0	27.1	32.8	30.0	23.0
2007	36.2	38.2	33.7	32.9	43.0	35.4	25.6	42.7	23.4	32.5	38.4	38.0	28.1
2012	40.2	41.0	39.2	37.7	45.8	40.1	25.0	44.7	28.2	37.2	45.5	43.1	34.5
2017	39.1	39.7	38.2	37.1	43.2	40.4	32.3	40.7	29.6	36.8	42.1	38.8	31.4
2022	38.5	38.3	38.6	37.3	40.7	39.2	35.8	38.1	26.1	37.9	42.8	34.2	27.6

na = not applicable; doctorate recipients were instructed to indicate only one race.

[a] Includes doctorate recipients who did not report sex or citizenship status.
[b] Includes Native Hawaiians or Other Pacific Islanders through 2000 but excludes them since 2001.
[c] Before 2001, this category included doctorate recipients who selected more than one race. Since 2001, this category has included Native Hawaiians or Other Pacific Islanders, who previously had been included in the category Asian.

Note(s):
Percentages based on number of doctorate recipients reporting definite postgraduation commitments and the type of plan (employment or postdoctoral study). A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-5

Sources of support for research doctorate recipients with postdoctoral training commitments, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

Postdoctoral training commitments, source of support, and year	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
All postdoctoral training commitments (number)													
1992	6,888	4,717	2,169	4,724	2,162	132	19	352	115	4,046	na	19	41
1997	7,095	4,537	2,558	5,021	2,061	166	13	657	161	3,909	na	79	36
2002	7,929	4,762	3,167	5,408	2,513	254	19	539	249	4,155	60	75	57
2007	10,637	6,194	4,442	6,517	4,097	379	D	605	268	4,983	134	70	56
2012	11,555	6,484	5,069	7,498	4,010	472	17	719	288	5,652	228	62	60
2017	12,585	7,026	5,559	8,130	4,415	621	20	802	400	5,921	271	73	22
2022	14,670	7,827	6,842	9,044	5,566	904	24	890	464	6,291	375	64	32
U.S. government (%)													
1992	35.5	34.9	36.9	43.5	17.9	38.6	26.3	32.7	27.0	45.2	na	36.8	43.9
1997	37.9	36.9	39.6	44.7	21.2	44.6	46.2	41.4	34.2	45.7	na	39.2	47.2
2002	32.8	33.6	31.8	38.6	20.5	31.9	36.8	38.4	31.3	39.4	51.7	49.3	19.3
2007	29.8	29.9	29.6	36.6	18.9	32.7	D	33.9	34.0	37.5	37.3	D	37.5
2012	31.1	31.1	31.1	37.0	20.2	35.8	D	36.3	36.1	37.4	38.6	D	31.7
2017	28.6	27.7	29.8	34.6	17.7	34.8	D	31.8	30.3	35.5	33.9	D	31.8
2022	30.0	29.1	30.9	37.5	17.9	36.4	37.5	32.2	28.9	39.2	37.3	18.8	37.5
College or university (%)													
1992	28.6	31.0	23.4	20.8	45.8	22.7	36.8	33.2	28.7	19.3	na	26.3	22.0
1997	31.7	34.1	27.5	25.7	46.4	24.1	D	30.6	29.2	24.7	na	D	33.3
2002	41.8	43.0	39.9	36.2	54.0	39.8	26.3	34.3	36.5	36.3	26.7	29.3	49.1
2007	45.6	47.3	43.2	39.5	55.4	40.1	D	42.8	42.2	38.9	39.6	D	41.1
2012	44.0	45.1	42.6	38.6	54.2	42.8	58.8	37.4	45.5	37.7	37.7	50.0	50.0
2017	43.7	45.2	41.8	38.7	53.1	39.0	D	39.4	45.5	38.1	37.6	D	22.7
2022	42.6	44.6	40.3	36.2	53.1	36.1	33.3	39.8	44.4	35.0	37.9	35.9	31.3
Private foundation (%)													
1992	9.4	8.4	11.4	10.1	7.7	10.6	D	11.1	10.4	10.0	na	D	9.8
1997	9.5	8.9	10.7	9.8	8.9	6.0	D	8.8	10.6	10.2	na	D	5.6
2002	5.9	5.2	6.9	6.5	4.6	7.5	D	5.8	7.2	6.5	8.3	D	5.3
2007	4.8	4.4	5.2	D	3.7	5.5	D	4.3	4.1	5.7	4.5	D	1.8
2012	4.7	4.2	5.4	5.5	3.2	4.4	D	5.6	2.8	5.8	6.6	D	3.3
2017	4.2	3.7	4.9	5.1	2.7	5.5	0.0	4.2	3.3	5.2	6.3	6.8	4.5
2022	3.8	3.5	4.2	4.4	2.7	4.4	D	4.3	D	4.4	5.1	1.6	0.0
Nonprofit, other than private foundation (%)													
1992	2.6	2.6	2.6	1.8	4.3	D	0.0	D	D	1.9	na	5.3	2.4

Table 2-5

Sources of support for research doctorate recipients with postdoctoral training commitments, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

Postdoctoral training commitments, source of support, and year	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
1997	3.0	3.0	3.2	2.7	3.9	4.2	0.0	2.4	D	2.7	na	D	0.0
2002	3.5	3.0	4.3	3.3	3.9	4.3	0.0	3.3	6.4	3.1	8.3	0.0	3.5
2007	3.1	2.7	3.6	2.8	3.5	2.6	D	2.8	2.2	2.9	D	4.3	1.8
2012	2.9	2.4	3.5	2.8	3.0	1.1	0.0	3.9	1.7	2.9	3.1	0.0	0.0
2017	3.4	2.7	4.2	3.7	2.9	1.9	0.0	3.0	3.3	4.0	4.4	2.7	0.0
2022	3.1	2.4	3.9	3.6	2.2	3.7	D	4.8	D	3.3	3.5	6.3	0.0
Other (%)													
1992	10.5	10.3	10.9	10.8	10.0	9.8	0.0	8.5	11.3	11.0	na	5.3	9.8
1997	8.5	8.7	8.2	7.8	10.1	11.4	15.4	5.8	11.2	7.7	na	16.5	8.3
2002	9.3	9.5	9.0	8.9	10.2	7.9	15.8	11.1	9.2	8.5	3.3	13.3	14.0
2007	10.4	10.0	11.1	9.1	12.5	10.3	D	9.6	7.1	9.0	D	11.4	7.1
2012	8.4	8.6	8.2	7.7	9.9	7.4	11.8	7.5	4.5	8.0	5.7	9.7	1.7
2017	8.9	9.1	8.6	8.1	10.5	5.6	0.0	9.6	6.8	8.1	8.9	11.0	18.2
2022	7.9	8.0	7.9	7.1	9.3	7.1	4.2	7.2	6.9	7.2	6.9	7.8	3.1
Unknown (%)													
1992	13.4	12.8	14.8	13.1	14.2	16.7	21.1	13.4	20.9	12.7	na	15.8	12.2
1997	9.4	8.6	10.8	9.3	9.5	9.6	0.0	11.0	12.4	9.0	na	8.9	5.6
2002	6.6	5.7	8.0	6.6	6.7	8.7	15.8	7.1	9.2	6.3	1.7	4.0	8.8
2007	6.4	5.7	7.2	D	6.0	8.7	D	6.6	10.4	6.0	D	11.4	10.7
2012	8.9	8.7	9.2	8.4	9.5	8.5	D	9.3	9.4	8.2	D	8.1	13.3
2017	11.1	11.6	10.6	10.0	13.0	13.2	15.0	12.0	11.0	9.1	8.9	21.9	22.7
2022	12.7	12.5	12.9	11.2	14.8	12.4	8.3	11.7	10.6	10.9	9.3	29.7	28.1

D = suppressed to avoid disclosure of confidential information. na = not applicable; doctorate recipients were instructed to indicate only one race.

[a] Includes doctorate recipients who did not report sex or citizenship status.
[b] Includes Native Hawaiians or Other Pacific Islanders through 2000 but excludes them since 2001.
[c] Before 2001, this category included doctorate recipients who selected more than one race. Since 2001, this category has included Native Hawaiians or Other Pacific Islanders, who previously had been included in the category Asian.

Note(s):
Percentages based on number of doctorate recipients reporting definite commitments for a postdoctoral study (postdoc) position.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-6

Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by historical broad field of doctorate: Selected years, 1992–2022

(Number and percent)

Employment commitment, sector, and year	All fields	Science and engineering						Non-science and engineering			
		Total	Life sciences[a]	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Total	Education	Humanities and arts	Other[b]
All U.S. employment commitments (number)											
1992	15,632	7,916	1,478	975	745	2,911	1,807	7,716	4,179	2,208	1,329
1997	16,065	9,020	1,774	1,124	850	2,781	2,491	7,045	3,674	2,205	1,166
2002	16,287	8,756	1,966	1,052	738	2,936	2,064	7,531	3,733	2,598	1,200
2007	16,990	9,658	1,958	975	1,253	2,745	2,727	7,332	3,638	2,274	1,420
2012	15,376	9,506	1,988	939	1,225	2,675	2,679	5,870	2,474	2,108	1,288
2017	17,752	11,831	2,682	1,402	1,583	3,010	3,154	5,921	2,465	1,900	1,556
2022	21,450	15,704	3,784	1,956	2,124	3,156	4,684	5,746	2,503	1,679	1,564
Academe (%)											
1992	51.7	41.4	49.1	22.2	59.6	50.5	23.5	62.2	46.8	80.8	79.8
1997	45.8	34.2	45.0	21.9	38.6	50.0	12.8	60.6	46.4	77.7	72.9
2002	52.3	41.6	48.7	23.7	53.8	57.9	16.5	64.7	48.4	81.6	78.7
2007	51.1	39.0	47.7	26.8	42.1	61.3	13.3	66.9	51.5	84.3	78.5
2012	50.5	37.7	46.1	28.1	35.8	59.9	13.5	71.2	57.9	81.4	80.4
2017	46.5	34.2	40.5	23.5	31.1	57.1	13.4	70.9	60.6	77.1	79.7
2022	32.5	22.4	26.9	12.1	21.4	42.3	10.2	60.0	53.4	63.1	67.1
Government (%)											
1992	8.9	12.6	16.8	13.1	4.6	12.7	12.0	5.0	6.8	1.9	4.7
1997	7.3	10.0	10.9	10.4	4.7	10.6	10.4	3.9	4.8	1.8	4.9
2002	7.3	10.4	13.2	8.5	5.3	10.9	9.7	3.8	4.5	2.4	4.7
2007	6.0	8.4	11.6	8.7	2.9	9.7	7.2	2.9	3.4	1.7	3.6
2012	7.3	9.8	11.7	9.5	5.0	11.1	9.2	3.3	3.4	2.0	5.0
2017	7.2	9.0	10.3	8.7	4.0	11.0	8.7	3.6	3.8	2.6	4.6
2022	6.8	7.7	8.2	6.8	3.5	12.4	6.5	4.4	4.5	2.9	5.9
Industry or business (%)[c]											
1992	20.9	35.6	25.0	61.6	34.2	16.9	60.9	5.8	5.6	3.7	9.6
1997	26.7	42.1	22.6	58.8	49.4	18.6	72.2	7.0	5.8	5.5	13.7
2002	24.0	39.5	28.3	63.4	37.4	16.9	71.0	6.1	5.3	4.7	11.3
2007	27.1	43.6	28.5	58.1	51.0	14.4	75.4	5.3	4.3	3.4	10.9
2012	29.1	43.7	28.8	58.5	55.1	15.3	72.9	5.5	4.8	4.1	8.9
2017	34.7	48.6	37.8	62.3	60.4	19.6	73.6	6.8	5.4	5.5	10.7
2022	48.1	61.5	54.1	75.3	69.8	30.4	78.8	11.5	8.5	10.8	17.1
Nonprofit organization (%)											
1992	6.8	7.0	7.6	1.8	1.1	12.7	2.4	6.6	5.6	10.1	3.9
1997	5.6	5.8	5.7	2.6	1.9	11.5	2.4	5.4	4.5	7.7	4.0

Table 2-6

Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by historical broad field of doctorate: Selected years, 1992–2022

(Number and percent)

Employment commitment, sector, and year	All fields	Science and engineering						Non-science and engineering			
		Total	Life sciences[a]	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Total	Education	Humanities and arts	Other[b]
2002	5.7	6.0	7.5	3.0	2.6	9.7	2.0	5.4	5.1	6.4	4.3
2007	4.4	4.9	7.6	3.1	1.9	7.8	2.0	3.8	3.4	4.5	3.5
2012	5.6	5.8	10.3	1.9	2.4	8.1	2.9	5.2	5.6	6.3	2.9
2017	6.3	6.2	9.6	3.5	3.2	8.7	3.6	6.4	6.0	9.1	3.9
2022	6.6	5.8	8.5	3.8	3.2	9.9	3.0	8.6	7.6	12.9	5.7
Other or unknown (%)[d]											
1992	11.8	3.4	1.4	1.2	0.5	7.1	1.3	20.3	35.1	3.5	1.9
1997	14.5	7.8	15.7	6.3	5.4	9.2	2.2	23.1	38.5	7.3	4.5
2002	10.6	2.5	2.3	1.4	0.9	4.6	0.7	20.0	36.7	4.8	1.0
2007	11.4	4.0	4.6	3.4	2.1	6.7	2.0	21.1	37.5	6.0	3.5
2012	7.5	3.0	3.1	2.0	1.7	5.6	1.5	14.8	28.3	6.2	2.9
2017	5.4	1.9	1.9	2.0	1.3	3.6	0.7	12.2	24.3	5.7	1.1
2022	6.0	2.6	2.3	2.0	2.2	5.1	1.6	15.4	26.0	10.2	4.1

[a] Includes agricultural sciences and natural resources, biological and biomedical sciences, and health sciences.
[b] Includes other non-science and engineering fields not shown separately.
[c] Includes doctorate recipients reporting self-employment.
[d] Other is mainly composed of elementary and secondary schools.

Note(s):
Percentages based on number of doctorate recipients reporting definite employment commitments in the United States. A definite postgraduation commitment for employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-7

Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

		Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
Employment commitment, sector, and year	Total[a]	Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
All U.S. employment commitments (number)													
1992	15,632	8,910	6,719	14,048	1,581	415	79	556	563	12,293	na	59	83
1997	16,065	9,111	6,950	14,194	1,854	536	97	1,065	716	11,499	na	211	70
2002	16,287	8,533	7,754	13,769	2,506	668	84	800	833	10,917	121	166	180
2007	16,990	8,902	8,088	13,000	3,954	686	D	774	864	10,156	207	109	143
2012	15,376	8,208	7,167	12,065	3,261	694	D	831	724	9,314	264	78	110
2017	17,752	9,454	8,298	13,493	4,189	900	41	1,119	945	9,969	365	108	46
2022	21,450	11,395	10,053	14,950	6,360	1,381	42	1,413	1,306	10,115	491	119	83
Academe (%)													
1992	51.7	47.4	57.4	51.5	53.4	58.8	55.7	38.1	52.8	51.8	na	57.6	44.6
1997	45.8	39.6	53.8	47.9	29.1	56.9	41.2	28.9	54.1	49.0	na	49.3	38.6
2002	52.3	47.4	57.6	54.4	40.7	59.4	60.7	35.0	52.6	55.4	59.5	59.0	56.7
2007	51.1	45.0	57.8	55.3	37.1	59.6	49.2	41.2	54.9	56.2	58.0	62.4	47.6
2012	50.5	44.1	57.8	54.7	35.1	60.7	D	39.6	D	56.1	D	50.0	48.2
2017	46.5	38.9	55.1	50.9	32.2	55.3	51.2	39.1	52.1	51.7	48.8	49.1	54.3
2022	32.5	26.3	39.4	37.2	21.6	41.1	50.0	25.3	40.0	38.1	34.2	36.1	25.3
Government (%)													
1992	8.9	9.8	7.6	9.6	2.1	8.4	11.4	9.5	9.8	9.6	na	10.2	16.9
1997	7.3	8.7	5.6	8.1	1.7	6.5	9.3	5.6	8.2	8.3	na	6.6	17.1
2002	7.3	8.4	6.2	8.3	2.0	9.3	8.3	7.3	7.0	8.4	10.7	10.8	7.8
2007	6.0	6.6	5.4	7.4	1.6	7.3	19.7	5.8	7.5	7.3	9.7	8.3	7.7
2012	7.3	7.9	6.6	8.8	1.7	D	12.0	7.6	11.7	D	11.0	14.1	10.0
2017	7.2	7.4	7.0	9.2	0.9	10.4	D	7.1	13.0	8.9	D	13.0	13.0
2022	6.8	6.6	7.1	9.3	1.1	7.7	D	6.5	12.7	9.3	10.8	D	10.8
Industry or business (%)[d]													
1992	20.9	26.9	12.9	18.8	39.0	15.7	12.7	43.7	9.4	18.2	na	18.6	27.7
1997	26.7	35.3	15.5	22.1	61.9	15.7	19.6	50.4	11.0	20.5	na	21.8	24.3
2002	24.0	31.9	15.4	18.8	52.7	13.9	10.7	49.8	12.0	17.4	17.4	18.7	19.4
2007	27.1	36.6	16.7	18.4	55.8	13.0	D	42.4	10.5	17.7	D	17.4	18.2
2012	29.1	38.3	18.5	21.3	58.2	D	D	D	D	20.4	D	19.2	23.6
2017	34.7	44.7	23.3	26.2	62.2	22.6	29.3	44.7	14.1	25.5	29.0	25.9	23.9
2022	48.1	57.5	37.5	37.9	72.3	34.9	14.3	57.4	24.4	37.4	37.9	34.5	42.2
Nonprofit organization (%)													
1992	6.8	6.5	7.2	7.3	2.5	6.3	7.6	4.1	5.0	7.6	na	10.2	6.0

Table 2-7

Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022

(Number and percent)

		Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
Employment commitment, sector, and year	Total[a]	Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian[b]	Black or African American	White	More than one race	Other race or race not reported[c]	Ethnicity not reported
1997	5.6	5.1	6.3	6.1	2.3	5.0	6.2	3.9	4.9	6.4	na	6.6	5.7
2002	5.7	5.0	6.6	6.3	2.6	6.4	7.1	4.5	6.6	6.5	2.5	5.4	3.9
2007	4.4	3.4	5.5	5.0	2.4	4.5	D	4.4	4.9	5.1	D	4.6	7.0
2012	5.6	4.5	6.8	6.4	2.5	D	D	D	D	D	6.8	6.4	5.5
2017	6.3	5.4	7.3	7.2	3.4	5.2	D	6.6	8.6	7.3	D	5.6	4.3
2022	6.6	5.2	8.2	8.1	3.0	8.7	D	7.0	10.5	7.8	10.0	D	4.8
Other or unknown (%)[e]													
1992	11.8	9.3	15.0	12.7	3.0	10.8	12.7	4.5	23.1	12.8	na	3.4	4.8
1997	14.5	11.3	18.8	15.8	5.1	15.9	23.7	11.1	21.8	15.8	na	15.6	14.3
2002	10.6	7.4	14.1	12.2	2.0	10.9	13.1	3.5	21.8	12.2	9.9	6.0	12.2
2007	11.4	8.3	14.8	13.9	3.1	15.6	18.0	6.2	22.2	13.7	13.0	7.3	19.6
2012	7.5	5.2	10.2	8.8	2.5	9.5	4.0	4.3	19.3	8.4	6.1	10.3	12.7
2017	5.4	3.6	7.3	6.6	1.3	6.4	D	2.6	12.3	6.6	D	6.5	4.3
2022	6.0	4.4	7.9	7.6	1.9	7.5	14.3	3.8	12.3	7.5	7.1	5.9	16.9

D = suppressed to avoid disclosure of confidential information. na = not applicable; doctorate recipients were instructed to indicate only one race.

[a] Includes doctorate recipients who did not report sex or citizenship status.
[b] Includes Native Hawaiians or Other Pacific Islanders through 2000 but excludes them since 2001.
[c] Before 2001, this category included doctorate recipients who selected more than one race. Since 2001, this category has included Native Hawaiians or Other Pacific Islanders, who previously had been included in the category Asian.
[d] Includes doctorate recipients reporting self-employment.
[e] Other is mainly composed of elementary and secondary schools.

Note(s):
Percentages based on number of doctorate recipients reporting definite postgraduation employment commitments and sector. A definite postgraduation commitment for employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 2-8

Research doctorate recipients with temporary visas intending to stay in the United States after doctorate receipt, by country or economy of citizenship: 2016–22

(Number and percent)

	2016		2017		2018		2019		2020		2021		2022	
Country or economy of citizenship	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying
All temporary visa holders reporting intention to stay	16,477	72.5	16,288	74.3	17,582	72.0	18,324	71.2	18,473	73.0	17,771	70.8	19,633	74.3
Africa	653	70.8	700	70.9	745	70.6	743	72.0	788	72.6	763	73.7	911	78.4
Nigeria	112	83.9	113	77.9	147	75.5	145	81.4	161	79.5	193	78.2	295	83.1
Egypt	117	66.7	156	69.9	156	73.7	163	74.8	127	81.1	134	79.9	143	81.8
Ghana	87	70.1	85	71.8	103	66.0	88	72.7	106	73.6	88	79.5	125	78.4
Libya	67	65.7	48	75.0	56	76.8	61	68.9	61	77.0	57	78.9	40	77.5
Kenya	60	66.7	57	63.2	50	68.0	38	78.9	57	70.2	53	58.5	43	79.1
Ethiopia	42	85.7	31	83.9	31	D	35	71.4	28	82.1	30	76.7	43	D
South Africa	20	60.0	20	45.0	26	53.8	29	51.7	24	54.2	23	60.9	26	38.5
Uganda	16	56.3	19	47.4	20	50.0	20	45.0	30	53.3	28	42.9	29	72.4
Zimbabwe	15	D	24	D	18	66.7	16	D	22	D	18	D	23	73.9
Cameroon	17	D	23	D	17	70.6	18	D	14	D	11	D	11	90.9
Tunisia	11	72.7	14	D	8	D	14	D	15	D	14	D	17	94.1
Tanzania	6	D	17	29.4	9	D	7	D	10	D	12	D	8	D
Other	83	59.0	93	67.7	104	66.3	109	60.6	133	59.4	102	67.6	108	69.4
Americas	1,503	57.5	1,445	56.5	1,474	60.0	1,534	60.8	1,663	60.3	1,499	64.2	1,704	68.1
Canada	408	56.6	409	59.2	431	62.2	427	62.3	398	57.8	369	54.5	474	59.1
Brazil	156	56.4	168	61.3	178	61.2	253	63.6	318	60.7	274	72.3	283	73.5
Mexico	221	61.1	180	69.4	185	71.4	187	64.2	236	64.0	218	71.6	226	76.1
Colombia	187	61.5	190	48.4	205	52.7	202	58.9	191	60.2	191	66.5	224	66.5
Chile	130	32.3	128	25.8	91	39.6	100	35.0	106	43.4	85	54.1	92	64.1
Argentina	65	61.5	52	69.2	60	66.7	52	61.5	64	68.8	46	63.0	42	71.4
Peru	56	69.6	50	70.0	46	50.0	51	76.5	55	72.7	48	72.9	63	76.2
Ecuador	42	40.5	49	36.7	44	38.6	50	42.0	49	63.3	54	59.3	45	77.8
Jamaica	34	76.5	29	69.0	44	54.5	32	68.8	30	80.0	30	60.0	28	67.9
Costa Rica	33	42.4	24	45.8	28	50.0	26	38.5	31	41.9	35	51.4	41	63.4
Venezuela	27	D	31	67.7	26	76.9	28	82.1	32	D	30	D	43	D
Uruguay	13	D	7	D	15	D	18	55.6	15	46.7	16	50.0	18	50.0
Honduras	15	D	12	58.3	14	D	13	D	10	D	12	100.0	19	D
Guatemala	12	D	12	41.7	12	D	11	D	17	70.6	13	46.2	14	D
Dominican Republic	13	D	8	D	10	50.0	6	D	18	33.3	8	D	18	D
Other	91	D	96	63.5	85	74.1	78	66.7	93	D	70	67.1	74	66.2
Asia	11,016	78.1	10,640	80.0	11,323	77.5	11,622	77.2	11,813	79.0	11,640	75.0	12,856	78.3
China[a]	5,527	81.0	5,553	83.3	6,188	79.4	6,316	79.2	6,335	80.1	6,200	73.9	6,664	76.7
India	2,195	87.2	1,970	88.5	2,045	87.1	2,056	85.9	2,250	88.0	2,300	85.8	2,671	88.2
South Korea	1,229	66.7	1,128	68.5	1,039	63.6	1,168	65.3	1,055	66.9	1,036	63.8	1,076	65.1

Table 2-8

Research doctorate recipients with temporary visas intending to stay in the United States after doctorate receipt, by country or economy of citizenship: 2016–22

(Number and percent)

	2016		2017		2018		2019		2020		2021		2022	
Country or economy of citizenship	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying
Taiwan	592	77.9	520	76.7	514	78.0	492	73.4	468	76.9	410	73.9	416	80.3
Bangladesh	185	90.3	236	88.1	280	88.2	292	86.0	392	86.0	397	88.4	551	88.6
Nepal	222	88.7	221	91.9	225	88.9	241	89.6	226	94.7	252	92.9	313	92.0
Sri Lanka	132	78.0	146	81.5	150	85.3	151	83.4	174	85.1	181	76.8	208	81.7
Vietnam	124	71.8	133	75.9	122	80.3	168	76.2	166	74.1	152	79.6	207	86.5
Thailand	185	30.3	171	25.7	177	31.1	159	30.2	127	30.7	125	D	112	48.2
Pakistan	102	45.1	113	54.0	110	59.1	112	64.3	157	70.7	135	63.7	166	68.7
Japan	166	53.6	117	58.1	118	50.0	128	51.6	114	50.0	123	49.6	121	52.1
Singapore	91	38.5	101	41.6	81	25.9	100	38.0	107	49.5	72	37.5	77	50.6
Indonesia	92	43.5	69	50.7	81	34.6	79	43.0	77	44.2	78	47.4	76	38.2
Malaysia	72	55.6	65	47.7	83	59.0	71	50.7	59	52.5	61	70.5	71	77.5
Philippines	51	76.5	47	70.2	57	73.7	38	65.8	45	64.4	58	51.7	55	D
Kazakhstan	12	D	6	D	8	D	11	D	17	70.6	18	72.2	16	68.8
Burma	8	D	6	D	6	D	9	D	9	D	7	D	6	D
Other	31	58.1	38	57.9	39	69.2	31	71.0	35	60.0	35	68.6	50	80.0
Australia-Oceania	65	61.5	79	62.0	66	57.6	81	71.6	80	63.8	69	63.8	76	55.3
Australia	42	66.7	47	72.3	37	64.9	53	73.6	51	66.7	39	64.1	50	54.0
New Zealand	23	52.2	D	D	23	56.5	D	D	D	D	30	63.3	D	D
Other	0	0.0	D	D	6	16.7	D	D	D	D	0	0.0	D	D
Europe	1,776	62.7	1,785	67.4	1,807	63.3	1,757	64.4	1,711	67.2	1,682	63.7	1,747	68.7
Turkey	472	57.6	496	61.1	454	59.7	406	64.5	371	70.1	330	63.0	354	69.5
Italy	167	65.9	161	70.8	139	72.7	174	63.8	170	64.1	145	57.2	193	70.5
Germany	183	61.2	154	68.2	144	54.2	152	57.9	151	54.3	187	58.3	160	65.0
United Kingdom	115	54.8	103	60.2	110	60.0	128	62.5	119	66.4	152	59.2	138	63.8
Russia	108	69.4	112	81.3	154	73.4	111	73.0	120	82.5	112	66.1	106	72.6
France	105	66.7	107	69.2	133	64.7	118	67.8	118	66.9	106	67.0	133	65.4
Spain	73	61.6	100	74.0	104	61.5	130	57.7	122	62.3	129	71.3	146	67.8
Greece	84	71.4	89	73.0	114	78.1	90	73.3	89	77.5	112	75.0	115	75.7
Romania	51	88.2	43	81.4	47	61.7	48	D	25	D	27	77.8	22	D
Netherlands	40	50.0	27	55.6	30	66.7	38	55.3	39	59.0	40	42.5	32	68.8
Ukraine	31	71.0	37	83.8	35	74.3	43	81.4	43	83.7	32	75.0	23	D
Poland	27	70.4	30	66.7	33	60.6	34	70.6	34	61.8	34	73.5	33	75.8
Switzerland	18	44.4	32	65.6	42	38.1	21	38.1	22	63.6	28	64.3	21	33.3
Portugal	33	39.4	32	56.3	25	52.0	24	62.5	20	55.0	17	58.8	24	50.0
Bulgaria	44	88.6	30	D	23	78.3	21	D	15	D	16	D	14	D
Serbia	25	80.0	20	70.0	16	D	21	71.4	24	D	21	D	22	77.3

Table 2-8

Research doctorate recipients with temporary visas intending to stay in the United States after doctorate receipt, by country or economy of citizenship: 2016–22

(Number and percent)

Country or economy of citizenship	2016		2017		2018		2019		2020		2021		2022	
	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying	Number	% staying
Austria	21	71.4	17	D	14	50.0	17	52.9	22	54.5	20	50.0	15	66.7
Hungary	20	45.0	20	D	20	40.0	17	D	24	66.7	15	60.0	10	D
Ireland	21	61.9	13	61.5	20	55.0	24	45.8	17	D	7	D	20	75.0
Belgium	15	40.0	16	31.3	18	55.6	13	53.8	16	50.0	16	D	16	62.5
Sweden	19	63.2	14	64.3	14	64.3	12	D	15	46.7	7	D	16	62.5
Cyprus	14	64.3	16	68.8	11	45.5	9	D	11	D	10	D	9	D
Croatia	13	46.2	17	76.5	10	D	6	D	7	D	8	D	14	57.1
Albania	10	D	8	75.0	9	88.9	14	D	12	D	9	D	7	D
Finland	12	50.0	11	54.5	6	D	7	D	10	50.0	7	D	8	D
Other	55	D	80	D	82	62.2	79	64.6	95	56.8	95	58.9	96	68.8
Middle East	1,309	63.9	1,500	62.1	1,749	62.3	2,079	56.6	2,102	58.0	1,749	57.9	1,813	61.9
Iran	695	91.1	767	92.6	935	91.4	964	91.5	963	92.2	815	91.2	859	91.7
Saudi Arabia	238	10.1	339	10.3	403	14.9	554	12.8	614	14.3	485	10.1	493	11.6
Iraq	28	25.0	50	36.0	122	27.0	202	19.8	192	35.4	152	44.7	110	60.0
Jordan	98	44.9	114	44.7	77	57.1	89	56.2	114	51.8	83	57.8	93	72.0
Israel	83	51.8	77	49.4	64	50.0	80	53.8	69	50.7	65	55.4	71	50.7
Lebanon	57	70.2	52	78.8	51	76.5	53	79.2	39	84.6	42	D	65	83.1
Kuwait	42	D	38	D	46	D	68	7.4	45	11.1	46	10.9	45	11.1
Oman	6	D	10	D	13	D	7	D	8	D	10	D	12	D
Syria	12	D	9	D	7	D	12	D	10	D	6	D	6	D
Other	50	58.0	44	61.4	31	54.8	50	62.0	48	64.6	45	66.7	59	74.6
Country or economy unknown	155	12.9	139	62.6	418	45.5	508	49.4	316	48.4	369	54.7	526	52.1

D = suppressed to avoid disclosure of confidential information.

[a] Includes Hong Kong.

Note(s):
Percentages based on all doctorate recipients on temporary visas who indicated where they intended to stay after graduation (United States vs. foreign location) and not just those with definite commitments for employment or postdoctoral study.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
All fields	52,194	57,596
Science and engineering	41,203	45,924
Agricultural sciences and natural resources	1,222	1,305
Agricultural, animal, plant, and veterinary sciences	806	857
Agronomy and crop science	69	68
Animal sciences	159	174
Food science and technology	175	156
Plant sciences	152	162
Soil sciences	79	100
Veterinary biomedical and clinical sciences	78	77
Agricultural, animal, plant, and veterinary sciences nec	94	120
Natural resources and conservation	416	448
Environmental science	117	147
Environmental/ natural resources management and policy	78	71
Forestry	74	69
Natural resources conservation and research	74	72
Natural resources and conservation nec	73	89
Biological and biomedical sciences	8,250	9,386
Biochemistry, biophysics, and molecular biology	1,346	1,555
Biochemistry	416	465
Biochemistry and molecular biology	263	326
Biophysics	234	251
Molecular biology	260	274
Biochemistry, biophysics, and molecular biology nec	173	239
Bioinformatics, biostatistics, and computational biology	562	688
Bioinformatics	136	169
Biostatistics	223	260
Computational biology	106	154
Bioinformatics, biostatistics, and computational biology nec	97	105
Cell/ cellular biology and anatomy	657	689
Cell/ cellular and molecular biology	482	526
Developmental biology and embryology	103	115
Cell/ cellular biology and anatomy nec	72	48
Ecology, evolutionary biology, and epidemiology	981	1,120
Ecology	227	238
Ecology and evolutionary biology	243	270
Epidemiology	296	386
Epidemiology and biostatistics	54	45
Evolutionary biology	68	83
Ecology, evolutionary biology, and epidemiology nec	93	98
Genetics and genomics	398	436
Genetics, general	121	122
Genome sciences and genomics	72	97
Human/ medical genetics	62	81
Molecular genetics	72	66
Genetics and genomics nec	71	70
Microbiology and immunology	973	1,089
Immunology	304	343
Microbiology and immunology	215	266
Microbiology, general	257	270
Virology	107	123

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Microbiology and immunology nec	90	87
Neurobiology and neurosciences	1,014	1,177
Cognitive neuroscience	102	131
Neurobiology	138	79
Neuroscience	686	824
Neurobiology and neurosciences nec	88	143
Pharmacology and toxicology	311	386
Pharmacology	131	164
Toxicology	106	125
Pharmacology and toxicology nec	74	97
Physiology, oncology, and cancer biology	713	768
Biomechanics	77	69
Exercise physiology and kinesiology	76	96
Oncology and cancer biology	316	320
Physiology, general	75	99
Physiology, oncology, and cancer biology nec	169	184
Biological and biomedical sciences, other	1,295	1,478
Biology/ biological sciences, general	330	473
Biomedical sciences, general	330	374
Botany and plant biology	62	45
Entomology	114	134
Plant pathology and phytopathology	119	98
Plant physiology and biology nec	60	70
Zoology and animal biology	96	84
Biological and biomedical sciences nec	184	200
Computer and information sciences	2,194	2,188
Computer science	1,545	1,484
Computer science	1,545	1,484
Computer and information sciences, other	649	704
Artificial intelligence	167	205
Computer and information sciences, general	109	130
Computer systems networking and telecommunications	113	116
Informatics and information technology	88	94
Information sciences/ studies	103	92
Computer and information sciences nec	69	67
Engineering	9,579	10,763
Biological, biomedical, and biosystems engineering	1,071	1,236
Bioengineering and biomedical engineering	978	1,135
Biological/ biosystems engineering and biomedical technology	93	101
Chemical and petroleum engineering	1,202	1,255
Chemical and biomolecular engineering	189	205
Chemical engineering	801	885
Petroleum engineering	132	102
Chemical and petroleum engineering nec	80	63
Civil, environmental, and transportation engineering	1,012	1,315
Civil engineering	571	330
Civil and environmental engineering	na	503
Environmental/ environmental health engineering	93	65
Geotechnical and geoenvironmental engineering	76	87
Structural engineering	127	130
Transportation and highway engineering	76	112

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Civil, environmental, and transportation engineering nec	69	88
Electrical and computer engineering	2,047	2,132
Computer engineering	264	263
Electrical and computer engineering	1,205	1,357
Electrical and electronics engineering	512	438
Electrical and computer engineering nec	66	74
Engineering technologies	452	361
Electrical and electronic engineering technologies	80	55
Electromechanical technologies	59	90
Environmental control technologies	148	58
Engineering technologies nec	165	158
Industrial engineering and operations research	604	655
Industrial engineering	325	211
Industrial and systems engineering	na	127
Operations research	160	183
Systems and manufacturing engineering	119	134
Materials and mining engineering	670	925
Materials engineering	193	85
Materials science and engineering	429	783
Materials and mining engineering nec	48	57
Mechanical engineering	1,501	1,545
Mechanical engineering, general	1,413	1,440
Mechanical engineering nec	88	105
Engineering, other	1,020	1,339
Aerospace, aeronautical, astronautical, and space engineering	372	374
Engineering mechanics, physics, and science	111	166
Mechanical and aerospace engineering	na	213
Nanotechnology	60	54
Nuclear engineering	155	163
Engineering nec	322	369
Geosciences, atmospheric, and ocean sciences	1,044	1,165
Geological and earth sciences	613	658
Geochemistry	60	42
Geology	109	79
Geology/ earth science, general	103	121
Geophysics and seismology	102	118
Hydrology and water resources science	81	89
Geological and earth sciences nec	158	209
Ocean, marine, and atmospheric sciences	431	507
Atmospheric sciences and meteorology, general	94	120
Atmospheric sciences and meteorology nec	47	95
Climatology, atmospheric chemistry/ physics	60	67
Marine biology and biological oceanography	89	97
Marine sciences	57	63
Oceanography, chemical/ physical	84	65
Health sciences	2,577	2,808
Nursing and nursing science	601	623
Nursing education	88	81
Nursing science	358	382
Nursing specialties and practice	155	160
Pharmacy and pharmaceutical sciences	408	460

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Medicinal and pharmaceutical chemistry	64	75
Pharmaceutical sciences	243	281
Pharmacy, pharmaceutical sciences, and administration nec	101	104
Public health	696	795
Environmental health	66	68
Health services research	86	119
Health/ medical physics	71	68
Public health education and promotion	94	112
Public health, general	179	212
Public health nec	200	216
Health sciences, other	872	930
Communication disorders sciences	127	134
Exercise science and kinesiology	92	102
Health sciences, general	65	61
Marriage and family therapy/ counseling	58	68
Medical clinical sciences	60	75
Medical, biomedical, and health informatics	60	75
Mental health, counseling, and therapy services and sciences	91	93
Rehabilitation and therapeutic sciences	120	149
Health sciences nec	199	173
Mathematics and statistics	1,906	2,144
Applied mathematics	475	477
Applied mathematics, general	265	275
Computational and applied mathematics	141	139
Applied mathematics nec	69	63
Mathematics	814	980
Algebra and number theory	69	75
Mathematics, general	639	763
Mathematics nec	106	142
Statistics	617	687
Applied statistics, general	55	70
Mathematics and statistics	128	101
Statistics	401	469
Statistics nec	33	47
Multidisciplinary/ interdisciplinary sciences	1,272	1,788
Interdisciplinary computer sciences	448	625
Computer science and engineering	119	230
Electrical engineering and computer science	224	276
Interdisciplinary computer sciences nec	105	119
Multidisciplinary/ interdisciplinary sciences, other	824	1,163
Behavioral and cognitive sciences	79	89
Computational science and engineering	104	112
Data mining and machine learning	na	259
Data science and data analytics	106	94
History/ philosophy of science, technology, and society	67	67
Nanoscience/ nanoscale science	57	53
Nutrition sciences	137	129
Multidisciplinary/ interdisciplinary sciences nec	274	360
Physical sciences	4,809	5,428
Astronomy and astrophysics	263	289
Astronomy	71	109

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Astrophysics	113	115
Astronomy and astrophysics nec	79	65
Chemistry	2,366	2,782
Analytical chemistry	320	366
Chemical biology	151	163
Chemistry, general	494	582
Inorganic chemistry	282	324
Organic chemistry	454	612
Physical chemistry	293	315
Polymer chemistry	121	98
Theoretical and computational chemistry	108	159
Chemistry nec	143	163
Materials sciences	429	385
Materials science	276	176
Materials chemistry and materials sciences nec	153	209
Physics	1,751	1,972
Applied physics	133	161
Atomic/ molecular physics	89	87
Condensed matter and materials physics	359	433
Elementary particle physics	166	151
Nuclear physics	80	104
Optics/ optical sciences	120	138
Physics and astronomy	193	232
Physics, general	337	402
Plasma and high-temperature physics	57	51
Theoretical and mathematical physics	99	101
Physics and physical sciences nec	118	112
Psychology	3,698	3,900
Clinical psychology	1,245	1,144
Clinical child psychology	52	55
Clinical psychology	1,193	1,089
Counseling and applied psychology	1,337	1,438
Applied behavior analysis	59	44
Counseling psychology	366	399
Educational psychology	229	247
Industrial and organizational psychology	181	198
School psychology	260	247
Counseling and applied psychology nec	242	303
Research and experimental psychology	651	854
Behavioral neuroscience	87	105
Cognitive psychology and psycholinguistics	106	100
Developmental and child psychology	78	114
Experimental psychology	98	131
Social psychology	143	221
Research and experimental psychology nec	139	183
Psychology, other	465	464
Human development	141	145
Psychology, general	256	266
Psychology nec	68	53
Social sciences	4,652	5,049
Anthropology	388	409

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Anthropology, general	78	103
Cultural anthropology	187	197
Physical and biological anthropology	72	75
Anthropology nec	51	34
Area, ethnic, cultural, gender, and group studies	383	442
Area studies	224	245
Ethnic studies	81	101
Area, ethnic, cultural, gender, and group studies nec	78	96
Economics	1,315	1,391
Agricultural economics	76	97
Applied economics	134	131
Development economics and international development	54	50
Econometrics and quantitative economics	146	179
Economics, general	801	826
Environmental/ natural resource economics	55	50
Economics nec	49	58
Political science and government	581	678
Political science and government, general	488	553
Political science and government nec	93	125
Public policy analysis	400	433
Education policy analysis	132	130
Health policy analysis	52	53
Public policy analysis, general	158	120
Public policy nec	58	130
Sociology, demography, and population studies	578	626
Sociology, general	501	555
Sociology, demography, and population studies nec	77	71
Social sciences, other	1,007	1,070
Applied linguistics	74	71
Archeology	83	105
Criminology	97	118
Geography and cartography	223	220
International relations and national security studies	104	128
Linguistics	203	192
Social sciences nec	223	236
Non-science and engineering	10,991	11,672
Business	1,344	1,401
Business administration and management	459	445
Business management and administration	235	297
Organizational leadership	117	55
Business administration and management nec	107	93
Business, other	885	956
Accounting and accounting-related	135	159
Finance and financial management	194	210
Management information systems	88	92
Management sciences	72	77
Marketing	119	146
Organizational behavior studies	103	94
Business nec	174	178
Education	3,711	3,919
Education leadership and administration	1,082	1,167

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Educational leadership and administration, general	500	488
Higher education and community college administration	391	438
Education leadership and administration nec	191	241
Education research	1,203	1,189
Curriculum and instruction	425	413
Educational assessment, evaluation, and research methods	222	219
Educational/ instructional technology and media design	155	172
Higher education evaluation and research	61	61
Student counseling and personnel services	266	246
Education research nec	74	78
Teacher education	1,010	1,099
Adult, continuing, and workforce education and development	66	64
Bilingual, multilingual, and multicultural education	77	62
Mathematics teacher education	75	49
Music teacher education	73	73
Special education and teaching	234	258
STEM educational methods	70	84
Teacher education, science and engineering	63	76
Teacher education, specific levels and methods	154	188
Teacher education, specific subject areas	198	245
Education, other	416	464
Education, general	268	327
Education nec	148	137
Humanities	3,109	3,369
English language and literature, letters	949	1,062
American literature (United States)	129	138
Creative writing	68	75
English language and literature, general	361	397
English literature (British and Commonwealth)	131	160
Rhetoric, composition, and writing studies	191	217
English language and literature nec	69	75
Foreign languages, literatures, and linguistics	505	538
Comparative literature	118	91
Hispanic/ Latin American languages, literatures, and linguistics	70	92
Romance languages, literatures, and linguistics	72	104
Spanish language and literature	79	92
Foreign languages, literatures, and linguistics nec	166	159
History	685	732
American history (United States)	222	245
European history	88	120
History, general	169	146
History, regional focus	133	145
History nec	73	76
Philosophy and religious studies	598	642
Philosophy	406	432
Religion/ religious studies	125	140
Philosophy and religious studies nec	67	70
Humanities, other	372	395
Bible/ biblical studies	71	90
Humanities and humanistic studies	62	79
Theological and ministerial studies	239	226

Table 3-1

Research doctorate recipients, by detailed field of doctorate: 2021–22

(Number)

Field of doctorate	2021	2022
Visual and performing arts	771	842
Performing arts	491	495
Dance, drama, theatre arts, and stagecraft	82	85
Music performance	128	120
Music theory and composition	86	94
Musicology and ethnomusicology	116	112
Music nec	79	84
Visual arts, media studies, and design	280	347
Art history, criticism, and conservation	167	208
Film, cinema, and media studies	62	74
Visual arts, media studies, and design nec	51	65
Other non-science and engineering	2,056	2,141
Communications and journalism	521	586
Applied communication, advertising, and public relations	94	103
Communication and media studies	161	145
Communication, general	85	166
Mass communication/ media studies	95	94
Communications and journalism nec	86	78
Multidisciplinary/ interdisciplinary studies	307	391
Classical and ancient studies	91	100
Interdisciplinary leadership/ leadership studies	na	124
Multidisciplinary/ interdisciplinary studies nec	216	167
Public administration and social services	489	468
Public administration	175	178
Social work and human services	314	290
Non-science and engineering, other	739	696
Architecture and architectural studies	133	99
City/ urban, community, and regional planning	102	103
Family, consumer, and human sciences	139	128
Homeland security and protective services	169	154
Law/ legal studies and research	79	71
Parks, recreation, leisure, fitness, and sport studies and management	87	115
Other non-science and engineering nec	30	26

na = not applicable; data not collected at this level of detail in 2021.

nec = not elsewhere classified; STEM = science, technology, engineering, and mathematics.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200). Between 2021 and 2022, minor changes were made to the SED-CIP crosswalk for the SED detailed fields to better align with the National Center for Science and Engineering Statistics' Taxonomy of Disciplines. These changes affect the reported counts for 2021; see table A-5 for more information.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
All fields	57,596	30,522	27,069	47.0
Science and engineering	45,924	25,680	20,243	44.1
Agricultural sciences and natural resources	1,305	626	679	52.0
Agricultural, animal, plant, and veterinary sciences	857	408	449	52.4
Agronomy and crop science	68	53	15	22.1
Animal sciences	174	74	100	57.5
Food science and technology	156	57	99	63.5
Plant sciences	162	88	74	45.7
Soil sciences	100	52	48	48.0
Veterinary biomedical and clinical sciences	77	28	49	63.6
Agricultural, animal, plant, and veterinary sciences nec	120	56	64	53.3
Natural resources and conservation	448	218	230	51.3
Environmental science	147	56	91	61.9
Environmental/ natural resources management and policy	71	43	28	39.4
Forestry	69	37	32	46.4
Natural resources conservation and research	72	35	37	51.4
Natural resources and conservation nec	89	47	42	47.2
Biological and biomedical sciences	9,386	4,372	5,014	53.4
Biochemistry, biophysics, and molecular biology	1,555	801	754	48.5
Biochemistry	465	217	248	53.3
Biochemistry and molecular biology	326	152	174	53.4
Biophysics	251	179	72	28.7
Molecular biology	274	130	144	52.6
Biochemistry, biophysics, and molecular biology nec	239	123	116	48.5
Bioinformatics, biostatistics, and computational biology	688	400	288	41.9
Bioinformatics	169	102	67	39.6
Biostatistics	260	126	134	51.5
Computational biology	154	105	49	31.8
Bioinformatics, biostatistics, and computational biology nec	105	67	38	36.2
Cell/ cellular biology and anatomy	689	312	377	54.7
Cell/ cellular and molecular biology	526	235	291	55.3
Developmental biology and embryology	115	62	53	46.1
Cell/ cellular biology and anatomy nec	48	15	33	68.8
Ecology, evolutionary biology, and epidemiology	1,120	431	689	61.5
Ecology	238	110	128	53.8
Ecology and evolutionary biology	270	104	166	61.5
Epidemiology	386	100	286	74.1
Epidemiology and biostatistics	45	22	23	51.1
Evolutionary biology	83	49	34	41.0
Ecology, evolutionary biology, and epidemiology nec	98	46	52	53.1
Genetics and genomics	436	197	239	54.8
Genetics, general	122	50	72	59.0
Genome sciences and genomics	97	52	45	46.4
Human/ medical genetics	81	32	49	60.5
Molecular genetics	66	33	33	50.0
Genetics and genomics nec	70	30	40	57.1
Microbiology and immunology	1,089	475	614	56.4
Immunology	343	157	186	54.2
Microbiology and immunology	266	108	158	59.4
Microbiology, general	270	116	154	57.0
Virology	123	62	61	49.6

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Microbiology and immunology nec	87	32	55	63.2
Neurobiology and neurosciences	1,177	561	616	52.3
Cognitive neuroscience	131	57	74	56.5
Neurobiology	79	37	42	53.2
Neuroscience	824	384	440	53.4
Neurobiology and neurosciences nec	143	83	60	42.0
Pharmacology and toxicology	386	159	227	58.8
Pharmacology	164	73	91	55.5
Toxicology	125	48	77	61.6
Pharmacology and toxicology nec	97	38	59	60.8
Physiology, oncology, and cancer biology	768	368	400	52.1
Biomechanics	69	41	28	40.6
Exercise physiology and kinesiology	96	54	42	43.8
Oncology and cancer biology	320	141	179	55.9
Physiology, general	99	48	51	51.5
Physiology, oncology, and cancer biology nec	184	84	100	54.3
Biological and biomedical sciences, other	1,478	668	810	54.8
Biology/ biological sciences, general	473	212	261	55.2
Biomedical sciences, general	374	154	220	58.8
Botany and plant biology	45	28	17	37.8
Entomology	134	70	64	47.8
Plant pathology and phytopathology	98	56	42	42.9
Plant physiology and biology nec	70	32	38	54.3
Zoology and animal biology	84	37	47	56.0
Biological and biomedical sciences nec	200	79	121	60.5
Computer and information sciences	2,188	1,654	534	24.4
Computer science	1,484	1,147	337	22.7
Computer science	1,484	1,147	337	22.7
Computer and information sciences, other	704	507	197	28.0
Artificial intelligence	205	162	43	21.0
Computer and information sciences, general	130	95	35	26.9
Computer systems networking and telecommunications	116	94	22	19.0
Informatics and information technology	94	57	37	39.4
Information sciences/ studies	92	51	41	44.6
Computer and information sciences nec	67	48	19	28.4
Engineering	10,763	7,832	2,931	27.2
Biological, biomedical, and biosystems engineering	1,236	676	560	45.3
Bioengineering and biomedical engineering	1,135	621	514	45.3
Biological/ biosystems engineering and biomedical technology	101	55	46	45.5
Chemical and petroleum engineering	1,255	840	415	33.1
Chemical and biomolecular engineering	205	135	70	34.1
Chemical engineering	885	578	307	34.7
Petroleum engineering	102	85	17	16.7
Chemical and petroleum engineering nec	63	42	21	33.3
Civil, environmental, and transportation engineering	1,315	897	418	31.8
Civil engineering	330	237	93	28.2
Civil and environmental engineering	503	311	192	38.2
Environmental/ environmental health engineering	65	34	31	47.7
Geotechnical and geoenvironmental engineering	87	65	22	25.3
Structural engineering	130	108	22	16.9
Transportation and highway engineering	112	75	37	33.0

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Civil, environmental, and transportation engineering nec	88	67	21	23.9
Electrical and computer engineering	2,132	1,735	397	18.6
Computer engineering	263	205	58	22.1
Electrical and computer engineering	1,357	1,107	250	18.4
Electrical and electronics engineering	438	366	72	16.4
Electrical and computer engineering nec	74	57	17	23.0
Engineering technologies	361	286	75	20.8
Electrical and electronic engineering technologies	55	46	9	16.4
Electromechanical technologies	90	84	6	6.7
Environmental control technologies	58	35	23	39.7
Engineering technologies nec	158	121	37	23.4
Industrial engineering and operations research	655	469	186	28.4
Industrial engineering	211	144	67	31.8
Industrial and systems engineering	127	84	43	33.9
Operations research	183	126	57	31.1
Systems and manufacturing engineering	134	115	19	14.2
Materials and mining engineering	925	637	288	31.1
Materials engineering	85	62	23	27.1
Materials science and engineering	783	527	256	32.7
Materials and mining engineering nec	57	48	9	15.8
Mechanical engineering	1,545	1,248	297	19.2
Mechanical engineering, general	1,440	1,163	277	19.2
Mechanical engineering nec	105	85	20	19.0
Engineering, other	1,339	1,044	295	22.0
Aerospace, aeronautical, astronautical, and space engineering	374	309	65	17.4
Engineering mechanics, physics, and science	166	137	29	17.5
Mechanical and aerospace engineering	213	180	33	15.5
Nanotechnology	54	42	12	22.2
Nuclear engineering	163	135	28	17.2
Engineering nec	369	241	128	34.7
Geosciences, atmospheric, and ocean sciences	1,165	627	538	46.2
Geological and earth sciences	658	381	277	42.1
Geochemistry	42	21	21	50.0
Geology	79	46	33	41.8
Geology/ earth science, general	121	76	45	37.2
Geophysics and seismology	118	81	37	31.4
Hydrology and water resources science	89	44	45	50.6
Geological and earth sciences nec	209	113	96	45.9
Ocean, marine, and atmospheric sciences	507	246	261	51.5
Atmospheric sciences and meteorology, general	120	72	48	40.0
Atmospheric sciences and meteorology nec	95	50	45	47.4
Climatology, atmospheric chemistry/ physics	67	41	26	38.8
Marine biology and biological oceanography	97	32	65	67.0
Marine sciences	63	23	40	63.5
Oceanography, chemical/ physical	65	28	37	56.9
Health sciences	2,808	874	1,934	68.9
Nursing and nursing science	623	73	550	88.3
Nursing education	81	8	73	90.1
Nursing science	382	49	333	87.2
Nursing specialties and practice	160	16	144	90.0
Pharmacy and pharmaceutical sciences	460	224	236	51.3

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Medicinal and pharmaceutical chemistry	75	39	36	48.0
Pharmaceutical sciences	281	137	144	51.2
Pharmacy, pharmaceutical sciences, and administration nec	104	48	56	53.8
Public health	795	252	543	68.3
Environmental health	68	27	41	60.3
Health services research	119	35	84	70.6
Health/ medical physics	68	48	20	29.4
Public health education and promotion	112	17	95	84.8
Public health, general	212	59	153	72.2
Public health nec	216	66	150	69.4
Health sciences, other	930	325	605	65.1
Communication disorders sciences	134	28	106	79.1
Exercise science and kinesiology	102	46	56	54.9
Health sciences, general	61	15	46	75.4
Marriage and family therapy/ counseling	68	17	51	75.0
Medical clinical sciences	75	34	41	54.7
Medical, biomedical, and health informatics	75	42	33	44.0
Mental health, counseling, and therapy services and sciences	93	19	74	79.6
Rehabilitation and therapeutic sciences	149	48	101	67.8
Health sciences nec	173	76	97	56.1
Mathematics and statistics	2,144	1,523	621	29.0
Applied mathematics	477	336	141	29.6
Applied mathematics, general	275	187	88	32.0
Computational and applied mathematics	139	105	34	24.5
Applied mathematics nec	63	44	19	30.2
Mathematics	980	753	227	23.2
Algebra and number theory	75	64	11	14.7
Mathematics, general	763	584	179	23.5
Mathematics nec	142	105	37	26.1
Statistics	687	434	253	36.8
Applied statistics, general	70	35	35	50.0
Mathematics and statistics	101	67	34	33.7
Statistics	469	310	159	33.9
Statistics nec	47	22	25	53.2
Multidisciplinary/ interdisciplinary sciences	1,788	1,132	656	36.7
Interdisciplinary computer sciences	625	471	154	24.6
Computer science and engineering	230	173	57	24.8
Electrical engineering and computer science	276	221	55	19.9
Interdisciplinary computer sciences nec	119	77	42	35.3
Multidisciplinary/ interdisciplinary sciences, other	1,163	661	502	43.2
Behavioral and cognitive sciences	89	34	55	61.8
Computational science and engineering	112	83	29	25.9
Data mining and machine learning	259	211	48	18.5
Data science and data analytics	94	61	33	35.1
History/ philosophy of science, technology, and society	67	39	28	41.8
Nanoscience/ nanoscale science	53	34	19	35.8
Nutrition sciences	129	29	100	77.5
Multidisciplinary/ interdisciplinary sciences nec	360	170	190	52.8
Physical sciences	5,428	3,651	1,777	32.7
Astronomy and astrophysics	289	183	106	36.7
Astronomy	109	60	49	45.0

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Astrophysics	115	80	35	30.4
Astronomy and astrophysics nec	65	43	22	33.8
Chemistry	2,782	1,645	1,137	40.9
Analytical chemistry	366	173	193	52.7
Chemical biology	163	96	67	41.1
Chemistry, general	582	313	269	46.2
Inorganic chemistry	324	200	124	38.3
Organic chemistry	612	406	206	33.7
Physical chemistry	315	197	118	37.5
Polymer chemistry	98	63	35	35.7
Theoretical and computational chemistry	159	118	41	25.8
Chemistry nec	163	79	84	51.5
Materials sciences	385	255	130	33.8
Materials science	176	123	53	30.1
Materials chemistry and materials sciences nec	209	132	77	36.8
Physics	1,972	1,568	404	20.5
Applied physics	161	119	42	26.1
Atomic/ molecular physics	87	71	16	18.4
Condensed matter and materials physics	433	358	75	17.3
Elementary particle physics	151	126	25	16.6
Nuclear physics	104	85	19	18.3
Optics/ optical sciences	138	109	29	21.0
Physics and astronomy	232	177	55	23.7
Physics, general	402	306	96	23.9
Plasma and high-temperature physics	51	49	2	3.9
Theoretical and mathematical physics	101	89	12	11.9
Physics and physical sciences nec	112	79	33	29.5
Psychology	3,900	982	2,918	74.8
Clinical psychology	1,144	234	910	79.5
Clinical child psychology	55	6	49	89.1
Clinical psychology	1,089	228	861	79.1
Counseling and applied psychology	1,438	348	1,090	75.8
Applied behavior analysis	44	7	37	84.1
Counseling psychology	399	108	291	72.9
Educational psychology	247	63	184	74.5
Industrial and organizational psychology	198	70	128	64.6
School psychology	247	33	214	86.6
Counseling and applied psychology nec	303	67	236	77.9
Research and experimental psychology	854	282	572	67.0
Behavioral neuroscience	105	39	66	62.9
Cognitive psychology and psycholinguistics	100	46	54	54.0
Developmental and child psychology	114	13	101	88.6
Experimental psychology	131	53	78	59.5
Social psychology	221	82	139	62.9
Research and experimental psychology nec	183	49	134	73.2
Psychology, other	464	118	346	74.6
Human development	145	23	122	84.1
Psychology, general	266	84	182	68.4
Psychology nec	53	11	42	79.2
Social sciences	5,049	2,407	2,641	52.3
Anthropology	409	128	281	68.7

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Anthropology, general	103	32	71	68.9
Cultural anthropology	197	73	124	62.9
Physical and biological anthropology	75	15	60	80.0
Anthropology nec	34	8	26	76.5
Area, ethnic, cultural, gender, and group studies	442	158	283	64.0
Area studies	245	105	140	57.1
Ethnic studies	101	39	61	60.4
Area, ethnic, cultural, gender, and group studies nec	96	14	82	85.4
Economics	1,391	894	497	35.7
Agricultural economics	97	46	51	52.6
Applied economics	131	66	65	49.6
Development economics and international development	50	27	23	46.0
Econometrics and quantitative economics	179	123	56	31.3
Economics, general	826	568	258	31.2
Environmental/ natural resource economics	50	27	23	46.0
Economics nec	58	37	21	36.2
Political science and government	678	399	279	41.2
Political science and government, general	553	320	233	42.1
Political science and government nec	125	79	46	36.8
Public policy analysis	433	157	276	63.7
Education policy analysis	130	38	92	70.8
Health policy analysis	53	11	42	79.2
Public policy analysis, general	120	53	67	55.8
Public policy nec	130	55	75	57.7
Sociology, demography, and population studies	626	238	388	62.0
Sociology, general	555	215	340	61.3
Sociology, demography, and population studies nec	71	23	48	67.6
Social sciences, other	1,070	433	637	59.5
Applied linguistics	71	16	55	77.5
Archeology	105	49	56	53.3
Criminology	118	43	75	63.6
Geography and cartography	220	95	125	56.8
International relations and national security studies	128	73	55	43.0
Linguistics	192	86	106	55.2
Social sciences nec	236	71	165	69.9
Non-science and engineering	11,672	4,842	6,826	58.5
Business	1,401	781	620	44.3
Business administration and management	445	239	206	46.3
Business management and administration	297	161	136	45.8
Organizational leadership	55	21	34	61.8
Business administration and management nec	93	57	36	38.7
Business, other	956	542	414	43.3
Accounting and accounting-related	159	66	93	58.5
Finance and financial management	210	156	54	25.7
Management information systems	92	59	33	35.9
Management sciences	77	53	24	31.2
Marketing	146	78	68	46.6
Organizational behavior studies	94	39	55	58.5
Business nec	178	91	87	48.9
Education	3,919	1,154	2,765	70.6
Education leadership and administration	1,167	378	789	67.6

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Educational leadership and administration, general	488	160	328	67.2
Higher education and community college administration	438	148	290	66.2
Education leadership and administration nec	241	70	171	71.0
Education research	1,189	348	841	70.7
Curriculum and instruction	413	114	299	72.4
Educational assessment, evaluation, and research methods	219	80	139	63.5
Educational/ instructional technology and media design	172	52	120	69.8
Higher education evaluation and research	61	20	41	67.2
Student counseling and personnel services	246	54	192	78.0
Education research nec	78	28	50	64.1
Teacher education	1,099	296	803	73.1
Adult, continuing, and workforce education and development	64	25	39	60.9
Bilingual, multilingual, and multicultural education	62	13	49	79.0
Mathematics teacher education	49	22	27	55.1
Music teacher education	73	35	38	52.1
Special education and teaching	258	53	205	79.5
STEM educational methods	84	19	65	77.4
Teacher education, science and engineering	76	28	48	63.2
Teacher education, specific levels and methods	188	38	150	79.8
Teacher education, specific subject areas	245	63	182	74.3
Education, other	464	132	332	71.6
Education, general	327	99	228	69.7
Education nec	137	33	104	75.9
Humanities	3,369	1,709	1,658	49.2
English language and literature, letters	1,062	393	668	62.9
American literature (United States)	138	48	90	65.2
Creative writing	75	36	38	50.7
English language and literature, general	397	158	239	60.2
English literature (British and Commonwealth)	160	52	108	67.5
Rhetoric, composition, and writing studies	217	71	146	67.3
English language and literature nec	75	28	47	62.7
Foreign languages, literatures, and linguistics	538	223	315	58.6
Comparative literature	91	44	47	51.6
Hispanic/ Latin American languages, literatures, and linguistics	92	33	59	64.1
Romance languages, literatures, and linguistics	104	42	62	59.6
Spanish language and literature	92	36	56	60.9
Foreign languages, literatures, and linguistics nec	159	68	91	57.2
History	732	382	350	47.8
American history (United States)	245	131	114	46.5
European history	120	56	64	53.3
History, general	146	71	75	51.4
History, regional focus	145	85	60	41.4
History nec	76	39	37	48.7
Philosophy and religious studies	642	415	226	35.2
Philosophy	432	292	139	32.2
Religion/ religious studies	140	85	55	39.3
Philosophy and religious studies nec	70	38	32	45.7
Humanities, other	395	296	99	25.1
Bible/ biblical studies	90	79	11	12.2
Humanities and humanistic studies	79	33	46	58.2
Theological and ministerial studies	226	184	42	18.6

Table 3-2

Research doctorate recipients, by detailed field of doctorate and sex: 2022

(Number)

Field of doctorate	Total[a]	Male	Female	% female
Visual and performing arts	842	363	479	56.9
Performing arts	495	267	228	46.1
Dance, drama, theatre arts, and stagecraft	85	28	57	67.1
Music performance	120	67	53	44.2
Music theory and composition	94	67	27	28.7
Musicology and ethnomusicology	112	54	58	51.8
Music nec	84	51	33	39.3
Visual arts, media studies, and design	347	96	251	72.3
Art history, criticism, and conservation	208	39	169	81.3
Film, cinema, and media studies	74	36	38	51.4
Visual arts, media studies, and design nec	65	21	44	67.7
Other non-science and engineering	2,141	835	1,304	60.9
Communications and journalism	586	199	387	66.0
Applied communication, advertising, and public relations	103	26	77	74.8
Communication and media studies	145	48	97	66.9
Communication, general	166	54	112	67.5
Mass communication/ media studies	94	41	53	56.4
Communications and journalism nec	78	30	48	61.5
Multidisciplinary/ interdisciplinary studies	391	171	220	56.3
Classical and ancient studies	100	47	53	53.0
Interdisciplinary leadership/ leadership studies	124	59	65	52.4
Multidisciplinary/ interdisciplinary studies nec	167	65	102	61.1
Public administration and social services	468	150	316	67.5
Public administration	178	85	93	52.2
Social work and human services	290	65	223	76.9
Non-science and engineering, other	696	315	381	54.7
Architecture and architectural studies	99	42	57	57.6
City/ urban, community, and regional planning	103	50	53	51.5
Family, consumer, and human sciences	128	22	106	82.8
Homeland security and protective services	154	81	73	47.4
Law/ legal studies and research	71	44	27	38.0
Parks, recreation, leisure, fitness, and sport studies and management	115	65	50	43.5
Other non-science and engineering nec	26	11	15	57.7

nec = not elsewhere classified; STEM = science, technology, engineering, and mathematics.

[a] Includes doctorate recipients who did not report sex.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
All fields	57,596	19,633	35,311	3,354	98	3,586	2,647	23,320	1,210	425	671
Science and engineering	45,924	17,119	26,801	2,529	58	3,021	1,608	17,801	973	323	488
Agricultural sciences and natural resources	1,305	496	770	72	4	48	37	563	17	10	19
Agricultural, animal, plant, and veterinary sciences	857	380	458	38	2	33	25	334	11	5	10
Agronomy and crop science	68	34	32	1	0	1	2	26	1	0	1
Animal sciences	174	64	108	9	0	4	0	91	2	1	1
Food science and technology	156	82	70	4	1	18	7	34	2	2	2
Plant sciences	162	82	77	8	0	1	3	59	3	1	2
Soil sciences	100	36	62	6	1	2	4	45	1	1	2
Veterinary biomedical and clinical sciences	77	34	39	3	0	4	4	27	0	0	1
Agricultural, animal, plant, and veterinary sciences nec	120	48	70	7	0	3	5	52	2	0	1
Natural resources and conservation	448	116	312	34	2	15	12	229	6	5	9
Environmental science	147	46	95	14	0	8	6	62	1	0	4
Environmental/ natural resources management and policy	71	24	46	6	0	1	2	34	1	0	2
Forestry	69	23	44	5	1	1	2	33	1	0	1
Natural resources conservation and research	72	13	50	4	0	4	0	33	2	5	2
Natural resources and conservation nec	89	10	77	5	1	1	2	67	1	0	0
Biological and biomedical sciences	9,386	2,344	6,745	728	9	831	321	4,442	274	64	76
Biochemistry, biophysics, and molecular biology	1,555	490	1,022	114	2	145	39	671	30	12	9
Biochemistry	465	135	310	34	0	38	15	210	6	3	4
Biochemistry and molecular biology	326	95	227	28	1	30	12	148	3	3	2
Biophysics	251	109	135	7	0	25	4	92	4	2	1
Molecular biology	274	65	201	22	1	33	5	128	9	2	1
Biochemistry, biophysics, and molecular biology nec	239	86	149	23	0	19	3	93	8	2	1
Bioinformatics, biostatistics, and computational biology	688	303	364	21	0	91	13	216	15	4	4
Bioinformatics	169	73	90	6	0	26	2	54	1	1	0
Biostatistics	260	127	120	5	0	36	3	70	3	1	2

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Computational biology	154	61	92	5	0	17	2	59	7	0	2
Bioinformatics, biostatistics, and computational biology nec	105	42	62	5	0	12	6	33	4	2	0
Cell/ cellular biology and anatomy	689	158	506	63	1	62	22	332	22	1	3
Cell/ cellular and molecular biology	526	128	384	47	0	45	17	255	16	1	3
Developmental biology and embryology	115	23	89	12	1	13	4	56	3	0	0
Cell/ cellular biology and anatomy nec	48	7	33	4	0	4	1	21	3	0	0
Ecology, evolutionary biology, and epidemiology	1,120	208	890	82	2	63	58	635	39	6	5
Ecology	238	26	210	16	1	2	1	179	8	2	1
Ecology and evolutionary biology	270	44	223	25	0	9	8	167	11	2	1
Epidemiology	386	86	288	26	1	37	41	165	14	2	2
Epidemiology and biostatistics	45	12	32	4	0	6	1	19	2	0	0
Evolutionary biology	83	17	65	8	0	5	5	44	3	0	0
Ecology, evolutionary biology, and epidemiology nec	98	23	72	3	0	4	2	61	1	0	1
Genetics and genomics	436	92	335	37	0	34	12	237	6	6	3
Genetics, general	122	15	101	10	0	6	3	78	2	2	0
Genome sciences and genomics	97	28	68	8	0	12	1	45	0	1	1
Human/ medical genetics	81	15	65	4	0	9	5	42	2	1	2
Molecular genetics	66	17	48	8	0	4	0	35	1	0	0
Genetics and genomics nec	70	17	53	7	0	3	3	37	1	2	0
Microbiology and immunology	1,089	178	887	100	0	112	41	585	34	5	10
Immunology	343	56	280	31	0	53	17	163	10	4	2
Microbiology and immunology	266	41	222	35	0	21	8	147	10	0	1
Microbiology, general	270	38	222	18	0	23	11	159	6	0	5
Virology	123	21	101	8	0	9	2	77	4	0	1
Microbiology and immunology nec	87	22	62	8	0	6	3	39	4	1	1
Neurobiology and neurosciences	1,177	214	924	116	1	129	36	586	40	6	10
Cognitive neuroscience	131	23	103	7	0	11	7	72	5	0	1
Neurobiology	79	12	67	12	0	9	3	34	7	1	1

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Neuroscience	824	138	657	80	1	96	19	428	23	5	5
Neurobiology and neurosciences nec	143	41	97	17	0	13	7	52	5	0	3
Pharmacology and toxicology	386	86	285	31	0	33	30	173	14	3	1
Pharmacology	164	41	119	14	0	16	12	71	3	2	1
Toxicology	125	23	96	13	0	5	11	58	8	1	0
Pharmacology and toxicology nec	97	22	70	4	0	12	7	44	3	0	0
Physiology, oncology, and cancer biology	768	204	545	65	2	65	26	355	25	4	3
Biomechanics	69	27	42	7	0	3	0	30	1	1	0
Exercise physiology and kinesiology	96	19	77	4	1	3	2	60	5	1	1
Oncology and cancer biology	320	91	221	25	1	37	12	132	10	2	2
Physiology, general	99	16	76	9	0	8	5	50	4	0	0
Physiology, oncology, and cancer biology nec	184	51	129	20	0	14	7	83	5	0	0
Biological and biomedical sciences, other	1,478	411	987	99	1	97	44	652	49	17	28
Biology/ biological sciences, general	473	123	321	30	1	31	14	208	19	6	12
Biomedical sciences, general	374	84	256	29	0	35	15	153	12	6	6
Botany and plant biology	45	9	35	5	0	2	2	26	0	0	0
Entomology	134	41	88	7	0	3	2	68	2	0	6
Plant pathology and phytopathology	98	57	39	4	0	2	3	26	1	1	2
Plant physiology and biology nec	70	29	39	6	0	4	1	26	2	0	0
Zoology and animal biology	84	9	75	4	0	2	2	61	5	0	1
Biological and biomedical sciences nec	200	59	134	14	0	18	5	84	8	4	1
Computer and information sciences	2,188	1,318	774	43	1	153	42	473	25	18	19
Computer science	1,484	885	539	27	1	103	18	341	22	16	11
Computer science	1,484	885	539	27	1	103	18	341	22	16	11
Computer and information sciences, other	704	433	235	16	0	50	24	132	3	2	8
Artificial intelligence	205	141	58	4	0	17	5	30	0	2	0
Computer and information sciences, general	130	88	28	3	0	7	1	14	0	0	3

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Computer systems networking and telecommunications	116	71	42	4	0	11	3	22	1	0	1
Informatics and information technology	94	46	42	0	0	5	9	26	1	0	1
Information sciences/ studies	92	43	43	4	0	8	4	24	1	0	2
Computer and information sciences nec	67	44	22	1	0	2	2	16	0	0	1
Engineering	10,763	5,820	4,436	362	5	677	187	2,875	168	52	110
Biological, biomedical, and biosystems engineering	1,236	350	842	79	0	173	26	503	37	11	13
Bioengineering and biomedical engineering	1,135	306	787	75	0	163	24	469	34	10	12
Biological/ biosystems engineering and biomedical technology	101	44	55	4	0	10	2	34	3	1	1
Chemical and petroleum engineering	1,255	635	569	33	2	92	19	382	28	2	11
Chemical and biomolecular engineering	205	81	122	10	1	17	4	87	3	0	0
Chemical engineering	885	439	409	19	1	68	12	275	24	1	9
Petroleum engineering	102	75	17	2	0	3	2	8	1	1	0
Chemical and petroleum engineering nec	63	40	21	2	0	4	1	12	0	0	2
Civil, environmental, and transportation engineering	1,315	823	436	35	0	50	34	285	14	6	12
Civil engineering	330	235	78	6	0	14	5	41	3	0	9
Civil and environmental engineering	503	270	202	15	0	22	19	133	8	4	1
Environmental/ environmental health engineering	65	30	33	4	0	3	4	21	0	1	0
Geotechnical and geoenvironmental engineering	87	54	32	5	0	3	0	23	0	1	0
Structural engineering	130	92	37	3	0	2	3	26	1	0	2
Transportation and highway engineering	112	90	22	2	0	3	2	14	1	0	0
Civil, environmental, and transportation engineering nec	88	52	32	0	0	3	1	27	1	0	0

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Electrical and computer engineering	2,132	1,471	552	45	1	101	35	334	14	7	15
Computer engineering	263	183	69	3	0	11	7	44	3	0	1
Electrical and computer engineering	1,357	958	358	31	1	69	25	214	8	5	5
Electrical and electronics engineering	438	289	96	7	0	15	3	59	2	1	9
Electrical and computer engineering nec	74	41	29	4	0	6	0	17	1	1	0
Engineering technologies	361	252	102	6	0	24	6	58	3	1	4
Electrical and electronic engineering technologies	55	39	15	2	0	5	0	8	0	0	0
Electromechanical technologies	90	57	31	1	0	6	2	18	2	0	2
Environmental control technologies	58	42	15	0	0	6	0	9	0	0	0
Engineering technologies nec	158	114	41	3	0	7	4	23	1	1	2
Industrial engineering and operations research	655	396	220	12	0	28	19	144	6	6	5
Industrial engineering	211	141	52	2	0	7	5	30	3	2	3
Industrial and systems engineering	127	77	49	5	0	10	5	28	0	0	1
Operations research	183	117	51	1	0	9	5	35	1	0	0
Systems and manufacturing engineering	134	61	68	4	0	2	4	51	2	4	1
Materials and mining engineering	925	434	443	35	1	66	15	298	16	4	8
Materials engineering	85	45	40	5	0	3	0	28	0	2	2
Materials science and engineering	783	366	371	28	1	62	13	245	16	2	4
Materials and mining engineering nec	57	23	32	2	0	1	2	25	0	0	2
Mechanical engineering	1,545	842	644	66	0	84	14	432	22	9	17
Mechanical engineering, general	1,440	771	613	62	0	80	14	411	21	8	17
Mechanical engineering nec	105	71	31	4	0	4	0	21	1	1	0
Engineering, other	1,339	617	628	51	1	59	19	439	28	6	25
Aerospace, aeronautical, astronautical, and space engineering	374	152	192	14	1	13	5	142	8	3	6
Engineering mechanics, physics, and science	166	101	51	4	0	8	1	34	1	1	2

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Mechanical and aerospace engineering	213	98	113	8	0	15	1	81	6	1	1
Nanotechnology	54	33	21	4	0	5	1	9	1	0	1
Nuclear engineering	163	53	102	12	0	5	3	73	5	1	3
Engineering nec	369	180	149	9	0	13	8	100	7	0	12
Geosciences, atmospheric, and ocean sciences	1,165	389	727	60	0	46	17	569	22	3	10
Geological and earth sciences	658	243	385	29	0	22	10	308	11	1	4
Geochemistry	42	15	26	3	0	1	0	21	1	0	0
Geology	79	18	55	4	0	3	1	44	1	1	1
Geology/ earth science, general	121	44	67	4	0	3	0	54	4	0	2
Geophysics and seismology	118	68	49	6	0	2	2	38	1	0	0
Hydrology and water resources science	89	39	49	3	0	2	2	41	1	0	0
Geological and earth sciences nec	209	59	139	9	0	11	5	110	3	0	1
Ocean, marine, and atmospheric sciences	507	146	342	31	0	24	7	261	11	2	6
Atmospheric sciences and meteorology, general	120	54	63	2	0	3	2	54	0	1	1
Atmospheric sciences and meteorology nec	95	23	69	7	0	4	1	53	3	0	1
Climatology, atmospheric chemistry/ physics	67	24	41	5	0	6	2	26	1	1	0
Marine biology and biological oceanography	97	10	81	12	0	5	1	59	3	0	1
Marine sciences	63	10	50	4	0	3	1	40	2	0	0
Oceanography, chemical/ physical	65	25	38	1	0	3	0	29	2	0	3
Health sciences	2,808	655	1,973	156	4	192	272	1,250	50	15	34
Nursing and nursing science	623	75	512	38	1	42	69	336	12	5	9
Nursing education	81	5	74	3	0	3	11	55	1	0	1
Nursing science	382	48	331	29	1	29	43	218	6	2	3
Nursing specialties and practice	160	22	107	6	0	10	15	63	5	3	5
Pharmacy and pharmaceutical sciences	460	231	192	15	0	33	10	128	1	1	4
Medicinal and pharmaceutical chemistry	75	35	40	4	0	1	0	34	0	0	1

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Pharmaceutical sciences	281	145	113	8	0	24	7	70	1	1	2
Pharmacy, pharmaceutical sciences, and administration nec	104	51	39	3	0	8	3	24	0	0	1
Public health	795	168	586	51	3	61	124	321	17	4	5
Environmental health	68	22	44	7	0	3	5	29	0	0	0
Health services research	119	30	83	6	0	7	15	51	4	0	0
Health/ medical physics	68	18	48	2	0	7	0	38	0	0	1
Public health education and promotion	112	14	97	11	1	8	32	43	1	0	1
Public health, general	212	36	156	11	1	19	35	81	7	1	1
Public health nec	216	48	158	14	1	17	37	79	5	3	2
Health sciences, other	930	181	683	52	0	56	69	465	20	5	16
Communication disorders sciences	134	21	104	10	0	6	5	83	0	0	0
Exercise science and kinesiology	102	18	79	4	0	4	5	57	5	1	3
Health sciences, general	61	5	48	6	0	5	4	31	0	1	1
Marriage and family therapy/ counseling	68	4	51	4	0	2	8	33	2	0	2
Medical clinical sciences	75	10	61	5	0	11	1	37	3	1	3
Medical, biomedical, and health informatics	75	23	49	3	0	7	2	35	2	0	0
Mental health, counseling, and therapy services and sciences	93	5	76	8	0	0	21	43	3	0	1
Rehabilitation and therapeutic sciences	149	40	107	6	0	4	10	80	2	0	5
Health sciences nec	173	55	108	6	0	17	13	66	3	2	1
Mathematics and statistics	2,144	1,088	966	59	2	121	26	661	50	16	31
Applied mathematics	477	252	210	13	0	27	8	144	11	3	4
Applied mathematics, general	275	140	125	5	0	17	6	88	6	1	2
Computational and applied mathematics	139	78	59	6	0	8	2	38	3	2	0
Applied mathematics nec	63	34	26	2	0	2	0	18	2	0	2
Mathematics	980	390	553	35	1	51	5	396	30	10	25
Algebra and number theory	75	39	35	2	0	4	0	26	2	1	0
Mathematics, general	763	293	435	28	1	41	5	304	25	8	23

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Mathematics nec	142	58	83	5	0	6	0	66	3	1	2
Statistics	687	446	203	11	1	43	13	121	9	3	2
Applied statistics, general	70	48	18	1	0	7	0	10	0	0	0
Mathematics and statistics	101	59	37	3	0	11	1	20	0	2	0
Statistics	469	310	132	5	1	20	11	83	9	1	2
Statistics nec	47	29	16	2	0	5	1	8	0	0	0
Multidisciplinary/ interdisciplinary sciences	1,788	891	816	82	1	112	42	513	28	26	12
Interdisciplinary computer sciences	625	362	236	20	0	50	7	137	10	10	2
Computer science and engineering	230	145	68	7	0	14	3	38	3	2	1
Electrical engineering and computer science	276	159	113	6	0	27	2	65	5	7	1
Interdisciplinary computer sciences nec	119	58	55	7	0	9	2	34	2	1	0
Multidisciplinary/ interdisciplinary sciences, other	1,163	529	580	62	1	62	35	376	18	16	10
Behavioral and cognitive sciences	89	23	66	8	0	4	4	46	0	4	0
Computational science and engineering	112	71	25	4	0	6	0	12	1	0	2
Data mining and machine learning	259	185	67	2	0	13	0	48	0	3	1
Data science and data analytics	94	57	33	5	0	10	1	17	0	0	0
History/ philosophy of science, technology, and society	67	15	50	6	0	3	1	38	0	1	1
Nanoscience/ nanoscale science	53	24	29	3	1	2	2	18	2	1	0
Nutrition sciences	129	53	76	6	0	8	5	48	7	1	1
Multidisciplinary/ interdisciplinary sciences nec	360	101	234	28	0	16	22	149	8	6	5
Physical sciences	5,428	2,124	3,108	257	5	318	81	2,241	107	36	63
Astronomy and astrophysics	289	80	204	23	1	14	10	145	6	2	3
Astronomy	109	28	78	6	1	6	5	54	4	1	1
Astrophysics	115	28	87	13	0	4	2	64	1	1	2
Astronomy and astrophysics nec	65	24	39	4	0	4	3	27	1	0	0
Chemistry	2,782	1,010	1,665	128	1	172	48	1,201	57	18	40
Analytical chemistry	366	124	238	21	0	23	6	180	7	0	1
Chemical biology	163	42	116	5	0	17	6	78	8	2	0

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Chemistry, general	582	220	283	25	1	27	7	172	7	11	33
Inorganic chemistry	324	123	199	14	0	15	2	158	7	1	2
Organic chemistry	612	207	399	28	0	42	11	302	13	1	2
Physical chemistry	315	114	200	22	0	17	4	147	7	2	1
Polymer chemistry	98	50	48	2	0	3	3	35	5	0	0
Theoretical and computational chemistry	159	78	79	5	0	18	3	53	0	0	0
Chemistry nec	163	52	103	6	0	10	6	76	3	1	1
Materials sciences	385	184	193	27	1	22	6	125	8	3	1
Materials science	176	85	87	10	1	11	1	60	2	1	1
Materials chemistry and materials sciences nec	209	99	106	17	0	11	5	65	6	2	0
Physics	1,972	850	1,046	79	2	110	17	770	36	13	19
Applied physics	161	64	83	6	0	10	3	59	5	0	0
Atomic/ molecular physics	87	37	48	1	0	6	1	38	1	0	1
Condensed matter and materials physics	433	229	200	18	0	26	2	141	8	5	0
Elementary particle physics	151	67	84	5	0	3	0	74	2	0	0
Nuclear physics	104	39	65	10	0	6	3	44	1	0	1
Optics/ optical sciences	138	61	71	3	0	12	2	49	2	0	3
Physics and astronomy	232	97	131	8	0	15	1	101	4	1	1
Physics, general	402	149	213	15	1	19	4	146	10	5	13
Plasma and high-temperature physics	51	9	40	3	0	3	0	34	0	0	0
Theoretical and mathematical physics	101	42	58	6	1	8	0	40	2	1	0
Physics and physical sciences nec	112	56	53	4	0	2	1	44	1	1	0
Psychology	3,900	328	3,295	375	10	233	288	2,153	119	44	73
Clinical psychology	1,144	38	1,029	113	5	72	56	708	37	11	27
Clinical child psychology	55	1	53	6	0	3	2	38	3	0	1
Clinical psychology	1,089	37	976	107	5	69	54	670	34	11	26
Counseling and applied psychology	1,438	108	1,226	138	2	81	150	776	43	20	16
Applied behavior analysis	44	4	39	7	0	4	0	27	0	0	1
Counseling psychology	399	18	350	45	1	35	45	197	9	13	5
Educational psychology	247	36	192	17	0	13	24	122	7	2	7
Industrial and organizational psychology	198	14	173	24	0	11	20	114	2	1	1

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
School psychology	247	12	224	21	0	11	20	152	18	1	1
Counseling and applied psychology nec	303	24	248	24	1	7	41	164	7	3	1
Research and experimental psychology	854	141	701	80	2	62	43	469	25	5	15
Behavioral neuroscience	105	6	98	15	0	11	5	62	5	0	0
Cognitive psychology and psycholinguistics	100	24	73	7	0	9	2	51	3	0	1
Developmental and child psychology	114	18	95	9	0	7	6	72	1	0	0
Experimental psychology	131	24	105	8	0	6	1	79	3	3	5
Social psychology	221	33	187	17	1	21	12	127	8	1	0
Research and experimental psychology nec	183	36	143	24	1	8	17	78	5	1	9
Psychology, other	464	41	339	44	1	18	39	200	14	8	15
Human development	145	22	103	11	0	5	12	67	4	1	3
Psychology, general	266	16	187	29	1	9	23	101	8	6	10
Psychology nec	53	3	49	4	0	4	4	32	2	1	2
Social sciences	5,049	1,666	3,191	335	17	290	295	2,061	113	39	41
Anthropology	409	59	329	32	3	25	13	223	22	5	6
Anthropology, general	103	12	72	6	1	3	3	49	2	3	5
Cultural anthropology	197	39	156	18	1	17	8	93	17	1	1
Physical and biological anthropology	75	5	70	4	0	3	1	59	2	1	0
Anthropology nec	34	3	31	4	1	2	1	22	1	0	0
Area, ethnic, cultural, gender, and group studies	442	88	331	57	8	30	52	159	19	4	2
Area studies	245	64	165	19	0	9	16	112	6	3	0
Ethnic studies	101	10	88	26	7	12	26	10	7	0	0
Area, ethnic, cultural, gender, and group studies nec	96	14	78	12	1	9	10	37	6	1	2
Economics	1,391	822	515	31	0	86	21	346	12	6	13
Agricultural economics	97	58	36	3	0	8	4	20	0	1	0
Applied economics	131	78	53	3	0	13	3	33	1	0	0
Development economics and international development	50	32	18	2	0	6	0	9	1	0	0
Econometrics and quantitative economics	179	148	24	2	0	2	2	10	0	0	8

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
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Economics, general	826	449	337	17	0	44	9	248	9	5	5
Environmental/ natural resource economics	50	27	22	2	0	1	2	17	0	0	0
Economics nec	58	30	25	2	0	12	1	9	1	0	0
Political science and government	678	187	465	45	0	31	16	342	13	12	6
Political science and government, general	553	163	365	38	0	23	15	263	10	10	6
Political science and government nec	125	24	100	7	0	8	1	79	3	2	0
Public policy analysis	433	85	325	34	1	31	76	164	14	4	1
Education policy analysis	130	16	111	16	0	8	23	55	8	1	0
Health policy analysis	53	11	40	3	0	5	6	24	1	1	0
Public policy analysis, general	120	29	86	6	1	14	14	46	4	1	0
Public policy nec	130	29	88	9	0	4	33	39	1	1	1
Sociology, demography, and population studies	626	113	496	67	0	34	59	314	17	2	3
Sociology, general	555	97	443	56	0	33	54	280	16	2	2
Sociology, demography, and population studies nec	71	16	53	11	0	1	5	34	1	0	1
Social sciences, other	1,070	312	730	69	5	53	58	513	16	6	10
Applied linguistics	71	33	37	3	0	12	0	21	0	0	1
Archeology	105	22	83	8	1	1	0	71	1	0	1
Criminology	118	17	97	17	0	4	9	63	2	1	1
Geography and cartography	220	64	145	15	1	6	12	104	2	1	4
International relations and national security studies	128	38	88	2	0	5	4	71	5	1	0
Linguistics	192	78	108	3	1	12	3	87	1	1	0
Social sciences nec	236	60	172	21	2	13	30	96	5	2	3
Non-science and engineering	11,672	2,514	8,510	825	40	565	1,039	5,519	237	102	183
Business	1,401	667	651	46	3	110	86	365	13	15	13
Business administration and management	445	180	211	10	0	31	38	113	4	7	8
Business management and administration	297	130	131	6	0	17	23	72	2	4	7
Organizational leadership	55	5	44	2	0	4	7	26	2	3	0
Business administration and management nec	93	45	36	2	0	10	8	15	0	0	1
Business, other	956	487	440	36	3	79	48	252	9	8	5

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
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Accounting and accounting-related	159	69	87	5	0	18	9	54	0	1	0
Finance and financial management	210	130	74	7	0	19	5	41	1	0	1
Management information systems	92	59	31	3	0	7	5	14	0	2	0
Management sciences	77	43	29	2	0	2	6	17	1	0	1
Marketing	146	81	62	3	0	16	2	37	3	0	1
Organizational behavior studies	94	22	68	3	2	7	6	43	3	4	0
Business nec	178	83	89	13	1	10	15	46	1	1	2
Education	3,919	497	3,205	339	22	161	581	1,932	80	26	64
Education leadership and administration	1,167	71	1,050	118	9	44	250	576	20	5	28
Educational leadership and administration, general	488	40	429	44	4	16	95	253	4	1	12
Higher education and community college administration	438	16	412	41	3	23	96	228	7	4	10
Education leadership and administration nec	241	15	209	33	2	5	59	95	9	0	6
Education research	1,189	197	924	91	4	39	168	564	29	9	20
Curriculum and instruction	413	71	315	28	1	12	48	209	7	3	7
Educational assessment, evaluation, and research methods	219	54	160	14	0	9	22	106	7	0	2
Educational/ instructional technology and media design	172	39	125	8	0	9	22	73	5	2	6
Higher education evaluation and research	61	6	48	5	0	2	15	23	2	1	0
Student counseling and personnel services	246	12	217	28	1	2	49	127	7	0	3
Education research nec	78	15	59	8	2	5	12	26	1	3	2
Teacher education	1,099	174	863	76	8	54	101	590	16	9	9
Adult, continuing, and workforce education and development	64	6	55	5	0	3	12	34	0	1	0
Bilingual, multilingual, and multicultural education	62	17	40	13	2	8	2	12	3	0	0
Mathematics teacher education	49	9	39	2	0	4	3	25	4	0	1

Table 3-3

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Music teacher education	73	6	67	3	0	1	9	52	1	0	1
Special education and teaching	258	45	198	22	3	12	18	139	2	1	1
STEM educational methods	84	10	73	7	1	4	7	52	2	0	0
Teacher education, science and engineering	76	12	60	4	1	2	7	43	1	2	0
Teacher education, specific levels and methods	188	24	158	5	0	7	27	108	2	3	6
Teacher education, specific subject areas	245	45	173	15	1	13	16	125	1	2	0
Education, other	464	55	368	54	1	24	62	202	15	3	7
Education, general	327	39	251	32	1	21	46	133	10	3	5
Education nec	137	16	117	22	0	3	16	69	5	0	2
Humanities	3,369	560	2,634	268	4	126	143	1,909	78	33	73
English language and literature, letters	1,062	108	910	69	2	43	50	688	30	9	19
American literature (United States)	138	11	126	10	0	4	12	91	6	2	1
Creative writing	75	5	68	7	0	1	6	49	4	1	0
English language and literature, general	397	39	322	28	1	19	15	230	8	5	16
English literature (British and Commonwealth)	160	22	137	4	1	4	3	122	3	0	0
Rhetoric, composition, and writing studies	217	12	201	15	0	11	11	153	8	1	2
English language and literature nec	75	19	56	5	0	4	3	43	1	0	0
Foreign languages, literatures, and linguistics	538	183	332	88	1	15	10	191	9	2	16
Comparative literature	91	28	57	8	0	4	3	40	1	0	1
Hispanic/ Latin American languages, literatures, and linguistics	92	34	56	33	0	2	1	16	3	0	1
Romance languages, literatures, and linguistics	104	35	66	5	0	1	3	48	3	0	6
Spanish language and literature	92	28	59	35	0	0	1	19	0	0	4
Foreign languages, literatures, and linguistics nec	159	58	94	7	1	8	2	68	2	2	4
History	732	103	593	54	1	21	39	442	20	6	10
American history (United States)	245	11	228	16	0	4	24	171	11	1	1

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

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European history	120	14	106	1	0	3	1	97	2	0	2
History, general	146	23	98	8	1	2	9	68	3	2	5
History, regional focus	145	48	92	21	0	12	3	49	2	3	2
History nec	76	7	69	8	0	0	2	57	2	0	0
Philosophy and religious studies	642	104	511	36	0	27	28	378	14	9	19
Philosophy	432	81	333	24	0	15	16	248	9	7	14
Religion/ religious studies	140	14	121	10	0	3	11	90	4	0	3
Philosophy and religious studies nec	70	9	57	2	0	9	1	40	1	2	2
Humanities, other	395	62	288	21	0	20	16	210	5	7	9
Bible/ biblical studies	90	11	74	1	0	7	5	56	2	2	1
Humanities and humanistic studies	79	19	54	9	0	4	2	36	1	1	1
Theological and ministerial studies	226	32	160	11	0	9	9	118	2	4	7
Visual and performing arts	842	177	619	58	3	55	31	431	20	9	12
Performing arts	495	106	354	33	1	18	24	255	14	2	7
Dance, drama, theatre arts, and stagecraft	85	11	66	7	1	2	5	45	4	1	1
Music performance	120	35	71	6	0	8	6	48	2	1	0
Music theory and composition	94	25	69	7	0	3	2	56	1	0	0
Musicology and ethnomusicology	112	17	94	8	0	3	5	71	5	0	2
Music nec	84	18	54	5	0	2	6	35	2	0	4
Visual arts, media studies, and design	347	71	265	25	2	37	7	176	6	7	5
Art history, criticism, and conservation	208	32	171	18	0	25	1	113	6	4	4
Film, cinema, and media studies	74	18	53	5	0	5	4	37	0	1	1
Visual arts, media studies, and design nec	65	21	41	2	2	7	2	26	0	2	0
Other non-science and engineering	2,141	613	1,401	114	8	113	198	882	46	19	21
Communications and journalism	586	171	386	28	2	29	29	276	10	8	4
Applied communication, advertising, and public relations	103	31	69	4	2	5	2	56	0	0	0
Communication and media studies	145	38	101	9	0	4	9	75	0	2	2
Communication, general	166	36	121	8	0	9	10	85	6	3	0

Table 3-3

Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022

(Number)

Field of doctorate	All doctorate recipients [a]	Temporary visa holders	U.S. citizens and permanent residents								
			Total	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
					American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Mass communication/ media studies	94	37	51	2	0	7	6	31	2	2	1
Communications and journalism nec	78	29	44	5	0	4	2	29	2	1	1
Multidisciplinary/ interdisciplinary studies	391	64	291	18	1	16	30	210	10	3	3
Classical and ancient studies	100	17	77	4	0	2	0	68	3	0	0
Interdisciplinary leadership/ leadership studies	124	6	101	6	0	5	23	64	2	0	1
Multidisciplinary/ interdisciplinary studies nec	167	41	113	8	1	9	7	78	5	3	2
Public administration and social services	468	105	338	34	4	28	82	167	14	4	5
Public administration	178	65	112	7	1	11	23	59	7	2	2
Social work and human services	290	40	226	27	3	17	59	108	7	2	3
Non-science and engineering, other	696	273	386	34	1	40	57	229	12	4	9
Architecture and architectural studies	99	60	34	2	0	3	2	26	1	0	0
City/ urban, community, and regional planning	103	46	55	4	1	6	6	32	3	0	3
Family, consumer, and human sciences	128	33	92	9	0	13	17	45	2	2	4
Homeland security and protective services	154	45	96	12	0	7	18	52	3	2	2
Law/ legal studies and research	71	46	17	2	0	2	1	12	0	0	0
Parks, recreation, leisure, fitness, and sport studies and management	115	35	75	4	0	6	10	52	3	0	0
Other non-science and engineering nec	26	8	17	1	0	3	3	10	0	0	0

nec = not elsewhere classified; STEM = science, technology, engineering, and mathematics.

[a] Includes doctorate recipients who did not report citizenship status.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-4

U.S. citizen and permanent resident research doctorate recipients, by major field of doctorate, ethnicity, and race: 2022

(Number and percent distribution)

Field of doctorate	All U.S. citizens and permanent residents (number)	Total	U.S. citizen or permanent resident							
			Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
				American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
All fields	35,311	100.0	9.5	0.3	10.2	7.5	66.0	3.4	1.2	1.9
Science and engineering	26,801	100.0	9.4	0.2	11.3	6.0	66.4	3.6	1.2	1.8
Agricultural sciences and natural resources	770	100.0	9.4	0.5	6.2	4.8	73.1	2.2	1.3	2.5
Agricultural, animal, plant, and veterinary sciences	458	100.0	8.3	0.4	7.2	5.5	72.9	2.4	1.1	2.2
Natural resources and conservation	312	100.0	10.9	0.6	4.8	3.8	73.4	1.9	1.6	2.9
Biological and biomedical sciences	6,745	100.0	10.8	0.1	12.3	4.8	65.9	4.1	0.9	1.1
Biochemistry, biophysics, and molecular biology	1,022	100.0	11.2	0.2	14.2	3.8	65.7	2.9	1.2	0.9
Bioinformatics, biostatistics, and computational biology	364	100.0	5.8	0.0	25.0	3.6	59.3	4.1	1.1	1.1
Cell/ cellular biology and anatomy	506	100.0	12.5	0.2	12.3	4.3	65.6	4.3	0.2	0.6
Ecology, evolutionary biology, and epidemiology	890	100.0	9.2	0.2	7.1	6.5	71.3	4.4	0.7	0.6
Genetics and genomics	335	100.0	11.0	0.0	10.1	3.6	70.7	1.8	1.8	0.9
Microbiology and immunology	887	100.0	11.3	0.0	12.6	4.6	66.0	3.8	0.6	1.1
Neurobiology and neurosciences	924	100.0	12.6	0.1	14.0	3.9	63.4	4.3	0.6	1.1
Pharmacology and toxicology	285	100.0	10.9	0.0	11.6	10.5	60.7	4.9	1.1	0.4
Physiology, oncology, and cancer biology	545	100.0	11.9	0.4	11.9	4.8	65.1	4.6	0.7	0.6
Biological and biomedical sciences, other	987	100.0	10.0	0.1	9.8	4.5	66.1	5.0	1.7	2.8
Computer and information sciences	774	100.0	5.6	0.1	19.8	5.4	61.1	3.2	2.3	2.5
Computer science	539	100.0	5.0	0.2	19.1	3.3	63.3	4.1	3.0	2.0
Computer and information sciences, other	235	100.0	6.8	0.0	21.3	10.2	56.2	1.3	0.9	3.4
Engineering	4,436	100.0	8.2	0.1	15.3	4.2	64.8	3.8	1.2	2.5
Biological, biomedical, and biosystems engineering	842	100.0	9.4	0.0	20.5	3.1	59.7	4.4	1.3	1.5
Chemical and petroleum engineering	569	100.0	5.8	0.4	16.2	3.3	67.1	4.9	0.4	1.9
Civil, environmental, and transportation engineering	436	100.0	8.0	0.0	11.5	7.8	65.4	3.2	1.4	2.8

Table 3-4

U.S. citizen and permanent resident research doctorate recipients, by major field of doctorate, ethnicity, and race: 2022

(Number and percent distribution)

Field of doctorate	All U.S. citizens and permanent residents (number)	Total	U.S. citizen or permanent resident							
			Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
				American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Electrical and computer engineering	552	100.0	8.2	0.2	18.3	6.3	60.5	2.5	1.3	2.7
Engineering technologies	102	100.0	5.9	0.0	23.5	5.9	56.9	2.9	1.0	3.9
Industrial engineering and operations research	220	100.0	5.5	0.0	12.7	8.6	65.5	2.7	2.7	2.3
Materials and mining engineering	443	100.0	7.9	0.2	14.9	3.4	67.3	3.6	0.9	1.8
Mechanical engineering	644	100.0	10.2	0.0	13.0	2.2	67.1	3.4	1.4	2.6
Engineering, other	628	100.0	8.1	0.2	9.4	3.0	69.9	4.5	1.0	4.0
Geosciences, atmospheric, and ocean sciences	727	100.0	8.3	0.0	6.3	2.3	78.3	3.0	0.4	1.4
Geological and earth sciences	385	100.0	7.5	0.0	5.7	2.6	80.0	2.9	0.3	1.0
Ocean, marine, and atmospheric sciences	342	100.0	9.1	0.0	7.0	2.0	76.3	3.2	0.6	1.8
Health sciences	1,973	100.0	7.9	0.2	9.7	13.8	63.4	2.5	0.8	1.7
Nursing and nursing science	512	100.0	7.4	0.2	8.2	13.5	65.6	2.3	1.0	1.8
Pharmacy and pharmaceutical sciences	192	100.0	7.8	0.0	17.2	5.2	66.7	0.5	0.5	2.1
Public health	586	100.0	8.7	0.5	10.4	21.2	54.8	2.9	0.7	0.9
Health sciences, other	683	100.0	7.6	0.0	8.2	10.1	68.1	2.9	0.7	2.3
Mathematics and statistics	966	100.0	6.1	0.2	12.5	2.7	68.4	5.2	1.7	3.2
Applied mathematics	210	100.0	6.2	0.0	12.9	3.8	68.6	5.2	1.4	1.9
Mathematics	553	100.0	6.3	0.2	9.2	0.9	71.6	5.4	1.8	4.5
Statistics	203	100.0	5.4	0.5	21.2	6.4	59.6	4.4	1.5	1.0
Multidisciplinary/ interdisciplinary sciences	816	100.0	10.0	0.1	13.7	5.1	62.9	3.4	3.2	1.5
Interdisciplinary computer sciences	236	100.0	8.5	0.0	21.2	3.0	58.1	4.2	4.2	0.8
Multidisciplinary/ interdisciplinary sciences, other	580	100.0	10.7	0.2	10.7	6.0	64.8	3.1	2.8	1.7
Physical sciences	3,108	100.0	8.3	0.2	10.2	2.6	72.1	3.4	1.2	2.0
Astronomy and astrophysics	204	100.0	11.3	0.5	6.9	4.9	71.1	2.9	1.0	1.5
Chemistry	1,665	100.0	7.7	0.1	10.3	2.9	72.1	3.4	1.1	2.4
Materials sciences	193	100.0	14.0	0.5	11.4	3.1	64.8	4.1	1.6	0.5
Physics	1,046	100.0	7.6	0.2	10.5	1.6	73.6	3.4	1.2	1.8
Psychology	3,295	100.0	11.4	0.3	7.1	8.7	65.3	3.6	1.3	2.2
Clinical psychology	1,029	100.0	11.0	0.5	7.0	5.4	68.8	3.6	1.1	2.6
Counseling and applied psychology	1,226	100.0	11.3	0.2	6.6	12.2	63.3	3.5	1.6	1.3

Table 3-4

U.S. citizen and permanent resident research doctorate recipients, by major field of doctorate, ethnicity, and race: 2022

(Number and percent distribution)

Field of doctorate	All U.S. citizens and permanent residents (number)	Total	U.S. citizen or permanent resident							
			Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
				American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Research and experimental psychology	701	100.0	11.4	0.3	8.8	6.1	66.9	3.6	0.7	2.1
Psychology, other	339	100.0	13.0	0.3	5.3	11.5	59.0	4.1	2.4	4.4
Social sciences	3,191	100.0	10.5	0.5	9.1	9.2	64.6	3.5	1.2	1.3
Anthropology	329	100.0	9.7	0.9	7.6	4.0	67.8	6.7	1.5	1.8
Area, ethnic, cultural, gender, and group studies	331	100.0	17.2	2.4	9.1	15.7	48.0	5.7	1.2	0.6
Economics	515	100.0	6.0	0.0	16.7	4.1	67.2	2.3	1.2	2.5
Political science and government	465	100.0	9.7	0.0	6.7	3.4	73.5	2.8	2.6	1.3
Public policy analysis	325	100.0	10.5	0.3	9.5	23.4	50.5	4.3	1.2	0.3
Sociology, demography, and population studies	496	100.0	13.5	0.0	6.9	11.9	63.3	3.4	0.4	0.6
Social sciences, other	730	100.0	9.5	0.7	7.3	7.9	70.3	2.2	0.8	1.4
Non-science and engineering	8,510	100.0	9.7	0.5	6.6	12.2	64.9	2.8	1.2	2.2
Business	651	100.0	7.1	0.5	16.9	13.2	56.1	2.0	2.3	2.0
Business administration and management	211	100.0	4.7	0.0	14.7	18.0	53.6	1.9	3.3	3.8
Business, other	440	100.0	8.2	0.7	18.0	10.9	57.3	2.0	1.8	1.1
Education	3,205	100.0	10.6	0.7	5.0	18.1	60.3	2.5	0.8	2.0
Education leadership and administration	1,050	100.0	11.2	0.9	4.2	23.8	54.9	1.9	0.5	2.7
Education research	924	100.0	9.8	0.4	4.2	18.2	61.0	3.1	1.0	2.2
Teacher education	863	100.0	8.8	0.9	6.3	11.7	68.4	1.9	1.0	1.0
Education, other	368	100.0	14.7	0.3	6.5	16.8	54.9	4.1	0.8	1.9
Humanities	2,634	100.0	10.2	0.2	4.8	5.4	72.5	3.0	1.3	2.8
English language and literature, letters	910	100.0	7.6	0.2	4.7	5.5	75.6	3.3	1.0	2.1
Foreign languages, literatures, and linguistics	332	100.0	26.5	0.3	4.5	3.0	57.5	2.7	0.6	4.8
History	593	100.0	9.1	0.2	3.5	6.6	74.5	3.4	1.0	1.7
Philosophy and religious studies	511	100.0	7.0	0.0	5.3	5.5	74.0	2.7	1.8	3.7
Humanities, other	288	100.0	7.3	0.0	6.9	5.6	72.9	1.7	2.4	3.1
Visual and performing arts	619	100.0	9.4	0.5	8.9	5.0	69.6	3.2	1.5	1.9
Performing arts	354	100.0	9.3	0.3	5.1	6.8	72.0	4.0	0.6	2.0
Visual arts, media studies, and design	265	100.0	9.4	0.8	14.0	2.6	66.4	2.3	2.6	1.9
Other non-science and engineering	1,401	100.0	8.1	0.6	8.1	14.1	63.0	3.3	1.4	1.5
Communications and journalism	386	100.0	7.3	0.5	7.5	7.5	71.5	2.6	2.1	1.0

Table 3-4

U.S. citizen and permanent resident research doctorate recipients, by major field of doctorate, ethnicity, and race: 2022

(Number and percent distribution)

Field of doctorate	All U.S. citizens and permanent residents (number)	Total	U.S. citizen or permanent resident							
			Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
				American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Multidisciplinary/ interdisciplinary studies	291	100.0	6.2	0.3	5.5	10.3	72.2	3.4	1.0	1.0
Public administration and social services	338	100.0	10.1	1.2	8.3	24.3	49.4	4.1	1.2	1.5
Non-science and engineering, other	386	100.0	8.8	0.3	10.4	14.8	59.3	3.1	1.0	2.3

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-5

Median years to science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and median years)

	All fields		Science and engineering, total		Agricultural sciences and natural resources		Biological and biomedical sciences		Computer and information sciences		Engineering		Geosciences, atmospheric, and ocean sciences		Health sciences		Mathematics and statistics		Multidisciplinary/ interdisciplinary sciences		Physical sciences		Psychology		Social sciences	
Time to degree and demographic characteristic	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Years since bachelor's degree																										
Doctorate recipients reporting year of bachelor's degree	54,514	8.6	43,529	8.0	1,232	8.6	8,983	7.9	2,065	8.4	10,207	7.5	1,114	7.9	2,556	11.2	2,064	7.0	1,697	8.3	5,187	6.6	3,590	8.6	4,834	10.3
Sex																										
Male	28,906	8.3	24,366	7.9	594	8.6	4,171	8.0	1,560	8.3	7,428	7.6	600	8.0	787	10.0	1,463	7.0	1,078	8.1	3,485	6.8	907	8.6	2,293	10.0
Female	25,603	9.0	19,162	8.3	638	8.5	4,812	7.7	505	9.0	2,779	7.1	514	7.8	1,769	12.0	601	7.1	619	9.0	1,702	6.4	2,683	8.6	2,540	10.5
Citizenship status																										
U.S. citizen or permanent resident	34,628	8.8	26,270	8.0	746	8.3	6,640	7.6	757	8.6	4,351	7.0	722	7.7	1,903	12.0	949	6.7	800	8.4	3,056	6.3	3,192	8.4	3,154	10.6
Temporary visa holder	19,075	8.4	16,646	8.2	472	8.6	2,247	8.3	1,280	8.3	5,703	7.9	377	8.2	609	9.7	1,076	7.2	873	8.3	2,067	7.3	321	8.9	1,621	9.9
Ethnicity and race (U.S. citizens and permanent residents)																										
Hispanic or Latino	3,306	8.6	2,488	7.9	68	8.0	721	7.7	42	8.5	359	6.6	60	7.5	151	10.1	59	6.3	80	8.4	256	6.3	362	8.3	330	10.3
Not Hispanic or Latino																										
American Indian or Alaska Native	94	10.9	57	9.6	D	D	9	6.6	D	D	5	10.9	-	-	D	D	D	D	D	D	5	7.3	9	10.3	17	14.2
Asian	3,505	8.6	2,950	8.1	43	9.3	818	8.0	152	8.0	663	7.3	45	8.0	186	12.0	116	7.0	106	8.5	313	7.3	224	9.0	284	10.0
Black or African American	2,596	12.0	1,575	10.4	35	10.0	311	8.1	42	11.0	186	8.3	17	10.7	258	14.0	26	9.4	42	11.7	81	7.0	282	11.1	295	12.6
White	23,050	8.6	17,592	7.7	557	8.3	4,396	7.6	465	8.8	2,843	6.8	568	7.8	1,222	12.0	659	6.6	508	8.3	2,223	6.3	2,106	8.3	2,045	10.3
More than one race	1,197	8.3	965	7.7	17	8.0	272	7.8	25	7.3	167	6.4	22	7.3	49	10.3	50	6.9	27	6.8	107	6.1	117	8.3	112	11.0
Other race or race not reported	389	9.3	299	8.3	D	D	58	7.6	D	D	50	7.2	2	7.4	D	D	D	D	D	D	30	6.8	39	12.3	39	12.0
Ethnicity not reported	491	9.3	344	8.3	12	11.3	55	8.3	13	7.8	78	8.0	8	7.1	20	11.6	22	6.3	10	9.3	41	6.3	53	9.3	32	10.9
Years since entering graduate school																										
Doctorate recipients reporting year of graduate school entry	52,899	7.2	42,415	6.8	1,202	7.2	8,886	6.4	2,015	7.0	9,882	6.6	1,090	6.8	2,537	8.7	1,970	6.0	1,624	7.0	5,063	6.0	3,421	6.9	4,725	8.8
Sex																										
Male	28,100	7.0	23,769	6.8	581	7.3	4,132	6.6	1,530	7.0	7,203	6.8	585	6.8	786	7.8	1,399	6.0	1,033	6.9	3,417	6.0	866	6.9	2,237	8.3
Female	24,794	7.4	18,645	6.8	621	7.0	4,754	6.3	485	7.5	2,679	6.3	505	6.8	1,751	9.0	571	6.3	591	7.3	1,646	5.8	2,555	6.9	2,487	8.9
Citizenship status																										
U.S. citizen or permanent resident	33,511	7.1	25,548	6.7	717	7.0	6,514	6.3	739	7.3	4,229	6.0	706	6.6	1,882	9.0	907	6.0	753	7.0	2,978	5.8	3,044	6.9	3,079	8.8
Temporary visa holder	18,596	7.3	16,273	7.0	473	7.3	2,269	7.0	1,245	7.0	5,516	6.9	368	7.2	612	7.5	1,035	6.3	843	7.1	2,024	6.3	300	7.5	1,588	8.7
Ethnicity and race (U.S. citizens and permanent residents)																										
Hispanic or Latino	3,209	7.3	2,430	6.8	68	6.9	708	6.4	42	7.8	350	6.0	59	6.4	154	8.3	55	5.9	79	6.9	246	5.8	345	7.0	324	8.8
Not Hispanic or Latino																										
American Indian or Alaska Native	83	9.3	52	8.6	D	D	7	6.3	D	D	5	10.7	-	-	D	D	D	D	D	D	D	D	8	9.5	17	9.3
Asian	3,427	7.0	2,887	6.8	40	7.7	811	6.5	147	6.3	646	6.3	43	7.0	181	9.2	114	6.0	98	7.3	314	6.1	215	6.9	278	8.8
Black or African American	2,526	9.7	1,552	8.3	34	8.5	311	6.9	40	9.0	182	6.8	15	8.6	261	10.6	26	7.5	38	9.5	81	6.3	278	9.1	286	10.3
White	22,567	7.0	17,291	6.3	543	6.9	4,334	6.3	459	7.3	2,804	6.0	561	6.5	1,212	9.0	643	5.9	488	6.8	2,191	5.8	2,041	6.6	2,015	8.7
More than one race	1,192	6.8	958	6.3	17	6.9	271	6.3	25	6.9	164	5.8	22	6.7	50	8.0	49	6.0	26	6.0	107	5.8	116	6.5	111	8.7
Other race or race not reported	308	7.9	229	7.0	D	D	45	6.3	D	D	37	6.3	2	6.1	D	D	D	D	D	D	D	D	25	8.3	34	9.9
Ethnicity not reported	199	7.8	149	6.8	6	8.3	27	6.5	9	7.3	41	8.0	4	6.9	10	5.8	5	5.8	6	5.1	11	6.3	16	6.5	14	10.2

Table 3-5

Median years to science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and median years)

Time to degree and demographic characteristic	All fields		Science and engineering, total		Agricultural sciences and natural resources		Biological and biomedical sciences		Computer and information sciences		Engineering		Geosciences, atmospheric, and ocean sciences		Health sciences		Mathematics and statistics		Multidisciplinary/ interdisciplinary sciences		Physical sciences		Psychology		Social sciences	
	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Years since entering doctoral program[a]																										
Doctorate recipients reporting year of doctoral program entry[b]	51,963	5.7	41,671	5.6	1,184	4.9	8,756	5.8	1,985	5.8	9,687	5.3	1,082	5.4	2,489	5.0	1,940	5.3	1,595	5.6	4,975	5.6	3,332	5.9	4,646	6.0
Sex																										
Male	27,563	5.7	23,320	5.6	571	4.9	4,068	5.8	1,509	5.7	7,054	5.3	580	5.3	774	5.0	1,377	5.3	1,013	5.7	3,346	5.8	832	5.9	2,196	5.9
Female	24,395	5.8	18,350	5.7	613	5.0	4,688	5.7	476	5.8	2,633	5.3	502	5.5	1,715	5.0	563	5.3	582	5.5	1,629	5.3	2,500	5.9	2,449	6.0
Citizenship status																										
U.S. citizen or permanent resident	32,856	5.8	25,047	5.8	702	5.0	6,416	5.8	725	6.0	4,112	5.3	701	5.7	1,847	5.1	892	5.7	738	5.8	2,926	5.7	2,964	5.9	3,024	6.3
Temporary visa holder	18,327	5.3	16,038	5.3	470	4.8	2,238	5.6	1,230	5.3	5,440	5.3	365	5.3	600	4.9	1,019	5.3	829	5.3	1,987	5.5	293	5.4	1,567	5.8
Ethnicity and race (U.S. citizens and permanent residents)																										
Hispanic or Latino	3,136	5.8	2,374	5.8	67	5.3	698	5.8	42	6.0	341	5.3	59	5.9	146	5.1	55	5.8	78	5.8	241	5.8	329	6.0	318	6.3
Not Hispanic or Latino																										
American Indian or Alaska Native	80	6.5	51	6.3	D	D	7	5.8	D	D	5	5.0	-	-	D	D	D	D	D	D	D	D	8	7.4	16	7.0
Asian	3,358	5.8	2,824	5.8	40	5.8	795	5.8	145	5.8	625	5.6	43	5.7	181	5.0	113	5.7	95	6.0	305	5.8	210	5.9	272	6.0
Black or African American	2,443	5.8	1,508	5.8	33	5.3	306	5.8	36	5.9	175	5.6	14	4.8	254	5.4	26	5.3	36	5.7	79	5.8	270	5.9	279	6.0
White	22,180	5.8	16,986	5.8	531	5.0	4,271	5.8	451	6.0	2,737	5.3	557	5.6	1,195	5.0	631	5.7	480	5.8	2,157	5.5	1,995	5.9	1,981	6.3
More than one race	1,178	5.8	945	5.8	17	4.8	268	5.8	25	5.3	159	5.0	22	5.8	49	5.3	48	5.8	26	5.5	105	5.3	115	6.0	111	6.8
Other race or race not reported	291	6.0	217	5.9	D	D	44	5.8	D	D	31	5.8	2	6.1	D	D	D	D	D	D	D	D	22	6.0	34	6.8
Ethnicity not reported	190	5.8	142	5.7	6	4.5	27	5.6	9	5.8	39	6.0	4	5.8	9	4.8	4	5.8	5	4.9	11	5.4	15	6.0	13	6.0

- = not calculable; D = suppressed to avoid disclosure of confidential information.

[a] Years since entering doctoral program is based on master's degree program entry if the master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.
[b] Includes only cases with valid year of entry into master's program if master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, includes only cases with valid year of doctoral program entry.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-6

Median years to non-science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and median years)

Time to degree and demographic characteristic	All fields		Non-science and engineering, total		Business		Education		Humanities		Visual and performing arts		Other non-science and engineering	
	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Years since bachelor's degree														
Doctorate recipients reporting year of bachelor's degree	54,514	8.6	10,985	12.3	1,312	10.8	3,697	15.5	3,179	11.3	798	11.3	1,999	11.6
Sex														
Male	28,906	8.3	4,540	12.0	730	10.7	1,094	14.7	1,595	11.4	348	11.0	773	11.5
Female	25,603	9.0	6,441	12.8	582	10.8	2,603	15.9	1,582	11.0	450	11.6	1,224	11.6
Citizenship status														
U.S. citizen or permanent resident	34,628	8.8	8,358	13.0	634	12.3	3,161	16.2	2,586	11.2	607	11.6	1,370	12.3
Temporary visa holder	19,075	8.4	2,429	10.8	645	9.9	481	12.3	546	11.3	172	10.2	585	10.4
Ethnicity and race (U.S. citizens and permanent residents)														
Hispanic or Latino	3,306	8.6	818	12.7	46	13.4	336	14.3	266	11.0	58	11.9	112	12.1
Not Hispanic or Latino														
American Indian or Alaska Native	94	10.9	37	15.0	D	D	22	16.6	D	D	D	D	8	15.1
Asian	3,505	8.6	555	12.3	108	11.4	160	14.2	125	12.7	52	11.4	110	11.6
Black or African American	2,596	12.0	1,021	15.0	84	18.0	575	16.0	139	11.3	30	10.6	193	14.0
White	23,050	8.6	5,458	13.0	361	11.3	1,912	16.8	1,891	11.1	426	12.0	868	12.0
More than one race	1,197	8.3	232	12.0	13	16.0	79	15.0	75	10.3	20	9.6	45	10.9
Other race or race not reported	389	9.3	90	13.0	D	D	24	16.9	D	D	D	D	16	14.6
Ethnicity not reported	491	9.3	147	13.2	8	12.1	53	16.0	57	13.0	11	11.0	18	13.6
Years since entering graduate school														

Table 3-6

Median years to non-science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and median years)

Time to degree and demographic characteristic	All fields		Non-science and engineering, total		Business		Education		Humanities		Visual and performing arts		Other non-science and engineering	
	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Doctorate recipients reporting year of graduate school entry	52,899	7.2	10,484	10.1	1,260	8.8	3,481	12.3	3,042	9.8	766	9.7	1,935	9.7
Sex														
Male	28,100	7.0	4,331	9.8	703	8.8	1,023	11.8	1,516	9.8	333	9.1	756	9.5
Female	24,794	7.4	6,149	10.4	557	8.8	2,458	12.3	1,524	9.4	433	9.9	1,177	9.8
Citizenship status														
U.S. citizen or permanent resident	33,511	7.1	7,963	10.8	607	9.9	2,970	12.9	2,471	9.8	589	9.9	1,326	10.1
Temporary visa holder	18,596	7.3	2,323	8.9	620	8.3	440	9.2	527	9.7	168	8.6	568	8.9
Ethnicity and race (U.S. citizens and permanent residents)														
Hispanic or Latino	3,209	7.3	779	10.3	45	10.3	313	11.7	257	9.0	57	10.4	107	9.9
Not Hispanic or Latino														
American Indian or Alaska Native	83	9.3	31	10.3	D	D	18	11.9	D	D	D	D	7	9.8
Asian	3,427	7.0	540	10.7	106	8.8	157	12.2	118	11.0	50	9.7	109	9.6
Black or African American	2,526	9.7	974	12.0	81	14.3	546	12.8	132	9.3	30	10.5	185	11.8
White	22,567	7.0	5,276	10.8	350	9.6	1,821	13.3	1,833	9.7	418	9.9	854	10.0
More than one race	1,192	6.8	234	10.1	12	11.8	79	12.0	77	9.8	20	8.7	46	9.9
Other race or race not reported	308	7.9	79	10.3	D	D	22	11.7	D	D	D	D	12	7.6
Ethnicity not reported	199	7.8	50	11.7	2	15.9	14	13.9	24	11.5	4	11.6	6	9.2
Years since entering doctoral program[a]														

Table 3-6

Median years to non-science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and median years)

Time to degree and demographic characteristic	All fields		Non-science and engineering, total		Business		Education		Humanities		Visual and performing arts		Other non-science and engineering	
	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median	Number	Median
Doctorate recipients reporting year of doctoral program entry[b]	51,963	5.7	10,292	5.9	1,231	5.0	3,417	5.6	2,998	6.8	759	6.8	1,887	5.7
Sex														
Male	27,563	5.7	4,243	5.9	687	5.0	999	5.3	1,489	6.8	330	6.3	738	5.7
Female	24,395	5.8	6,045	5.9	544	5.0	2,418	5.6	1,507	6.8	429	6.8	1,147	5.6
Citizenship status														
U.S. citizen or permanent resident	32,856	5.8	7,809	6.0	590	5.3	2,913	5.7	2,433	6.8	583	6.8	1,290	5.8
Temporary visa holder	18,327	5.3	2,289	5.7	608	5.0	433	5.1	523	6.7	168	5.3	557	5.3
Ethnicity and race (U.S. citizens and permanent residents)														
Hispanic or Latino	3,136	5.8	762	6.3	45	5.3	306	5.8	254	6.8	55	6.9	102	5.8
Not Hispanic or Latino														
American Indian or Alaska Native	80	6.5	29	6.8	D	D	16	6.9	D	D	D	D	7	7.3
Asian	3,358	5.8	534	6.0	103	5.8	157	5.8	115	7.3	50	7.8	109	5.9
Black or African American	2,443	5.8	935	5.8	77	6.1	527	5.8	126	6.4	30	6.4	175	5.3
White	22,180	5.8	5,194	6.0	341	5.0	1,793	5.3	1,809	6.8	415	6.8	836	5.8
More than one race	1,178	5.8	233	6.3	12	5.4	78	6.0	77	6.7	20	7.1	46	6.4
Other race or race not reported	291	6.0	74	6.6	D	D	22	6.0	D	D	D	D	10	5.9
Ethnicity not reported	190	5.8	48	6.2	2	6.4	14	4.2	23	7.0	4	8.6	5	5.0

D = suppressed to avoid disclosure of confidential information.

[a] Years since entering doctoral program is based on master's degree program entry if the master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

[b] Includes only cases with valid year of entry into master's program if master's degree was at the doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, includes only cases with valid year of doctoral program entry.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 3-7

Median age and age distribution of research doctorate recipients, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Median age and percent distribution)

Field and demographic characteristic	Median age at doctorate (years)	All ages	25 and under	26–30	31–35	36–40	41–45	Over 45
Doctorate recipients reporting birth year	31.4	100.0	0.7	45.1	31.1	11.5	5.0	6.5
Science and engineering	30.8	100.0	0.8	51.8	30.7	9.2	3.5	3.9
Agricultural sciences and natural resources	31.7	100.0	1.1	40.7	35.5	12.4	5.5	4.8
Biological and biomedical sciences	30.4	100.0	0.7	56.3	32.0	7.3	2.4	1.4
Computer and information sciences	31.0	100.0	1.0	47.9	32.9	10.5	3.7	3.9
Engineering	30.2	100.0	1.2	57.8	30.1	6.9	2.2	2.0
Geosciences, atmospheric, and ocean sciences	30.4	100.0	0.5	56.6	28.5	9.3	3.2	1.9
Health sciences	34.5	100.0	0.7	27.0	29.8	15.3	9.4	17.8
Mathematics and statistics	29.4	100.0	1.9	63.9	24.4	6.7	1.9	1.2
Multidisciplinary/ interdisciplinary sciences	31.1	100.0	1.1	47.2	32.8	11.2	3.4	4.4
Physical sciences	29.2	100.0	0.9	70.3	21.8	5.2	1.3	0.6
Psychology	31.3	100.0	0.4	45.9	31.5	10.2	4.7	7.2
Social sciences	33.2	100.0	0.2	28.7	39.8	17.3	6.5	7.5
Non-science and engineering	35.7	100.0	0.2	18.5	32.7	20.5	11.3	16.9
Business	33.6	100.0	D	26.4	35.8	15.4	D	13.8
Education	38.9	100.0	0.1	10.9	25.1	22.7	15.4	25.9
Humanities	34.4	100.0	0.2	20.5	39.0	20.3	9.1	10.9
Visual and performing arts	34.0	100.0	D	23.3	39.6	22.4	D	6.6
Other non-science and engineering	35.3	100.0	D	22.3	31.7	19.2	D	16.1
Sex								
Male	31.2	100.0	0.7	46.8	32.3	10.9	4.5	4.8
Female	31.7	100.0	0.7	43.2	29.9	12.2	5.6	8.4
Citizenship status, ethnicity, and race								
U.S. citizen or permanent resident	31.6	100.0	0.7	44.0	27.8	12.1	6.3	9.0
Hispanic or Latino	31.8	100.0	0.6	41.9	30.8	12.9	5.6	8.2
Not Hispanic or Latino								
American Indian or Alaska Native	36.5	100.0	0.0	25.0	22.9	19.8	8.3	24.0
Asian	31.2	100.0	1.3	46.8	30.6	11.3	4.9	5.1
Black or African American	36.0	100.0	0.4	25.7	23.8	15.5	11.9	22.7
White	31.3	100.0	0.7	45.9	27.4	11.7	5.9	8.3
More than one race	30.9	100.0	0.7	50.2	26.6	11.2	5.9	5.4
Other race or race not reported	33.0	100.0	0.3	36.9	26.8	13.6	8.3	14.2
Ethnicity not reported	32.1	100.0	0.9	40.6	29.8	13.8	7.4	7.4
Temporary visa holder	31.2	100.0	0.7	47.2	37.2	10.3	2.8	1.9

D = suppressed to avoid disclosure of confidential information.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
All doctorate recipients (number)	57,596	30,522	27,069	35,311	19,633	3,354	98	3,586	2,647	23,320	1,210	425	671
All doctorate recipients reporting primary source of support, all fields (number)	51,170	27,154	24,011	32,673	18,210	3,124	79	3,328	2,429	22,095	1,168	282	168
Teaching assistantships	21.7	22.1	21.2	19.8	25.0	19.0	13.9	19.3	10.5	21.0	19.6	23.4	20.8
Research assistantships or traineeships[b]	35.0	40.3	29.0	27.9	47.7	21.4	12.7	33.9	14.2	29.6	26.5	23.8	30.4
Fellowships, scholarships, or dissertation grants	24.6	22.9	26.6	27.6	19.3	36.3	45.6	31.1	27.8	25.5	33.6	24.8	25.0
Own resources	14.6	10.6	19.2	20.3	4.3	19.9	24.1	13.3	41.7	19.2	17.0	22.3	20.2
Employer or other sources	4.1	4.1	4.1	4.3	3.7	3.4	3.8	2.5	5.8	4.6	3.3	5.7	3.6
Science and engineering (number)	41,086	22,997	18,088	24,917	15,935	2,365	50	2,802	1,501	16,926	938	210	125
Teaching assistantships	20.8	21.3	20.0	18.5	24.3	16.7	D	18.2	10.7	19.4	18.4	D	19.2
Research assistantships or traineeships[b]	40.9	45.7	34.9	34.0	51.8	26.0	D	37.7	18.2	36.1	31.2	D	37.6
Fellowships, scholarships, or dissertation grants	24.2	21.8	27.4	28.8	17.1	39.8	42.0	30.8	33.2	26.3	34.3	23.8	26.4
Own resources	10.8	7.7	14.6	15.4	3.4	15.0	24.0	11.0	34.0	14.6	13.6	19.0	14.4
Employer or other sources	3.4	3.5	3.1	3.3	3.4	2.6	D	2.2	3.9	3.6	2.3	D	2.4
Agricultural sciences and natural resources (number)	1,172	569	603	701	466	67	D	39	33	532	17	D	5
Teaching assistantships	11.1	10.2	11.9	11.7	10.3	9.0	0.0	15.4	D	12.2	D	D	0.0
Research assistantships or traineeships[b]	53.2	56.9	49.8	48.4	60.5	40.3	0.0	38.5	39.4	51.1	52.9	25.0	40.0
Fellowships, scholarships, or dissertation grants	19.9	17.6	22.1	20.7	18.9	29.9	D	28.2	21.2	18.8	D	0.0	40.0
Own resources	9.2	8.8	9.6	13.1	3.2	14.9	D	15.4	D	11.7	D	50.0	20.0
Employer or other sources	6.6	6.5	6.6	6.1	7.1	6.0	0.0	2.6	15.2	6.2	0.0	0.0	0.0

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Biological and biomedical sciences (number)	8,601	3,989	4,612	6,351	2,210	692	7	782	304	4,238	266	40	22
Teaching assistantships	14.1	13.9	14.2	12.8	17.9	9.8	D	11.1	6.3	14.0	12.8	D	9.1
Research assistantships or traineeships[b]	37.7	39.2	36.4	34.5	47.1	22.8	D	32.5	D	37.7	27.1	40.0	50.0
Fellowships, scholarships, or dissertation grants	37.6	36.2	38.8	41.1	27.5	58.5	D	46.5	D	36.2	49.2	40.0	27.3
Own resources	7.7	7.5	7.8	9.3	2.9	7.2	D	7.8	15.5	9.5	8.6	D	9.1
Employer or other sources	3.0	3.2	2.8	2.3	4.7	1.6	0.0	2.0	1.6	2.5	2.3	5.0	4.5
Computer and information sciences (number)	1,948	1,483	465	715	1,225	41	D	145	35	447	25	D	5
Teaching assistantships	18.1	17.9	18.5	12.0	21.6	D	0.0	13.8	D	13.4	D	0.0	20.0
Research assistantships or traineeships[b]	57.6	59.0	53.1	47.3	63.9	39.0	D	47.6	D	50.1	44.0	56.3	20.0
Fellowships, scholarships, or dissertation grants	14.3	13.0	18.3	20.6	10.4	29.3	0.0	22.8	51.4	16.6	28.0	12.5	20.0
Own resources	6.9	6.7	7.5	14.3	2.5	D	0.0	13.1	25.7	13.9	D	18.8	40.0
Employer or other sources	3.2	3.4	2.6	5.9	1.6	14.6	0.0	2.8	0.0	6.0	D	D	0.0
Engineering (number)	9,584	6,977	2,607	4,105	5,410	339	D	625	176	2,733	159	D	38
Teaching assistantships	12.0	12.0	11.9	8.3	14.7	5.6	0.0	10.6	7.4	8.1	8.2	3.2	15.8
Research assistantships or traineeships[b]	59.6	61.0	55.9	48.8	67.8	37.2	D	56.8	30.7	49.8	D	45.2	47.4
Fellowships, scholarships, or dissertation grants	19.5	17.6	24.7	30.3	11.4	47.2	D	23.2	40.3	29.1	35.2	D	26.3
Own resources	5.0	5.0	5.1	7.7	2.9	6.2	0.0	7.0	15.9	7.4	7.5	16.1	10.5
Employer or other sources	3.9	4.4	2.4	4.9	3.1	3.8	D	2.4	5.7	5.6	D	12.9	0.0

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Geosciences, atmospheric, and ocean sciences (number)	1,069	573	496	699	362	59	0	43	14	556	22	2	3
Teaching assistantships	17.0	18.5	15.3	17.6	16.0	15.3	-	18.6	D	17.3	D	50.0	0.0
Research assistantships or traineeships[b]	50.6	50.8	50.4	46.4	58.8	35.6	-	44.2	D	48.9	D	0.0	33.3
Fellowships, scholarships, or dissertation grants	24.4	21.3	28.0	27.8	18.0	35.6	-	34.9	35.7	25.5	36.4	50.0	66.7
Own resources	4.2	4.7	3.6	D	D	8.5	-	0.0	D	5.8	D	0.0	0.0
Employer or other sources	3.7	4.7	2.6	D	D	5.1	-	2.3	D	2.5	0.0	0.0	0.0
Health sciences (number)	2,448	757	1,691	1,842	595	147	D	180	253	1,192	49	D	8
Teaching assistantships	12.1	14.3	11.2	9.2	20.8	8.2	D	13.3	4.0	9.5	D	20.0	0.0
Research assistantships or traineeships[b]	24.1	31.2	20.9	20.3	36.0	17.0	0.0	24.4	9.5	22.1	26.5	20.0	25.0
Fellowships, scholarships, or dissertation grants	22.5	22.9	22.4	22.2	23.4	27.2	D	26.1	24.1	20.8	16.3	D	37.5
Own resources	33.1	24.0	37.1	40.3	11.1	41.5	D	31.7	55.3	38.6	D	40.0	37.5
Employer or other sources	8.2	7.7	8.4	8.0	8.7	6.1	0.0	4.4	7.1	9.0	8.2	10.0	0.0
Mathematics and statistics (number)	1,924	1,367	557	891	1,019	55	D	112	26	630	48	D	5
Teaching assistantships	63.7	64.5	61.6	61.8	65.6	D	0.0	55.4	65.4	63.5	60.4	D	40.0
Research assistantships or traineeships[b]	14.2	14.3	14.0	12.9	15.4	18.2	D	17.9	D	11.9	D	0.0	20.0
Fellowships, scholarships, or dissertation grants	15.9	15.2	17.4	17.1	14.5	18.2	D	18.8	D	16.2	22.9	D	20.0
Own resources	4.7	4.5	5.0	D	D	D	0.0	7.1	D	6.8	D	0.0	20.0
Employer or other sources	1.6	1.4	2.0	D	D	0.0	0.0	0.9	D	1.6	0.0	7.7	0.0

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Multidisciplinary/ interdisciplinary sciences (number)	1,566	997	569	737	825	77	D	96	36	480	26	D	5
Teaching assistantships	19.6	18.7	21.3	17.8	21.2	14.3	0.0	20.8	D	17.3	D	37.5	20.0
Research assistantships or traineeships[b]	47.6	53.0	38.1	36.2	57.8	36.4	0.0	52.1	19.4	34.6	38.5	25.0	40.0
Fellowships, scholarships, or dissertation grants	19.7	17.1	24.3	25.4	14.7	33.8	0.0	14.6	25.0	26.0	34.6	18.8	20.0
Own resources	9.2	7.0	13.0	16.4	2.5	14.3	D	10.4	D	16.7	D	D	0.0
Employer or other sources	4.0	4.3	3.3	4.2	3.8	1.3	0.0	2.1	2.8	5.4	0.0	0.0	20.0
Physical sciences (number)	4,912	3,302	1,610	2,915	1,973	241	D	302	78	2,153	104	D	10
Teaching assistantships	26.0	26.3	25.2	22.6	30.9	22.8	0.0	28.1	15.4	21.6	27.9	43.5	30.0
Research assistantships or traineeships[b]	52.9	54.1	50.2	50.8	55.9	41.9	D	48.7	25.6	53.1	51.0	D	60.0
Fellowships, scholarships, or dissertation grants	16.9	14.9	21.0	21.1	10.8	30.7	D	19.5	48.7	19.5	16.3	D	10.0
Own resources	3.2	3.5	2.7	4.5	1.3	3.7	0.0	2.6	7.7	4.8	4.8	0.0	0.0
Employer or other sources	1.0	1.1	0.9	1.0	1.2	0.8	0.0	1.0	2.6	1.0	0.0	0.0	0.0
Psychology (number)	3,273	816	2,457	2,951	295	331	8	208	269	1,990	113	21	11
Teaching assistantships	23.6	27.8	22.3	22.4	35.3	21.5	0.0	20.7	8.9	24.8	20.4	9.5	36.4
Research assistantships or traineeships[b]	22.3	21.8	22.5	21.9	27.1	21.1	D	23.6	12.3	23.6	18.6	D	9.1
Fellowships, scholarships, or dissertation grants	17.6	17.4	17.7	17.7	16.6	19.9	D	23.6	20.4	15.9	23.9	D	18.2
Own resources	34.2	30.6	35.4	36.0	16.3	35.3	D	29.8	56.5	33.7	36.3	D	27.3
Employer or other sources	2.3	2.3	2.2	2.0	4.7	2.1	0.0	2.4	1.9	2.0	0.9	0.0	9.1
Social sciences (number)	4,589	2,167	2,421	3,010	1,555	316	16	270	277	1,975	109	34	13

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Teaching assistantships	35.4	37.1	33.8	33.0	40.0	34.2	31.3	33.3	18.8	35.3	22.9	35.3	38.5
Research assistantships or traineeships[b]	13.8	12.5	15.0	13.0	15.5	10.1	D	13.0	11.6	13.6	D	8.8	15.4
Fellowships, scholarships, or dissertation grants	32.9	33.9	31.9	31.5	35.7	33.9	D	39.3	28.2	30.0	D	32.4	30.8
Own resources	14.6	12.7	16.2	19.2	5.3	20.3	31.3	12.2	37.5	17.5	17.4	17.6	15.4
Employer or other sources	3.4	3.8	3.0	3.3	3.5	1.6	0.0	2.2	4.0	3.6	2.8	5.9	0.0
Non-science and engineering (number)	10,084	4,157	5,923	7,756	2,275	759	29	526	928	5,169	230	72	43
Teaching assistantships	25.4	26.4	24.7	24.0	30.5	26.5	D	24.7	10.2	26.1	24.3	D	25.6
Research assistantships or traineeships[b]	10.9	10.5	11.1	8.5	19.0	7.1	D	13.7	7.8	8.3	7.0	D	9.3
Fellowships, scholarships, or dissertation grants	26.2	29.2	24.2	23.8	34.4	25.6	51.7	32.3	19.0	23.0	30.9	27.8	20.9
Own resources	30.4	26.4	33.2	36.2	10.5	35.0	24.1	25.5	54.2	34.6	30.9	31.9	37.2
Employer or other sources	7.1	7.4	6.9	7.5	5.6	5.8	D	3.8	8.8	8.0	7.0	D	7.0
Business (number)	1,207	677	530	589	607	45	D	102	78	340	12	D	2
Teaching assistantships	17.0	17.0	17.0	12.1	21.9	13.3	0.0	11.8	D	12.6	0.0	D	0.0
Research assistantships or traineeships[b]	23.5	23.0	24.2	18.2	28.5	D	0.0	23.5	D	18.5	D	37.5	0.0
Fellowships, scholarships, or dissertation grants	31.6	33.2	29.6	27.0	36.2	15.6	D	41.2	17.9	26.2	D	0.0	50.0
Own resources	22.5	20.8	24.5	35.7	9.6	44.4	0.0	21.6	55.1	34.4	41.7	37.5	0.0
Employer or other sources	5.4	5.9	4.7	7.1	3.8	D	0.0	2.0	9.0	8.2	D	0.0	50.0
Education (number)	3,337	979	2,358	2,890	427	305	16	154	524	1,781	77	21	12
Teaching assistantships	11.6	13.0	11.0	10.0	22.2	8.9	0.0	16.9	5.7	10.9	13.0	9.5	8.3

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Research assistantships or traineeships[b]	14.5	14.6	14.5	12.9	25.8	10.8	D	17.5	10.1	13.5	15.6	D	25.0
Fellowships, scholarships, or dissertation grants	14.3	14.4	14.3	12.9	23.0	19.0	43.8	20.8	13.4	10.3	23.4	19.0	8.3
Own resources	46.3	42.7	47.8	50.9	15.9	51.5	D	35.7	60.1	50.2	37.7	D	50.0
Employer or other sources	13.3	15.3	12.5	13.3	13.1	9.8	D	9.1	10.7	15.1	10.4	D	8.3
Humanities (number)	2,952	1,461	1,489	2,423	521	253	D	114	127	1,804	76	D	20
Teaching assistantships	40.2	37.4	43.0	39.5	44.1	47.0	D	35.1	24.4	D	32.9	D	40.0
Research assistantships or traineeships[b]	1.3	1.3	1.3	D	D	D	0.0	D	0.0	D	D	0.0	0.0
Fellowships, scholarships, or dissertation grants	37.2	38.6	35.9	35.4	46.1	32.8	D	D	44.9	34.4	D	40.7	25.0
Own resources	18.4	19.0	17.7	21.0	6.0	17.4	0.0	18.4	27.6	21.2	19.7	22.2	30.0
Employer or other sources	2.9	3.7	2.1	D	D	D	0.0	2.6	3.1	2.9	5.3	0.0	5.0
Visual and performing arts (number)	745	324	421	577	166	55	D	48	28	414	20	D	4
Teaching assistantships	35.6	36.4	34.9	33.8	42.2	32.7	D	29.2	D	34.3	35.0	0.0	50.0
Research assistantships or traineeships[b]	2.6	2.8	2.4	D	D	D	0.0	D	D	2.4	0.0	0.0	0.0
Fellowships, scholarships, or dissertation grants	41.3	38.0	43.9	40.9	43.4	45.5	D	D	39.3	38.9	40.0	66.7	50.0
Own resources	18.9	20.4	17.8	21.5	10.2	14.5	0.0	14.6	17.9	23.9	D	D	0.0
Employer or other sources	1.6	2.5	1.0	D	D	D	0.0	2.1	0.0	0.5	D	0.0	0.0
Other non-science and engineering (number)	1,843	716	1,125	1,277	554	101	7	108	171	830	45	10	5
Teaching assistantships	28.1	26.8	29.0	27.4	29.8	30.7	28.6	35.2	8.8	29.6	31.1	40.0	0.0

Table 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022

(Percent)

Field and primary source of support	Total[a]	Sex		Citizenship status		U.S. citizens and permanent residents							
							Not Hispanic or Latino						
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	Ethnicity not reported
Research assistantships or traineeships[b]	14.7	15.5	14.0	10.1	25.3	6.9	0.0	15.7	7.0	10.8	2.2	10.0	20.0
Fellowships, scholarships, or dissertation grants	20.5	22.5	19.3	17.3	27.6	20.8	57.1	22.2	14.0	16.5	22.2	10.0	0.0
Own resources	30.7	27.2	32.8	38.8	11.9	36.6	14.3	26.9	61.4	35.8	42.2	40.0	80.0
Employer or other sources	6.1	8.0	4.9	6.3	5.4	5.0	0.0	0.0	8.8	7.2	2.2	0.0	0.0

- = not calculable; D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex or citizenship status.
[b] Includes research assistantships, other assistantships, traineeships, internships, or clinical residencies.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-2

Research doctorate recipients' sources of financial support, by broad field of doctorate and sex: 2022

(Percent)

		Science and engineering													Non-science and engineering					
Sex and financial resource	All fields	Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
All doctorate recipients reporting source of support (number)	51,206	41,116	1,172	8,606	1,951	9,589	1,070	2,450	1,924	1,567	4,917	3,277	4,593	10,090	1,207	3,340	2,955	745	1,843
Fellowship or scholarship	66.6	66.4	68.9	73.0	53.2	61.1	74.5	59.3	62.5	64.0	63.0	63.2	80.4	67.6	69.3	49.2	84.4	88.6	64.8
Dissertation grant	18.0	15.7	18.8	14.7	7.1	8.7	17.2	21.3	8.1	13.1	8.9	21.4	39.5	27.3	17.3	14.7	42.1	44.3	25.9
Assistantship																			
Teaching	68.8	69.8	51.5	55.7	77.9	66.4	78.6	45.8	93.1	72.9	88.8	70.1	83.6	64.7	68.1	38.4	85.7	90.1	66.4
Research	68.0	73.9	81.1	65.8	85.0	85.1	87.9	51.5	61.8	80.3	89.4	59.2	64.6	43.8	64.8	36.7	38.4	35.2	55.1
Other	8.6	7.1	8.8	4.3	4.7	5.2	5.7	7.9	5.5	6.4	3.6	20.3	11.9	14.6	7.2	16.1	16.1	19.5	12.5
Traineeship	4.1	4.8	2.5	12.0	0.8	2.4	2.5	6.7	1.4	2.0	2.3	6.6	2.1	0.9	D	0.9	1.3	D	1.0
Internship or clinical residency	11.4	13.2	5.1	4.3	38.4	16.9	9.8	6.0	17.2	21.2	5.5	36.7	5.7	4.1	3.6	3.4	3.7	7.2	4.8
Loan (any source)	20.7	16.8	17.9	14.0	7.5	9.4	10.4	35.2	7.5	13.2	8.8	44.8	26.6	36.8	21.8	47.0	31.7	35.6	36.9
Personal sources																			
Savings	51.1	48.2	51.5	47.4	43.9	41.8	44.6	61.1	42.8	47.1	36.7	67.4	59.3	63.0	62.7	65.6	59.7	64.6	63.2
Other earnings during graduate school	29.2	24.1	26.2	20.8	16.8	15.7	20.1	44.4	17.4	22.8	13.5	45.9	40.0	49.9	25.8	57.5	52.3	57.0	45.0
Spouse's, partner's, or family's earnings or savings	38.6	36.4	40.0	37.1	30.6	31.2	31.1	43.4	31.4	34.5	27.6	55.4	43.8	47.2	45.3	45.0	49.3	52.3	47.0
Employer reimbursement or assistance	10.0	8.2	10.2	7.5	9.4	7.0	8.8	20.6	6.1	8.7	4.8	8.5	8.5	17.2	12.6	29.4	9.4	5.6	15.5
Foreign (non-U.S.) support	5.5	5.4	8.4	4.0	7.1	6.8	5.4	5.4	5.5	7.0	3.1	2.5	7.2	6.0	7.2	3.9	6.2	9.7	7.2
Other	1.0	0.9	0.9	0.9	0.7	0.6	0.4	1.8	0.6	0.6	0.7	1.8	1.3	1.5	1.7	1.6	1.4	1.1	1.5
Male doctorate recipients reporting source of support (number)	27,170	23,011	569	3,992	1,484	6,981	574	757	1,367	998	3,304	817	2,168	4,159	677	980	1,462	324	716
Fellowship or scholarship	64.5	63.5	65.0	70.5	51.3	58.5	70.6	58.1	62.9	60.9	61.2	62.8	79.6	70.1	69.1	48.8	83.7	86.4	65.2
Dissertation grant	14.4	12.3	16.2	12.9	6.2	7.9	15.0	14.8	8.3	9.4	8.4	18.8	34.1	26.1	15.7	13.9	38.2	37.0	23.2
Assistantship																			
Teaching	70.6	71.2	48.9	55.5	77.4	65.4	78.0	49.0	93.6	72.5	88.5	73.9	84.5	67.3	68.1	38.3	82.5	88.0	66.2
Research	71.7	77.0	84.9	66.0	85.0	84.9	85.4	55.6	60.4	82.0	89.2	61.1	64.7	42.8	63.4	35.8	35.4	30.2	53.6
Other	7.2	6.1	9.8	4.1	4.2	5.4	4.7	7.8	5.6	5.8	3.6	20.2	11.3	12.9	7.8	15.4	13.5	16.0	11.6
Traineeship	3.3	3.7	2.1	10.9	0.7	2.0	2.4	7.0	1.1	1.2	1.8	7.2	2.4	0.8	D	D	1.4	0.0	0.8
Internship or clinical residency	11.8	13.2	3.9	3.8	38.5	17.0	9.2	8.1	15.8	23.6	5.4	30.0	5.6	3.8	3.8	3.1	3.4	4.6	5.6
Loan (any source)	16.8	13.6	17.2	14.5	7.4	9.8	8.5	28.5	8.6	11.2	9.0	44.4	23.9	34.4	19.4	46.2	33.0	38.0	33.4
Personal sources																			
Savings	47.5	44.9	51.3	45.6	44.0	41.6	43.6	56.7	42.5	44.8	35.3	63.9	57.7	62.3	63.2	66.8	59.2	62.3	61.6
Other earnings during graduate school	24.4	20.3	19.9	16.5	16.5	15.5	16.7	35.9	17.8	20.6	12.8	45.4	36.1	47.0	24.2	56.8	51.8	57.1	40.8
Spouse's, partner's, or family's earnings or savings	32.9	31.0	37.3	32.2	28.2	29.2	26.8	32.1	28.8	29.5	26.2	45.7	39.2	43.9	40.0	38.6	48.4	48.8	43.3
Employer reimbursement or assistance	9.3	8.0	9.8	8.0	9.4	7.7	9.9	15.9	5.9	9.7	5.2	8.8	9.0	16.3	13.1	30.1	10.7	7.7	15.4
Foreign (non-U.S.) support	6.1	5.9	9.3	4.4	6.8	7.4	5.4	6.5	4.7	6.5	3.2	2.3	8.5	7.2	7.4	5.4	7.1	9.0	8.7
Other	1.0	0.8	0.7	0.8	0.7	0.7	0.7	1.7	0.6	0.5	0.6	2.2	1.3	1.9	2.2	2.1	2.0	0.9	1.8
Female doctorate recipients reporting source of support (number)	24,031	18,104	603	4,614	467	2,608	496	1,693	557	569	1,613	2,460	2,424	5,927	530	2,360	1,491	421	1,125
Fellowship or scholarship	69.1	70.1	72.5	75.1	59.3	67.8	79.0	59.8	61.4	69.4	66.8	63.4	81.2	65.9	69.4	49.3	85.0	90.3	64.4

Table 4-2

Research doctorate recipients' sources of financial support, by broad field of doctorate and sex: 2022

(Percent)

		Science and engineering												Non-science and engineering					
Sex and financial resource	All fields	Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Dissertation grant	22.1	20.1	21.2	16.2	10.1	10.7	19.8	24.2	7.5	19.5	10.0	22.2	44.3	28.1	19.4	15.0	46.0	49.9	27.7
Assistantship																			
Teaching	66.7	68.0	54.1	55.9	79.7	69.2	79.2	44.3	91.9	73.5	89.6	68.9	82.9	62.9	68.1	38.4	88.9	91.7	66.6
Research	63.8	70.0	77.6	65.7	85.0	85.7	90.7	49.7	65.4	77.3	89.8	58.5	64.6	44.5	66.6	37.1	41.4	39.0	56.0
Other	10.2	8.3	7.8	4.6	6.0	4.7	6.9	8.0	5.4	7.4	3.7	20.3	12.4	15.8	6.4	16.4	18.6	22.1	13.2
Traineeship	4.9	6.2	2.8	12.9	1.1	3.5	2.6	6.6	2.2	3.5	3.3	6.3	1.9	1.0	D	D	1.0	D	1.2
Internship or clinical residency	11.0	13.3	6.3	4.8	37.9	16.6	10.5	5.1	20.5	16.9	5.5	39.0	5.7	4.2	3.2	3.6	4.0	9.3	4.4
Loan (any source)	25.1	20.8	18.6	13.6	7.7	8.2	12.5	38.2	4.8	16.7	8.4	44.9	28.9	38.5	24.9	47.3	30.3	33.7	39.0
Personal sources																			
Savings	55.2	52.4	51.6	48.9	43.5	42.2	45.8	63.1	43.6	51.1	39.4	68.5	60.6	63.5	62.1	65.1	60.1	66.3	64.2
Other earnings during graduate school	34.7	29.0	25.2	21.5	17.8	16.1	24.0	48.3	16.2	26.5	14.9	46.1	43.4	51.9	27.9	57.8	52.7	57.0	47.6
Spouse's, partner's, or family's earnings or savings	44.9	43.4	42.6	41.4	38.3	36.7	36.1	48.5	37.7	43.2	30.7	58.7	47.8	49.5	52.1	47.7	50.0	55.1	49.4
Employer reimbursement or assistance	10.8	8.5	10.6	7.1	9.2	5.3	7.5	22.7	6.8	7.0	3.9	8.5	8.0	17.9	11.9	29.1	8.1	4.0	15.6
Foreign (non-U.S.) support	4.8	4.7	7.6	3.7	7.9	5.3	5.4	5.0	7.5	7.9	2.9	2.6	5.9	5.2	7.0	3.3	5.2	10.2	6.3
Other	1.1	1.1	1.0	1.0	0.9	0.5	0.0	1.8	0.5	0.9	0.8	1.7	1.2	1.2	1.1	1.4	0.8	1.2	1.3

D = suppressed to avoid disclosure of confidential information.

Note(s):
In this table, a doctorate recipient counts once in each source category from which they received support. Doctorate recipients may indicate multiple sources of support; thus, percentages sum to more than 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-3

Research doctorate recipients' sources of financial support, by sex and broad field of doctorate: 2022

(Number and percent distribution)

Sex and financial resource	All fields (number)	All fields (percent)	Science and engineering													Non-science and engineering					
			Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
All doctorate recipients reporting source of support	51,206	100.0	80.3	2.3	16.8	3.8	18.7	2.1	4.8	3.8	3.1	9.6	6.4	9.0	19.7	2.4	6.5	5.8	1.5	3.6
Fellowship or scholarship	34,127	100.0	80.0	2.4	18.4	3.0	17.2	2.3	4.3	3.5	2.9	9.1	6.1	10.8	20.0	2.4	4.8	7.3	1.9	3.5
Dissertation grant	9,225	100.0	70.2	2.4	13.7	1.5	9.0	2.0	5.6	1.7	2.2	4.8	7.6	19.7	29.8	2.3	5.3	13.5	3.6	5.2
Assistantship																				
Teaching	35,224	100.0	81.5	1.7	13.6	4.3	18.1	2.4	3.2	5.1	3.2	12.4	6.5	10.9	18.5	2.3	3.6	7.2	1.9	3.5
Research	34,811	100.0	87.3	2.7	16.3	4.8	23.4	2.7	3.6	3.4	3.6	12.6	5.6	8.5	12.7	2.2	3.5	3.3	0.8	2.9
Other	4,390	100.0	66.4	2.3	8.5	2.1	11.3	1.4	4.4	2.4	2.3	4.1	15.1	12.4	33.6	2.0	12.2	10.8	3.3	5.3
Traineeship	2,078	100.0	95.4	1.4	49.6	0.8	11.1	1.3	7.9	1.3	1.5	5.4	10.3	4.7	4.6	D	1.4	1.8	D	0.9
Internship or clinical residency	5,856	100.0	93.0	1.0	6.3	1.8	27.6	1.8	2.5	5.6	5.7	4.6	20.6	4.5	7.0	0.7	2.0	1.9	0.9	1.5
Loan (any source)	10,616	100.0	65.0	2.0	11.3	1.4	8.5	1.0	8.1	1.4	1.9	4.1	13.8	11.5	35.0	2.5	14.8	8.8	2.5	6.4
Personal sources																				
Savings	26,174	100.0	75.7	2.3	15.6	3.3	15.3	1.8	5.7	3.1	2.8	6.9	8.4	10.4	24.3	2.9	8.4	6.7	1.8	4.5
Other earnings during graduate school	14,963	100.0	66.4	2.1	12.0	2.2	10.1	1.4	7.3	2.2	2.4	4.4	10.1	12.3	33.6	2.1	12.8	10.3	2.8	5.5
Spouse's, partner's, or family's earnings or savings	19,744	100.0	75.9	2.4	16.2	3.0	15.2	1.7	5.4	3.1	2.7	6.9	9.2	10.2	24.1	2.8	7.6	7.4	2.0	4.4
Employer reimbursement or assistance	5,122	100.0	66.0	2.3	12.6	3.6	13.2	1.8	9.9	2.3	2.7	4.6	5.5	7.6	34.0	3.0	19.2	5.4	0.8	5.6
Foreign (non-U.S.) support	2,815	100.0	78.5	3.5	12.3	4.9	23.3	2.1	4.7	3.8	3.9	5.4	2.9	11.7	21.5	3.1	4.7	6.5	2.6	4.7
Other	533	100.0	71.3	1.9	14.1	2.6	11.6	0.8	8.1	2.1	1.9	6.0	11.3	11.1	28.7	3.9	10.3	7.7	1.5	5.3
Male doctorate recipients reporting source of support	27,170	100.0	84.7	2.1	14.7	5.5	25.7	2.1	2.8	5.0	3.7	12.2	3.0	8.0	15.3	2.5	3.6	5.4	1.2	2.6
Fellowship or scholarship	17,521	100.0	83.4	2.1	16.1	4.3	23.3	2.3	2.5	4.9	3.5	11.5	2.9	9.9	16.6	2.7	2.7	7.0	1.6	2.7
Dissertation grant	3,914	100.0	72.3	2.4	13.2	2.4	14.1	2.2	2.9	2.9	2.4	7.1	3.9	18.9	27.7	2.7	3.5	14.3	3.1	4.2
Assistantship																				
Teaching	19,188	100.0	85.4	1.4	11.5	6.0	23.8	2.3	1.9	6.7	3.8	15.2	3.1	9.5	14.6	2.4	2.0	6.3	1.5	2.5
Research	19,488	100.0	90.9	2.5	13.5	6.5	30.4	2.5	2.2	4.2	4.2	15.1	2.6	7.2	9.1	2.2	1.8	2.7	0.5	2.0
Other	1,943	100.0	72.4	2.9	8.4	3.2	19.3	1.4	3.0	3.9	3.0	6.2	8.5	12.6	27.6	2.7	7.8	10.1	2.7	4.3
Traineeship	896	100.0	96.1	1.3	48.7	1.6	15.4	1.6	5.9	1.7	1.3	6.7	6.6	5.7	3.9	D	D	2.3	0.0	0.7
Internship or clinical residency	3,202	100.0	95.0	0.7	4.7	17.9	37.0	1.7	1.9	6.7	7.4	5.6	7.7	3.8	5.0	0.8	0.9	1.5	0.5	1.2
Loan (any source)	4,570	100.0	68.7	2.1	12.6	2.4	15.0	1.1	4.7	2.6	2.5	6.5	7.9	11.3	31.3	2.9	9.9	10.6	2.7	5.2
Personal sources																				
Savings	12,914	100.0	79.9	2.3	14.1	5.1	22.5	1.9	3.3	4.5	3.5	9.0	4.0	9.7	20.1	3.3	5.1	6.7	1.6	3.4
Other earnings during graduate school	6,629	100.0	70.5	2.3	12.0	3.7	16.4	1.4	4.1	3.7	3.1	6.4	5.6	11.8	29.5	2.5	8.4	11.4	2.8	4.4
Spouse's, partner's, or family's earnings or savings	8,951	100.0	79.6	2.4	14.4	4.7	22.8	1.7	2.7	4.4	3.3	9.7	4.2	9.5	20.4	3.0	4.2	7.9	1.8	3.5
Employer reimbursement or assistance	2,525	100.0	73.2	2.2	12.7	5.5	21.3	2.3	4.8	3.2	3.8	6.8	2.9	7.8	26.8	3.5	11.7	6.2	1.0	4.4
Foreign (non-U.S.) support	1,665	100.0	82.1	3.2	10.6	6.1	31.1	1.9	2.9	3.8	3.9	6.4	1.1	11.1	17.9	3.0	3.2	6.2	1.7	3.7
Other	270	100.0	70.0	1.5	11.5	3.7	17.8	1.5	4.8	3.0	1.9	7.0	6.7	10.7	30.0	5.6	7.8	10.7	1.1	4.8
Female doctorate recipients reporting source of support	24,031	100.0	75.3	2.5	19.2	1.9	10.9	2.1	7.0	2.3	2.4	6.7	10.2	10.1	24.7	2.2	9.8	6.2	1.8	4.7
Fellowship or scholarship	16,601	100.0	76.5	2.6	20.9	1.7	10.7	2.4	6.1	2.1	2.4	6.5	9.4	11.9	23.5	2.2	7.0	7.6	2.3	4.4

Table 4-3

Research doctorate recipients' sources of financial support, by sex and broad field of doctorate: 2022

(Number and percent distribution)

			Science and engineering													Non-science and engineering					
Sex and financial resource	All fields (number)	All fields (percent)	Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Dissertation grant	5,309	100.0	68.6	2.4	14.1	0.9	5.2	1.8	7.7	0.8	2.1	3.1	10.3	20.2	31.4	1.9	6.7	12.9	4.0	5.9
Assistantship																				
Teaching	16,032	100.0	76.7	2.0	16.1	2.3	11.3	2.5	4.7	3.2	2.6	9.0	10.6	12.5	23.3	2.3	5.7	8.3	2.4	4.7
Research	15,320	100.0	82.8	3.1	19.8	2.6	14.6	2.9	5.5	2.4	2.9	9.5	9.4	10.2	17.2	2.3	5.7	4.0	1.1	4.1
Other	2,446	100.0	61.6	1.9	8.6	1.1	5.0	1.4	5.5	1.2	1.7	2.4	20.4	12.3	38.4	1.4	15.8	11.4	3.8	6.1
Traineeship	1,181	100.0	95.0	1.4	50.4	0.4	7.8	1.1	9.5	1.0	1.7	4.5	13.2	4.0	5.0	D	D	1.3	D	1.1
Internship or clinical residency	2,653	100.0	90.6	1.4	8.3	6.7	16.4	2.0	3.2	4.3	3.6	3.4	36.1	5.2	9.4	0.6	3.2	2.2	1.5	1.8
Loan (any source)	6,041	100.0	62.2	1.9	10.4	0.6	3.5	1.0	10.7	0.4	1.6	2.3	18.3	11.6	37.8	2.2	18.5	7.5	2.4	7.3
Personal sources																				
Savings	13,255	100.0	71.6	2.3	17.0	1.5	8.3	1.7	8.1	1.8	2.2	4.8	12.7	11.1	28.4	2.5	11.6	6.8	2.1	5.4
Other earnings during graduate school	8,329	100.0	63.1	1.8	11.9	1.0	5.1	1.4	9.8	1.1	1.8	2.9	13.6	12.6	36.9	1.8	16.4	9.4	2.9	6.4
Spouse's, partner's, or family's earnings or savings	10,789	100.0	72.8	2.4	17.7	1.7	8.9	1.7	7.6	1.9	2.3	4.6	13.4	10.7	27.2	2.6	10.4	6.9	2.2	5.2
Employer reimbursement or assistance	2,596	100.0	59.1	2.5	12.6	1.7	5.3	1.4	14.8	1.5	1.5	2.4	8.0	7.4	40.9	2.4	26.4	4.7	0.7	6.7
Foreign (non-U.S.) support	1,149	100.0	73.4	4.0	14.7	3.2	12.1	2.3	7.3	3.7	3.9	4.0	5.6	12.5	26.6	3.2	6.8	6.7	3.7	6.2
Other	263	100.0	72.6	2.3	16.7	1.5	5.3	0.0	11.4	1.1	1.9	4.9	16.0	11.4	27.4	2.3	12.9	4.6	1.9	5.7

D = suppressed to avoid disclosure of confidential information.

Note(s):
In this table, a doctorate recipient counts once in each source category from which they received support. Doctorate recipients may indicate multiple sources of support; thus, percentages sum to more than 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-4

Education-related debt of research doctorate recipients, by broad field of doctorate: 2022

(Median debt, number, and percent)

Debt level	All fields		Science and engineering																												Non-science and engineering									
			Total		Agricultural sciences and natural resources		Biological and biomedical sciences		Computer and information sciences		Engineering		Geosciences, atmospheric, and ocean sciences		Health sciences		Mathematics and statistics		Multidisciplinary/ interdisciplinary sciences		Physical sciences		Psychology		Social sciences		Total		Business		Education		Humanities		Visual and performing arts		Other non-science and engineering	
Cumulative debt																																								
All reporting education-related debt (number)	52,147		41,859		1,189		8,795		1,972		9,767		1,078		2,498		1,946		1,587		5,012		3,345		4,670		10,288		1,233		3,408		2,998		755		1,894	
Median debt (dollars)	40,000		35,000		35,000		30,000		25,000		25,000		25,000		70,000		25,000		30,000		25,000		80,000		50,000		60,000		45,000		75,000		50,000		45,000		65,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	32,381	62.1	27,126	64.8	731	61.5	5,487	62.4	1,605	81.4	7,196	73.7	733	68.0	1,263	50.6	1,491	76.6	1,156	72.8	3,373	67.3	1,342	40.1	2,749	58.9	5,255	51.1	836	67.8	1,473	43.2	1,593	53.1	384	50.9	969	51.2
$10,000 or less	3,538	6.8	2,883	6.9	100	8.4	643	7.3	110	5.6	713	7.3	95	8.8	155	6.2	92	4.7	100	6.3	387	7.7	170	5.1	318	6.8	655	6.4	76	6.2	196	5.8	208	6.9	58	7.7	117	6.2
$10,001–$20,000	2,639	5.1	2,098	5.0	66	5.6	545	6.2	66	3.3	423	4.3	59	5.5	105	4.2	87	4.5	65	4.1	299	6.0	158	4.7	225	4.8	541	5.3	49	4.0	168	4.9	182	6.1	50	6.6	92	4.9
$20,001–$30,000	2,306	4.4	1,868	4.5	56	4.7	486	5.5	48	2.4	377	3.9	44	4.1	99	4.0	59	3.0	63	4.0	254	5.1	179	5.4	203	4.3	438	4.3	39	3.2	156	4.6	137	4.6	40	5.3	66	3.5
$30,001–$40,000	1,693	3.2	1,313	3.1	37	3.1	379	4.3	28	1.4	237	2.4	30	2.8	66	2.6	46	2.4	37	2.3	174	3.5	142	4.2	137	2.9	380	3.7	31	2.5	132	3.9	124	4.1	29	3.8	64	3.4
$40,001–$50,000	1,216	2.3	918	2.2	34	2.9	232	2.6	23	1.2	120	1.2	17	1.6	64	2.6	30	1.5	24	1.5	116	2.3	134	4.0	124	2.7	298	2.9	24	1.9	105	3.1	89	3.0	22	2.9	58	3.1
$50,001–$60,000	1,035	2.0	741	1.8	21	1.8	162	1.8	11	0.6	131	1.3	22	2.0	69	2.8	20	1.0	14	0.9	82	1.6	92	2.8	117	2.5	294	2.9	20	1.6	94	2.8	94	3.1	28	3.7	58	3.1
$60,001–$70,000	871	1.7	623	1.5	19	1.6	135	1.5	11	0.6	101	1.0	17	1.6	77	3.1	15	0.8	19	1.2	68	1.4	79	2.4	82	1.8	248	2.4	11	0.9	116	3.4	60	2.0	15	2.0	46	2.4
$70,001–$80,000	694	1.3	501	1.2	21	1.8	99	1.1	D	D	70	0.7	D	D	59	2.4	20	1.0	11	0.7	49	1.0	81	2.4	75	1.6	193	1.9	12	1.0	82	2.4	44	1.5	14	1.9	41	2.2
$80,001–$90,000	721	1.4	495	1.2	12	1.0	108	1.2	7	0.4	65	0.7	6	0.6	61	2.4	12	0.6	15	0.9	42	0.8	85	2.5	82	1.8	226	2.2	10	0.8	96	2.8	59	2.0	20	2.6	41	2.2
$90,001–$100,000	802	1.5	599	1.4	15	1.3	129	1.5	11	0.6	94	1.0	14	1.3	65	2.6	20	1.0	17	1.1	55	1.1	113	3.4	66	1.4	203	2.0	7	0.6	102	3.0	49	1.6	8	1.1	37	2.0
$100,001–$120,000	923	1.8	587	1.4	15	1.3	112	1.3	10	0.5	67	0.7	11	1.0	66	2.6	19	1.0	15	0.9	40	0.8	140	4.2	92	2.0	336	3.3	13	1.1	164	4.8	78	2.6	22	2.9	59	3.1
$120,001–$140,000	626	1.2	381	0.9	11	0.9	70	0.8	D	D	33	0.3	D	D	61	2.4	9	0.5	11	0.7	16	0.3	87	2.6	76	1.6	245	2.4	16	1.3	108	3.2	66	2.2	10	1.3	45	2.4
$140,001–$160,000	623	1.2	410	1.0	14	1.2	73	0.8	5	0.3	39	0.4	5	0.5	64	2.6	10	0.5	12	0.8	23	0.5	90	2.7	75	1.6	213	2.1	20	1.6	88	2.6	48	1.6	20	2.6	37	2.0
$160,001 or more	2,079	4.0	1,316	3.1	37	3.1	135	1.5	28	1.4	101	1.0	11	1.0	224	9.0	16	0.8	28	1.8	34	0.7	453	13.5	249	5.3	763	7.4	69	5.6	328	9.6	167	5.6	35	4.6	164	8.7
Graduate debt																																								
All reporting graduate debt (number)	52,071		41,799		1,188		8,782		1,968		9,758		1,078		2,491		1,941		1,585		5,005		3,341		4,662		10,272		1,232		3,403		2,994		754		1,889	
Median debt (dollars)	35,000		35,000		25,000		25,000		15,000		15,000		25,000		55,000		25,000		25,000		15,000		65,000		45,000		45,000		35,000		55,000		35,000		35,000		55,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	38,237	73.4	32,303	77.3	869	73.1	7,132	81.2	1,703	86.5	8,116	83.2	923	85.6	1,435	57.6	1,687	86.9	1,277	80.6	4,324	86.4	1,702	50.9	3,135	67.2	5,934	57.8	877	71.2	1,644	48.3	1,896	63.3	447	59.3	1,070	56.6
$10,000 or less	2,864	5.5	2,194	5.2	99	8.3	438	5.0	91	4.6	530	5.4	54	5.0	125	5.0	67	3.5	88	5.6	264	5.3	164	4.9	274	5.9	670	6.5	73	5.9	215	6.3	198	6.6	63	8.4	121	6.4
$10,001–$20,000	1,801	3.5	1,293	3.1	41	3.5	232	2.6	44	2.2	292	3.0	23	2.1	106	4.3	38	2.0	54	3.4	115	2.3	143	4.3	205	4.4	508	4.9	55	4.5	174	5.1	135	4.5	51	6.8	93	4.9
$20,001–$30,000	1,440	2.8	1,010	2.4	37	3.1	189	2.2	27	1.4	198	2.0	17	1.6	92	3.7	38	2.0	35	2.2	73	1.5	145	4.3	159	3.4	430	4.2	33	2.7	162	4.8	127	4.2	30	4.0	78	4.1
$30,001–$40,000	995	1.9	662	1.6	17	1.4	126	1.4	18	0.9	137	1.4	9	0.8	72	2.9	19	1.0	17	1.1	42	0.8	91	2.7	114	2.4	333	3.2	25	2.0	135	4.0	94	3.1	22	2.9	57	3.0
$40,001–$50,000	821	1.6	570	1.4	11	0.9	116	1.3	14	0.7	82	0.8	13	1.2	68	2.7	15	0.8	19	1.2	33	0.7	107	3.2	92	2.0	251	2.4	18	1.5	99	2.9	61	2.0	22	2.9	51	2.7
$50,001–$60,000	763	1.5	488	1.2	20	1.7	95	1.1	12	0.6	79	0.8	8	0.7	66	2.6	9	0.5	10	0.6	29	0.6	79	2.4	81	1.7	275	2.7	10	0.8	123	3.6	73	2.4	15	2.0	54	2.9
$60,001–$70,000	644	1.2	428	1.0	10	0.8	74	0.8	12	0.6	59	0.6	6	0.6	75	3.0	8	0.4	13	0.8	20	0.4	91	2.7	60	1.3	216	2.1	11	0.9	112	3.3	46	1.5	13	1.7	34	1.8
$70,001–$80,000	492	0.9	313	0.7	D	D	53	0.6	D	D	37	0.4	8	0.7	43	1.7	9	0.5	11	0.7	16	0.3	68	2.0	57	1.2	179	1.7	11	0.9	80	2.4	41	1.4	7	0.9	40	2.1
$80,001–$90,000	463	0.9	266	0.6	D	D	42	0.5	6	0.3	30	0.3	0	0.0	48	1.9	8	0.4	D	D	14	0.3	54	1.6	49	1.1	197	1.9	13	1.1	102	3.0	32	1.1	17	2.3	33	1.7
$90,001–$100,000	482	0.9	335	0.8	11	0.9	51	0.6	D	D	38	0.4	D	D	47	1.9	8	0.4	14	0.9	18	0.4	82	2.5	59	1.3	147	1.4	11	0.9	66	1.9	30	1.0	8	1.1	32	1.7
$100,001–$120,000	737	1.4	448	1.1	13	1.1	67	0.8	7	0.4	43	0.4	9	0.8	60	2.4	16	0.8	11	0.7	26	0.5	102	3.1	94	2.0	289	2.8	14	1.1	140	4.1	74	2.5	16	2.1	45	2.4
$120,001–$140,000	497	1.0	306	0.7	9	0.8	44	0.5	D	D	25	0.3	D	D	53	2.1	D	D	8	0.5	11	0.2	86	2.6	65	1.4	191	1.9	12	1.0	91	2.7	49	1.6	7	0.9	32	1.7

Table 4-4

Education-related debt of research doctorate recipients, by broad field of doctorate: 2022

(Median debt, number, and percent)

Debt level	All fields		Science and engineering																												Non-science and engineering											
			Total		Agricultural sciences and natural resources		Biological and biomedical sciences		Computer and information sciences		Engineering		Geosciences, atmospheric, and ocean sciences		Health sciences		Mathematics and statistics		Multidisciplinary/ interdisciplinary sciences		Physical sciences		Psychology		Social sciences		Total		Business		Education		Humanities		Visual and performing arts		Other non-science and engineering	
$140,001–$160,000	547	1.1	332	0.8	D	D	36	0.4	7	0.4	38	0.4	D	D	67	2.7	7	0.4	D	D	9	0.2	87	2.6	63	1.4	215	2.1	29	2.4	76	2.2	46	1.5	16	2.1	48	2.5
$160,001 or more	1,288	2.5	851	2.0	26	2.2	87	1.0	17	0.9	54	0.6	D	D	134	5.4	D	D	16	1.0	11	0.2	340	10.2	155	3.3	437	4.3	40	3.2	184	5.4	92	3.1	20	2.7	101	5.3
Undergraduate debt																																										
All reporting undergraduate debt (number)	52,096		41,819		1,189		8,790		1,971		9,760		1,077		2,494		1,943		1,584		5,008		3,338		4,665		10,277		1,232		3,408		2,992		755		1,890	
Median debt (dollars)	25,000		25,000		25,000		25,000		15,000		15,000		25,000		35,000		25,000		25,000		25,000		35,000		25,000		25,000		25,000		25,000		25,000		25,000		25,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	38,204	73.3	31,216	74.6	867	72.9	6,119	69.6	1,742	88.4	8,093	82.9	797	74.0	1,716	68.8	1,597	82.2	1,306	82.4	3,624	72.4	1,987	59.5	3,368	72.2	6,988	68.0	1,029	83.5	2,139	62.8	2,021	67.5	512	67.8	1,287	68.1
$10,000 or less	3,093	5.9	2,411	5.8	77	6.5	578	6.6	82	4.2	498	5.1	72	6.7	151	6.1	78	4.0	69	4.4	301	6.0	205	6.1	300	6.4	682	6.6	49	4.0	255	7.5	203	6.8	47	6.2	128	6.8
$10,001–$20,000	2,619	5.0	2,041	4.9	63	5.3	551	6.3	45	2.3	341	3.5	53	4.9	108	4.3	77	4.0	55	3.5	297	5.9	222	6.7	229	4.9	578	5.6	28	2.3	219	6.4	185	6.2	46	6.1	100	5.3
$20,001–$30,000	2,318	4.4	1,808	4.3	62	5.2	471	5.4	40	2.0	280	2.9	46	4.3	126	5.1	59	3.0	46	2.9	247	4.9	223	6.7	208	4.5	510	5.0	34	2.8	187	5.5	154	5.1	46	6.1	89	4.7
$30,001–$40,000	1,752	3.4	1,361	3.3	35	2.9	373	4.2	20	1.0	183	1.9	33	3.1	93	3.7	52	2.7	33	2.1	187	3.7	201	6.0	151	3.2	391	3.8	25	2.0	152	4.5	129	4.3	25	3.3	60	3.2
$40,001–$50,000	1,100	2.1	828	2.0	29	2.4	210	2.4	8	0.4	102	1.0	17	1.6	70	2.8	27	1.4	16	1.0	103	2.1	134	4.0	112	2.4	272	2.6	16	1.3	104	3.1	79	2.6	27	3.6	46	2.4
$50,001–$60,000	819	1.6	572	1.4	15	1.3	147	1.7	11	0.6	61	0.6	11	1.0	45	1.8	18	0.9	13	0.8	76	1.5	84	2.5	91	2.0	247	2.4	8	0.6	99	2.9	81	2.7	16	2.1	43	2.3
$60,001–$70,000	523	1.0	385	0.9	6	0.5	93	1.1	D	D	47	0.5	D	D	39	1.6	10	0.5	13	0.8	43	0.9	59	1.8	53	1.1	138	1.3	7	0.6	52	1.5	36	1.2	9	1.2	34	1.8
$70,001–$80,000	366	0.7	275	0.7	10	0.8	66	0.8	D	D	37	0.4	D	D	25	1.0	6	0.3	5	0.3	35	0.7	48	1.4	32	0.7	91	0.9	D	D	38	1.1	22	0.7	10	1.3	D	D
$80,001–$90,000	404	0.8	287	0.7	6	0.5	68	0.8	D	D	36	0.4	D	D	33	1.3	6	0.3	12	0.8	43	0.9	35	1.0	35	0.8	117	1.1	5	0.4	51	1.5	30	1.0	6	0.8	25	1.3
$90,001 or more	898	1.7	635	1.5	19	1.6	114	1.3	8	0.4	82	0.8	17	1.6	88	3.5	13	0.7	16	1.0	52	1.0	140	4.2	86	1.8	263	2.6	D	D	112	3.3	52	1.7	11	1.5	D	D

D = suppressed to avoid disclosure of confidential information.

Note(s):
Median calculations and percentages are based only on valid responses to debt questions. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-5

Education-related debt of research doctorate recipients, by sex, citizenship status, ethnicity, and race: 2022

(Median debt, number, and percent)

	Sex				Citizenship status				U.S. citizens and permanent residents															
											Not Hispanic or Latino													
Debt level	Male		Female		U.S. citizen or permanent resident		Temporary visa holder		Hispanic or Latino		American Indian or Alaska Native		Asian		Black or African American		White		More than one race		Other race or race not reported		Ethnicity not reported	
Cumulative debt																								
All reporting education-related debt (number)	27,743		24,399		33,390		18,488		3,196		83		3,415		2,511		22,523		1,188		296		178	
Median debt (dollars)	35,000		50,000		45,000		15,000		45,000		60,000		25,000		100,000		45,000		45,000		50,000		60,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	18,011	64.9	14,370	58.9	17,206	51.5	15,001	81.1	1,308	40.9	20	24.1	2,410	70.6	526	20.9	12,061	53.5	629	52.9	161	54.4	91	51.1
$10,000 or less	1,993	7.2	1,545	6.3	2,234	6.7	1,293	7.0	301	9.4	7	8.4	230	6.7	148	5.9	1,439	6.4	79	6.6	18	6.1	12	6.7
$10,001–$20,000	1,429	5.2	1,210	5.0	2,058	6.2	567	3.1	227	7.1	9	10.8	171	5.0	124	4.9	1,438	6.4	60	5.1	20	6.8	9	5.1
$20,001–$30,000	1,224	4.4	1,082	4.4	1,897	5.7	394	2.1	221	6.9	6	7.2	146	4.3	126	5.0	1,313	5.8	62	5.2	11	3.7	12	6.7
$30,001–$40,000	889	3.2	804	3.3	1,449	4.3	237	1.3	150	4.7	D	D	75	2.2	120	4.8	1,023	4.5	D	D	10	3.4	5	2.8
$40,001–$50,000	601	2.2	615	2.5	1,023	3.1	189	1.0	102	3.2	D	D	60	1.8	94	3.7	711	3.2	D	D	10	3.4	5	2.8
$50,001–$60,000	511	1.8	523	2.1	880	2.6	146	0.8	93	2.9	D	D	43	1.3	89	3.5	617	2.7	D	D	6	2.0	2	1.1
$60,001–$70,000	390	1.4	481	2.0	753	2.3	111	0.6	87	2.7	D	D	37	1.1	72	2.9	508	2.3	D	D	5	1.7	5	2.8
$70,001–$80,000	310	1.1	383	1.6	615	1.8	75	0.4	69	2.2	D	D	24	0.7	75	3.0	411	1.8	D	D	6	2.0	5	2.8
$80,001–$90,000	324	1.2	396	1.6	662	2.0	55	0.3	89	2.8	0	0.0	34	1.0	100	4.0	410	1.8	22	1.9	5	1.7	2	1.1
$90,001–$100,000	354	1.3	448	1.8	719	2.2	82	0.4	90	2.8	D	D	39	1.1	88	3.5	470	2.1	D	D	4	1.4	3	1.7
$100,001–$120,000	385	1.4	537	2.2	826	2.5	92	0.5	107	3.3	9	10.8	25	0.7	141	5.6	500	2.2	29	2.4	9	3.0	6	3.4
$120,001–$140,000	249	0.9	377	1.5	582	1.7	44	0.2	73	2.3	D	D	20	0.6	116	4.6	336	1.5	D	D	8	2.7	3	1.7
$140,001–$160,000	286	1.0	337	1.4	562	1.7	58	0.3	63	2.0	D	D	26	0.8	127	5.1	318	1.4	D	D	7	2.4	5	2.8
$160,001 or more	787	2.8	1,291	5.3	1,924	5.8	144	0.8	216	6.8	8	9.6	75	2.2	565	22.5	968	4.3	63	5.3	16	5.4	13	7.3
Graduate debt																								
All reporting graduate debt (number)	27,707		24,359		33,355		18,453		3,192		83		3,410		2,506		22,507		1,188		294		175	
Median debt (dollars)	35,000		45,000		45,000		15,000		45,000		55,000		35,000		85,000		45,000		45,000		55,000		65,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	21,230	76.6	17,007	69.8	22,471	67.4	15,574	84.4	1,858	58.2	32	38.6	2,789	81.8	846	33.8	15,804	70.2	830	69.9	194	66.0	118	67.4
$10,000 or less	1,572	5.7	1,291	5.3	1,729	5.2	1,122	6.1	226	7.1	7	8.4	156	4.6	122	4.9	1,139	5.1	55	4.6	16	5.4	8	4.6
$10,001–$20,000	919	3.3	882	3.6	1,287	3.9	504	2.7	173	5.4	7	8.4	85	2.5	128	5.1	832	3.7	44	3.7	9	3.1	9	5.1
$20,001–$30,000	732	2.6	707	2.9	1,104	3.3	327	1.8	137	4.3	6	7.2	59	1.7	106	4.2	755	3.4	30	2.5	6	2.0	5	2.9
$30,001–$40,000	466	1.7	529	2.2	807	2.4	183	1.0	98	3.1	D	D	55	1.6	88	3.5	524	2.3	31	2.6	D	D	3	1.7
$40,001–$50,000	376	1.4	445	1.8	668	2.0	148	0.8	78	2.4	D	D	36	1.1	85	3.4	429	1.9	29	2.4	D	D	1	0.6
$50,001–$60,000	353	1.3	410	1.7	647	1.9	111	0.6	73	2.3	D	D	29	0.9	93	3.7	418	1.9	22	1.9	D	D	1	0.6
$60,001–$70,000	249	0.9	395	1.6	559	1.7	82	0.4	61	1.9	D	D	34	1.0	76	3.0	356	1.6	21	1.8	D	D	4	2.3
$70,001–$80,000	210	0.8	282	1.2	434	1.3	55	0.3	39	1.2	D	D	21	0.6	72	2.9	274	1.2	D	D	7	2.4	3	1.7
$80,001–$90,000	204	0.7	258	1.1	431	1.3	30	0.2	53	1.7	D	D	16	0.5	89	3.6	255	1.1	D	D	3	1.0	4	2.3
$90,001–$100,000	203	0.7	279	1.1	424	1.3	57	0.3	53	1.7	D	D	19	0.6	89	3.6	244	1.1	D	D	3	1.0	3	1.7
$100,001–$120,000	286	1.0	450	1.8	661	2.0	71	0.4	85	2.7	D	D	25	0.7	131	5.2	381	1.7	D	D	8	2.7	3	1.7

Table 4-5

Education-related debt of research doctorate recipients, by sex, citizenship status, ethnicity, and race: 2022

(Median debt, number, and percent)

	Sex				Citizenship status				U.S. citizens and permanent residents															
											Not Hispanic or Latino													
Debt level	Male		Female		U.S. citizen or permanent resident		Temporary visa holder		Hispanic or Latino		American Indian or Alaska Native		Asian		Black or African American		White		More than one race		Other race or race not reported		Ethnicity not reported	
$120,001–$140,000	202	0.7	295	1.2	459	1.4	36	0.2	65	2.0	D	D	14	0.4	108	4.3	242	1.1	D	D	8	2.7	4	2.3
$140,001–$160,000	226	0.8	321	1.3	493	1.5	53	0.3	54	1.7	D	D	21	0.6	128	5.1	265	1.2	D	D	2	0.7	3	1.7
$160,001 or more	479	1.7	808	3.3	1,181	3.5	100	0.5	139	4.4	5	6.0	51	1.5	345	13.8	589	2.6	33	2.8	13	4.4	6	3.4
Undergraduate debt																								
All reporting undergraduate debt (number)	27,717		24,374		33,355		18,477		3,193		83		3,405		2,505		22,511		1,185		295		178	
Median debt (dollars)	25,000		25,000		25,000		15,000		25,000		35,000		15,000		35,000		25,000		25,000		25,000		35,000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
No debt	20,868	75.3	17,334	71.1	21,197	63.5	16,806	91.0	1,760	55.1	38	45.8	2,695	79.1	975	38.9	14,654	65.1	760	64.1	206	69.8	109	61.2
$10,000 or less	1,653	6.0	1,439	5.9	2,339	7.0	746	4.0	343	10.7	9	10.8	196	5.8	225	9.0	1,456	6.5	78	6.6	18	6.1	14	7.9
$10,001–$20,000	1,315	4.7	1,304	5.3	2,281	6.8	324	1.8	261	8.2	9	10.8	169	5.0	210	8.4	1,528	6.8	73	6.2	22	7.5	9	5.1
$20,001–$30,000	1,113	4.0	1,205	4.9	2,097	6.3	209	1.1	234	7.3	D	D	D	D	210	8.4	1,398	6.2	70	5.9	17	5.8	11	6.2
$30,001–$40,000	905	3.3	847	3.5	1,622	4.9	120	0.6	170	5.3	6	7.2	58	1.7	185	7.4	1,119	5.0	70	5.9	7	2.4	7	3.9
$40,001–$50,000	533	1.9	567	2.3	1,012	3.0	80	0.4	127	4.0	D	D	D	D	143	5.7	655	2.9	32	2.7	8	2.7	6	3.4
$50,001–$60,000	417	1.5	400	1.6	760	2.3	57	0.3	91	2.8	D	D	D	D	133	5.3	489	2.2	22	1.9	2	0.7	2	1.1
$60,001–$70,000	237	0.9	286	1.2	481	1.4	41	0.2	37	1.2	D	D	D	D	70	2.8	325	1.4	21	1.8	3	1.0	4	2.2
$70,001–$80,000	151	0.5	215	0.9	351	1.1	15	0.1	32	1.0	D	D	D	D	63	2.5	229	1.0	11	0.9	0	0.0	2	1.1
$80,001–$90,000	180	0.6	224	0.9	371	1.1	31	0.2	42	1.3	0	0.0	17	0.5	76	3.0	219	1.0	12	1.0	1	0.3	4	2.2
$90,001 or more	345	1.2	553	2.3	844	2.5	48	0.3	96	3.0	D	D	D	D	215	8.6	439	2.0	36	3.0	11	3.7	10	5.6

D = suppressed to avoid disclosure of confidential information.

Note(s):
Median calculations and percentages are based only on valid responses to debt questions.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 4-6

U.S. citizen and permanent resident research doctorate recipients with graduate education-related debt, by ethnicity, race, and broad field of doctorate: 2022

(Number and percent)

Ethnicity, race, and debt level	All fields	Science and engineering													Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
U.S. citizens and permanent residents reporting graduate debt																			
Total (number)[a]	33,355	25,434	714	6,494	731	4,216	704	1,870	901	747	2,967	3,021	3,069	7,921	605	2,951	2,461	587	1,317
Debt > $30,000 (%)	20.3	16.6	15.4	10.8	7.8	7.2	5.8	36.6	8.3	13.8	5.8	38.1	26.5	32.2	26.6	39.3	24.7	26.2	35.5
Debt > $70,000 (%)	12.2	9.8	8.7	5.3	4.2	3.0	2.4	23.3	4.3	8.4	2.8	26.4	16.6	19.9	19.0	24.2	14.4	15.2	23.3
Hispanic or Latino																			
Total (number)[a]	3,192	2,415	68	703	41	349	59	152	55	78	245	341	324	777	45	312	256	57	107
Debt > $30,000 (%)	25.0	21.4	23.5	13.4	D	9.7	13.6	36.8	D	21.8	8.6	44.0	35.2	36.2	33.3	45.8	25.0	22.8	43.0
Debt > $70,000 (%)	15.3	12.5	10.3	6.3	D	4.6	D	21.1	D	15.4	4.5	30.2	22.5	23.8	D	30.1	14.8	D	31.8
Not Hispanic or Latino																			
American Indian or Alaska Native																			
Total (number)[a]	83	52	D	7	D	D	0	D	D	D	D	8	17	31	D	18	D	D	7
Debt > $30,000 (%)	37.3	36.5	D	D	0.0	0.0	-	D	0.0	D	0.0	D	52.9	38.7	0.0	D	0.0	D	D
Debt > $70,000 (%)	24.1	25.0	D	D	0.0	0.0	-	0.0	0.0	D	0.0	D	D	22.6	0.0	D	0.0	D	D
Asian																			
Total (number)[a]	3,410	2,874	40	808	145	645	43	180	113	97	313	214	276	536	105	155	118	49	109
Debt > $30,000 (%)	9.4	8.1	12.5	5.4	4.8	5.4	D	21.7	4.4	6.2	2.6	D	10.5	16.4	D	D	16.1	D	D
Debt > $70,000 (%)	4.9	4.1	D	2.6	D	1.7	0.0	12.8	D	D	D	D	5.1	9.0	D	D	7.6	D	D
Black or African American																			
Total (number)[a]	2,506	1,539	34	310	40	183	15	259	26	36	81	274	281	967	81	541	132	30	183
Debt > $30,000 (%)	52.0	45.2	44.1	D	35.0	18.6	D	63.7	26.9	47.2	21.0	69.0	53.7	62.9	69.1	64.7	47.7	56.7	66.7
Debt > $70,000 (%)	38.4	33.7	D	D	22.5	9.8	D	49.4	D	30.6	D	58.0	43.8	45.8	58.0	45.3	32.6	23.3	55.2
White																			
Total (number)[a]	22,507	17,247	541	4,328	458	2,798	560	1,207	639	486	2,185	2,032	2,013	5,260	349	1,813	1,831	418	849
Debt > $30,000 (%)	17.7	14.6	12.2	10.1	6.8	6.4	5.0	32.6	8.5	11.7	5.6	34.1	23.2	27.6	21.2	32.4	23.4	27.3	29.1
Debt > $70,000 (%)	10.0	8.3	7.0	5.0	3.7	2.6	2.3	19.4	4.1	7.0	2.5	22.4	13.2	15.7	D	18.4	13.2	D	16.0
More than one race																			
Total (number)[a]	1,188	956	17	270	25	164	22	50	48	26	107	116	111	232	12	78	77	20	45
Debt > $30,000 (%)	19.3	16.3	D	12.2	D	D	D	46.0	D	D	D	37.1	27.9	31.5	D	30.8	27.3	D	46.7
Debt > $70,000 (%)	10.6	8.7	D	4.8	0.0	D	0.0	26.0	D	D	D	24.1	D	18.5	D	14.1	16.9	0.0	D
Other race or race not reported																			
Total (number)[a]	294	220	D	43	D	D	2	D	D	D	D	23	34	74	D	21	D	D	11
Debt > $30,000 (%)	23.5	20.0	20.0	14.0	D	D	0.0	D	7.7	D	D	56.5	26.5	33.8	33.3	38.1	38.5	14.3	27.3
Debt > $70,000 (%)	15.0	12.3	0.0	4.7	0.0	D	0.0	36.4	0.0	5.9	D	43.5	23.5	23.0	22.2	28.6	23.1	14.3	18.2
Ethnicity not reported																			

Table 4-6

U.S. citizen and permanent resident research doctorate recipients with graduate education-related debt, by ethnicity, race, and broad field of doctorate: 2022

(Number and percent)

Ethnicity, race, and debt level	All fields	Science and engineering													Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Total (number)[a]	175	131	5	25	6	38	3	8	5	6	9	13	13	44	2	13	19	4	6
Debt > $30,000 (%)	20.0	16.0	40.0	0.0	16.7	18.4	0.0	25.0	0.0	0.0	0.0	38.5	30.8	31.8	50.0	46.2	15.8	0.0	66.7
Debt > $70,000 (%)	14.9	10.7	40.0	0.0	16.7	5.3	0.0	25.0	0.0	0.0	0.0	38.5	15.4	27.3	50.0	38.5	15.8	0.0	50.0

- = not calculable; D = suppressed to avoid disclosure of confidential information.

[a] Includes all doctorate recipients who responded to the graduate school debt question, even if they reported they had no debt.

Note(s):
Percentages were calculated based on the number of cases in each category. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-1

Research doctorate recipients who attended community college, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Percent)

Demographic characteristic	All fields	Science and engineering												Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Doctorate recipients reporting community college attendance	20.9	19.4	23.3	22.5	9.9	13.1	20.6	33.5	14.5	14.6	17.0	31.4	19.8	27.1	17.5	33.5	25.8	19.4	26.9
Sex																			
Male	18.3	17.0	23.7	22.0	9.5	12.4	20.7	27.5	14.7	13.4	16.5	36.1	17.7	25.7	16.0	32.5	26.8	19.6	26.1
Female	23.9	22.5	23.0	22.9	11.2	15.0	20.6	36.2	13.9	16.8	18.1	29.8	21.8	28.0	19.3	33.9	24.6	19.3	27.4
Citizenship status																			
U.S. citizen or permanent resident	30.4	29.5	35.8	28.9	22.3	26.1	28.9	42.1	28.5	27.8	26.0	33.7	28.2	33.2	30.5	37.2	30.2	23.9	35.3
Temporary visa holder	3.9	3.6	4.3	4.0	2.5	3.2	4.9	7.2	2.1	2.9	3.9	8.4	3.4	5.7	4.6	D	4.2	D	7.3
Ethnicity and race (U.S. citizens and permanent residents)																			
Hispanic or Latino	36.5	35.0	23.2	33.0	23.8	27.3	37.3	50.6	45.5	34.6	36.6	37.0	39.2	41.0	37.8	44.8	35.7	37.9	45.8
Not Hispanic or Latino																			
American Indian or Alaska Native	50.6	46.2	D	D	0.0	D	-	D	0.0	D	D	D	58.8	58.1	D	61.1	D	D	D
Asian	20.8	20.6	15.4	22.2	17.9	17.5	D	28.3	16.8	18.4	D	29.3	20.4	21.7	14.2	26.8	27.1	16.3	18.2
Black or African American	34.5	33.4	32.4	D	24.4	30.6	D	48.3	30.8	28.9	25.0	D	29.8	36.1	45.7	35.4	28.0	20.0	42.6
White	30.4	29.7	38.7	29.4	22.5	27.4	29.5	41.7	29.2	27.9	25.5	33.8	27.0	32.5	30.9	37.5	29.5	22.7	33.5
More than one race	32.0	31.5	58.8	27.7	36.0	34.1	27.3	52.0	28.6	34.6	29.9	24.1	32.7	34.1	D	35.1	33.3	D	D
Other race or race not reported	29.3	28.2	D	38.6	31.3	D	0.0	D	30.8	D	43.5	32.0	20.0	32.5	D	27.3	D	D	50.0
Ethnicity not reported	33.0	29.4	0.0	46.2	12.5	30.0	25.0	20.0	0.0	50.0	30.0	33.3	21.4	43.8	0.0	28.6	45.5	50.0	83.3

- = not calculable; D = suppressed to avoid disclosure of confidential information.

Note(s):
Percentages based on total number of doctorate recipients. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-2

Research doctorate recipients who earned a bachelor's degree related to doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Percent)

Demographic characteristic	All fields	Science and engineering												Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Doctorate recipients reporting bachelor's degree	98.4	98.4	97.6	98.1	98.1	98.9	98.5	96.3	99.2	98.4	98.7	98.6	98.8	98.4	98.3	98.3	98.7	98.8	98.0
Sex																			
Male	98.4	98.4	97.9	98.0	97.9	98.9	98.8	95.3	99.1	98.4	98.6	98.3	98.8	98.5	98.3	98.9	98.6	99.4	97.6
Female	98.4	98.4	97.3	98.2	98.5	99.0	98.1	96.8	99.7	98.6	98.9	98.7	98.8	98.3	98.3	98.0	98.8	98.3	98.2
Citizenship status																			
U.S. citizen or permanent resident	99.5	99.4	99.2	99.3	99.3	99.7	100.0	97.9	99.9	99.6	99.6	99.6	99.8	99.5	99.4	99.6	99.7	99.5	99.2
Temporary visa holder	98.5	98.4	95.9	96.6	98.9	99.3	97.4	95.5	99.4	99.1	98.5	99.4	98.7	98.5	99.2	98.6	98.6	98.3	97.8
Ethnicity and race (U.S. citizens and permanent residents)																			
Hispanic or Latino	99.3	99.2	95.8	99.4	100.0	D	100.0	96.8	100.0	98.8	D	99.5	99.4	99.8	100.0	99.7	99.6	100.0	100.0
Not Hispanic or Latino																			
American Indian or Alaska Native	100.0	100.0	D	100.0	D	100.0	-	D	D	D	100.0	100.0	100.0	100.0	D	100.0	D	D	100.0
Asian	99.5	99.6	100.0	99.3	100.0	100.0	100.0	D	100.0	D	99.4	99.6	D	99.5	D	100.0	100.0	98.1	D
Black or African American	98.9	98.5	97.2	97.5	100.0	100.0	100.0	95.6	100.0	100.0	100.0	99.0	100.0	99.4	98.8	99.7	100.0	100.0	98.5
White	99.6	99.6	99.8	99.4	99.4	99.8	100.0	98.4	99.8	100.0	99.7	99.8	99.9	99.6	D	99.6	99.8	D	99.4
More than one race	99.5	99.8	100.0	100.0	100.0	100.0	100.0	D	100.0	D	100.0	100.0	D	98.3	100.0	D	97.4	100.0	D
Other race or race not reported	98.3	98.7	D	98.3	D	96.2	100.0	D	D	D	96.9	100.0	100.0	96.9	D	D	D	100.0	88.9
Ethnicity not reported	97.4	96.9	92.3	98.3	87.5	D	100.0	96.3	100.0	90.9	D	96.7	100.0	98.7	100.0	100.0	96.7	100.0	100.0
Bachelor's degree in the same field as doctorate	61.5	65.2	52.0	64.6	39.6	79.8	50.8	47.1	82.6	13.0	77.8	70.8	56.4	46.5	40.9	25.6	71.6	69.0	39.2
Sex																			
Male	64.0	66.8	54.0	61.6	41.0	81.2	52.4	39.0	83.1	13.6	78.7	70.8	59.7	48.6	37.6	23.0	71.8	71.9	36.7
Female	58.7	63.2	50.2	67.2	35.2	76.2	48.9	50.8	81.3	12.0	76.0	70.8	53.5	45.0	45.1	26.7	71.4	66.7	40.9
Citizenship status																			
U.S. citizen or permanent resident	62.0	67.0	47.9	70.0	44.7	80.8	52.2	44.3	84.8	13.0	80.7	73.4	57.2	46.0	38.6	24.3	72.7	70.4	37.8
Temporary visa holder	62.4	64.0	59.3	50.9	37.2	80.3	48.9	58.2	82.1	13.4	75.1	56.8	56.5	51.0	44.8	38.2	71.4	66.1	44.3
Ethnicity and race (U.S. citizens and permanent residents)																			
Hispanic or Latino	62.7	69.1	36.8	74.5	42.9	82.6	49.2	37.0	90.9	13.9	84.1	78.0	61.1	42.5	51.1	15.6	69.3	70.7	38.3
Not Hispanic or Latino																			
American Indian or Alaska Native	51.2	63.5	D	71.4	0.0	D	-	D	D	0.0	D	87.5	58.8	31.3	D	D	D	D	D
Asian	60.6	64.5	22.0	65.4	42.2	81.9	46.5	D	76.3	D	72.3	65.6	D	39.8	D	21.7	70.3	70.0	D
Black or African American	47.2	57.3	32.4	65.0	48.8	72.7	40.0	48.3	69.2	D	D	62.7	49.0	31.1	39.5	17.9	65.9	60.0	36.8
White	64.0	68.2	53.2	70.4	44.2	81.3	53.9	45.2	86.3	11.5	82.1	75.4	58.4	50.0	D	28.2	74.1	D	39.0
More than one race	64.3	68.2	29.4	74.5	56.0	76.2	40.9	D	87.8	D	79.4	75.0	D	48.7	66.7	21.5	75.3	75.0	34.8
Other race or race not reported	53.5	56.3	D	64.4	62.5	D	50.0	D	D	5.9	75.0	48.0	37.1	45.6	D	D	D	37.5	50.0
Ethnicity not reported	48.5	52.0	50.0	64.3	44.4	65.9	25.0	20.0	80.0	0.0	63.6	38.9	42.9	38.0	0.0	14.3	54.2	50.0	33.3

- = not calculable; D = suppressed to avoid disclosure of confidential information.

Note(s):
Percentages based on total number of doctorate recipients. Due to rounding, percentages may not sum to 100. A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-3

Research doctorate recipients who earned a master's degree related to doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Percent)

Demographic characteristic	All fields	Science and engineering													Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Doctorate recipients reporting master's degree	73.6	68.6	77.7	43.9	73.9	75.5	68.7	80.6	70.8	77.6	51.0	89.4	89.2	93.6	87.5	96.3	91.8	94.4	95.2
Sex																			
Male	71.8	68.0	80.4	44.0	72.6	76.4	70.5	73.8	69.2	77.8	52.1	87.2	87.3	92.8	88.6	96.3	91.1	94.3	94.9
Female	75.5	69.4	75.2	43.8	78.1	73.0	66.6	83.7	74.8	77.3	48.6	90.1	91.0	94.1	86.0	96.4	92.4	94.5	95.3
Citizenship status																			
U.S. citizen or permanent resident	71.0	63.8	74.1	36.3	74.5	68.4	64.1	81.0	67.7	75.2	44.4	90.3	88.5	94.4	85.8	97.5	91.8	94.4	95.9
Temporary visa holder	79.5	77.3	84.0	66.4	74.6	81.8	78.9	82.7	74.3	81.0	61.5	90.7	92.6	95.1	90.6	97.7	96.2	96.4	96.5
Ethnicity and race (U.S. citizens and permanent residents)																			
Hispanic or Latino	70.5	62.8	65.2	37.9	71.4	68.0	62.7	78.6	63.6	70.9	43.1	86.4	90.4	94.2	91.1	98.1	90.3	91.4	95.3
Not Hispanic or Latino																			
American Indian or Alaska Native	88.1	D	D	D	100.0	D	-	100.0	100.0	0.0	D	100.0	100.0	D	100.0	100.0	100.0	100.0	D
Asian	67.4	62.7	75.6	39.8	66.0	70.8	69.8	81.8	57.0	72.4	51.6	89.3	84.5	92.4	84.9	96.8	89.8	D	D
Black or African American	87.0	80.5	88.2	D	D	81.4	D	92.3	76.9	D	50.6	96.4	96.5	97.4	98.8	98.9	88.6	D	D
White	70.0	62.6	74.2	34.9	76.5	67.4	63.2	78.9	69.9	75.6	43.0	90.4	87.2	94.2	82.9	97.3	92.6	94.7	95.7
More than one race	65.4	59.4	D	32.8	76.0	57.9	D	76.0	63.3	57.7	47.7	88.8	90.1	89.7	D	92.4	85.7	100.0	D
Other race or race not reported	76.4	D	80.0	31.1	75.0	D	50.0	D	D	D	D	D	100.0	D	88.9	95.5	D	D	75.0
Ethnicity not reported	74.1	66.9	66.7	44.4	44.4	80.5	75.0	80.0	40.0	50.0	36.4	83.3	92.9	96.0	100.0	100.0	91.7	100.0	100.0
Master's degree in the same field as doctorate	55.8	52.6	53.2	29.2	49.3	65.8	48.6	59.4	63.9	23.9	43.9	72.5	67.0	68.7	62.7	64.1	79.0	80.7	60.0
Sex																			
Male	55.2	52.7	55.2	28.3	49.0	66.8	50.9	48.0	62.5	23.2	44.8	71.1	68.9	68.9	62.7	59.9	81.8	82.0	55.4
Female	56.3	52.3	51.2	30.0	50.3	63.1	45.9	64.5	67.4	25.0	42.2	72.9	65.3	68.5	62.8	65.8	76.1	79.6	62.9
Citizenship status																			
U.S. citizen or permanent resident	54.2	49.3	49.3	24.7	52.5	60.7	48.1	61.1	62.8	27.1	39.8	74.0	64.2	70.0	62.8	65.2	80.0	81.9	60.5
Temporary visa holder	60.1	59.0	60.1	43.0	48.3	70.8	50.5	57.3	66.5	21.8	51.0	69.1	74.5	68.3	64.5	64.8	79.4	78.6	61.7
Ethnicity and race (U.S. citizens and permanent residents)																			
Hispanic or Latino	53.9	48.7	45.6	26.2	41.5	61.7	47.5	56.5	63.6	21.5	39.0	72.2	68.5	69.9	57.8	67.2	73.9	82.8	66.4
Not Hispanic or Latino																			
American Indian or Alaska Native	63.1	57.7	D	0.0	0.0	D	-	D	D	0.0	D	D	58.8	71.9	D	68.4	D	D	D
Asian	50.9	48.2	43.9	28.1	46.3	62.9	55.8	58.0	46.5	21.4	44.9	71.2	62.6	65.2	58.5	65.6	71.2	D	D
Black or African American	57.7	54.5	52.9	28.0	56.1	68.7	D	71.6	65.4	D	44.4	65.9	53.8	62.7	74.1	60.1	69.7	D	D
White	54.6	49.2	50.6	23.6	55.6	60.0	47.9	60.1	65.7	29.0	38.6	75.9	65.0	72.2	62.3	66.5	82.8	82.3	60.8
More than one race	51.1	46.9	D	24.7	52.0	51.8	D	52.0	63.3	30.8	43.9	73.3	65.8	68.4	D	70.9	66.2	85.0	D
Other race or race not reported	53.9	50.9	20.0	15.6	62.5	D	50.0	D	D	D	D	D	74.3	62.8	55.6	36.4	D	57.1	D
Ethnicity not reported	51.2	50.3	66.7	33.3	22.2	61.0	75.0	70.0	40.0	16.7	36.4	55.6	64.3	54.0	50.0	50.0	58.3	100.0	16.7

- = not calculable; D = suppressed to avoid disclosure of confidential information.

Note(s):
Percentages based on total number of doctorate recipients. Due to rounding, percentages may not sum to 100. A master's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent master's degree is in the same broad field as their doctoral degree. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-4

Baccalaureate-origin institution characteristics of research doctorate recipients, by broad field of doctorate: 2022

(Number)

Baccalaureate-origin institution characteristics	All fields	Science and engineering												Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Doctorate recipients reporting bachelor's degree	54,722	43,676	1,236	9,002	2,071	10,242	1,118	2,571	2,069	1,700	5,195	3,626	4,846	11,046	1,328	3,709	3,195	802	2,012
U.S. baccalaureate-origin institutions	34,341	26,232	721	6,698	691	4,216	710	1,857	1,034	760	3,160	3,283	3,102	8,109	604	3,077	2,504	594	1,330
Institution control																			
Public	20,633	15,863	549	4,022	391	2,893	440	1,118	567	440	1,802	1,914	1,727	4,770	366	2,076	1,234	275	819
Private, not-for-profit	13,528	10,255	170	2,672	296	1,318	270	711	467	319	1,351	1,325	1,356	3,273	229	979	1,253	318	494
Private, for-profit	125	86	1	1	3	3	0	26	0	0	1	39	12	39	5	15	7	0	12
2018 Carnegie Classification																			
R1: doctoral universities - very high research	17,542	14,322	424	3,628	430	2,956	395	799	564	451	1,565	1,522	1,588	3,220	299	1,166	972	282	501
R2: doctoral universities - high research	4,664	3,387	92	818	81	593	99	283	108	90	407	448	368	1,277	103	573	314	75	212
Doctoral/ professional universities	1,538	1,006	19	215	19	61	16	133	49	26	109	206	153	532	32	199	169	18	114
Master's colleges and universities	5,453	3,770	106	974	79	324	77	376	150	89	522	630	443	1,683	99	723	485	76	300
Baccalaureate colleges	4,626	3,434	74	1,000	71	236	116	204	159	100	531	428	515	1,192	47	360	494	118	173
Other universities	518	313	6	63	11	46	7	62	4	4	26	49	35	205	24	56	70	25	30
Historically Black college or university																			
Yes	642	392	24	87	9	45	2	51	3	11	35	68	57	250	15	143	37	10	45
No	33,650	25,815	696	6,608	682	4,169	708	1,804	1,031	748	3,119	3,211	3,039	7,835	585	2,928	2,459	583	1,280
Non-U.S. baccalaureate-origin institutions	19,800	16,979	503	2,233	1,347	5,897	404	691	1,013	917	1,975	316	1,683	2,821	694	604	668	201	654
Top countries or economies	14,064	12,339	262	1,522	1,073	4,715	271	503	742	691	1,453	207	900	1,725	540	379	280	94	432
China	5,963	5,367	118	708	490	1,829	153	157	479	301	725	76	331	596	232	126	57	29	152
India	2,705	2,515	42	350	236	1,094	40	118	86	145	281	19	104	190	77	29	29	4	51
Iran	1,398	1,294	22	77	136	748	14	15	36	83	117	5	41	104	43	17	8	7	29
South Korea	1,084	732	18	67	34	230	14	28	47	42	62	33	157	352	104	71	53	15	109
Bangladesh	616	580	11	40	58	288	8	15	4	33	83	1	39	36	16	1	3	2	14
Canada	589	437	5	88	22	65	19	19	27	11	59	46	76	152	20	17	77	19	19
Saudi Arabia	491	384	6	51	46	98	3	78	22	25	21	5	29	107	10	59	17	2	19
Taiwan	472	415	18	71	22	137	11	16	22	24	61	6	27	57	9	16	11	7	14
Turkey	409	336	8	30	17	147	4	4	12	15	23	14	62	73	17	27	13	8	8
Nigeria	337	279	14	40	12	79	5	53	7	12	21	2	34	58	12	16	12	1	17

Note(s):
Tied countries or economies are listed alphabetically. Carnegie classification is based on the 2018 Carnegie Classifications: Doctoral universities - very high research (R1), Doctoral universities - high research (R2), Doctoral/ professional universities, and other universities, which includes all other Carnegie classifications (e.g., special focus institutions) and institutions without Carnegie classifications. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-5

Educational attainment of research doctorate recipients' parents, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022

(Number and percent distribution)

Demographic characteristic and field	Total (number)	Highest level of parental education (%)						
		All	High school or less	Some college[a]	Bachelor's degree	Master's degree	Professional doctorate[b]	Research doctoral degree
Doctorate recipients reporting parental education (number)	49,774	49,774	7,813	6,545	13,377	11,366	4,370	6,303
Highest level of parental education	49,774	100.0	15.7	13.1	26.9	22.8	8.8	12.7
Sex								
Male	26,431	100.0	16.9	12.2	27.3	22.5	8.4	12.7
Female	23,338	100.0	14.3	14.2	26.4	23.2	9.2	12.6
Citizenship status								
U.S. citizen or permanent resident	32,251	100.0	12.5	14.0	24.3	24.7	10.8	13.7
Temporary visa holder	17,514	100.0	21.7	11.5	31.6	19.4	5.0	10.8
Ethnicity and race (U.S. citizens and permanent residents)								
Hispanic or Latino	3,086	100.0	26.7	17.7	21.5	18.2	7.6	8.3
Not Hispanic or Latino								
American Indian or Alaska Native	80	100.0	D	25.0	20.0	21.3	7.5	D
Asian	3,255	100.0	15.5	9.0	20.9	21.4	8.3	24.9
Black or African American	2,350	100.0	22.9	22.8	20.0	20.1	5.7	8.5
White	21,982	100.0	8.9	13.4	25.9	26.5	12.1	13.1
More than one race	1,163	100.0	10.4	13.2	20.2	27.3	12.1	16.9
Other race or race not reported	245	100.0	D	12.2	26.5	19.2	9.4	D
Ethnicity not reported	90	100.0	23.3	10.0	15.6	21.1	14.4	15.6
Field of doctorate								
Science and engineering	39,968	100.0	15.3	12.4	27.8	22.9	8.8	12.8
Agricultural sciences and natural resources	1,146	100.0	19.3	14.3	30.7	20.3	6.9	8.5
Biological and biomedical sciences	8,450	100.0	13.6	12.5	26.3	23.6	10.8	13.2
Computer and information sciences	1,875	100.0	16.2	9.8	28.4	23.2	7.6	14.8
Engineering	9,282	100.0	15.7	10.2	31.2	23.0	6.8	13.1
Geosciences, atmospheric, and ocean sciences	1,046	100.0	13.5	12.1	27.4	24.6	6.8	15.6
Health sciences	2,392	100.0	17.3	16.8	25.9	21.4	9.0	9.5
Mathematics and statistics	1,843	100.0	16.0	11.0	29.2	22.3	7.9	13.6
Multidisciplinary/ interdisciplinary sciences	1,509	100.0	14.4	12.7	28.2	22.5	8.4	13.7
Physical sciences	4,774	100.0	16.6	13.0	28.0	22.5	8.4	11.4
Psychology	3,182	100.0	13.4	15.7	24.6	24.2	11.4	10.7
Social sciences	4,469	100.0	15.8	12.1	25.2	22.3	9.6	14.9
Non-science and engineering	9,806	100.0	17.3	16.3	23.0	22.5	8.7	12.3
Business	1,145	100.0	19.2	12.8	25.1	20.4	5.9	16.7
Education	3,259	100.0	21.8	19.9	22.4	21.4	6.1	8.5
Humanities	2,882	100.0	13.0	13.6	22.4	24.7	13.4	12.9
Visual and performing arts	730	100.0	8.1	12.9	24.8	26.2	12.1	16.0
Other non-science and engineering	1,790	100.0	18.4	18.1	23.0	20.7	6.1	13.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes those who attended college but did not earn a bachelor's degree.
[b] Includes professional doctorates such as MD, DDS, DVM, JD, PsyD, DDiv.

Note(s):
Excludes doctorate recipients who did not report parental education for either parent or reported "not applicable or unknown" for both parents' education. If data were provided for one parent, that response is used; when data were provided for two parents, the higher attainment is used. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 5-6

Research doctorate recipients reporting one or more functional limitations, by broad field of doctorate, sex, and citizenship status: 2022

(Number and percent)

Field and demographic characteristic	One or more limitations of any type		Visual limitations		Hearing limitations		Walking limitations		Lifting limitations		Cognitive limitations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Doctorate recipients reporting functional limitation status	6,669	13.2	2,285	4.5	909	1.8	345	0.7	553	1.1	4,095	8.1
Field of doctorate												
Science and engineering	5,137	12.7	1,757	4.3	653	1.6	230	0.6	384	0.9	3,192	7.9
Agricultural sciences and natural resources	166	14.3	58	5.0	30	2.6	8	0.7	17	1.5	94	8.1
Biological and biomedical sciences	1,147	13.4	295	3.5	161	1.9	32	0.4	59	0.7	800	9.4
Computer and information sciences	202	10.7	88	4.6	27	1.4	17	0.9	21	1.1	103	5.4
Engineering	928	9.9	447	4.7	109	1.2	46	0.5	85	0.9	464	4.9
Geosciences, atmospheric, and ocean sciences	139	13.2	45	4.3	16	1.5	6	0.6	7	0.7	93	8.8
Health sciences	295	12.2	116	4.8	34	1.4	20	0.8	37	1.5	162	6.7
Mathematics and statistics	211	11.2	88	4.7	24	1.3	11	0.6	15	0.8	125	6.6
Multidisciplinary/ interdisciplinary sciences	199	13.0	87	5.7	11	0.7	7	0.5	12	0.8	110	7.2
Physical sciences	634	13.1	214	4.4	90	1.9	27	0.6	34	0.7	404	8.3
Psychology	502	15.6	109	3.4	53	1.6	22	0.7	45	1.4	363	11.2
Social sciences	714	15.8	210	4.6	98	2.2	34	0.8	52	1.1	474	10.5
Non-science and engineering	1,532	15.4	528	5.3	256	2.6	115	1.2	169	1.7	903	9.1
Business	113	9.7	59	5.0	27	2.3	9	0.8	15	1.3	46	3.9
Education	468	14.2	175	5.3	74	2.2	38	1.1	56	1.7	248	7.5
Humanities	515	17.7	134	4.6	91	3.1	33	1.1	52	1.8	344	11.8
Visual and performing arts	139	19.0	44	6.0	14	1.9	14	1.9	17	2.3	89	12.2
Other non-science and engineering	297	16.3	116	6.4	50	2.7	21	1.2	29	1.6	176	9.7
Sex												
Male	3,103	11.6	1,190	4.4	501	1.9	143	0.5	184	0.7	1,774	6.6
Female	3,564	15.1	1,094	4.6	408	1.7	202	0.9	369	1.6	2,320	9.8
Citizenship status[a]												
U.S. citizen or permanent resident	4,828	14.9	1,135	3.5	725	2.2	251	0.8	339	1.0	3,413	10.5
Temporary visa holder	1,835	10.2	1,148	6.4	184	1.0	94	0.5	213	1.2	678	3.8

[a] Excludes doctorate recipients who did not report citizenship status.

Note(s):
Doctorate recipients could report more than one functional limitation; thus, counts and percentages for the specific limitations will not sum to the "One or more limitations" columns. Survey asks degree of difficulty—none, slight, moderate, severe, or unable to do—that an individual has in seeing (with glasses), hearing (with hearing aid), walking without assistance, lifting 10 pounds, or concentrating, remembering, or making decisions. Those respondents who answered "moderate," "severe," or "unable to do" for any activity were classified as having a functional limitation. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-1

Research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	All doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
All fields	57,596	38,147	34,738	13,288	6,966	10,316	4,168	3,367	42
Science and engineering	45,924	30,929	28,266	12,328	3,650	9,677	2,611	2,626	37
Agricultural sciences and natural resources	1,305	849	752	366	109	189	88	96	1
Agricultural, animal, plant, and veterinary sciences	857	562	490	223	72	160	35	71	1
Natural resources and conservation	448	287	262	143	37	29	53	25	0
Biological and biomedical sciences	9,386	6,230	5,880	3,524	449	1,561	346	343	7
Biochemistry, biophysics, and molecular biology	1,555	1,038	965	589	D	292	D	70	3
Bioinformatics, biostatistics, and computational biology	688	488	468	151	46	239	32	17	3
Cell/ cellular biology and anatomy	689	433	419	252	25	130	12	14	0
Ecology, evolutionary biology, and epidemiology	1,120	785	725	462	77	70	116	59	1
Genetics and genomics	436	288	271	174	13	68	16	17	0
Microbiology and immunology	1,089	723	691	447	45	177	22	32	0
Neurobiology and neurosciences	1,177	784	754	533	43	157	21	30	0
Pharmacology and toxicology	386	270	254	130	D	108	D	16	0
Physiology, oncology, and cancer biology	768	530	501	303	63	113	22	29	0
Biological and biomedical sciences, other	1,478	891	832	483	80	207	62	59	0
Computer and information sciences	2,188	1,564	1,426	287	207	844	88	136	2
Computer science	1,484	1,081	991	197	135	609	50	90	0
Computer and information sciences, other	704	483	435	90	72	235	38	46	2
Engineering	10,763	7,077	6,500	2,145	466	3,397	492	568	9
Biological, biomedical, and biosystems engineering	1,236	760	725	327	45	327	26	35	0
Chemical and petroleum engineering	1,255	823	758	262	23	443	30	64	1
Civil, environmental, and transportation engineering	1,315	864	770	308	70	306	86	93	1
Electrical and computer engineering	2,132	1,469	1,345	276	90	905	74	122	2

Table 6-1

Research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	All doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Engineering technologies	361	278	246	66	17	149	14	31	1
Industrial engineering and operations research	655	441	386	79	57	202	48	53	2
Materials and mining engineering	925	578	536	204	19	284	29	42	0
Mechanical engineering	1,545	997	935	349	66	446	74	61	1
Engineering, other	1,339	867	799	274	79	335	111	67	1
Geosciences, atmospheric, and ocean sciences	1,165	815	742	484	54	113	91	73	0
Geological and earth sciences	658	440	388	227	30	74	57	52	0
Ocean, marine, and atmospheric sciences	507	375	354	257	24	39	34	21	0
Health sciences	2,808	1,846	1,717	534	523	354	306	127	2
Nursing and nursing science	623	423	399	66	202	34	97	24	0
Pharmacy and pharmaceutical sciences	460	290	264	99	7	143	15	25	1
Public health	795	547	511	213	113	71	114	36	0
Health sciences, other	930	586	543	156	201	106	80	42	1
Mathematics and statistics	2,144	1,486	1,264	547	199	444	74	219	3
Applied mathematics	477	338	307	135	35	110	27	31	0
Mathematics	980	651	504	282	109	86	27	144	3
Statistics	687	497	453	130	55	248	20	44	0
Multidisciplinary/ interdisciplinary sciences	1,788	1,211	1,094	340	160	495	99	113	4
Interdisciplinary computer sciences	625	432	386	81	45	230	30	43	3
Multidisciplinary/ interdisciplinary sciences, other	1,163	779	708	259	115	265	69	70	1
Physical sciences	5,428	3,697	3,374	1,656	178	1,387	153	319	4
Astronomy and astrophysics	289	215	190	143	12	28	7	25	0
Chemistry	2,782	1,891	1,789	795	97	828	69	100	2
Materials sciences	385	269	249	102	9	130	8	20	0
Physics	1,972	1,322	1,146	616	60	401	69	174	2
Psychology	3,900	2,687	2,603	1,570	370	345	318	82	2
Clinical psychology	1,144	877	D	753	23	D	57	D	2
Counseling and applied psychology	1,438	1,012	980	453	176	173	178	32	0
Research and experimental psychology	854	570	534	265	116	103	50	36	0
Psychology, other	464	228	D	99	55	D	33	D	0

Table 6-1

Research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	All doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Social sciences	5,049	3,467	2,914	875	935	548	556	550	3
Anthropology	409	248	212	105	52	24	31	36	0
Area, ethnic, cultural, gender, and group studies	442	286	255	83	121	18	33	31	0
Economics	1,391	1,076	830	175	209	285	161	244	2
Political science and government	678	467	399	134	141	58	66	68	0
Public policy analysis	433	274	252	60	64	39	89	22	0
Sociology, demography, and population studies	626	442	400	144	147	44	65	41	1
Social sciences, other	1,070	674	566	174	201	80	111	108	0
Non-science and engineering	11,672	7,218	6,472	960	3,316	639	1,557	741	5
Business	1,401	1,004	826	69	554	138	65	177	1
Business administration and management	445	278	233	19	135	48	31	44	1
Business, other	956	726	593	50	419	90	34	133	0
Education	3,919	2,561	2,412	209	1,172	182	849	149	0
Education leadership and administration	1,167	831	804	37	395	44	328	27	0
Education research	1,189	747	698	69	326	88	215	49	0
Teacher education	1,099	716	660	64	343	34	219	56	0
Education, other	464	267	250	39	108	16	87	17	0
Humanities	3,369	1,914	1,681	390	813	124	354	231	2
English language and literature, letters	1,062	601	556	108	319	41	88	44	1
Foreign languages, literatures, and linguistics	538	277	238	50	130	21	37	39	0
History	732	444	384	120	151	24	89	60	0
Philosophy and religious studies	642	378	321	90	158	21	52	56	1
Humanities, other	395	214	182	22	55	17	88	32	0
Visual and performing arts	842	420	369	71	186	50	62	51	0
Performing arts	495	233	203	24	113	30	36	30	0
Visual arts, media studies, and design	347	187	166	47	73	20	26	21	0
Other non-science and engineering	2,141	1,319	1,184	221	591	145	227	133	2
Communications and journalism	586	377	345	65	218	33	29	32	0
Multidisciplinary/ interdisciplinary studies	391	219	191	28	81	31	51	27	1
Public administration and social services	468	292	271	46	107	30	88	20	1
Non-science and engineering, other	696	431	377	82	185	51	59	54	0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting self-employment.
[b] Includes doctorate recipients reporting government, nonprofit, elementary or secondary school, or other employment and those with unknown employment.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-2

U.S. citizen and permanent resident research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	U.S. citizen and permanent resident doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
U.S. citizens and permanent residents reporting postgraduation plans	35,311	24,251	23,491	8,541	5,556	5,660	3,734	753	7
Science and engineering	26,801	18,645	18,067	7,851	2,831	5,128	2,257	573	5
Agricultural sciences and natural resources	770	515	500	192	93	136	79	15	0
Agricultural, animal, plant, and veterinary sciences	458	308	299	90	D	118	D	9	0
Natural resources and conservation	312	207	201	102	D	18	D	6	0
Biological and biomedical sciences	6,745	4,495	4,379	2,545	388	1,151	295	115	1
Biochemistry, biophysics, and molecular biology	1,022	676	656	376	45	212	23	20	0
Bioinformatics, biostatistics, and computational biology	364	266	260	91	35	114	20	6	0
Cell/ cellular biology and anatomy	506	317	D	180	D	99	12	D	0
Ecology, evolutionary biology, and epidemiology	890	639	612	383	68	56	105	26	1
Genetics and genomics	335	213	D	127	D	52	15	D	0
Microbiology and immunology	887	580	569	360	39	153	17	11	0
Neurobiology and neurosciences	924	615	601	420	D	124	D	14	0
Pharmacology and toxicology	285	201	196	89	D	93	D	5	0
Physiology, oncology, and cancer biology	545	378	370	202	55	94	19	8	0
Biological and biomedical sciences, other	987	610	595	317	69	154	55	15	0
Computer and information sciences	774	585	563	108	109	280	66	22	0
Computer science	539	411	D	73	74	209	D	D	0
Computer and information sciences, other	235	174	D	35	35	71	D	D	0
Engineering	4,436	3,018	2,956	853	281	1,426	396	61	1
Biological, biomedical, and biosystems engineering	842	517	509	217	39	229	24	8	0
Chemical and petroleum engineering	569	384	371	114	18	219	20	13	0

Table 6-2

U.S. citizen and permanent resident research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	U.S. citizen and permanent resident doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Civil, environmental, and transportation engineering	436	308	D	88	D	105	64	D	0
Electrical and computer engineering	552	380	370	61	35	221	53	10	0
Engineering technologies	102	78	D	15	D	44	10	D	0
Industrial engineering and operations research	220	163	D	21	D	80	36	D	1
Materials and mining engineering	443	295	D	92	D	157	25	D	0
Mechanical engineering	644	448	436	132	43	196	65	12	0
Engineering, other	628	445	436	113	49	175	99	9	0
Geosciences, atmospheric, and ocean sciences	727	546	524	317	D	D	85	22	0
Geological and earth sciences	385	281	268	143	D	D	52	13	0
Ocean, marine, and atmospheric sciences	342	265	256	174	24	25	33	9	0
Health sciences	1,973	1,406	1,394	378	476	250	290	12	0
Nursing and nursing science	512	375	375	55	191	34	95	0	0
Pharmacy and pharmaceutical sciences	192	118	118	40	D	D	11	0	0
Public health	586	441	434	165	D	D	108	7	0
Health sciences, other	683	472	467	118	180	93	76	5	0
Mathematics and statistics	966	655	595	257	D	D	58	60	0
Applied mathematics	210	145	139	55	D	D	26	6	0
Mathematics	553	358	311	159	87	43	22	47	0
Statistics	203	152	145	43	30	62	10	7	0
Multidisciplinary/ interdisciplinary sciences	816	555	542	168	104	195	75	12	1
Interdisciplinary computer sciences	236	173	D	33	21	95	D	D	1
Multidisciplinary/ interdisciplinary sciences, other	580	382	D	135	83	100	D	D	0
Physical sciences	3,108	2,176	2,077	957	150	839	131	98	1
Astronomy and astrophysics	204	151	142	105	12	19	6	9	0
Chemistry	1,665	1,187	1,157	470	89	543	55	29	1
Materials sciences	193	139	132	51	D	D	8	7	0
Physics	1,046	699	646	331	D	D	62	53	0
Psychology	3,295	2,448	2,417	1,463	331	320	303	30	1
Clinical psychology	1,029	845	D	730	D	36	54	D	1

Table 6-2

U.S. citizen and permanent resident research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	U.S. citizen and permanent resident doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Counseling and applied psychology	1,226	932	920	429	157	163	171	12	0
Research and experimental psychology	701	474	461	221	D	D	46	13	0
Psychology, other	339	197	D	83	48	D	32	D	0
Social sciences	3,191	2,246	2,120	613	712	316	479	126	0
Anthropology	329	208	191	88	D	D	D	17	0
Area, ethnic, cultural, gender, and group studies	331	226	D	72	97	D	31	D	0
Economics	515	414	387	72	103	99	113	27	0
Political science and government	465	334	314	93	114	47	60	20	0
Public policy analysis	325	216	D	43	D	31	83	D	0
Sociology, demography, and population studies	496	365	356	126	129	D	D	9	0
Social sciences, other	730	483	442	119	163	60	100	41	0
Non-science and engineering	8,510	5,606	5,424	690	2,725	532	1,477	180	2
Business	651	492	466	27	290	95	54	26	0
Business administration and management	211	151	142	7	70	41	24	9	0
Business, other	440	341	324	20	220	54	30	17	0
Education	3,205	2,272	2,244	151	1,098	166	829	28	0
Education leadership and administration	1,050	796	788	D	388	D	326	8	0
Education research	924	632	625	43	296	79	207	7	0
Teacher education	863	608	D	D	311	29	211	D	0
Education, other	368	236	D	30	103	D	85	D	0
Humanities	2,634	1,587	1,494	320	723	117	334	92	1
English language and literature, letters	910	540	521	D	297	D	88	18	1
Foreign languages, literatures, and linguistics	332	181	171	D	91	D	31	10	0
History	593	369	347	94	141	24	88	22	0
Philosophy and religious studies	511	321	288	79	D	D	48	33	0
Humanities, other	288	176	167	D	D	D	79	9	0
Visual and performing arts	619	326	312	54	154	46	58	14	0
Performing arts	354	183	177	18	D	D	33	6	0
Visual arts, media studies, and design	265	143	135	36	D	D	25	8	0
Other non-science and engineering	1,401	929	908	138	460	108	202	20	1

Table 6-2

U.S. citizen and permanent resident research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	U.S. citizen and permanent resident doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Communications and journalism	386	266	D	D	168	27	25	D	0
Multidisciplinary/ interdisciplinary studies	291	184	172	D	72	D	49	11	1
Public administration and social services	338	232	D	30	91	D	83	D	0
Non-science and engineering, other	386	247	242	41	129	27	45	5	0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting self-employment.
[b] Includes doctorate recipients reporting government, nonprofit, elementary or secondary school, or other employment and those with unknown employment.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-3

Temporary visa holder research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Temporary visa holder doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Temporary visa holder doctorate recipients reporting postgraduation commitments	19,633	13,686	11,061	4,701	1,374	4,598	388	2,599	26
Science and engineering	17,119	12,118	10,053	4,435	800	4,496	322	2,040	25
Agricultural sciences and natural resources	496	329	248	173	15	52	8	81	0
Agricultural, animal, plant, and veterinary sciences	380	249	187	132	D	41	D	62	0
Natural resources and conservation	116	80	61	41	D	11	D	19	0
Biological and biomedical sciences	2,344	1,704	1,472	965	59	404	44	228	4
Biochemistry, biophysics, and molecular biology	490	356	304	209	D	79	D	50	2
Bioinformatics, biostatistics, and computational biology	303	219	206	60	10	124	12	11	2
Cell/ cellular biology and anatomy	158	114	D	71	D	30	0	D	0
Ecology, evolutionary biology, and epidemiology	208	142	109	78	9	14	8	33	0
Genetics and genomics	92	74	D	46	D	16	1	D	0
Microbiology and immunology	178	140	119	85	6	24	4	21	0
Neurobiology and neurosciences	214	165	149	113	D	31	D	16	0
Pharmacology and toxicology	86	67	56	40	0	14	2	11	0
Physiology, oncology, and cancer biology	204	151	130	100	8	19	3	21	0
Biological and biomedical sciences, other	411	276	232	163	11	53	5	44	0
Computer and information sciences	1,318	973	859	179	97	563	20	113	1
Computer science	885	665	D	124	60	399	D	D	0
Computer and information sciences, other	433	308	D	55	37	164	D	D	1
Engineering	5,820	4,016	3,504	1,287	183	1,946	88	505	7
Biological, biomedical, and biosystems engineering	350	239	212	109	6	96	1	27	0
Chemical and petroleum engineering	635	435	383	147	5	221	10	51	1
Civil, environmental, and transportation engineering	823	551	D	220	D	201	18	D	0

Table 6-3

Temporary visa holder research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Temporary visa holder doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Electrical and computer engineering	1,471	1,078	964	213	55	675	21	112	2
Engineering technologies	252	199	D	51	D	104	4	D	1
Industrial engineering and operations research	396	273	D	58	D	119	12	D	1
Materials and mining engineering	434	279	D	112	D	125	4	D	0
Mechanical engineering	842	543	493	216	23	246	8	49	1
Engineering, other	617	419	360	161	30	159	10	58	1
Geosciences, atmospheric, and ocean sciences	389	265	215	166	D	D	5	50	0
Geological and earth sciences	243	156	118	83	D	D	4	38	0
Ocean, marine, and atmospheric sciences	146	109	97	83	0	13	1	12	0
Health sciences	655	430	314	154	44	102	14	115	1
Nursing and nursing science	75	46	22	10	10	0	2	24	0
Pharmacy and pharmaceutical sciences	231	169	143	59	D	D	2	25	1
Public health	168	105	76	48	D	D	6	29	0
Health sciences, other	181	110	73	37	20	12	4	37	0
Mathematics and statistics	1,088	821	661	288	D	D	14	157	3
Applied mathematics	252	190	165	80	D	D	0	25	0
Mathematics	390	290	191	122	22	43	4	96	3
Statistics	446	341	305	86	25	184	10	36	0
Multidisciplinary/ interdisciplinary sciences	891	653	550	171	56	299	24	101	2
Interdisciplinary computer sciences	362	258	D	48	24	135	D	D	1
Multidisciplinary/ interdisciplinary sciences, other	529	395	D	123	32	164	D	D	1
Physical sciences	2,124	1,505	1,285	695	27	545	18	217	3
Astronomy and astrophysics	80	64	48	38	0	9	1	16	0
Chemistry	1,010	696	625	323	8	283	11	70	1
Materials sciences	184	128	117	51	D	D	0	11	0
Physics	850	617	495	283	D	D	6	120	2
Psychology	328	219	168	98	37	21	12	50	1
Clinical psychology	38	29	D	20	D	D	3	D	1
Counseling and applied psychology	108	69	49	20	18	6	5	20	0
Research and experimental psychology	141	94	71	43	D	D	3	23	0
Psychology, other	41	27	D	15	6	D	1	D	0

Table 6-3

Temporary visa holder research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Temporary visa holder doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Social sciences	1,666	1,203	777	259	216	227	75	423	3
Anthropology	59	40	21	17	D	D	D	19	0
Area, ethnic, cultural, gender, and group studies	88	56	D	10	22	D	1	D	0
Economics	822	657	438	102	103	185	48	217	2
Political science and government	187	132	85	41	27	11	6	47	0
Public policy analysis	85	57	D	17	D	8	6	D	0
Sociology, demography, and population studies	113	75	42	18	17	D	D	32	1
Social sciences, other	312	186	119	54	38	17	10	67	0
Non-science and engineering	2,514	1,568	1,008	266	574	102	66	559	1
Business	667	503	352	42	259	43	8	151	0
Business administration and management	180	120	85	12	62	7	4	35	0
Business, other	487	383	267	30	197	36	4	116	0
Education	497	275	154	56	D	D	15	121	0
Education leadership and administration	71	31	12	D	D	0	2	19	0
Education research	197	111	69	26	29	8	6	42	0
Teacher education	174	103	D	D	31	5	6	D	0
Education, other	55	30	D	9	5	D	1	D	0
Humanities	560	320	181	69	90	6	16	139	0
English language and literature, letters	108	61	35	D	22	D	0	26	0
Foreign languages, literatures, and linguistics	183	94	65	D	39	D	5	29	0
History	103	74	36	25	10	0	1	38	0
Philosophy and religious studies	104	55	32	11	D	D	3	23	0
Humanities, other	62	36	13	D	D	D	7	23	0
Visual and performing arts	177	92	55	17	D	D	4	37	0
Performing arts	106	D	D	6	D	D	3	24	0
Visual arts, media studies, and design	71	D	D	11	D	D	1	13	0
Other non-science and engineering	613	378	266	82	125	36	23	111	1
Communications and journalism	171	106	D	D	47	6	4	D	0
Multidisciplinary/ interdisciplinary studies	64	33	17	D	9	D	2	16	0
Public administration and social services	105	60	D	16	16	D	5	D	1
Non-science and engineering, other	273	179	130	41	53	24	12	49	0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting self-employment.
[b] Includes doctorate recipients reporting government, nonprofit, elementary or secondary school, or other employment and those with unknown employment.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-4

Female research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Female doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Female doctorate recipients reporting postgraduation commitments	27,069	17,707	16,392	6,339	3,964	3,765	2,324	1,301	14
Science and engineering	20,243	13,476	12,535	5,761	1,997	3,402	1,375	928	13
Agricultural sciences and natural resources	679	424	376	162	63	92	59	48	0
Agricultural, animal, plant, and veterinary sciences	449	279	245	96	45	79	25	34	0
Natural resources and conservation	230	145	131	66	18	13	34	14	0
Biological and biomedical sciences	5,014	3,339	3,159	1,860	250	857	192	177	3
Biochemistry, biophysics, and molecular biology	754	506	475	266	D	166	D	31	0
Bioinformatics, biostatistics, and computational biology	288	203	194	57	19	104	14	7	2
Cell/ cellular biology and anatomy	377	242	D	141	D	72	6	D	0
Ecology, evolutionary biology, and epidemiology	689	483	447	282	45	51	69	35	1
Genetics and genomics	239	156	D	101	D	35	7	D	0
Microbiology and immunology	614	413	395	251	32	99	13	18	0
Neurobiology and neurosciences	616	404	393	271	24	86	12	11	0
Pharmacology and toxicology	227	169	161	76	D	72	D	8	0
Physiology, oncology, and cancer biology	400	279	261	160	27	59	15	18	0
Biological and biomedical sciences, other	810	484	449	255	48	113	33	35	0
Computer and information sciences	534	365	330	76	69	155	30	35	0
Computer science	337	239	214	46	43	108	17	25	0
Computer and information sciences, other	197	126	116	30	26	47	13	10	0
Engineering	2,931	1,872	1,760	603	158	852	147	111	1
Biological, biomedical, and biosystems engineering	560	333	322	142	21	142	17	11	0
Chemical and petroleum engineering	415	262	248	71	13	155	9	14	0
Civil, environmental, and transportation engineering	418	271	255	106	34	85	30	16	0
Electrical and computer engineering	397	260	243	49	21	155	18	17	0

Table 6-4

Female research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Female doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Engineering technologies	75	58	52	14	D	31	D	6	0
Industrial engineering and operations research	186	118	103	25	19	48	11	14	1
Materials and mining engineering	288	191	180	62	D	95	D	11	0
Mechanical engineering	297	191	181	77	16	71	17	10	0
Engineering, other	295	188	176	57	22	70	27	12	0
Geosciences, atmospheric, and ocean sciences	538	360	332	209	27	46	50	28	0
Geological and earth sciences	277	177	159	91	15	24	29	18	0
Ocean, marine, and atmospheric sciences	261	183	173	118	12	22	21	10	0
Health sciences	1,934	1,270	1,193	338	411	212	232	76	1
Nursing and nursing science	550	376	359	D	D	28	86	17	0
Pharmacy and pharmaceutical sciences	236	146	134	D	D	79	7	12	0
Public health	543	375	350	140	84	40	86	25	0
Health sciences, other	605	373	350	91	141	65	53	22	1
Mathematics and statistics	621	435	383	151	63	144	25	51	1
Applied mathematics	141	99	90	37	10	35	8	9	0
Mathematics	227	160	133	73	34	19	7	26	1
Statistics	253	176	160	41	19	90	10	16	0
Multidisciplinary/ interdisciplinary sciences	656	427	384	144	73	126	41	41	2
Interdisciplinary computer sciences	154	105	92	18	16	49	9	12	1
Multidisciplinary/ interdisciplinary sciences, other	502	322	292	126	57	77	32	29	1
Physical sciences	1,777	1,173	1,092	510	76	451	55	80	1
Astronomy and astrophysics	106	80	74	56	7	8	3	6	0
Chemistry	1,137	739	709	291	D	336	D	29	1
Materials sciences	130	91	84	38	D	38	D	7	0
Physics	404	263	225	125	14	69	17	38	0
Psychology	2,918	2,017	1,958	1,210	278	230	240	57	2
Clinical psychology	910	693	D	599	D	26	43	D	2
Counseling and applied psychology	1,090	765	744	356	135	119	134	21	0
Research and experimental psychology	572	387	D	183	D	64	36	D	0
Psychology, other	346	172	164	72	44	21	27	8	0
Social sciences	2,641	1,794	1,568	498	529	237	304	224	2

Table 6-4

Female research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Female doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Anthropology	281	169	148	76	37	17	18	21	0
Area, ethnic, cultural, gender, and group studies	283	186	175	57	78	12	28	11	0
Economics	497	383	310	71	90	88	61	72	1
Political science and government	279	198	171	58	66	21	26	27	0
Public policy analysis	276	183	175	41	45	23	66	8	0
Sociology, demography, and population studies	388	275	251	95	86	28	42	23	1
Social sciences, other	637	400	338	100	127	48	63	62	0
Non-science and engineering	6,826	4,231	3,857	578	1,967	363	949	373	1
Business	620	440	372	28	262	54	28	68	0
Business administration and management	206	124	113	8	69	20	16	11	0
Business, other	414	316	259	20	193	34	12	57	0
Education	2,765	1,772	1,678	151	802	126	599	94	0
Education leadership and administration	789	552	534	29	259	30	216	18	0
Education research	841	524	492	49	224	59	160	32	0
Teacher education	803	508	475	42	244	26	163	33	0
Education, other	332	188	177	31	75	11	60	11	0
Humanities	1,658	972	859	211	433	68	147	112	1
English language and literature, letters	668	385	356	68	204	29	55	28	1
Foreign languages, literatures, and linguistics	315	168	142	29	77	13	23	26	0
History	350	231	202	69	79	11	43	29	0
Philosophy and religious studies	226	140	119	36	62	7	14	21	0
Humanities, other	99	48	40	9	11	8	12	8	0
Visual and performing arts	479	246	214	50	101	26	37	32	0
Performing arts	228	110	94	17	48	13	16	16	0
Visual arts, media studies, and design	251	136	120	33	53	13	21	16	0
Other non-science and engineering	1,304	801	734	138	369	89	138	67	0
Communications and journalism	387	253	237	44	147	25	21	16	0
Multidisciplinary/ interdisciplinary studies	220	122	103	12	51	14	26	19	0
Public administration and social services	316	196	189	28	73	25	63	7	0
Non-science and engineering, other	381	230	205	54	98	25	28	25	0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting self-employment.

[b] Includes doctorate recipients reporting government, nonprofit, elementary or secondary school, or other employment and those with unknown employment.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-5

Male research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Male doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Male doctorate recipients reporting postgraduation commitments	30,522	20,437	18,343	6,948	3,001	6,551	1,843	2,066	28
Science and engineering	25,680	17,453	15,731	6,567	1,653	6,275	1,236	1,698	24
Agricultural sciences and natural resources	626	425	376	204	46	97	29	48	1
Agricultural, animal, plant, and veterinary sciences	408	283	245	127	27	81	10	37	1
Natural resources and conservation	218	142	131	77	19	16	19	11	0
Biological and biomedical sciences	4,372	2,891	2,721	1,664	199	704	154	166	4
Biochemistry, biophysics, and molecular biology	801	532	490	323	24	126	17	39	3
Bioinformatics, biostatistics, and computational biology	400	285	274	94	27	135	18	10	1
Cell/ cellular biology and anatomy	312	191	D	111	D	58	6	D	0
Ecology, evolutionary biology, and epidemiology	431	302	278	180	32	19	47	24	0
Genetics and genomics	197	132	D	73	D	33	9	D	0
Microbiology and immunology	475	310	296	196	13	78	9	14	0
Neurobiology and neurosciences	561	380	361	262	19	71	9	19	0
Pharmacology and toxicology	159	101	93	54	0	36	3	8	0
Physiology, oncology, and cancer biology	368	251	240	143	36	54	7	11	0
Biological and biomedical sciences, other	668	407	383	228	32	94	29	24	0
Computer and information sciences	1,654	1,199	1,096	211	138	689	58	101	2
Computer science	1,147	842	777	151	92	501	33	65	0
Computer and information sciences, other	507	357	319	60	46	188	25	36	2
Engineering	7,832	5,205	4,740	1,542	308	2,545	345	457	8
Biological, biomedical, and biosystems engineering	676	427	403	185	24	185	9	24	0
Chemical and petroleum engineering	840	561	510	191	10	288	21	50	1
Civil, environmental, and transportation engineering	897	593	515	202	36	221	56	77	1
Electrical and computer engineering	1,735	1,209	1,102	227	69	750	56	105	2

Table 6-5

Male research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Male doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Engineering technologies	286	220	194	52	D	118	D	25	1
Industrial engineering and operations research	469	323	283	54	38	154	37	39	1
Materials and mining engineering	637	387	356	142	D	189	D	31	0
Mechanical engineering	1,248	806	754	272	50	375	57	51	1
Engineering, other	1,044	679	623	217	57	265	84	55	1
Geosciences, atmospheric, and ocean sciences	627	455	410	275	27	67	41	45	0
Geological and earth sciences	381	263	229	136	15	50	28	34	0
Ocean, marine, and atmospheric sciences	246	192	181	139	12	17	13	11	0
Health sciences	874	576	524	196	112	142	74	51	1
Nursing and nursing science	73	47	40	D	D	6	11	7	0
Pharmacy and pharmaceutical sciences	224	144	130	D	D	64	8	13	1
Public health	252	172	161	73	29	31	28	11	0
Health sciences, other	325	213	193	65	60	41	27	20	0
Mathematics and statistics	1,523	1,051	881	396	136	300	49	168	2
Applied mathematics	336	239	217	98	25	75	19	22	0
Mathematics	753	491	371	209	75	67	20	118	2
Statistics	434	321	293	89	36	158	10	28	0
Multidisciplinary/ interdisciplinary sciences	1,132	784	710	196	87	369	58	72	2
Interdisciplinary computer sciences	471	327	294	63	29	181	21	31	2
Multidisciplinary/ interdisciplinary sciences, other	661	457	416	133	58	188	37	41	0
Physical sciences	3,651	2,524	2,282	1,146	102	936	98	239	3
Astronomy and astrophysics	183	135	116	87	5	20	4	19	0
Chemistry	1,645	1,152	1,080	504	D	492	D	71	1
Materials sciences	255	178	165	64	D	92	D	13	0
Physics	1,568	1,059	921	491	46	332	52	136	2
Psychology	982	670	645	360	92	115	78	25	0
Clinical psychology	234	184	D	154	D	D	14	D	0
Counseling and applied psychology	348	247	236	97	41	54	44	11	0
Research and experimental psychology	282	183	D	82	D	39	14	D	0
Psychology, other	118	56	D	27	11	D	6	D	0
Social sciences	2,407	1,673	1,346	377	406	311	252	326	1

Table 6-5

Male research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022

(Number)

Field of doctorate	Male doctorate recipients	Doctorate recipients with definite commitments	Location of definite commitments						
			United States					Abroad	Unknown
			Total	Postdoctoral study	Academic employment	Industry employment[a]	Other[b]		
Anthropology	128	79	64	29	15	7	13	15	0
Area, ethnic, cultural, gender, and group studies	158	100	80	26	43	6	5	20	0
Economics	894	693	520	104	119	197	100	172	1
Political science and government	399	269	228	76	75	37	40	41	0
Public policy analysis	157	91	77	19	19	16	23	14	0
Sociology, demography, and population studies	238	167	149	49	61	16	23	18	0
Social sciences, other	433	274	228	74	74	32	48	46	0
Non-science and engineering	4,842	2,984	2,612	381	1,348	276	607	368	4
Business	781	564	454	41	292	84	37	109	1
Business administration and management	239	154	120	11	66	28	15	33	1
Business, other	542	410	334	30	226	56	22	76	0
Education	1,154	789	734	58	370	56	250	55	0
Education leadership and administration	378	279	270	8	136	14	112	9	0
Education research	348	223	206	20	102	29	55	17	0
Teacher education	296	208	185	22	99	8	56	23	0
Education, other	132	79	73	8	33	5	27	6	0
Humanities	1,709	941	821	179	380	56	206	119	1
English language and literature, letters	393	215	199	40	115	12	32	16	0
Foreign languages, literatures, and linguistics	223	109	96	21	53	8	14	13	0
History	382	213	182	51	72	13	46	31	0
Philosophy and religious studies	415	238	202	54	96	14	38	35	1
Humanities, other	296	166	142	13	44	9	76	24	0
Visual and performing arts	363	174	155	21	85	24	25	19	0
Performing arts	267	123	109	7	65	17	20	14	0
Visual arts, media studies, and design	96	51	46	14	20	7	5	5	0
Other non-science and engineering	835	516	448	82	221	56	89	66	2
Communications and journalism	199	124	108	21	71	8	8	16	0
Multidisciplinary/ interdisciplinary studies	171	97	88	16	30	17	25	8	1
Public administration and social services	150	94	80	17	33	5	25	13	1
Non-science and engineering, other	315	201	172	28	87	26	31	29	0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting self-employment.
[b] Includes doctorate recipients reporting government, nonprofit, elementary or secondary school, or other employment and those with unknown employment.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-6

Median basic annual salary for research doctorate recipients with definite postgraduation plans in the United States, by broad field of doctorate, type of postgraduation plans, and sex: 2022

(Dollars)

Field of doctorate	Total with definite plan[a]			Employment			Postdoctoral study		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Doctorate recipients reporting annual salary	70,000	76,000	66,000	96,000	107,611	85,000	55,000	55,000	54,760
Science and engineering	72,000	80,000	66,000	105,000	115,000	93,000	55,000	55,000	54,540
Agricultural sciences and natural resources	60,000	60,000	62,750	84,000	90,000	78,000	53,000	53,750	52,000
Biological and biomedical sciences	60,000	60,000	60,000	100,000	100,000	99,000	54,000	54,000	54,000
Computer and information sciences	140,000	141,000	125,000	150,000	155,000	150,000	70,000	70,000	75,000
Engineering	98,000	100,000	90,000	118,000	120,000	112,500	55,000	55,000	57,000
Geosciences, atmospheric, and ocean sciences	64,000	63,000	65,000	80,000	84,250	78,000	61,000	60,000	62,000
Health sciences	75,000	75,000	75,000	90,000	100,000	86,000	55,000	56,000	55,000
Mathematics and statistics	75,000	74,000	76,000	120,000	120,000	120,000	65,000	65,000	62,000
Multidisciplinary/ interdisciplinary sciences	99,000	112,000	75,258	130,000	136,000	105,000	58,000	60,000	55,000
Physical sciences	75,000	75,000	74,177	110,000	115,000	104,500	56,550	56,000	58,000
Psychology	55,000	56,400	55,000	73,000	77,500	72,000	53,000	53,760	53,000
Social sciences	71,250	80,000	68,000	84,000	95,000	78,000	57,300	60,000	55,000
Non-science and engineering	67,000	68,000	66,500	70,000	71,900	70,000	55,000	54,835	55,000
Business	130,000	125,000	130,000	134,000	133,000	134,000	67,964	62,000	74,000
Education	70,000	73,000	70,000	73,415	75,000	72,000	55,000	55,000	55,000
Humanities	55,000	55,000	56,000	57,850	57,000	58,000	52,000	51,728	52,000
Visual and performing arts	53,350	52,000	54,540	53,350	53,350	53,500	53,500	50,000	55,000
Other non-science and engineering	65,400	68,000	65,000	70,000	71,000	70,000	55,000	55,000	55,000

[a] Includes doctorate recipients who reported having a postgraduation plan and salary but did not report type of postgraduation plan.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Basic annual salary is based on the job or postdoctoral study expected to be held after graduation. Median salaries in this table are the 50th percentile of the exact salary data provided and are rounded to the nearest dollar. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 6-7

Median basic annual salary for research doctorate recipients with definite postgraduation plans for employment in the United States, by broad field of doctorate and employment sector: 2022

(Dollars)

Field of doctorate	Total with definite plan[a]	Academe	Industry or business[b]	Government	Nonprofit organization	Other or unknown[c]
Doctorate recipients reporting annual salary	96,000	70,000	120,000	90,000	85,000	75,000
Science and engineering	105,000	71,000	120,000	90,000	92,000	71,000
Agricultural sciences and natural resources	84,000	65,000	95,000	73,875	80,000	60,000
Biological and biomedical sciences	100,000	65,000	110,000	79,901	85,000	57,000
Computer and information sciences	150,000	97,500	160,000	112,000	120,000	56,500
Engineering	118,000	88,000	120,000	99,493	106,000	110,000
Geosciences, atmospheric, and ocean sciences	80,000	65,000	113,750	70,853	68,000	57,500
Health sciences	90,000	78,000	110,000	89,950	105,000	74,000
Mathematics and statistics	120,000	61,750	140,000	104,500	100,000	53,500
Multidisciplinary/ interdisciplinary sciences	130,000	82,250	150,000	108,904	101,800	D
Physical sciences	110,000	60,000	115,000	95,000	110,000	58,000
Psychology	73,000	63,000	95,000	75,000	80,000	70,000
Social sciences	84,000	70,000	137,000	99,920	88,000	100,500
Non-science and engineering	70,000	66,925	89,000	88,000	70,000	76,476
Business	134,000	133,000	140,000	131,500	96,000	107,000
Education	73,415	68,000	90,000	86,000	81,500	85,000
Humanities	58,000	55,000	62,000	70,000	60,000	62,000
Visual and performing arts	53,350	53,000	50,000	D	53,500	65,000
Other non-science and engineering	70,000	65,000	95,000	90,000	90,000	68,000

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report employment sector.
[b] Includes doctorate recipients reporting self-employment.
[c] Other is mainly composed of elementary and secondary schools.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment. Basic annual salary is based on the job or postdoctoral study expected to be held after graduation. Median salaries in this table are the 50th percentile of the exact salary data provided and are rounded to the nearest dollar. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-1

Doctorate-granting institutions and research doctorate recipients per institution: 1973–2022

(Number, mean, and median)

Year	Doctorate-granting institutions	Doctorate recipients		
		Total	Mean (per institution)	Median (per institution)
1973	282	33,755	119.7	43.5
1974	288	33,047	114.7	41.0
1975	289	32,952	114.0	45.0
1976	291	32,946	113.2	45.0
1977	299	31,716	106.1	44.0
1978	303	30,875	101.9	39.0
1979	305	31,238	102.4	42.0
1980	313	31,019	99.1	38.0
1981	316	31,355	99.2	41.0
1982	322	31,108	96.6	35.0
1983	326	31,280	96.0	37.0
1984	326	31,334	96.1	39.5
1985	331	31,295	94.5	37.0
1986	333	31,897	95.8	38.0
1987	343	32,365	94.4	40.0
1988	345	33,497	97.1	36.0
1989	350	34,325	98.1	36.5
1990	348	36,065	103.6	43.0
1991	357	37,530	105.1	39.0
1992	360	38,886	108.0	43.5
1993	366	39,800	108.7	42.5
1994	368	41,034	111.5	43.0
1995	376	41,747	111.0	43.0
1996	384	42,437	110.5	44.0
1997	379	42,539	112.2	45.0
1998	382	42,636	111.6	44.5
1999	389	41,101	105.7	43.0
2000	403	41,369	102.7	41.0
2001	411	40,744	99.1	37.0
2002	410	40,031	97.6	38.0
2003	418	40,762	97.5	36.5
2004	413	42,122	102.0	39.0
2005	413	43,385	105.0	42.0
2006	413	45,620	110.5	41.0
2007	408	48,132	118.0	46.0
2008	415	48,776	117.5	43.0
2009	416	49,552	119.1	46.0
2010	411	48,028	116.9	44.0
2011	405	48,909	120.8	44.0
2012	412	50,943	123.6	46.5
2013	417	52,703	126.4	44.0
2014	422	53,986	127.9	47.0
2015	426	54,886	128.8	46.0
2016	430	54,809	127.5	48.0
2017	425	54,552	128.4	50.0
2018	428	55,078	128.7	48.5
2019	447	55,609	124.4	40.0
2020	450	55,208	122.7	40.5
2021	447	52,194	116.8	41.0
2022	457	57,596	126.0	43.0

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-2

Top 50 doctorate-granting institutions ranked by total number of research doctorate recipients, by sex: 2022

(Number)

Institution	Rank	Total[a]	Male	Female
U. Michigan, Ann Arbor	1	861	503	358
Stanford U.	2	836	519	317
U. California, Berkeley	3	830	484	346
Walden U.	4	829	249	580
U. Illinois, Urbana-Champaign	5	824	495	329
Purdue U., West Lafayette	6	798	508	290
Texas A&M U., College Station	7	793	467	326
U. California, Los Angeles	8	786	458	328
U. Florida	9	771	408	363
Ohio State U., Columbus	10	767	445	322
Harvard U.	11	753	389	364
U. Wisconsin-Madison	11	753	394	359
U. Texas, Austin	13	741	442	299
Massachusetts Institute of Technology	14	735	496	239
Pennsylvania State U.	15	710	397	313
U. Minnesota, Twin Cities	16	693	336	357
U. Washington, Seattle	17	615	316	299
U. California, Davis	18	587	294	292
Columbia U. in the City of New York	19	577	303	274
U. Maryland, College Park	20	565	328	237
Georgia Institute of Technology	21	560	392	168
U. California, San Diego	22	545	339	206
North Carolina State U.	23	540	297	243
Michigan State U.	24	519	279	240
U. Pennsylvania	25	516	268	248
U. California, Irvine	26	514	298	216
U. Georgia	27	511	244	267
Cornell U.	28	509	293	216
Johns Hopkins U.	29	507	263	244
Arizona State U., Tempe	30	506	289	217
Northwestern U.	31	491	258	233
U. Southern California	32	479	278	201
U. North Carolina, Chapel Hill	33	474	212	262
U. Chicago	34	462	263	199
Virginia Polytechnic Institute and State U.	35	459	288	171
U. Utah	36	448	273	175
Princeton U.	37	447	299	148
U. Colorado Boulder	38	426	253	173
Yale U.	39	424	234	190
Duke U.	40	417	234	183
New York U.	41	414	207	207
U. Pittsburgh, Pittsburgh	42	396	205	191
Texas Tech U.	43	384	178	206
Carnegie Mellon U.	44	383	264	119
Rutgers, State U. New Jersey, New Brunswick	45	375	202	173
U. Arizona	46	374	193	181
Indiana U., Bloomington	47	373	180	193
Boston U.	48	370	194	176
Iowa State U.	49	367	211	156
Florida State U.	50	366	180	186

[a] Includes doctorate recipients who did not report sex.

Note(s):
Tied institutions are listed alphabetically.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
Science and engineering	-	45,924	25,680	20,243
From top 20 institutions	-	12,355	7,287	5,068
U. Michigan, Ann Arbor	1	759	458	301
Stanford U.	2	738	473	265
U. California, Berkeley	3	717	442	275
Massachusetts Institute of Technology	4	695	471	224
Purdue U., West Lafayette	5	692	463	229
U. Illinois, Urbana-Champaign	6	681	438	243
Texas A&M U., College Station	7	669	418	251
U. Florida	8	643	354	289
U. California, Los Angeles	9	642	389	253
Ohio State U., Columbus	10	637	390	247
U. Texas, Austin	11	591	373	218
U. Wisconsin-Madison	12	590	343	247
Harvard U.	13	582	314	268
Pennsylvania State U.	13	582	352	230
U. Minnesota, Twin Cities	15	559	284	275
Georgia Institute of Technology	16	536	381	155
U. California, Davis	17	530	274	256
Walden U.	18	519	149	370
U. Washington, Seattle	19	511	271	240
Johns Hopkins U.	20	482	250	232
Agricultural sciences and natural resources	-	1,305	626	679
From top 20 institutions	-	701	348	353
U. Florida	1	75	37	38
Texas A&M U., College Station	2	49	23	26
North Carolina State U.	3	46	21	25
U. Minnesota, Twin Cities	4	45	21	24
Ohio State U., Columbus	5	44	23	21
U. Illinois, Urbana-Champaign	6	38	19	19
U. Georgia	7	34	24	10
Washington State U.	7	34	19	15
Cornell U.	9	33	12	21
U. California, Davis	10	32	11	21
Michigan State U.	11	30	18	12
Mississippi State U.	11	30	16	14
Iowa State U.	13	28	12	16
Purdue U., West Lafayette	13	28	18	10
U. Nebraska, Lincoln	13	28	14	14
Louisiana State U., Baton Rouge	16	26	10	16
Virginia Polytechnic Institute and State U.	16	26	12	14
Kansas State U.	18	25	12	13
Oregon State U.	18	25	16	9
U. Wisconsin-Madison	18	25	10	15
Biological and biomedical sciences	-	9,386	4,372	5,014
From top 20 institutions	-	2,705	1,262	1,443
Harvard U.	1	210	106	104
Johns Hopkins U.	2	154	65	89
U. California, Berkeley	3	153	75	78
U. Michigan, Ann Arbor	3	153	71	82

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
U. California, Davis	5	151	61	90
U. Pennsylvania	6	145	53	92
U. California, Los Angeles	7	142	72	70
U. California, San Diego	7	142	67	75
Stanford U.	9	137	77	60
U. Wisconsin-Madison	10	133	63	70
U. North Carolina, Chapel Hill	11	131	54	77
U. Florida	12	129	64	65
Duke U.	13	123	55	68
Yale U.	14	120	54	66
U. Washington, Seattle	15	118	49	69
Ohio State U., Columbus	16	117	59	58
U. Minnesota, Twin Cities	17	116	43	73
U. Georgia	18	112	47	65
Washington U., Saint Louis	19	110	72	38
Columbia U. in the City of New York	20	109	55	54
Computer and information sciences	-	2,188	1,654	534
From top 20 institutions	-	746	586	160
Carnegie Mellon U.	1	74	61	13
U. Illinois, Urbana-Champaign	2	63	55	8
U. California, Berkeley	3	48	40	8
Massachusetts Institute of Technology	4	42	34	8
Stanford U.	4	42	31	11
U. Maryland, College Park	6	41	33	8
U. California, Los Angeles	7	39	29	10
Purdue U., West Lafayette	8	35	27	8
U. California, Irvine	9	34	24	10
Georgia Institute of Technology	10	33	24	9
U. Southern California	10	33	28	5
Cornell U.	12	32	27	5
U. California, San Diego	13	31	27	4
Indiana U., Bloomington	14	30	22	8
U. Central Florida	14	30	22	8
Johns Hopkins U.	16	29	23	6
U. Texas, Austin	16	29	24	5
U. Utah	18	28	22	6
U. Washington, Seattle	19	27	15	12
U. Massachusetts, Amherst	20	26	18	8
Engineering	-	10,763	7,832	2,931
From top 20 institutions	-	4,008	2,946	1,062
Georgia Institute of Technology	1	343	263	80
Purdue U., West Lafayette	2	334	254	80
Texas A&M U., College Station	3	282	207	75
Stanford U.	4	260	168	92
Massachusetts Institute of Technology	5	250	172	78
U. Michigan, Ann Arbor	6	248	176	72
U. Illinois, Urbana-Champaign	7	224	174	50
U. Texas, Austin	8	203	153	50
Virginia Polytechnic Institute and State U.	9	182	140	42
North Carolina State U.	10	178	128	50

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
Pennsylvania State U.	11	176	129	47
Arizona State U., Tempe	12	159	126	33
Ohio State U., Columbus	12	159	128	31
Carnegie Mellon U.	14	157	112	45
U. California, Berkeley	15	155	106	49
U. California, Los Angeles	16	148	104	44
U. Florida	17	147	115	32
U. California, San Diego	18	139	105	34
U. Colorado Boulder	19	135	94	41
U. Maryland, College Park	20	129	92	37
Geosciences, atmospheric, and ocean sciences	-	1,165	627	538
From top 20 institutions	-	474	252	222
Massachusetts Institute of Technology	1	36	15	21
Texas A&M U., College Station	1	36	20	16
Stanford U.	3	30	16	14
U. California, San Diego	4	29	16	13
U. Washington, Seattle	4	29	14	15
U. Maryland, College Park	6	25	12	13
California Institute of Technology	7	24	17	7
U. Texas, Austin	7	24	13	11
U. Michigan, Ann Arbor	9	22	14	8
Oregon State U.	10	20	8	12
U. Houston	10	20	14	6
Colorado School of Mines	12	19	12	7
U. California, Los Angeles	12	19	9	10
Pennsylvania State U.	14	18	11	7
U. Arizona	14	18	7	11
U. Colorado Boulder	14	18	8	10
U. Hawaii, Manoa	14	18	5	13
U. Miami	14	18	6	12
Colorado State U., Fort Collins	19	17	14	3
SUNY, U. Albany	19	17	9	8
U. Utah	19	17	12	5
Health sciences	-	2,808	874	1,934
From top 20 institutions	-	925	304	621
Walden U.	1	152	45	107
U. North Carolina, Chapel Hill	2	58	13	45
Johns Hopkins U.	3	57	17	40
U. Florida	4	55	20	35
Texas Woman's U.	5	43	11	32
U. Minnesota, Twin Cities	5	43	16	27
U. Wisconsin-Madison	7	42	12	30
U. Iowa	8	41	16	25
U. Nebraska, Medical Center	9	38	14	24
Ohio State U., Columbus	10	37	14	23
U. Illinois, Chicago	11	36	11	25
U. Pittsburgh, Pittsburgh	12	35	13	22
U. California, Los Angeles	13	34	15	19
U. Utah	13	34	11	23
U. Washington, Seattle	13	34	12	22

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
Harvard U.	16	33	9	24
U. South Carolina, Columbia	16	33	14	19
U. Texas, Austin	18	32	11	21
U. Michigan, Ann Arbor	19	30	9	21
U. Arizona	20	29	10	19
U. Texas Health Science Center, Houston	20	29	11	18
Mathematics and statistics	-	2,144	1,523	621
From top 20 institutions	-	701	506	195
North Carolina State U.	1	52	29	23
U. California, Los Angeles	2	45	39	6
Purdue U., West Lafayette	3	42	27	15
U. California, Berkeley	4	39	32	7
U. Wisconsin-Madison	5	38	30	8
Stanford U.	6	37	27	10
U. Michigan, Ann Arbor	7	35	29	6
Ohio State U., Columbus	8	34	25	9
Pennsylvania State U.	8	34	24	10
Princeton U.	8	34	26	8
Cornell U.	11	32	22	10
Stony Brook U.	11	32	26	6
Iowa State U.	13	30	18	12
Texas A&M U., College Station	14	29	18	11
U. Washington, Seattle	14	29	23	6
Florida State U.	16	28	21	7
Harvard U.	17	27	16	11
U. California, Davis	18	26	22	4
U. Illinois, Urbana-Champaign	18	26	16	10
U. Minnesota, Twin Cities	18	26	18	8
U. Utah	18	26	18	8
Multidisciplinary/ interdisciplinary sciences	-	1,788	1,132	656
From top 20 institutions	-	691	461	230
Massachusetts Institute of Technology	1	119	99	20
U. California, Berkeley	2	51	34	17
U. Michigan, Ann Arbor	3	42	32	10
Stanford U.	4	40	26	14
U. Washington, Seattle	4	40	25	15
Pennsylvania State U.	6	37	25	12
Carnegie Mellon U.	7	33	22	11
Arizona State U., Tempe	8	31	16	15
U. Illinois, Urbana-Champaign	9	27	18	9
U. Notre Dame	9	27	16	11
U. California, Davis	11	25	10	15
Georgia Institute of Technology	12	24	17	7
U. Minnesota, Twin Cities	12	24	11	13
Ohio State U., Columbus	14	23	17	6
U. Florida	14	23	13	10
Purdue U., West Lafayette	16	22	15	7
Michigan State U.	17	21	10	11
Texas A&M U., College Station	17	21	14	7
U. Texas, Austin	17	21	17	4

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
U. California, Irvine	20	20	13	7
U. Massachusetts, Amherst	20	20	11	9
Physical sciences	-	5,428	3,651	1,777
From top 20 institutions	-	1,617	1,109	508
U. California, Berkeley	1	113	81	32
U. Michigan, Ann Arbor	2	106	73	33
Harvard U.	3	101	67	34
Massachusetts Institute of Technology	4	100	66	34
Ohio State U., Columbus	5	93	60	33
Stanford U.	6	92	71	21
U. Chicago	7	84	57	27
U. Wisconsin-Madison	8	82	54	28
U. Illinois, Urbana-Champaign	9	80	53	27
Northwestern U.	10	78	46	32
U. California, Los Angeles	11	73	51	22
Purdue U., West Lafayette	12	71	50	21
Princeton U.	13	70	55	15
Pennsylvania State U.	14	69	50	19
U. Florida	14	69	46	23
California Institute of Technology	16	68	50	18
Stony Brook U.	16	68	50	18
U. California, Davis	16	68	43	25
Columbia U. in the City of New York	19	66	43	23
U. Maryland, College Park	19	66	43	23
Psychology	-	3,900	982	2,918
From top 20 institutions	-	1,143	263	880
Walden U.	1	239	43	196
Palo Alto U.	2	84	20	64
CUNY, Graduate Center	3	55	13	42
Fielding Graduate U.	4	54	6	48
U. Minnesota, Twin Cities	5	51	12	39
Alliant International U., San Diego	6	49	11	38
Pacifica Graduate Institute	7	47	9	38
U. Florida	7	47	7	40
Pennsylvania State U.	9	45	14	31
U. California, Los Angeles	10	41	15	26
Ohio State U., Columbus	11	38	14	24
Columbia U. in the City of New York	12	37	4	33
U. Georgia	13	36	12	24
U. Texas, Austin	14	35	8	27
Fordham U.	15	34	4	30
Pontifical Catholic U. Puerto Rico, Ponce	16	32	8	24
U. Northern Colorado	16	32	12	20
U. Wisconsin-Madison	16	32	10	22
Florida State U.	19	31	8	23
Michigan State U.	19	31	9	22
SUNY, U. Buffalo	19	31	6	25
U. Connecticut, Storrs	19	31	11	20
U. North Carolina, Chapel Hill	19	31	7	24
Social sciences	-	5,049	2,407	2,641

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
From top 20 institutions	-	1,606	822	784
Harvard U.	1	111	53	58
U. California, Berkeley	2	104	56	48
Walden U.	2	104	50	54
U. Chicago	4	92	50	42
U. Texas, Austin	5	91	44	47
U. California, Los Angeles	6	86	47	39
Princeton U.	7	80	47	33
U. California, Davis	8	79	33	46
U. California, Irvine	8	79	42	37
Columbia U. in the City of New York	10	78	48	30
CUNY, Graduate Center	11	77	32	45
U. Pennsylvania	11	77	29	48
Ohio State U., Columbus	13	76	39	37
Stanford U.	14	73	47	26
U. Michigan, Ann Arbor	15	72	36	36
U. Illinois, Urbana-Champaign	16	69	32	37
U. Wisconsin-Madison	17	66	37	29
George Mason U.	18	64	39	25
New York U.	18	64	30	34
Pennsylvania State U.	18	64	31	33
Non-science and engineering	-	11,672	4,842	6,826
From top 20 institutions	-	2,915	1,160	1,755
Walden U.	1	310	100	210
Texas Tech U.	2	190	69	121
Harvard U.	3	171	75	96
U. Wisconsin-Madison	4	163	51	112
U. Georgia	5	159	64	95
U. Texas, Austin	6	150	69	81
U. California, Los Angeles	7	144	69	75
U. Illinois, Urbana-Champaign	8	143	57	86
U. Minnesota, Twin Cities	9	134	52	82
Ohio State U., Columbus	10	130	55	75
Columbia U. in the City of New York	11	129	54	75
Indiana U., Bloomington	11	129	49	80
Pennsylvania State U.	13	128	45	83
U. Florida	13	128	54	74
Florida State U.	15	126	56	70
Texas A&M U., College Station	16	124	49	75
Michigan State U.	17	116	44	72
U. Chicago	18	114	63	51
U. North Texas, Denton	18	114	43	71
U. California, Berkeley	20	113	42	71
Business	-	1,401	781	620
From top 20 institutions	-	527	296	231
Walden U.	1	84	50	34
Texas Tech U.	2	28	12	16
Stanford U.	3	25	9	16
U. Illinois, Urbana-Champaign	4	24	9	15
Arizona State U., Tempe	5	22	9	13

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
Texas A&M U., College Station	5	22	11	11
Northwestern U.	7	21	13	8
Oklahoma State U., Stillwater	7	21	12	9
U. Washington, Seattle	7	21	10	11
Rutgers, State U. New Jersey, Newark	10	19	10	9
Temple U.	10	19	11	8
Georgia State U.	12	18	13	5
Massachusetts Institute of Technology	12	18	11	7
Purdue U., West Lafayette	12	18	8	10
U. Minnesota, Twin Cities	12	18	10	8
U. Southern California	12	18	9	9
Harvard U.	17	17	14	3
Louisiana State U., Baton Rouge	17	17	12	5
U. Texas, Dallas	17	17	14	3
Iowa State U.	20	16	9	7
Michigan State U.	20	16	11	5
New York U.	20	16	9	7
U. North Texas, Denton	20	16	8	8
U. Pennsylvania	20	16	12	4
Education	-	3,919	1,154	2,765
From top 20 institutions	-	1,168	346	822
Texas Tech U.	1	110	36	74
Walden U.	2	103	18	85
U. Georgia	3	79	23	56
Pennsylvania State U.	4	67	24	43
U. Wisconsin-Madison	5	65	17	48
U. North Texas, Denton	6	64	15	49
Michigan State U.	7	53	17	36
Auburn U., Auburn	8	51	13	38
Ohio State U., Columbus	9	50	19	31
Indiana U., Bloomington	10	49	13	36
U. Illinois, Urbana-Champaign	10	49	21	28
Texas A&M U., College Station	12	48	11	37
U. Florida	13	45	18	27
U. Texas, Austin	13	45	16	29
U. Northern Colorado	15	44	11	33
Old Dominion U.	16	43	6	37
Florida State U.	17	41	13	28
U. Minnesota, Twin Cities	17	41	11	30
U. South Florida, Tampa	17	41	18	23
Teachers C., Columbia U.	20	40	11	29
U. California, Los Angeles	20	40	15	25
Humanities	-	3,369	1,709	1,658
From top 20 institutions	-	1,023	515	507
Harvard U.	1	97	37	60
U. Chicago	2	65	38	27
U. California, Los Angeles	3	57	27	30
Columbia U. in the City of New York	4	55	32	23
U. California, Berkeley	5	50	21	29
U. Wisconsin-Madison	6	49	17	32

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
Princeton U.	7	48	22	26
U. Texas, Austin	7	48	28	20
Yale U.	9	45	18	27
New York U.	10	44	19	25
Midwestern Baptist Theological Seminary	11	43	42	1
Florida State U.	12	42	27	15
U. Pennsylvania	12	42	24	18
CUNY, Graduate Center	14	41	18	23
U. Notre Dame	15	39	23	16
Indiana U., Bloomington	16	38	16	22
U. North Carolina, Chapel Hill	16	38	20	18
Ohio State U., Columbus	18	37	23	14
U. Illinois, Urbana-Champaign	18	37	14	23
Emory U., Atlanta	20	36	15	21
Purdue U., West Lafayette	20	36	20	16
U. California, Davis	20	36	14	21
Visual and performing arts	-	842	363	479
From top 20 institutions	-	459	199	260
CUNY, Graduate Center	1	34	12	22
U. Miami	2	32	19	13
Arizona State U., Tempe	3	31	13	18
U. California, Los Angeles	4	24	13	11
New York U.	5	21	6	15
Yale U.	5	21	11	10
U. Chicago	7	20	8	12
U. Colorado Boulder	7	20	12	8
U. California, Berkeley	9	19	5	14
U. Oklahoma, Norman	9	19	11	8
Columbia U. in the City of New York	11	18	6	12
Harvard U.	12	17	9	8
Northwestern U.	12	17	6	11
U. California, Santa Barbara	12	17	6	11
U. Minnesota, Twin Cities	12	17	7	10
Stanford U.	16	16	7	9
U. Wisconsin-Madison	16	16	3	13
U. Pittsburgh, Pittsburgh	18	15	5	10
U. Texas, Austin	18	15	4	11
Princeton U.	20	14	7	7
U. California, San Diego	20	14	6	8
U. Florida	20	14	10	4
U. Maryland, College Park	20	14	3	11
U. Rochester	20	14	10	4
Other non-science and engineering	-	2,141	835	1,304
From top 20 institutions	-	641	235	406
Walden U.	1	121	31	90
U. Georgia	2	39	18	21
Texas A&M U., College Station	3	36	20	16
U. Florida	4	34	12	22
U. Pennsylvania	4	34	15	19
U. Texas, Austin	6	32	12	20

Table 7-3

Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022

(Number)

Field and institution	Rank	Total[a]	Male	Female
U. Southern California	7	28	7	21
U. Minnesota, Twin Cities	8	27	7	20
U. Alabama, Tuscaloosa	9	26	10	16
U. Missouri, Columbia	9	26	7	19
U. Illinois, Urbana-Champaign	11	25	11	14
U. Maryland, College Park	11	25	12	13
U. North Carolina, Chapel Hill	11	25	6	19
Harvard U.	14	24	12	12
Pennsylvania State U.	14	24	7	17
U. Kansas	14	24	9	15
Ohio State U., Columbus	17	23	7	16
U. Michigan, Ann Arbor	17	23	11	12
U. San Diego	17	23	14	9
U. Washington, Seattle	20	22	7	15

- = no value (rank) possible.

[a] Includes doctorate recipients who did not report sex.

Note(s):
Tied institutions are listed alphabetically. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-4

Top 20 doctorate-granting institutions ranked by number of minority U.S. citizen and permanent resident research doctorate recipients, by ethnicity and race: 5-year total, 2018–22

(Number)

Institution	Rank	Doctorate recipients
Hispanic or Latino (399 institutions)	-	14,496
From top 20 institutions	-	4,125
U. California, Berkeley	1	289
U. California, Los Angeles	2	263
Texas A&M U., College Station	3	248
U. Michigan, Ann Arbor	4	242
Walden U.	5	232
U. Florida	6	230
U. Texas, Austin	7	229
U. Arizona	8	209
Florida International U.	9	203
U. Wisconsin-Madison	10	200
U. California, Irvine	11	198
U. California, San Diego	12	195
U. California, Riverside	13	181
U. California, Davis	14	180
U. Washington, Seattle	14	180
Columbia U. in the City of New York	16	176
Harvard U.	17	171
Stanford U.	18	170
U. Illinois, Urbana-Champaign	19	165
U. Texas, El Paso	20	164
Not Hispanic or Latino	-	-
American Indian or Alaska Native (165 institutions)	-	529
From top 20 institutions	-	257
U. Arizona	1	26
U. Minnesota, Twin Cities	2	19
U. New Mexico, Albuquerque	2	19
Arizona State U., Tempe	4	18
Walden U.	5	17
Oklahoma State U., Stillwater	6	16
U. Oklahoma, Norman	6	16
U. Washington, Seattle	8	15
Ohio State U., Columbus	9	12
U. Kansas	10	11
Texas A&M U., College Station	11	10
U. Montana, Missoula	11	10
U. Michigan, Ann Arbor	13	9
U. Alaska, Fairbanks	14	8
U. California, Berkeley	14	8
U. California, Davis	14	8
U. North Dakota	14	8
U. Oregon	14	8
SUNY, U. Buffalo	19	7
U. California, San Diego	20	6
U. Maryland, College Park	20	6
Asian (396 institutions)	-	16,552
From top 20 institutions	-	6,053
U. California, Los Angeles	1	505
U. California, Berkeley	2	483

Table 7-4

Top 20 doctorate-granting institutions ranked by number of minority U.S. citizen and permanent resident research doctorate recipients, by ethnicity and race: 5-year total, 2018–22

(Number)

Institution	Rank	Doctorate recipients
Harvard U.	3	410
Massachusetts Institute of Technology	4	364
Stanford U.	5	349
Columbia U. in the City of New York	6	342
U. Michigan, Ann Arbor	7	328
U. California, Irvine	8	291
U. Washington, Seattle	9	283
U. Illinois, Urbana-Champaign	10	274
U. Southern California	11	264
U. California, San Diego	12	262
U. Pennsylvania	13	239
Johns Hopkins U.	14	229
U. California, Davis	15	226
Georgia Institute of Technology	16	225
Cornell U.	17	202
Ohio State U., Columbus	18	198
U. Minnesota, Twin Cities	19	197
Purdue U., West Lafayette	20	191
Yale U.	20	191
Black or African American (392 institutions)	-	12,523
From top 20 institutions	-	4,135
Walden U.	1	1,567
Howard U.	2	247
Jackson State U.	3	215
U. Georgia	4	159
Georgia State U.	5	145
U. Florida	5	145
U. Michigan, Ann Arbor	7	141
Louisiana State U., Baton Rouge	8	136
Ohio State U., Columbus	9	130
U. North Carolina, Chapel Hill	10	128
Morgan State U.	11	124
U. Maryland, College Park	11	124
Michigan State U.	13	118
North Carolina Agricultural and Technical State U.	14	112
U. Illinois, Urbana-Champaign	14	112
Florida State U.	16	109
George Washington U.	16	109
Harvard U.	18	105
U. Memphis	18	105
Columbia U. in the City of New York	20	104
More than one race (340 institutions)	-	5,654
From top 20 institutions	-	1,750
U. California, Berkeley	1	165
U. Washington, Seattle	2	116
Harvard U.	3	109
U. California, Los Angeles	4	106
U. Michigan, Ann Arbor	5	105
U. California, Davis	6	102
Walden U.	7	99

Table 7-4

Top 20 doctorate-granting institutions ranked by number of minority U.S. citizen and permanent resident research doctorate recipients, by ethnicity and race: 5-year total, 2018–22

(Number)

Institution	Rank	Doctorate recipients
Stanford U.	8	98
U. Hawaii, Manoa	9	89
U. Illinois, Urbana-Champaign	10	81
U. California, San Diego	11	78
U. Wisconsin-Madison	12	76
U. California, Irvine	13	73
Massachusetts Institute of Technology	14	69
U. Pennsylvania	15	66
Columbia U. in the City of New York	16	65
U. North Carolina, Chapel Hill	16	65
U. Chicago	18	64
Yale U.	18	64
Texas A&M U., College Station	20	60

- = no value (rank) possible.

Note(s):
Tied institutions are listed alphabetically. Native Hawaiians and Other Pacific Islanders not included in this table due to small population sizes.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-5

Top 20 doctorate-granting institutions, ranked by number of research doctorate recipients holding temporary visas: 2022

(Number)

Institution	Rank	Doctorate recipients
All institutions (457 institutions)	-	19,633
From top 20 institutions	-	5,543
Purdue U., West Lafayette	1	438
U. Illinois, Urbana-Champaign	2	417
Texas A&M U., College Station	3	398
U. Florida	4	338
U. Michigan, Ann Arbor	5	318
Massachusetts Institute of Technology	6	311
Georgia Institute of Technology	7	280
U. California, Los Angeles	8	275
U. Wisconsin-Madison	9	263
U. Texas, Austin	10	252
North Carolina State U.	11	249
U. Minnesota, Twin Cities	12	247
Ohio State U., Columbus	13	237
Harvard U.	14	226
U. California, Berkeley	14	226
Cornell U.	16	223
U. Southern California	17	218
Pennsylvania State U.	18	214
U. California, San Diego	19	210
Columbia U. in the City of New York	20	203

- = no value (rank) possible.

Note(s):
Tied institutions are listed alphabetically.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-6

State or location of doctorate institution ranked by total number of research doctorate recipients, by field of doctorate and sex: 2022

(Number)

State or location	Rank	Total[a]	Male	Female	Science and engineering			Non-science and engineering		
					Total	Male	Female	Total	Male	Female
California	1	6,817	3,762	3,053	5,768	3,312	2,455	1,049	450	598
Texas	2	4,381	2,384	1,996	3,359	1,951	1,408	1,022	433	588
New York	3	4,163	2,102	2,061	3,273	1,738	1,535	890	364	526
Massachusetts	4	3,254	1,770	1,484	2,721	1,540	1,181	533	230	303
Pennsylvania	5	2,783	1,483	1,300	2,235	1,247	988	548	236	312
Illinois	6	2,621	1,434	1,187	2,053	1,172	881	568	262	306
Florida	7	2,455	1,271	1,184	1,889	1,033	856	566	238	328
Ohio	8	1,935	1,030	905	1,530	870	660	405	160	245
Michigan	9	1,930	1,065	865	1,589	936	653	341	129	212
North Carolina	10	1,866	939	927	1,517	782	735	349	157	192
Indiana	11	1,616	919	696	1,289	780	509	327	139	187
Georgia	12	1,600	880	720	1,295	747	548	305	133	172
Minnesota	13	1,552	604	948	1,107	452	655	445	152	293
Virginia	14	1,527	781	746	1,170	661	509	357	120	237
Maryland	15	1,360	717	643	1,203	653	550	157	64	93
Colorado	16	1,214	643	571	994	569	425	220	74	146
New Jersey	17	1,163	674	489	925	574	351	238	100	138
Tennessee	18	1,021	541	480	804	455	349	217	86	131
Wisconsin	19	1,012	518	494	768	429	339	244	89	155
Missouri	20	971	552	419	747	441	306	224	111	113
Arizona	21	940	506	434	739	427	312	201	79	122
Washington	22	923	475	448	761	411	350	162	64	98
Connecticut	23	730	385	345	581	317	264	149	68	81
Alabama	24	705	356	349	524	298	226	181	58	123
Iowa	25	701	382	319	577	327	250	124	55	69
Utah	26	671	418	253	567	366	201	104	52	52
Oregon	27	642	318	324	546	274	272	96	44	52
Louisiana	28	628	336	292	471	250	221	157	86	71
District of Columbia	29	530	236	294	366	174	192	164	62	102
South Carolina	30	529	272	257	404	232	172	125	40	85
Kentucky	31	511	262	249	355	182	173	156	80	76
Kansas	32	484	234	250	369	193	176	115	41	74
Oklahoma	33	469	252	217	329	195	134	140	57	83
Mississippi	34	454	250	204	307	175	132	147	75	72
Nebraska	35	406	203	203	334	179	155	72	24	48
Rhode Island	36	388	192	196	320	154	166	68	38	30
Arkansas	37	304	155	149	225	125	100	79	30	49
New Mexico	38	296	163	133	225	136	89	71	27	44
Delaware	39	240	135	105	218	127	91	22	8	14
Nevada	40	235	110	125	187	93	94	48	17	31
West Virginia	41	229	124	105	164	94	70	65	30	35
New Hampshire	42	202	121	81	191	115	76	11	6	5
North Dakota	43	185	96	89	138	81	57	47	15	32
Hawaii	44	161	66	94	115	48	67	46	18	27
Montana	45	150	76	74	119	68	51	31	8	23
Puerto Rico	46	146	63	83	119	49	70	27	14	13
Idaho	47	136	78	58	112	69	43	24	9	15
South Dakota	48	108	66	42	100	D	D	8	D	D
Wyoming	49	74	42	32	65	D	D	9	D	D
Maine	50	73	34	39	62	D	D	11	D	D

Table 7-6

State or location of doctorate institution ranked by total number of research doctorate recipients, by field of doctorate and sex: 2022

(Number)

State or location	Rank	Total[a]	Male	Female	Science and engineering			Non-science and engineering		
					Total	Male	Female	Total	Male	Female
Vermont	51	70	32	38	64	D	D	6	D	D
Alaska	52	35	15	20	34	D	D	1	D	D

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

Note(s):
Tied states or locations are listed alphabetically.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-7

Top 10 countries or economies of origin of temporary visa holders earning U.S. research doctorates, by country or economy of citizenship and field of doctorate: 2012–22

(Number)

Country or economy and field	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
China[a]	4,222	4,796	4,982	5,374	5,527	5,553	6,188	6,316	6,335	6,200	6,664
Science and engineering	3,906	4,443	4,650	4,970	5,141	5,147	5,692	5,755	5,730	5,607	6,031
Non-science and engineering	316	353	332	404	386	406	496	561	605	593	633
India	2,248	2,204	2,316	2,229	2,195	1,970	2,045	2,056	2,250	2,300	2,671
Science and engineering	2,142	2,074	2,208	2,119	2,085	1,884	1,922	1,910	2,111	2,138	2,510
Non-science and engineering	106	130	108	110	110	86	123	146	139	162	161
South Korea	1,472	1,383	1,284	1,234	1,229	1,128	1,039	1,168	1,055	1,036	1,076
Science and engineering	1,132	1,012	928	920	891	815	729	824	756	733	761
Non-science and engineering	340	371	356	314	338	313	310	344	299	303	315
Iran	287	409	483	629	695	767	935	964	963	815	859
Science and engineering	278	380	463	608	664	728	869	882	896	741	791
Non-science and engineering	9	29	20	21	31	39	66	82	67	74	68
Taiwan	719	699	668	614	592	520	514	492	468	410	416
Science and engineering	581	571	558	514	499	435	445	426	417	375	374
Non-science and engineering	138	128	110	100	93	85	69	66	51	35	42
Canada	423	485	488	454	408	409	431	427	398	369	474
Science and engineering	299	332	321	318	272	288	307	313	281	267	356
Non-science and engineering	124	153	167	136	136	121	124	114	117	102	118
Turkey	439	478	426	469	472	496	454	406	371	330	354
Science and engineering	352	391	360	386	380	392	364	324	305	272	289
Non-science and engineering	87	87	66	83	92	104	90	82	66	58	65
Saudi Arabia	57	73	105	134	238	339	403	554	614	485	493
Science and engineering	41	53	76	98	175	232	294	431	471	368	386
Non-science and engineering	16	20	29	36	63	107	109	123	143	117	107
Bangladesh	86	107	139	154	185	236	280	292	392	397	551
Science and engineering	78	96	127	146	178	224	271	271	369	381	522
Non-science and engineering	8	11	12	8	7	12	9	21	23	16	29
Nepal	94	150	172	177	222	221	225	241	226	252	313
Science and engineering	89	D	163	162	208	209	219	230	D	242	305
Non-science and engineering	5	D	9	15	14	12	6	11	D	10	8

D = suppressed to avoid disclosure of confidential information.

[a] Includes Hong Kong.

Note(s):
Rank is based on the total number of doctorate recipients from 2012 to 2022.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-8

Top 40 countries or economies of origin of temporary visa holders earning U.S. research doctorates, by number of doctorate recipients: 2022

(Number)

Country or economy	Rank	Doctorate recipients
All temporary visa holders (157 countries or economies)[a]	-	19,107
Top 40 countries or economies of origin	-	17,885
China[b]	1	6,664
India	2	2,671
South Korea	3	1,076
Iran	4	859
Bangladesh	5	551
Saudi Arabia	6	493
Canada	7	474
Taiwan	8	416
Turkey	9	354
Nepal	10	313
Nigeria	11	295
Brazil	12	283
Mexico	13	226
Colombia	14	224
Sri Lanka	15	208
Vietnam	16	207
Italy	17	193
Pakistan	18	166
Germany	19	160
Spain	20	146
Egypt	21	143
United Kingdom	22	138
France	23	133
Ghana	24	125
Japan	25	121
Greece	26	115
Thailand	27	112
Iraq	28	110
Russia	29	106
Jordan	30	93
Chile	31	92
Singapore	32	77
Indonesia	33	76
Israel	34	71
Malaysia	34	71
Lebanon	36	65
Peru	37	63
Philippines	38	55
Australia	39	50
Ecuador	40	45
Kuwait	40	45

- = no value (rank) possible.

[a] Excludes doctorate recipients who did not report country or economy of origin.
[b] Includes Hong Kong.

Note(s):
Tied countries or economies are listed alphabetically.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-9

Top 20 baccalaureate-origin institutions ranked by 2018 Carnegie Classification category and total number of research doctorate recipients, by field of doctorate: 2022

(Number)

2018 Carnegie Classification and baccalaureate-origin institution	Rank[a]	All fields	Science and engineering	Non-science and engineering
U.S. institutions by 2018 Carnegie Classification	-	34,109	26,092	8,017
R1: doctoral universities - very high research	-	17,542	14,322	3,220
U. California, Berkeley	1	522	451	71
Cornell U.	2	359	320	39
U. California, Los Angeles	3	356	286	70
U. Florida	4	353	293	60
U. Michigan, Ann Arbor	5	330	293	37
U. Wisconsin-Madison	6	317	268	49
U. Illinois, Urbana-Champaign	7	314	257	57
U. Texas, Austin	8	306	244	62
Ohio State U., Columbus	9	284	229	55
Pennsylvania State U.	10	272	228	44
U. California, San Diego	11	265	220	45
U. North Carolina, Chapel Hill	12	243	181	62
Purdue U., West Lafayette	13	241	213	28
Rutgers, State U. New Jersey, New Brunswick	14	238	184	54
U. Maryland, College Park	15	230	201	29
U. Minnesota, Twin Cities	16	229	205	24
U. Washington, Seattle	17	226	190	36
Massachusetts Institute of Technology	18	225	222	3
Texas A&M U., College Station	18	225	178	47
U. California, Davis	20	223	202	21
R2: doctoral universities - high research	-	4,664	3,387	1,277
Brigham Young U., Provo	1	251	175	76
William & Mary	2	148	119	29
Baylor U.	3	88	58	30
San Diego State U., San Diego	4	84	64	20
U. Puerto Rico, Rio Piedras	5	83	68	15
Ohio U., Athens	6	74	49	25
Miami U., Oxford	7	72	50	22
Northern Arizona U.	7	72	51	21
U. Maryland, Baltimore County	9	71	63	8
Utah State U., Logan	10	67	54	13
Kent State U., Kent	11	64	35	29
U. Texas, San Antonio	12	63	46	17
Colorado School of Mines	13	58	58	0
Loyola U., Chicago	13	58	39	19
Missouri U. Science and Technology	15	57	55	2
Wake Forest U.	15	57	42	15
New Mexico State U., Las Cruces	17	56	44	12
Worcester Polytechnic Institute	17	56	54	2
U. Vermont	19	55	46	9
Rochester Institute of Technology	20	54	50	4
Doctoral/ professional universities	-	1,538	1,006	532
Western Kentucky U.	1	42	27	15
Towson U.	2	38	29	9
Missouri State U., Springfield	3	34	20	14
Creighton U.	4	33	24	9
Gonzaga U.	4	33	28	5
Middle Tennessee State U.	4	33	14	19

Table 7-9

Top 20 baccalaureate-origin institutions ranked by 2018 Carnegie Classification category and total number of research doctorate recipients, by field of doctorate: 2022

(Number)

2018 Carnegie Classification and baccalaureate-origin institution	Rank[a]	All fields	Science and engineering	Non-science and engineering
Sam Houston State U.	4	33	17	16
Indiana U. Pennsylvania	8	31	12	19
Santa Clara U.	8	31	22	9
Elon U.	10	30	17	13
California State U., Fresno	11	29	23	6
U. Northern Colorado	11	29	14	15
U. San Francisco	13	28	17	11
Southern Illinois U., Edwardsville	14	27	18	9
U. Central Arkansas	14	27	20	7
U. St. Thomas	14	27	20	7
Texas Woman's U.	17	26	13	13
Loyola U., New Orleans	18	24	19	5
Pepperdine U.	18	24	15	9
Liberty U.	20	23	9	14
Seattle U.	20	23	21	2
U. North Florida	20	23	19	4
Master's colleges and universities	-	5,453	3,770	1,683
California Polytechnic State U., San Luis Obispo	1	75	70	5
California State U., Long Beach	1	75	57	18
James Madison U.	1	75	51	24
SUNY, Geneseo	1	75	57	18
U. Puerto Rico, Mayaguez	5	71	64	7
C. New Jersey	6	57	41	16
California State U., Fullerton	7	55	35	20
C. Charleston	8	53	43	10
CUNY, Hunter C.	9	52	43	9
Grand Valley State U.	9	52	38	14
Western Washington U.	9	52	43	9
Appalachian State U.	12	51	35	16
Truman State U.	13	49	39	10
San Francisco State U.	14	45	31	14
California State Polytechnic U., Pomona	15	43	36	7
California State U., Northridge	15	43	33	10
Calvin C.	17	37	17	20
San Jose State U.	18	36	28	8
Ithaca C.	19	35	22	13
Trinity U.	19	35	24	11
U. Wisconsin-Eau Claire	19	35	29	6
U. Wisconsin-La Crosse	19	35	26	9
Baccalaureate colleges	-	4,626	3,434	1,192
Carleton C.	1	91	66	25
Williams C.	2	87	69	18
Oberlin C.	3	84	52	32
Wesleyan U.	4	77	57	20
St. Olaf C.	5	73	60	13
Swarthmore C.	5	73	52	21
Pomona C.	7	71	62	9
Wellesley C.	8	68	47	21
Barnard C.	9	65	44	21
Reed C.	10	64	50	14

Table 7-9

Top 20 baccalaureate-origin institutions ranked by 2018 Carnegie Classification category and total number of research doctorate recipients, by field of doctorate: 2022

(Number)

2018 Carnegie Classification and baccalaureate-origin institution	Rank[a]	All fields	Science and engineering	Non-science and engineering
Haverford C.	11	62	52	10
Smith C.	12	59	41	18
Vassar C.	13	57	37	20
Mount Holyoke C.	14	56	48	8
Amherst C.	15	54	38	16
Grinnell C.	15	54	47	7
Macalester C.	17	52	40	12
Colgate U.	18	51	43	8
Harvey Mudd C.	19	47	45	2
Bowdoin C.	20	45	36	9
Other universities	-	286	173	113
Rose-Hulman Institute of Technology	1	23	23	0
South Dakota School of Mines & Technology	2	12	12	0
U. Sciences, Philadelphia	3	11	11	0
Berklee C. Music	4	9	3	6
Moody Bible Institute	5	8	2	6
School of the Art Institute of Chicago	5	8	4	4
U. Oklahoma, Oklahoma City	5	8	6	2
U. Maryland, Baltimore	8	7	5	2
Embry-Riddle Aeronautical U., Worldwide	9	6	2	4
Franklin W. Olin C. Engineering	9	6	6	0
Manhattan School of Music	9	6	0	6
Criswell C.	12	5	0	5
U. Nebraska, Medical Center	12	5	3	2
U. Texas Health Science Center, San Antonio	12	5	4	1
U. Texas Southwestern Medical Center	12	5	4	1
Icahn School of Medicine at Mount Sinai	16	4	4	0
Polytechnic U. Puerto Rico, San Juan	16	4	3	1
Pratt Institute	16	4	2	2
Southern Baptist Theological Seminary	16	4	0	4
Loma Linda U.	20	3	2	1
Maryland Institute C. Art	20	3	1	2
Northwood U., Midland	20	3	0	3
Oklahoma State U., Oklahoma City	20	3	3	0
SUNY, Downstate Medical Center	20	3	3	0
U. California, San Francisco	20	3	3	0
Non-U.S. institutions	-	19,800	16,979	2,821
Beijing U.	1	349	321	28
Tsinghua U.	2	334	307	27
U. of Science and Technology of China (USTC)	3	321	318	3
Bangladesh U. of Engineering and Technology	4	261	255	6
Sharif U. of Technology	5	246	227	19
Tribhuvan U.	6	241	229	12
Shanghai Jiaotong U.	7	225	217	8
National Taiwan U.	8	209	194	15
Zhejiang U.	9	186	178	8
Seoul National U.	10	170	127	43
Nanjing U.	11	166	154	12
Fudan U.	12	163	152	11
U. of Tehran	12	163	152	11

Table 7-9

Top 20 baccalaureate-origin institutions ranked by 2018 Carnegie Classification category and total number of research doctorate recipients, by field of doctorate: 2022

(Number)

2018 Carnegie Classification and baccalaureate-origin institution	Rank[a]	All fields	Science and engineering	Non-science and engineering
U. of Dhaka	14	160	140	20
Islamic Azad U.	15	155	141	14
Huazhong U. of Science and Technology	16	131	124	7
Yonsei U.	16	131	80	51
Wuhan U.	18	130	118	12
U. of Delhi	19	129	103	26
King Saud U.	20	128	102	26

- = no value (rank) possible.

[a] Rank is based on total number of doctorate recipients among both U.S. and non-U.S. baccalaureate-origin institutions.

Note(s):
Carnegie classification is based on the 2018 Carnegie Classifications: Doctoral universities - very high research (R1), Doctoral universities - high research (R2), Doctoral/professional universities, and other universities, which includes all other Carnegie classifications (e.g., special focus institutions) and institutions without Carnegie classifications.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 7-10

Research doctorate recipients, by state or location of doctorate institution and broad field of doctorate: 2022

(Number)

State or location	All fields	Science and engineering													Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
United States[a]	57,596	45,924	1,305	9,386	2,188	10,763	1,165	2,808	2,144	1,788	5,428	3,900	5,049	11,672	1,401	3,919	3,369	842	2,141
Alabama	705	524	20	99	22	146	13	40	24	14	57	60	29	181	33	100	11	4	33
Alaska	35	34	6	10	0	3	5	0	1	0	3	3	3	1	0	0	0	0	1
Arizona	940	739	27	98	29	212	33	39	22	44	72	49	114	201	32	61	39	32	37
Arkansas	304	225	21	41	16	55	8	17	6	8	23	12	18	79	7	34	13	0	25
California	6,817	5,768	76	1,248	311	1,233	186	185	278	255	750	543	703	1,049	113	235	393	135	173
Colorado	1,214	994	32	175	41	300	55	32	63	13	135	77	71	220	14	116	34	20	36
Connecticut	730	581	11	161	8	85	14	38	26	14	93	39	92	149	17	9	67	24	32
Delaware	240	218	4	27	9	74	8	7	11	5	31	15	27	22	2	2	7	4	7
District of Columbia	530	366	0	64	15	54	1	17	17	11	36	49	102	164	13	45	79	1	26
Florida	2,455	1,889	93	316	108	453	63	149	72	81	221	177	156	566	69	220	93	61	123
Georgia	1,600	1,295	34	303	61	363	15	66	50	53	143	82	125	305	47	106	79	9	64
Hawaii	161	115	1	27	4	5	18	9	3	4	9	8	27	46	3	22	11	7	3
Idaho	136	112	13	23	11	35	6	2	1	2	8	7	4	24	0	18	4	0	2
Illinois	2,621	2,053	41	358	118	457	30	97	104	61	301	202	284	568	75	135	224	49	85
Indiana	1,616	1,289	32	186	76	412	12	54	78	61	165	81	132	327	34	122	114	12	45
Iowa	701	577	28	129	13	145	5	41	50	14	77	34	41	124	31	48	24	5	16
Kansas	484	369	25	76	12	57	3	27	25	10	46	45	43	115	5	49	18	8	35
Kentucky	511	355	10	83	13	58	1	42	18	13	42	32	43	156	8	46	65	9	28
Louisiana	628	471	31	98	20	85	10	41	23	7	46	37	73	157	34	41	50	10	22
Maine	73	62	8	17	1	12	5	1	0	4	8	2	4	11	0	8	1	0	2
Maryland	1,360	1,203	21	287	100	283	37	115	54	32	120	50	104	157	19	40	41	16	41
Massachusetts	3,254	2,721	19	562	143	625	77	123	109	201	368	117	377	533	85	120	208	36	84
Michigan	1,930	1,589	44	312	43	458	38	73	72	69	193	134	153	341	33	153	83	12	60
Minnesota	1,552	1,107	46	151	21	128	12	200	26	25	55	290	153	445	102	144	34	17	148
Mississippi	454	307	34	42	10	55	7	28	8	19	37	44	23	147	25	67	24	1	30
Missouri	971	747	22	181	42	183	20	53	26	20	76	61	63	224	23	62	90	8	41
Montana	150	119	7	37	3	15	2	7	8	1	21	9	9	31	0	26	3	1	1
Nebraska	406	334	28	90	12	64	3	40	15	6	24	30	22	72	9	27	14	2	20
Nevada	235	187	2	38	1	35	6	16	6	14	22	21	26	48	5	37	5	0	1
New Hampshire	202	191	13	70	13	30	11	8	11	0	20	7	8	11	1	2	7	0	1
New Jersey	1,163	925	25	142	68	232	23	25	67	37	122	51	133	238	27	50	100	19	42
New Mexico	296	225	7	40	6	54	9	7	8	5	32	22	35	71	4	44	12	0	11
New York	4,163	3,273	48	800	163	564	57	180	149	111	395	354	452	890	70	219	339	115	147
North Carolina	1,866	1,517	52	366	62	341	27	128	98	53	160	91	139	349	34	108	112	16	79
North Dakota	185	138	18	22	4	45	3	7	9	1	8	19	2	47	1	34	4	0	8

Table 7-10

Research doctorate recipients, by state or location of doctorate institution and broad field of doctorate: 2022

(Number)

State or location	All fields	Science and engineering													Non-science and engineering					
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences	Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Ohio	1,935	1,530	45	311	33	398	8	109	76	71	214	129	136	405	30	176	90	36	73
Oklahoma	469	329	18	54	12	71	20	18	10	11	36	52	27	140	24	47	34	20	15
Oregon	642	546	30	104	31	89	30	37	23	16	67	64	55	96	9	32	30	5	20
Pennsylvania	2,783	2,235	20	491	148	603	28	156	104	109	227	121	228	548	73	152	156	36	131
Puerto Rico	146	119	9	30	1	11	1	0	1	3	7	54	2	27	2	0	16	0	9
Rhode Island	388	320	1	73	11	45	24	17	17	19	41	9	63	68	3	13	37	11	4
South Carolina	529	404	11	72	21	124	3	46	21	12	43	21	30	125	12	66	23	0	24
South Dakota	108	100	8	24	11	24	1	12	3	1	6	7	3	8	1	3	2	0	2
Tennessee	1,021	804	26	198	29	183	9	48	29	35	99	81	67	217	18	82	75	9	33
Texas	4,381	3,359	87	687	145	1,003	113	224	158	110	348	226	258	1,022	142	402	286	47	145
Utah	671	567	13	105	34	156	19	40	33	10	64	50	43	104	10	50	19	1	24
Vermont	70	64	16	17	4	4	1	2	1	6	6	5	2	6	0	3	2	0	1
Virginia	1,527	1,170	36	171	62	337	28	63	41	45	131	107	149	357	38	179	71	9	60
Washington	923	761	47	159	31	149	33	42	37	51	77	47	88	162	31	48	38	7	38
West Virginia	229	164	8	27	5	36	1	15	10	1	30	13	18	65	10	24	6	9	16
Wisconsin	1,012	768	26	177	30	152	16	64	42	19	103	54	85	244	20	86	82	19	37
Wyoming	74	65	5	7	1	22	7	1	0	1	10	6	5	9	3	6	0	0	0

[a] Includes the 50 states, the District of Columbia, and Puerto Rico.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-1

Science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
All doctorate recipients (number)[a]	57,596	45,924	1,305	9,386	2,188	10,763	1,165	2,808	2,144	1,788	5,428	3,900	5,049
Sex (%)													
Male	53.0	55.9	48.0	46.6	75.6	72.8	53.8	31.1	71.0	63.3	67.3	25.2	47.7
Female	47.0	44.1	52.0	53.4	24.4	27.2	46.2	68.9	29.0	36.7	32.7	74.8	52.3
Unknown	*	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*
Citizenship status (%)													
U.S. citizen or permanent resident	61.3	58.4	59.0	71.9	35.4	41.2	62.4	70.3	45.1	45.6	57.3	84.5	63.2
Temporary visa holder	34.1	37.3	38.0	25.0	60.2	54.1	33.4	23.3	50.7	49.8	39.1	8.4	33.0
Unknown	4.6	4.4	3.0	3.2	4.4	4.7	4.2	6.4	4.2	4.5	3.6	7.1	3.8
Marital status (%)													
Never married	37.0	40.3	34.0	40.5	40.8	45.2	41.5	25.8	50.2	39.7	49.1	30.2	32.7
Married	38.0	35.5	42.6	34.8	38.4	34.4	33.1	47.9	28.5	36.4	28.1	34.9	41.1
Marriage-like relationship	10.5	11.0	10.8	14.6	7.0	7.6	14.2	8.3	8.8	9.2	11.5	14.4	12.6
Separated, divorced, widowed	2.9	2.2	2.1	1.7	2.2	1.3	2.3	5.2	1.2	1.8	1.4	3.7	4.0
Unknown	11.6	11.0	10.4	8.4	11.5	11.6	8.8	12.9	11.3	13.0	9.8	16.9	9.7
Has dependent age 18 or younger (%)	20.1	16.9	22.7	13.8	16.7	15.2	13.7	33.3	12.6	18.2	9.8	19.7	23.4
Has one or more functional limitations (%)	13.2	12.7	14.3	13.4	10.7	9.9	13.2	12.2	11.2	13.0	13.1	15.6	15.8
Age at doctorate (median years)	31.4	30.8	31.7	30.4	31.0	30.2	30.4	34.5	29.4	31.1	29.2	31.3	33.2
Bachelor's in same field as doctorate (%)[b]	61.5	65.2	52.0	64.6	39.6	79.8	50.8	47.1	82.6	13.0	77.8	70.8	56.4
Master's earned (%)	73.6	68.6	77.7	43.9	73.9	75.5	68.7	80.6	70.8	77.6	51.0	89.4	89.2
Master's earned at same doctorate institution (%)	44.8	48.4	35.2	36.1	49.0	51.4	43.2	31.2	52.2	49.2	57.1	65.6	46.8
Time to doctorate (median years)													
Years since earning bachelor's degree	8.6	8.0	8.6	7.9	8.4	7.5	7.9	11.2	7.0	8.3	6.6	8.6	10.3
From graduate school start	7.2	6.8	7.2	6.4	7.0	6.6	6.8	8.7	6.0	7.0	6.0	6.9	8.8
From doctoral program start[c]	5.7	5.6	4.9	5.8	5.8	5.3	5.4	5.0	5.3	5.6	5.6	5.9	6.0
Received tuition remission (%)	85.4	87.1	87.4	89.7	86.5	86.1	89.0	72.3	94.2	87.3	91.5	80.8	89.2
Male doctorate recipients (number)	30,522	25,680	626	4,372	1,654	7,832	627	874	1,523	1,132	3,651	982	2,407
Citizenship status (%)													
U.S. citizen or permanent resident	55.0	52.3	55.6	70.0	34.6	39.1	57.3	61.6	46.6	41.7	56.3	84.5	58.9
Temporary visa holder	40.5	43.5	41.5	26.5	61.3	56.3	38.8	32.0	49.4	54.6	39.9	8.8	37.4
Unknown	4.4	4.2	2.9	3.5	4.1	4.6	4.0	6.4	4.0	3.7	3.8	6.7	3.7
Marital status (%)													
Never married	40.1	43.1	31.8	42.0	42.3	46.1	41.6	29.3	52.0	41.3	50.5	31.1	33.5
Married	37.2	34.9	46.8	35.0	38.2	34.4	35.9	46.6	27.3	36.7	28.0	35.8	40.6
Marriage-like relationship	9.6	9.7	9.9	13.2	7.0	6.9	12.3	8.6	8.5	8.0	10.6	13.6	12.3

Table 8-1

Science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
Separated, divorced, widowed	1.9	1.6	1.8	1.4	1.7	1.2	1.8	2.4	1.1	1.8	1.1	1.8	3.5
Unknown	11.3	10.7	9.7	8.5	10.8	11.4	8.5	13.2	11.1	12.4	9.8	17.6	10.1
Has dependent age 18 or younger (%)	19.8	17.1	27.5	15.4	16.8	16.5	15.6	32.9	12.9	18.2	10.4	21.8	24.3
Has one or more functional limitations (%)	11.6	11.1	11.5	12.8	9.8	8.9	10.1	12.1	10.5	11.8	11.7	15.5	13.3
Age at doctorate (median years)	31.2	30.7	32.2	30.8	30.9	30.4	30.5	33.3	29.4	30.9	29.3	31.8	33.1
Bachelor's in same field as doctorate (%)[b]	64.0	66.8	54.0	61.6	41.0	81.2	52.4	39.0	83.1	13.6	78.7	70.8	59.7
Master's earned (%)	71.8	68.0	80.4	44.0	72.6	76.4	70.5	73.8	69.2	77.8	52.1	87.2	87.3
Master's earned at same doctorate institution (%)	45.6	48.6	32.1	36.7	48.6	50.9	42.5	30.9	51.7	50.1	57.8	64.0	46.9
Time to doctorate (median years)													
Years since earning bachelor's degree	8.3	7.9	8.6	8.0	8.3	7.6	8.0	10.0	7.0	8.1	6.8	8.6	10.0
From graduate school start	7.0	6.8	7.3	6.6	7.0	6.8	6.8	7.8	6.0	6.9	6.0	6.9	8.3
From doctoral program start[c]	5.7	5.6	4.9	5.8	5.7	5.3	5.3	5.0	5.3	5.7	5.8	5.9	5.9
Received tuition remission (%)	86.6	87.9	90.2	86.8	85.5	87.7	75.6	94.5	86.9	91.3	83.2	89.7
Female doctorate recipients (number)	27,069	20,243	679	5,014	534	2,931	538	1,934	621	656	1,777	2,918	2,641
Citizenship status (%)													
U.S. citizen or permanent resident	68.4	66.1	62.2	73.5	37.6	46.8	68.4	74.2	41.4	52.4	59.1	84.5	67.1
Temporary visa holder	26.8	29.4	34.8	23.6	56.9	48.2	27.1	19.4	53.9	41.6	37.6	8.3	29.0
Unknown	4.8	4.6	3.1	2.9	5.4	5.0	4.5	6.4	4.7	5.9	3.2	7.2	3.9
Marital status (%)													
Never married	33.5	36.6	36.1	39.2	36.1	42.7	41.4	24.3	45.7	36.9	46.3	29.9	31.9
Married	38.8	36.3	38.7	34.6	39.1	34.5	29.9	48.4	31.2	35.8	28.4	34.5	41.5
Marriage-like relationship	11.6	12.7	11.6	15.8	6.9	9.4	16.5	8.1	9.5	11.3	13.4	14.6	12.8
Separated, divorced, widowed	4.1	3.1	2.5	2.1	3.9	1.4	3.0	6.4	1.6	2.0	2.1	4.3	4.4
Unknown	12.0	11.3	11.0	8.4	13.9	12.0	9.1	12.8	11.9	14.0	9.8	16.7	9.4
Has dependent age 18 or younger (%)	20.3	16.6	18.2	12.5	16.2	11.5	11.6	33.4	11.9	18.2	8.6	19.0	22.7
Has one or more functional limitations (%)	15.1	14.7	16.9	14.0	13.3	12.5	16.8	12.2	12.8	15.1	15.9	15.6	18.0
Age at doctorate (median years)	31.7	30.8	31.4	30.2	31.7	29.7	30.3	35.3	29.5	31.6	28.8	31.1	33.3
Bachelor's in same field as doctorate (%)[b]	58.7	63.2	50.2	67.2	35.2	76.2	48.9	50.8	81.3	12.0	76.0	70.8	53.5
Master's earned (%)	75.5	69.4	75.2	43.8	78.1	73.0	66.6	83.7	74.8	77.3	48.6	90.1	91.0
Master's earned at same doctorate institution (%)	44.0	48.1	38.4	35.6	50.1	52.8	44.0	31.3	53.6	47.6	55.7	66.1	46.7
Time to doctorate (median years)													
Years since earning bachelor's degree	9.0	8.3	8.5	7.7	9.0	7.1	7.8	12.0	7.1	9.0	6.4	8.6	10.5
From graduate school start	7.4	6.8	7.0	6.3	7.5	6.3	6.8	9.0	6.3	7.3	5.8	6.9	8.9
From doctoral program start[c]	5.8	5.7	5.0	5.7	5.8	5.3	5.5	5.0	5.3	5.5	5.3	5.9	6.0
Received tuition remission (%)	84.1	86.2	88.4	89.3	85.6	87.6	90.5	70.8	93.4	88.1	91.8	80.0	88.8

* = value between 0.00% and 0.05%.

[a] Includes doctorate recipients who did not report sex.
[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.
[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-2

Non-science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All fields	Non-science and engineering					
		Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
All doctorate recipients (number)[a]	57,596	11,672	1,401	3,919	3,369	842	2,141
Sex (%)							
Male	53.0	41.5	55.7	29.4	50.7	43.1	39.0
Female	47.0	58.5	44.3	70.6	49.2	56.9	60.9
Unknown	*	*	0.0	0.0	0.1	0.0	0.1
Citizenship status (%)							
U.S. citizen or permanent resident	61.3	72.9	46.5	81.8	78.2	73.5	65.4
Temporary visa holder	34.1	21.5	47.6	12.7	16.6	21.0	28.6
Unknown	4.6	5.6	5.9	5.5	5.2	5.5	5.9
Marital status (%)							
Never married	37.0	24.1	29.6	17.8	26.7	30.9	25.2
Married	38.0	47.5	44.9	54.3	43.4	40.6	46.1
Marriage-like relationship	10.5	8.6	5.1	5.7	12.3	12.2	9.2
Separated, divorced, widowed	2.9	5.6	5.4	7.1	4.6	4.3	5.3
Unknown	11.6	14.1	15.1	15.1	13.0	12.0	14.2
Has dependent age 18 or younger (%)	20.1	33.0	29.9	42.8	26.7	19.6	32.9
Has one or more functional limitations (%)	13.2	15.4	9.7	14.2	17.7	19.0	16.3
Age at doctorate (median years)	31.4	35.7	33.6	38.9	34.4	34.0	35.3
Bachelor's in same field as doctorate (%)[b]	61.5	46.5	40.9	25.6	71.6	69.0	39.2
Master's earned (%)	73.6	93.6	87.5	96.3	91.8	94.4	95.2
Master's earned at same doctorate institution (%)	44.8	34.4	26.0	32.4	41.8	36.0	31.2
Time to doctorate (median years)							
Years since earning bachelor's degree	8.6	12.3	10.8	15.5	11.3	11.3	11.6
From graduate school start	7.2	10.1	8.8	12.3	9.8	9.7	9.7
From doctoral program start[c]	5.7	5.9	5.0	5.6	6.8	6.8	5.7
Received tuition remission (%)	85.4	78.5	81.5	64.8	89.4	92.3	78.7
Male doctorate recipients (number)	30,522	4,842	781	1,154	1,709	363	835
Citizenship status (%)							
U.S. citizen or permanent resident	55.0	69.6	44.0	81.5	77.7	71.6	59.5
Temporary visa holder	40.5	24.6	50.6	13.5	16.3	22.6	33.3
Unknown	4.4	5.8	5.4	4.9	6.0	5.8	7.2
Marital status (%)							
Never married	40.1	23.9	29.6	16.4	24.5	33.9	23.4
Married	37.2	49.4	48.0	58.4	45.9	39.7	49.3
Marriage-like relationship	9.6	9.0	4.6	6.6	11.6	11.8	9.8
Separated, divorced, widowed	1.9	3.5	3.2	4.0	3.2	3.6	3.5
Unknown	11.3	14.3	14.6	14.6	14.7	11.0	14.0
Has dependent age 18 or younger (%)	19.8	35.2	32.6	45.9	32.6	20.1	35.2
Has one or more functional limitations (%)	11.6	14.3	9.3	14.6	15.3	15.7	15.8
Age at doctorate (median years)	31.2	35.6	33.9	38.8	34.9	34.0	35.9
Bachelor's in same field as doctorate (%)[b]	64.0	48.6	37.6	23.0	71.8	71.9	36.7
Master's earned (%)	71.8	92.8	88.6	96.3	91.1	94.3	94.9

Table 8-2

Non-science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All fields	Non-science and engineering					
		Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Master's earned at same doctorate institution (%)	45.6	33.6	25.1	31.6	40.4	35.5	29.6
Time to doctorate (median years)							
Years since earning bachelor's degree	8.3	12.0	10.7	14.7	11.4	11.0	11.5
From graduate school start	7.0	9.8	8.8	11.8	9.8	9.1	9.5
From doctoral program start[c]	5.7	5.9	5.0	5.3	6.8	6.3	5.7
Received tuition remission (%)	86.6	79.7	81.5	64.7	86.8	91.8	78.4
Female doctorate recipients (number)	27,069	6,826	620	2,765	1,658	479	1,304
Citizenship status (%)							
U.S. citizen or permanent resident	68.4	75.2	49.5	81.9	78.6	74.9	69.2
Temporary visa holder	26.8	19.4	43.9	12.3	17.0	19.8	25.7
Unknown	4.8	5.3	6.6	5.8	4.3	5.2	5.1
Marital status (%)							
Never married	33.5	24.2	29.5	18.4	29.0	28.6	26.4
Married	38.8	46.2	41.0	52.6	40.8	41.3	44.0
Marriage-like relationship	11.6	8.4	5.6	5.4	12.9	12.5	8.8
Separated, divorced, widowed	4.1	7.2	8.1	8.4	6.1	4.8	6.4
Unknown	12.0	14.0	15.8	15.2	11.3	12.7	14.3
Has dependent age 18 or younger (%)	20.3	31.5	26.3	41.5	21.0	19.2	31.4
Has one or more functional limitations (%)	15.1	16.2	10.1	14.0	20.0	21.5	16.5
Age at doctorate (median years)	31.7	35.8	33.3	39.0	34.0	34.0	34.8
Bachelor's in same field as doctorate (%)[b]	58.7	45.0	45.1	26.7	71.4	66.7	40.9
Master's earned (%)	75.5	94.1	86.0	96.4	92.4	94.5	95.3
Master's earned at same doctorate institution (%)	44.0	35.0	27.3	32.7	43.2	36.4	32.2
Time to doctorate (median years)							
Years since earning bachelor's degree	9.0	12.8	10.8	15.9	11.0	11.6	11.6
From graduate school start	7.4	10.4	8.8	12.3	9.4	9.9	9.8
From doctoral program start[c]	5.8	5.9	5.0	5.6	6.8	6.8	5.6
Received tuition remission (%)	84.1	77.7	81.5	64.9	91.9	92.7	78.9

* = value between 0.00% and 0.05%.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-3

Agricultural sciences and natural resources research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All agricultural sciences and natural resources fields	Agricultural, animal, plant, and veterinary sciences	Natural resources and conservation
All doctorate recipients (number)[a]	1,305	857	448
Sex (%)			
Male	48.0	47.6	48.7
Female	52.0	52.4	51.3
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	59.0	53.4	69.6
Temporary visa holder	38.0	44.3	25.9
Unknown	3.0	2.2	4.5
Marital status (%)			
Never married	34.0	36.2	29.9
Married	42.6	41.7	44.4
Marriage-like relationship	10.8	10.2	12.1
Separated, divorced, widowed	2.1	1.9	2.7
Unknown	10.4	10.2	10.9
Has dependent age 18 or younger (%)	22.7	22.5	22.9
Has one or more functional limitations (%)	14.3	13.5	15.8
Age at doctorate (median years)	31.7	31.2	33.3
Bachelor's in same field as doctorate (%)[b]	52.0	62.8	31.1
Master's earned (%)	77.7	75.6	81.8
Master's earned at same doctorate institution (%)	35.2	35.8	34.1
Time to doctorate (median years)			
Years since earning bachelor's degree	8.6	8.0	10.0
From graduate school start	7.2	6.8	8.0
From doctoral program start[c]	4.9	4.8	5.3
Received tuition remission (%)	87.4	85.8	90.6
Male doctorate recipients (number)	626	408	218
Citizenship status (%)			
U.S. citizen or permanent resident	55.6	48.3	69.3
Temporary visa holder	41.5	49.5	26.6
Unknown	2.9	2.2	4.1
Marital status (%)			
Never married	31.8	34.1	27.5
Married	46.8	45.3	49.5
Marriage-like relationship	9.9	D	D
Separated, divorced, widowed	1.8	D	D
Unknown	9.7	9.8	9.6
Has dependent age 18 or younger (%)	27.5	27.2	27.9
Has one or more functional limitations (%)	11.5	10.3	13.8
Age at doctorate (median years)	32.2	31.6	33.7
Bachelor's in same field as doctorate (%)[b]	54.0	65.4	32.3

Table 8-3

Agricultural sciences and natural resources research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All agricultural sciences and natural resources fields	Agricultural, animal, plant, and veterinary sciences	Natural resources and conservation
Master's earned (%)	80.4	77.7	85.6
Master's earned at same doctorate institution (%)	32.1	32.1	32.2
Time to doctorate (median years)			
Years since earning bachelor's degree	8.6	8.1	10.1
From graduate school start	7.3	6.9	8.0
From doctoral program start[c]	4.9	4.8	5.2
Received tuition remission (%)	86.4	84.3	90.4
Female doctorate recipients (number)	679	449	230
Citizenship status (%)			
U.S. citizen or permanent resident	62.2	58.1	70.0
Temporary visa holder	34.8	39.6	25.2
Unknown	3.1	2.2	4.8
Marital status (%)			
Never married	36.1	38.1	32.2
Married	38.7	38.3	39.6
Marriage-like relationship	11.6	D	D
Separated, divorced, widowed	2.5	D	D
Unknown	11.0	10.5	12.2
Has dependent age 18 or younger (%)	18.2	18.2	18.1
Has one or more functional limitations (%)	16.9	16.5	17.7
Age at doctorate (median years)	31.4	30.7	32.9
Bachelor's in same field as doctorate (%)[b]	50.2	60.5	30.0
Master's earned (%)	75.2	73.6	78.2
Master's earned at same doctorate institution (%)	38.4	39.5	36.2
Time to doctorate (median years)			
Years since earning bachelor's degree	8.5	8.0	10.0
From graduate school start	7.0	6.8	8.0
From doctoral program start[c]	5.0	4.8	5.3
Received tuition remission (%)	88.4	87.1	90.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-4

Biological and biomedical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
All doctorate recipients (number)[a]	9,386	1,555	688	689	1,120	436	1,089	1,177	386	768	1,478
Sex (%)											
Male	46.6	51.5	58.1	45.3	38.5	45.2	43.6	47.7	41.2	47.9	45.2
Female	53.4	48.5	41.9	54.7	61.5	54.8	56.4	52.3	58.8	52.1	54.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)											
U.S. citizen or permanent resident	71.9	65.7	52.9	73.4	79.5	76.8	81.5	78.5	73.8	71.0	66.8
Temporary visa holder	25.0	31.5	44.0	22.9	18.6	21.1	16.3	18.2	22.3	26.6	27.8
Unknown	3.2	2.8	3.1	3.6	2.0	2.1	2.2	3.3	3.9	2.5	5.4
Marital status (%)											
Never married	40.5	45.0	44.3	39.6	33.8	42.4	43.1	40.3	39.1	42.8	36.3
Married	34.8	31.8	34.9	34.1	42.3	34.4	33.3	32.7	37.0	37.6	33.3
Marriage-like relationship	14.6	14.1	13.1	17.4	14.6	15.4	15.7	17.8	14.0	10.8	12.9
Separated, divorced, widowed	1.7	1.6	D	1.7	3.1	D	1.7	1.4	1.3	2.1	1.9
Unknown	8.4	7.5	D	7.1	6.2	D	6.2	7.8	8.5	6.6	15.6
Has dependent age 18 or younger (%)	13.8	12.2	13.9	11.6	19.8	12.9	11.8	10.1	13.8	16.2	15.8
Has one or more functional limitations (%)	13.4	13.1	11.6	13.4	14.6	16.2	13.8	14.2	11.4	11.4	13.5
Age at doctorate (median years)	30.4	30.2	30.0	30.3	31.8	30.1	30.0	30.3	30.0	30.2	30.9
Bachelor's in same field as doctorate (%)[b]	64.6	62.8	34.1	82.9	57.2	74.9	82.0	62.1	60.2	57.3	68.9
Master's earned (%)	43.9	38.9	60.7	29.4	68.0	33.5	31.2	35.0	38.6	47.0	49.7
Master's earned at same doctorate institution (%)	36.1	36.2	44.3	37.0	30.2	36.7	34.3	51.0	36.7	36.6	28.9
Time to doctorate (median years)											
Years since earning bachelor's degree	7.9	7.6	7.4	7.8	9.0	7.6	7.5	7.9	7.3	7.6	8.2
From graduate school start	6.4	6.3	6.3	6.4	7.3	6.3	6.3	6.3	6.2	6.3	6.8
From doctoral program start[c]	5.8	5.8	5.3	5.8	5.4	5.8	5.8	5.8	5.3	5.3	5.7
Received tuition remission (%)	89.7	90.2	90.3	91.3	87.3	90.4	90.3	91.1	88.1	89.1	88.6
Male doctorate recipients (number)	4,372	801	400	312	431	197	475	561	159	368	668
Citizenship status (%)											
U.S. citizen or permanent resident	70.0	65.2	53.3	75.3	76.3	75.6	80.2	76.3	73.0	71.2	63.6
Temporary visa holder	26.5	32.1	43.3	21.2	21.6	21.8	17.5	20.0	22.6	25.8	30.2
Unknown	3.5	2.7	3.5	3.5	2.1	2.5	2.3	3.7	4.4	3.0	6.1
Marital status (%)											
Never married	42.0	46.7	47.8	41.3	34.1	43.7	43.8	41.9	39.6	41.6	37.4
Married	35.0	31.0	32.8	34.6	44.5	31.0	35.2	33.3	36.5	38.6	35.2
Marriage-like relationship	13.2	13.4	12.0	16.3	13.7	16.2	13.5	16.2	11.9	10.3	10.2
Separated, divorced, widowed	1.4	1.1	D	2.2	2.3	D	1.7	1.1	D	1.4	1.2

Table 8-4

Biological and biomedical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
Unknown	8.5	7.9	D	5.4	5.3	D	5.9	7.5	D	8.2	16.0
Has dependent age 18 or younger (%)	15.4	12.2	14.7	13.3	21.4	14.4	13.9	12.0	13.3	19.5	19.6
Has one or more functional limitations (%)	12.8	13.0	12.1	13.0	14.3	15.0	14.0	12.7	7.8	11.3	12.2
Age at doctorate (median years)	30.8	30.4	30.2	30.8	32.2	30.3	30.3	30.9	30.3	30.5	31.4
Bachelor's in same field as doctorate (%)[b]	61.6	58.0	34.1	82.1	56.8	70.9	80.5	60.3	59.6	51.7	67.0
Master's earned (%)	44.0	39.8	56.7	29.5	67.9	31.2	32.5	34.1	42.4	48.4	52.0
Master's earned at same doctorate institution (%)	36.7	35.2	44.5	36.0	30.2	43.1	29.5	47.8	41.9	42.8	30.3
Time to doctorate (median years)											
Years since earning bachelor's degree	8.0	7.6	7.5	8.0	9.0	7.7	7.7	8.2	7.6	7.6	8.6
From graduate school start	6.6	6.3	6.4	6.5	7.5	6.3	6.3	6.4	6.3	6.3	6.9
From doctoral program start[c]	5.8	5.8	5.3	6.0	5.7	5.8	5.8	5.9	5.3	5.3	5.7
Received tuition remission (%)	90.2	89.3	91.3	92.3	88.0	90.1	91.4	90.4	85.7	90.7	90.7
Female doctorate recipients (number)	5,014	754	288	377	689	239	614	616	227	400	810
Citizenship status (%)											
U.S. citizen or permanent resident	73.5	66.3	52.4	71.9	81.4	77.8	82.4	80.5	74.4	70.8	69.4
Temporary visa holder	23.6	30.9	45.1	24.4	16.7	20.5	15.5	16.6	22.0	27.3	25.8
Unknown	2.9	2.8	2.4	3.7	1.9	1.7	2.1	2.9	3.5	2.0	4.8
Marital status (%)											
Never married	39.2	43.2	39.6	38.2	33.5	41.4	42.5	38.8	38.8	44.0	35.3
Married	34.6	32.6	37.8	33.7	40.9	37.2	31.9	32.1	37.4	36.8	31.7
Marriage-like relationship	15.8	14.9	14.6	18.3	15.2	14.6	17.4	19.2	15.4	11.3	15.2
Separated, divorced, widowed	2.1	2.1	D	1.3	3.6	D	1.8	1.8	D	2.8	2.5
Unknown	8.4	7.2	D	8.5	6.7	D	6.4	8.1	D	5.3	15.3
Has dependent age 18 or younger (%)	12.5	12.2	12.6	10.1	18.9	11.6	10.1	8.4	14.2	13.3	12.7
Has one or more functional limitations (%)	14.0	13.3	10.9	13.8	14.8	17.1	13.6	15.6	13.9	11.4	14.6
Age at doctorate (median years)	30.2	29.8	29.8	29.9	31.6	29.9	29.7	29.8	29.6	30.0	30.6
Bachelor's in same field as doctorate (%)[b]	67.2	67.8	34.1	83.5	57.5	78.2	83.1	63.8	60.6	62.2	70.5
Master's earned (%)	43.8	37.9	66.3	29.4	68.1	35.4	30.2	35.8	36.1	45.8	47.8
Master's earned at same doctorate institution (%)	35.6	37.3	44.0	37.9	30.1	32.1	38.2	53.8	32.5	30.9	27.6
Time to doctorate (median years)											
Years since earning bachelor's degree	7.7	7.5	7.3	7.6	9.0	7.3	7.3	7.6	7.0	7.6	8.0
From graduate school start	6.3	6.3	6.3	6.3	7.3	6.3	6.0	6.3	6.0	6.3	6.7
From doctoral program start[c]	5.7	5.8	5.3	5.8	5.3	5.8	5.6	5.8	5.3	5.3	5.6
Received tuition remission (%)	89.3	91.1	89.0	90.5	86.9	90.6	89.6	91.8	89.7	87.7	86.9

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.
[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.
[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-5

Computer and information science research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All computer and information sciences fields	Computer science	Computer and information sciences, other
All doctorate recipients (number)[a]	2,188	1,484	704
Sex (%)			
Male	75.6	77.3	72.0
Female	24.4	22.7	28.0
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	35.4	36.3	33.4
Temporary visa holder	60.2	59.6	61.5
Unknown	4.4	4.0	5.1
Marital status (%)			
Never married	40.8	42.8	36.6
Married	38.4	38.1	39.1
Marriage-like relationship	7.0	8.0	4.8
Separated, divorced, widowed	2.2	1.5	3.7
Unknown	11.5	9.5	15.8
Has dependent age 18 or younger (%)	16.7	14.4	21.9
Has one or more functional limitations (%)	10.7	10.4	11.1
Age at doctorate (median years)	31.0	30.7	32.1
Bachelor's in same field as doctorate (%)[b]	39.6	44.0	29.9
Master's earned (%)	73.9	71.5	79.1
Master's earned at same doctorate institution (%)	49.0	51.0	45.1
Time to doctorate (median years)			
Years since earning bachelor's degree	8.4	8.1	9.3
From graduate school start	7.0	6.9	7.8
From doctoral program start[c]	5.8	5.8	5.7
Received tuition remission (%)	86.5	88.3	82.4
Male doctorate recipients (number)	1,654	1,147	507
Citizenship status (%)			
U.S. citizen or permanent resident	34.6	36.4	30.6
Temporary visa holder	61.3	59.9	64.5
Unknown	4.1	3.7	4.9
Marital status (%)			
Never married	42.3	44.5	37.5
Married	38.2	37.1	40.8
Marriage-like relationship	7.0	8.1	4.5
Separated, divorced, widowed	1.7	1.0	3.2
Unknown	10.8	9.3	14.0
Has dependent age 18 or younger (%)	16.8	14.0	23.7
Has one or more functional limitations (%)	9.8	9.6	10.5
Age at doctorate (median years)	30.9	30.6	32.0
Bachelor's in same field as doctorate (%)[b]	41.0	44.7	32.3
Master's earned (%)	72.6	70.0	78.5
Master's earned at same doctorate institution (%)	48.6	50.3	45.0
Time to doctorate (median years)			
Years since earning bachelor's degree	8.3	8.0	9.2
From graduate school start	7.0	6.9	7.8

Table 8-5

Computer and information science research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All computer and information sciences fields	Computer science	Computer and information sciences, other
From doctoral program start[c]	5.7	5.8	5.3
Received tuition remission (%)	86.8	88.5	82.7
Female doctorate recipients (number)	534	337	197
Citizenship status (%)			
U.S. citizen or permanent resident	37.6	35.9	40.6
Temporary visa holder	56.9	58.8	53.8
Unknown	5.4	5.3	5.6
Marital status (%)			
Never married	36.1	37.1	34.5
Married	39.1	41.8	34.5
Marriage-like relationship	6.9	7.7	5.6
Separated, divorced, widowed	3.9	3.3	5.1
Unknown	13.9	10.1	20.3
Has dependent age 18 or younger (%)	16.2	15.9	16.9
Has one or more functional limitations (%)	13.3	13.4	13.1
Age at doctorate (median years)	31.7	31.0	32.5
Bachelor's in same field as doctorate (%)[b]	35.2	41.5	23.5
Master's earned (%)	78.1	76.7	80.6
Master's earned at same doctorate institution (%)	50.1	52.9	45.2
Time to doctorate (median years)			
Years since earning bachelor's degree	9.0	8.5	10.1
From graduate school start	7.5	7.0	8.0
From doctoral program start[c]	5.8	5.8	5.8
Received tuition remission (%)	85.6	87.7	81.8

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-6

Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	Total	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
All doctorate recipients (number)[a]	10,763	1,236	1,255	1,315	2,132	361	655	925	1,545	1,339
Sex (%)										
Male	72.8	54.7	66.9	68.2	81.4	79.2	71.6	68.9	80.8	78.0
Female	27.2	45.3	33.1	31.8	18.6	20.8	28.4	31.1	19.2	22.0
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)										
U.S. citizen or permanent resident	41.2	68.1	45.3	33.2	25.9	28.3	33.6	47.9	41.7	46.9
Temporary visa holder	54.1	28.3	50.6	62.6	69.0	69.8	60.5	46.9	54.5	46.1
Unknown	4.7	3.6	4.1	4.3	5.1	1.9	6.0	5.2	3.8	7.0
Marital status (%)										
Never married	45.2	48.9	52.1	38.3	47.1	43.8	36.2	48.4	46.1	40.5
Married	34.4	29.1	28.4	41.8	34.5	44.0	43.4	29.5	34.5	33.8
Marriage-like relationship	7.6	11.8	8.3	6.2	6.1	7.2	5.8	9.1	6.0	8.5
Separated, divorced, widowed	1.3	1.0	0.8	1.8	1.1	1.7	1.1	1.1	1.7	1.3
Unknown	11.6	9.1	10.4	11.9	11.2	3.3	13.6	11.9	11.7	16.0
Has dependent age 18 or younger (%)	15.2	9.3	9.9	23.0	15.5	20.7	22.8	10.4	13.8	17.2
Has one or more functional limitations (%)	9.9	11.1	9.9	9.4	9.8	8.1	7.6	11.0	10.1	9.6
Age at doctorate (median years)	30.2	29.3	29.0	31.3	30.8	31.1	31.2	29.3	30.4	30.3
Bachelor's in same field as doctorate (%)[b]	79.8	76.3	86.6	83.0	78.3	73.9	68.0	70.5	89.4	78.8
Master's earned (%)	75.5	55.9	55.1	90.2	81.9	85.0	85.4	64.0	80.4	83.4
Master's earned at same doctorate institution (%)	51.4	57.5	51.0	42.3	52.6	48.7	41.2	50.9	56.5	56.1
Time to doctorate (median years)										

Table 8-6

Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	Total	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Years since earning bachelor's degree	7.5	6.9	6.4	8.4	8.0	8.3	8.3	6.8	7.6	7.6
From graduate school start	6.6	6.0	5.8	7.3	6.9	7.3	7.3	6.0	6.6	6.8
From doctoral program start[c]	5.3	5.4	5.1	5.0	5.6	5.3	5.0	5.0	5.3	5.3
Received tuition remission (%)	86.1	88.8	89.9	85.1	85.3	84.8	79.0	86.6	86.7	84.8
Male doctorate recipients (number)	7,832	676	840	897	1,735	286	469	637	1,248	1,044
Citizenship status (%)										
U.S. citizen or permanent resident	39.1	66.3	45.8	29.1	26.1	27.3	35.0	46.2	40.2	45.9
Temporary visa holder	56.3	30.5	50.6	66.8	68.9	71.0	59.7	48.4	56.1	47.0
Unknown	4.6	3.3	3.6	4.1	5.0	1.7	5.3	5.5	3.7	7.1
Marital status (%)										
Never married	46.1	50.3	54.3	38.0	48.5	44.8	36.7	49.6	46.6	41.7
Married	34.4	30.5	28.0	42.3	33.6	42.3	42.6	27.6	34.8	34.2
Marriage-like relationship	6.9	D	D	5.6	D	D	D	D	5.5	7.7
Separated, divorced, widowed	1.2	D	D	1.4	D	D	D	D	1.6	1.1
Unknown	11.4	8.9	9.0	12.7	11.0	3.5	13.4	12.2	11.5	15.3
Has dependent age 18 or younger (%)	16.5	11.5	11.3	23.9	16.4	21.8	23.3	10.6	15.4	18.6
Has one or more functional limitations (%)	8.9	9.3	9.2	8.5	9.5	7.3	6.2	9.3	9.2	8.5
Age at doctorate (median years)	30.4	29.6	29.1	31.5	30.9	31.3	31.4	29.4	30.5	30.3

Table 8-6

Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	Total	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Bachelor's in same field as doctorate (%)[b]	81.2	76.6	87.4	86.4	79.0	73.7	68.6	71.6	90.4	80.6
Master's earned (%)	76.4	56.7	54.0	90.8	81.2	84.9	86.9	64.9	80.6	82.7
Master's earned at same doctorate institution (%)	50.9	56.5	51.3	40.8	52.1	50.2	40.3	49.3	56.3	55.3
Time to doctorate (median years)										
Years since earning bachelor's degree	7.6	7.0	6.4	8.5	8.0	8.5	8.5	7.0	7.6	7.6
From graduate school start	6.8	6.0	5.8	7.3	7.0	7.3	7.3	6.3	6.6	6.8
From doctoral program start[c]	5.3	5.4	5.0	4.9	5.6	5.3	4.9	5.0	5.3	5.3
Received tuition remission (%)	85.5	87.7	90.5	83.7	85.0	84.0	76.4	87.1	86.3	84.8
Female doctorate recipients (number)	2,931	560	415	418	397	75	186	288	297	295
Citizenship status (%)										
U.S. citizen or permanent resident	46.8	70.4	44.3	41.9	24.9	32.0	30.1	51.7	47.8	50.5
Temporary visa holder	48.2	25.7	50.6	53.6	69.5	65.3	62.4	43.8	47.8	42.7
Unknown	5.0	3.9	5.1	4.5	5.5	2.7	7.5	4.5	4.4	6.8
Marital status (%)										
Never married	42.7	47.3	47.7	38.8	41.1	40.0	34.9	45.8	43.8	36.3
Married	34.5	27.5	29.2	40.9	38.3	50.7	45.2	33.7	33.3	32.2
Marriage-like relationship	9.4	D	D	7.4	D	D	D	D	8.1	11.5

Table 8-6

Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	Total	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Separated, divorced, widowed	1.4	D	D	2.6	D	D	D	D	2.0	1.7
Unknown	12.0	9.5	13.3	10.3	12.1	2.7	14.0	11.1	12.8	18.3
Has dependent age 18 or younger (%)	11.5	6.7	6.9	21.1	11.6	16.7	21.4	9.8	7.0	12.1
Has one or more functional limitations (%)	12.5	13.2	11.5	11.3	11.2	11.1	11.4	14.7	13.9	13.4
Age at doctorate (median years)	29.7	29.0	29.0	30.7	30.2	30.3	30.2	28.9	30.1	30.1
Bachelor's in same field as doctorate (%)[b]	76.2	76.0	84.8	75.7	75.1	74.7	66.5	68.1	85.2	72.3
Master's earned (%)	73.0	54.8	57.6	89.0	84.9	85.3	81.8	61.9	79.6	85.9
Master's earned at same doctorate institution (%)	52.8	58.8	50.5	45.5	55.1	42.9	43.8	54.7	57.5	58.5
Time to doctorate (median years)										
Years since earning bachelor's degree	7.1	6.6	6.5	8.1	7.8	8.0	7.9	6.6	7.3	7.3
From graduate school start	6.3	6.0	5.8	7.0	6.8	7.1	6.8	5.8	6.7	6.6
From doctoral program start[c]	5.3	5.5	5.2	5.0	5.4	5.0	5.0	5.0	5.3	5.0
Received tuition remission (%)	87.6	90.1	88.5	87.9	86.7	87.8	85.5	85.5	88.5	84.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
All doctorate recipients (number)[a]	1,165	658	507
Sex (%)			
Male	53.8	57.9	48.5
Female	46.2	42.1	51.5
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	62.4	58.5	67.5
Temporary visa holder	33.4	36.9	28.8
Unknown	4.2	4.6	3.7
Marital status (%)			
Never married	41.5	39.4	44.4
Married	33.1	34.3	31.6
Marriage-like relationship	14.2	14.6	13.8
Separated, divorced, widowed	2.3	2.9	1.6
Unknown	8.8	8.8	8.7
Has dependent age 18 or younger (%)	13.7	15.9	11.0
Has one or more functional limitations (%)	13.2	14.5	11.5
Age at doctorate (median years)	30.4	30.8	29.9
Bachelor's in same field as doctorate (%)[b]	50.8	59.8	39.1
Master's earned (%)	68.7	70.5	66.4
Master's earned at same doctorate institution (%)	43.2	36.7	52.1
Time to doctorate (median years)			
Years since earning bachelor's degree	7.9	8.2	7.6
From graduate school start	6.8	6.8	6.8
From doctoral program start[c]	5.4	5.3	5.7
Received tuition remission (%)	89.0	88.4	89.7
Male doctorate recipients (number)	627	381	246
Citizenship status (%)			
U.S. citizen or permanent resident	57.3	53.0	63.8
Temporary visa holder	38.8	42.5	32.9
Unknown	4.0	4.5	3.3
Marital status (%)			
Never married	41.6	39.1	45.5
Married	35.9	37.0	34.1
Marriage-like relationship	12.3	D	D
Separated, divorced, widowed	1.8	D	D
Unknown	8.5	9.2	7.3
Has dependent age 18 or younger (%)	15.6	18.6	11.0
Has one or more functional limitations (%)	10.1	11.4	8.0
Age at doctorate (median years)	30.5	30.9	30.2
Bachelor's in same field as doctorate (%)[b]	52.4	61.6	38.4
Master's earned (%)	70.5	69.2	72.4

Table 8-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Master's earned at same doctorate institution (%)	42.5	36.7	50.9
Time to doctorate (median years)			
Years since earning bachelor's degree	8.0	8.2	7.6
From graduate school start	6.8	6.9	6.8
From doctoral program start[c]	5.3	5.3	5.6
Received tuition remission (%)	87.7	85.6	90.8
Female doctorate recipients (number)	538	277	261
Citizenship status (%)			
U.S. citizen or permanent resident	68.4	66.1	70.9
Temporary visa holder	27.1	29.2	24.9
Unknown	4.5	4.7	4.2
Marital status (%)			
Never married	41.4	39.7	43.3
Married	29.9	30.7	29.1
Marriage-like relationship	16.5	D	D
Separated, divorced, widowed	3.0	D	D
Unknown	9.1	8.3	10.0
Has dependent age 18 or younger (%)	11.6	12.2	11.0
Has one or more functional limitations (%)	16.8	18.7	14.8
Age at doctorate (median years)	30.3	30.6	29.7
Bachelor's in same field as doctorate (%)[b]	48.9	57.5	39.8
Master's earned (%)	66.6	72.1	60.7
Master's earned at same doctorate institution (%)	44.0	36.7	53.4
Time to doctorate (median years)			
Years since earning bachelor's degree	7.8	8.1	7.5
From graduate school start	6.8	6.8	6.7
From doctoral program start[c]	5.5	5.3	5.7
Received tuition remission (%)	90.5	92.2	88.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-8

Health sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All health sciences fields	Nursing and nursing science	Pharmacy and pharmaceutical sciences	Public health	Health sciences, other
All doctorate recipients (number)[a]	2,808	623	460	795	930
Sex (%)					
Male	31.1	11.7	48.7	31.7	34.9
Female	68.9	88.3	51.3	68.3	65.1
Unknown	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)					
U.S. citizen or permanent resident	70.3	82.2	41.7	73.7	73.4
Temporary visa holder	23.3	12.0	50.2	21.1	19.5
Unknown	6.4	5.8	8.0	5.2	7.1
Marital status (%)					
Never married	25.8	12.2	41.7	28.3	24.9
Married	47.9	63.6	32.4	48.1	44.8
Marriage-like relationship	8.3	5.8	8.5	10.2	8.2
Separated, divorced, widowed	5.2	D	D	5.0	5.7
Unknown	12.9	D	D	8.4	16.3
Has dependent age 18 or younger (%)	33.3	44.3	17.8	31.7	34.5
Has one or more functional limitations (%)	12.2	12.2	13.3	11.1	12.6
Age at doctorate (median years)	34.5	41.8	30.7	34.0	34.2
Bachelor's in same field as doctorate (%)[b]	47.1	89.0	44.0	29.2	35.7
Master's earned (%)	80.6	88.0	55.1	89.8	79.5
Master's earned at same doctorate institution (%)	31.2	24.6	31.5	35.1	32.0
Time to doctorate (median years)					
Years since earning bachelor's degree	11.2	16.0	8.0	10.9	11.0
From graduate school start	8.7	10.7	6.3	8.5	9.0
From doctoral program start[c]	5.0	5.2	5.0	5.0	5.0
Received tuition remission (%)	72.3	56.4	86.0	76.5	72.8
Male doctorate recipients (number)	874	73	224	252	325
Citizenship status (%)					
U.S. citizen or permanent resident	61.6	79.5	40.2	65.9	68.9
Temporary visa holder	32.0	16.4	53.1	28.6	23.7
Unknown	6.4	4.1	6.7	5.6	7.4
Marital status (%)					
Never married	29.3	16.4	42.4	26.6	25.2
Married	46.6	58.9	34.8	52.4	47.4
Marriage-like relationship	8.6	12.3	7.1	8.7	8.6
Separated, divorced, widowed	2.4	D	D	D	2.5
Unknown	13.2	D	D	D	16.3
Has dependent age 18 or younger (%)	32.9	48.5	21.5	33.3	36.9
Has one or more functional limitations (%)	12.1	18.2	10.5	12.2	11.6
Age at doctorate (median years)	33.3	40.6	31.2	34.4	33.1
Bachelor's in same field as doctorate (%)[b]	39.0	92.9	46.0	27.2	30.9
Master's earned (%)	73.8	91.4	56.1	86.6	70.9

Table 8-8

Health sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All health sciences fields	Nursing and nursing science	Pharmacy and pharmaceutical sciences	Public health	Health sciences, other
Master's earned at same doctorate institution (%)	30.9	26.6	30.9	31.8	31.3
Time to doctorate (median years)					
Years since earning bachelor's degree	10.0	13.2	8.2	10.7	9.7
From graduate school start	7.8	10.2	6.6	8.3	7.8
From doctoral program start[c]	5.0	5.3	5.0	5.0	5.0
Received tuition remission (%)	75.6	56.7	85.9	73.3	74.8
Female doctorate recipients (number)	1,934	550	236	543	605
Citizenship status (%)					
U.S. citizen or permanent resident	74.2	82.5	43.2	77.3	75.9
Temporary visa holder	19.4	11.5	47.5	17.7	17.2
Unknown	6.4	6.0	9.3	5.0	6.9
Marital status (%)					
Never married	24.3	11.6	41.1	29.1	24.8
Married	48.4	64.2	30.1	46.0	43.5
Marriage-like relationship	8.1	4.9	9.7	10.9	7.9
Separated, divorced, widowed	6.4	8.2	D	D	7.4
Unknown	12.8	11.1	D	D	16.4
Has dependent age 18 or younger (%)	33.4	43.7	14.3	31.0	33.3
Has one or more functional limitations (%)	12.2	11.3	16.0	10.6	13.1
Age at doctorate (median years)	35.3	42.1	30.2	33.7	35.0
Bachelor's in same field as doctorate (%)[b]	50.8	88.5	42.1	30.2	38.3
Master's earned (%)	83.7	87.5	54.2	91.3	84.0
Master's earned at same doctorate institution (%)	31.3	24.3	32.1	36.5	32.4
Time to doctorate (median years)					
Years since earning bachelor's degree	12.0	16.2	7.6	11.0	12.0
From graduate school start	9.0	10.8	6.3	8.6	9.8
From doctoral program start[c]	5.0	5.1	5.0	5.0	5.0
Received tuition remission (%)	70.8	56.4	86.0	77.9	71.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-9

Mathematics and statistics research doctorate recipients, statistical profiles by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All mathematics and statistics fields	Applied mathematics	Mathematics	Statistics
All doctorate recipients (number)[a]	2,144	477	980	687
Sex (%)				
Male	71.0	70.4	76.8	63.2
Female	29.0	29.6	23.2	36.8
Unknown	0.0	0.0	0.0	0.0
Citizenship status (%)				
U.S. citizen or permanent resident	45.1	44.0	56.4	29.5
Temporary visa holder	50.7	52.8	39.8	64.9
Unknown	4.2	3.1	3.8	5.5
Marital status (%)				
Never married	50.2	48.0	52.6	48.3
Married	28.5	34.2	24.0	30.9
Marriage-like relationship	8.8	8.4	8.7	9.3
Separated, divorced, widowed	1.2	1.3	1.4	0.9
Unknown	11.3	8.2	13.4	10.6
Has dependent age 18 or younger (%)	12.6	14.7	9.0	16.2
Has one or more functional limitations (%)	11.2	9.7	11.7	11.6
Age at doctorate (median years)	29.4	29.9	29.1	29.5
Bachelor's in same field as doctorate (%)[b]	82.6	80.1	88.3	76.5
Master's earned (%)	70.8	73.1	65.7	76.3
Master's earned at same doctorate institution (%)	52.2	53.9	52.5	50.7
Time to doctorate (median years)				
Years since earning bachelor's degree	7.0	7.3	6.8	7.2
From graduate school start	6.0	6.3	6.0	6.3
From doctoral program start[c]	5.3	5.3	5.8	5.0
Received tuition remission (%)	94.2	93.4	94.9	93.8
Male doctorate recipients (number)	1,523	336	753	434
Citizenship status (%)				
U.S. citizen or permanent resident	46.6	44.3	56.4	31.1
Temporary visa holder	49.4	53.6	39.6	63.4
Unknown	4.0	2.1	4.0	5.5
Marital status (%)				
Never married	52.0	49.1	54.6	49.8
Married	27.3	34.2	22.4	30.4
Marriage-like relationship	8.5	8.3	D	D
Separated, divorced, widowed	1.1	1.8	D	D
Unknown	11.1	6.5	14.1	9.4
Has dependent age 18 or younger (%)	12.9	15.8	8.7	17.7
Has one or more functional limitations (%)	10.5	9.9	10.1	11.8
Age at doctorate (median years)	29.4	30.2	29.1	29.5
Bachelor's in same field as doctorate (%)[b]	83.1	79.1	88.7	77.1
Master's earned (%)	69.2	72.9	63.7	75.3
Master's earned at same doctorate institution (%)	51.7	54.0	52.5	48.7
Time to doctorate (median years)				
Years since earning bachelor's degree	7.0	7.5	6.6	7.1
From graduate school start	6.0	6.3	5.9	6.3
From doctoral program start[c]	5.3	5.3	5.8	5.0
Received tuition remission (%)	94.5	93.8	95.6	93.2
Female doctorate recipients (number)	621	141	227	253
Citizenship status (%)				

Table 8-9

Mathematics and statistics research doctorate recipients, statistical profiles by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All mathematics and statistics fields	Applied mathematics	Mathematics	Statistics
U.S. citizen or permanent resident	41.4	43.3	56.4	26.9
Temporary visa holder	53.9	51.1	40.5	67.6
Unknown	4.7	5.7	3.1	5.5
Marital status (%)				
Never married	45.7	45.4	45.8	45.8
Married	31.2	34.0	29.1	31.6
Marriage-like relationship	9.5	8.5	D	D
Separated, divorced, widowed	1.6	0.0	D	D
Unknown	11.9	12.1	11.0	12.6
Has dependent age 18 or younger (%)	11.9	12.2	9.9	13.6
Has one or more functional limitations (%)	12.8	9.0	16.8	11.3
Age at doctorate (median years)	29.5	29.4	29.3	29.6
Bachelor's in same field as doctorate (%)[b]	81.3	82.6	87.0	75.4
Master's earned (%)	74.8	73.5	72.1	78.0
Master's earned at same doctorate institution (%)	53.6	53.6	52.7	54.2
Time to doctorate (median years)				
Years since earning bachelor's degree	7.1	7.0	7.0	7.4
From graduate school start	6.3	6.0	6.0	6.7
From doctoral program start[c]	5.3	5.3	5.7	5.0
Received tuition remission (%)	93.4	92.4	92.6	94.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-10

Multidisciplinary/interdisciplinary sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All multidisciplinary/ interdisciplinary sciences fields	Interdisciplinary computer sciences	Multidisciplinary/ interdisciplinary sciences, other
All doctorate recipients (number)[a]	1,788	625	1,163
Sex (%)			
Male	63.3	75.4	56.8
Female	36.7	24.6	43.2
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	45.6	37.8	49.9
Temporary visa holder	49.8	57.9	45.5
Unknown	4.5	4.3	4.6
Marital status (%)			
Never married	39.7	42.1	38.3
Married	36.4	32.2	38.6
Marriage-like relationship	9.2	8.0	9.8
Separated, divorced, widowed	1.8	1.6	2.0
Unknown	13.0	16.2	11.3
Has dependent age 18 or younger (%)	18.2	16.4	19.2
Has one or more functional limitations (%)	13.0	11.1	14.0
Age at doctorate (median years)	31.1	30.5	31.5
Bachelor's in same field as doctorate (%)[b]	13.0	18.6	10.2
Master's earned (%)	77.6	78.3	77.2
Master's earned at same doctorate institution (%)	49.2	54.4	46.4
Time to doctorate (median years)			
Years since earning bachelor's degree	8.3	7.9	8.7
From graduate school start	7.0	6.8	7.3
From doctoral program start[c]	5.6	5.8	5.4
Received tuition remission (%)	87.3	87.7	87.1
Male doctorate recipients (number)	1,132	471	661
Citizenship status (%)			
U.S. citizen or permanent resident	41.7	37.4	44.8
Temporary visa holder	54.6	59.2	51.3
Unknown	3.7	3.4	3.9
Marital status (%)			
Never married	41.3	43.7	39.5
Married	36.7	31.4	40.4
Marriage-like relationship	8.0	D	D
Separated, divorced, widowed	1.8	D	D
Unknown	12.4	14.9	10.6
Has dependent age 18 or younger (%)	18.2	16.0	19.8
Has one or more functional limitations (%)	11.8	9.4	13.4
Age at doctorate (median years)	30.9	30.4	31.3
Bachelor's in same field as doctorate (%)[b]	13.6	20.9	8.6

Table 8-10

Multidisciplinary/interdisciplinary sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All multidisciplinary/ interdisciplinary sciences fields	Interdisciplinary computer sciences	Multidisciplinary/ interdisciplinary sciences, other
Master's earned (%)	77.8	78.2	77.5
Master's earned at same doctorate institution (%)	50.1	55.4	46.4
Time to doctorate (median years)			
Years since earning bachelor's degree	8.1	7.8	8.5
From graduate school start	6.9	6.8	7.3
From doctoral program start[c]	5.7	5.8	5.4
Received tuition remission (%)	86.9	87.3	86.7
Female doctorate recipients (number)	656	154	502
Citizenship status (%)			
U.S. citizen or permanent resident	52.4	39.0	56.6
Temporary visa holder	41.6	53.9	37.8
Unknown	5.9	7.1	5.6
Marital status (%)			
Never married	36.9	37.0	36.9
Married	35.8	34.4	36.3
Marriage-like relationship	11.3	D	D
Separated, divorced, widowed	2.0	D	D
Unknown	14.0	20.1	12.2
Has dependent age 18 or younger (%)	18.2	17.7	18.4
Has one or more functional limitations (%)	15.1	16.4	14.8
Age at doctorate (median years)	31.6	31.0	31.8
Bachelor's in same field as doctorate (%)[b]	12.0	11.4	12.2
Master's earned (%)	77.3	78.8	76.9
Master's earned at same doctorate institution (%)	47.6	51.0	46.6
Time to doctorate (median years)			
Years since earning bachelor's degree	9.0	8.6	9.0
From graduate school start	7.3	7.3	7.3
From doctoral program start[c]	5.5	5.8	5.3
Received tuition remission (%)	88.1	89.1	87.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-11

Physical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All physical sciences fields	Astronomy and astrophysics	Chemistry	Materials sciences	Physics
All doctorate recipients (number)[a]	5,428	289	2,782	385	1,972
Sex (%)					
Male	67.3	63.3	59.1	66.2	79.5
Female	32.7	36.7	40.9	33.8	20.5
Unknown	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)					
U.S. citizen or permanent resident	57.3	70.6	59.8	50.1	53.0
Temporary visa holder	39.1	27.7	36.3	47.8	43.1
Unknown	3.6	1.7	3.8	2.1	3.9
Marital status (%)					
Never married	49.1	57.1	48.5	48.1	49.1
Married	28.1	20.8	27.9	30.9	28.9
Marriage-like relationship	11.5	16.3	11.5	10.9	11.0
Separated, divorced, widowed	1.4	D	1.3	D	1.5
Unknown	9.8	D	10.9	D	9.5
Has dependent age 18 or younger (%)	9.8	2.5	10.7	10.2	9.7
Has one or more functional limitations (%)	13.1	14.6	13.6	11.5	12.5
Age at doctorate (median years)	29.2	29.0	28.8	29.2	29.6
Bachelor's in same field as doctorate (%)[b]	77.8	87.5	76.3	57.0	82.6
Master's earned (%)	51.0	75.4	38.2	52.5	64.7
Master's earned at same doctorate institution (%)	57.1	81.1	43.0	47.7	66.0
Time to doctorate (median years)					
Years since earning bachelor's degree	6.6	6.6	6.3	6.4	7.0
From graduate school start	6.0	6.0	5.8	5.8	6.3
From doctoral program start[c]	5.6	5.8	5.3	5.3	6.0
Received tuition remission (%)	91.5	90.3	93.0	88.5	90.2
Male doctorate recipients (number)	3,651	183	1,645	255	1,568
Citizenship status (%)					
U.S. citizen or permanent resident	56.3	66.1	59.3	49.0	53.3
Temporary visa holder	39.9	32.8	36.4	48.2	43.0
Unknown	3.8	1.1	4.3	2.7	3.8
Marital status (%)					
Never married	50.5	61.7	50.0	49.0	50.0
Married	28.0	19.7	27.4	31.0	29.1
Marriage-like relationship	10.6	14.8	10.4	9.4	10.6
Separated, divorced, widowed	1.1	D	1.1	D	D
Unknown	9.8	D	11.2	D	D
Has dependent age 18 or younger (%)	10.4	2.3	11.6	10.9	10.2
Has one or more functional limitations (%)	11.7	11.9	12.5	10.8	11.1
Age at doctorate (median years)	29.3	28.8	29.0	29.3	29.7
Bachelor's in same field as doctorate (%)[b]	78.7	87.3	77.7	55.1	82.6
Master's earned (%)	52.1	73.5	38.4	51.2	63.8
Master's earned at same doctorate institution (%)	57.8	82.0	42.5	46.0	65.5
Time to doctorate (median years)					
Years since earning bachelor's degree	6.8	6.4	6.4	6.3	7.0
From graduate school start	6.0	6.0	5.8	5.8	6.3
From doctoral program start[c]	5.8	5.8	5.3	5.3	6.0
Received tuition remission (%)	91.3	91.0	92.8	89.0	90.2

Table 8-11

Physical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All physical sciences fields	Astronomy and astrophysics	Chemistry	Materials sciences	Physics
Female doctorate recipients (number)	1,777	106	1,137	130	404
Citizenship status (%)					
U.S. citizen or permanent resident	59.1	78.3	60.6	52.3	52.2
Temporary visa holder	37.6	18.9	36.2	46.9	43.6
Unknown	3.2	2.8	3.2	0.8	4.2
Marital status (%)					
Never married	46.3	49.1	46.4	46.2	45.5
Married	28.4	22.6	28.7	30.8	28.2
Marriage-like relationship	13.4	18.9	13.1	13.8	12.6
Separated, divorced, widowed	2.1	D	1.5	3.8	D
Unknown	9.8	D	10.4	5.4	D
Has dependent age 18 or younger (%)	8.6	3.0	9.4	8.9	7.8
Has one or more functional limitations (%)	15.9	19.4	15.3	12.9	17.9
Age at doctorate (median years)	28.8	29.2	28.6	28.9	29.3
Bachelor's in same field as doctorate (%)[b]	76.0	88.0	74.3	60.6	82.8
Master's earned (%)	48.6	79.0	37.8	55.1	68.2
Master's earned at same doctorate institution (%)	55.7	79.7	43.7	50.7	67.8
Time to doctorate (median years)					
Years since earning bachelor's degree	6.4	6.8	6.3	6.5	7.0
From graduate school start	5.8	6.0	5.5	5.5	6.3
From doctoral program start[c]	5.3	5.8	5.2	5.3	5.8
Received tuition remission (%)	91.8	89.0	93.2	87.4	90.2

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-12

Psychology research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All psychology fields	Clinical psychology	Counseling and applied psychology	Research and experimental psychology	Psychology, other
All doctorate recipients (number)[a]	3,900	1,144	1,438	854	464
Sex (%)					
Male	25.2	20.5	24.2	33.0	25.4
Female	74.8	79.5	75.8	67.0	74.6
Unknown	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)					
U.S. citizen or permanent resident	84.5	89.9	85.3	82.1	73.1
Temporary visa holder	8.4	3.3	7.5	16.5	8.8
Unknown	7.1	6.7	7.2	1.4	18.1
Marital status (%)					
Never married	30.2	27.4	29.3	40.3	21.1
Married	34.9	33.9	39.2	30.4	31.9
Marriage-like relationship	14.4	16.6	11.6	19.0	8.8
Separated, divorced, widowed	3.7	3.7	4.0	2.9	3.9
Unknown	16.9	18.4	15.8	7.4	34.3
Has dependent age 18 or younger (%)	19.7	17.8	24.4	12.4	26.3
Has one or more functional limitations (%)	15.6	12.5	16.6	17.3	16.3
Age at doctorate (median years)	31.3	31.3	31.8	30.4	32.0
Bachelor's in same field as doctorate (%)[b]	70.8	79.7	66.6	72.0	57.5
Master's earned (%)	89.4	89.7	92.5	84.0	89.7
Master's earned at same doctorate institution (%)	65.6	76.5	58.4	67.2	57.6
Time to doctorate (median years)					
Years since earning bachelor's degree	8.6	8.7	9.1	7.8	9.3
From graduate school start	6.9	6.8	7.1	6.3	7.9
From doctoral program start[c]	5.9	6.0	5.3	5.8	5.8
Received tuition remission (%)	80.8	78.7	75.6	91.9	79.9
Male doctorate recipients (number)	982	234	348	282	118
Citizenship status (%)					
U.S. citizen or permanent resident	84.5	91.5	85.6	84.0	68.6
Temporary visa holder	8.8	2.1	8.0	14.2	11.0
Unknown	6.7	6.4	6.3	1.8	20.3
Marital status (%)					
Never married	31.1	25.2	28.4	45.0	16.9
Married	35.8	37.6	42.5	27.0	33.9
Marriage-like relationship	13.6	15.8	D	D	D
Separated, divorced, widowed	1.8	2.6	D	D	D
Unknown	17.6	18.8	17.0	8.5	39.0
Has dependent age 18 or younger (%)	21.8	24.7	25.2	13.1	31.9
Has one or more functional limitations (%)	15.5	14.7	16.8	15.4	12.7
Age at doctorate (median years)	31.8	31.8	33.0	30.5	33.2

Table 8-12

Psychology research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All psychology fields	Clinical psychology	Counseling and applied psychology	Research and experimental psychology	Psychology, other
Bachelor's in same field as doctorate (%)[b]	70.8	77.5	66.5	73.7	61.0
Master's earned (%)	87.2	88.1	92.7	81.2	84.0
Master's earned at same doctorate institution (%)	64.0	76.5	58.6	61.7	60.3
Time to doctorate (median years)					
Years since earning bachelor's degree	8.6	8.6	9.5	7.6	9.4
From graduate school start	6.9	6.9	7.8	6.4	7.0
From doctoral program start[c]	5.9	6.0	5.8	5.8	5.8
Received tuition remission (%)	83.2	79.3	75.6	93.9	86.5
Female doctorate recipients (number)	2,918	910	1,090	572	346
Citizenship status (%)					
U.S. citizen or permanent resident	84.5	89.6	85.1	81.1	74.6
Temporary visa holder	8.3	3.6	7.3	17.7	8.1
Unknown	7.2	6.8	7.5	1.2	17.3
Marital status (%)					
Never married	29.9	27.9	29.6	37.9	22.5
Married	34.5	33.0	38.2	32.2	31.2
Marriage-like relationship	14.6	16.8	D	D	D
Separated, divorced, widowed	4.3	4.0	D	D	D
Unknown	16.7	18.4	15.4	6.8	32.7
Has dependent age 18 or younger (%)	19.0	16.0	24.2	12.0	24.6
Has one or more functional limitations (%)	15.6	12.0	16.5	18.2	17.4
Age at doctorate (median years)	31.1	31.1	31.3	30.3	31.8
Bachelor's in same field as doctorate (%)[b]	70.8	80.3	66.7	71.2	56.4
Master's earned (%)	90.1	90.1	92.4	85.3	91.5
Master's earned at same doctorate institution (%)	66.1	76.5	58.4	69.7	56.8
Time to doctorate (median years)					
Years since earning bachelor's degree	8.6	8.8	9.0	7.8	9.3
From graduate school start	6.9	6.4	7.0	6.1	7.9
From doctoral program start[c]	5.9	6.0	5.3	5.7	5.8
Received tuition remission (%)	80.0	78.5	75.6	90.9	78.0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-13

Social sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
All doctorate recipients (number)[a]	5,049	409	442	1,391	678	433	626	1,070
Sex (%)								
Male	47.7	31.3	35.7	64.3	58.8	36.3	38.0	40.5
Female	52.3	68.7	64.0	35.7	41.2	63.7	62.0	59.5
Unknown	*	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)								
U.S. citizen or permanent resident	63.2	80.4	74.9	37.0	68.6	75.1	79.2	68.2
Temporary visa holder	33.0	14.4	19.9	59.1	27.6	19.6	18.1	29.2
Unknown	3.8	5.1	5.2	3.9	3.8	5.3	2.7	2.6
Marital status (%)								
Never married	32.7	32.5	31.4	36.4	33.0	25.9	30.7	32.0
Married	41.1	38.9	36.4	37.2	43.1	47.8	42.8	43.8
Marriage-like relationship	12.6	15.6	15.4	12.7	11.8	8.8	13.7	11.5
Separated, divorced, widowed	4.0	3.7	7.5	2.4	2.8	6.5	5.0	3.9
Unknown	9.7	9.3	9.3	11.3	9.3	11.1	7.8	8.8
Has dependent age 18 or younger (%)	23.4	20.4	22.1	18.8	23.4	37.4	25.7	24.2
Has one or more functional limitations (%)	15.8	19.7	23.3	11.0	15.5	12.7	17.1	17.8
Age at doctorate (median years)	33.2	34.2	34.3	31.4	32.8	37.6	33.5	34.1
Bachelor's in same field as doctorate (%)[b]	56.4	68.1	33.8	66.5	69.9	36.8	60.2	45.9
Master's earned (%)	89.2	90.6	91.7	83.2	87.9	93.5	93.7	91.9
Master's earned at same doctorate institution (%)	46.8	57.1	47.4	44.2	55.4	32.5	56.6	40.4
Time to doctorate (median years)								
Years since earning bachelor's degree	10.3	11.3	11.3	8.9	10.0	14.1	10.6	11.0
From graduate school start	8.8	9.2	9.0	7.7	8.3	11.3	8.8	9.1
From doctoral program start[c]	6.0	7.4	6.8	5.8	6.0	5.8	6.8	6.0
Received tuition remission (%)	89.2	90.6	89.1	93.6	94.3	69.3	91.8	86.3
Male doctorate recipients (number)	2,407	128	158	894	399	157	238	433
Citizenship status (%)								

Table 8-13

Social sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
U.S. citizen or permanent resident	58.9	78.9	70.3	38.4	68.7	68.8	77.3	68.6
Temporary visa holder	37.4	15.6	23.4	57.9	28.1	24.8	20.2	29.3
Unknown	3.7	5.5	6.3	3.7	3.3	6.4	2.5	2.1
Marital status (%)								
Never married	33.5	32.8	36.1	35.2	34.6	21.0	36.1	31.2
Married	40.6	36.7	33.5	37.4	41.4	54.1	41.2	45.3
Marriage-like relationship	12.3	14.1	13.9	13.1	12.5	8.3	10.5	11.5
Separated, divorced, widowed	3.5	3.9	7.0	2.7	2.3	3.8	5.9	3.7
Unknown	10.1	12.5	9.5	11.6	9.3	12.7	6.3	8.3
Has dependent age 18 or younger (%)	24.3	16.8	25.0	20.2	24.0	41.2	26.1	27.7
Has one or more functional limitations (%)	13.3	19.5	17.0	9.6	13.2	11.3	17.3	15.9
Age at doctorate (median years)	33.1	34.8	34.3	31.6	33.2	38.6	33.8	34.3
Bachelor's in same field as doctorate (%)[b]	59.7	68.4	36.0	67.2	67.8	39.9	59.9	50.6
Master's earned (%)	87.3	90.6	92.7	82.6	87.0	92.3	90.7	90.5
Master's earned at same doctorate institution (%)	46.9	59.0	49.3	44.7	54.2	32.1	56.9	39.9
Time to doctorate (median years)								
Years since earning bachelor's degree	10.0	11.3	11.1	8.9	10.1	14.9	11.0	11.0
From graduate school start	8.3	9.3	9.0	7.8	8.5	11.7	8.8	9.0
From doctoral program start[c]	5.9	7.8	6.8	5.8	6.0	5.7	6.8	6.0
Received tuition remission (%)	89.7	88.5	88.3	94.5	92.9	65.5	91.9	85.2
Female doctorate recipients (number)	2,641	281	283	497	279	276	388	637
Citizenship status (%)								
U.S. citizen or permanent resident	67.1	81.1	77.4	34.6	68.5	78.6	80.4	68.0
Temporary visa holder	29.0	13.9	18.0	61.2	26.9	16.7	16.8	29.0
Unknown	3.9	5.0	4.6	4.2	4.7	4.7	2.8	3.0
Marital status (%)								

Table 8-13

Social sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
Never married	31.9	32.4	29.0	38.6	30.8	28.6	27.3	32.5
Married	41.5	39.9	38.2	37.0	45.5	44.2	43.8	42.9
Marriage-like relationship	12.8	16.4	15.9	11.9	10.8	9.1	15.7	11.5
Separated, divorced, widowed	4.4	3.6	7.8	1.8	3.6	8.0	4.4	4.1
Unknown	9.4	7.8	9.2	10.7	9.3	10.1	8.8	9.1
Has dependent age 18 or younger (%)	22.7	22.0	20.6	16.2	22.5	35.3	25.5	21.8
Has one or more functional limitations (%)	18.0	19.8	26.7	13.4	18.8	13.4	17.0	19.1
Age at doctorate (median years)	33.3	33.9	34.3	31.2	32.7	37.4	33.2	33.9
Bachelor's in same field as doctorate (%)[b]	53.5	67.9	32.7	65.2	72.7	35.0	60.3	42.8
Master's earned (%)	91.0	90.6	91.2	84.3	89.0	94.2	95.4	92.8
Master's earned at same doctorate institution (%)	46.7	56.3	46.2	43.4	57.1	32.8	56.5	40.6
Time to doctorate (median years)								
Years since earning bachelor's degree	10.5	11.3	11.3	8.9	10.0	14.0	10.5	11.0
From graduate school start	8.9	9.1	9.2	7.7	8.3	11.0	9.0	9.3
From doctoral program start[c]	6.0	7.3	6.8	5.8	6.1	5.8	6.8	6.0
Received tuition remission (%)	88.8	91.5	89.4	92.0	96.5	71.4	91.7	87.0

* = value between 0.00% and 0.05%.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-14

Education research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All education fields	Education leadership and administration	Education research	Teacher education	Education, other
All doctorate recipients (number)[a]	3,919	1,167	1,189	1,099	464
Sex (%)					
Male	29.4	32.4	29.3	26.9	28.4
Female	70.6	67.6	70.7	73.1	71.6
Unknown	0.0	0.0	0.0	0.0	0.0
Citizenship status (%)					
U.S. citizen or permanent resident	81.8	90.0	77.7	78.5	79.3
Temporary visa holder	12.7	6.1	16.6	15.8	11.9
Unknown	5.5	3.9	5.7	5.6	8.8
Marital status (%)					
Never married	17.8	16.9	18.7	17.7	18.1
Married	54.3	55.4	51.6	58.8	48.1
Marriage-like relationship	5.7	5.2	6.2	5.7	5.6
Separated, divorced, widowed	7.1	8.5	6.6	6.7	5.8
Unknown	15.1	14.0	17.0	11.0	22.4
Has dependent age 18 or younger (%)	42.8	45.0	40.5	44.2	39.2
Has one or more functional limitations (%)	14.2	13.4	14.1	15.0	14.0
Age at doctorate (median years)	38.9	40.6	37.8	38.7	37.9
Bachelor's in same field as doctorate (%)[b]	25.6	20.1	20.9	37.7	21.5
Master's earned (%)	96.3	97.9	95.7	96.2	94.2
Master's earned at same doctorate institution (%)	32.4	31.2	34.2	31.5	33.8
Time to doctorate (median years)					
Years since earning bachelor's degree	15.5	17.3	14.6	15.0	14.6
From graduate school start	12.3	13.9	11.3	12.0	11.5
From doctoral program start[c]	5.6	5.7	5.6	5.3	5.6
Received tuition remission (%)	64.8	56.4	68.0	69.7	66.5
Male doctorate recipients (number)	1,154	378	348	296	132
Citizenship status (%)					
U.S. citizen or permanent resident	81.5	92.6	76.1	76.0	76.5
Temporary visa holder	13.5	5.3	17.8	19.6	12.1
Unknown	4.9	2.1	6.0	4.4	11.4
Marital status (%)					
Never married	16.4	16.7	15.8	15.5	18.9
Married	58.4	61.4	55.2	63.5	47.0
Marriage-like relationship	6.6	5.3	8.6	6.4	5.3
Separated, divorced, widowed	4.0	4.2	4.3	D	D
Unknown	14.6	12.4	16.1	D	D
Has dependent age 18 or younger (%)	45.9	48.3	41.9	48.5	42.4
Has one or more functional limitations (%)	14.6	13.6	14.5	16.4	13.4
Age at doctorate (median years)	38.8	40.5	37.6	38.1	38.9
Bachelor's in same field as doctorate (%)[b]	23.0	19.0	17.0	36.2	18.6
Master's earned (%)	96.3	98.8	95.1	94.9	95.1
Master's earned at same doctorate institution (%)	31.6	30.6	36.5	28.2	30.2

Table 8-14

Education research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All education fields	Education leadership and administration	Education research	Teacher education	Education, other
Time to doctorate (median years)					
Years since earning bachelor's degree	14.7	16.6	14.0	14.0	14.6
From graduate school start	11.8	13.4	10.4	11.5	11.5
From doctoral program start[c]	5.3	5.6	5.8	5.1	5.5
Received tuition remission (%)	64.7	54.0	73.5	69.9	60.4
Female doctorate recipients (number)	2,765	789	841	803	332
Citizenship status (%)					
U.S. citizen or permanent resident	81.9	88.7	78.4	79.5	80.4
Temporary visa holder	12.3	6.5	16.1	14.4	11.7
Unknown	5.8	4.8	5.6	6.1	7.8
Marital status (%)					
Never married	18.4	17.0	19.9	18.6	17.8
Married	52.6	52.6	50.1	57.0	48.5
Marriage-like relationship	5.4	5.2	5.2	5.5	5.7
Separated, divorced, widowed	8.4	10.5	7.5	D	D
Unknown	15.2	14.7	17.4	D	D
Has dependent age 18 or younger (%)	41.5	43.4	39.9	42.6	37.9
Has one or more functional limitations (%)	14.0	13.4	13.9	14.5	14.2
Age at doctorate (median years)	39.0	40.7	37.9	39.0	37.5
Bachelor's in same field as doctorate (%)[b]	26.7	20.6	22.5	38.3	22.5
Master's earned (%)	96.4	97.5	95.9	96.6	93.9
Master's earned at same doctorate institution (%)	32.7	31.4	33.2	32.6	35.1
Time to doctorate (median years)					
Years since earning bachelor's degree	15.9	17.6	14.9	15.9	14.5
From graduate school start	12.3	13.9	11.8	12.2	11.4
From doctoral program start[c]	5.6	5.8	5.5	5.5	5.6
Received tuition remission (%)	64.9	57.5	65.7	69.6	68.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-15

Humanities research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
All doctorate recipients (number)[a]	3,369	1,062	538	732	642	395
Sex (%)						
Male	50.7	37.0	41.4	52.2	64.6	74.9
Female	49.2	62.9	58.6	47.8	35.2	25.1
Unknown	0.1	0.1	0.0	0.0	0.2	0.0
Citizenship status (%)						
U.S. citizen or permanent resident	78.2	85.7	61.7	81.0	79.6	72.9
Temporary visa holder	16.6	10.2	34.0	14.1	16.2	15.7
Unknown	5.2	4.1	4.3	4.9	4.2	11.4
Marital status (%)						
Never married	26.7	29.7	29.9	26.9	26.2	14.9
Married	43.4	39.2	38.5	45.1	44.4	56.5
Marriage-like relationship	12.3	15.0	13.2	13.0	11.8	3.0
Separated, divorced, widowed	4.6	4.0	5.8	4.2	5.0	4.8
Unknown	13.0	12.1	12.6	10.8	12.6	20.8
Has dependent age 18 or younger (%)	26.7	21.3	19.6	25.1	28.1	54.5
Has one or more functional limitations (%)	17.7	23.1	13.4	16.6	15.4	14.1
Age at doctorate (median years)	34.4	34.0	33.9	34.2	34.3	38.1
Bachelor's in same field as doctorate (%)[b]	71.6	82.3	68.0	69.4	72.0	49.7
Master's earned (%)	91.8	92.7	93.9	89.1	88.7	96.7
Master's earned at same doctorate institution (%)	41.8	34.8	48.1	48.8	40.8	40.7
Time to doctorate (median years)						
Years since earning bachelor's degree	11.3	11.0	11.0	11.0	11.0	14.8
From graduate school start	9.8	9.3	9.0	9.3	9.8	12.4
From doctoral program start[c]	6.8	6.3	6.8	7.0	6.9	6.9
Received tuition remission (%)	89.4	91.5	92.7	93.0	90.0	69.8
Male doctorate recipients (number)	1,709	393	223	382	415	296
Citizenship status (%)						
U.S. citizen or permanent resident	77.7	85.0	58.3	81.4	80.7	73.6
Temporary visa holder	16.3	9.9	37.7	12.8	15.7	13.9
Unknown	6.0	5.1	4.0	5.8	3.6	12.5
Marital status (%)						
Never married	24.5	26.5	31.4	23.8	28.9	11.1
Married	45.9	39.4	36.3	49.0	43.4	61.5
Marriage-like relationship	11.6	17.0	14.8	D	10.4	D
Separated, divorced, widowed	3.2	3.6	4.5	2.1	3.9	2.4
Unknown	14.7	13.5	13.0	D	13.5	D

Table 8-15

Humanities research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
Has dependent age 18 or younger (%)	32.6	24.9	18.7	30.7	28.2	65.6
Has one or more functional limitations (%)	15.3	21.1	10.5	15.6	14.3	12.0
Age at doctorate (median years)	34.9	34.5	34.2	34.8	33.9	38.1
Bachelor's in same field as doctorate (%)[b]	71.8	84.1	69.5	70.5	73.9	54.4
Master's earned (%)	91.1	92.4	93.1	87.5	88.7	96.7
Master's earned at same doctorate institution (%)	40.4	30.7	48.6	47.4	38.5	41.1
Time to doctorate (median years)						
Years since earning bachelor's degree	11.4	11.0	11.3	11.0	10.9	14.8
From graduate school start	9.8	9.3	9.6	9.2	9.7	12.5
From doctoral program start[c]	6.8	6.5	6.8	7.0	6.8	6.9
Received tuition remission (%)	86.8	91.0	91.4	90.3	91.7	64.4
Female doctorate recipients (number)	1,658	668	315	350	226	99
Citizenship status (%)						
U.S. citizen or permanent resident	78.6	86.1	64.1	80.6	77.4	70.7
Temporary visa holder	17.0	10.3	31.4	15.4	17.3	21.2
Unknown	4.3	3.6	4.4	4.0	5.3	8.1
Marital status (%)						
Never married	29.0	31.4	28.9	30.3	20.8	26.3
Married	40.8	39.1	40.0	40.9	46.5	41.4
Marriage-like relationship	12.9	13.8	12.1	D	14.6	D
Separated, divorced, widowed	6.1	4.3	6.7	6.6	7.1	12.1
Unknown	11.3	11.4	12.4	D	11.1	D
Has dependent age 18 or younger (%)	21.0	19.2	20.3	19.0	28.1	25.3
Has one or more functional limitations (%)	20.0	24.4	15.3	17.7	17.2	19.5
Age at doctorate (median years)	34.0	33.6	33.6	33.7	34.9	38.0
Bachelor's in same field as doctorate (%)[b]	71.4	81.3	66.9	68.3	68.4	37.1
Master's earned (%)	92.4	93.0	94.4	90.8	88.7	96.6
Master's earned at same doctorate institution (%)	43.2	37.2	47.8	50.3	45.2	39.5
Time to doctorate (median years)						
Years since earning bachelor's degree	11.0	10.6	10.6	10.9	11.7	14.4
From graduate school start	9.4	9.3	8.9	9.3	9.8	12.3
From doctoral program start[c]	6.8	6.3	6.9	7.0	7.0	7.0

Table 8-15

Humanities research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
Received tuition remission (%)	91.9	91.7	93.6	96.0	87.0	84.3

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-16

Business research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All business fields	Business administration and management	Business, other
All doctorate recipients (number)[a]	1,401	445	956
Sex (%)			
Male	55.7	53.7	56.7
Female	44.3	46.3	43.3
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	46.5	47.4	46.0
Temporary visa holder	47.6	40.4	50.9
Unknown	5.9	12.1	3.0
Marital status (%)			
Never married	29.6	21.6	33.3
Married	44.9	38.7	47.8
Marriage-like relationship	5.1	3.8	5.6
Separated, divorced, widowed	5.4	7.2	4.5
Unknown	15.1	28.8	8.8
Has dependent age 18 or younger (%)	29.9	32.0	29.1
Has one or more functional limitations (%)	9.7	11.0	9.2
Age at doctorate (median years)	33.6	35.3	33.2
Bachelor's in same field as doctorate (%)[b]	40.9	34.7	43.3
Master's earned (%)	87.5	90.0	86.5
Master's earned at same doctorate institution (%)	26.0	25.4	26.3
Time to doctorate (median years)			
Years since earning bachelor's degree	10.8	11.7	10.3
From graduate school start	8.8	9.7	8.8
From doctoral program start[c]	5.0	5.0	5.0
Received tuition remission (%)	81.5	70.8	85.5
Male doctorate recipients (number)	781	239	542
Citizenship status (%)			
U.S. citizen or permanent resident	44.0	44.8	43.7
Temporary visa holder	50.6	46.0	52.6
Unknown	5.4	9.2	3.7
Marital status (%)			
Never married	29.6	21.3	33.2
Married	48.0	41.8	50.7
Marriage-like relationship	4.6	4.6	4.6
Separated, divorced, widowed	3.2	4.2	2.8
Unknown	14.6	28.0	8.7
Has dependent age 18 or younger (%)	32.6	36.0	31.4
Has one or more functional limitations (%)	9.3	10.1	9.0
Age at doctorate (median years)	33.9	35.4	33.4
Bachelor's in same field as doctorate (%)[b]	37.6	34.2	38.7
Master's earned (%)	88.6	94.6	86.5
Master's earned at same doctorate institution (%)	25.1	22.2	26.2
Time to doctorate (median years)			
Years since earning bachelor's degree	10.7	11.3	10.3
From graduate school start	8.8	9.6	8.7
From doctoral program start[c]	5.0	5.0	5.3
Received tuition remission (%)	81.5	70.6	85.3
Female doctorate recipients (number)	620	206	414
Citizenship status (%)			

Table 8-16

Business research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All business fields	Business administration and management	Business, other
U.S. citizen or permanent resident	49.5	50.5	49.0
Temporary visa holder	43.9	34.0	48.8
Unknown	6.6	15.5	2.2
Marital status (%)			
Never married	29.5	21.8	33.3
Married	41.0	35.0	44.0
Marriage-like relationship	5.6	2.9	7.0
Separated, divorced, widowed	8.1	10.7	6.8
Unknown	15.8	29.6	8.9
Has dependent age 18 or younger (%)	26.3	27.1	26.1
Has one or more functional limitations (%)	10.1	12.1	9.3
Age at doctorate (median years)	33.3	34.9	33.0
Bachelor's in same field as doctorate (%)[b]	45.1	35.2	49.2
Master's earned (%)	86.0	84.8	86.5
Master's earned at same doctorate institution (%)	27.3	29.4	26.4
Time to doctorate (median years)			
Years since earning bachelor's degree	10.8	12.1	10.5
From graduate school start	8.8	9.8	8.8
From doctoral program start[c]	5.0	5.2	5.0
Received tuition remission (%)	81.5	71.0	85.7

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-17

Visual and performing arts research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All visual and performing arts fields	Performing arts	Visual arts, media studies, and design
All doctorate recipients (number)[a]	842	495	347
Sex (%)			
Male	43.1	53.9	27.7
Female	56.9	46.1	72.3
Unknown	0.0	0.0	0.0
Citizenship status (%)			
U.S. citizen or permanent resident	73.5	71.5	76.4
Temporary visa holder	21.0	21.4	20.5
Unknown	5.5	7.1	3.2
Marital status (%)			
Never married	30.9	32.9	28.0
Married	40.6	39.0	42.9
Marriage-like relationship	12.2	11.9	12.7
Separated, divorced, widowed	4.3	3.2	5.8
Unknown	12.0	12.9	10.7
Has dependent age 18 or younger (%)	19.6	19.4	19.9
Has one or more functional limitations (%)	19.0	20.3	17.2
Age at doctorate (median years)	34.0	33.3	35.0
Bachelor's in same field as doctorate (%)[b]	69.0	74.8	61.0
Master's earned (%)	94.4	94.4	94.4
Master's earned at same doctorate institution (%)	36.0	34.9	37.5
Time to doctorate (median years)			
Years since earning bachelor's degree	11.3	10.7	12.2
From graduate school start	9.7	8.8	10.1
From doctoral program start[c]	6.8	5.9	7.3
Received tuition remission (%)	92.3	90.9	94.3
Male doctorate recipients (number)	363	267	96
Citizenship status (%)			
U.S. citizen or permanent resident	71.6	72.3	69.8
Temporary visa holder	22.6	21.3	26.0
Unknown	5.8	6.4	4.2
Marital status (%)			
Never married	33.9	32.6	37.5
Married	39.7	41.2	35.4
Marriage-like relationship	11.8	D	D
Separated, divorced, widowed	3.6	D	D
Unknown	11.0	10.9	11.5
Has dependent age 18 or younger (%)	20.1	20.6	18.8
Has one or more functional limitations (%)	15.7	17.7	9.8
Age at doctorate (median years)	34.0	33.5	34.8
Bachelor's in same field as doctorate (%)[b]	71.9	78.7	53.3
Master's earned (%)	94.3	95.9	90.0
Master's earned at same doctorate institution (%)	35.5	36.6	32.1
Time to doctorate (median years)			
Years since earning bachelor's degree	11.0	10.7	11.9
From graduate school start	9.1	8.8	9.8
From doctoral program start[c]	6.3	5.8	7.0
Received tuition remission (%)	91.8	90.5	95.3
Female doctorate recipients (number)	479	228	251

Table 8-17

Visual and performing arts research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All visual and performing arts fields	Performing arts	Visual arts, media studies, and design
Citizenship status (%)			
U.S. citizen or permanent resident	74.9	70.6	78.9
Temporary visa holder	19.8	21.5	18.3
Unknown	5.2	7.9	2.8
Marital status (%)			
Never married	28.6	33.3	24.3
Married	41.3	36.4	45.8
Marriage-like relationship	12.5	D	D
Separated, divorced, widowed	4.8	D	D
Unknown	12.7	15.4	10.4
Has dependent age 18 or younger (%)	19.2	17.9	20.4
Has one or more functional limitations (%)	21.5	23.4	19.9
Age at doctorate (median years)	34.0	33.2	35.0
Bachelor's in same field as doctorate (%)[b]	66.7	70.0	63.9
Master's earned (%)	94.5	92.5	96.1
Master's earned at same doctorate institution (%)	36.4	32.6	39.5
Time to doctorate (median years)			
Years since earning bachelor's degree	11.6	10.7	12.3
From graduate school start	9.9	9.1	10.3
From doctoral program start[c]	6.8	6.0	7.5
Received tuition remission (%)	92.7	91.4	93.9

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-18

Other non-science and engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
All doctorate recipients (number)[a]	2,141	586	391	468	696
Sex (%)					
Male	39.0	34.0	43.7	32.1	45.3
Female	60.9	66.0	56.3	67.5	54.7
Unknown	0.1	0.0	0.0	0.4	0.0
Citizenship status (%)					
U.S. citizen or permanent resident	65.4	65.9	74.4	72.2	55.5
Temporary visa holder	28.6	29.2	16.4	22.4	39.2
Unknown	5.9	4.9	9.2	5.3	5.3
Marital status (%)					
Never married	25.2	31.2	20.2	19.7	26.6
Married	46.1	41.0	48.3	52.4	44.8
Marriage-like relationship	9.2	11.9	9.2	6.4	8.8
Separated, divorced, widowed	5.3	3.4	5.9	9.2	4.0
Unknown	14.2	12.5	16.4	12.4	15.8
Has dependent age 18 or younger (%)	32.9	25.7	28.7	41.3	35.6
Has one or more functional limitations (%)	16.3	17.6	15.9	14.7	16.6
Age at doctorate (median years)	35.3	33.1	36.1	38.8	34.9
Bachelor's in same field as doctorate (%)[b]	39.2	56.5	27.3	28.4	38.3
Master's earned (%)	95.2	95.9	93.9	98.4	93.0
Master's earned at same doctorate institution (%)	31.2	26.4	30.6	32.3	35.2
Time to doctorate (median years)					
Years since earning bachelor's degree	11.6	10.0	12.8	14.3	11.0
From graduate school start	9.7	8.3	10.8	11.6	9.3
From doctoral program start[c]	5.7	5.0	6.3	5.9	5.3
Received tuition remission (%)	78.7	90.6	70.9	69.8	79.0
Male doctorate recipients (number)	835	199	171	150	315
Citizenship status (%)					
U.S. citizen or permanent resident	59.5	65.8	70.2	61.3	48.9
Temporary visa holder	33.3	30.2	18.1	32.7	43.8
Unknown	7.2	4.0	11.7	6.0	7.3
Marital status (%)					
Never married	23.4	30.7	16.4	19.3	24.4

Table 8-18

Other non-science and engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Married	49.3	41.2	55.0	59.3	46.7
Marriage-like relationship	9.8	13.1	7.0	5.3	11.4
Separated, divorced, widowed	3.5	2.5	4.1	6.0	2.5
Unknown	14.0	12.6	17.5	10.0	14.9
Has dependent age 18 or younger (%)	35.2	29.5	29.8	45.5	36.7
Has one or more functional limitations (%)	15.8	17.4	15.6	17.2	14.1
Age at doctorate (median years)	35.9	34.9	36.2	37.8	35.7
Bachelor's in same field as doctorate (%)[b]	36.7	50.8	23.3	28.1	38.9
Master's earned (%)	94.9	95.1	95.3	98.6	92.7
Master's earned at same doctorate institution (%)	29.6	23.3	33.6	31.6	30.7
Time to doctorate (median years)					
Years since earning bachelor's degree	11.5	11.0	12.3	12.5	11.0
From graduate school start	9.5	8.7	10.7	9.9	9.3
From doctoral program start[c]	5.7	5.3	6.4	5.8	5.3
Received tuition remission (%)	78.4	87.1	70.7	76.5	77.7
Female doctorate recipients (number)	1,304	387	220	316	381
Citizenship status (%)					
U.S. citizen or permanent resident	69.2	65.9	77.7	77.2	60.9
Temporary visa holder	25.7	28.7	15.0	17.7	35.4
Unknown	5.1	5.4	7.3	5.1	3.7
Marital status (%)					
Never married	26.4	31.5	23.2	19.9	28.3
Married	44.0	40.8	43.2	49.4	43.3
Marriage-like relationship	8.8	11.4	10.9	7.0	6.6
Separated, divorced, widowed	6.4	3.9	7.3	10.4	5.2
Unknown	14.3	12.4	15.5	13.3	16.5
Has dependent age 18 or younger (%)	31.4	23.8	27.8	39.5	34.7
Has one or more functional limitations (%)	16.5	17.6	16.1	12.8	18.7
Age at doctorate (median years)	34.8	32.6	35.8	39.0	34.6

Table 8-18

Other non-science and engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Bachelor's in same field as doctorate (%)[b]	40.9	59.4	30.4	28.7	37.8
Master's earned (%)	95.3	96.3	92.8	98.3	93.2
Master's earned at same doctorate institution (%)	32.2	27.9	28.2	32.1	39.1
Time to doctorate (median years)					
Years since earning bachelor's degree	11.6	9.4	13.0	15.0	11.0
From graduate school start	9.8	8.2	11.0	12.4	9.3
From doctoral program start[c]	5.6	5.0	6.3	5.9	5.3
Received tuition remission (%)	78.9	92.4	71.1	66.3	80.1

[a] Includes doctorate recipients who did not report sex.

[b] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.

[c] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same doctoral institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 8-19

Statistical profile of research doctorate recipients, by ethnicity, race, and citizenship status: 2022

(Number, percent, and median years)

Characteristic	Total[a]	U.S. citizen	Non-U.S. citizen	Hispanic or Latino		Not Hispanic or Latino												Ethnicity not reported	
						American Indian or Alaska Native		Asian		Black or African American		White		More than one race		Other race or race not reported			
				U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen
All doctorate recipients (number)	57,596	35,311	19,633	3,354	1,262	98	8	3,586	12,862	2,647	740	23,320	3,551	1,210	124	425	532	671	554
Primary source of support (%)[b]																			
Teaching assistantships	21.7	19.8	25.0	19.0	24.6	13.9	D	19.3	25.1	10.5	29.6	21.0	24.4	19.6	17.5	23.4	D	20.8	30.7
Research or other assistantships or traineeships[c]	35.0	27.9	47.7	21.4	34.8	12.7	D	33.9	52.6	14.2	37.8	29.6	38.7	26.5	29.2	23.8	D	30.4	39.3
Fellowships, scholarships, or dissertation grants	24.6	27.6	19.3	36.3	28.7	45.6	D	31.1	16.5	27.8	18.0	25.5	25.0	33.6	38.3	24.8	D	25.0	24.3
Own resources	14.6	20.3	4.3	19.9	3.2	24.1	D	13.3	4.0	41.7	12.5	19.2	4.0	17.0	5.0	22.3	D	20.2	4.3
Employer or other sources	4.1	4.3	3.7	3.4	8.6	3.8	12.5	2.5	1.9	5.8	2.1	4.6	7.8	3.3	10.0	5.7	15.3	3.6	1.4
Bachelor's in same field as doctorate (%)[d]	61.5	62.0	62.4	62.7	67.9	51.2	D	60.6	61.9	47.2	59.4	64.0	64.1	64.3	D	53.5	D	48.5	50.0
Master's earned (%)	73.6	71.0	79.5	70.5	81.7	88.1	D	67.4	76.1	87.0	86.6	70.0	89.2	65.4	82.6	76.4	D	74.1	80.6
Master's earned at same doctorate institution (%)	44.8	50.3	36.2	52.0	40.5	43.2	D	49.0	37.6	40.0	33.7	51.4	30.9	56.5	35.0	49.6	D	46.8	34.4
Marital status (%)																			
Not married[e]	39.9	37.2	50.1	38.7	42.5	34.7	D	41.0	54.9	47.6	44.7	35.9	47.9	42.9	48.4	25.2	D	9.4	9.7
Married or in marriage-like relationship	48.5	55.3	42.5	54.5	53.7	46.9	D	51.9	41.4	43.7	51.5	59.0	48.5	53.7	49.2	38.4	D	9.1	11.2
Unknown	11.6	7.5	7.4	6.8	3.8	18.4	0.0	7.1	3.7	8.7	3.8	5.1	3.6	3.4	2.4	36.5	63.9	81.5	79.1
Has dependent age 18 or younger (%)	20.1	22.0	16.5	21.2	16.6	37.5	D	20.1	13.7	31.5	42.4	21.4	20.4	18.3	24.4	29.9	D	16.1	23.9
Has one or more functional limitations (%)	13.2	14.9	10.2	20.4	13.0	16.5	D	11.2	10.0	13.8	8.4	14.5	10.2	18.1	13.2	19.4	D	13.9	9.3
Age at doctorate (median years)	31.4	31.6	31.2	31.8	32.8	36.5	D	31.2	30.6	36.0	34.6	31.3	32.2	30.9	33.0	33.0	D	32.1	31.6
Time to doctorate (median years)																			
Years since earning bachelor's degree	8.6	8.8	8.4	8.6	9.4	10.9	D	8.6	8.0	12.0	10.8	8.6	9.3	8.3	10.0	9.3	9.0	9.3	9.0
From graduate school start	7.2	7.1	7.3	7.3	7.8	9.3	D	7.0	7.0	9.7	7.9	7.0	7.9	6.8	7.9	7.9	8.0	7.8	7.0
From doctoral program start[f]	5.7	5.8	5.3	5.8	5.8	6.5	D	5.8	5.3	5.8	5.0	5.8	5.3	5.8	5.8	6.0	5.4	5.8	5.3
Received tuition remission (%)	85.4	83.8	88.5	81.6	86.5	71.3	D	87.0	91.3	67.5	84.5	85.5	81.6	86.6	75.2	77.7	D	76.3	86.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report citizenship status.
[b] Percentages based on number of doctorate recipients reporting a primary source of financial support during graduate school.
[c] Includes research assistantships, other assistantships, traineeships, internships, or clinical residencies.
[d] A bachelor's and doctoral degree are considered to be in the same field if doctorate recipient's first or most recent bachelor's degree is in the same broad field as their doctoral degree.
[e] Not married includes never married, separated, divorced, or widowed.
[f] Time to doctorate from doctoral program start is based on master's degree entry if the master's degree was at the same institution in the same field of study or was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry.

Note(s):
U.S. citizen refers to U.S. citizens and permanent residents. Non-U.S. citizen refers to temporary visa holders. Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-1

Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
Doctorate recipients reporting postgraduation status (number)	52,232	41,921	1,193	8,807	1,977	9,776	1,078	2,502	1,952	1,592	5,012	3,357	4,675
Definite postdoctoral training plans	28.1	32.3	33.6	42.3	16.4	24.0	49.6	22.1	36.7	23.7	37.5	47.7	22.8
Definite employment plans	44.9	41.5	37.6	28.4	62.7	48.4	26.0	51.6	39.4	52.4	36.2	32.4	51.3
Seeking employment or study	23.5	22.8	26.9	22.2	18.6	25.5	22.4	22.5	21.8	21.7	23.9	16.7	23.2
Other status[a]	3.4	3.3	1.9	6.8	2.3	2.0	2.0	3.7	1.9	2.2	2.3	3.0	2.5
Definite postdoctoral training plans (%)[b]													
Postdoc fellowship or research associateship	95.1	95.0	98.3	94.5	98.1	96.3	98.5	88.3	98.0	96.8	98.0	86.9	97.6
Other training or unknown[c]	4.9	5.0	1.7	5.5	1.9	3.7	1.5	11.7	2.0	3.2	2.0	13.1	2.4
Definite employment plans (%)[d]													
Academe	34.7	25.3	30.6	20.5	20.9	13.6	23.2	45.4	29.9	24.0	11.2	36.6	48.6
In tenure track faculty position (%)	43.5	43.4	36.5	26.8	64.1	46.2	29.2	41.9	34.3	50.5	26.1	37.7	52.5
Not in tenure track position (%)	53.6	53.2	60.6	70.6	33.2	48.7	66.2	52.3	64.3	45.5	67.5	60.1	45.5
Government	7.0	7.8	14.3	6.5	3.5	6.9	25.4	8.9	3.8	4.8	4.0	10.5	13.6
Industry or business[e]	46.0	58.0	45.5	64.5	71.0	74.9	42.9	28.5	60.0	62.4	79.7	32.4	24.4
Nonprofit organization	6.5	5.9	6.7	6.7	2.6	2.9	5.7	13.1	3.4	5.3	3.3	10.7	9.6
Other or unknown[f]	5.8	2.9	2.9	1.8	2.0	1.7	2.9	4.1	3.0	3.6	1.9	9.8	3.8
Primary activity[g]													
Research and development	46.7	56.2	56.8	60.7	70.9	62.9	50.5	32.5	51.0	64.5	70.5	29.3	43.6
Teaching	23.2	15.4	16.4	9.8	11.7	7.2	D	32.0	D	13.5	9.3	22.7	28.8
Management or administration	9.0	5.1	8.1	5.1	2.0	2.6	D	12.2	D	5.0	1.6	8.6	9.4
Professional services and other	21.0	23.4	18.7	24.4	15.3	27.2	28.2	23.3	23.2	17.0	18.6	39.3	18.2
Secondary activity[g]													
Research and development	23.2	20.6	22.4	14.8	18.8	18.3	27.5	30.6	26.5	17.6	12.7	24.9	28.8
Teaching	12.0	8.8	10.6	5.2	10.2	5.5	7.7	13.5	6.0	9.5	2.0	13.6	19.1
Management or administration	12.7	13.2	21.0	18.8	7.0	12.2	11.4	14.7	6.2	10.6	15.0	14.6	11.8
Professional services and other	12.7	14.3	11.5	9.8	16.1	19.6	12.5	11.8	16.3	16.8	12.3	11.5	10.9
No secondary activity	39.4	43.1	34.4	51.3	48.0	44.4	41.0	29.3	45.0	45.4	58.1	35.5	29.4
Activity unknown	4.2	4.1	3.3	4.4	3.1	4.2	2.5	5.0	4.3	4.2	3.9	5.2	3.5
Postgraduation location (%)[h]													
United States[i]	91.1	91.4	88.6	94.4	91.2	91.8	91.0	93.0	85.1	90.3	91.3	96.9	84.0
Midwest	15.3	14.5	23.8	14.4	9.1	14.1	7.2	18.0	14.4	11.5	14.4	18.9	13.2
Northeast	21.6	22.5	10.7	28.7	19.9	18.5	18.4	23.2	24.4	21.6	24.2	23.3	21.2
South	26.4	24.3	30.5	23.9	17.6	22.8	27.5	33.9	20.6	22.0	19.2	29.6	27.7
West	27.2	29.6	23.3	27.0	44.1	35.8	37.2	17.3	25.1	34.5	32.9	24.6	21.5

Table 9-1

Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
Outside the United States	8.8	8.5	11.3	5.5	8.7	8.0	9.0	6.9	14.7	9.3	8.6	3.1	15.9
Location unknown	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.3	0.1	0.1	0.1
Postgraduation location in same state as doctorate institution (%)	38.1	36.8	44.3	43.9	31.6	36.8	38.4	45.9	23.4	36.7	31.3	35.3	31.8
Male doctorate recipients reporting postgraduation status (number)	27,771	23,503	578	4,095	1,503	7,128	582	772	1,388	1,014	3,379	851	2,213
Definite postdoctoral training plans	28.2	31.3	38.4	43.0	16.0	23.9	52.2	26.3	38.5	21.8	38.9	43.4	21.9
Definite employment plans	45.4	43.0	35.1	27.6	63.8	49.1	25.9	48.3	37.2	55.5	35.8	35.4	53.7
Seeking employment or study	23.1	22.5	24.9	21.6	18.1	24.9	20.1	21.5	22.3	20.5	23.3	17.7	22.0
Other status[a]	3.1	3.1	1.6	7.4	2.1	2.0	1.7	3.9	1.7	2.2	2.0	3.5	2.3
Definite postdoctoral training plans (%)[b]													
Postdoc fellowship or research associateship	95.3	95.3	98.2	94.0	97.5	96.3	98.0	80.3	98.1	97.7	97.7	82.9	97.5
Other training or unknown[c]	4.7	4.7	1.8	6.0	2.5	3.7	2.0	19.7	1.9	2.3	2.3	17.1	2.5
Definite employment plans (%)[d]													
Academe	29.1	21.0	31.5	20.7	18.1	12.9	23.2	37.3	29.0	19.4	10.1	34.2	45.2
In tenure track faculty position (%)	46.6	46.9	51.6	31.2	64.9	47.2	34.3	51.1	27.3	53.2	25.4	38.8	57.4
Not in tenure track position (%)	50.6	49.8	45.3	67.1	33.3	47.2	62.9	44.6	70.7	42.2	68.0	58.3	40.7
Government	7.0	7.4	9.4	D	3.2	7.0	D	8.6	4.1	4.6	3.9	11.0	15.6
Industry or business[e]	54.5	65.1	51.2	64.7	75.0	76.1	47.7	39.4	60.9	68.7	81.0	38.9	27.9
Nonprofit organization	5.2	4.1	5.4	D	2.3	2.4	D	9.4	2.7	4.4	3.1	8.0	7.8
Other or unknown[f]	4.3	2.4	2.5	1.9	1.4	1.6	4.6	5.4	3.3	2.8	2.0	8.0	3.4
Primary activity[g]													
Research and development	53.4	61.5	56.7	63.8	73.1	64.3	54.8	43.6	51.0	69.1	72.2	30.8	46.1
Teaching	19.1	12.4	18.0	10.5	9.7	6.6	D	25.2	D	10.0	7.6	23.3	25.9
Management or administration	6.6	3.7	7.2	4.5	1.8	2.8	D	11.2	D	4.4	1.5	6.5	7.2
Professional services and other	20.8	22.4	18.0	21.2	15.4	26.3	26.7	20.1	23.2	16.5	18.6	39.4	20.8
Secondary activity[g]													
Research and development	21.9	19.3	25.3	15.4	17.0	18.1	26.0	28.4	24.6	15.7	12.7	31.2	26.8
Teaching	10.8	7.9	10.3	5.5	9.2	5.4	8.2	13.2	5.5	9.1	2.1	13.6	19.6
Management or administration	12.5	12.8	22.7	19.1	7.7	12.0	12.3	14.0	7.7	10.0	16.0	15.1	11.5
Professional services and other	14.4	16.2	9.3	11.2	15.9	20.5	15.1	14.0	16.9	18.9	14.0	14.0	11.5
No secondary activity	40.5	43.8	32.5	48.9	50.2	44.0	38.4	30.4	45.3	46.3	55.3	26.2	30.6
Activity unknown	4.5	4.4	4.4	4.7	2.9	4.5	3.3	6.4	4.8	4.1	4.6	7.3	3.7
Postgraduation location (%)[h]													
United States[i]	89.8	90.1	88.5	94.1	91.4	91.1	90.1	91.0	83.8	90.6	90.4	96.3	80.5
Midwest	14.6	14.0	25.4	14.4	8.8	14.5	7.5	17.2	14.5	11.6	14.0	20.3	11.6

Table 9-1

Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
Northeast	20.8	21.5	11.5	28.4	19.6	17.6	18.0	23.4	24.1	21.9	23.5	22.7	20.3
South	24.6	22.9	30.1	23.7	17.7	23.0	26.8	28.6	20.1	19.5	18.9	27.0	27.5
West	29.2	31.3	20.9	27.0	45.0	35.6	37.1	21.2	24.6	37.0	33.5	25.7	20.6
Outside the United States	10.1	9.7	11.3	5.7	8.4	8.8	9.9	8.9	16.0	9.2	9.5	3.7	19.5
Location unknown	0.1	0.1	0.2	0.1	0.2	0.2	0.0	0.2	0.2	0.3	0.1	0.0	0.1
Postgraduation location in same state as doctorate institution (%)	36.0	35.4	45.2	43.1	31.9	36.9	38.2	42.0	22.9	36.4	31.7	34.3	28.3
Female doctorate recipients reporting postgraduation status (number)	24,456	18,417	615	4,712	474	2,648	496	1,730	564	578	1,633	2,506	2,461
Definite postdoctoral training plans	28.0	33.5	29.1	41.7	17.7	24.4	46.6	20.3	32.3	27.0	34.7	49.2	23.7
Definite employment plans	44.4	39.6	39.8	29.2	59.3	46.3	26.0	53.1	44.9	46.9	37.1	31.3	49.2
Seeking employment or study	23.8	23.1	28.8	22.7	20.0	27.1	25.0	22.9	20.4	23.7	25.2	16.4	24.3
Other status[a]	3.6	3.6	2.3	6.2	2.7	2.1	2.4	3.6	2.5	2.2	2.9	2.9	2.7
Definite postdoctoral training plans (%)[b]													
Postdoc fellowship or research associateship	94.8	94.6	98.3	95.0	100.0	96.1	99.1	92.9	97.8	95.5	98.8	88.1	97.6
Other training or unknown[c]	5.2	5.4	1.7	5.0	0.0	3.9	0.9	7.1	2.2	4.5	1.2	11.9	2.4
Definite employment plans (%)[d]													
Academe	41.1	31.3	29.8	20.4	30.2	15.7	23.3	48.7	31.6	33.6	13.4	37.6	51.9
In tenure track faculty position (%)	41.0	40.2	23.3	23.2	62.4	43.8	23.3	39.1	47.5	47.3	27.2	37.3	48.2
Not in tenure track position (%)	56.0	56.3	74.0	73.6	32.9	52.1	70.0	54.7	52.5	49.5	66.7	60.7	49.7
Government	7.1	8.5	18.4	D	4.3	6.6	D	9.0	3.2	5.2	4.1	10.3	11.7
Industry or business[e]	36.1	48.3	40.8	64.4	57.7	71.5	37.2	24.0	58.1	49.1	77.1	29.9	20.9
Nonprofit organization	8.1	8.3	7.8	D	3.6	4.3	D	14.6	4.7	7.0	3.6	11.7	11.4
Other or unknown[f]	7.6	3.6	3.3	1.7	4.3	1.9	0.8	3.6	2.4	5.2	1.8	10.4	4.1
Primary activity[g]													
Research and development	38.9	48.9	56.9	58.1	63.3	59.1	45.7	28.1	51.0	54.8	67.1	28.8	41.1
Teaching	28.0	19.4	15.1	9.2	18.9	8.9	D	34.7	D	20.8	12.7	22.5	31.7
Management or administration	11.8	6.9	8.8	5.7	2.6	2.0	D	12.6	D	6.2	1.9	9.5	11.5
Professional services and other	21.3	24.8	19.2	27.0	15.2	30.0	29.9	24.6	23.3	18.1	18.4	39.3	15.7
Secondary activity[g]													
Research and development	24.6	22.4	20.1	14.4	25.2	19.0	29.1	31.5	30.2	21.6	12.7	22.5	30.7
Teaching	13.5	10.0	10.9	5.0	13.3	5.7	7.1	13.7	6.9	10.4	1.9	13.6	18.6
Management or administration	13.0	13.7	19.7	18.7	4.4	12.6	10.2	15.0	3.3	12.0	13.2	14.4	12.1
Professional services and other	10.7	11.7	13.4	8.7	16.7	17.1	9.4	10.9	15.1	12.4	9.0	10.5	10.4
No secondary activity	38.2	42.2	36.0	53.2	40.4	45.5	44.1	28.9	44.5	43.6	63.3	39.0	28.2
Activity unknown	3.9	3.7	2.4	4.2	3.9	3.4	1.6	4.4	3.2	4.4	2.3	4.3	3.4

Table 9-1

Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Science and engineering											
		Total	Agricultural sciences and natural resources	Biological and biomedical sciences	Computer and information sciences	Engineering	Geosciences, atmospheric, and ocean sciences	Health sciences	Mathematics and statistics	Multidisciplinary/ interdisciplinary sciences	Physical sciences	Psychology	Social sciences
Postgraduation location (%)[h]													
United States[i]	92.6	93.0	88.7	94.6	90.4	94.0	92.2	93.9	88.0	89.9	93.1	97.1	87.4
Midwest	16.1	15.2	22.2	14.4	10.1	13.2	6.9	18.4	14.3	11.2	15.3	18.4	14.7
Northeast	22.6	23.9	9.9	29.0	20.8	21.1	18.9	23.1	25.3	21.1	25.7	23.5	22.1
South	28.5	26.2	30.9	24.0	17.3	22.4	28.3	36.2	21.8	26.7	19.8	30.5	27.9
West	24.9	27.3	25.7	26.9	41.1	36.6	37.2	15.6	26.2	30.0	31.6	24.3	22.4
Outside the United States	7.3	6.9	11.3	5.3	9.6	5.9	7.8	6.0	11.7	9.6	6.8	2.8	12.5
Location unknown	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.2	0.5	0.1	0.1	0.1
Postgraduation location in same state as doctorate institution (%)	40.5	38.4	43.4	44.5	31.0	36.4	38.6	47.7	24.4	37.2	30.5	35.6	35.1

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-2

Non-science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Non-science and engineering					
		Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Doctorate recipients reporting postgraduation status (number)	52,232	10,311	1,234	3,421	2,997	757	1,902
Definite postdoctoral training plans	28.1	11.0	7.1	6.6	16.1	11.0	13.5
Definite employment plans	44.9	59.0	74.2	68.3	47.8	44.5	55.8
Seeking employment or study	23.5	26.2	15.0	22.4	31.1	41.0	26.8
Other status[a]	3.4	3.7	3.6	2.7	4.9	3.6	3.7
Definite postdoctoral training plans (%)[b]							
Postdoc fellowship or research associateship	95.1	96.4	95.5	95.6	96.5	92.8	98.4
Other training or unknown[c]	4.9	3.6	4.5	4.4	3.5	7.2	1.6
Definite employment plans (%)[d]							
Academe	34.7	61.4	75.1	54.2	63.3	64.4	62.1
In tenure track faculty position (%)	43.5	43.6	83.9	28.9	31.8	30.4	50.4
Not in tenure track position (%)	53.6	54.0	15.3	68.1	65.6	67.3	47.0
Government	7.0	4.7	D	4.7	3.4	D	8.3
Industry or business[e]	46.0	11.4	16.7	8.2	9.6	16.6	14.7
Nonprofit organization	6.5	8.4	2.1	7.2	13.3	13.4	8.1
Other or unknown[f]	5.8	14.1	D	25.7	10.4	D	6.9
Primary activity[g]							
Research and development	46.7	19.4	52.3	12.0	8.7	12.0	24.2
Teaching	23.2	45.9	29.7	40.4	63.7	61.4	42.7
Management or administration	9.0	20.5	8.1	34.7	11.0	9.3	16.2
Professional services and other	21.0	14.3	9.9	12.9	16.6	17.3	16.8
Secondary activity[g]							
Research and development	23.2	30.5	31.4	25.0	35.8	33.0	33.9
Teaching	12.0	21.3	49.0	16.9	14.1	10.5	20.5
Management or administration	12.7	11.3	4.5	13.1	12.6	9.9	11.8
Professional services and other	12.7	8.0	4.8	9.7	6.3	9.6	8.9
No secondary activity	39.4	28.9	10.4	35.4	31.2	37.0	24.8
Activity unknown	4.2	4.6	4.4	4.8	3.7	3.9	5.9
Postgraduation location (%)[h]							
United States[i]	91.1	89.7	82.3	94.2	87.8	87.9	89.8
Midwest	15.3	18.9	17.1	21.3	18.8	15.7	16.8
Northeast	21.6	17.8	15.0	14.8	21.2	28.1	17.7
South	26.4	35.2	34.2	40.3	30.8	23.1	36.2
West	27.2	17.1	15.4	17.3	16.6	19.3	18.0
Outside the United States	8.8	10.3	17.6	5.8	12.1	12.1	10.1
Location unknown	0.1	0.1	0.1	0.0	0.1	0.0	0.2
Postgraduation location in same state as doctorate institution (%)	38.1	44.0	17.8	61.7	40.3	37.6	36.9
Male doctorate recipients reporting postgraduation status (number)	27,771	4,268	692	1,010	1,491	331	744
Definite postdoctoral training plans	28.2	11.0	7.8	6.3	15.2	8.2	13.0
Definite employment plans	45.4	58.9	73.7	71.8	47.9	44.4	56.3
Seeking employment or study	23.1	26.3	14.3	19.8	32.1	44.4	26.6
Other status[a]	3.1	3.6	4.0	2.0	4.5	3.0	3.9
Definite postdoctoral training plans (%)[b]							

Table 9-2

Non-science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Non-science and engineering					
		Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Postdoc fellowship or research associateship	95.3	95.9	94.4	96.9	95.2	92.6	99.0
Other training or unknown[c]	4.7	4.1	5.6	3.1	4.8	7.4	1.0
Definite employment plans (%)[d]							
Academe	29.1	61.6	72.7	55.9	59.0	66.0	61.1
In tenure track faculty position (%)	46.6	46.2	84.6	30.9	27.6	26.8	52.7
Not in tenure track position (%)	50.6	51.7	14.6	65.7	70.1	73.2	44.9
Government	7.0	5.2	D	4.6	4.2	D	11.2
Industry or business[e]	54.5	12.0	18.8	8.0	9.1	16.3	14.1
Nonprofit organization	5.2	9.6	2.5	6.9	18.8	10.2	6.9
Other or unknown[f]	4.3	11.6	D	24.7	9.0	D	6.7
Primary activity[g]							
Research and development	53.4	21.0	52.2	13.5	7.6	11.5	22.5
Teaching	19.1	46.1	30.8	38.6	60.7	64.0	46.3
Management or administration	6.6	18.4	7.4	35.9	11.7	7.9	17.0
Professional services and other	20.8	14.4	9.7	12.0	20.0	16.5	14.2
Secondary activity[g]							
Research and development	21.9	32.4	33.5	25.4	34.7	29.5	40.5
Teaching	10.8	22.2	46.0	17.4	15.8	11.5	16.5
Management or administration	12.5	10.9	4.9	12.3	12.4	13.7	12.4
Professional services and other	14.4	7.3	4.5	9.3	5.8	6.5	9.9
No secondary activity	40.5	27.1	11.1	35.7	31.2	38.8	20.8
Activity unknown	4.5	4.7	4.5	4.8	4.1	5.4	5.7
Postgraduation location (%)[h]							
United States[i]	89.8	87.5	80.5	93.0	87.2	89.1	86.8
Midwest	14.6	18.5	16.0	20.5	20.0	14.9	16.5
Northeast	20.8	16.8	13.5	15.2	19.7	24.7	14.9
South	24.6	34.6	35.3	38.8	31.9	26.4	34.9
West	29.2	17.1	15.6	18.1	15.3	21.8	18.6
Outside the United States	10.1	12.3	19.3	7.0	12.6	10.9	12.8
Location unknown	0.1	0.1	0.2	0.0	0.1	0.0	0.4
Postgraduation location in same state as doctorate institution (%)	36.0	39.4	17.7	57.3	39.0	41.4	35.7
Female doctorate recipients reporting postgraduation status (number)	24,456	6,039	542	2,411	1,504	426	1,156
Definite postdoctoral training plans	28.0	11.0	6.3	6.7	17.0	13.1	13.8
Definite employment plans	44.4	59.0	74.9	66.8	47.7	44.6	55.5
Seeking employment or study	23.8	26.1	15.9	23.5	30.1	38.3	27.0
Other status[a]	3.6	3.7	3.0	3.0	5.3	4.0	3.5
Definite postdoctoral training plans (%)[b]							
Postdoc fellowship or research associateship	94.8	96.7	97.1	95.1	97.6	92.9	98.1
Other training or unknown[c]	5.2	3.3	2.9	4.9	2.4	7.1	1.9
Definite employment plans (%)[d]							
Academe	41.1	61.3	78.1	53.5	67.6	63.2	62.6
In tenure track faculty position (%)	41.0	41.8	83.0	28.0	35.5	33.3	49.0
Not in tenure track position (%)	56.0	55.6	16.1	69.2	61.6	62.5	48.3
Government	7.1	4.3	D	4.7	2.6	D	6.4

Table 9-2

Non-science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022

(Number and percent)

Characteristic	All fields	Non-science and engineering					
		Total	Business	Education	Humanities	Visual and performing arts	Other non-science and engineering
Industry or business[e]	36.1	11.0	14.0	8.3	10.2	16.8	15.1
Nonprofit organization	8.1	7.5	1.5	7.3	7.8	15.8	8.9
Other or unknown[f]	7.6	15.9	D	26.2	11.7	D	7.0
Primary activity[g]							
Research and development	38.9	18.2	52.4	11.3	9.8	12.4	25.2
Teaching	28.0	45.8	28.3	41.3	66.5	59.5	40.5
Management or administration	11.8	21.9	9.0	34.2	10.4	10.3	15.8
Professional services and other	21.3	14.1	10.3	13.3	13.3	17.8	18.6
Secondary activity[g]							
Research and development	24.6	29.2	28.8	24.8	36.9	35.7	29.7
Teaching	13.5	20.7	52.7	16.6	12.4	9.7	23.2
Management or administration	13.0	11.5	3.9	13.4	12.8	7.0	11.3
Professional services and other	10.7	8.5	5.1	9.8	6.6	11.9	8.3
No secondary activity	38.2	30.1	9.5	35.3	31.2	35.7	27.5
Activity unknown	3.9	4.5	4.2	4.7	3.3	2.6	6.1
Postgraduation location (%)[h]							
United States[i]	92.6	91.2	84.5	94.7	88.4	87.0	91.6
Midwest	16.1	19.2	18.6	21.6	17.6	16.3	17.0
Northeast	22.6	18.6	17.0	14.7	22.5	30.5	19.5
South	28.5	35.6	32.7	40.9	29.7	20.7	37.1
West	24.9	17.1	15.2	16.9	17.8	17.5	17.7
Outside the United States	7.3	8.8	15.5	5.3	11.5	13.0	8.4
Location unknown	0.1	*	0.0	0.0	0.1	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	40.5	47.2	18.0	63.7	41.6	35.0	37.7

* = value between 0.00% and 0.05%; D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-3

Agricultural sciences and natural resources research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All agricultural sciences and natural resources fields	Agricultural, animal, plant, and veterinary sciences	Natural resources and conservation
Doctorate recipients reporting postgraduation status (number)	1,193	787	406
Definite postdoctoral training plans	33.6	31.6	37.4
Definite employment plans	37.6	39.8	33.3
Seeking employment or study	26.9	26.8	27.1
Other status[a]	1.9	1.8	2.2
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	98.3	98.4	98.0
Other training or unknown[c]	1.7	1.6	2.0
Definite employment plans (%)[d]			
Academe	30.6	29.4	33.3
In tenure track faculty position (%)	36.5	39.1	31.1
Not in tenure track position (%)	60.6	58.7	64.4
Government	14.3	9.3	25.9
Industry or business[e]	45.5	55.3	23.0
Nonprofit organization	6.7	3.5	14.1
Other or unknown[f]	2.9	2.6	3.7
Primary activity[g]			
Research and development	56.8	60.9	47.3
Teaching	16.4	14.2	21.4
Management or administration	8.1	7.3	9.9
Professional services and other	18.7	17.5	21.4
Secondary activity[g]			
Research and development	22.4	21.2	25.2
Teaching	10.6	11.6	8.4
Management or administration	21.0	20.9	21.4
Professional services and other	11.5	10.3	14.5
No secondary activity	34.4	36.1	30.5
Activity unknown	3.3	3.5	3.0
Postgraduation location (%)[h]			
United States[i]	88.6	87.2	91.3
Midwest	23.8	29.2	13.2
Northeast	10.7	8.5	15.0
South	30.5	30.1	31.4
West	23.3	19.0	31.7
Outside the United States	11.3	12.6	8.7
Location unknown	0.1	0.2	0.0
Postgraduation location in same state as doctorate institution (%)	44.3	42.2	48.4
Male doctorate recipients reporting postgraduation status (number)	578	379	199
Definite postdoctoral training plans	38.4	37.2	40.7
Definite employment plans	35.1	37.5	30.7
Seeking employment or study	24.9	23.7	27.1
Other status[a]	1.6	1.6	1.5
Definite postdoctoral training plans (%)[b]			

Table 9-3

Agricultural sciences and natural resources research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All agricultural sciences and natural resources fields	Agricultural, animal, plant, and veterinary sciences	Natural resources and conservation
Postdoc fellowship or research associateship	98.2	98.6	97.5
Other training or unknown[c]	1.8	1.4	2.5
Definite employment plans (%)[d]			
Academe	31.5	28.2	39.3
In tenure track faculty position (%)	51.6	D	D
Not in tenure track position (%)	45.3	D	D
Government	9.4	D	D
Industry or business[e]	51.2	61.3	27.9
Nonprofit organization	5.4	D	D
Other or unknown[f]	2.5	2.1	3.3
Primary activity[g]			
Research and development	56.7	60.7	47.5
Teaching	18.0	D	D
Management or administration	7.2	D	D
Professional services and other	18.0	16.3	22.0
Secondary activity[g]			
Research and development	25.3	23.7	28.8
Teaching	10.3	D	D
Management or administration	22.7	23.7	20.3
Professional services and other	9.3	8.9	10.2
No secondary activity	32.5	D	D
Activity unknown	4.4	4.9	3.3
Postgraduation location (%)[h]			
United States[i]	88.5	86.6	92.3
Midwest	25.4	31.4	13.4
Northeast	11.5	8.1	18.3
South	30.1	29.0	32.4
West	20.9	17.3	28.2
Outside the United States	11.3	13.1	7.7
Location unknown	0.2	0.4	0.0
Postgraduation location in same state as doctorate institution (%)	45.2	43.5	48.6
Female doctorate recipients reporting postgraduation status (number)	615	408	207
Definite postdoctoral training plans	29.1	26.5	34.3
Definite employment plans	39.8	41.9	35.7
Seeking employment or study	28.8	29.7	27.1
Other status[a]	2.3	2.0	2.9
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	98.3	98.1	98.6
Other training or unknown[c]	1.7	1.9	1.4
Definite employment plans (%)[d]			
Academe	29.8	30.4	28.4
In tenure track faculty position (%)	23.3	D	D
Not in tenure track position (%)	74.0	D	D
Government	18.4	D	D

Table 9-3

Agricultural sciences and natural resources research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All agricultural sciences and natural resources fields	Agricultural, animal, plant, and veterinary sciences	Natural resources and conservation
Industry or business[e]	40.8	50.3	18.9
Nonprofit organization	7.8	D	D
Other or unknown[f]	3.3	2.9	4.1
Primary activity[g]			
Research and development	56.9	61.1	47.2
Teaching	15.1	D	D
Management or administration	8.8	D	D
Professional services and other	19.2	18.6	20.8
Secondary activity[g]			
Research and development	20.1	19.2	22.2
Teaching	10.9	D	D
Management or administration	19.7	18.6	22.2
Professional services and other	13.4	11.4	18.1
No secondary activity	36.0	D	D
Activity unknown	2.4	2.3	2.7
Postgraduation location (%)[h]			
United States[i]	88.7	87.8	90.3
Midwest	22.2	26.9	13.1
Northeast	9.9	9.0	11.7
South	30.9	31.2	30.3
West	25.7	20.8	35.2
Outside the United States	11.3	12.2	9.7
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	43.4	40.9	48.3

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-4

Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
Doctorate recipients reporting postgraduation status (number)	8,807	1,480	649	658	1,068	417	1,044	1,109	364	729	1,289
Definite postdoctoral training plans	42.3	42.8	24.7	39.5	47.3	44.1	44.6	49.8	37.9	43.2	39.7
Definite employment plans	28.4	27.3	50.5	26.3	26.2	24.9	24.6	20.9	36.3	29.5	29.4
Seeking employment or study	22.2	24.1	19.9	28.0	22.8	21.1	21.8	18.2	18.7	17.4	25.4
Other status[a]	6.8	5.4	4.9	5.6	3.7	9.6	8.4	10.8	6.6	9.2	5.3
Definite postdoctoral training plans (%)[b]											
Postdoc fellowship or research associateship	94.5	95.7	95.6	92.7	96.4	94.6	91.2	95.8	92.0	91.4	95.7
Other training or unknown[c]	5.5	4.3	4.4	7.3	3.6	5.4	8.8	4.2	8.0	8.6	4.3
Definite employment plans (%)[d]											
Academe	20.5	15.8	14.9	16.8	30.0	13.5	19.5	19.0	5.3	34.0	26.4
In tenure track faculty position (%)	26.8	20.3	26.5	D	31.0	D	22.0	22.7	D	34.2	32.0
Not in tenure track position (%)	70.6	76.6	71.4	D	67.9	D	76.0	75.0	D	60.3	67.0
Government	6.5	2.7	3.7	D	23.6	5.8	3.5	D	6.1	2.8	9.0
Industry or business[e]	64.5	76.0	75.0	76.3	25.7	69.2	70.4	71.1	82.6	55.3	55.9
Nonprofit organization	6.7	4.5	5.5	D	18.2	7.7	3.9	D	4.5	6.0	6.6
Other or unknown[f]	1.8	1.0	0.9	1.7	2.5	3.8	2.7	1.3	1.5	1.9	2.1
Primary activity[g]											
Research and development	60.7	69.7	77.7	56.0	52.4	62.1	62.7	51.4	56.3	50.5	55.4
Teaching	9.8	6.3	3.4	7.8	17.7	8.4	9.8	8.2	5.6	16.5	13.1
Management or administration	5.1	5.0	D	5.4	7.7	D	6.1	5.0	4.8	D	9.2
Professional services and other	24.4	19.1	D	30.7	22.1	D	21.3	35.5	33.3	D	22.3
Secondary activity[g]											
Research and development	14.8	11.2	13.0	9.6	22.1	D	15.2	12.3	D	17.5	18.9
Teaching	5.2	5.2	5.3	7.2	8.9	D	3.3	2.7	D	5.3	5.3
Management or administration	18.8	17.2	12.1	20.5	17.7	15.8	23.4	19.1	27.8	17.5	22.0
Professional services and other	9.8	5.7	19.8	5.4	13.3	5.3	8.6	9.5	4.0	9.2	9.2
No secondary activity	51.3	49.8	57.2	38.0	63.2	56.4	49.6	56.4	53.2	50.5	44.6
Activity unknown	4.4	5.2	1.5	4.0	3.2	8.7	5.1	5.2	4.5	4.2	5.3
Postgraduation location (%)[h]											
United States[i]	94.4	93.0	95.9	96.8	92.4	94.1	95.6	96.2	94.1	94.5	93.4
Midwest	14.4	14.1	12.9	10.2	13.1	17.0	16.3	12.2	13.7	17.2	16.7
Northeast	28.7	27.9	32.4	35.3	21.7	25.7	30.8	32.8	30.0	27.5	26.7
South	23.9	19.2	22.3	24.7	26.9	23.3	23.7	23.0	29.3	24.9	26.2
West	27.0	31.5	27.9	26.3	30.1	27.8	23.8	27.7	20.7	24.7	23.6
Outside the United States	5.5	6.7	3.5	3.2	7.5	5.9	4.4	3.8	5.9	5.5	6.6

Table 9-4

Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
Location unknown	0.1	0.3	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	43.9	44.5	39.8	44.6	42.5	41.0	40.1	45.9	43.7	43.8	48.5
Male doctorate recipients reporting postgraduation status (number)	4,095	761	377	299	413	188	456	530	148	344	579
Definite postdoctoral training plans	43.0	45.7	26.0	37.8	47.5	43.1	45.0	51.7	39.2	42.7	41.8
Definite employment plans	27.6	24.2	49.6	26.1	25.7	27.1	23.0	20.0	29.1	30.2	28.5
Seeking employment or study	21.6	24.3	19.4	30.8	22.3	19.1	21.7	15.3	20.9	16.0	24.2
Other status[a]	7.4	5.3	5.0	4.7	4.6	10.1	10.1	12.5	10.8	10.2	5.4
Definite postdoctoral training plans (%)[b]											
Postdoc fellowship or research associateship	94.0	95.4	93.9	88.5	98.0	93.8	91.7	95.3	94.8	88.4	95.0
Other training or unknown[c]	6.0	4.6	6.1	11.5	2.0	6.2	8.3	4.7	5.2	11.6	5.0
Definite employment plans (%)[d]											
Academe	20.7	D	15.5	D	32.1	D	14.3	18.9	D	40.4	24.8
In tenure track faculty position (%)	31.2	25.0	D	D	32.4	D	D	25.0	D	35.7	39.0
Not in tenure track position (%)	67.1	D	D	84.6	64.7	D	D	70.0	0.0	61.9	61.0
Government	D	D	D	D	19.8	D	D	D	D	D	9.7
Industry or business[e]	64.7	72.8	74.9	75.6	18.9	70.6	75.2	71.7	83.7	52.9	57.6
Nonprofit organization	D	4.3	D	D	24.5	D	D	D	D	D	5.5
Other or unknown[f]	1.9	1.1	0.0	1.3	4.7	5.9	1.9	1.9	2.3	1.9	2.4
Primary activity[g]											
Research and development	63.8	72.8	79.6	57.9	49.5	58.1	67.7	55.0	56.1	54.0	60.5
Teaching	10.5	8.1	D	D	20.8	D	D	9.0	D	19.0	12.7
Management or administration	4.5	3.5	D	D	6.9	D	D	D	D	D	8.9
Professional services and other	21.2	15.6	14.5	25.0	22.8	D	20.2	D	D	D	17.8
Secondary activity[g]											
Research and development	15.4	11.6	12.9	9.2	25.7	D	14.1	19.0	D	D	17.8
Teaching	5.5	5.2	3.8	D	10.9	D	D	D	D	D	5.7
Management or administration	19.1	17.9	13.4	21.1	19.8	14.0	26.3	23.0	24.4	15.0	21.0
Professional services and other	11.2	8.1	19.4	D	10.9	D	D	D	0.0	12.0	12.1
No secondary activity	48.9	57.2	50.5	51.3	32.7	67.4	49.5	45.0	53.7	48.0	43.3
Activity unknown	4.7	6.0	0.5	2.6	4.7	15.7	5.7	5.7	4.7	3.8	4.8
Postgraduation location (%)[h]											
United States[i]	94.1	92.1	96.1	D	92.1	D	95.5	95.0	92.1	95.6	94.1
Midwest	14.4	13.3	12.6	9.9	11.9	19.7	15.5	12.6	15.8	16.7	17.9
Northeast	28.4	27.6	27.7	37.7	23.5	22.0	31.6	30.5	26.7	27.9	27.8
South	23.7	20.5	24.6	D	26.2	D	22.3	23.2	30.7	23.5	25.3

Table 9-4

Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
West	27.0	30.3	30.9	23.0	29.5	28.0	24.8	28.2	18.8	27.1	22.6
Outside the United States	5.7	7.3	3.5	D	7.9	D	4.5	5.0	7.9	4.4	5.9
Location unknown	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	43.1	43.2	40.0	44.5	39.4	39.4	40.0	46.8	38.6	42.6	48.9
Female doctorate recipients reporting postgraduation status (number)	4,712	719	272	359	655	229	588	579	216	385	710
Definite postdoctoral training plans	41.7	39.8	22.8	40.9	47.2	45.0	44.4	48.0	37.0	43.6	38.0
Definite employment plans	29.2	30.6	51.8	26.5	26.6	23.1	25.9	21.8	41.2	28.8	30.1
Seeking employment or study	22.7	23.8	20.6	25.6	23.1	22.7	21.9	20.9	17.1	18.7	26.5
Other status[a]	6.2	5.6	4.8	6.4	3.2	9.2	7.1	9.3	3.7	8.3	5.2
Definite postdoctoral training plans (%)[b]											
Postdoc fellowship or research associateship	95.0	96.2	98.4	95.9	95.5	95.1	90.8	96.4	90.0	94.0	96.3
Other training or unknown[c]	5.0	3.8	1.6	4.1	4.5	4.9	9.2	3.6	10.0	6.0	3.7
Definite employment plans (%)[d]											
Academe	20.4	D	14.2	D	28.7	D	23.0	19.0	D	27.9	27.6
In tenure track faculty position (%)	23.2	15.6	D	D	30.0	0.0	D	20.8	0.0	32.3	27.1
Not in tenure track position (%)	73.6	D	D	D	70.0	D	D	79.2	D	58.1	71.2
Government	D	D	D	D	25.9	D	D	D	D	D	8.4
Industry or business[e]	64.4	78.6	75.2	76.8	29.9	67.9	67.1	70.6	82.0	57.7	54.7
Nonprofit organization	D	4.5	D	D	14.4	D	D	D	D	D	7.5
Other or unknown[f]	1.7	0.9	2.1	2.1	1.1	1.9	3.3	0.8	1.1	1.8	1.9
Primary activity[g]											
Research and development	58.1	67.1	75.2	54.4	54.1	65.4	59.3	48.3	56.5	47.2	51.5
Teaching	9.2	4.8	D	D	15.9	D	D	7.5	D	14.2	13.4
Management or administration	5.7	6.2	0.0	D	8.2	D	D	D	D	D	9.4
Professional services and other	27.0	21.9	D	35.6	21.8	D	22.1	D	D	D	25.7
Secondary activity[g]											
Research and development	14.4	11.0	13.1	10.0	20.0	13.5	15.9	6.7	D	D	19.8
Teaching	5.0	5.2	7.3	D	7.6	D	D	D	D	D	5.0
Management or administration	18.7	16.7	10.2	20.0	16.5	17.3	21.4	15.8	29.4	19.8	22.8
Professional services and other	8.7	3.8	20.4	D	14.7	D	D	D	5.9	6.6	6.9
No secondary activity	53.2	63.3	48.9	62.2	41.2	59.6	49.7	65.8	52.9	52.8	45.5
Activity unknown	4.2	4.5	2.8	5.3	2.3	1.9	4.6	4.8	4.5	4.5	5.6
Postgraduation location (%)[h]											
United States[i]	94.6	93.9	95.6	D	92.5	D	95.6	97.3	95.3	93.5	92.8
Midwest	14.4	14.8	13.3	10.3	13.9	14.7	16.9	11.9	12.4	17.6	15.7

Table 9-4

Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Cell/ cellular biology and anatomy	Ecology, evolutionary biology, and epidemiology	Genetics and genomics	Microbiology and immunology	Neurobiology and neurosciences	Pharmacology and toxicology	Physiology, oncology, and cancer biology	Biological and biomedical sciences, other
Northeast	29.0	28.3	38.9	33.5	20.5	28.8	30.3	34.9	32.0	27.2	25.8
South	24.0	17.8	19.2	D	27.3	D	24.7	22.8	28.4	26.2	26.9
West	26.9	32.8	23.6	28.9	30.4	27.6	23.0	27.2	21.9	22.6	24.4
Outside the United States	5.3	6.1	3.4	D	7.2	D	4.4	2.7	4.7	6.5	7.2
Location unknown	0.1	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	44.5	45.8	39.4	44.6	44.5	42.3	40.2	45.0	46.7	44.8	48.1

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://nces.nsf.gov/pubs/nces23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-5

Computer and information sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All computer and information sciences fields	Computer science	Computer and information sciences, other
Doctorate recipients reporting postgraduation status (number)	1,977	1,370	607
Definite postdoctoral training plans	16.4	16.6	15.8
Definite employment plans	62.7	62.3	63.8
Seeking employment or study	18.6	19.0	17.6
Other status[a]	2.3	2.0	2.8
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	98.1	97.8	99.0
Other training or unknown[c]	1.9	2.2	1.0
Definite employment plans (%)[d]			
Academe	20.9	19.5	24.0
In tenure track faculty position (%)	64.1	63.3	65.6
Not in tenure track position (%)	33.2	33.7	32.3
Government	3.5	3.2	4.1
Industry or business[e]	71.0	74.1	64.3
Nonprofit organization	2.6	2.1	3.6
Other or unknown[f]	2.0	1.2	3.9
Primary activity[g]			
Research and development	70.9	73.1	66.1
Teaching	11.7	11.1	13.2
Management or administration	2.0	0.8	4.6
Professional services and other	15.3	15.0	16.1
Secondary activity[g]			
Research and development	18.8	18.1	20.4
Teaching	10.2	8.8	13.2
Management or administration	7.0	6.8	7.5
Professional services and other	16.1	16.8	14.5
No secondary activity	48.0	49.6	44.4
Activity unknown	3.1	2.8	3.9
Postgraduation location (%)[h]			
United States[i]	91.2	91.7	90.1
Midwest	9.1	7.9	11.8
Northeast	19.9	21.2	17.0
South	17.6	15.6	21.9
West	44.1	46.3	38.9
Outside the United States	8.7	8.3	9.5
Location unknown	0.1	0.0	0.4
Postgraduation location in same state as doctorate institution (%)	31.6	31.1	32.9
Male doctorate recipients reporting postgraduation status (number)	1,503	1,057	446
Definite postdoctoral training plans	16.0	16.7	14.3
Definite employment plans	63.8	63.0	65.7
Seeking employment or study	18.1	18.4	17.5
Other status[a]	2.1	2.0	2.5
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	97.5	97.2	98.4
Other training or unknown[c]	2.5	2.8	1.6
Definite employment plans (%)[d]			

Table 9-5

Computer and information sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All computer and information sciences fields	Computer science	Computer and information sciences, other
Academe	18.1	16.5	21.8
In tenure track faculty position (%)	64.9	63.6	67.2
Not in tenure track position (%)	33.3	34.5	31.3
Government	3.2	D	D
Industry or business[e]	75.0	78.1	67.9
Nonprofit organization	2.3	D	D
Other or unknown[f]	1.4	0.8	2.7
Primary activity[g]			
Research and development	73.1	75.4	68.0
Teaching	9.7	8.9	11.4
Management or administration	1.8	1.1	3.6
Professional services and other	15.4	14.6	17.1
Secondary activity[g]			
Research and development	17.0	15.4	20.6
Teaching	9.2	8.2	11.7
Management or administration	7.7	7.8	7.5
Professional services and other	15.9	16.8	13.9
No secondary activity	50.2	51.8	46.3
Activity unknown	2.9	2.4	4.1
Postgraduation location (%)[h]			
United States[i]	91.4	92.3	89.4
Midwest	8.8	7.5	11.8
Northeast	19.6	20.8	16.8
South	17.7	15.8	22.1
West	45.0	47.7	38.4
Outside the United States	8.4	7.7	10.1
Location unknown	0.2	0.0	0.6
Postgraduation location in same state as doctorate institution (%)	31.9	30.6	34.7
Female doctorate recipients reporting postgraduation status (number)	474	313	161
Definite postdoctoral training plans	17.7	16.6	19.9
Definite employment plans	59.3	59.7	58.4
Seeking employment or study	20.0	21.1	18.0
Other status[a]	2.7	2.2	3.7
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	100.0	100.0	100.0
Other training or unknown[c]	0.0	0.0	0.0
Definite employment plans (%)[d]			
Academe	30.2	29.9	30.9
In tenure track faculty position (%)	62.4	62.5	62.1
Not in tenure track position (%)	32.9	32.1	34.5
Government	4.3	D	D
Industry or business[e]	57.7	59.9	53.2
Nonprofit organization	3.6	D	D
Other or unknown[f]	4.3	2.7	7.4
Primary activity[g]			
Research and development	63.3	64.8	60.4
Teaching	18.9	19.0	18.7

Table 9-5

Computer and information sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All computer and information sciences fields	Computer science	Computer and information sciences, other
Management or administration	2.6	0.0	7.7
Professional services and other	15.2	16.2	13.2
Secondary activity[g]			
Research and development	25.2	27.9	19.8
Teaching	13.3	11.2	17.6
Management or administration	4.4	2.8	7.7
Professional services and other	16.7	16.8	16.5
No secondary activity	40.4	41.3	38.5
Activity unknown	3.9	4.3	3.2
Postgraduation location (%)[h]			
United States[i]	90.4	89.5	92.1
Midwest	10.1	9.2	11.9
Northeast	20.8	22.6	17.5
South	17.3	15.1	21.4
West	41.1	41.4	40.5
Outside the United States	9.6	10.5	7.9
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	31.0	32.6	27.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-6

Engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All engineering fields	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Doctorate recipients reporting postgraduation status (number)	9,776	1,152	1,148	1,195	1,946	355	586	832	1,406	1,156
Definite postdoctoral training plans	24.0	29.6	25.3	28.4	15.7	21.4	16.2	27.2	26.6	26.1
Definite employment plans	48.4	36.4	46.3	43.9	59.8	56.9	59.0	42.3	44.3	48.9
Seeking employment or study	25.5	29.8	26.1	26.3	22.7	19.7	22.5	29.0	27.0	23.2
Other status[a]	2.0	4.2	2.0	1.3	1.7	2.0	2.0	1.4	1.8	1.6
Definite postdoctoral training plans (%)[b]										
Postdoc fellowship or research associateship	96.3	94.7	97.6	94.4	95.4	93.4	95.8	98.7	96.3	98.7
Other training or unknown[c]	3.7	5.3	2.4	5.6	4.6	6.6	4.2	1.3	3.7	1.3
Definite employment plans (%)[d]										
Academe	13.6	12.4	6.0	21.7	12.1	11.9	22.8	7.1	13.2	16.6
In tenure track faculty position (%)	46.2	23.1	21.9	56.1	53.9	37.5	67.1	20.0	51.2	30.9
Not in tenure track position (%)	48.7	73.1	65.6	39.5	40.4	58.3	31.6	76.0	43.9	61.7
Government	6.9	3.6	3.2	13.0	3.8	4.0	9.2	6.0	7.4	13.3
Industry or business[e]	74.9	81.1	87.4	59.8	80.7	80.2	61.3	83.8	74.3	62.3
Nonprofit organization	2.9	2.1	2.3	2.7	2.3	3.0	4.0	2.0	2.4	5.7
Other or unknown[f]	1.7	0.7	1.1	2.9	1.0	1.0	2.6	1.1	2.7	2.1
Primary activity[g]										
Research and development	62.9	67.8	72.1	33.0	71.0	64.0	53.8	67.0	65.9	60.6
Teaching	7.2	4.5	4.1	13.4	6.0	6.0	13.0	3.5	8.9	6.5
Management or administration	2.6	2.5	D	3.4	1.3	D	6.6	2.6	1.9	4.5
Professional services and other	27.2	25.2	D	50.2	21.6	D	26.6	27.0	23.3	28.4
Secondary activity[g]										
Research and development	18.3	12.5	13.1	25.3	16.4	16.5	27.8	15.4	18.2	22.4
Teaching	5.5	2.7	2.0	10.1	5.0	5.0	12.4	2.6	4.1	6.7
Management or administration	12.2	18.7	16.2	13.4	7.9	12.5	10.3	15.7	11.5	10.8
Professional services and other	19.6	20.0	18.0	14.2	19.1	19.5	20.2	20.3	24.7	20.7
No secondary activity	44.4	46.1	50.8	37.0	51.6	46.5	29.3	46.1	41.6	39.4
Activity unknown	4.2	4.3	3.8	5.9	3.2	1.0	4.3	2.0	6.3	5.1
Postgraduation location (%)[h]										
United States[i]	91.8	95.4	92.1	89.1	91.6	88.5	87.5	92.7	93.8	92.2
Midwest	14.1	13.8	13.4	14.2	10.9	12.6	16.1	14.4	18.9	14.5
Northeast	18.5	29.1	22.5	14.5	14.6	14.4	19.0	19.4	18.5	17.0
South	22.8	22.2	23.9	28.6	19.3	16.2	24.9	18.0	21.3	28.6
West	35.8	29.5	31.7	31.3	46.4	45.0	26.3	40.8	34.8	31.8
Outside the United States	8.0	4.6	7.8	10.8	8.3	11.2	12.0	7.3	6.1	7.7

Table 9-6

Engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All engineering fields	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Location unknown	0.1	0.0	0.1	0.1	0.1	0.4	0.5	0.0	0.1	0.1
Postgraduation location in same state as doctorate institution (%)	36.8	46.1	29.4	45.3	32.6	36.0	25.4	37.7	40.0	35.9
Male doctorate recipients reporting postgraduation status (number)	7,128	632	777	809	1,589	281	422	574	1,139	905
Definite postdoctoral training plans	23.9	30.4	27.5	28.2	15.7	21.0	16.1	27.9	25.8	26.4
Definite employment plans	49.1	37.2	44.7	45.1	60.4	57.3	60.4	39.5	45.0	48.6
Seeking employment or study	24.9	27.8	25.5	25.0	22.3	19.6	21.6	31.0	27.2	23.1
Other status[a]	2.0	4.6	2.1	1.6	1.6	2.1	1.7	1.4	1.8	1.7
Definite postdoctoral training plans (%)[b]										
Postdoc fellowship or research associateship	96.3	93.8	97.2	93.9	94.8	93.2	95.6	99.4	97.3	99.2
Other training or unknown[c]	3.7	6.3	2.8	6.1	5.2	6.8	4.4	0.6	2.7	0.8
Definite employment plans (%)[d]										
Academe	12.9	13.2	D	19.2	11.8	D	20.8	5.7	12.9	15.5
In tenure track faculty position (%)	47.2	D	D	57.1	54.9	D	64.2	D	48.5	27.9
Not in tenure track position (%)	47.2	D	47.1	35.7	39.8	D	34.0	D	47.0	67.6
Government	7.0	D	3.5	12.9	3.8	D	D	D	D	13.9
Industry or business[e]	76.1	82.6	87.9	62.7	81.5	80.1	63.1	86.8	75.6	63.9
Nonprofit organization	2.4	D	D	1.9	1.9	D	D	D	D	4.5
Other or unknown[f]	1.6	0.9	1.4	3.3	1.0	1.2	2.0	0.4	2.0	2.3
Primary activity[g]										
Research and development	64.3	69.1	70.5	31.5	72.7	67.3	52.5	69.7	68.8	62.8
Teaching	6.6	D	3.6	12.6	5.4	D	12.3	D	D	5.5
Management or administration	2.8	D	D	D	D	D	D	D	D	4.3
Professional services and other	26.3	23.8	D	D	D	25.2	D	24.9	21.2	27.4
Secondary activity[g]										
Research and development	18.1	11.2	13.9	24.7	16.2	17.6	28.3	14.5	16.4	22.2
Teaching	5.4	2.7	D	9.7	4.6	6.3	D	D	4.0	6.7
Management or administration	12.0	20.6	D	13.8	7.9	D	D	13.6	12.9	9.8
Professional services and other	20.5	20.2	22.0	14.1	18.8	D	20.5	D	25.2	22.2
No secondary activity	44.0	45.3	46.1	37.6	52.5	44.7	28.3	45.7	41.6	39.1
Activity unknown	4.5	5.1	4.3	6.8	3.4	1.2	4.3	2.6	6.1	4.8
Postgraduation location (%)[h]										
United States[i]	91.1	94.4	90.9	86.8	91.1	88.2	87.6	92.0	93.5	91.8
Midwest	14.5	15.0	13.9	14.2	10.9	13.2	14.9	16.0	18.7	15.5
Northeast	17.6	26.5	20.1	14.5	15.0	15.5	17.3	17.6	18.2	17.5
South	23.0	21.1	25.5	28.7	19.9	16.4	26.9	17.3	21.5	28.0

Table 9-6

Engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All engineering fields	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
West	35.6	31.4	30.8	28.7	45.2	43.2	26.9	41.1	34.7	30.5
Outside the United States	8.8	5.6	8.9	13.0	8.7	11.4	12.1	8.0	6.3	8.1
Location unknown	0.2	0.0	0.2	0.2	0.2	0.5	0.3	0.0	0.1	0.1
Postgraduation location in same state as doctorate institution (%)	36.9	47.1	28.7	45.5	33.2	35.5	26.9	37.7	40.6	36.8
Female doctorate recipients reporting postgraduation status (number)	2,648	520	371	386	357	74	164	258	267	251
Definite postdoctoral training plans	24.4	28.7	20.8	28.8	15.7	23.0	16.5	25.6	30.0	25.1
Definite employment plans	46.3	35.4	49.9	41.5	57.1	55.4	55.5	48.4	41.6	49.8
Seeking employment or study	27.1	32.1	27.5	29.0	24.6	20.3	25.0	24.4	26.2	23.5
Other status[a]	2.1	3.7	1.9	0.8	2.2	1.4	3.0	1.6	1.9	1.6
Definite postdoctoral training plans (%)[b]										
Postdoc fellowship or research associateship	96.1	96.0	98.7	95.5	98.2	94.1	96.3	97.0	92.5	96.8
Other training or unknown[c]	3.9	4.0	1.3	4.5	1.8	5.9	3.7	3.0	7.5	3.2
Definite employment plans (%)[d]										
Academe	15.7	11.4	D	27.5	13.7	D	28.6	9.6	14.4	20.8
In tenure track faculty position (%)	43.8	D	D	54.5	50.0	D	73.1	D	62.5	38.5
Not in tenure track position (%)	52.1	D	86.7	45.5	42.9	D	26.9	D	31.3	46.2
Government	6.6	D	2.7	13.1	3.9	D	D	D	D	11.2
Industry or business[e]	71.5	79.3	86.5	53.1	77.0	80.5	56.0	78.4	68.5	56.8
Nonprofit organization	4.3	D	D	4.4	4.4	D	D	D	D	9.6
Other or unknown[f]	1.9	0.5	0.5	1.9	1.0	0.0	4.4	2.4	6.3	1.6
Primary activity[g]										
Research and development	59.1	66.3	75.0	36.4	63.5	51.2	57.5	62.1	52.4	53.0
Teaching	8.9	D	5.0	14.9	9.0	D	14.9	D	D	10.3
Management or administration	2.0	D	D	D	D	D	D	D	D	5.1
Professional services and other	30.0	27.0	D	D	D	D	D	30.6	33.0	31.6
Secondary activity[g]										
Research and development	19.0	14.0	11.7	26.6	17.5	12.2	26.4	16.9	26.2	23.1
Teaching	5.7	2.8	D	11.0	6.5	0.0	D	D	4.9	6.8
Management or administration	12.6	16.3	D	12.3	8.0	D	D	19.4	4.9	14.5
Professional services and other	17.1	19.7	10.6	14.3	20.5	D	19.5	D	22.3	15.4
No secondary activity	45.5	47.2	59.4	35.7	47.5	53.7	32.2	46.8	41.7	40.2
Activity unknown	3.4	3.3	2.7	3.8	2.0	0.0	4.4	0.8	7.2	6.4
Postgraduation location (%)[h]										
United States[i]	94.0	96.7	94.7	94.1	93.5	89.7	87.3	94.2	94.8	93.6
Midwest	13.2	12.3	12.2	14.4	10.8	10.3	19.5	11.0	19.4	11.2

Table 9-6

Engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All engineering fields	Biological, biomedical, and biosystems engineering	Chemical and petroleum engineering	Civil, environmental, and transportation engineering	Electrical and computer engineering	Engineering technologies	Industrial engineering and operations research	Materials and mining engineering	Mechanical engineering	Engineering, other
Northeast	21.1	32.4	27.5	14.4	12.7	10.3	23.7	23.0	19.4	14.9
South	22.4	23.7	20.6	28.4	16.5	15.5	19.5	19.4	20.4	30.9
West	36.6	27.0	33.6	36.9	51.9	51.7	24.6	40.3	35.1	36.7
Outside the United States	5.9	3.3	5.3	5.9	6.5	10.3	11.9	5.8	5.2	6.4
Location unknown	0.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	36.4	44.7	30.9	44.6	30.0	37.9	21.2	37.7	37.7	32.4

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Doctorate recipients reporting postgraduation status (number)	1,078	609	469
Definite postdoctoral training plans	49.6	42.5	58.8
Definite employment plans	26.0	29.7	21.1
Seeking employment or study	22.4	25.0	19.0
Other status[a]	2.0	2.8	1.1
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	98.5	98.1	98.9
Other training or unknown[c]	1.5	1.9	1.1
Definite employment plans (%)[d]			
Academe	23.2	22.7	24.2
In tenure track faculty position (%)	29.2	31.7	25.0
Not in tenure track position (%)	66.2	61.0	75.0
Government	25.4	24.9	26.3
Industry or business[e]	42.9	44.2	40.4
Nonprofit organization	5.7	6.1	5.1
Other or unknown[f]	2.9	2.2	4.0
Primary activity[g]			
Research and development	50.5	46.9	57.3
Teaching	D	D	14.6
Management or administration	D	D	5.2
Professional services and other	28.2	31.1	22.9
Secondary activity[g]			
Research and development	27.5	32.2	18.8
Teaching	7.7	D	D
Management or administration	11.4	D	D
Professional services and other	12.5	13.0	11.5
No secondary activity	41.0	35.0	52.1
Activity unknown	2.5	2.2	3.0
Postgraduation location (%)[h]			
United States[i]	91.0	88.2	94.4
Midwest	7.2	9.3	4.8
Northeast	18.4	15.5	21.9
South	27.5	25.0	30.4
West	37.2	38.0	36.3
Outside the United States	9.0	11.8	5.6
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	38.4	37.0	40.0
Male doctorate recipients reporting postgraduation status (number)	582	352	230
Definite postdoctoral training plans	52.2	44.3	64.3
Definite employment plans	25.9	30.4	19.1
Seeking employment or study	20.1	23.0	15.7
Other status[a]	1.7	2.3	0.9
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	98.0	97.4	98.6

Table 9-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Other training or unknown[c]	2.0	2.6	1.4
Definite employment plans (%)[d]			
Academe	23.2	21.5	27.3
In tenure track faculty position (%)	34.3	D	D
Not in tenure track position (%)	62.9	D	D
Government	D	D	D
Industry or business[e]	47.7	50.5	40.9
Nonprofit organization	D	D	D
Other or unknown[f]	4.6	2.8	9.1
Primary activity[g]			
Research and development	54.8	52.4	60.5
Teaching	D	D	D
Management or administration	D	D	D
Professional services and other	26.7	31.1	16.3
Secondary activity[g]			
Research and development	26.0	28.2	20.9
Teaching	8.2	D	D
Management or administration	12.3	D	D
Professional services and other	15.1	D	D
No secondary activity	38.4	35.9	44.2
Activity unknown	3.3	3.7	2.3
Postgraduation location (%)[h]			
United States[i]	90.1	87.1	94.3
Midwest	7.5	8.4	6.3
Northeast	18.0	13.7	24.0
South	26.8	27.4	26.0
West	37.1	36.9	37.5
Outside the United States	9.9	12.9	5.7
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	38.2	35.7	41.7
Female doctorate recipients reporting postgraduation status (number)	496	257	239
Definite postdoctoral training plans	46.6	40.1	53.6
Definite employment plans	26.0	28.8	23.0
Seeking employment or study	25.0	27.6	22.2
Other status[a]	2.4	3.5	1.3
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	99.1	99.0	99.2
Other training or unknown[c]	0.9	1.0	0.8
Definite employment plans (%)[d]			
Academe	23.3	24.3	21.8
In tenure track faculty position (%)	23.3	D	D
Not in tenure track position (%)	70.0	D	D
Government	D	D	D
Industry or business[e]	37.2	35.1	40.0
Nonprofit organization	D	D	D

Table 9-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Other or unknown[f]	0.8	1.4	0.0
Primary activity[g]			
Research and development	45.7	39.2	54.7
Teaching	D	17.6	D
Management or administration	D	12.2	D
Professional services and other	29.9	31.1	28.3
Secondary activity[g]			
Research and development	29.1	37.8	17.0
Teaching	7.1	D	D
Management or administration	10.2	9.5	11.3
Professional services and other	9.4	D	D
No secondary activity	44.1	33.8	58.5
Activity unknown	1.6	0.0	3.6
Postgraduation location (%)[h]			
United States[i]	92.2	89.8	94.5
Midwest	6.9	10.7	3.3
Northeast	18.9	18.1	19.7
South	28.3	21.5	35.0
West	37.2	39.5	35.0
Outside the United States	7.8	10.2	5.5
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	38.6	39.0	38.3

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-8

Health sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All health sciences fields	Nursing and nursing science	Pharmacy and pharmaceutical sciences	Public health	Health sciences, other
Doctorate recipients reporting postgraduation status (number)	2,502	566	396	741	799
Definite postdoctoral training plans	22.1	12.0	26.0	29.4	20.7
Definite employment plans	51.6	62.7	47.2	44.4	52.7
Seeking employment or study	22.5	21.2	24.5	22.8	22.0
Other status[a]	3.7	4.1	2.3	3.2	4.6
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	88.3	98.5	94.2	83.5	86.7
Other training or unknown[c]	11.7	1.5	5.8	16.5	13.3
Definite employment plans (%)[d]					
Academe	45.4	61.1	11.2	37.7	53.4
In tenure track faculty position (%)	41.9	35.0	57.1	37.9	49.3
Not in tenure track position (%)	52.3	54.8	42.9	56.5	48.4
Government	8.9	4.8	5.3	19.8	5.5
Industry or business[e]	28.5	10.1	78.6	23.7	25.4
Nonprofit organization	13.1	19.7	D	16.1	D
Other or unknown[f]	4.1	4.2	D	2.7	D
Primary activity[g]					
Research and development	32.5	12.6	74.7	40.8	23.9
Teaching	32.0	49.6	7.9	19.0	38.2
Management or administration	12.2	17.9	4.5	14.9	8.7
Professional services and other	23.3	19.9	12.9	25.3	29.3
Secondary activity[g]					
Research and development	30.6	34.3	10.1	27.5	39.2
Teaching	13.5	15.8	6.2	12.0	16.0
Management or administration	14.7	10.6	24.7	17.1	12.0
Professional services and other	11.8	13.5	7.9	11.7	12.2
No secondary activity	29.3	25.8	51.1	31.6	20.6
Activity unknown	5.0	3.9	4.8	4.0	6.7
Postgraduation location (%)[h]					
United States[i]	93.0	94.3	91.0	93.4	92.7
Midwest	18.0	18.2	14.8	17.0	20.5
Northeast	23.2	26.2	35.2	20.8	17.4
South	33.9	32.9	21.4	38.6	36.3
West	17.3	16.8	19.3	15.9	18.1
Outside the United States	6.9	5.7	8.6	6.6	7.2
Location unknown	0.1	0.0	0.3	0.0	0.2
Postgraduation location in same state as doctorate institution (%)	45.9	57.4	34.1	44.2	45.1
Male doctorate recipients reporting postgraduation status (number)	772	67	196	234	275
Definite postdoctoral training plans	26.3	7.5	28.6	31.2	25.1
Definite employment plans	48.3	62.7	44.9	42.3	52.4
Seeking employment or study	21.5	23.9	24.5	23.1	17.5
Other status[a]	3.9	6.0	2.0	3.4	5.1
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	80.3	100.0	94.6	67.1	81.2

Table 9-8

Health sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All health sciences fields	Nursing and nursing science	Pharmacy and pharmaceutical sciences	Public health	Health sciences, other
Other training or unknown[c]	19.7	0.0	5.4	32.9	18.8
Definite employment plans (%)[d]					
Academe	37.3	52.4	13.6	34.3	49.3
In tenure track faculty position (%)	51.1	D	D	52.9	59.2
Not in tenure track position (%)	44.6	D	D	38.2	39.4
Government	8.6	D	D	18.2	D
Industry or business[e]	39.4	16.7	75.0	33.3	28.5
Nonprofit organization	9.4	D	D	11.1	8.3
Other or unknown[f]	5.4	4.8	D	3.0	D
Primary activity[g]					
Research and development	43.6	17.5	75.6	44.7	30.8
Teaching	25.2	30.0	9.8	18.1	38.3
Management or administration	11.2	27.5	D	D	8.3
Professional services and other	20.1	25.0	D	D	22.6
Secondary activity[g]					
Research and development	28.4	22.5	9.8	30.9	39.8
Teaching	13.2	D	D	10.6	12.8
Management or administration	14.0	D	D	13.8	10.5
Professional services and other	14.0	D	D	12.8	19.5
No secondary activity	30.4	27.5	51.2	31.9	17.3
Activity unknown	6.4	4.8	6.8	5.1	7.6
Postgraduation location (%)[h]					
United States[i]	91.0	85.1	90.3	93.6	90.6
Midwest	17.2	D	15.3	D	16.4
Northeast	23.4	19.1	40.3	18.0	17.4
South	28.6	31.9	17.4	33.1	31.9
West	21.2	D	17.4	D	24.4
Outside the United States	8.9	14.9	9.0	6.4	9.4
Location unknown	0.2	0.0	0.7	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	42.0	59.6	32.6	41.9	44.6
Female doctorate recipients reporting postgraduation status (number)	1,730	499	200	507	524
Definite postdoctoral training plans	20.3	12.6	23.5	28.6	18.3
Definite employment plans	53.1	62.7	49.5	45.4	52.9
Seeking employment or study	22.9	20.8	24.5	22.7	24.4
Other status[a]	3.6	3.8	2.5	3.2	4.4
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	92.9	98.4	93.6	91.7	90.6
Other training or unknown[c]	7.1	1.6	6.4	8.3	9.4
Definite employment plans (%)[d]					
Academe	48.7	62.3	9.1	39.1	55.6
In tenure track faculty position (%)	39.1	D	D	32.2	44.8
Not in tenure track position (%)	54.7	D	D	63.3	52.6
Government	9.0	D	D	20.4	D
Industry or business[e]	24.0	9.3	81.8	19.6	23.8
Nonprofit organization	14.6	D	D	18.3	D
Other or unknown[f]	3.6	4.2	1.0	2.6	4.7

Table 9-8

Health sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All health sciences fields	Nursing and nursing science	Pharmacy and pharmaceutical sciences	Public health	Health sciences, other
Primary activity[g]					
Research and development	28.1	12.0	74.0	39.2	20.4
Teaching	34.7	52.2	6.3	19.4	38.1
Management or administration	12.6	16.6	D	D	8.8
Professional services and other	24.6	19.3	D	D	32.7
Secondary activity[g]					
Research and development	31.5	35.9	10.4	26.1	38.8
Teaching	13.7	D	D	12.6	17.7
Management or administration	15.0	D	D	18.5	12.7
Professional services and other	10.9	D	D	11.3	8.5
No secondary activity	28.9	25.6	51.0	31.5	22.3
Activity unknown	4.4	3.8	3.0	3.5	6.1
Postgraduation location (%)[h]					
United States[i]	93.9	95.5	91.8	93.3	93.8
Midwest	18.4	D	14.4	D	22.8
Northeast	23.1	27.1	30.1	22.1	17.4
South	36.2	33.0	25.3	41.1	38.9
West	15.6	D	21.2	D	14.5
Outside the United States	6.0	4.5	8.2	6.7	5.9
Location unknown	0.1	0.0	0.0	0.0	0.3
Postgraduation location in same state as doctorate institution (%)	47.7	57.2	35.6	45.3	45.3

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-9

Mathematics and statistics research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All mathematics and statistics fields	Applied mathematics	Mathematics	Statistics
Doctorate recipients reporting postgraduation status (number)	1,952	451	872	629
Definite postdoctoral training plans	36.7	33.7	47.5	23.8
Definite employment plans	39.4	41.2	27.2	55.2
Seeking employment or study	21.8	23.7	23.1	18.6
Other status[a]	1.9	1.3	2.2	2.1
Definite postdoctoral training plans (%)[b]				
Postdoc fellowship or research associateship	98.0	96.7	98.3	98.7
Other training or unknown[c]	2.0	3.3	1.7	1.3
Definite employment plans (%)[d]				
Academe	29.9	23.1	49.8	19.9
In tenure track faculty position (%)	34.3	46.5	22.9	46.4
Not in tenure track position (%)	64.3	53.5	75.4	52.2
Government	3.8	6.5	4.2	2.0
Industry or business[e]	60.0	61.8	38.4	73.8
Nonprofit organization	3.4	4.8	2.5	3.2
Other or unknown[f]	3.0	3.8	5.1	1.2
Primary activity[g]				
Research and development	51.0	62.7	28.3	59.9
Teaching	D	20.3	D	D
Management or administration	D	0.0	D	D
Professional services and other	23.2	16.9	21.5	27.6
Secondary activity[g]				
Research and development	26.5	23.7	33.6	23.1
Teaching	6.0	5.1	3.6	8.0
Management or administration	6.2	6.2	9.0	4.5
Professional services and other	16.3	16.9	9.9	20.2
No secondary activity	45.0	48.0	43.9	44.2
Activity unknown	4.3	4.8	5.9	2.9
Postgraduation location (%)[h]				
United States[i]	85.1	90.8	77.4	91.1
Midwest	14.4	10.4	17.5	13.1
Northeast	24.4	25.4	20.6	28.8
South	20.6	23.4	19.2	20.5
West	25.1	30.8	19.7	28.4
Outside the United States	14.7	9.2	22.1	8.9
Location unknown	0.2	0.0	0.5	0.0
Postgraduation location in same state as doctorate institution (%)	23.4	33.7	16.7	24.9
Male doctorate recipients reporting postgraduation status (number)	1,388	323	665	400
Definite postdoctoral training plans	38.5	34.7	48.0	25.8
Definite employment plans	37.2	39.3	25.9	54.5
Seeking employment or study	22.3	25.1	24.1	17.3
Other status[a]	1.7	0.9	2.0	2.0
Definite postdoctoral training plans (%)[b]				
Postdoc fellowship or research associateship	98.1	97.3	98.4	98.1
Other training or unknown[c]	1.9	2.7	1.6	1.9
Definite employment plans (%)[d]				

Table 9-9

Mathematics and statistics research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All mathematics and statistics fields	Applied mathematics	Mathematics	Statistics
Academe	29.0	21.3	47.1	19.3
In tenure track faculty position (%)	27.3	37.0	17.3	40.5
Not in tenure track position (%)	70.7	63.0	80.2	57.1
Government	4.1	D	D	D
Industry or business[e]	60.9	63.0	41.3	75.2
Nonprofit organization	2.7	D	D	D
Other or unknown[f]	3.3	4.7	4.7	1.4
Primary activity[g]				
Research and development	51.0	59.5	28.1	63.5
Teaching	D	20.7	47.5	D
Management or administration	D	0.0	0.0	D
Professional services and other	23.2	19.8	24.4	24.2
Secondary activity[g]				
Research and development	24.6	24.0	31.3	19.9
Teaching	5.5	D	D	8.1
Management or administration	7.7	D	D	7.1
Professional services and other	16.9	16.5	10.6	21.8
No secondary activity	45.3	49.6	45.0	43.1
Activity unknown	4.8	4.7	7.0	3.2
Postgraduation location (%)[h]				
United States[i]	83.8	90.8	75.6	91.3
Midwest	14.5	10.9	16.7	13.7
Northeast	24.1	23.8	21.0	29.0
South	20.1	23.0	18.9	19.6
West	24.6	31.8	18.3	29.0
Outside the United States	16.0	9.2	24.0	8.7
Location unknown	0.2	0.0	0.4	0.0
Postgraduation location in same state as doctorate institution (%)	22.9	36.4	16.3	23.1
Female doctorate recipients reporting postgraduation status (number)	564	128	207	229
Definite postdoctoral training plans	32.3	31.3	45.9	20.5
Definite employment plans	44.9	46.1	31.4	56.3
Seeking employment or study	20.4	20.3	19.8	21.0
Other status[a]	2.5	2.3	2.9	2.2
Definite postdoctoral training plans (%)[b]				
Postdoc fellowship or research associateship	97.8	95.0	97.9	100.0
Other training or unknown[c]	2.2	5.0	2.1	0.0
Definite employment plans (%)[d]				
Academe	31.6	27.1	56.9	20.9
In tenure track faculty position (%)	47.5	62.5	35.1	55.6
Not in tenure track position (%)	52.5	37.5	64.9	44.4
Government	3.2	D	D	D
Industry or business[e]	58.1	59.3	30.8	71.3
Nonprofit organization	4.7	D	D	D
Other or unknown[f]	2.4	1.7	6.2	0.8
Primary activity[g]				
Research and development	51.0	69.6	28.6	54.0
Teaching	D	19.6	D	D

Table 9-9

Mathematics and statistics research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All mathematics and statistics fields	Applied mathematics	Mathematics	Statistics
Management or administration	D	0.0	D	D
Professional services and other	23.3	10.7	14.3	33.3
Secondary activity[g]				
Research and development	30.2	23.2	39.7	28.6
Teaching	6.9	D	D	7.9
Management or administration	3.3	D	D	0.0
Professional services and other	15.1	17.9	7.9	17.5
No secondary activity	44.5	44.6	41.3	46.0
Activity unknown	3.2	5.1	3.1	2.3
Postgraduation location (%)[h]				
United States[i]	88.0	90.9	83.1	90.9
Midwest	14.3	9.1	20.0	11.9
Northeast	25.3	29.3	19.4	28.4
South	21.8	24.2	20.0	22.2
West	26.2	28.3	23.8	27.3
Outside the United States	11.7	9.1	16.3	9.1
Location unknown	0.2	0.0	0.6	0.0
Postgraduation location in same state as doctorate institution (%)	24.4	27.3	18.1	28.4

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-10

Multidisciplinary/interdisciplinary sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All multidisciplinary/ interdisciplinary sciences fields	Interdisciplinary computer sciences	Multidisciplinary/ interdisciplinary sciences, other
Doctorate recipients reporting postgraduation status (number)	1,592	543	1,049
Definite postdoctoral training plans	23.7	17.7	26.8
Definite employment plans	52.4	61.9	47.5
Seeking employment or study	21.7	18.4	23.4
Other status[a]	2.2	2.0	2.3
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	96.8	99.0	96.1
Other training or unknown[c]	3.2	1.0	3.9
Definite employment plans (%)[d]			
Academe	24.0	17.9	28.1
In tenure track faculty position (%)	50.5	68.3	42.9
Not in tenure track position (%)	45.5	26.7	53.6
Government	4.8	3.3	5.8
Industry or business[e]	62.4	71.4	56.2
Nonprofit organization	5.3	3.9	6.2
Other or unknown[f]	3.6	3.6	3.6
Primary activity[g]			
Research and development	64.5	72.9	58.8
Teaching	13.5	8.1	17.2
Management or administration	5.0	2.2	6.9
Professional services and other	17.0	16.8	17.2
Secondary activity[g]			
Research and development	17.6	14.6	19.7
Teaching	9.5	10.0	9.2
Management or administration	10.6	7.5	12.8
Professional services and other	16.8	20.9	14.0
No secondary activity	45.4	47.0	44.4
Activity unknown	4.2	4.5	4.0
Postgraduation location (%)[h]			
United States[i]	90.3	89.4	90.9
Midwest	11.5	11.6	11.4
Northeast	21.6	20.8	22.1
South	22.0	13.2	27.0
West	34.5	43.5	29.5
Outside the United States	9.3	10.0	9.0
Location unknown	0.3	0.7	0.1
Postgraduation location in same state as doctorate institution (%)	36.7	35.6	37.2
Male doctorate recipients reporting postgraduation status (number)	1,014	413	601
Definite postdoctoral training plans	21.8	18.4	24.1
Definite employment plans	55.5	60.8	51.9
Seeking employment or study	20.5	18.6	21.8
Other status[a]	2.2	2.2	2.2
Definite postdoctoral training plans (%)[b]			

Table 9-10

Multidisciplinary/interdisciplinary sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All multidisciplinary/ interdisciplinary sciences fields	Interdisciplinary computer sciences	Multidisciplinary/ interdisciplinary sciences, other
Postdoc fellowship or research associateship	97.7	98.7	97.2
Other training or unknown[c]	2.3	1.3	2.8
Definite employment plans (%)[d]			
Academe	19.4	15.1	22.8
In tenure track faculty position (%)	53.2	65.8	46.5
Not in tenure track position (%)	42.2	28.9	49.3
Government	4.6	D	D
Industry or business[e]	68.7	75.3	63.5
Nonprofit organization	4.4	D	D
Other or unknown[f]	2.8	2.8	2.9
Primary activity[g]			
Research and development	69.1	74.1	65.1
Teaching	10.0	D	D
Management or administration	4.4	D	D
Professional services and other	16.5	17.6	15.6
Secondary activity[g]			
Research and development	15.7	13.8	17.3
Teaching	9.1	9.2	9.0
Management or administration	10.0	7.5	12.0
Professional services and other	18.9	22.6	15.9
No secondary activity	46.3	46.9	45.8
Activity unknown	4.1	4.8	3.5
Postgraduation location (%)[h]			
United States[i]	90.6	89.9	91.0
Midwest	11.6	11.9	11.4
Northeast	21.9	20.2	23.2
South	19.5	13.8	23.6
West	37.0	44.0	31.9
Outside the United States	9.2	9.5	9.0
Location unknown	0.3	0.6	0.0
Postgraduation location in same state as doctorate institution (%)	36.4	35.5	37.0
Female doctorate recipients reporting postgraduation status (number)	578	130	448
Definite postdoctoral training plans	27.0	15.4	30.4
Definite employment plans	46.9	65.4	41.5
Seeking employment or study	23.7	17.7	25.4
Other status[a]	2.2	1.5	2.5
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	95.5	100.0	94.9
Other training or unknown[c]	4.5	0.0	5.1
Definite employment plans (%)[d]			
Academe	33.6	25.9	37.1
In tenure track faculty position (%)	47.3	72.7	39.1
Not in tenure track position (%)	49.5	22.7	58.0
Government	5.2	D	D

Table 9-10

Multidisciplinary/interdisciplinary sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All multidisciplinary/ interdisciplinary sciences fields	Interdisciplinary computer sciences	Multidisciplinary/ interdisciplinary sciences, other
Industry or business[e]	49.1	60.0	44.1
Nonprofit organization	7.0	D	D
Other or unknown[f]	5.2	5.9	4.8
Primary activity[g]			
Research and development	54.8	69.5	48.0
Teaching	20.8	D	D
Management or administration	6.2	D	D
Professional services and other	18.1	14.6	19.8
Secondary activity[g]			
Research and development	21.6	17.1	23.7
Teaching	10.4	12.2	9.6
Management or administration	12.0	7.3	14.1
Professional services and other	12.4	15.9	10.7
No secondary activity	43.6	47.6	41.8
Activity unknown	4.4	3.5	4.8
Postgraduation location (%)[h]			
United States[i]	89.9	87.6	90.7
Midwest	11.2	10.5	11.5
Northeast	21.1	22.9	20.5
South	26.7	11.4	31.7
West	30.0	41.9	26.1
Outside the United States	9.6	11.4	9.0
Location unknown	0.5	1.0	0.3
Postgraduation location in same state as doctorate institution (%)	37.2	36.2	37.6

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-11

Physical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All physical sciences fields	Astronomy and astrophysics	Chemistry	Materials sciences	Physics
Doctorate recipients reporting postgraduation status (number)	5,012	279	2,533	368	1,832
Definite postdoctoral training plans	37.5	58.4	33.8	30.2	41.0
Definite employment plans	36.2	18.6	40.9	42.9	31.1
Seeking employment or study	23.9	20.8	23.0	25.0	25.4
Other status[a]	2.3	2.2	2.3	1.9	2.4
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	98.0	98.2	98.1	98.2	97.9
Other training or unknown[c]	2.0	1.8	1.9	1.8	2.1
Definite employment plans (%)[d]					
Academe	11.2	25.0	10.2	7.6	12.6
In tenure track faculty position (%)	26.1	38.5	24.5	D	D
Not in tenure track position (%)	67.5	61.5	71.7	66.7	62.5
Government	4.0	D	2.9	D	6.1
Industry or business[e]	79.7	61.5	82.7	85.4	74.2
Nonprofit organization	3.3	D	2.3	D	4.4
Other or unknown[f]	1.9	0.0	1.8	0.6	2.6
Primary activity[g]					
Research and development	70.5	40.0	74.0	69.3	67.1
Teaching	9.3	D	9.3	D	D
Management or administration	1.6	D	2.1	D	D
Professional services and other	18.6	34.0	14.6	22.7	23.4
Secondary activity[g]					
Research and development	12.7	36.0	9.8	13.3	15.6
Teaching	2.0	D	D	D	2.8
Management or administration	15.0	0.0	18.5	15.3	9.9
Professional services and other	12.3	D	D	D	17.8
No secondary activity	58.1	46.0	61.7	52.7	53.9
Activity unknown	3.9	3.8	2.7	5.1	5.6
Postgraduation location (%)[h]					
United States[i]	91.3	88.4	94.6	92.6	86.7
Midwest	14.4	12.1	15.4	13.0	13.7
Northeast	24.2	22.3	27.8	17.1	20.9
South	19.2	21.4	19.4	16.0	19.3
West	32.9	32.6	31.5	46.1	32.3
Outside the United States	8.6	11.6	5.3	7.4	13.2
Location unknown	0.1	0.0	0.1	0.0	0.2
Postgraduation location in same state as doctorate institution (%)	31.3	19.5	31.1	35.3	32.7
Male doctorate recipients reporting postgraduation status (number)	3,379	180	1,495	242	1,462
Definite postdoctoral training plans	38.9	57.2	36.7	28.5	40.7
Definite employment plans	35.8	17.8	40.4	45.0	31.7
Seeking employment or study	23.3	22.2	21.1	25.2	25.4
Other status[a]	2.0	2.8	1.8	1.2	2.1
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	97.7	97.1	98.2	98.6	97.3
Other training or unknown[c]	2.3	2.9	1.8	1.4	2.7
Definite employment plans (%)[d]					

Table 9-11

Physical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All physical sciences fields	Astronomy and astrophysics	Chemistry	Materials sciences	Physics
Academe	10.1	18.8	8.8	5.5	12.3
In tenure track faculty position (%)	25.4	D	18.9	D	28.1
Not in tenure track position (%)	68.0	D	77.4	D	61.4
Government	3.9	D	2.6	4.6	D
Industry or business[e]	81.0	D	84.6	D	75.6
Nonprofit organization	3.1	D	2.0	D	D
Other or unknown[f]	2.0	0.0	2.0	0.9	2.4
Primary activity[g]					
Research and development	72.2	50.0	75.6	73.3	69.0
Teaching	7.6	16.7	7.9	D	D
Management or administration	1.5	0.0	2.2	D	D
Professional services and other	18.6	33.3	14.2	20.8	23.0
Secondary activity[g]					
Research and development	12.7	26.7	9.9	14.9	14.8
Teaching	2.1	D	1.5	D	D
Management or administration	16.0	0.0	21.6	14.9	9.8
Professional services and other	14.0	23.3	9.1	D	D
No secondary activity	55.3	46.7	57.8	49.5	54.0
Activity unknown	4.6	6.3	3.5	7.3	5.4
Postgraduation location (%)[h]					
United States[i]	90.4	85.9	93.8	92.7	87.0
Midwest	14.0	11.9	14.2	14.0	14.1
Northeast	23.5	23.0	26.8	16.3	21.2
South	18.9	23.0	19.0	14.0	19.2
West	33.5	28.1	33.1	48.3	32.2
Outside the United States	9.5	14.1	6.2	7.3	12.8
Location unknown	0.1	0.0	0.1	0.0	0.2
Postgraduation location in same state as doctorate institution (%)	31.7	17.8	31.3	36.0	33.1
Female doctorate recipients reporting postgraduation status (number)	1,633	99	1,038	126	370
Definite postdoctoral training plans	34.7	60.6	29.7	33.3	42.4
Definite employment plans	37.1	20.2	41.5	38.9	28.6
Seeking employment or study	25.2	18.2	25.8	24.6	25.4
Other status[a]	2.9	1.0	2.9	3.2	3.5
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	98.8	100.0	98.1	97.6	100.0
Other training or unknown[c]	1.2	0.0	1.9	2.4	0.0
Definite employment plans (%)[d]					
Academe	13.4	35.0	12.3	12.2	14.2
In tenure track faculty position (%)	27.2	D	30.2	D	D
Not in tenure track position (%)	66.7	D	66.0	D	66.7
Government	4.1	0.0	3.2	D	D
Industry or business[e]	77.1	D	80.0	D	67.9
Nonprofit organization	3.6	D	2.8	D	D
Other or unknown[f]	1.8	0.0	1.6	0.0	3.8
Primary activity[g]					
Research and development	67.1	25.0	71.7	61.2	58.6
Teaching	12.7	D	11.3	D	D

Table 9-11

Physical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All physical sciences fields	Astronomy and astrophysics	Chemistry	Materials sciences	Physics
Management or administration	1.9	D	1.9	D	D
Professional services and other	18.4	35.0	15.1	26.5	25.3
Secondary activity[g]					
Research and development	12.7	50.0	9.7	10.2	19.2
Teaching	1.9	0.0	D	D	D
Management or administration	13.2	0.0	14.2	16.3	10.1
Professional services and other	9.0	D	D	12.2	D
No secondary activity	63.3	45.0	67.0	59.2	53.5
Activity unknown	2.3	0.0	1.6	0.0	6.6
Postgraduation location (%)[h]					
United States[i]	93.1	92.5	95.9	92.3	85.6
Midwest	15.3	12.5	17.2	11.0	12.2
Northeast	25.7	21.3	29.2	18.7	19.8
South	19.8	18.8	19.9	19.8	19.8
West	31.6	40.0	29.1	41.8	32.7
Outside the United States	6.8	7.5	3.9	7.7	14.4
Location unknown	0.1	0.0	0.1	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	30.5	22.5	30.9	34.1	30.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-12

Psychology research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All psychology fields	Clinical psychology	Counseling and applied psychology	Research and experimental psychology	Psychology, other
Doctorate recipients reporting postgraduation status (number)	3,357	975	1,255	803	324
Definite postdoctoral training plans	47.7	77.4	36.6	35.2	32.1
Definite employment plans	32.4	12.5	44.1	35.7	38.3
Seeking employment or study	16.7	7.6	16.3	25.8	23.8
Other status[a]	3.0	2.2	2.9	3.1	5.9
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	86.9	84.5	82.1	97.5	97.1
Other training or unknown[c]	13.1	15.5	17.9	2.5	2.9
Definite employment plans (%)[d]					
Academe	36.6	19.7	34.0	45.3	45.2
In tenure track faculty position (%)	37.7	29.2	31.9	44.6	44.6
Not in tenure track position (%)	60.1	70.8	66.0	51.5	55.4
Government	10.5	30.3	9.8	5.2	6.5
Industry or business[e]	32.4	31.1	32.2	35.9	26.6
Nonprofit organization	10.7	12.3	9.9	10.8	12.1
Other or unknown[f]	9.8	6.6	14.1	2.8	9.7
Primary activity[g]					
Research and development	29.3	D	21.8	51.2	D
Teaching	22.7	9.3	18.0	30.2	38.9
Management or administration	8.6	D	12.9	3.9	D
Professional services and other	39.3	77.8	47.3	14.6	26.5
Secondary activity[g]					
Research and development	24.9	13.0	23.7	28.1	33.6
Teaching	13.6	14.8	15.3	10.7	11.5
Management or administration	14.6	20.4	13.8	14.6	12.4
Professional services and other	11.5	9.3	11.4	11.0	15.0
No secondary activity	35.5	42.6	35.8	35.6	27.4
Activity unknown	5.2	11.5	4.5	2.1	8.9
Postgraduation location (%)[h]					
United States[i]	96.9	D	96.8	93.7	D
Midwest	18.9	18.2	21.1	17.5	14.9
Northeast	23.3	27.1	18.6	24.6	26.3
South	29.6	24.3	34.8	28.9	28.9
West	24.6	29.1	22.0	22.1	25.4
Outside the United States	3.1	D	3.2	6.3	D
Location unknown	0.1	0.2	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	35.3	30.6	38.8	35.3	38.2
Male doctorate recipients reporting postgraduation status (number)	851	205	305	263	78
Definite postdoctoral training plans	43.4	75.6	32.5	33.1	35.9
Definite employment plans	35.4	14.1	48.5	36.5	35.9
Seeking employment or study	17.7	6.8	16.1	27.0	21.8
Other status[a]	3.5	3.4	3.0	3.4	6.4
Definite postdoctoral training plans (%)[b]					

Table 9-12

Psychology research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All psychology fields	Clinical psychology	Counseling and applied psychology	Research and experimental psychology	Psychology, other
Postdoc fellowship or research associateship	82.9	76.8	74.7	98.9	96.4
Other training or unknown[c]	17.1	23.2	25.3	1.1	3.6
Definite employment plans (%)[d]					
Academe	34.2	D	30.4	44.8	D
In tenure track faculty position (%)	38.8	D	35.6	41.9	D
Not in tenure track position (%)	58.3	D	62.2	53.5	D
Government	11.0	D	11.5	D	D
Industry or business[e]	38.9	37.9	37.8	40.6	39.3
Nonprofit organization	8.0	D	8.8	D	D
Other or unknown[f]	8.0	6.9	11.5	3.1	7.1
Primary activity[g]					
Research and development	30.8	D	D	50.5	33.3
Teaching	23.3	D	19.0	D	37.5
Management or administration	6.5	0.0	D	D	0.0
Professional services and other	39.4	72.0	50.4	17.2	29.2
Secondary activity[g]					
Research and development	31.2	D	31.4	33.3	D
Teaching	13.6	D	14.6	10.8	D
Management or administration	15.1	D	19.0	12.9	D
Professional services and other	14.0	D	16.1	11.8	D
No secondary activity	26.2	44.0	19.0	31.2	29.2
Activity unknown	7.3	13.8	7.4	3.1	14.3
Postgraduation location (%)[h]					
United States[i]	96.3	D	95.5	D	D
Midwest	20.3	D	23.5	D	D
Northeast	22.7	22.8	16.2	29.0	30.4
South	27.0	23.9	30.4	26.8	23.2
West	25.7	31.0	25.1	21.9	23.2
Outside the United States	3.7	D	4.5	D	D
Location unknown	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	34.3	28.8	35.2	33.3	51.8
Female doctorate recipients reporting postgraduation status (number)	2,506	770	950	540	246
Definite postdoctoral training plans	49.2	77.9	37.9	36.3	30.9
Definite employment plans	31.3	12.1	42.6	35.4	39.0
Seeking employment or study	16.4	7.8	16.3	25.2	24.4
Other status[a]	2.9	1.8	2.9	3.0	5.7
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	88.1	86.5	84.2	96.9	97.4
Other training or unknown[c]	11.9	13.5	15.8	3.1	2.6
Definite employment plans (%)[d]					
Academe	37.6	D	35.3	45.5	D
In tenure track faculty position (%)	37.3	D	30.8	46.0	D
Not in tenure track position (%)	60.7	D	67.1	50.6	D
Government	10.3	D	9.1	D	D

Table 9-12

Psychology research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number, percent, and median years)

Characteristic	All psychology fields	Clinical psychology	Counseling and applied psychology	Research and experimental psychology	Psychology, other
Industry or business[e]	29.9	29.0	30.1	33.5	22.9
Nonprofit organization	11.7	D	10.4	D	D
Other or unknown[f]	10.4	6.5	15.1	2.6	10.4
Primary activity[g]					
Research and development	28.8	8.4	D	51.6	D
Teaching	22.5	D	17.6	D	39.3
Management or administration	9.5	D	D	D	D
Professional services and other	39.3	79.5	46.3	13.3	25.8
Secondary activity[g]					
Research and development	22.5	D	21.0	25.5	D
Teaching	13.6	D	15.6	10.6	D
Management or administration	14.4	D	12.0	15.4	D
Professional services and other	10.5	D	9.7	10.6	D
No secondary activity	39.0	42.2	41.7	37.8	27.0
Activity unknown	4.3	10.8	3.5	1.6	7.3
Postgraduation location (%)[h]					
United States[i]	97.1	D	97.3	D	95.3
Midwest	18.4	D	20.4	D	D
Northeast	23.5	28.3	19.3	22.5	25.0
South	30.5	24.4	36.2	30.0	30.8
West	24.3	28.6	21.0	22.2	26.2
Outside the United States	2.8	D	2.7	D	4.7
Location unknown	0.1	0.3	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	35.6	31.0	40.0	36.2	33.7

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.
[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.
[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[e] Includes doctorate recipients reporting self-employment.
[f] Other is mainly composed of elementary and secondary schools.
[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.
[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.
[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-13

Social sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
Doctorate recipients reporting postgraduation status (number)	4,675	378	417	1,258	628	399	595	1,000
Definite postdoctoral training plans	22.8	34.4	23.0	19.0	25.2	16.0	26.9	22.1
Definite employment plans	51.3	31.2	45.6	66.5	49.2	52.6	47.4	45.3
Seeking employment or study	23.2	29.1	28.1	13.4	23.6	26.6	23.4	29.8
Other status[a]	2.5	5.3	3.1	0.9	1.9	4.8	2.4	2.7
Definite postdoctoral training plans (%)[b]								
Postdoc fellowship or research associateship	97.6	96.9	97.9	97.1	99.4	96.9	98.8	96.4
Other training or unknown[c]	2.4	3.1	2.1	2.9	0.6	3.1	1.3	3.6
Definite employment plans (%)[d]								
Academe	48.6	50.8	68.9	39.8	54.4	32.9	60.3	51.9
In tenure track faculty position (%)	52.5	21.7	42.0	72.1	57.7	34.8	47.6	43.4
Not in tenure track position (%)	45.5	75.0	56.5	26.1	41.1	60.9	51.2	54.0
Government	13.6	11.9	5.8	15.3	12.9	18.6	7.8	16.1
Industry or business[e]	24.4	21.2	12.1	35.2	19.7	21.0	16.0	20.3
Nonprofit organization	9.6	11.9	8.4	7.2	9.7	17.6	14.2	7.5
Other or unknown[f]	3.8	4.2	4.7	2.5	3.2	10.0	1.8	4.2
Primary activity[g]								
Research and development	43.6	28.9	16.9	59.5	42.3	35.4	45.8	32.0
Teaching	28.8	36.8	56.3	15.1	36.3	14.1	33.6	39.4
Management or administration	9.4	13.2	13.7	2.1	6.7	34.3	8.1	11.5
Professional services and other	18.2	21.1	13.1	23.3	14.7	16.2	12.5	17.1
Secondary activity[g]								
Research and development	28.8	31.6	43.2	22.6	28.3	23.2	32.1	34.3
Teaching	19.1	14.9	16.4	23.1	20.0	16.7	19.6	14.1
Management or administration	11.8	12.3	7.1	9.7	14.3	16.2	15.9	11.3
Professional services and other	10.9	7.9	8.2	12.9	9.3	16.2	8.1	9.7
No secondary activity	29.4	33.3	25.1	31.7	28.0	27.8	24.4	30.6
Activity unknown	3.5	3.4	3.7	2.7	2.9	5.7	3.9	4.2
Postgraduation location (%)[h]								
United States[i]	84.0	85.5	89.2	77.1	85.4	92.0	90.5	84.0
Midwest	13.2	15.3	15.4	10.0	13.3	15.0	17.6	12.9
Northeast	21.2	24.6	24.1	19.2	25.3	17.9	26.0	17.4

Table 9-13

Social sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
South	27.7	19.8	21.3	27.5	27.4	37.2	26.0	31.0
West	21.5	25.4	26.9	19.9	19.5	21.5	20.6	22.3
Outside the United States	15.9	14.5	10.8	22.7	14.6	8.0	9.3	16.0
Location unknown	0.1	0.0	0.0	0.2	0.0	0.0	0.2	0.0
Postgraduation location in same state as doctorate institution (%)	31.8	38.3	39.5	20.2	29.1	43.1	41.0	35.9
Male doctorate recipients reporting postgraduation status (number)	2,213	116	147	807	369	142	225	407
Definite postdoctoral training plans	21.9	35.3	24.5	18.2	23.6	15.5	24.9	23.3
Definite employment plans	53.7	32.8	43.5	67.7	49.3	48.6	49.3	44.0
Seeking employment or study	22.0	28.4	27.2	13.0	24.9	28.2	23.1	30.5
Other status[a]	2.3	3.4	4.8	0.9	1.9	7.7	2.7	2.0
Definite postdoctoral training plans (%)[b]								
Postdoc fellowship or research associateship	97.5	97.6	97.2	96.6	98.9	95.5	100.0	96.8
Other training or unknown[c]	2.5	2.4	2.8	3.4	1.1	4.5	0.0	3.2
Definite employment plans (%)[d]								
Academe	45.2	44.7	75.0	36.8	51.6	30.4	64.0	48.0
In tenure track faculty position (%)	57.4	D	45.8	D	55.3	47.6	53.5	41.9
Not in tenure track position (%)	40.7	D	52.1	D	42.6	47.6	46.5	55.8
Government	15.6	13.2	D	D	15.4	23.2	5.4	21.8
Industry or business[e]	27.9	18.4	14.1	37.7	21.4	26.1	14.4	20.7
Nonprofit organization	7.8	21.1	D	D	9.3	11.6	14.4	4.5
Other or unknown[f]	3.4	2.6	1.6	3.1	2.2	8.7	1.8	5.0
Primary activity[g]								
Research and development	46.1	29.7	11.5	58.7	39.9	40.0	42.1	34.5
Teaching	25.9	32.4	75.4	13.3	35.4	10.8	39.3	33.3
Management or administration	7.2	13.5	D	1.7	7.3	D	8.4	12.9
Professional services and other	20.8	24.3	8.2	26.2	17.4	16.9	10.3	19.3
Secondary activity[g]								
Research and development	26.8	32.4	55.7	22.1	25.3	27.7	32.7	27.5
Teaching	19.6	13.5	9.8	22.4	19.7	15.4	19.6	17.0
Management or administration	11.5	D	9.8	10.1	15.7	15.4	D	11.1
Professional services and other	11.5	D	9.8	12.7	9.0	12.3	D	11.7

Table 9-13

Social sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
No secondary activity	30.6	37.8	14.8	32.7	30.3	29.2	24.3	32.7
Activity unknown	3.7	2.6	4.7	3.7	2.2	5.8	3.6	4.5
Postgraduation location (%)[h]								
United States[i]	80.5	81.0	80.0	75.0	84.8	84.6	89.2	83.2
Midwest	11.6	13.9	9.0	9.2	12.6	14.3	16.2	13.1
Northeast	20.3	19.0	21.0	19.6	26.0	16.5	20.4	17.9
South	27.5	16.5	20.0	27.7	27.1	33.0	29.3	30.3
West	20.6	31.6	28.0	18.0	19.0	20.9	23.4	20.8
Outside the United States	19.5	19.0	20.0	24.8	15.2	15.4	10.8	16.8
Location unknown	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	28.3	30.4	29.0	21.1	32.3	33.0	35.3	35.8
Female doctorate recipients reporting postgraduation status (number)	2,461	262	269	451	259	257	370	593
Definite postdoctoral training plans	23.7	34.0	22.3	20.4	27.4	16.3	28.1	21.2
Definite employment plans	49.2	30.5	46.8	64.5	49.0	54.9	46.2	46.2
Seeking employment or study	24.3	29.4	28.3	14.0	21.6	25.7	23.5	29.3
Other status[a]	2.7	6.1	2.2	0.9	1.9	3.1	2.2	3.2
Definite postdoctoral training plans (%)[b]								
Postdoc fellowship or research associateship	97.6	96.6	98.3	97.8	100.0	97.6	98.1	96.0
Other training or unknown[c]	2.4	3.4	1.7	2.2	0.0	2.4	1.9	4.0
Definite employment plans (%)[d]								
Academe	51.9	53.8	65.9	45.4	58.3	34.0	57.9	54.4
In tenure track faculty position (%)	48.2	D	39.8	D	60.8	29.2	43.4	44.3
Not in tenure track position (%)	49.7	D	59.0	D	39.2	66.7	54.5	53.0
Government	11.7	11.3	D	D	9.4	16.3	9.4	12.4
Industry or business[e]	20.9	22.5	11.1	30.6	17.3	18.4	17.0	20.1
Nonprofit organization	11.4	7.5	D	D	10.2	20.6	14.0	9.5
Other or unknown[f]	4.1	5.0	6.3	1.4	4.7	10.6	1.8	3.6
Primary activity[g]								
Research and development	41.1	28.6	19.7	60.8	45.9	33.1	48.2	30.4
Teaching	31.7	39.0	46.7	18.4	37.7	15.8	29.9	43.3
Management or administration	11.5	13.0	D	2.8	5.7	D	7.9	10.6
Professional services and other	15.7	19.5	15.6	18.1	10.7	15.8	14.0	15.6

Table 9-13

Social sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All social sciences fields	Anthropology	Area, ethnic, cultural, gender, and group studies	Economics	Political science and government	Public policy analysis	Sociology, demography, and population studies	Social sciences, other
Secondary activity[g]								
Research and development	30.7	31.2	36.9	23.6	32.8	21.1	31.7	38.8
Teaching	18.6	15.6	19.7	24.3	20.5	17.3	19.5	12.2
Management or administration	12.1	D	5.7	9.0	12.3	16.5	D	11.4
Professional services and other	10.4	D	7.4	13.2	9.8	18.0	D	8.4
No secondary activity	28.2	31.2	30.3	29.9	24.6	27.1	24.4	29.3
Activity unknown	3.4	3.8	3.2	1.0	3.9	5.7	4.1	4.0
Postgraduation location (%)[h]								
United States[i]	87.4	87.6	94.1	80.9	86.4	95.6	91.3	84.5
Midwest	14.7	16.0	18.8	11.5	14.1	15.3	18.5	12.8
Northeast	22.1	27.2	25.8	18.5	24.2	18.6	29.5	17.0
South	27.9	21.3	22.0	27.2	27.8	39.3	24.0	31.5
West	22.4	22.5	26.3	23.2	20.2	21.9	18.9	23.3
Outside the United States	12.5	12.4	5.9	18.8	13.6	4.4	8.4	15.5
Location unknown	0.1	0.0	0.0	0.3	0.0	0.0	0.4	0.0
Postgraduation location in same state as doctorate institution (%)	35.1	42.0	45.2	18.5	24.7	48.1	44.4	36.0

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-14

Education research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All education fields	Education leadership and administration	Education research	Teacher education	Education, other
Doctorate recipients reporting postgraduation status (number)	3,421	1,032	1,019	1,001	369
Definite postdoctoral training plans	6.6	3.7	7.5	6.9	11.7
Definite employment plans	68.3	76.8	65.8	64.6	60.7
Seeking employment or study	22.4	16.5	24.4	25.9	23.8
Other status[a]	2.7	3.0	2.2	2.6	3.8
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	95.6	94.7	94.7	98.6	93.0
Other training or unknown[c]	4.4	5.3	5.3	1.4	7.0
Definite employment plans (%)[d]					
Academe	54.2	51.8	52.6	59.2	53.1
In tenure track faculty position (%)	28.9	12.2	30.9	46.2	25.2
Not in tenure track position (%)	68.1	84.7	68.0	49.9	69.7
Government	4.7	4.5	5.1	4.2	5.4
Industry or business[e]	8.2	5.9	13.7	5.4	7.6
Nonprofit organization	7.2	8.8	7.3	5.4	6.3
Other or unknown[f]	25.7	28.9	21.3	25.8	27.7
Primary activity[g]					
Research and development	12.0	6.6	17.6	12.5	13.2
Teaching	40.4	21.4	39.5	63.7	43.8
Management or administration	34.7	60.0	23.5	15.7	32.4
Professional services and other	12.9	12.1	19.5	8.1	10.5
Secondary activity[g]					
Research and development	25.0	14.8	28.0	34.4	25.6
Teaching	16.9	18.1	16.5	16.4	15.1
Management or administration	13.1	13.6	13.7	11.0	15.1
Professional services and other	9.7	9.8	11.0	8.6	8.2
No secondary activity	35.4	43.6	30.8	29.7	36.1
Activity unknown	4.8	3.9	6.7	4.6	2.2
Postgraduation location (%)[h]					
United States[i]	94.2	96.8	93.4	92.2	93.6
Midwest	21.3	25.3	19.8	20.5	15.0
Northeast	14.8	15.5	12.4	16.3	15.4
South	40.3	39.7	45.1	39.7	30.0
West	17.3	15.9	15.3	15.4	32.6
Outside the United States	5.8	3.2	6.6	7.8	6.4
Location unknown	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	61.7	68.7	57.7	57.8	61.4
Male doctorate recipients reporting postgraduation status (number)	1,010	339	302	271	98
Definite postdoctoral training plans	6.3	2.7	6.6	9.2	10.2
Definite employment plans	71.8	79.6	67.2	67.5	70.4
Seeking employment or study	19.8	14.7	23.5	22.1	19.4
Other status[a]	2.0	2.9	2.3	1.1	0.0
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	96.9	100.0	95.0	100.0	90.0

Table 9-14

Education research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All education fields	Education leadership and administration	Education research	Teacher education	Education, other
Other training or unknown[c]	3.1	0.0	5.0	0.0	10.0
Definite employment plans (%)[d]					
Academe	55.9	51.9	56.2	63.4	50.7
In tenure track faculty position (%)	30.9	14.3	30.7	50.9	31.4
Not in tenure track position (%)	65.7	82.9	66.7	44.8	62.9
Government	4.6	5.2	5.4	D	D
Industry or business[e]	8.0	5.6	14.3	4.4	8.7
Nonprofit organization	6.9	8.1	6.4	D	D
Other or unknown[f]	24.7	29.3	17.7	24.6	27.5
Primary activity[g]					
Research and development	13.5	6.6	21.3	14.2	16.4
Teaching	38.6	20.5	34.0	67.0	46.3
Management or administration	35.9	62.2	26.1	12.5	23.9
Professional services and other	12.0	10.8	18.6	6.3	13.4
Secondary activity[g]					
Research and development	25.4	13.9	30.9	36.4	25.4
Teaching	17.4	20.1	19.1	D	D
Management or administration	12.3	11.2	12.8	11.4	17.9
Professional services and other	9.3	9.3	10.1	D	D
No secondary activity	35.7	45.6	27.1	30.1	35.8
Activity unknown	4.8	4.1	7.4	3.8	2.9
Postgraduation location (%)[h]					
United States[i]	93.0	96.8	92.4	88.9	92.4
Midwest	20.5	25.8	18.8	18.3	12.7
Northeast	15.2	15.4	11.7	18.3	16.5
South	38.8	38.0	42.6	38.5	31.6
West	18.1	17.2	18.4	13.9	31.6
Outside the United States	7.0	3.2	7.6	11.1	7.6
Location unknown	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	57.3	64.2	56.5	49.5	55.7
Female doctorate recipients reporting postgraduation status (number)	2,411	693	717	730	271
Definite postdoctoral training plans	6.7	4.2	7.8	6.0	12.2
Definite employment plans	66.8	75.5	65.3	63.6	57.2
Seeking employment or study	23.5	17.3	24.8	27.3	25.5
Other status[a]	3.0	3.0	2.1	3.2	5.2
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	95.1	93.1	94.6	97.7	93.9
Other training or unknown[c]	4.9	6.9	5.4	2.3	6.1
Definite employment plans (%)[d]					
Academe	53.5	51.8	51.1	57.5	54.2
In tenure track faculty position (%)	28.0	11.1	31.0	44.2	22.6
Not in tenure track position (%)	69.2	85.6	68.6	52.1	72.6
Government	4.7	4.2	4.9	D	D
Industry or business[e]	8.3	6.1	13.5	5.8	7.1
Nonprofit organization	7.3	9.2	7.7	D	D
Other or unknown[f]	26.2	28.7	22.9	26.3	27.7

Table 9-14

Education research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All education fields	Education leadership and administration	Education research	Teacher education	Education, other
Primary activity[g]					
Research and development	11.3	6.6	16.0	11.8	11.8
Teaching	41.3	21.9	41.8	62.4	42.8
Management or administration	34.2	58.8	22.4	17.0	36.2
Professional services and other	13.3	12.7	19.9	8.8	9.2
Secondary activity[g]					
Research and development	24.8	15.3	26.7	33.6	25.7
Teaching	16.6	17.1	15.3	D	D
Management or administration	13.4	14.9	14.2	10.9	13.8
Professional services and other	9.8	10.1	11.4	D	D
No secondary activity	35.3	42.5	32.4	29.5	36.2
Activity unknown	4.7	3.8	6.4	5.0	1.9
Postgraduation location (%)[h]					
United States[i]	94.7	96.7	93.9	93.5	94.1
Midwest	21.6	25.0	20.2	21.5	16.0
Northeast	14.7	15.6	12.8	15.6	14.9
South	40.9	40.6	46.2	40.2	29.3
West	16.9	15.2	13.9	15.9	33.0
Outside the United States	5.3	3.3	6.1	6.5	5.9
Location unknown	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	63.7	71.0	58.2	61.2	63.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-15

Humanities research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
Doctorate recipients reporting postgraduation status (number)	2,997	949	480	671	578	319
Definite postdoctoral training plans	16.1	12.3	13.3	23.0	20.8	8.5
Definite employment plans	47.8	51.0	44.4	43.2	44.6	58.6
Seeking employment or study	31.1	31.6	36.0	30.3	29.1	27.3
Other status[a]	4.9	5.1	5.8	3.6	5.4	5.0
Definite postdoctoral training plans (%)[b]						
Postdoc fellowship or research associateship	96.5	96.6	93.8	97.4	98.3	88.9
Other training or unknown[c]	3.5	3.4	6.3	2.6	1.7	11.1
Definite employment plans (%)[d]						
Academe	63.3	71.5	70.0	58.6	67.4	35.8
In tenure track faculty position (%)	31.8	31.8	32.2	28.2	33.3	35.8
Not in tenure track position (%)	65.6	66.8	65.8	69.4	63.2	55.2
Government	3.4	2.3	D	10.0	D	D
Industry or business[e]	9.6	8.9	11.7	9.7	9.7	9.1
Nonprofit organization	13.3	5.0	D	10.7	D	D
Other or unknown[f]	10.4	12.4	15.0	11.0	7.4	3.2
Primary activity[g]						
Research and development	8.7	7.1	7.3	12.2	12.2	4.4
Teaching	63.7	68.3	73.2	60.8	63.8	45.4
Management or administration	11.0	12.8	8.8	10.4	8.9	12.6
Professional services and other	16.6	11.8	10.7	16.5	15.0	37.7
Secondary activity[g]						
Research and development	35.8	37.5	40.5	37.1	36.6	23.5
Teaching	14.1	10.5	11.7	10.4	18.7	25.1
Management or administration	12.6	12.8	10.2	11.5	11.0	18.6
Professional services and other	6.3	6.0	7.3	5.0	6.1	8.2
No secondary activity	31.2	33.2	30.2	36.0	27.6	24.6
Activity unknown	3.7	3.5	3.8	4.1	4.7	2.1
Postgraduation location (%)[h]						
United States[i]	87.8	92.5	85.9	86.5	84.9	85.0
Midwest	18.8	17.8	19.9	16.9	18.8	23.8
Northeast	21.2	22.0	22.7	22.7	20.4	15.0
South	30.8	34.8	26.4	31.5	25.9	32.2
West	16.6	17.6	16.2	14.9	19.0	13.1
Outside the United States	12.1	7.3	14.1	13.5	14.8	15.0
Location unknown	0.1	0.2	0.0	0.0	0.3	0.0
Postgraduation location in same state as doctorate institution (%)	40.3	46.3	41.9	40.3	34.9	30.8
Male doctorate recipients reporting postgraduation status (number)	1,491	347	198	345	369	232
Definite postdoctoral training plans	15.2	12.1	13.1	20.0	20.1	6.9
Definite employment plans	47.9	49.9	41.9	41.7	44.4	64.7
Seeking employment or study	32.1	33.1	39.4	35.7	29.5	23.3
Other status[a]	4.5	4.9	5.1	2.6	5.7	4.3

Table 9-15

Humanities research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
Definite postdoctoral training plans (%)[b]						
Postdoc fellowship or research associateship	95.2	95.2	88.5	95.7	98.6	87.5
Other training or unknown[c]	4.8	4.8	11.5	4.3	1.4	12.5
Definite employment plans (%)[d]						
Academe	59.0	72.3	71.1	56.3	63.4	34.7
In tenure track faculty position (%)	27.6	26.4	32.2	19.8	29.8	32.7
Not in tenure track position (%)	70.1	72.8	64.4	76.5	70.2	59.6
Government	4.2	2.9	D	13.2	D	D
Industry or business[e]	9.1	7.5	D	11.1	11.0	D
Nonprofit organization	18.8	4.6	D	10.4	D	54.0
Other or unknown[f]	9.0	12.7	13.3	9.0	7.3	4.0
Primary activity[g]						
Research and development	7.6	4.9	D	11.5	10.1	D
Teaching	60.7	71.6	68.4	57.6	64.2	43.8
Management or administration	11.7	13.6	D	11.5	10.1	D
Professional services and other	20.0	9.9	13.9	19.4	15.7	39.7
Secondary activity[g]						
Research and development	34.7	37.7	36.7	38.8	36.5	24.7
Teaching	15.8	D	D	11.5	15.7	26.7
Management or administration	12.4	11.7	11.4	10.1	11.3	17.1
Professional services and other	5.8	D	D	6.5	6.3	6.2
No secondary activity	31.2	35.8	31.6	33.1	30.2	25.3
Activity unknown	4.1	6.4	4.8	3.5	3.0	2.7
Postgraduation location (%)[h]						
United States[i]	87.2	92.6	88.1	85.4	84.9	85.5
Midwest	20.0	21.9	16.5	14.6	21.8	24.1
Northeast	19.7	17.7	22.9	22.1	21.0	15.1
South	31.9	35.3	31.2	32.9	25.6	35.5
West	15.3	17.7	16.5	16.0	15.5	10.2
Outside the United States	12.6	7.4	11.9	14.6	14.7	14.5
Location unknown	0.1	0.0	0.0	0.0	0.4	0.0
Postgraduation location in same state as doctorate institution (%)	39.0	48.4	40.4	42.7	33.6	28.9
Female doctorate recipients reporting postgraduation status (number)	1,504	601	282	326	208	87
Definite postdoctoral training plans	17.0	12.5	13.5	26.1	22.1	12.6
Definite employment plans	47.7	51.6	46.1	44.8	45.2	42.5
Seeking employment or study	30.1	30.8	33.7	24.5	28.4	37.9
Other status[a]	5.3	5.2	6.4	4.6	4.3	6.9
Definite postdoctoral training plans (%)[b]						
Postdoc fellowship or research associateship	97.6	97.3	97.4	98.8	97.8	90.9

Table 9-15

Humanities research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All humanities fields	English language and literature, letters	Foreign languages, literatures, and linguistics	History	Philosophy and religious studies	Humanities, other
Other training or unknown[c]	2.4	2.7	2.6	1.2	2.2	9.1
Definite employment plans (%)[d]						
Academe	67.6	71.3	69.2	61.0	74.5	40.5
In tenure track faculty position (%)	35.5	34.8	32.2	36.0	38.6	46.7
Not in tenure track position (%)	61.6	63.3	66.7	62.9	52.9	40.0
Government	2.6	1.9	D	6.8	D	D
Industry or business[e]	10.2	9.7	D	8.2	7.4	D
Nonprofit organization	7.8	5.2	D	11.0	D	D
Other or unknown[f]	11.7	11.9	16.2	13.0	7.4	0.0
Primary activity[g]						
Research and development	9.8	8.2	D	12.9	16.1	D
Teaching	66.5	66.4	76.2	64.0	63.2	51.4
Management or administration	10.4	12.5	D	9.4	6.9	D
Professional services and other	13.3	12.8	8.7	13.7	13.8	29.7
Secondary activity[g]						
Research and development	36.9	37.5	42.9	35.3	36.8	18.9
Teaching	12.4	D	D	9.4	24.1	18.9
Management or administration	12.8	13.5	9.5	12.9	10.3	24.3
Professional services and other	6.6	D	D	3.6	5.7	16.2
No secondary activity	31.2	31.9	29.4	38.8	23.0	21.6
Activity unknown	3.3	1.9	3.1	4.8	7.4	0.0
Postgraduation location (%)[h]						
United States[i]	88.4	92.5	84.5	87.4	85.0	83.3
Midwest	17.6	15.6	22.0	19.0	13.6	22.9
Northeast	22.5	24.2	22.6	23.4	19.3	14.6
South	29.7	34.5	23.2	30.3	26.4	20.8
West	17.8	17.7	16.1	13.9	25.0	22.9
Outside the United States	11.5	7.3	15.5	12.6	15.0	16.7
Location unknown	0.1	0.3	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	41.6	45.2	42.9	38.1	37.1	37.5

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-16

Business research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All business fields	Business administration and management	Business, other
Doctorate recipients reporting postgraduation status (number)	1,234	337	897
Definite postdoctoral training plans	7.1	7.7	6.9
Definite employment plans	74.2	74.8	74.0
Seeking employment or study	15.0	14.5	15.2
Other status[a]	3.6	3.0	3.8
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	95.5	100.0	93.5
Other training or unknown[c]	4.5	0.0	6.5
Definite employment plans (%)[d]			
Academe	75.1	65.5	78.8
In tenure track faculty position (%)	83.9	82.4	84.3
Not in tenure track position (%)	15.3	17.0	14.7
Government	D	D	3.8
Industry or business[e]	16.7	21.4	14.9
Nonprofit organization	2.1	4.0	1.4
Other or unknown[f]	D	D	1.2
Primary activity[g]			
Research and development	52.3	47.2	54.1
Teaching	29.7	26.0	31.0
Management or administration	8.1	13.0	6.4
Professional services and other	9.9	13.9	8.5
Secondary activity[g]			
Research and development	31.4	28.6	32.4
Teaching	49.0	46.8	49.8
Management or administration	4.5	6.9	3.6
Professional services and other	4.8	5.2	4.7
No secondary activity	10.4	12.6	9.6
Activity unknown	4.4	8.3	2.9
Postgraduation location (%)[h]			
United States[i]	82.3	83.8	81.7
Midwest	17.1	18.7	16.5
Northeast	15.0	12.9	15.8
South	34.2	36.7	33.2
West	15.4	15.1	15.6
Outside the United States	17.6	15.8	18.3
Location unknown	0.1	0.4	0.0
Postgraduation location in same state as doctorate institution (%)	17.8	21.2	16.5
Male doctorate recipients reporting postgraduation status (number)	692	182	510
Definite postdoctoral training plans	7.8	8.2	7.6
Definite employment plans	73.7	76.4	72.7
Seeking employment or study	14.3	12.6	14.9
Other status[a]	4.0	2.7	4.5
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	94.4	100.0	92.3
Other training or unknown[c]	5.6	0.0	7.7
Definite employment plans (%)[d]			

Table 9-16

Business research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All business fields	Business administration and management	Business, other
Academe	72.7	63.3	76.3
In tenure track faculty position (%)	84.6	87.5	83.7
Not in tenure track position (%)	14.6	12.5	15.2
Government	D	D	4.0
Industry or business[e]	18.8	24.5	16.7
Nonprofit organization	2.5	D	D
Other or unknown[f]	D	D	D
Primary activity[g]			
Research and development	52.2	51.6	52.4
Teaching	30.8	25.0	32.9
Management or administration	7.4	10.2	6.4
Professional services and other	9.7	13.3	8.4
Secondary activity[g]			
Research and development	33.5	28.9	35.1
Teaching	46.0	46.9	45.7
Management or administration	4.9	7.8	3.9
Professional services and other	4.5	5.5	4.2
No secondary activity	11.1	10.9	11.1
Activity unknown	4.5	7.9	3.2
Postgraduation location (%)[h]			
United States[i]	80.5	77.9	81.5
Midwest	16.0	17.5	15.4
Northeast	13.5	9.7	14.9
South	35.3	34.4	35.6
West	15.6	16.2	15.4
Outside the United States	19.3	21.4	18.5
Location unknown	0.2	0.6	0.0
Postgraduation location in same state as doctorate institution (%)	17.7	18.2	17.6
Female doctorate recipients reporting postgraduation status (number)	542	155	387
Definite postdoctoral training plans	6.3	7.1	5.9
Definite employment plans	74.9	72.9	75.7
Seeking employment or study	15.9	16.8	15.5
Other status[a]	3.0	3.2	2.8
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	97.1	100.0	95.7
Other training or unknown[c]	2.9	0.0	4.3
Definite employment plans (%)[d]			
Academe	78.1	68.1	81.9
In tenure track faculty position (%)	83.0	76.6	85.0
Not in tenure track position (%)	16.1	22.1	14.2
Government	D	D	3.4
Industry or business[e]	14.0	17.7	12.6
Nonprofit organization	1.5	D	D
Other or unknown[f]	D	5.3	D
Primary activity[g]			
Research and development	52.4	41.7	56.3
Teaching	28.3	27.2	28.7

Table 9-16

Business research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All business fields	Business administration and management	Business, other
Management or administration	9.0	16.5	6.3
Professional services and other	10.3	14.6	8.7
Secondary activity[g]			
Research and development	28.8	28.2	29.0
Teaching	52.7	46.6	54.9
Management or administration	3.9	5.8	3.1
Professional services and other	5.1	4.9	5.2
No secondary activity	9.5	14.6	7.7
Activity unknown	4.2	8.8	2.4
Postgraduation location (%)[h]			
United States[i]	84.5	91.1	82.0
Midwest	18.6	20.2	18.0
Northeast	17.0	16.9	17.1
South	32.7	39.5	30.1
West	15.2	13.7	15.8
Outside the United States	15.5	8.9	18.0
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	18.0	25.0	15.2

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-17

Visual and performing arts research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All visual and performing arts fields	Performing arts	Visual arts, media studies, and design
Doctorate recipients reporting postgraduation status (number)	757	438	319
Definite postdoctoral training plans	11.0	6.4	17.2
Definite employment plans	44.5	46.8	41.4
Seeking employment or study	41.0	42.2	39.2
Other status[a]	3.6	4.6	2.2
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	92.8	89.3	94.5
Other training or unknown[c]	7.2	10.7	5.5
Definite employment plans (%)[d]			
Academe	64.4	64.4	64.4
In tenure track faculty position (%)	30.4	28.0	34.1
Not in tenure track position (%)	67.3	68.2	65.9
Government	D	D	D
Industry or business[e]	16.6	17.1	15.9
Nonprofit organization	13.4	11.2	16.7
Other or unknown[f]	D	D	D
Primary activity[g]			
Research and development	12.0	7.1	19.8
Teaching	61.4	63.6	57.9
Management or administration	9.3	9.1	9.5
Professional services and other	17.3	20.2	12.7
Secondary activity[g]			
Research and development	33.0	28.3	40.5
Teaching	10.5	11.1	9.5
Management or administration	9.9	11.1	7.9
Professional services and other	9.6	10.1	8.7
No secondary activity	37.0	39.4	33.3
Activity unknown	3.9	3.4	4.5
Postgraduation location (%)[h]			
United States[i]	87.9	87.1	88.8
Midwest	15.7	15.0	16.6
Northeast	28.1	24.9	32.1
South	23.1	27.0	18.2
West	19.3	19.3	19.3
Outside the United States	12.1	12.9	11.2
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	37.6	40.8	33.7
Male doctorate recipients reporting postgraduation status (number)	331	242	89
Definite postdoctoral training plans	8.2	4.1	19.1
Definite employment plans	44.4	46.7	38.2
Seeking employment or study	44.4	45.0	42.7
Other status[a]	3.0	4.1	0.0
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	92.6	90.0	94.1
Other training or unknown[c]	7.4	10.0	5.9
Definite employment plans (%)[d]			

Table 9-17

Visual and performing arts research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All visual and performing arts fields	Performing arts	Visual arts, media studies, and design
Academe	66.0	66.4	64.7
In tenure track faculty position (%)	26.8	25.3	31.8
Not in tenure track position (%)	73.2	74.7	68.2
Government	D	D	0.0
Industry or business[e]	16.3	15.0	20.6
Nonprofit organization	10.2	D	D
Other or unknown[f]	D	8.0	D
Primary activity[g]			
Research and development	11.5	D	D
Teaching	64.0	62.0	71.0
Management or administration	7.9	D	D
Professional services and other	16.5	D	D
Secondary activity[g]			
Research and development	29.5	25.0	45.2
Teaching	11.5	D	D
Management or administration	13.7	D	D
Professional services and other	6.5	D	D
No secondary activity	38.8	41.7	29.0
Activity unknown	5.4	4.4	8.8
Postgraduation location (%)[h]			
United States[i]	89.1	88.6	90.2
Midwest	14.9	13.8	17.6
Northeast	24.7	22.0	31.4
South	26.4	31.7	13.7
West	21.8	21.1	23.5
Outside the United States	10.9	11.4	9.8
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	41.4	44.7	33.3
Female doctorate recipients reporting postgraduation status (number)	426	196	230
Definite postdoctoral training plans	13.1	9.2	16.5
Definite employment plans	44.6	46.9	42.6
Seeking employment or study	38.3	38.8	37.8
Other status[a]	4.0	5.1	3.0
Definite postdoctoral training plans (%)[b]			
Postdoc fellowship or research associateship	92.9	88.9	94.7
Other training or unknown[c]	7.1	11.1	5.3
Definite employment plans (%)[d]			
Academe	63.2	62.0	64.3
In tenure track faculty position (%)	33.3	31.6	34.9
Not in tenure track position (%)	62.5	59.6	65.1
Government	D	D	D
Industry or business[e]	16.8	19.6	14.3
Nonprofit organization	15.8	D	D
Other or unknown[f]	D	D	2.0
Primary activity[g]			
Research and development	12.4	D	D
Teaching	59.5	65.6	53.7

Table 9-17

Visual and performing arts research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All visual and performing arts fields	Performing arts	Visual arts, media studies, and design
Management or administration	10.3	D	D
Professional services and other	17.8	D	D
Secondary activity[g]			
Research and development	35.7	32.2	38.9
Teaching	9.7	D	D
Management or administration	7.0	D	D
Professional services and other	11.9	D	D
No secondary activity	35.7	36.7	34.7
Activity unknown	2.6	2.2	3.1
Postgraduation location (%)[h]			
United States[i]	87.0	85.5	88.2
Midwest	16.3	16.4	16.2
Northeast	30.5	28.2	32.4
South	20.7	21.8	19.9
West	17.5	17.3	17.6
Outside the United States	13.0	14.5	11.8
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	35.0	36.4	33.8

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-18

Other non-science and engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Doctorate recipients reporting postgraduation status (number)	1,902	530	336	421	615
Definite postdoctoral training plans	13.5	13.8	11.0	12.4	15.4
Definite employment plans	55.8	57.4	54.2	57.0	54.6
Seeking employment or study	26.8	24.9	29.2	27.8	26.5
Other status[a]	3.7	3.6	5.4	2.9	3.4
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	98.4	98.6	100.0	98.1	97.9
Other training or unknown[c]	1.6	1.4	0.0	1.9	2.1
Definite employment plans (%)[d]					
Academe	62.1	78.3	51.6	47.9	63.1
In tenure track faculty position (%)	50.4	54.6	20.2	55.7	56.1
Not in tenure track position (%)	47.0	43.7	75.5	43.5	40.1
Government	8.3	3.3	4.9	15.4	9.5
Industry or business[e]	14.7	11.5	18.7	13.3	16.4
Nonprofit organization	8.1	3.6	7.1	17.1	6.3
Other or unknown[f]	6.9	3.3	17.6	6.3	4.8
Primary activity[g]					
Research and development	24.2	24.6	8.7	30.6	27.8
Teaching	42.7	60.2	42.4	20.5	43.0
Management or administration	16.2	6.6	30.2	25.8	10.4
Professional services and other	16.8	8.7	18.6	23.1	18.8
Secondary activity[g]					
Research and development	33.9	43.6	22.1	23.1	39.5
Teaching	20.5	19.4	12.8	32.3	17.2
Management or administration	11.8	9.3	15.7	12.2	11.7
Professional services and other	8.9	7.3	10.5	8.7	9.7
No secondary activity	24.8	20.4	39.0	23.6	22.0
Activity unknown	5.9	4.9	5.5	4.6	8.0
Postgraduation location (%)[h]					
United States[i]	89.8	91.5	87.2	92.8	87.5
Midwest	16.8	18.0	18.3	17.1	14.8
Northeast	17.7	16.2	16.9	20.2	17.6
South	36.2	35.0	32.9	38.0	37.8
West	18.0	20.7	18.7	16.8	16.2
Outside the United States	10.1	8.5	12.3	6.8	12.5
Location unknown	0.2	0.0	0.5	0.3	0.0
Postgraduation location in same state as doctorate institution (%)	36.9	30.0	51.6	38.7	34.3

Table 9-18

Other non-science and engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Male doctorate recipients reporting postgraduation status (number)	744	179	146	136	283
Definite postdoctoral training plans	13.0	13.4	13.0	15.4	11.7
Definite employment plans	56.3	55.9	53.4	53.7	59.4
Seeking employment or study	26.6	26.8	27.4	29.4	24.7
Other status[a]	3.9	3.9	5.5	1.5	4.2
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	99.0	95.8	100.0	100.0	100.0
Other training or unknown[c]	1.0	4.2	0.0	0.0	0.0
Definite employment plans (%)[d]					
Academe	61.1	81.0	43.6	53.4	60.7
In tenure track faculty position (%)	52.7	51.9	14.7	64.1	61.8
Not in tenure track position (%)	44.9	44.4	79.4	35.9	37.3
Government	11.2	D	D	23.3	11.3
Industry or business[e]	14.1	9.0	21.8	8.2	16.1
Nonprofit organization	6.9	D	D	12.3	6.5
Other or unknown[f]	6.7	2.0	19.2	2.7	5.4
Primary activity[g]					
Research and development	22.5	16.7	6.8	38.6	26.3
Teaching	46.3	71.9	37.0	20.0	46.8
Management or administration	17.0	6.3	34.2	27.1	10.9
Professional services and other	14.2	5.2	21.9	14.3	16.0
Secondary activity[g]					
Research and development	40.5	56.3	24.7	27.1	44.2
Teaching	16.5	11.5	9.6	35.7	14.1
Management or administration	12.4	D	16.4	D	12.2
Professional services and other	9.9	D	15.1	D	9.6
No secondary activity	20.8	15.6	34.2	15.7	19.9
Activity unknown	5.7	4.0	6.4	4.1	7.1
Postgraduation location (%)[h]					
United States[i]	86.8	87.1	90.7	85.1	85.6
Midwest	16.5	18.5	22.7	18.1	11.4
Northeast	14.9	13.7	14.4	12.8	16.9
South	34.9	31.5	33.0	30.9	39.8
West	18.6	20.2	19.6	22.3	15.4
Outside the United States	12.8	12.9	8.2	13.8	14.4
Location unknown	0.4	0.0	1.0	1.1	0.0

Table 9-18

Other non-science and engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Postgraduation location in same state as doctorate institution (%)	35.7	25.8	50.5	38.3	33.3
Female doctorate recipients reporting postgraduation status (number)	1,156	351	190	283	332
Definite postdoctoral training plans	13.8	14.0	9.5	10.6	18.7
Definite employment plans	55.5	58.1	54.7	58.7	50.6
Seeking employment or study	27.0	23.9	30.5	27.2	28.0
Other status[a]	3.5	3.4	5.3	3.5	2.7
Definite postdoctoral training plans (%)[b]					
Postdoc fellowship or research associateship	98.1	100.0	100.0	96.7	96.8
Other training or unknown[c]	1.9	0.0	0.0	3.3	3.2
Definite employment plans (%)[d]					
Academe	62.6	77.0	57.7	45.2	65.5
In tenure track faculty position (%)	49.0	56.1	23.3	52.0	50.9
Not in tenure track position (%)	48.3	43.3	73.3	46.7	42.7
Government	6.4	D	D	12.0	7.7
Industry or business[e]	15.1	12.7	16.3	15.7	16.7
Nonprofit organization	8.9	D	D	19.3	6.0
Other or unknown[f]	7.0	3.9	16.3	7.8	4.2
Primary activity[g]					
Research and development	25.2	28.5	10.1	26.6	29.4
Teaching	40.5	54.4	46.5	20.9	39.2
Management or administration	15.8	6.7	27.3	25.3	9.8
Professional services and other	18.6	10.4	16.2	27.2	21.6
Secondary activity[g]					
Research and development	29.7	37.3	20.2	21.5	34.6
Teaching	23.2	23.3	15.2	31.0	20.3
Management or administration	11.3	D	15.2	D	11.1
Professional services and other	8.3	D	7.1	D	9.8
No secondary activity	27.5	22.8	42.4	27.2	24.2
Activity unknown	6.1	5.4	4.8	4.8	8.9
Postgraduation location (%)[h]					
United States[i]	91.6	93.7	84.4	96.4	89.1
Midwest	17.0	17.8	14.8	16.3	17.8
Northeast	19.5	17.4	18.9	24.0	18.3
South	37.1	36.8	32.8	41.3	36.1
West	17.7	20.9	18.0	14.3	17.0

Table 9-18

Other non-science and engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All other non-science and engineering fields	Communications and journalism	Multidisciplinary/ interdisciplinary studies	Public administration and social services	Non-science and engineering, other
Outside the United States	8.4	6.3	15.6	3.6	10.9
Location unknown	0.0	0.0	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	37.7	32.0	52.5	38.8	35.2

D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.

[b] Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

[c] Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

[d] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

[e] Includes doctorate recipients reporting self-employment.

[f] Other is mainly composed of elementary and secondary schools.

[g] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

[h] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

[i] Includes doctorate recipients with an unknown U.S. region of employment after doctorate, thus the percentages by regions will not sum to the value for United States; see the "Technical Notes" for states or territories included in regions.

Note(s):
A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100. Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present; see the field list in table A-4. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table 9-19

Postgraduation plans of research doctorate recipients, by ethnicity, race, and citizenship status: 2022

(Number and percent)

Characteristic	Total[a]	U.S. citizen	Non-U.S. citizen	Hispanic or Latino		Not Hispanic or Latino												Ethnicity not reported	
						American Indian or Alaska Native		Asian		Black or African American		White		More than one race		Other race or race not reported			
				U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen	U.S. citizen	Non-U.S. citizen
All doctorate recipients (number)	52,232	33,465	18,521	3,202	1,240	83	8	3,424	12,597	2,522	721	22,561	3,475	1,191	121	301	218	181	141
Definite postdoctoral training plans	28.1	27.0	30.1	28.2	34.4	28.9	D	26.0	30.9	18.4	20.9	27.9	28.0	31.5	D	21.3	24.3	17.7	24.8
Definite employment plans	44.9	45.4	43.8	43.8	40.1	51.8	D	42.3	44.0	52.0	44.8	45.6	43.5	42.1	D	40.9	53.2	46.4	51.8
Seeking employment or study	23.5	23.3	23.9	23.5	23.4	9.6	D	25.6	23.3	24.9	32.2	22.9	25.2	20.4	D	27.6	16.5	24.9	17.7
Other status[b]	3.4	4.1	2.1	4.3	1.9	8.4	0.0	5.9	1.8	4.5	1.8	3.5	3.1	5.6	3.3	9.6	6.0	9.9	5.7
Definite employment plans (%)[c]																			
Academe	34.7	37.4	29.6	41.3	46.3	48.8	D	26.2	25.8	40.0	31.3	38.3	36.7	34.7	D	36.6	D	25.0	17.8
In tenure track faculty position (%)	43.5	35.2	63.1	39.0	58.3	57.1	D	44.2	67.2	41.9	47.5	32.5	57.3	42.5	D	33.3	D	33.3	53.8
Not in tenure track position (%)	53.6	62.6	32.3	59.4	37.0	38.1	D	52.9	29.6	55.2	47.5	65.4	35.5	56.9	17.9	64.4	D	52.4	15.4
Government	7.0	9.3	2.9	7.7	3.4	D	D	6.4	2.4	12.7	6.5	9.3	2.9	11.0	D	D	D	10.7	8.2
Industry or business[d]	46.0	37.6	61.7	34.6	42.9	16.3	D	56.6	67.5	24.4	49.2	37.1	52.3	37.5	38.2	33.3	D	41.7	56.2
Nonprofit organization	6.5	8.1	3.6	8.8	4.2	D	D	7.0	2.8	10.5	10.8	7.9	4.4	9.8	D	D	D	4.8	4.1
Other or unknown[e]	5.8	7.6	2.2	7.6	3.2	14.0	0.0	3.8	1.5	12.3	2.2	7.4	3.7	7.2	0.0	6.5	7.8	17.9	13.7
Postgraduation location (%)[f]																			
United States	91.4	98.3	78.3	98.4	72.4	D	D	97.5	82.6	99.5	74.9	98.3	68.1	97.8	43.6	D	D	98.8	76.7
Outside the United States	8.5	1.7	21.5	1.5	27.6	D	D	2.4	17.2	0.5	24.5	1.7	31.7	2.2	D	D	D	0.0	19.2
Location unknown	0.1	*	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.6	*	0.2	0.0	0.0	0.0	0.0	1.2	4.1
Postgraduation location in same state as doctorate institution (%)	24.3	30.2	13.9	32.6	14.5	31.3	D	26.9	12.8	33.2	13.5	30.1	17.5	27.6	12.8	24.1	D	38.8	15.7

* = value between 0.00% and 0.05%; D = suppressed to avoid disclosure of confidential information.

[a] Includes doctorate recipients who did not report citizenship status.
[b] Includes doctorate recipients reporting: no plans to work or study, some other type of postgraduation plans, or definite plans for other full-time degree program.
[c] Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.
[d] Includes doctorate recipients reporting self-employment.
[e] Other is mainly composed of elementary and secondary schools.
[f] Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

Note(s):
U.S. citizen refers to U.S. citizens and permanent residents. Non-U.S. citizen refers to temporary visa holders. A definite postgraduation commitment includes accepting new employment or a postdoctoral study (postdoc) position or returning to predoctoral employment, while postgraduation employment includes accepting new employment or returning to predoctoral employment that is not a postdoctoral study (postdoc) position. Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Technical Notes

Data presented in *Doctorate Recipients from U.S. Universities: 2022* were collected by the Survey of Earned Doctorates (SED). The survey is sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) and by three other federal agencies: the National Institutes of Health (NIH), Department of Education (ED), and National Endowment for the Humanities (NEH). This report presents the summary of these survey data.

Survey Overview (2022 Survey Cycle)

Purpose. The SED collects data on the number and characteristics of individuals receiving research doctoral degrees from U.S. academic institutions.

Data collection authority. The information collected by the SED is solicited under the authority of the National Science Foundation Act of 1950, as amended, and the America COMPETES Reauthorization Act of 2010. The Office of Management and Budget control number is 3145-0019, expiration date 20 April 2024.

Survey contractor. RTI International.

Survey sponsors. The SED is sponsored by NCSES within NSF and by NIH, ED, and NEH.

Key Survey Information

Frequency. Annual.

Initial survey year. Academic year 1958.

Reference period. Academic year 2022 (1 July 2021 to 30 June 2022).

Response unit. Individuals.

Sample or census. Census.

Population size. 57,596.

Sample size. Not applicable.

Survey Design

Target population. The population for the 2022 SED consists of all individuals receiving a research doctorate from a U.S. academic institution in the 12-month period beginning 1 July 2021 and ending 30 June 2022. A research doctorate is a doctoral degree that (1) requires completion of an original intellectual contribution in the form of a dissertation or an equivalent culminating project (e.g., musical composition) and (2) is not primarily intended as a degree for the practice of a profession.

The SED recognized 18 distinct types of research doctorates in 2022 (table A-1). Recipients of professional doctoral degrees, such as MD, DDS, DVM, JD, DPharm, DMin, and PsyD, are not included in the SED.

The doctor of philosophy (PhD) constitutes the vast majority of research doctoral degrees. Of the 57,596 new research doctorates granted in 2022, 98.6% were PhDs (table A-1). The next most frequently occurring type of research doctorate was the doctor of education (EdD), which accounted for 0.9% of the total in 2022. No other type of doctoral degree accounted for more than 0.2% of the new research doctorates in 2022.

Sampling frame. The sampling frame of doctorate recipients is created by first identifying all institutions that confer research doctorates and then identifying all individuals receiving a research doctorate from those institutions in the 12-month period ending 30 June 2022. The list of institutions is based principally on the institutions in the prior survey cycle augmented by any new institutions on the Integrated Postsecondary Education Data System (IPEDS) and other higher education resource databases. The list of doctorate recipients is created from administrative sources such as commencement lists from the institutions and commercial databases of doctorate dissertations. For 2022, 463 research doctorate-granting institutions were identified; however, 6 of these institutions reported 0 graduates, and 13 institutions refused to provide lists of graduates. For all 13 refusing institutions, the survey contractor was able to construct graduate lists using secondary data sources. Thus, the sampling frame consisted of 57,596 persons in 457 institutions that conferred research doctorates in 2022.

Sample design. The SED is a census survey of all recipients of U.S. research doctoral degrees in the sampling frame.

Data Collection and Processing Methods

Data collection. SED collects data using two modes: self-administered Web survey and computer-assisted telephone interviewing (CATI).

The self-administered Web survey is the primary mode of SED completion. When students apply for graduation, institutional coordinators at the universities give students the link to the survey registration website. Students who sign up at the survey registration website receive PIN and password information via e-mail, as well as the URL of the SED Web survey. The proportion of SED completions using the Web has increased steadily since it was introduced in 2001, and it reached 98.4% in 2022.

Nonrespondents are contacted by e-mail, mail, and text messages to complete the Web survey. If the series of follow-up e-mails, mailings, and text messages is unsuccessful, the survey contractor attempts to reach nonrespondents to complete an abbreviated survey by CATI. Approximately 1.6% of SED completions were from CATI in 2022. At the end of data collection phase, institutional coordinators were contacted to obtain information on a small number of critical SED data items for nonrespondents from their institution.

A small but growing number of research doctoral degrees awarded were part of joint doctoral programs (i.e., a research doctorate recipient studied at more than one institution in pursuit of the doctoral degree). In these instances, the survey contractor relies on information provided by the institutions to appropriately attribute the doctorate to one of the doctorate-granting institutions.

The survey collects complete college education history data. To code U.S. postsecondary degree-granting institutions, survey staff use the IPEDS institution codes. To code the degree-granting institutions of respondents from foreign countries, survey staff maintain a database of foreign institutions, updating it annually to include new entries for foreign institutions reported by SED respondents. About one-third of 2022 U.S. research doctorate recipients received undergraduate degrees from foreign institutions.

Mode. In 2022, 98.4% of survey responses were obtained via the Web survey and 1.6% via CATI.

Response rate. Of the 57,596 individuals who received a research doctorate in 2022, 91.6% completed the survey (table A-2). Additional information on response rate is below, under “Nonresponse error.”

Data editing. Approved automated edits are applied to the SED, a number of which pertain to the education history section.

Imputation. Imputation was performed for only the following variables in producing the 2022 SED Doctorate Records File (DRF):

- *Age at doctorate*. Months (of birth and doctorate award) were included in the calculation of median age whenever available. If birth month was missing, the month value was randomly imputed.

- *Time to degree from bachelor's completion*. Months (of bachelor's completion and doctorate award) were included in the calculation of total time to degree. If months were missing, month values were logically imputed to the modal value for doctorate recipients who provided month of bachelor's completion.
- *Time to degree from graduate school entry*. Months (of graduate school entry and doctorate award) were included in the calculation of graduate school time to degree. If months were missing, month values were logically imputed to the modal value for doctorate recipients who provided month of graduate entry.
- *Time to degree from doctoral program entry*. Doctoral program entry is based on master's degree program entry if the master's degree was at the doctoral institution in the same fine field of study or if it was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry. Months are included in the calculation of doctoral program time to degree. If the month of entry used in the calculation (master's degree program entry or doctoral program entry) was not reported, the entry month was logically imputed to the modal value for all cases that did report the entry month in the academic year the case was added to the doctoral records file (typically the academic year matching the graduation date of the case).

Weighting. Survey data were not weighted.

Variance estimation. The SED is a census of all research doctorates with no sampling, so survey totals have no sampling variability.

Disclosure protection. To protect against the disclosure of confidential information provided by SED respondents, data values based on counts of respondents that fall below a predetermined threshold are suppressed in the data tables. Secondary or complementary suppressions are applied as needed to prevent reconstruction of the data values from primary suppressions. Beginning in 2021, the detailed fields in the data tables are based on the aggregation of SED Classified Instructional Program (CIP) fields. All suppressed values in the data tables are replaced with "D."

Survey Quality Measures

Sampling error. Not applicable because the SED is a census.

Coverage error. Due to the availability of comprehensive lists of doctorate-granting institutions, coverage error of institutions is minimal. Because the graduate schools identify degree recipients at the time of doctorate completion, coverage error for individual doctorate recipients is also minimal. Comparisons of the institutions with research doctorate recipients covered by the SED that also report to **Integrated Postsecondary Education Data System (IPEDS) Completions Survey**, collected by the **National Center for Education Statistics**, confirm that there is minimal coverage error.

Institutions that begin to confer research doctorates are invited to join the SED. If a university that confers research doctorates does not wish to participate in the SED, slight undercounts may result. Graduation lists provided by institutions serve as the primary frame to determine eligible doctorate recipients. In 2022, 13 doctorate-granting universities declined to fully enumerate their doctorate recipients for academic year 2022. Information on the graduates for all of these institutions were found from other sources, such as ProQuest. Differences in counts of research doctorate recipients between SED and IPEDS are minimal.

Nonresponse error.

- *Unit nonresponse.* Of the 57,596 individuals who received a research doctorate in 2022, 91.6% completed the survey (table A-2). This percentage is referred to as the self-report rate. Skeletal records for nonrespondents appear on the data file and contain a limited number of SED critical data items (doctoral institution, year of doctorate, field of doctorate, type of doctorate, and, if available, baccalaureate institution, master's degree institution, and sex) that are constructed for nonrespondents from administrative records of the university, such as commencement programs, graduation lists, and other public records.

Unit nonresponse was concentrated in a small number of institutions: 7 of the 457 doctorate-granting institutions accounted for 25% of the total nonrespondents; an additional 12 institutions accounted for an additional 25% of the total nonrespondents.

- *Item nonresponse.* Due to data collected as part of nonrespondent skeletal records, item missing rates for the five key SED demographic variables—sex, citizenship, country of citizenship, race and ethnicity, and location after graduation—were lower than the unit nonresponse rate and ranged from 0.0% for sex to 8.1% for location after graduation in 2022. Table A-3 shows item response rates for unit respondents from 2012–22 for all variables, by variable name (see clarifying notes in the table).

Measurement error. The most likely source of measurement error in the SED is attributable to incomplete or updated information provided by respondents or degree-granting institutions, and for educational history provided by respondents.

Counts of doctorate recipients for previous years are corrected by the addition of data from surveys received after the close of data collection for a given year. Updates and corrections to graduation dates can also change the overall counts for prior years. The published tables reflect these changes.

For field of degree, some respondents (or institutions) fail to provide a degree code and instead provide a text string that must be manually coded by the survey contractor. Similarly, some aspects of the educational history timeline—including the field of study or institution for earned associate's, bachelor's, or master's degrees—require manual coding. When manual coding is required, a pair of trained reviewers independently code each text entry, and any discrepancies between the two coders are resolved by a third, more expert reviewer. All manual coding is subject to a final review by NCSES. Generally, the percentage of responses in these data requiring manual coding is low. In 2022, 0.5% of doctorate fields of study reported by respondents were manually coded, as well as 0.7% of associate's degree fields, 0.4% of bachelor's degree fields, and 0.4% of master's degree fields.

Data Comparability

Changes in survey coverage and population. For the 2022 cycle, six institutions were added to the SED universe.

Changes in questionnaire.

The following changes were made to the questionnaire in 2022:

<u>New questions.</u>

- None.

<u>Changed questions.</u>

- *Coronavirus Disease 2019 (COVID-19) module.* A special COVID-19 module added in 2021 to capture the COVID-19 pandemic's impact on the respondents' graduate experiences and career plans first asked whether the respondents experienced one of six impact areas as a result of the pandemic: delay in their doctoral degree completion timeline; disruption in their research; reduction or suspension of funding for their doctoral studies; change in their immediate postgraduate employment or education plans; change in longer-term career plans or goals; change in their plans about where to live in the year after graduation; and any other changes to their graduate experience or career plans. For each affirmative response, an open-ended follow-up question asked the respondents to elaborate on how they were affected.

In 2022, the COVID-19 module question items were revised slightly (as shown in the table below) based on the frequency of reported items and analysis of the open-ended responses collected from the 2021 COVID-19 module. Respondents were first asked whether they experienced one of six impact areas as a result of the pandemic in slightly different order and wording: delayed in their doctoral degree completion timeline; led to a reduction or suspension of funding for their doctoral status; affected their research; changed their immediate postgraduate employment plans; changed their longer-term career plans; and changed their plans about where to live after graduation. The follow-up questions were only asked of those who answered affirmatively to whether the pandemic affected their research, immediate postgraduate employment plans, or longer-term career plans.

2022 COVID-19 Module Items		**2021 COVID-19 Module Items**	
2022 Item	**2022 Item wording**	**2021 Item**	**2021 Item wording**
NCOVA	The pandemic delayed the timeline for completing my doctoral degree.	COVA*	The timeline for completing my doctoral degree changed.
NCOVC	The pandemic affected my research *(e.g., limited access to resources or collaborators/ advisers, changed research plan)*.	COVB*	My research was disrupted.
NCOVB	The pandemic led to a reduction or suspension of funding for my doctoral studies.	COVC*	Funding for my doctoral studies was reduced or suspended.
NCOVD	The pandemic changed my immediate postgraduate employment plans *(e.g., limited job opportunities, less desirable employment, work visa status)*.	COVD*	My immediate postgraduate employment or education plans changed.
NCOVE	The pandemic changed my longer term career plans *(e.g., pursuit of different type of job or employer)*.	COVE*	My longer term career plans or goals changed *(e.g., type of employer, research focus)*.
NCOVF	The pandemic affected my plans about where to live in the year after graduation.	COVF*	My plans about where to live in the year after graduation were affected.
NCOVG*	The pandemic changed my graduate experience or career plans in other ways.	COVG*	My graduate experience or career plans changed in other ways.
* Followed up with an open-ended item asking the respondent to provide additional details.			

Most of the 2022 COVID-19 module items were closed-ended questions with only NCOVC, NCOVD, NCOVE, and NCOVG asking for respondents to specify if they were impacted in other ways.

Changed question response options.

- *Educational history list of degrees.* The “Research doctoral degree” response option in the 2021 education history table was revised to “Another research doctoral degree” and moved down in the response options towards the end (see below). This change was made to avoid duplicate reporting of the current doctorate information in the research doctoral degree section A and the education history section B.

2022 Education History Table Order of Degree Types	2021 Education History Table Order of Degree Types
- Associate's degree (e.g., AS, AA) or equivalent - Bachelor's degree (e.g., BS, BA, AB) or equivalent - Master's degree (e.g., MS, MA, MBA, MSW) or equivalent - Professional doctorate degree (e.g., MD, DDS, DVM, JD, PsyD) - Another research doctoral degree (e.g., PhD, DSc) - Other postsecondary degree	- Research doctoral degree (e.g., PhD, DSc) - Professional doctorate degree (e.g., MD, DDS, DVM, JD, PsyD) - Master's degree (e.g., MS, MA, MBA, MSW) or equivalent - Bachelor's degree (e.g., BS, BA, AB) or equivalent - Associate's degree (e.g., AS, AA) or equivalent - Other postsecondary degree

Changes in reporting procedures or classification.

- *Location variables.* In 2022 the NCSES Taxonomy of Geographic Areas (TOGA) was revised. This revision added new countries, edited existing country names, and renumbered and re-sorted the country code list. The revised TOGA reused the same country codes from the previous version for new countries, which can result in incorrect country data if the programming codes have not been updated appropriately. To avoid the potential user error, the following variable names were changed:
  - BAPLACE replaced by BAPLCD
  - HSPLACE replaced by HSPLCD
  - BIRTHPL replaced by BIRTHPLCD
  - PDLOC replaced by PDPLCD
  - CNTRYCIT replaced by CITIZPLCD
- *Field of study*. Beginning in 2021, field of study and doctorate dissertation field data are collected using a modified version of the 2020 Classification of Instructional Programs (CIP) codes maintained by the National Center of Education Statistics (NCES). All data are now reported using the new SED-CIP taxonomy (table A-4). The SED-CIP modifications are as follows:
  - Over 50 degree fields collected in SED prior to 2021 but not in the 2020 CIP were added. These SED-CIP codes are noted in table A-5 and table A-6 with a letter suffix other than "a."
  - An additional 37 SED-CIP codes were added in 2022 from the emerging doctorate field review based on doctorate field data collected in prior years. These 37 codes had not been incorporated in 2021 due to timing.
  - The exclusion of CIP fields that are not eligible for the SED, which are CIP 12 (Culinary, entertainment, and personal services), CIP 28 (Military science, leadership, and operational art), 32 (Basic skills and development/remedial education), 33 (Citizenship activities), 34 (Health-related knowledge and skills), 35 (Interpersonal and social skills), 36 (Leisure and recreational activities), 37 (Personal awareness and self-improvements), and 53 (High school/secondary diplomas and certificates) series codes.
  - The limitation of the CIP 46 (Construction trade), 47 (Mechanic and repair technology/technicians), and 48 (Precision production) series codes to associate's degree fields only.
  - The conversion of the CIP 60 (Health professions residency/fellowship) and 61 (Medical residency/fellowship) series codes to SED-CIP 70 and 71 series codes, respectively, to capture the research fields for doctorate dissertation fields only.

The SED-CIP code list includes over 1,650 fields for the field of study reporting, compared to the 334 field codes collected prior to 2021. The SED-CIP codes are aggregated into 305 detailed fields, 66 major fields, and 16 broad fields, which are used for reporting in the data tables (table A-4). In 2022, minor edits were made in the composition of the detailed fields for further alignment with NCSES' Taxonomy of Disciplines (TOD), and 6 new detailed fields were added for SED-CIP codes with large numbers of doctorate recipients. One detailed field was removed due to small number (table A-5).

This SED-CIP taxonomy includes multidisciplinary/interdisciplinary sciences and multidisciplinary/interdisciplinary studies to capture and track emerging fields and is aligned to the NCSES TOD for comparison with other NCSES surveys. The complete SED-CIP list with corresponding detailed, major, and broad fields are in table A-5.

To facilitate the trend data comparison with prior years, a crosswalk was created of the SED-CIP codes to the historical SED field of study (FOS), which were aggregated into the historical SED broad and major fields (see table A-6). This results in generally comparable historical broad and major fields with some limitations. Specifically, each SED-CIP code mapped to a historical SED-FOS code might not be the code the respondent would have chosen from the previously used historical SED-FOS list. For example, it is not known how respondents who reported the new SED-CIP field of "electrical engineering and computer science" in 2022 would have chosen their field under the historical SED-FOS list that includes two separate fields "electrical engineering" and "computer science." For more information, see the working paper ***Survey of Earned Doctorates Field of Study Taxonomy Changes in 2021 and Impact on Trend Data***. Beginning in 2015, the broad field of study of "physical sciences" was broken out into two separate broad fields: "physical sciences and earth sciences" and "mathematics and computer sciences." Also beginning in 2015, the major fields of "mathematics and statistics" and "computer and information sciences" are listed under the new broad field of "mathematics and computer science." Prior to 2015, these major fields were listed under physical sciences.

- *Salary*. Median salary is calculated from exact salary values when provided by the respondent. Salary imputation was dropped as of 2015 due to the increase in exact salary response rate. From 2011 to 2014, if a respondent selected a salary range instead of providing an exact salary value, exact salary values were imputed for median salary calculation purposes by applying hot-deck imputation based on salary range and other relevant respondent characteristics. Prior to 2011, median salary was calculated directly from the salary range values via interpolation methods, and exact salary values were not used in the calculation of median salary. Only salary data from doctorate recipients reporting definite commitments for employment or for a postdoc position in the United States are included in median salary calculations.
- *Functional limitations (previously, disability)*. Beginning in 2012, the functional limitations items assess both the presence and severity of functional limitations in each of several domains, which do not precisely overlap with the domains in prior surveys.
- *Debt*. Since 2001, respondents have been asked to indicate the amount of education-related debt they owe, with separate response categories for graduate and undergraduate education. To estimate overall debt, the midpoint of the chosen range for undergraduate and for graduate debt was selected and summed to yield a total debt amount. Where mean debt levels are presented in this report (i.e., table 38 and table 40), the individual values for debt are assigned as the midpoint of the chosen range for graduate and undergraduate debt. Doctorate recipients who chose the lowest debt category (no debt) were assigned a value of $0 for the computation of mean debt levels. Doctorate recipients who chose the uppermost category available prior to 2020 ($90,001 or more) were assigned a value of $95,000 for the computation of mean debt levels. In 2020, additional response options were added at the upper range for graduate debt with the highest being $160,001 or more. Doctorate recipients who choose this uppermost category are assigned a value of $165,000 for the computation of mean debt levels. All valid responses, including "no debt," are included in the computation of all average debt figures in this report.

- *Citizenship*. The citizenship status variable is used to identify the appropriate citizenship category of respondents, including the citizenship category of respondents who did not respond to the citizenship status survey item. The code framework for the citizenship status variable is outlined below.

Code	Citizenship category
0	U.S. native born
1	U.S. naturalized citizen
2	Non-U.S. immigrant (permanent resident)
3	Non-U.S. non-immigrant (temporary U.S. visa)
4	Non-U.S., visa status unknown
U	U.S. citizen, unspecified
Blank	Missing or citizenship unknown

  Respondents who indicated a U.S. birthplace, regardless of what they reported for citizenship status, were assigned code 0.

  In 1999, code 4 (non-U.S., visa status unknown) was introduced, and data were back-coded through 1997. Respondents who designated a non-U.S. country for the country of citizenship item but did not respond to the citizenship status item were assigned code 4 for citizenship status. From 1997 to 2003, non-U.S.-born respondents who did not indicate their country of citizenship or citizenship status were assigned to code 4 if three out of four geographic variables—place of birth, place of high school, place of college entry, and postgraduation location—were non-U.S. locations. Beginning with the 2004 SED, the variable “place of baccalaureate institution” replaced “place of college entry” in the assignment of a citizenship code for respondents who did not indicate citizenship status.

  For tabulations in this report, code 4 was combined with code 3—that is, counts of doctorate recipients in the temporary visa holder category include non-U.S. citizens with unknown visa status. This is consistent with coding procedures in previous data collections. However, the existence of code 4 allows the microdata user to exclude cases for which visa status is unknown. Prospective data users should note, however, that the number of cases in the code 4 group is not sufficient to warrant analysis as a separate citizenship category.

  Non-U.S. citizens who did not report a country of citizenship but reported the same non-U.S. country for three out of four geographic variables—place of birth, place of high school, place of baccalaureate institution, and postgraduation location—were assigned that reported country as their country of citizenship.

- *Median computation*. Since 1994, medians have been computed as outlined below. When months are included, they are converted to the number of days corresponding to the first day of the month. In 2017, the method for accounting for leap days changed to reflect the actual number leap days during the time period specified, rather than the prior method of adding 0.25 days to each year.
  - *Median age*. Months (of birth and doctorate award) are included in the calculation of median age whenever available. Beginning in 2015, if birth month is missing, the month value is randomly imputed. Prior to 2015, the missing month value was assigned to the month the doctorate was received.
  - *Time to degree from bachelor’s completion*. Months are included in the calculation of total time to degree. If months are missing, month values are assigned to the modal value for doctorate recipients who provide month of bachelor's completion and converted to the number of days corresponding to that month.

- *Time to degree from graduate school entry*. Months are included in the calculation of graduate school time to degree. If months are missing in the calculation of graduate school time to degree, month values are assigned to the modal value for doctorate recipients who provided month of graduate entry. Reports published before 2004 reported a different time-to-degree measure: registered time to degree. Comparisons of graduate school time-to-degree data with pre-2004 registered time-to-degree data should be interpreted cautiously. For an explanation of registered time to degree, see the technical notes of any *Doctorate Recipients from U.S. Universities* published before 2004.
- *Time to degree from doctoral program entry*. This variable was first included in 2015. Doctoral program entry is based on master's degree program entry if the master's degree was at the doctoral institution in the same fine field of study or if it was a prerequisite to the doctorate; otherwise, it is based on doctoral program entry. Months are included in the calculation of doctoral program time to degree. If the month of entry used in the calculation (master's degree program entry or doctoral program entry) was not reported, the entry month is assigned to the modal value for all cases that did report the entry month in the academic year the case was added to the doctoral records file (typically the academic year matching the graduation date of the case).

Definitions

- *Basic annual salary*. Annual salary expected to be earned from the doctorate recipient's principal job in the next year after receiving the doctorate, not including bonuses or additional compensation for summertime teaching or research.
- *Carnegie classification (institution categories).* In this report, four types of doctorate-granting institutions identified in the figures and tabulations are defined according to the Carnegie classification scheme as updated in 2018: doctoral very high research, doctoral high research, doctoral/professional universities, and other universities (comprised of all other classifications). Institutions are classified according to their aggregate and per-capita levels of research activity, using indicators of research and development expenditures, staffing (including postdoctoral appointees and other nonfaculty research staff with doctorates), and doctoral conferrals in science and engineering and other fields.
- *Definite plans to stay in the United States.* A respondent is coded as having definite plans to stay in the United States if the reported postgraduation location was in the United States and the reported postgraduation plans for employment or postdoc were coded "definite."
- *Definite postgraduation plans.* The status of postgraduation plans is coded using the values from item B2 of the survey questionnaire, which indicate whether the doctorate recipient's postgraduation plans for employment or a postdoc position were definite at the time the survey was completed.
- *Field of study.* The SED collects data on over 1,600 fields of study which are grouped into 305 detailed fields, 66 major fields, and 16 broad fields. See table A-5 for a full listing of the SED-CIP codes and their alignment to the detailed, major, and broad fields of study in 2022. See table A-6 for the SED-CIP to historical SED-FOS crosswalk.

  Doctorate recipients report their fields of study and doctorate dissertation. Their choices may differ from departmental names. Field groupings may differ from those in other reports published by federal sponsors of the SED. The "general" field categories (e.g., "chemistry, general") include individuals who either received the doctorate in the general subject area or who did not indicate a particular specialty field. The "nec" or not elsewhere classified field categories (e.g., "chemistry nec") include individuals whose specified doctoral discipline either did not fit into aggregation within major fields or who reported the "other" CIP code (i.e., "chemistry, other").
- *Median age at doctorate.* One-half of the respondents received the doctorate at or before this age. A recipient's age is obtained by subtracting the month and year of birth from the month and year of doctorate.
- *Percentage with master's.* This variable is the percentage of doctorate recipients in a field who received a master's degree in any field before earning the doctorate.

- *Research doctorate.* A research doctoral degree is oriented toward preparing students to make original intellectual contributions in a field of study and is not primarily intended for the practice of a profession. Research doctorates require the completion of a dissertation or equivalent project.
- *Time to doctorate.* The time it takes to complete a doctoral degree is measured in three ways: (1) the time elapsed from completion of the baccalaureate to completion of the doctorate (total time to degree), (2) the time elapsed from the start of any graduate school program to completion of the doctorate (graduate school time to degree), and (3) the time elapsed from the start of the doctoral program. Time-to-doctorate measures herein are reported as medians. In 2017, the method for accounting for leap days changed to reflect the actual number leap days during the time period specified, rather than the prior method of adding 0.25 days to each year.
  - *Total time to degree.* This variable is the total elapsed time between the baccalaureate and the doctorate, including time not enrolled in school. It can be computed only for individuals whose baccalaureate year is known. Baccalaureate year is often obtained from commencement programs or doctorate institutions when not reported by the recipient.
  - *Graduate school time to degree.* This variable is the elapsed time from the initiation of graduate study, in any program or capacity at any university, and the award of the doctorate. This variable can be computed only for individuals who provided the year they started graduate school. If an individual did not respond to this question, which asks for the month and year of first entry into any graduate school, then values for graduate school month and year of entry are imputed from the month and year of entry into the most recent master's degree program or, if that is missing, the month and year of entry into the doctoral degree program. Months are included in the computation.
  - *Doctoral program time to degree.* This variable is either (1) the elapsed time from the master's degree program entry, if the master's degree was awarded at the doctoral institution and was in the same fine field as the doctorate or if the master's degree was a prerequisite to the doctoral program until doctorate completion; otherwise, it is (2) the elapsed time from the doctoral program entry until doctorate completion. This variable is only computed for academic year 2015 and later doctorates.
- *U.S. regions of employment*. This variable is used to classify the location of U.S. employment after award of the doctorate.

Midwest	Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin
Northeast	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
South	Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia
West	Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, American Samoa, Guam, Puerto Rico, Trust Territories, Virgin Islands

Technical Tables

Table	Title
A-1	Research degrees included in the Survey of Earned Doctorates: 2018–22
A-2	Survey response rates: 1970–2022
A-3	Item response rates: 2013–22
A-4	SED field of doctorate taxonomy, by SED-CIP series/codes: 2022
A-5	Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022
A-6	Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022
B-1	SED data table crosswalk: 2020 vs. 2021–22
B-2	Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

Table A-1

Research degrees included in the Survey of Earned Doctorates: 2018–22

(Number and percent)

Research degree	Degree title	2018		2019		2020		2021		2022	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All research doctorates		55,078	100.0	55,609	100.0	55,208	100.0	52,194	100.0	57,596	100.0
PhD	Doctor of Philosophy	54,129	98.3	54,707	98.4	54,253	98.3	51,381	98.4	56,779	98.6
EdD	Doctor of Education	571	1.0	473	0.9	487	0.9	475	0.9	497	0.9
DSc, ScD	Doctor of Science	92	0.2	92	0.2	68	0.1	28	0.1	36	0.1
DEng, DESc, DES	Doctor of Engineering or Engineering Science	21	*	43	0.1	54	0.1	21	*	19	*
DA	Doctor of Arts	5	*	1	*	1	*	0	0.0	1	*
DBA	Doctor of Business Administration	24	*	17	*	22	*	13	*	15	*
DMA	Doctor of Musical Arts	116	0.2	115	0.2	170	0.3	156	0.3	138	0.2
DDes	Doctor of Design	9	*	8	*	8	*	13	*	4	*
DPH	Doctor of Public Health	41	0.1	37	0.1	38	0.1	34	0.1	26	*
DHL	Doctor of Hebrew Letters	0	0.0	1	*	1	*	0	0.0	1	*
DME	Doctor of Music Education	0	0.0	1	*	2	*	2	*	0	0.0
DML	Doctor of Modern Languages	4	*	6	*	5	*	1	*	4	*
DNSc	Doctor of Nursing Science	0	0.0	2	*	5	*	0	0.0	4	*
ThD	Doctor of Theology	11	*	11	*	3	*	7	*	8	*
DFA	Doctor of Fine Arts	3	*	2	*	1	*	5	*	4	*
JSD, SJD	Doctor of Juridical Science	50	0.1	91	0.2	84	0.2	54	0.1	57	0.1
STD	Doctor of Sacred Theology	0	0.0	1	*	2	*	2	*	2	*
JCD	Doctor of Canon Law	2	*	1	*	4	*	2	*	1	*

* = value between 0.00% and 0.05%.

Note(s):
Due to rounding, percentages may not sum to 100.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table A-2

Survey response rates: 1970–2022

(Percent)

Year	Response rate
1970	98.1
1971	97.5
1972	97.3
1973	97.5
1974	94.2
1975	97.3
1976	97.2
1977	96.6
1978	96.3
1979	96.4
1980	96.2
1981	95.7
1982	95.3
1983	95.5
1984	95.1
1985	94.8
1986	93.5
1987	93.1
1988	92.9
1989	92.3
1990	93.6
1991	94.6
1992	95.1
1993	94.7
1994	94.6
1995	94.2
1996	93.0
1997	91.6
1998	91.9
1999	91.9
2000	92.4
2001	92.7
2002	91.3
2003	91.6
2004	91.3
2005	92.1
2006	93.1
2007	91.7
2008	92.3
2009	92.6
2010	93.0
2011	92.9
2012	92.5
2013	92.0
2014	90.6
2015	90.3
2016	92.0
2017	91.4
2018	92.2
2019	92.2
2020	92.2

Table A-2

Survey response rates: 1970–2022

(Percent)

Year	Response rate
2021	91.6
2022	91.6

Note(s):
Rates for 1970–2021 include late responses. Rate for 2022 may increase slightly in the next year if additional survey completions are submitted after survey closure.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table A-3

Item response rates: 2013–22

(Percent)

Variable name	Variable description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
AADEGRN	Number of associate's degrees received	na	na	na	na	90.3	93.5	93.6	93.7	93.7	93.0
AAEMONTH	First associate's degree start month	na	na	na	na	96.9	96.2	95.2	96.0	97.1	96.9
AAEYEAR	First associate's degree start year	na	na	na	na	97.6	96.3	95.8	96.5	98.2	98.3
AAFIELD	First associate's degree field – SED historical FOS code	na	na	na	na	85.0	94.4	95.1	95.0	98.7	98.2
AAFIELDCIP	First associate's degree field – SED CIP code	na	na	na	na	na	na	na	na	98.7	98.2
AAINST	First associate's degree institution (IPEDS code)	na	na	na	na	93.4	92.0	97.6	98.4	95.7	96.2
AAMONTH	First associate's degree month	na	na	na	na	97.6	96.7	95.9	96.5	96.9	96.5
AANID	First associate's degree institution (NCSES institution code)	na	na	na	na	93.3	92.0	97.6	98.4	95.7	96.2
AAYEAR	First associate's degree year	na	na	na	na	98.3	97.0	96.7	97.1	99.5	100.0
AGEDOC	Age at doctorate	na	na	92.1	94.1	94.6	95.1	94.8	94.4	93.4	93.2
AMERIND	American Indian or Alaska Native race indicator	91.9	90.2	91.0	93.0	92.8	93.2	93.3	93.2	92.2	92.2
ASIAN	Asian race indicator	91.9	90.2	91.0	93.0	92.8	93.2	93.3	93.2	92.2	92.2
BA2EMONTH	Most recent baccalaureate start month	na	na	na	na	89.9	92.3	94.4	94.4	98.6	98.6
BA2EYEAR	Most recent baccalaureate start year	na	na	na	na	90.2	92.3	94.6	94.4	99.1	99.2
BA2FIELD	Most recent baccalaureate degree field – SED historical FOS code	na	na	na	na	89.7	91.6	94.4	94.2	98.2	98.4
BA2FIELDCIP	Most recent baccalaureate field – SED CIP code	na	na	na	na	na	na	na	na	98.2	98.4
BA2INST	Most recent baccalaureate institution (IPEDS code)	na	na	na	na	88.5	90.5	94.5	95.0	96.9	98.0
BA2MONTH	Most recent baccalaureate month	na	na	na	na	90.0	92.4	94.4	94.5	98.6	98.5
BA2NID	Most recent baccalaureate institution (NCSES institution code)	na	na	na	na	88.5	90.5	94.5	95.0	96.9	98.0
BA2YEAR	Most recent baccalaureate year	na	na	na	na	90.4	92.6	94.7	94.6	99.7	100.0
BADBLFIELD	First baccalaureate double major field – SED historical FOS code	na	na	na	na	96.4	98.4	98.7	98.6	99.6	99.8
BADBLFIELDCIP	First baccalaureate double major field – SED CIP code	na	na	na	na	na	na	na	na	99.6	99.8
BADBLMAJ	First baccalaureate double major indicator	na	na	na	na	89.5	91.0	91.1	91.1	90.0	90.0
BADEGRN	Number of bachelor's degrees received	na	na	na	na	91.1	98.4	99.0	98.6	97.0	96.5
BAEMONTH	First baccalaureate start month	na	87.0	87.0	89.0	89.6	90.7	90.7	90.8	89.7	89.6
BAEYEAR[a]	First baccalaureate start year	88.8	87.3	87.3	89.4	89.7	90.7	90.7	90.7	90.1	90.1
BAFIELD	First baccalaureate field – SED historical FOS code	89.5	87.9	87.9	89.7	90.4	90.7	90.9	90.9	90.4	90.2
BAFIELDCIP	First baccalaureate field – SED CIP code	na	na	na	na	na	na	na	na	90.4	90.2
BAINST	First baccalaureate institution (IPEDS code)	92.2	90.2	91.0	92.9	93.6	94.4	95.5	94.6	93.9	94.0
BAMONTH	First baccalaureate month	89.2	87.7	87.6	89.4	89.7	90.8	90.8	90.9	89.7	89.6
BANID	First baccalaureate institution (NCSES institution code)	92.2	90.2	91.0	92.9	93.6	94.4	95.5	94.6	93.9	94.0
BANONE[b]	No bachelor's and/ or master's degree indicator	20.4	21.4	21.7	22.4	85.5	91.7	91.8	91.8	92.3	92.1
BAPLCD	First baccalaureate institution location	92.2	90.2	91.0	92.9	93.6	94.4	95.5	94.6	93.9	94.0
BASAME	First baccalaureate SED-CIP based broad FOS is same as doctorate SED-CIP based broad FOS	na	na	na	na	na	na	na	na	90.5	90.2
BAYEAR	First baccalaureate year	92.3	90.3	90.8	93.1	94.4	94.9	95.4	94.9	95.1	94.7
BIRTHMO	Month of birth	92.5	90.7	91.6	93.2	93.9	94.6	94.4	93.9	92.8	92.7
BIRTHPLCD	Place of birth	93.5	91.9	92.1	94.5	95.1	96.0	96.5	96.7	94.7	94.1
BIRTHYR	Year of birth	93.1	91.3	92.1	94.1	94.5	95.1	94.8	94.4	93.4	93.2
BLACK	Black race indicator	91.9	90.2	91.0	93.0	92.8	93.2	93.3	93.2	92.2	92.2
CITIZ	Type of citizenship	94.2	92.3	93.3	95.2	95.4	96.1	96.3	95.9	95.1	95.4
CITIZPLCD[c]	Country of citizenship	93.8	92.1	93.1	94.8	95.0	95.2	95.2	95.2	94.3	94.4
DDSDEG	Earned a professional dental degree	88.8	87.6	87.9	88.3	88.6	89.7	89.4	89.2	88.8	89.5

Table A-3

Item response rates: 2013–22

(Percent)

Variable name	Variable description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
DDSSTUDY	Earning a professional dental degree	88.8	87.6	87.9	88.3	88.6	89.7	89.4	89.2	88.8	89.5
DEPEND18	Number of dependents-ages 6–18	89.5	88.4	88.3	89.7	90.1	90.8	90.7	90.8	89.8	89.6
DEPEND19	Number of dependents-ages 19 and older	89.5	88.4	88.3	89.7	90.1	90.8	90.7	90.8	89.8	89.6
DEPEND5	Number of dependents-ages 5 or younger	89.5	88.4	88.3	89.7	90.1	90.8	90.7	90.8	89.8	89.6
DIFAGE	Earliest age experienced difficulties	90.8	89.4	89.4	90.9	89.9	90.4	90.5	90.3	88.8	88.5
DIFCOGN	Degree of difficulty concentrating, remembering, or making decisions	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DIFHEAR	Degree of difficulty hearing	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DIFLIFT	Degree of difficulty lifting	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DIFSEE	Degree of difficulty seeing	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DIFWALK	Degree of difficulty walking	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DISABILITY2	Moderate or greater degree of difficulty in any domain	91.0	89.6	89.6	91.1	90.1	90.6	90.7	90.5	89.1	88.9
DOCCODE	Type of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
EDFATHER	Father/ male guardian's education	90.0	88.6	88.4	89.9	89.9	89.4	88.7	88.5	87.1	87.1
EDMOTHER	Mother/ female guardian's education	90.1	88.6	88.5	89.9	90.0	89.8	89.3	89.1	87.7	87.7
GDEBTLVL	Graduate debt level	89.7	88.2	90.1	93.1	92.3	92.7	93.4	93.5	92.6	91.7
GEMONTH	Month of graduate program entry	88.5	90.1	89.7	90.7	90.3	92.0	92.0	92.0	91.8	91.8
GEYEAR	Year of graduate program entry	88.7	90.3	89.9	90.9	90.4	92.0	92.0	92.1	91.9	91.9
HAWAIIAN	Native Hawaiian or Other Pacific Islander race indicator	91.9	90.2	91.0	93.0	92.8	93.2	93.3	93.2	92.2	92.2
HISPANIC	Hispanic origin indicator	92.1	90.3	91.5	93.0	93.7	94.7	94.7	94.6	93.6	93.3
HSPLCD	Place of high school	91.2	89.7	89.5	91.6	90.1	90.5	90.7	97.3	96.1	95.4
JRCOLL	Junior college indicator	92.6	91.1	90.8	93.4	93.2	93.8	94.1	94.3	93.0	92.2
MA1CRED	Credits from first master’s degree counted toward doctoral degree	na	na	na	na	97.6	99.5	99.4	99.9	99.7	99.9
MA1EMONTH	First master’s degree start month	na	na	na	na	99.6	98.9	98.5	98.3	98.5	98.3
MA1EYEAR	First master’s degree start year	na	na	na	na	99.7	99.0	98.7	98.3	99.2	99.2
MA1FIELD	First master's degree field – SED historical FOS code	na	na	na	na	99.4	98.8	98.8	98.5	99.5	99.2
MA1FIELDCIP	First master’s degree field – SED CIP code	na	na	na	na	na	na	na	na	99.5	99.2
MA1INST	First master’s degree institution (IPEDS code)	na	na	na	na	97.9	97.8	98.8	98.4	94.1	98.6
MA1MONTH	First master’s degree month	na	na	na	na	99.8	98.9	98.7	98.4	98.2	97.8
MA1NID	First master’s degree institution (NCSES institution code)	na	na	na	na	97.9	97.8	98.8	98.4	94.1	98.6
MA1PART	First master’s degree was required for doctoral program	na	na	na	na	98.4	99.4	99.1	98.6	99.4	99.1
MA1YEAR	First master’s degree year	na	na	na	na	99.9	99.0	98.9	98.4	99.9	99.9
MACRED	Credits from most recent master’s degree counted toward doctoral degree	na	na	na	na	99.2	99.8	99.9	99.9	99.9	99.9
MADEGRN	Number of master's degrees received	na	na	na	na	99.3	93.8	94.0	94.1	92.3	92.1
MAEMONTH	Most recent master's degree start month	na	67.8	67.5	68.7	87.8	88.6	88.8	88.8	88.7	88.4
MAEYEAR[b]	Most recent master's degree start year	na	68.0	67.7	68.9	87.9	88.7	88.8	88.8	89.1	88.9
MAFIELD	Most recent master's degree field – SED historical FOS code	70.1	68.6	68.3	69.3	87.9	88.7	88.8	89.0	89.4	89.0
MAFIELDCIP	Most recent master’s degree field – SED CIP code	na	na	na	na	na	na	na	na	89.4	89.0
MAINST	Most recent master's degree institution (IPEDS code)	70.0	68.5	68.0	69.2	88.2	88.3	88.9	89.0	88.9	88.6
MAMONTH	Most recent master's degree month	69.9	68.3	68.0	69.1	87.9	88.7	88.9	88.9	88.5	88.3
MANID[b]	Most recent master's degree institution (NCSES institution code)	70.0	68.5	68.0	69.2	88.2	88.3	88.9	89.0	88.9	88.6

Table A-3

Item response rates: 2013–22

(Percent)

Variable name	Variable description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
MAPART	Most recent master's degree was required for doctoral program	na	na	na	na	87.6	88.5	88.8	88.9	89.0	88.7
MARITAL	Marital status	90.4	89.0	88.9	90.5	90.3	90.9	90.8	90.8	89.9	89.7
MASAME	First master's SED-CIP based broad FOS is same as doctorate SED-CIP based broad FOS	na	na	na	na	na	na	na	na	89.4	89.0
MAYEAR	Most recent master's degree year	70.3	68.7	68.2	69.4	88.8	88.8	89.1	89.0	89.9	89.5
MDDEG	Earned a professional medical degree	88.8	87.6	87.9	88.3	83.7	89.6	89.4	89.2	88.8	89.5
MDSTUDY	Earning a professional medical degree	88.8	87.6	87.9	88.3	83.7	89.6	89.4	89.2	88.8	89.5
MEDDENT	Additional professional medical or dental degree	90.4	89.1	89.2	90.5	90.6	91.5	91.5	91.5	90.8	90.8
MSPREREQ	Prerequisite master's degree for doctoral program	90.7	89.2	89.1	90.8	88.0	89.0	89.0	89.0	89.1	88.9
PDEMPLOY	Postgraduation employer type	99.0	99.5	99.3	98.1	99.7	98.8	98.8	98.8	99.0	98.8
PDFACULTY	Employment in faculty position	na	na	na	na	na	61.2	63.9	63.3	57.9	57.2
PDFORGN[b]	Postgraduation affiliation with a non-U.S. college or university	3.7	3.4	3.1	3.2	89.0	90.5	90.6	90.6	90.1	89.8
PDOCCODE[b]	Postgraduation institution affiliation in the U.S. (IPEDS code)	28.4	26.7	26.1	26.4	78.9	87.1	89.2	90.2	89.4	89.2
PDOCNID[b]	Postgraduation institution affiliation in the U.S. (NCSES institution identification code)	28.4	26.7	26.1	26.4	78.9	87.1	89.2	90.2	89.4	89.2
PDOCPLAN	Postgraduation plans	92.5	91.7	91.5	95.2	97.6	99.8	99.9	99.9	99.9	99.8
PDOCSTAT	Postgraduation status	90.8	89.3	89.3	90.9	90.8	91.4	91.4	91.4	90.9	90.7
PDPLCD	Postgraduation location	91.6	90.0	90.0	92.2	92.4	93.1	93.2	92.8	92.4	91.9
PDSAMEEMP[b]	Postgraduation employer was employer before or during doctoral studies	na	na	na	na	6.9	51.3	55.4	55.2	52.7	55.5
PDSAMEPOSEMP	Employment in same position with same employer worked during doctoral studies	na	na	na	na	na	95.4	99.8	99.7	na	na
PDSEEKNEWEMP	Postgraduation plan to seek new employment	na	na	na	na	na	99.5	99.1	99.5	na	na
PDSTDSUP	Postdoctoral study support	96.7	97.5	97.8	95.5	96.9	97.0	96.5	96.8	96.8	98.1
PDUSFOR	Postgraduation location: U.S. or foreign	91.6	90.0	90.0	92.2	92.4	93.1	93.2	92.8	92.4	91.9
PDWK1ED	Edited primary work activity	90.7	90.8	90.5	91.3	97.7	98.6	98.8	98.7	98.8	98.6
PDWK2ED	Edited secondary work activity	50.2	49.8	49.4	50.6	93.2	96.5	96.8	96.9	97.5	97.2
PDWKPRIM	Primary work activity	90.7	90.8	90.5	91.3	97.7	98.6	98.8	98.7	98.8	98.6
PDWKSEC	Secondary work activity	50.2	49.8	49.4	50.6	93.2	96.5	96.8	96.9	97.5	97.2
PHDCY	Calendar year of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDDISS	Dissertation field - SED historical FOS code	91.6	90.2	90.0	91.6	91.1	91.6	91.4	91.5	91.6	91.5
PHDDISS2[b]	Secondary dissertation field – SED historical FOS code	36.2	35.0	35.0	41.0	86.7	89.9	90.1	90.2	90.6	91.2
PHDDISS2CIP	Secondary dissertation field – SED CIP code	na	na	na	na	na	na	na	na	90.6	91.2
PHDDISSCIP	Dissertation field – SED CIP code	na	na	na	na	na	na	na	na	91.6	91.5
PHDEMONTH	Doctoral program start month	na	89.6	89.6	91.2	91.3	91.7	91.8	91.7	91.7	91.6
PHDEYEAR[d]	Doctoral program start year	90.9	89.9	89.7	91.4	91.3	91.7	91.8	91.8	91.6	91.6
PHDFIELD	Doctoral field – SED historical FOS code	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDFIELDCIP	Doctoral field – SED CIP code	na	na	na	na	na	na	na	na	100.0	100.0
PHDFY	Fiscal year of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDINST	Doctoral institution (IPEDS code)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDMONTH	Month of doctorate	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
PHDNID	Doctoral institution (NCSES institution code)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
POSTDOC	Intention to take postdoc position	91.1	89.6	89.6	91.5	na	na	na	na	na	na
PROFDEG[b]	Type of professional doctorate	0.8	0.9	1.0	1.0	96.0	100.0	100.0	100.0	100.0	99.9
PROFEARN	Earned or earning a professional doctoral degree	na	na	na	na	90.7	91.5	91.5	91.5	90.8	90.8
PROFEMONTH	Professional doctorate start month	na	na	na	na	99.7	99.3	99.4	99.6	90.1	93.4

Table A-3

Item response rates: 2013–22

(Percent)

Variable name	Variable description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
PROFEYEAR	Professional doctorate start year	na	na	na	na	99.8	99.1	99.4	99.7	90.2	93.3
PROFINST	Professional doctorate institution (IPEDS code)	na	na	na	na	98.0	98.2	98.5	99.6	96.5	97.7
PROFMONTH	Professional doctorate month	na	na	na	na	99.8	99.2	99.4	99.5	98.5	98.8
PROFNID	Professional doctorate institution (NCSES institution code)	na	na	na	na	99.2	98.2	98.5	99.6	96.5	97.7
PROFYEAR[b]	Professional doctorate year	0.8	0.9	0.9	1.0	99.7	99.0	99.4	99.6	99.6	99.5
QUESTMON	Month of survey completion	na	na	90.0	92.0	93.2	92.2	92.2	92.2	91.6	91.6
QUESTYR	Year of survey completion	92.0	90.6	90.3	92.0	93.4	92.2	92.2	92.2	91.6	91.6
RACE	Edited race or ethnicity code	93.2	91.4	92.4	94.3	94.6	95.5	95.7	95.5	95.1	94.9
RACE2	Edited ethnicity or race code (NSF-revised)	93.2	91.4	92.4	94.3	94.9	95.5	95.7	95.5	95.1	94.9
SALARYR	Range of expected basic annual salary	87.6	88.7	88.7	89.3	97.3	96.3	96.3	96.1	96.1	96.1
SALARYV	Expected basic annual salary	36.8	76.9	83.9	85.5	94.2	93.2	93.1	93.5	92.8	93.0
SALMONTH	Number of months expected basic annual salary covers	88.7	89.0	88.9	89.1	95.2	96.5	96.4	96.3	96.9	97.1
SEEKEMPBUS	Seeking or negotiating position in business or industry	na	na	na	na	na	98.8	98.9	98.8	98.8	98.8
SEEKEMPCHOICE	Top choice of employer seeking or negotiating	na	na	na	na	na	97.7	97.7	97.5	97.6	98.2
SEEKEMPEDU	Seeking or negotiating position at an educational institution	na	na	na	na	na	98.8	98.9	98.8	98.8	98.8
SEEKEMPGOV	Seeking or negotiating position in government	na	na	na	na	na	98.8	98.9	98.8	98.8	98.8
SEEKEMPNPO	Seeking or negotiating position in nonprofit organization	na	na	na	na	na	98.8	98.9	98.8	98.8	98.8
SEEKEMPOTHR	Seeking or negotiating position in other sector	na	na	na	na	na	98.8	98.9	98.8	98.8	98.8
SEEKEMPSTAT	Employment status while seeking or negotiating employment	na	na	na	na	na	98.9	98.9	98.9	98.8	98.7
SEEKPOSEMP	Seeking or negotiating an employment position other than a postdoc	na	na	na	na	na	99.0	99.0	99.0	98.9	98.9
SEEKPOSOTHR	Seeking or negotiating other position	na	na	na	na	na	99.0	99.0	99.0	98.9	98.9
SEEKPOSPDOC	Seeking or negotiating a postdoc position	na	na	na	na	na	99.0	99.0	99.0	98.9	98.9
SEX	Sex of doctorate recipient	100.0	99.7	100.0	100.0	100.0	99.9	100.0	100.0	100.0	100.0
SRCE1ED	Edited primary source of support	90.7	89.7	89.5	91.2	90.0	90.7	90.6	90.7	90.2	90.2
SRCEPRIM	Primary source of support	90.7	89.7	89.5	91.2	90.0	90.7	90.6	90.7	90.2	90.2
SRCESEC	Secondary source of support	79.6	79.2	78.8	83.0	78.5	80.1	80.4	86.1	88.6	88.4
TICEPHD	Time in from college entry to doctorate	88.8	87.3	87.3	89.4	89.7	90.7	90.7	90.7	90.1	90.1
TOBAGE	Time out between baccalaureate to graduate school entry	87.2	87.2	87.2	88.5	87.4	88.5	88.6	88.5	87.3	87.1
TTDBAPHD	Total time elapsed from baccalaureate to doctorate	92.3	90.3	90.8	93.1	94.4	94.9	95.4	94.8	95.1	94.6
TTDDOC	Total elapsed time in doctorate	na	89.9	89.8	91.5	91.3	91.6	91.7	91.7	91.6	91.6
TTDGEPHD	Total time elapsed from graduate entry to doctorate	88.7	90.3	89.9	90.9	90.3	92.0	92.0	92.1	91.9	91.8
TUITREMS	Tuition remission-full or partial	91.2	90.0	89.8	91.4	91.0	91.7	91.6	91.6	91.3	91.2
UDEBTLVL	Undergraduate debt level	86.1	84.7	90.9	93.7	92.6	93.1	93.4	93.5	92.6	91.8
WHITE	White race indicator	91.9	90.2	91.0	93.0	92.8	93.2	93.3	93.2	92.2	92.2
YRSCOURS	Years of doctoral coursework	90.4	89.0	89.0	90.5	89.8	na	na	na	na	na
YRSDISST	Years preparing doctorate dissertation	90.5	89.0	89.0	90.5	89.7	na	na	na	na	na
YRSNOTWRK	Years not working on doctoral degree	90.8	89.2	89.2	90.8	90.9	na	na	na	na	na

na = not applicable; data either were not collected or derived, or were collected for the first time in that year (see "Notes").

CIP = Classification of Instructional Programs; FOS = field of study; IPEDS = Integrated Postsecondary Education Data System; NCSES = National Center for Science and Engineering Statistics; SED = Survey of Earned Doctorates.

[a] Methodology reports prior to 2014 reported BAEYEAR as CEYEAR.

[b] Logical skip edits to correct the universe of eligible respondents led to higher item response rates in the year it was implemented.

[c] Response rate counts respondents who reported being U.S. citizens or permanent residents or temporary visa holders and provided country of citizenship.

[d] Methodology reports prior to 2014 reported PHDEYEAR as PHDENTRY.

Note(s):
Item response rate is the percentage of cases providing data on an item divided by the universe of doctorate recipients eligible to answer that item. For most data items, all doctorate recipient respondents are in the universe of eligible respondents. For some data items introduced in the survey for the first time, not all eligible respondents were able to provide data because they completed earlier versions of the survey, leading to lower response rates.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table A-4

SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Science and engineering	Area	see below
Agricultural sciences and natural resources	Broad	Most of 01, 03 (see below)
Agricultural, animal, plant, and veterinary sciences	Major	01
Agronomy and crop science	Detailed	01.1102
Animal sciences	Detailed	01.09
Food science and technology	Detailed	01.10
Plant sciences	Detailed	01.11 except 01.1102
Soil sciences	Detailed	01.12
Veterinary biomedical and clinical sciences	Detailed	01.80, 01.81, 01.83, 01.1302, 01.1399
Agricultural, animal, plant, and veterinary sciences nec	Detailed	all other 01 except 01.0103, 01.05, 01.82
Natural resources and conservation	Major	all 03 except 03.0204
Environmental science	Detailed	03.0104
Environmental/ natural resources management and policy	Detailed	all 03.02 except 03.0204
Forestry	Detailed	03.05
Natural resources conservation and research	Detailed	all 03.01 except 03.0104
Natural resources and conservation nec	Detailed	03.03, 03.06, 03.99
Biological and biomedical sciences	Broad	26
Biochemistry, biophysics, and molecular biology	Major	26.02
Biochemistry	Detailed	26.0202
Biochemistry and molecular biology	Detailed	26.0210
Biophysics	Detailed	26.0203, 26.0203b, 26.0206
Molecular biology	Detailed	26.0204
Biochemistry, biophysics, and molecular biology nec	Detailed	all other 26.02
Bioinformatics, biostatistics, and computational biology	Major	26.11
Bioinformatics	Detailed	26.1103
Biostatistics	Detailed	26.1102
Computational biology	Detailed	26.1104
Bioinformatics, biostatistics, and computational biology nec	Detailed	all other 26.11
Cell/ cellular biology and anatomy	Major	26.04
Cell/ cellular and molecular biology	Detailed	26.0406
Developmental biology and embryology	Detailed	26.0404
Cell/ cellular biology and anatomy nec	Detailed	all other 26.04
Ecology, evolutionary biology, and epidemiology	Major	26.13 except 26.1302
Ecology	Detailed	26.1301
Ecology and evolutionary biology	Detailed	26.1310, 26.1399b
Epidemiology	Detailed	26.1309
Epidemiology and biostatistics	Detailed	26.1311
Evolutionary biology	Detailed	26.1303
Ecology, evolutionary biology, and epidemiology nec	Detailed	all other 26.13 except 26.1302
Genetics and genomics	Major	26.08
Genetics, general	Detailed	26.0801
Genome sciences and genomics	Detailed	26.0807
Human/ medical genetics	Detailed	26.0806
Molecular genetics	Detailed	26.0802
Genetics and genomics nec	Detailed	all other 26.08

Table A-4

SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Microbiology and immunology	Major	26.05
Immunology	Detailed	26.0507
Microbiology and immunology	Detailed	26.0508
Microbiology, general	Detailed	26.0502
Virology	Detailed	26.0504
Microbiology and immunology nec	Detailed	all other 26.05
Neurobiology and neurosciences	Major	26.15
Cognitive neuroscience	Detailed	26.1599b
Neurobiology	Detailed	26.1503, 26.1504
Neuroscience	Detailed	26.1501
Neurobiology and neurosciences nec	Detailed	all other 26.15
Pharmacology and toxicology	Major	26.10
Pharmacology	Detailed	26.1001
Toxicology	Detailed	26.1004, 26.1005, 26.1006
Pharmacology and toxicology nec	Detailed	all other 26.10
Physiology, oncology, and cancer biology	Major	26.09
Biomechanics	Detailed	26.0913
Exercise physiology and kinesiology	Detailed	26.0908
Oncology and cancer biology	Detailed	26.0911
Physiology, general	Detailed	26.0901
Physiology, oncology, and cancer biology nec	Detailed	all other 26.09
Biological and biomedical sciences, other	Major	all other 26
Biology/ biological sciences, general	Detailed	26.0101, 26.0101b
Biomedical sciences, general	Detailed	26.0102
Botany and plant biology	Detailed	26.0301
Entomology	Detailed	26.0702, 26.0702b, 26.0702c
Plant pathology and phytopathology	Detailed	26.0305, 26.0305b
Plant physiology and biology nec	Detailed	all 26.03 except 26.0301, 26.0305
Zoology and animal biology	Detailed	all 26.07 except 26.0702
Biological and biomedical sciences nec	Detailed	26.1201, 26.1401, 26.9999
Computer and information sciences	Broad	11
Computer science	Major	11.07
Computer science	Detailed	11.07
Computer and information sciences, other	Major	all 11 except 11.07
Artificial intelligence	Detailed	11.0102
Computer and information sciences, general	Detailed	11.0101
Computer systems networking and telecommunications	Detailed	11.09, 11.10
Informatics and information technology	Detailed	11.0103, 11.0104, 11.0105
Information sciences/ studies	Detailed	11.04
Computer and information sciences nec	Detailed	11.0199, 11.02, 11.03, 11.05, 11.06, 11.08, 11.99
Engineering	Broad	14, most 15 (see below)
Biological, biomedical, and biosystems engineering	Major	14.05, 14.45, 15.0401
Bioengineering and biomedical engineering	Detailed	14.0501
Biological and biosystems engineering and biomedical technology	Detailed	14.4501, 15.0401
Chemical and petroleum engineering	Major	14.07, 14.25, 14.32, 14.40–14.44
Chemical and biomolecular engineering	Detailed	14.0702
Chemical engineering	Detailed	14.0701

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SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Petroleum engineering	Detailed	14.2501
Chemical and petroleum engineering nec	Detailed	14.0799, 14.3201, 14.40, 14.4314.44
Civil, environmental, and transportation engineering	Major	14.08, 14.1401, 14.3301, 14.3801, 14.3901
Civil engineering	Detailed	14.0801, 14.0899
Civil and environmental engineering	Detailed	14.0899b
Environmental/ environmental health engineering	Detailed	14.1401
Geotechnical and geoenvironmental engineering	Detailed	14.0802, 14.3901
Structural engineering	Detailed	14.0803
Transportation and highway engineering	Detailed	14.0804
Civil, environmental, and transportation engineering nec	Detailed	14.0401, 14.0805, 14.3301, 14.3801
Electrical and computer engineering	Major	14.09, 14.10, 14.47
Computer engineering	Detailed	14.09
Electrical and computer engineering	Detailed	14.4701
Electrical and electronics engineering	Detailed	14.1001
Electrical and computer engineering nec	Detailed	14.1003, 14.1004, 14.1099, 14.1099b
Engineering technologies	Major	all 15 except 15.0401, 15.0801, 15.1102, 15.15, 15.16
Electrical and electronic engineering technologies	Detailed	15.03
Electromechanical technologies	Detailed	15.04 except 15.0401
Environmental control technologies	Detailed	15.05
Engineering technologies nec	Detailed	all other 15 except 15.0801, 15.1102, 15.15, 15.16
Industrial engineering and operations research	Major	14.27, 14.35, 14.36, 14.37
Industrial engineering	Detailed	14.3501
Industrial and systems engineering	Detailed	14.3501b
Operations research	Detailed	14.37
Systems and manufacturing engineering	Detailed	14.2701, 14.3601
Materials and mining engineering	Major	14.0601, 14.18, 14.2001, 14.2101, 14.2801
Materials engineering	Detailed	14.1801
Materials science and engineering	Detailed	14.1801b
Materials and mining engineering nec	Detailed	14.0601, 14.2001, 14.2101, 14.2801
Mechanical engineering	Major	14.19, 14.41, 14.42
Mechanical engineering, general	Detailed	14.1901
Mechanical engineering nec	Detailed	14.4101, 14.4201
Engineering, other	Major	all other 14, 15.0801, 15.15, 15.16, 49.0101
Aerospace, aeronautical, astronautical, and space engineering	Detailed	14.02, 15.0801, 49.0101
Engineering mechanics, physics, and science	Detailed	14.11, 14.1201, 14.1301
Mechanical and aerospace engineering	Detailed	14.1901b
Nanotechnology	Detailed	15.1601
Nuclear engineering	Detailed	14.2301
Engineering nec	Detailed	14.01, 14.0301, 14.2201, 14.2401, 14.3401, 14.48, 14.99, 15.15, 49.0101
Geosciences, atmospheric, and ocean sciences	Broad	40.04, 40.06, 15.1102, 26.1302, 30.32, 30.35, 30.38, 30.41
Geological and earth sciences	Major	40.06, 15.1102, 30.38, 30.4101
Geochemistry	Detailed	40.0602, 40.0606
Geology	Detailed	40.0601c
Geology/ earth science, general	Detailed	40.0601, 40.0601b
Geophysics and seismology	Detailed	40.0603
Hydrology and water resources science	Detailed	40.0605
Geological and earth sciences nec	Detailed	40.0604, 40.0699, 15.1102, 30.38, 30.4101

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SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Ocean, marine, and atmospheric science	Major	40.04, 40.0607, 26.1302, 30.32, 30.35
Atmospheric sciences and meteorology, general	Detailed	40.0401
Climatology, atmospheric chemistry/ physics	Detailed	40.0402, 40.0403
Marine biology and biological oceanography	Detailed	26.1302
Marine sciences	Detailed	30.32
Oceanography, chemical/ physical	Detailed	40.0607
Atmospheric sciences and meteorology nec	Detailed	40.0404, 40.0499, 40.0499b, 30.3501
Health sciences	Broad	51, 31.0505
Nursing and nursing science	Major	51.3203, 51.38, 51.39
Nursing education	Detailed	51.3203
Nursing science	Detailed	51.3808
Nursing specialties and practice	Detailed	51.38, 51.39
Pharmacy and pharmaceutical sciences	Major	51.20
Medicinal and pharmaceutical chemistry	Detailed	51.2004
Pharmaceutical sciences	Detailed	51.2010
Pharmacy, pharmaceutical sciences, and administration nec	Detailed	all other 51.20
Public health	Major	51.22
Environmental health	Detailed	51.2202
Health services research	Detailed	51.2211b
Health/ medical physics	Detailed	51.2205
Public health education and promotion	Detailed	51.2207
Public health, general	Detailed	51.2201
Public health nec	Detailed	all other 51.22
Health sciences, other	Major	all other 51, 31.0505
Communication disorders sciences	Detailed	51.02
Exercise science and kinesiology	Detailed	31.0505
Health sciences, general	Detailed	51.00
Marriage and family therapy/ counseling	Detailed	51.1505
Medical clinical sciences	Detailed	51.14
Medical, biomedical, and health informatics	Detailed	51.27
Mental health, counseling, and therapy services and sciences	Detailed	51.15
Rehabilitation and therapeutic sciences	Detailed	51.23
Health sciences nec	Detailed	all other 51
Mathematics and statistics	Broad	27, 52.1304
Applied mathematics	Major	27.03, 52.1304
Applied mathematics, general	Detailed	27.0301
Computational and applied mathematics	Detailed	27.0303, 27.0304
Applied mathematics nec	Detailed	all other 27.03, 52.1304
Mathematics	Major	27.01
Algebra and number theory	Detailed	27.0102
Mathematics, general	Detailed	27.0101, 27.0101b
Mathematics nec	Detailed	all other 27.01
Statistics	Major	27.05, 27.06, 27.9999
Applied statistics, general	Detailed	27.0601
Mathematics and statistics	Detailed	27.0502, 27.0503, 27.9999
Statistics	Detailed	27.0501
Statistics nec	Detailed	27.0599, 27.0599b
Multidisciplinary/ interdisciplinary sciences	Broad	see below

Table A-4

SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Interdisciplinary computer sciences	Major	30.08, 30.16, 30.31, 30.39, 30.48, 30.9999b/d
Computer science and engineering	Detailed	30.9999d
Electrical engineering and computer science	Detailed	30.9999b
Interdisciplinary computer sciences nec	Detailed	30.0801, 30.1601, 30.3101, 30.3901, 30.4801
Multidisciplinary/ interdisciplinary sciences, other	Major	see below
Behavioral and cognitive sciences	Detailed	30.1701, 30.25
Computational science and engineering	Detailed	30.30
Data science and data analytics	Detailed	30.70 except 30.7099b, 30.71
Data mining and machine learning	Detailed	30.7099b
History/ philosophy of science, technology, and society	Detailed	30.1501, 54.0104
Nanoscience/ nanoscale science	Detailed	30.9999c
Nutrition sciences	Detailed	30.1901
Multidisciplinary/ interdisciplinary sciences nec	Detailed	30.01, 30.05, 30.06, 30.10, 30.18, 30.20, 30.21, 30.23, 30.26, 30.27, 30.33, 30.34, 30.37, 30.40, 30.42, 30.43, 30.44, 30.46, 30.49, 30.50, 30.51, 30.53, 30.9999e, 30.9999z
Physical sciences	Broad	all 40 except 40.04, 40.06
Astronomy and astrophysics	Major	40.02
Astronomy	Detailed	40.0201
Astrophysics	Detailed	40.0202
Astronomy and astrophysics nec	Detailed	40.0203, 40.0299, 40.0299b
Chemistry	Major	40.05
Analytical chemistry	Detailed	40.0502
Chemical biology	Detailed	40.0599b
Chemistry, general	Detailed	40.0501
Inorganic chemistry	Detailed	40.0503
Organic chemistry	Detailed	40.0504
Physical chemistry	Detailed	40.0506
Polymer chemistry	Detailed	40.0507
Theoretical and computational chemistry	Detailed	40.0511, 40.0511b
Chemistry nec	Detailed	all other 40.05
Materials sciences	Major	40.10
Materials sciences	Detailed	40.1001
Materials chemistry and materials sciences nec	Detailed	40.1002, 40.1099,40.1099b
Physics	Major	40.01, 40.08, 40.11, 40.99
Applied physics	Detailed	40.0899b
Atomic/ molecular physics	Detailed	40.0802
Condensed matter and materials physics	Detailed	40.0808
Elementary particle physics	Detailed	40.0804
Nuclear physics	Detailed	40.0806
Optics/ optical sciences	Detailed	40.0807
Physics and astronomy	Detailed	40.1101
Physics, general	Detailed	40.0801
Plasma and high-temperature physics	Detailed	40.0805
Theoretical and mathematical physics	Detailed	40.0810
Physics and physical sciences nec	Detailed	all other 40.08, 40.0101, 40.99
Psychology	Broad	42, 19.0701, 19.0702, 19.0706
Clinical psychology	Major	42.2801, 42.2807
Clinical child psychology	Detailed	42.2807
Clinical psychology	Detailed	42.2801

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SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Counseling and applied psychology	Major	all 42.28 except 42.2801, 42.2807
Applied behavior analysis	Detailed	42.2814
Counseling psychology	Detailed	42.2803
Educational psychology	Detailed	42.2806, 42.2806b
Industrial and organizational psychology	Detailed	42.2804
School psychology	Detailed	42.2805, 42.2805b
Counseling and applied psychology nec	Detailed	all other 42.28
Research and experimental psychology	Major	42.27
Behavioral neuroscience	Detailed	42.2706
Cognitive psychology and psycholinguistics	Detailed	42.2701
Developmental and child psychology	Detailed	42.2703
Experimental psychology	Detailed	42.2704
Social psychology	Detailed	42.2707
Research and experimental psychology nec	Detailed	all other 42.27
Psychology, other	Major	42.01, 42.99, 19.0701, 19.0702, 19.0706
Human development	Detailed	19.0701, 19.0702, 19.0706
Psychology, general	Detailed	42.0101
Psychology nec	Detailed	42.9999
Social sciences	Broad	45, 01.0103, 03.0204, 05, 16.0102, 16.0105, 16.0199, 30.47, 43.0104, 44.05
Anthropology	Major	45.02
Anthropology, general	Detailed	45.0201
Cultural anthropology	Detailed	45.0204
Physical and biological anthropology	Detailed	45.0202
Anthropology nec	Detailed	all other 45.02
Area, ethnic, cultural, gender, and group studies	Major	05
Area studies	Detailed	05.01
Ethnic studies	Detailed	05.0200–05.0206
Area, ethnic, cultural, gender, and group studies nec	Detailed	05.0207–05.0212, 05.0299, 05.9999
Economics	Major	45.06, 01.0103, 03.0204
Agricultural economics	Detailed	01.0103
Applied economics	Detailed	45.0602
Development economics and international development	Detailed	45.0604
Econometrics and quantitative economics	Detailed	45.0603
Economics, general	Detailed	45.0601
Environmental/ natural resource economics	Detailed	45.0602b, 03.0204
Economics nec	Detailed	all other 45.06
Political science and government	Major	45.10
Political science and government, general	Detailed	45.1001
Political science and government nec	Detailed	all other 45.10
Public policy analysis	Major	44.05
Education policy analysis	Detailed	44.0502
Health policy analysis	Detailed	44.0503
Public policy analysis, general	Detailed	44.0501
Public policy nec	Detailed	all other 44.05
Sociology, demography, and population studies	Major	45.05, 45.11
Sociology, general	Detailed	45.1101
Sociology, demography, and population studies nec	Detailed	all other 45.11, 45.05

Table A-4

SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Social sciences, other	Major	all other 45, 16.0102, 16.0105, 16.0199, 30.11, 30.4701, 43.0104
Applied linguistics	Detailed	16.0105, 16.0199
Archeology	Detailed	45.0301, 45.0301b
Criminology	Detailed	45.0401
Geography and cartography	Detailed	45.07
International relations and national security studies	Detailed	45.09
Linguistics	Detailed	16.0102
Social sciences nec	Detailed	45.01, 45.1201, 45.1301, 45.1501, 45.9999, 43.0104, 30.11, 30.4701
Non-science and engineering	Area	see below
Business	Broad	52, 49.0104
Business administration and management	Major	52.02, 49.0104
Business management and administration	Detailed	52.0201
Organizational leadership	Detailed	52.0213
Business administration and management nec	Detailed	all other 52.02, 49.0104
Business, other	Major	all other 52
Accounting and accounting-related	Detailed	52.03
Finance and financial management	Detailed	52.08
Management information systems	Detailed	52.12
Management sciences	Detailed	52.0601, 52.13
Marketing	Detailed	52.14
Organizational behavior studies	Detailed	52.1003
Business nec	Detailed	all other 52
Education	Broad	13
Education leadership and administration	Major	13.04
Educational leadership and administration, general	Detailed	13.0401
Higher education and community college administration	Detailed	13.0406, 13.0407
Education leadership and administration nec	Detailed	all other 13.04
Education research	Major	13.03, 13.05–13.07, 13.09, 13.11
Curriculum and instruction	Detailed	13.0301
Educational assessment, evaluation, and research methods	Detailed	13.0601, 13.0603, 13.0604, 13.0607, 13.0699
Educational/ instructional technology and media design	Detailed	13.05
Higher education evaluation and research	Detailed	13.0608, 13.0699b
Student counseling and personnel services	Detailed	13.11
Education research nec	Detailed	13.07, 13.09
Teacher education	Major	13.02, 13.12, 13.10, 13.13, 13.14
Adult, continuing, and workforce education and development	Detailed	13.1201, 13.1201b
Bilingual, multilingual, and multicultural education	Detailed	13.02
Mathematics teacher education	Detailed	13.1311
Music teacher education	Detailed	13.1312
Special education and teaching	Detailed	13.10
STEM educational methods	Detailed	13.1213
Teacher education, science and engineering	Detailed	13.1301, 13.1316, 13.1317, 13.1321–13.1323, 13.1329, 13.1332, 13.1335, 13.1337, 13.1338
Teacher education, specific levels and methods	Detailed	all 13.12 except 13.1201, 13.1201b, 13.1213

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SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Teacher education, specific subject areas	Detailed	all other 13.13, 13.14
Education, other	Major	13.01, 13.15, 13.99
Education, general	Detailed	13.0101
Education nec	Detailed	13.15, 13.9999
Humanities	Broad	23, 24.0103, 24.0199, 38, 39, 54, all 16 except 16.0102, 16.0105, 16.0199, 16.12
English language and literature, letters	Major	23
American literature (United States)	Detailed	23.1402, 23.1402b
Creative writing	Detailed	23.1302
English language and literature, general	Detailed	23.0101
English literature (British and Commonwealth)	Detailed	23.1404
Rhetoric and composition, and writing studies	Detailed	all other 23.13
English language and literature nec	Detailed	all other 23.14, 23.99
Foreign languages, literatures, and linguistics	Major	all 16 except 16.0102, 16.0105, 16.0199, 16.12
Comparative literature	Detailed	16.0104
Hispanic/ Latin American languages, literatures, and linguistics	Detailed	16.0908
Romance languages, literatures, and linguistics	Detailed	all other 16.09
Spanish language and literature	Detailed	16.0905, 16.0907
Foreign languages, literatures, and linguistics nec	Detailed	all other 16 except 16.0102, 16.0105, 16.0199, 16.12
History	Major	all 54 except 54.0104
American history (United States)	Detailed	54.0102, 54.0102b
European history	Detailed	54.0103
History, general	Detailed	54.0101
History, regional focus	Detailed	51.0106, 54.0107, 54.0199c/d/e
History nec	Detailed	54.0105, 54.0108, 54.0199
Philosophy and religious studies	Major	38
Philosophy	Detailed	38.01, 38.99
Religion/ religious studies	Detailed	38.0201
Philosophy and religious studies nec	Detailed	all other 38.02
Humanities, other	Major	24.0103, 24.0199, 39
Bible/ biblical studies	Detailed	39.0201
Humanities and humanistic studies	Detailed	24.0103, 24.0199
Theological and ministerial studies	Detailed	all other 39
Visual and performing arts	Broad	50
Music and performing arts	Major	50.03, 50.05, 50.09
Dance, drama, theatre arts and stagecraft	Detailed	50.03, 50.05
Music performance	Detailed	50.0903, 50.0906–50.0908, 50.0910, 50.0911, 50.0914–50.0916
Music theory and composition	Detailed	50.0904
Musicology and ethnomusicology	Detailed	50.0905
Music nec	Detailed	50.0901, 50.0902, 50.0912, 50.0913, 50.0917, 50.0999
Visual arts, media studies, and design	Major	50.01, 50.04, 50.06, 50.07, 50.10, 50.1101, 50.9999
Art history, criticism and conservation	Detailed	50.0703
Film, cinema, and media studies	Detailed	50.06
Visual arts, media studies, and design nec	Detailed	all other 50
Other non-science and engineering	Broad	see below
Communications and journalism	Major	09, 10
Applied communication, advertising, and public relations	Detailed	09.09
Communication and media studies	Detailed	09.0101, 09.0199

Table A-4

SED field of doctorate taxonomy, by SED-CIP series/codes: 2022

(Field)

Field of doctorate	Field level[a]	SED-CIP series/ codes
Communication, general	Detailed	09.0100, 09.0100d
Mass communication/ media studies	Detailed	09.0102
Communications and journalism nec	Detailed	09.0100b/c, 09.04, 09.07, 09.10, 09.99, 10
Multidisciplinary/ interdisciplinary studies	Major	see below
Classical and ancient studies	Detailed	30.22, 16.12
Interdisciplinary leadership/leadership Studies	Detailed	30.9999f
Multidisciplinary/ interdisciplinary studies nec	Detailed	16.0199b, 24.01, 30.00, 30.12–30.14, 30.28, 30.29, 30.36, 30.45, 30.52, 30.9999, 30.9999g
Public administration and social services	Major	all 44 except 44.05
Public administration	Detailed	44.0201, 44.04, 44.9999b
Social work and human services	Detailed	44.00, 44.07, 44.9999
Non-science and engineering, other	Major	see below
Architecture and architectural studies	Detailed	all 04 except 04.0301
City/ urban, community, and regional planning	Detailed	04.0301
Family, consumer sciences and human sciences	Detailed	all 19 except 19.0701, 19.0702, 19.0706
Homeland security and protective services	Detailed	all 43 except 43.0104
Law, legal studies and research	Detailed	22
Parks, recreation, leisure, fitness, and sport studies and management	Detailed	all 31 except 31.0505
Other non-science and engineering nec	Detailed	01.05, 01.82, 25, 29

CIP = Classification of Instructional Programs; nec = not elsewhere classified; SED = Survey of Earned Doctorates; STEM = science, technology, engineering, and mathematics.

[a] The code level provides information about the fields are nested together. There are 4 levels of field aggregation: area, broad field, major field, and detailed field.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. See table A-5 for a full list of SED-CIP codes in the new field taxonomy and table A-6 for the SED-CIP code crosswalk to the historical field taxonomy. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200). Between 2021 and 2022, minor changes were made to the SED-CIP crosswalk for the SED detailed fields to better align with the National Center for Science and Engineering Statistics' Taxonomy of Disciplines. These changes affect the reported counts for 2021; see table A-5 for more information.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
01.1102	Agronomy and Crop Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agronomy and crop science
01.0901	Animal Sciences, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0902	Agricultural Animal Breeding	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0903	Animal Health	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0904	Animal Nutrition	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0905	Dairy Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0906	Livestock Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0907	Poultry Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.0999	Animal Sciences, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Animal sciences
01.1001	Food Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1002	Food Technology and Processing	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1003	Brewing Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1004	Viticulture and Enology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1005	Zymology/ Fermentation Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1099	Food Science and Technology, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Food science and technology
01.1101	Plant Sciences, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1103	Horticultural Science	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1104	Agricultural and Horticultural Plant Breeding	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1105	Plant Protection and Integrated Pest Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1106	Range Science and Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1199	Plant Sciences, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Plant sciences
01.1201	Soil Science and Agronomy, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Soil sciences
01.1202	Soil Chemistry and Physics	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Soil sciences
01.1203	Soil Microbiology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Soil sciences
01.1203b	Soil Chemistry and Microbiology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Soil sciences
01.1299	Soil Sciences, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Soil sciences
01.1302	Pre-Veterinary Studies	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
01.1399	Agriculture/ Veterinary Preparatory Programs, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8001	Veterinary Medicine	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8101	Veterinary Sciences/ Veterinary Clinical Sciences, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8102	Comparative and Laboratory Animal Medicine	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8103	Large Animal/ Food Animal and Equine Surgery and Medicine	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8104	Small/ Companion Animal Surgery and Medicine	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8105	Veterinary Anatomy	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8106	Veterinary Infectious Diseases	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8107	Veterinary Microbiology and Immunobiology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8108	Veterinary Pathology and Pathobiology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8109	Veterinary Physiology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8110	Veterinary Preventive Medicine, Epidemiology, and Public Health	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8111	Veterinary Toxicology and Pharmacology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8199	Veterinary Biomedical and Clinical Sciences, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8301	Veterinary/ Animal Health Technology and Veterinary Assistant	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.8399	Veterinary/ Animal Health Technologies, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Veterinary biomedical and clinical sciences
01.0000	Agriculture, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0101	Agricultural Business and Management, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0102	Agribusiness/ Agricultural Business Operations	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0104	Farm/ Farm and Ranch Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0105	Agricultural/ Farm Supplies Retailing and Wholesaling	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0106	Agricultural Business Technology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0199	Agricultural Business and Management, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0201	Agricultural Mechanization, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0204	Agricultural Power Machinery Operation	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0205	Agricultural Mechanics and Equipment/ Machine Technology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0207	Irrigation Management Technology	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
01.0299	Agricultural Mechanization, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0301	Agricultural Production Operations, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0302	Animal/ Livestock Husbandry and Production	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0303	Aquaculture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0304	Crop Production	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0306	Dairy Husbandry and Production	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0307	Horse Husbandry/ Equine Science and Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0308	Agroecology and Sustainable Agriculture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0310	Apiculture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0399	Agricultural Production Operations, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0401	Agricultural and Food Products Processing	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0601	Applied Horticulture/ Horticulture Operations, General	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0603	Ornamental Horticulture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0604	Greenhouse Operations and Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0605	Landscaping and Groundskeeping	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0606	Plant Nursery Operations and Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0607	Turf and Turfgrass Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0608	Floriculture/ Floristry Operations and Management	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0609	Public Horticulture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0610	Urban and Community Horticulture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0699	Applied Horticulture/ Horticultural Business Services, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0701	International Agriculture	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0801	Agricultural and Extension Education Services	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0802	Agricultural Communication/ Journalism	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.0899	Agricultural Public Services, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
01.9999	Agricultural/ Animal/ Plant/ Veterinary Science and Related Fields, Other	Agricultural sciences and natural resources	Agricultural, animal, plant, and veterinary sciences	Agricultural, animal, plant, and veterinary sciences nec
03.0104	Environmental Science	Agricultural sciences and natural resources	Natural resources and conservation	Environmental science

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
03.0201	Environmental/ Natural Resources Management and Policy, General	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0205	Water, Wetlands, and Marine Resources Management	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0206	Land Use Planning and Management/ Development	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0207	Environmental/ Natural Resource Recreation and Tourism	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0208	Environmental/ Natural Resources Law Enforcement and Protective Services	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0209	Energy and Environmental Policy	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0210	Bioenergy	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0299	Environmental/ Natural Resources Management and Policy, Other	Agricultural sciences and natural resources	Natural resources and conservation	Environmental/ natural resources management and policy
03.0501	Forestry, General	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0502	Forest Sciences and Biology	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0506	Forest Management/ Forest Resources Management	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0508	Urban Forestry	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0509	Wood Science and Wood Products/ Pulp and Paper Technology	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0510	Forest Resources Production and Management	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0511	Forest Technology	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0599	Forestry, Other	Agricultural sciences and natural resources	Natural resources and conservation	Forestry
03.0101	Natural Resources/ Conservation, General	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources conservation and research
03.0103	Environmental Studies	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources conservation and research
03.0199	Natural Resources Conservation and Research, Other	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources conservation and research
03.0301	Fishing and Fisheries Sciences and Management	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources and conservation nec
03.0601	Wildlife, Fish and Wildlands Science and Management	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources and conservation nec
03.9999	Natural Resources and Conservation, Other	Agricultural sciences and natural resources	Natural resources and conservation	Natural resources and conservation nec
26.0202	Biochemistry	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry
26.0210	Biochemistry and Molecular Biology	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry and molecular biology

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
26.0203	Biophysics (BIOLOGY)	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biophysics
26.0203b	Biophysics (PHYSICS)	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biophysics
26.0206	Molecular Biophysics[a]	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biophysics
26.0204	Molecular Biology	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Molecular biology
26.0205	Molecular Biochemistry	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry, biophysics, and molecular biology nec
26.0207	Structural Biology	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry, biophysics, and molecular biology nec
26.0208	Photobiology	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry, biophysics, and molecular biology nec
26.0209	Radiation Biology/ Radiobiology	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry, biophysics, and molecular biology nec
26.0299	Biochemistry, Biophysics and Molecular Biology, Other	Biological and biomedical sciences	Biochemistry, biophysics, and molecular biology	Biochemistry, biophysics, and molecular biology nec
26.1103	Bioinformatics	Biological and biomedical sciences	Bioinformatics, biostatistics, and computational biology	Bioinformatics
26.1102	Biostatistics	Biological and biomedical sciences	Bioinformatics, biostatistics, and computational biology	Biostatistics
26.1104	Computational Biology	Biological and biomedical sciences	Bioinformatics, biostatistics, and computational biology	Computational biology
26.1101	Biometry/ Biometrics	Biological and biomedical sciences	Bioinformatics, biostatistics, and computational biology	Bioinformatics, biostatistics, and computational biology nec
26.1199	Biomathematics, Bioinformatics, and Computational Biology, Other	Biological and biomedical sciences	Bioinformatics, biostatistics, and computational biology	Bioinformatics, biostatistics, and computational biology nec
26.0406	Cell/ Cellular and Molecular Biology	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Cell/ cellular and molecular biology
26.0404	Developmental Biology and Embryology	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Developmental biology and embryology
26.0401	Cell/ Cellular Biology and Histology	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Cell/ cellular biology and anatomy nec
26.0403	Anatomy	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Cell/ cellular biology and anatomy nec
26.0407	Cell Biology and Anatomy	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Cell/ cellular biology and anatomy nec
26.0499	Cell/ Cellular Biology and Anatomical Sciences, Other	Biological and biomedical sciences	Cell/ cellular biology and anatomy	Cell/ cellular biology and anatomy nec
26.1301	Ecology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology
26.1310	Ecology and Evolutionary Biology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology and evolutionary biology
26.1399b	Ecology, Evolution, and Behavior[b]	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology and evolutionary biology
26.1309	Epidemiology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Epidemiology
26.1311	Epidemiology and Biostatistics	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Epidemiology and biostatistics

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
26.1303	Evolutionary Biology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Evolutionary biology
26.1304	Aquatic Biology/ Limnology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.1305	Environmental Biology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.1306	Population Biology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.1307	Conservation Biology	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.1308	Systematic Biology/ Biological Systematics	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.1399	Ecology, Evolution, Systematics and Population Biology, Other	Biological and biomedical sciences	Ecology, evolutionary biology, and epidemiology	Ecology, evolutionary biology, and epidemiology nec
26.0801	Genetics, General	Biological and biomedical sciences	Genetics and genomics	Genetics, general
26.0807	Genome Sciences/ Genomics	Biological and biomedical sciences	Genetics and genomics	Genome sciences and genomics
26.0806	Human/ Medical Genetics	Biological and biomedical sciences	Genetics and genomics	Human/ medical genetics
26.0802	Molecular Genetics	Biological and biomedical sciences	Genetics and genomics	Molecular genetics
26.0803	Microbial and Eukaryotic Genetics	Biological and biomedical sciences	Genetics and genomics	Genetics and genomics nec
26.0804	Animal Genetics	Biological and biomedical sciences	Genetics and genomics	Genetics and genomics nec
26.0805	Plant Genetics	Biological and biomedical sciences	Genetics and genomics	Genetics and genomics nec
26.0899	Genetics, Other	Biological and biomedical sciences	Genetics and genomics	Genetics and genomics nec
26.0507	Immunology	Biological and biomedical sciences	Microbiology and immunology	Immunology
26.0508	Microbiology and Immunology	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology
26.0502	Microbiology, General	Biological and biomedical sciences	Microbiology and immunology	Microbiology, general
26.0504	Virology	Biological and biomedical sciences	Microbiology and immunology	Virology
26.0503	Medical Microbiology and Bacteriology	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology nec
26.0505	Parasitology	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology nec
26.0506	Mycology	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology nec
26.0509	Infectious Disease and Global Health	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology nec
26.0599	Microbiological Sciences and Immunology, Other	Biological and biomedical sciences	Microbiology and immunology	Microbiology and immunology nec
26.1599b	Cognitive Neuroscience	Biological and biomedical sciences	Neurobiology and neurosciences	Cognitive neuroscience
26.1503	Neurobiology and Anatomy	Biological and biomedical sciences	Neurobiology and neurosciences	Neurobiology
26.1504	Neurobiology and Behavior[c]	Biological and biomedical sciences	Neurobiology and neurosciences	Neurobiology

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
26.1501	Neuroscience	Biological and biomedical sciences	Neurobiology and neurosciences	Neuroscience
26.1502	Neuroanatomy	Biological and biomedical sciences	Neurobiology and neurosciences	Neurobiology and neurosciences nec
26.1599	Neurobiology and Neurosciences, Other	Biological and biomedical sciences	Neurobiology and neurosciences	Neurobiology and neurosciences nec
26.1599c	Computational Neuroscience[b]	Biological and biomedical sciences	Neurobiology and neurosciences	Neurobiology and neurosciences nec
26.1001	Pharmacology	Biological and biomedical sciences	Pharmacology and toxicology	Pharmacology
26.1004	Toxicology	Biological and biomedical sciences	Pharmacology and toxicology	Toxicology
26.1005	Molecular Toxicology	Biological and biomedical sciences	Pharmacology and toxicology	Toxicology
26.1006	Environmental Toxicology	Biological and biomedical sciences	Pharmacology and toxicology	Toxicology
26.1002	Molecular Pharmacology	Biological and biomedical sciences	Pharmacology and toxicology	Pharmacology and toxicology nec
26.1003	Neuropharmacology	Biological and biomedical sciences	Pharmacology and toxicology	Pharmacology and toxicology nec
26.1007	Pharmacology and Toxicology	Biological and biomedical sciences	Pharmacology and toxicology	Pharmacology and toxicology nec
26.1099	Pharmacology and Toxicology, Other	Biological and biomedical sciences	Pharmacology and toxicology	Pharmacology and toxicology nec
26.0913	Biomechanics	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Biomechanics
26.0908	Exercise Physiology and Kinesiology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Exercise physiology and kinesiology
26.0911	Oncology and Cancer Biology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Oncology and cancer biology
26.0901	Physiology, General	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, general
26.0902	Molecular Physiology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0903	Cell Physiology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0904	Endocrinology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0905	Reproductive Biology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0907	Cardiovascular Science	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0909	Vision Science/ Physiological Optics	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0910	Pathology/ Experimental Pathology	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0912	Aerospace Physiology and Medicine	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0999	Physiology, Pathology, and Related Sciences, Other	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0999b	Pathobiology/Integrative Pathobiology[b]	Biological and biomedical sciences	Physiology, oncology, and cancer biology	Physiology, oncology, and cancer biology nec
26.0101	Biology/ Biological Sciences, General	Biological and biomedical sciences	Biological and biomedical sciences, other	Biology/ biological sciences, general

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
26.0101b	Integrative/Interdisciplinary Biology, Biosciences, and Biomedical Sciences[b]	Biological and biomedical sciences	Biological and biomedical sciences, other	Biology/ biological sciences, general
26.0102	Biomedical Sciences, General	Biological and biomedical sciences	Biological and biomedical sciences, other	Biomedical sciences, general
26.0301	Botany/ Plant Biology	Biological and biomedical sciences	Biological and biomedical sciences, other	Botany and plant biology
26.0702	Entomology	Biological and biomedical sciences	Biological and biomedical sciences, other	Entomology
26.0702b	Nematology	Biological and biomedical sciences	Biological and biomedical sciences, other	Entomology
26.0702c	Entomology and Nematology[b]	Biological and biomedical sciences	Biological and biomedical sciences, other	Entomology
26.0305	Plant Pathology/ Phytopathology (BIOLOGY)	Biological and biomedical sciences	Biological and biomedical sciences, other	Plant pathology and phytopathology
26.0305b	Plant Pathology/ Phytopathology (AGRICULTURAL SCIENCES)	Biological and biomedical sciences	Biological and biomedical sciences, other	Plant pathology and phytopathology
26.0307	Plant Physiology	Biological and biomedical sciences	Biological and biomedical sciences, other	Plant physiology and biology nec
26.0308	Plant Molecular Biology	Biological and biomedical sciences	Biological and biomedical sciences, other	Plant physiology and biology nec
26.0399	Botany/ Plant Biology, Other	Biological and biomedical sciences	Biological and biomedical sciences, other	Plant physiology and biology nec
26.0701	Zoology/ Animal Biology	Biological and biomedical sciences	Biological and biomedical sciences, other	Zoology and animal biology
26.0707	Animal Physiology	Biological and biomedical sciences	Biological and biomedical sciences, other	Zoology and animal biology
26.0708	Animal Behavior and Ethology	Biological and biomedical sciences	Biological and biomedical sciences, other	Zoology and animal biology
26.0709	Wildlife Biology	Biological and biomedical sciences	Biological and biomedical sciences, other	Zoology and animal biology
26.0799	Zoology/ Animal Biology, Other	Biological and biomedical sciences	Biological and biomedical sciences, other	Zoology and animal biology
26.1201	Biotechnology	Biological and biomedical sciences	Biological and biomedical sciences, other	Biological and biomedical sciences nec
26.1401	Molecular Medicine	Biological and biomedical sciences	Biological and biomedical sciences, other	Biological and biomedical sciences nec
26.9999	Biological and Biomedical Sciences, Other	Biological and biomedical sciences	Biological and biomedical sciences, other	Biological and biomedical sciences nec
11.0701	Computer Science	Computer and information sciences	Computer science	Computer science
11.0701b	Computing Theory and Practice (COMPUTER SCIENCE)	Computer and information sciences	Computer science	Computer science
11.0701c	Computing Theory and Practice (MATHEMATICS)	Computer and information sciences	Computer science	Computer science
11.0102	Artificial Intelligence	Computer and information sciences	Computer and information sciences, other	Artificial intelligence
11.0101	Computer and Information Sciences, General	Computer and information sciences	Computer and information sciences, other	Computer and information sciences, general
11.0901	Computer Systems Networking and Telecommunications	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.0902	Cloud Computing	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.0999	Computer Systems Networking and Telecommunications, Other	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
11.1001	Network and System Administration/ Administrator	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1002	System, Networking, and LAN/ WAN Management/ Manager	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1003	Computer and Information Systems Security/ Auditing/ Information Assurance	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1004	Web/ Multimedia Management and Webmaster	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1005	Information Technology Project Management	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1006	Computer Support Specialist	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.1099	Computer/ Information Technology Services Administration and Management, Other	Computer and information sciences	Computer and information sciences, other	Computer systems networking and telecommunications
11.0103	Information Technology	Computer and information sciences	Computer and information sciences, other	Informatics and information technology
11.0104	Informatics	Computer and information sciences	Computer and information sciences, other	Informatics and information technology
11.0105	Human-Centered Technology Design	Computer and information sciences	Computer and information sciences, other	Informatics and information technology
11.0401	Information Science/ Studies	Computer and information sciences	Computer and information sciences, other	Information sciences/ studies
11.0199	Computer and Information Sciences, Other	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0201	Computer Programming/ Programmer, General	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0202	Computer Programming, Specific Applications	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0203	Computer Programming, Vendor/ Product Certification	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0204	Computer Game Programming	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0205	Computer Programming, Specific Platforms	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0299	Computer Programming, Other	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0301	Data Processing and Data Processing Technology	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0501	Computer Systems Analysis/ Analyst	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0601	Data Entry/ Microcomputer Applications, General[d]	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0602	Word Processing[d]	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0699	Data Entry/ Microcomputer Applications, Other[d]	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0801	Web Page, Digital/ Multimedia and Information Resources Design	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0802	Data Modeling/ Warehousing and Database Administration	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0803	Computer Graphics	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
11.0804	Modeling, Virtual Environments and Simulation	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.0899	Computer Software and Media Applications, Other	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
11.9999	Computer and Information Sciences and Support Services, Other	Computer and information sciences	Computer and information sciences, other	Computer and information sciences nec
14.0501	Bioengineering and Biomedical Engineering	Engineering	Biological, biomedical, and biosystems engineering	Bioengineering and biomedical engineering
14.4501	Biological/ Biosystems Engineering	Engineering	Biological, biomedical, and biosystems engineering	Biological and biosystems engineering and biomedical technology
15.0401	Biomedical Technology	Engineering	Biological, biomedical, and biosystems engineering	Biological and biosystems engineering and biomedical technology
14.0702	Chemical and Biomolecular Engineering	Engineering	Chemical and petroleum engineering	Chemical and biomolecular engineering
14.0701	Chemical Engineering	Engineering	Chemical and petroleum engineering	Chemical engineering
14.2501	Petroleum Engineering	Engineering	Chemical and petroleum engineering	Petroleum engineering
14.0799	Chemical Engineering, Other	Engineering	Chemical and petroleum engineering	Chemical and petroleum engineering nec
14.3201	Polymer/ Plastics Engineering	Engineering	Chemical and petroleum engineering	Chemical and petroleum engineering nec
14.4001	Paper Science and Engineering	Engineering	Chemical and petroleum engineering	Chemical and petroleum engineering nec
14.4301	Biochemical Engineering	Engineering	Chemical and petroleum engineering	Chemical and petroleum engineering nec
14.4401	Engineering Chemistry	Engineering	Chemical and petroleum engineering	Chemical and petroleum engineering nec
14.0801	Civil Engineering, General	Engineering	Civil, environmental, and transportation engineering	Civil engineering
14.0899	Civil Engineering, Other	Engineering	Civil, environmental, and transportation engineering	Civil engineering
14.0899b	Civil and Environmental Engineering[b]	Engineering	Civil, environmental, and transportation engineering	Civil and environmental engineering[o]
14.1401	Environmental/ Environmental Health Engineering	Engineering	Civil, environmental, and transportation engineering	Environmental/ environmental health engineering
14.0802	Geotechnical and Geoenvironmental Engineering	Engineering	Civil, environmental, and transportation engineering	Geotechnical and geoenvironmental engineering
14.3901	Geological/ Geophysical Engineering	Engineering	Civil, environmental, and transportation engineering	Geotechnical and geoenvironmental engineering
14.0803	Structural Engineering	Engineering	Civil, environmental, and transportation engineering	Structural engineering
14.0804	Transportation and Highway Engineering	Engineering	Civil, environmental, and transportation engineering	Transportation and highway engineering
14.0401	Architectural Engineering	Engineering	Civil, environmental, and transportation engineering	Civil, environmental, and transportation engineering nec
14.0805	Water Resources Engineering	Engineering	Civil, environmental, and transportation engineering	Civil, environmental, and transportation engineering nec
14.3301	Construction Engineering	Engineering	Civil, environmental, and transportation engineering	Civil, environmental, and transportation engineering nec
14.3801	Surveying Engineering	Engineering	Civil, environmental, and transportation engineering	Civil, environmental, and transportation engineering nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
14.0901	Computer Engineering, General	Engineering	Electrical and computer engineering	Computer engineering
14.0902	Computer Hardware Engineering	Engineering	Electrical and computer engineering	Computer engineering
14.0903	Computer Software Engineering	Engineering	Electrical and computer engineering	Computer engineering
14.0999	Computer Engineering, Other	Engineering	Electrical and computer engineering	Computer engineering
14.4701	Electrical and Computer Engineering	Engineering	Electrical and computer engineering	Electrical and computer engineering
14.1001	Electrical and Electronics Engineering	Engineering	Electrical and computer engineering	Electrical and electronics engineering
14.1003	Laser and Optical Engineering	Engineering	Electrical and computer engineering	Electrical and computer engineering nec
14.1004	Telecommunications Engineering	Engineering	Electrical and computer engineering	Electrical and computer engineering nec
14.1099	Electrical, Electronics, and Communications Engineering, Other	Engineering	Electrical and computer engineering	Electrical and computer engineering nec
14.1099b	Communications Engineering	Engineering	Electrical and computer engineering	Electrical and computer engineering nec
15.0303	Electrical, Electronic, and Communications Engineering Technology	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0304	Laser and Optical Technology	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0305	Telecommunications Technology	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0306	Integrated Circuit Design Technology	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0307	Audio Engineering Technology	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0399	Electrical/ Electronic Engineering Technologies, Other	Engineering	Engineering technologies	Electrical and electronic engineering technologies
15.0403	Electromechanical/ Electromechanical Engineering Technology	Engineering	Engineering technologies	Electromechanical technologies
15.0404	Instrumentation Technology	Engineering	Engineering technologies	Electromechanical technologies
15.0405	Robotics Technology	Engineering	Engineering technologies	Electromechanical technologies
15.0406	Automation Engineer Technology	Engineering	Engineering technologies	Electromechanical technologies
15.0407	Mechatronics, Robotics, and Automation Engineering Technology	Engineering	Engineering technologies	Electromechanical technologies
15.0499	Electromechanical Technologies, Other	Engineering	Engineering technologies	Electromechanical technologies
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology	Engineering	Engineering technologies	Environmental control technologies
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology	Engineering	Engineering technologies	Environmental control technologies
15.0507	Environmental/ Environmental Engineering Technology	Engineering	Engineering technologies	Environmental control technologies
15.0508	Hazardous Materials Management and Waste Technology	Engineering	Engineering technologies	Environmental control technologies
15.0599	Environmental Control Technologies, Other	Engineering	Engineering technologies	Environmental control technologies
15.0000	Engineering Technologies, General	Engineering	Engineering technologies	Engineering technologies nec
15.0001	Applied Engineering Technologies	Engineering	Engineering technologies	Engineering technologies nec
15.0101	Architectural Engineering Technologies	Engineering	Engineering technologies	Engineering technologies nec
15.0201	Civil Engineering Technologies	Engineering	Engineering technologies	Engineering technologies nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
15.0607	Plastics and Polymer Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0611	Metallurgical Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0612	Industrial Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0613	Manufacturing Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0614	Welding Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0615	Chemical Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0616	Semiconductor Manufacturing Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0617	Composite Materials Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0699	Industrial Production Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.0701	Occupational Safety and Health Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0702	Quality Control Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0703	Industrial Safety Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0704	Hazardous Materials Information Systems Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0705	Process Safety Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0799	Quality Control and Safety Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.0803	Automotive Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0805	Mechanical/ Mechanical Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0806	Marine Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0807	Motorsports Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0899	Mechanical Engineering Related Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.0901	Mining Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0903	Petroleum Technology	Engineering	Engineering technologies	Engineering technologies nec
15.0999	Mining and Petroleum Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.1001	Construction Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1103	Hydraulics and Fluid Power Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1199	Engineering-Related Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.1201	Computer Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1202	Computer/ Computer Systems Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1203	Computer Hardware Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1204	Computer Software Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1299	Computer Engineering Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.1301	Drafting and Design Technology, General	Engineering	Engineering technologies	Engineering technologies nec
15.1302	CAD/ CADD Drafting and/ or Design Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1303	Architectural Drafting and Architectural CAD/ CADD	Engineering	Engineering technologies	Engineering technologies nec
15.1304	Civil Drafting and Civil Engineering CAD/ CADD	Engineering	Engineering technologies	Engineering technologies nec
15.1305	Electrical/ Electronics Drafting and Electrical/ Electronics CAD/ CADD	Engineering	Engineering technologies	Engineering technologies nec
15.1306	Mechanical Drafting and Mechanical Drafting CAD/ CADD	Engineering	Engineering technologies	Engineering technologies nec
15.1307	3-D Modeling and Design Technology	Engineering	Engineering technologies	Engineering technologies nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
15.1399	Drafting/ Design Engineering Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.1401	Nuclear Engineering Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1701	Energy Systems Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1702	Power Plant Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1703	Solar Energy Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1704	Wind Energy Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1705	Hydroelectric Energy Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1706	Geothermal Energy Technology	Engineering	Engineering technologies	Engineering technologies nec
15.1799	Energy Systems Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
15.9999	Engineering/ Engineering-Related Technologies, Other	Engineering	Engineering technologies	Engineering technologies nec
14.3501	Industrial Engineering	Engineering	Industrial engineering and operations research	Industrial engineering
14.3501b	Industrial and Systems Engineering[b]	Engineering	Industrial engineering and operations research	Industrial and systems engineering[o]
14.3701	Operations Research (ENGINEERING)	Engineering	Industrial engineering and operations research	Operations research
14.3701b	Operations Research (MATHEMATICS)	Engineering	Industrial engineering and operations research	Operations research
14.3701c	Operations Research (BUSINESS)	Engineering	Industrial engineering and operations research	Operations research
14.2701	Systems Engineering	Engineering	Industrial engineering and operations research	Systems and manufacturing engineering
14.3601	Manufacturing Engineering	Engineering	Industrial engineering and operations research	Systems and manufacturing engineering
14.1801	Materials Engineering	Engineering	Materials and mining engineering	Materials engineering
14.1801b	Materials Science and Engineering	Engineering	Materials and mining engineering	Materials science and engineering
14.0601	Ceramic Sciences and Engineering	Engineering	Materials and mining engineering	Materials and mining engineering nec
14.2001	Metallurgical Engineering	Engineering	Materials and mining engineering	Materials and mining engineering nec
14.2101	Mining and Mineral Engineering	Engineering	Materials and mining engineering	Materials and mining engineering nec
14.2801	Textile Sciences and Engineering	Engineering	Materials and mining engineering	Materials and mining engineering nec
14.1901	Mechanical Engineering	Engineering	Mechanical engineering	Mechanical engineering, general
14.4101	Electromechanical Engineering[e]	Engineering	Mechanical engineering	Mechanical engineering nec[o]
14.4201	Mechatronics, Robotics, and Automation Engineering[e]	Engineering	Mechanical engineering	Mechanical engineering nec[o]
14.0201	Aerospace, Aeronautical, and Astronautical/ Space Engineering, General	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering
14.0202	Astronautical Engineering	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering
14.0202b	Aeronautics and Astronautics[b]	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
14.0299	Aerospace, Aeronautical, and Astronautical/ Space Engineering, Other	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering
15.0801	Aeronautical/ Aerospace Engineering Technology	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering
49.0101	Aeronautics/ Aviation/ Aerospace Science and Technology, General	Engineering	Engineering, other	Aerospace, aeronautical, astronautical, and space engineering
14.1101	Engineering Mechanics	Engineering	Engineering, other	Engineering mechanics, physics, and science
14.1101b	Computational Mechanics[b]	Engineering	Engineering, other	Engineering mechanics, physics, and science
14.1201	Engineering Physics	Engineering	Engineering, other	Engineering mechanics, physics, and science
14.1301	Engineering Science	Engineering	Engineering, other	Engineering mechanics, physics, and science
14.1901b	Mechanical and Aerospace Engineering[b]	Engineering	Engineering, other	Mechanical and aerospace engineering[o]
15.1601	Nanotechnology	Engineering	Engineering, other	Nanotechnology
14.2301	Nuclear Engineering	Engineering	Engineering, other	Nuclear engineering
14.0101	Engineering, General	Engineering	Engineering, other	Engineering nec
14.0102	Pre-Engineering	Engineering	Engineering, other	Engineering nec
14.0103	Applied Engineering	Engineering	Engineering, other	Engineering nec
14.0301	Agricultural Engineering	Engineering	Engineering, other	Engineering nec
14.2201	Naval Architecture and Marine Engineering	Engineering	Engineering, other	Engineering nec
14.2401	Ocean Engineering	Engineering	Engineering, other	Engineering nec
14.3401	Forest Engineering	Engineering	Engineering, other	Engineering nec
14.4801	Energy Systems Engineering, General	Engineering	Engineering, other	Engineering nec
14.4802	Power Plant Engineering	Engineering	Engineering, other	Engineering nec
14.4899	Energy Systems Engineering, Other	Engineering	Engineering, other	Engineering nec
14.9999	Engineering, Other	Engineering	Engineering, other	Engineering nec
14.9999b	Engineering Education	Engineering	Engineering, other	Engineering nec
14.9999c	Engineering Management and Administration	Engineering	Engineering, other	Engineering nec
14.9999d	Computational Engineering[b]	Engineering	Engineering, other	Engineering nec
14.9999e	Nanoengineering/Nanoscale Engineering[b]	Engineering	Engineering, other	Engineering nec
15.1501	Engineering/ Industrial Management	Engineering	Engineering, other	Engineering nec
15.1502	Engineering Design	Engineering	Engineering, other	Engineering nec
15.1503	Packaging Science	Engineering	Engineering, other	Engineering nec
15.1599	Engineering-Related Fields, Other	Engineering	Engineering, other	Engineering nec
40.0602	Geochemistry	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geochemistry
40.0606	Geochemistry and Petrology	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geochemistry
40.0601c	Geology	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geology

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
40.0601	Geology/ Earth Science, General	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geology/ earth science, general
40.0601b	Earth Science	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geology/ earth science, general
40.0603	Geophysics and Seismology	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geophysics and seismology
40.0605	Hydrology and Water Resources Science	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Hydrology and water resources science
15.1102	Surveying Technology/ Surveying	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
30.3801	Earth Systems Science	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
30.3801b	Earth & Environmental Sciences[b]	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
30.4101	Environmental Geosciences	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
40.0604	Paleontology	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
40.0699	Geological and Earth Sciences/ Geosciences, Other	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
40.0699b	Geomorphology and Glacial Geology	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
40.0699c	Stratigraphy and Sedimentation	Geosciences, atmospheric, and ocean sciences	Geological and earth sciences	Geological and earth sciences nec
40.0401	Atmospheric Sciences and Meteorology, General	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Atmospheric sciences and meteorology, general
30.3501	Climate Science[f]	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Atmospheric sciences and meteorology nec
40.0404	Meteorology[f]	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Atmospheric sciences and meteorology nec
40.0499	Atmospheric Sciences and Meteorology, Other[f]	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Atmospheric sciences and meteorology nec
40.0499b	Planetary Sciences[b]	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Atmospheric sciences and meteorology nec
40.0402	Atmospheric Chemistry and Climatology	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Climatology, atmospheric chemistry/ physics
40.0403	Atmospheric Physics and Dynamics	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Climatology, atmospheric chemistry/ physics

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
26.1302	Marine Biology and Biological Oceanography	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Marine biology and biological oceanography
30.3201	Marine Sciences	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Marine sciences
30.3201b	Ocean/ Marine Science, Other	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Marine sciences
40.0607	Oceanography, Chemical and Physical	Geosciences, atmospheric, and ocean sciences	Ocean, marine, and atmospheric sciences	Oceanography, chemical/ physical
51.3203	Nursing Education	Health sciences	Nursing and nursing science	Nursing education
51.3808	Nursing Science	Health sciences	Nursing and nursing science	Nursing science
51.3801	Registered Nursing/ Registered Nurse	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3802	Nursing Administration	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3803	Adult Health Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3804	Nurse Anesthetist	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3805	Family Practice Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3806	Maternal/ Child Health and Neonatal Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3807	Nurse Midwife/ Nursing Midwifery	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3809	Pediatric Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3810	Psychiatric/ Mental Health Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3811	Public Health/ Community Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3812	Perioperative/ Operating Room and Surgical Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3813	Clinical Nurse Specialist	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3814	Critical Care Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3815	Occupational and Environmental Health Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3816	Emergency Room/ Trauma Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3818	Nursing Practice	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3819	Palliative Care Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3820	Clinical Nurse Leader	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3821	Geriatric Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3822	Women's Health Nurse/ Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.3824	Forensic Nursing	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3899	Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing, Other	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3901	Licensed Practical/ Vocational Nurse Training	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3902	Nursing Assistant/ Aide and Patient Care Assistant/ Aide	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other	Health sciences	Nursing and nursing science	Nursing specialties and practice
51.2004	Medicinal and Pharmaceutical Chemistry	Health sciences	Pharmacy and pharmaceutical sciences	Medicinal and pharmaceutical chemistry
51.2010	Pharmaceutical Sciences	Health sciences	Pharmacy and pharmaceutical sciences	Pharmaceutical sciences
51.2001	Pharmacy	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2002	Pharmacy Administration and Pharmacy Policy and Regulatory Affairs	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2003	Pharmaceutics and Drug Design	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2005	Natural Products Chemistry and Pharmacognosy	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2006	Clinical and Industrial Drug Development	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2007	Pharmacoeconomics/ Pharmaceutical Economics	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2008	Clinical, Hospital, and Managed Care Pharmacy	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2009	Industrial and Physical Pharmacy and Cosmetic Sciences	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2011	Pharmaceutical Marketing and Management	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Health sciences	Pharmacy and pharmaceutical sciences	Pharmacy, pharmaceutical sciences, and administration nec
51.2202	Environmental Health	Health sciences	Public health	Environmental health
51.2211b	Health Services Research	Health sciences	Public health	Health services research
51.2205	Health/ Medical Physics	Health sciences	Public health	Health/ medical physics
51.2207	Public Health Education and Promotion	Health sciences	Public health	Public health education and promotion
51.2201	Public Health, General	Health sciences	Public health	Public health, general
51.2206	Occupational Health and Industrial Hygiene	Health sciences	Public health	Public health nec
51.2208	Community Health and Preventive Medicine	Health sciences	Public health	Public health nec
51.2209	Maternal and Child Health	Health sciences	Public health	Public health nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.2210	International Public Health/ International Health	Health sciences	Public health	Public health nec
51.2211	Health Services Administration	Health sciences	Public health	Public health nec
51.2212	Behavioral Aspects of Health	Health sciences	Public health	Public health nec
51.2213	Patient Safety and Healthcare Quality	Health sciences	Public health	Public health nec
51.2214	Public Health Genetics	Health sciences	Public health	Public health nec
51.2299	Public Health, Other	Health sciences	Public health	Public health nec
51.0201	Communication Sciences and Disorders, General	Health sciences	Health sciences, other	Communication disorders sciences
51.0202	Audiology/ Audiologist	Health sciences	Health sciences, other	Communication disorders sciences
51.0203	Speech-Language Pathology/ Pathologist	Health sciences	Health sciences, other	Communication disorders sciences
51.0204	Audiology/ Audiologist and Speech-Language Pathology/ Pathologist	Health sciences	Health sciences, other	Communication disorders sciences
51.0299	Communication Disorders Sciences and Services, Other	Health sciences	Health sciences, other	Communication disorders sciences
31.0505	Exercise Science and Kinesiology	Health sciences	Health sciences, other	Exercise science and kinesiology
51.0000	Health Services/ Allied Health/ Health Sciences, General	Health sciences	Health sciences, other	Health sciences, general
51.0000b	Health sciences, general	Health sciences	Health sciences, other	Health sciences, general
51.0001	Health and Wellness, General	Health sciences	Health sciences, other	Health sciences, general
51.1505	Marriage and Family Therapy/ Counseling	Health sciences	Health sciences, other	Marriage and family therapy/ counseling
51.1401	Medical Science/ Scientist	Health sciences	Health sciences, other	Medical clinical sciences
51.1402	Clinical and Translational Science	Health sciences	Health sciences, other	Medical clinical sciences
51.1403	Pain Management	Health sciences	Health sciences, other	Medical clinical sciences
51.1404	Temporomandibular Disorders and Orofacial Pain	Health sciences	Health sciences, other	Medical clinical sciences
51.1405	Tropical Medicine	Health sciences	Health sciences, other	Medical clinical sciences
51.1499	Medical Clinical Sciences/ Graduate Medical Studies, Other	Health sciences	Health sciences, other	Medical clinical sciences
51.1499	Medical Clinical Sciences/ Graduate Medical Studies, Other	Health sciences	Health sciences, other	Medical clinical sciences
51.1499b	Clinical Investigation and Sciences[b]	Health sciences	Health sciences, other	Medical clinical sciences
51.2703	Medical Illustration/ Medical Illustrator	Health sciences	Health sciences, other	Medical, biomedical, and health informatics
51.2706	Medical Informatics	Health sciences	Health sciences, other	Medical, biomedical, and health informatics
51.2706b	Biomedical and Health Informatics	Health sciences	Health sciences, other	Medical, biomedical, and health informatics
51.2799	Medical Illustration and Informatics, Other	Health sciences	Health sciences, other	Medical, biomedical, and health informatics
51.1501	Substance Abuse/ Addiction Counseling	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1502	Psychiatric/ Mental Health Services Technician	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1503	Clinical/ Medical Social Work	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1504	Community Health Services/ Liaison/ Counseling	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1506	Clinical Pastoral Counseling/ Patient Counseling	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.1507	Psychoanalysis and Psychotherapy	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1508	Mental Health Counseling/ Counselor	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1509	Genetic Counseling/ Counselor	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1510	Infant/ Toddler Mental Health Services	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1511	Medical Family Therapy/ Therapist	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1512	Hospice and Palliative Care	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1513	Trauma Counseling	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.1599	Mental and Social Health Services and Allied Professions, Other	Health sciences	Health sciences, other	Mental health, counseling, and therapy services and sciences
51.2300	Rehabilitation and Therapeutic Professions, General	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2301	Art Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2302	Dance Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2305	Music Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2306	Occupational Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2307	Orthotist/ Prosthetist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2308	Physical Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2309	Therapeutic Recreation/ Recreational Therapy	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2310	Vocational Rehabilitation Counseling/ Counselor	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2311	Kinesiotherapy/ Kinesiotherapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2312	Assistive/ Augmentative Technology and Rehabilitation Engineering	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2313	Animal-Assisted Therapy	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2314	Rehabilitation Science	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2315	Drama Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2316	Horticulture Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2317	Play Therapy/ Therapist	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.2399	Rehabilitation and Therapeutic Professions, Other	Health sciences	Health sciences, other	Rehabilitation and therapeutic sciences
51.0101	Chiropractic	Health sciences	Health sciences, other	Health sciences nec
51.0401	Dentistry	Health sciences	Health sciences, other	Health sciences nec
51.0501	Dental Clinical Sciences, General	Health sciences	Health sciences, other	Health sciences nec
51.0502	Advanced General Dentistry	Health sciences	Health sciences, other	Health sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.0503	Oral Biology and Oral and Maxillofacial Pathology	Health sciences	Health sciences, other	Health sciences nec
51.0504	Dental Public Health and Education	Health sciences	Health sciences, other	Health sciences nec
51.0505	Dental Materials	Health sciences	Health sciences, other	Health sciences nec
51.0506	Endodontics/ Endodontology	Health sciences	Health sciences, other	Health sciences nec
51.0507	Oral/ Maxillofacial Surgery	Health sciences	Health sciences, other	Health sciences nec
51.0508	Orthodontics/ Orthodontology	Health sciences	Health sciences, other	Health sciences nec
51.0509	Pediatric Dentistry/ Pedodontics	Health sciences	Health sciences, other	Health sciences nec
51.0510	Periodontics/ Periodontology	Health sciences	Health sciences, other	Health sciences nec
51.0511	Prosthodontics/ Prosthodontology	Health sciences	Health sciences, other	Health sciences nec
51.0512	Digital Dentistry	Health sciences	Health sciences, other	Health sciences nec
51.0513	Geriatric Dentistry	Health sciences	Health sciences, other	Health sciences nec
51.0514	Implantology/ Implant Dentistry	Health sciences	Health sciences, other	Health sciences nec
51.0599	Advanced/ Graduate Dentistry and Oral Sciences, Other	Health sciences	Health sciences, other	Health sciences nec
51.0601	Dental Assisting/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0602	Dental Hygiene/ Hygienist	Health sciences	Health sciences, other	Health sciences nec
51.0603	Dental Laboratory Technology	Health sciences	Health sciences, other	Health sciences nec
51.0699	Dental Services and Allied Professions, Other	Health sciences	Health sciences, other	Health sciences nec
51.0701	Health/ Health Care Administration/ Management	Health sciences	Health sciences, other	Health sciences nec
51.0702	Hospital and Health Care Facilities Administration/ Management	Health sciences	Health sciences, other	Health sciences nec
51.0703	Health Unit Coordinator/ Ward Clerk	Health sciences	Health sciences, other	Health sciences nec
51.0704	Health Unit Manager/ Ward Supervisor	Health sciences	Health sciences, other	Health sciences nec
51.0705	Medical Office Management/ Administration	Health sciences	Health sciences, other	Health sciences nec
51.0706	Health Information/ Medical Records Administration/ Administrator	Health sciences	Health sciences, other	Health sciences nec
51.0707	Health Information/ Medical Records Technology	Health sciences	Health sciences, other	Health sciences nec
51.0708	Medical Transcription/ Transcriptionist	Health sciences	Health sciences, other	Health sciences nec
51.0709	Medical Office Computer Specialist/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0710	Medical Office Assistant/ Specialist	Health sciences	Health sciences, other	Health sciences nec
51.0711	Medical/ Health Management and Clinical Assistant/ Specialist	Health sciences	Health sciences, other	Health sciences nec
51.0712	Medical Reception/ Receptionist	Health sciences	Health sciences, other	Health sciences nec
51.0713	Medical Insurance Coding Specialist/ Coder	Health sciences	Health sciences, other	Health sciences nec
51.0714	Medical Insurance Specialist/ Medical Biller	Health sciences	Health sciences, other	Health sciences nec
51.0715	Health/ Medical Claims Examiner	Health sciences	Health sciences, other	Health sciences nec
51.0716	Medical Administrative/ Executive Assistant and Medical Secretary	Health sciences	Health sciences, other	Health sciences nec
51.0717	Medical Staff Services Technology	Health sciences	Health sciences, other	Health sciences nec
51.0718	Long Term Care Administration/ Management	Health sciences	Health sciences, other	Health sciences nec
51.0719	Clinical Research Coordinator	Health sciences	Health sciences, other	Health sciences nec
51.0720	Regulatory Science/ Affairs	Health sciences	Health sciences, other	Health sciences nec
51.0721	Disease Registry Data Management	Health sciences	Health sciences, other	Health sciences nec
51.0722	Healthcare Innovation	Health sciences	Health sciences, other	Health sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.0723	Healthcare Information Privacy Assurance and Security	Health sciences	Health sciences, other	Health sciences nec
51.0799	Health and Medical Administrative Services, Other	Health sciences	Health sciences, other	Health sciences nec
51.0801	Medical/ Clinical Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0802	Clinical/ Medical Laboratory Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0803	Occupational Therapist Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0805	Pharmacy Technician/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0806	Physical Therapy Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0809	Anesthesiologist Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0810	Emergency Care Attendant (EMT Ambulance)	Health sciences	Health sciences, other	Health sciences nec
51.0811	Pathology/ Pathologist Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0812	Respiratory Therapy Technician/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0813	Chiropractic Technician/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0814	Radiologist Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0815	Lactation Consultant	Health sciences	Health sciences, other	Health sciences nec
51.0816	Speech-Language Pathology Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0899	Allied Health and Medical Assisting Services, Other	Health sciences	Health sciences, other	Health sciences nec
51.0901	Cardiovascular Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.0902	Electrocardiograph Technology	Health sciences	Health sciences, other	Health sciences nec
51.0903	Electroneurodiagnostic/ Electroencephalographic Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.0904	Emergency Medical Technology (EMT Paramedic)	Health sciences	Health sciences, other	Health sciences nec
51.0905	Nuclear Medical Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.0906	Perfusion Technology/ Perfusionist	Health sciences	Health sciences, other	Health sciences nec
51.0907	Medical Radiologic Technology/ Science - Radiation Therapist	Health sciences	Health sciences, other	Health sciences nec
51.0908	Respiratory Care Therapy/ Therapist	Health sciences	Health sciences, other	Health sciences nec
51.0909	Surgical Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.0910	Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	Health sciences	Health sciences, other	Health sciences nec
51.0911	Radiologic Technology/ Science - Radiographer	Health sciences	Health sciences, other	Health sciences nec
51.0912	Physician Assistant	Health sciences	Health sciences, other	Health sciences nec
51.0913	Athletic Training/ Trainer	Health sciences	Health sciences, other	Health sciences nec
51.0914	Gene/ Genetic Therapy	Health sciences	Health sciences, other	Health sciences nec
51.0915	Cardiopulmonary Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.0916	Radiation Protection/ Health Physics Technician	Health sciences	Health sciences, other	Health sciences nec
51.0917	Polysomnography	Health sciences	Health sciences, other	Health sciences nec
51.0918	Hearing Instrument Specialist	Health sciences	Health sciences, other	Health sciences nec
51.0919	Mammography Technology	Health sciences	Health sciences, other	Health sciences nec
51.0920	Magnetic Resonance Imaging (MRI) Technology	Health sciences	Health sciences, other	Health sciences nec
51.0921	Hyperbaric Medicine Technology	Health sciences	Health sciences, other	Health sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.0922	Intraoperative Neuromonitoring Technology	Health sciences	Health sciences, other	Health sciences nec
51.0923	Orthopedic Technology	Health sciences	Health sciences, other	Health sciences nec
51.0999	Allied Health Diagnostic, Intervention, and Treatment Professions, Other	Health sciences	Health sciences, other	Health sciences nec
51.1001	Blood Bank Technology Specialist	Health sciences	Health sciences, other	Health sciences nec
51.1002	Cytotechnology/ Cytotechnologist	Health sciences	Health sciences, other	Health sciences nec
51.1003	Hematology Technology	Health sciences	Health sciences, other	Health sciences nec
51.1004	Clinical/ Medical Laboratory Technician	Health sciences	Health sciences, other	Health sciences nec
51.1005	Clinical Laboratory Science/ Medical Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.1006	Ophthalmic Laboratory Technology	Health sciences	Health sciences, other	Health sciences nec
51.1007	Histologic Technology/ Histotechnologist	Health sciences	Health sciences, other	Health sciences nec
51.1008	Histologic Technician	Health sciences	Health sciences, other	Health sciences nec
51.1009	Phlebotomy Technician/ Phlebotomist	Health sciences	Health sciences, other	Health sciences nec
51.1010	Cytogenetics/ Genetics/ Clinical Genetics Technology/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.1011	Renal/ Dialysis Technologist/ Technician	Health sciences	Health sciences, other	Health sciences nec
51.1012	Sterile Processing Technology	Health sciences	Health sciences, other	Health sciences nec
51.1099	Clinical/ Medical Laboratory Science and Allied Professions, Other	Health sciences	Health sciences, other	Health sciences nec
51.1101	Pre-Dentistry Studies	Health sciences	Health sciences, other	Health sciences nec
51.1102	Pre-Medicine/ Pre-Medical Studies	Health sciences	Health sciences, other	Health sciences nec
51.1103	Pre-Pharmacy Studies	Health sciences	Health sciences, other	Health sciences nec
51.1105	Pre-Nursing Studies	Health sciences	Health sciences, other	Health sciences nec
51.1106	Pre-Chiropractic Studies	Health sciences	Health sciences, other	Health sciences nec
51.1107	Pre-Occupational Therapy Studies	Health sciences	Health sciences, other	Health sciences nec
51.1108	Pre-Optometry Studies	Health sciences	Health sciences, other	Health sciences nec
51.1109	Pre-Physical Therapy Studies	Health sciences	Health sciences, other	Health sciences nec
51.1110	Pre-Art Therapy	Health sciences	Health sciences, other	Health sciences nec
51.1111	Pre-Physician Assistant	Health sciences	Health sciences, other	Health sciences nec
51.1199	Health/ Medical Preparatory Programs, Other	Health sciences	Health sciences, other	Health sciences nec
51.1201	Medicine	Health sciences	Health sciences, other	Health sciences nec
51.1202	Osteopathic Medicine/ Osteopathy	Health sciences	Health sciences, other	Health sciences nec
51.1203	Podiatric Medicine/ Podiatry	Health sciences	Health sciences, other	Health sciences nec
51.1299	Medicine, Other	Health sciences	Health sciences, other	Health sciences nec
51.1701	Optometry	Health sciences	Health sciences, other	Health sciences nec
51.1801	Opticianry/ Ophthalmic Dispensing Optician	Health sciences	Health sciences, other	Health sciences nec
51.1802	Optometric Technician/ Assistant	Health sciences	Health sciences, other	Health sciences nec
51.1803	Ophthalmic Technician/ Technologist	Health sciences	Health sciences, other	Health sciences nec
51.1804	Orthoptics/ Orthoptist	Health sciences	Health sciences, other	Health sciences nec
51.1899	Ophthalmic and Optometric Support Services and Allied Professions, Other	Health sciences	Health sciences, other	Health sciences nec
51.2601	Health Aide	Health sciences	Health sciences, other	Health sciences nec
51.2602	Home Health Aide/ Home Attendant	Health sciences	Health sciences, other	Health sciences nec
51.2603	Medication Aide	Health sciences	Health sciences, other	Health sciences nec
51.2604	Rehabilitation Aide	Health sciences	Health sciences, other	Health sciences nec
51.2605	Physical Therapy Technician/ Aide	Health sciences	Health sciences, other	Health sciences nec
51.2699	Health Aides/ Attendants/ Orderlies, Other	Health sciences	Health sciences, other	Health sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
51.3101	Dietetics/ Dietitian	Health sciences	Health sciences, other	Health sciences nec
51.3102	Clinical Nutrition/ Nutritionist	Health sciences	Health sciences, other	Health sciences nec
51.3103	Dietetic Technician	Health sciences	Health sciences, other	Health sciences nec
51.3104	Dietitian Assistant	Health sciences	Health sciences, other	Health sciences nec
51.3199	Dietetics and Clinical Nutrition Services, Other	Health sciences	Health sciences, other	Health sciences nec
51.3201	Bioethics/ Medical Ethics	Health sciences	Health sciences, other	Health sciences nec
51.3202	Health Professions Education	Health sciences	Health sciences, other	Health sciences nec
51.3204	Medical/ Health Humanities	Health sciences	Health sciences, other	Health sciences nec
51.3205	History of Medicine	Health sciences	Health sciences, other	Health sciences nec
51.3206	Arts in Medicine/ Health	Health sciences	Health sciences, other	Health sciences nec
51.3299	Health Professions Education, Ethics, and Humanities, Other	Health sciences	Health sciences, other	Health sciences nec
51.3300	Alternative and Complementary Medicine and Medical Systems, General	Health sciences	Health sciences, other	Health sciences nec
51.3301	Acupuncture and Oriental Medicine	Health sciences	Health sciences, other	Health sciences nec
51.3302	Traditional Chinese Medicine and Chinese Herbology	Health sciences	Health sciences, other	Health sciences nec
51.3303	Naturopathic Medicine/ Naturopathy	Health sciences	Health sciences, other	Health sciences nec
51.3304	Homeopathic Medicine/ Homeopathy	Health sciences	Health sciences, other	Health sciences nec
51.3305	Ayurvedic Medicine/ Ayurveda	Health sciences	Health sciences, other	Health sciences nec
51.3306	Holistic/ Integrative Health	Health sciences	Health sciences, other	Health sciences nec
51.3399	Alternative and Complementary Medicine and Medical Systems, Other	Health sciences	Health sciences, other	Health sciences nec
51.3401	Direct Entry Midwifery	Health sciences	Health sciences, other	Health sciences nec
51.3499	Alternative and Complementary Medical Support Services, Other	Health sciences	Health sciences, other	Health sciences nec
51.3501	Massage Therapy/ Therapeutic Massage	Health sciences	Health sciences, other	Health sciences nec
51.3502	Asian Bodywork Therapy	Health sciences	Health sciences, other	Health sciences nec
51.3503	Somatic Bodywork	Health sciences	Health sciences, other	Health sciences nec
51.3599	Somatic Bodywork and Related Therapeutic Services, Other	Health sciences	Health sciences, other	Health sciences nec
51.3601	Movement Therapy and Movement Education	Health sciences	Health sciences, other	Health sciences nec
51.3602	Yoga Teacher Training/ Yoga Therapy	Health sciences	Health sciences, other	Health sciences nec
51.3603	Hypnotherapy/ Hypnotherapist	Health sciences	Health sciences, other	Health sciences nec
51.3699	Movement and Mind-Body Therapies and Education, Other	Health sciences	Health sciences, other	Health sciences nec
51.3701	Aromatherapy	Health sciences	Health sciences, other	Health sciences nec
51.3702	Herbalism/ Herbalist	Health sciences	Health sciences, other	Health sciences nec
51.3703	Polarity Therapy	Health sciences	Health sciences, other	Health sciences nec
51.3704	Reiki	Health sciences	Health sciences, other	Health sciences nec
51.3799	Energy and Biologically Based Therapies, Other	Health sciences	Health sciences, other	Health sciences nec
51.9999	Health Professions and Related Clinical Sciences, Other	Health sciences	Health sciences, other	Health sciences nec
51.9999b	Health Sciences, Other	Health sciences	Health sciences, other	Health sciences nec
27.0301	Applied Mathematics, General	Mathematics and statistics	Applied mathematics	Applied mathematics, general
27.0303	Computational Mathematics	Mathematics and statistics	Applied mathematics	Computational and applied mathematics
27.0304	Computational and Applied Mathematics	Mathematics and statistics	Applied mathematics	Computational and applied mathematics

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
27.0305	Financial Mathematics	Mathematics and statistics	Applied mathematics	Applied mathematics nec
27.0306	Mathematical Biology	Mathematics and statistics	Applied mathematics	Applied mathematics nec
27.0399	Applied Mathematics, Other	Mathematics and statistics	Applied mathematics	Applied mathematics nec
52.1304	Actuarial Science	Mathematics and statistics	Applied mathematics	Applied mathematics nec
27.0102	Algebra and Number Theory	Mathematics and statistics	Mathematics	Algebra and number theory
27.0102b	Algebra	Mathematics and statistics	Mathematics	Algebra and number theory
27.0102c	Number Theory	Mathematics and statistics	Mathematics	Algebra and number theory
27.0101	Mathematics, General	Mathematics and statistics	Mathematics	Mathematics, general
27.0101b	Mathematical Sciences[b]	Mathematics and statistics	Mathematics	Mathematics, general
27.0103	Analysis and Functional Analysis	Mathematics and statistics	Mathematics	Mathematics nec
27.0104	Geometry/ Geometric Analysis	Mathematics and statistics	Mathematics	Mathematics nec
27.0105	Topology and Foundations	Mathematics and statistics	Mathematics	Mathematics nec
27.0199	Mathematics, Other	Mathematics and statistics	Mathematics	Mathematics nec
27.0199c	Logic (MATHEMATICS)	Mathematics and statistics	Mathematics	Mathematics nec
27.0601	Applied Statistics, General	Mathematics and statistics	Statistics	Applied statistics, general
27.0502	Mathematical Statistics and Probability[g]	Mathematics and statistics	Statistics	Mathematics and statistics
27.0503	Mathematics and Statistics	Mathematics and statistics	Statistics	Mathematics and statistics
27.9999	Mathematics and Statistics, Other[h]	Mathematics and statistics	Statistics	Mathematics and statistics
27.0501	Statistics (MATHEMATICS)	Mathematics and statistics	Statistics	Statistics
27.0599	Statistics, Other	Mathematics and statistics	Statistics	Statistics nec
27.0599b	Statistics (SOCIAL SCIENCES)	Mathematics and statistics	Statistics	Statistics nec
30.9999d	Computer Science and Engineering	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Computer science and engineering
30.9999b	Electrical Engineering and Computer Science	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Electrical engineering and computer science
30.0801	Mathematics and Computer Science	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Interdisciplinary computer sciences nec
30.1601	Accounting and Computer Science	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Interdisciplinary computer sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
30.3101	Human Computer Interaction	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Interdisciplinary computer sciences nec
30.3901	Economics and Computer Science	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Interdisciplinary computer sciences nec
30.4801	Linguistics and Computer Science	Multidisciplinary/ interdisciplinary sciences	Interdisciplinary computer sciences	Interdisciplinary computer sciences nec
30.1701	Behavioral Sciences	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Behavioral and cognitive sciences
30.2501	Cognitive Science, General	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Behavioral and cognitive sciences
30.2502	Contemplative Studies/ Inquiry	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Behavioral and cognitive sciences
30.2599	Cognitive Science, Other	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Behavioral and cognitive sciences
30.3001	Computational Science	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Computational science and engineering
30.3001b	Computational Science and Engineering	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Computational science and engineering
30.3001c	Computational Science, Engineering, and Mathematics[b]	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Computational science and engineering
30.7099b	Data Mining and Machine Learning[b]	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data mining and machine learning[o]
30.7001	Data Science, General	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7099	Data Science, Other	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7101	Data Analytics, General	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7102	Business Analytics	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7103	Data Visualization	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7104	Financial Analytics	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.7199	Data Analytics, Other	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Data science and data analytics
30.1501	Science, Technology and Society	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	History/ philosophy of science, technology, and society

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
54.0104	History and Philosophy of Science and Technology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	History/ philosophy of science, technology, and society
30.9999c	Nanosciences/ Nanoscale Sciences	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Nanoscience/ nanoscale science
30.1901	Nutrition Sciences	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Nutrition sciences
30.0101	Biological and Physical Sciences	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.0501	Peace Studies and Conflict Resolution	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.0501b	Conflict Analysis and Resolution[b]	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.0601	Systems Science and Theory	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.1001	Biopsychology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.1801	Natural Sciences	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.2001	International/ Globalization Studies	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.2101	Holocaust and Related Studies	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.2301	Intercultural/ Multicultural and Diversity Studies	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.2601	Cultural Studies/ Critical Theory and Analysis	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.2701	Human Biology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.3301	Sustainability Studies	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.3401	Anthrozoology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.3701	Design for Human Health	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.4001	Economics and Foreign Language/ Literature	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.4201	Geoarcheaology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
30.4301	Geobiology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.4401	Geography and Environmental Studies	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.4601	History and Political Science	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.4901	Mathematical Economics	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.5001	Mathematics and Atmospheric/ Oceanic Science	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.5101	Philosophy, Politics, and Economics	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.5301	Thanatology	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.9999e	Polymer Science and Engineering[b]	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
30.9999z	Multidisciplinary/ Interdisciplinary Sciences, Other[i]	Multidisciplinary/ interdisciplinary sciences	Multidisciplinary/ interdisciplinary sciences, other	Multidisciplinary/ interdisciplinary sciences nec
40.0201	Astronomy	Physical sciences	Astronomy and astrophysics	Astronomy
40.0202	Astrophysics	Physical sciences	Astronomy and astrophysics	Astrophysics
40.0203	Planetary Astronomy and Science	Physical sciences	Astronomy and astrophysics	Astronomy and astrophysics nec
40.0299	Astronomy and Astrophysics, Other	Physical sciences	Astronomy and astrophysics	Astronomy and astrophysics nec
40.0299b	Cosmology[b]	Physical sciences	Astronomy and astrophysics	Astronomy and astrophysics nec
40.0502	Analytical Chemistry	Physical sciences	Chemistry	Analytical chemistry
40.0599b	Chemical Biology	Physical sciences	Chemistry	Chemical biology
40.0501	Chemistry, General	Physical sciences	Chemistry	Chemistry, general
40.0503	Inorganic Chemistry	Physical sciences	Chemistry	Inorganic chemistry
40.0504	Organic Chemistry	Physical sciences	Chemistry	Organic chemistry
40.0506	Physical Chemistry	Physical sciences	Chemistry	Physical chemistry
40.0507	Polymer Chemistry	Physical sciences	Chemistry	Polymer chemistry
40.0511	Theoretical Chemistry	Physical sciences	Chemistry	Theoretical and computational chemistry
40.0511b	Computational Chemistry[b]	Physical sciences	Chemistry	Theoretical and computational chemistry
40.0508	Chemical Physics	Physical sciences	Chemistry	Chemistry nec
40.0509	Environmental Chemistry	Physical sciences	Chemistry	Chemistry nec
40.0510	Forensic Chemistry	Physical sciences	Chemistry	Chemistry nec
40.0512	Cheminformatics/ Chemistry Informatics	Physical sciences	Chemistry	Chemistry nec
40.0599	Chemistry, Other	Physical sciences	Chemistry	Chemistry nec
40.1001	Materials Science	Physical sciences	Materials sciences	Materials science

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
40.1002	Materials Chemistry	Physical sciences	Materials sciences	Materials chemistry and materials sciences nec
40.1099	Materials Sciences, Other	Physical sciences	Materials sciences	Materials chemistry and materials sciences nec
40.1099b	Fiber and Polymer Sciences[b]	Physical sciences	Materials sciences	Materials chemistry and materials sciences nec
40.0899b	Applied Physics	Physical sciences	Physics	Applied physics
40.0802	Atomic/ Molecular Physics	Physical sciences	Physics	Atomic/ molecular physics
40.0808	Condensed Matter and Materials Physics	Physical sciences	Physics	Condensed matter and materials physics
40.0804	Elementary Particle Physics	Physical sciences	Physics	Elementary particle physics
40.0806	Nuclear Physics	Physical sciences	Physics	Nuclear physics
40.0807	Optics/ Optical Sciences	Physical sciences	Physics	Optics/ optical sciences
40.1101	Physics and Astronomy	Physical sciences	Physics	Physics and astronomy
40.0801	Physics, General	Physical sciences	Physics	Physics, general
40.0805	Plasma and High-Temperature Physics	Physical sciences	Physics	Plasma and high-temperature physics
40.0810	Theoretical and Mathematical Physics	Physical sciences	Physics	Theoretical and mathematical physics
40.0101	Physical Sciences, General	Physical sciences	Physics	Physics and physical sciences nec
40.0808b	Polymer Physics	Physical sciences	Physics	Physics and physical sciences nec
40.0809	Acoustics	Physical sciences	Physics	Physics and physical sciences nec
40.0899	Physics, Other	Physical sciences	Physics	Physics and physical sciences nec
40.9999	Physical Sciences, Other	Physical sciences	Physics	Physics and physical sciences nec
40.9999b	Polymer Sciences[b]	Physical sciences	Physics	Physics and physical sciences nec
42.2807	Clinical Child Psychology	Psychology	Clinical psychology	Clinical child psychology
42.2801	Clinical Psychology	Psychology	Clinical psychology	Clinical psychology
42.2814	Applied Behavior Analysis	Psychology	Counseling and applied psychology	Applied behavior analysis
42.2803	Counseling Psychology	Psychology	Counseling and applied psychology	Counseling psychology
42.2806	Educational Psychology (PSYCHOLOGY)	Psychology	Counseling and applied psychology	Educational psychology
42.2806b	Educational Psychology (EDUCATION)	Psychology	Counseling and applied psychology	Educational psychology
42.2804	Industrial and Organizational Psychology	Psychology	Counseling and applied psychology	Industrial and organizational psychology
42.2805	School Psychology (PSYCHOLOGY)	Psychology	Counseling and applied psychology	School psychology
42.2805b	School Psychology (EDUCATION)	Psychology	Counseling and applied psychology	School psychology
42.2802	Community Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2808	Environmental Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2809	Geropsychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
42.2810	Health/ Medical Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2811	Family Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2812	Forensic Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2813	Applied Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2815	Performance and Sport Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2816	Somatic Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2817	Transpersonal/ Spiritual Psychology	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2899	Clinical, Counseling and Applied Psychology, Other	Psychology	Counseling and applied psychology	Counseling and applied psychology nec
42.2706	Behavioral Neuroscience	Psychology	Research and experimental psychology	Behavioral neuroscience
42.2701	Cognitive Psychology and Psycholinguistics	Psychology	Research and experimental psychology	Cognitive psychology and psycholinguistics
42.2703	Developmental and Child Psychology	Psychology	Research and experimental psychology	Developmental and child psychology
42.2704	Experimental Psychology	Psychology	Research and experimental psychology	Experimental psychology
42.2707	Social Psychology	Psychology	Research and experimental psychology	Social psychology
42.2702	Comparative Psychology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2705	Personality Psychology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2708	Psychometrics and Quantitative Psychology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2709	Psychopharmacology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2710	Developmental and Adolescent Psychology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2799	Research and Experimental Psychology, Other	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2799b	Physiological/ Psychobiology Psychology	Psychology	Research and experimental psychology	Research and experimental psychology nec
42.2799c	Human Factors Psychology[b]	Psychology	Research and experimental psychology	Research and experimental psychology nec
19.0701	Human Development and Family Studies, General	Psychology	Psychology, other	Human development
19.0702	Adult Development and Aging	Psychology	Psychology, other	Human development
19.0706	Child Development	Psychology	Psychology, other	Human development
42.0101	Psychology, General	Psychology	Psychology, other	Psychology, general
42.9999	Psychology, Other	Psychology	Psychology, other	Psychology nec
45.0201	Anthropology, General	Social sciences	Anthropology	Anthropology, general
45.0204	Cultural Anthropology	Social sciences	Anthropology	Cultural anthropology
45.0202	Physical and Biological Anthropology	Social sciences	Anthropology	Physical and biological anthropology
45.0203	Medical Anthropology	Social sciences	Anthropology	Anthropology nec
45.0205	Forensic Anthropology	Social sciences	Anthropology	Anthropology nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
45.0299	Anthropology, Other	Social sciences	Anthropology	Anthropology nec
05.0101	African Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0102	American/ United States Studies/ Civilization	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0103	Asian Studies/ Civilization	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0104	East Asian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0105	Russian, Central European, East European and Eurasian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0106	European Studies/ Civilization	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0107	Latin American Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0108	Near and Middle Eastern Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0109	Pacific Area/ Pacific Rim Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0110	Russian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0111	Scandinavian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0112	South Asian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0113	Southeast Asian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0114	Western European Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0115	Canadian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0116	Balkans Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0117	Baltic Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0118	Slavic Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0119	Caribbean Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0120	Ural-Altaic and Central Asian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0121	Commonwealth Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0122	Regional Studies (US, Canadian, Foreign)	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0123	Chinese Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0124	French Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0125	German Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0126	Italian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0127	Japanese Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
05.0128	Korean Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0129	Polish Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0130	Spanish and Iberian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0131	Tibetan Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0132	Ukraine Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0133	Irish Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0134	Latin American and Caribbean Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0135	Appalachian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0136	Arctic Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0199	Area Studies, Other	Social sciences	Area, ethnic, cultural, gender, and group studies	Area studies
05.0200	Ethnic Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Ethnic studies
05.0201	African-American/ Black Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Ethnic studies
05.0202	American Indian/ Native American Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Ethnic studies
05.0203	Hispanic-American, Puerto Rican, Latinx, and Mexican-American/ Chicano Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Ethnic studies
05.0206	Asian-American Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Ethnic studies
05.0207	Women's Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0208	Gay/ Lesbian Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0209	Folklore Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0210	Disability Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0211	Deaf Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0212	Comparative Group Studies	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.0299	Ethnic, Cultural Minority, Gender, and Group Studies, Other	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
05.9999	Area, Ethnic, Cultural, Gender, and Group Studies, Other	Social sciences	Area, ethnic, cultural, gender, and group studies	Area, ethnic, cultural, gender, and group studies nec
01.0103	Agricultural Economics	Social sciences	Economics	Agricultural economics
45.0602	Applied Economics	Social sciences	Economics	Applied economics
45.0604	Development Economics and International Development	Social sciences	Economics	Development economics and international development
45.0603	Econometrics and Quantitative Economics	Social sciences	Economics	Econometrics and quantitative economics
45.0601	Economics, General	Social sciences	Economics	Economics, general

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
03.0204	Environmental/ Natural Resource Economics (NATURAL RESOURCES/ CONSERVATION SCIENCES)	Social sciences	Economics	Environmental/ natural resource economics
45.0602b	Environmental/ Natural Resource Economics (SOCIAL SCIENCES)	Social sciences	Economics	Environmental/ natural resource economics
45.0605	International Economics	Social sciences	Economics	Economics nec
45.0699	Economics, Other	Social sciences	Economics	Economics nec
45.1001	Political Science and Government, General	Social sciences	Political science and government	Political science and government, general
45.1002	American Government and Politics (United States)	Social sciences	Political science and government	Political science and government nec
45.1003	Canadian Government and Politics	Social sciences	Political science and government	Political science and government nec
45.1004	Political Economy	Social sciences	Political science and government	Political science and government nec
45.1099	Political Science and Government, Other	Social sciences	Political science and government	Political science and government nec
44.0502	Education Policy Analysis	Social sciences	Public policy analysis	Education policy analysis
44.0503	Health Policy Analysis	Social sciences	Public policy analysis	Health policy analysis
44.0501	Public Policy Analysis, General	Social sciences	Public policy analysis	Public policy analysis, general
44.0504	International Policy Analysis	Social sciences	Public policy analysis	Public policy nec
44.0599	Public Policy Analysis, Other	Social sciences	Public policy analysis	Public policy nec
44.0599b	Public Policy and Administration[b]	Social sciences	Public policy analysis	Public policy nec
45.1101	Sociology, General	Social sciences	Sociology, demography, and population studies	Sociology, general
45.0501	Demography and Population Studies	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
45.0502	Applied Demography	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
45.0599	Demography, Other	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
45.1102	Applied/ Public Sociology	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
45.1103	Rural Sociology	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
45.1199	Sociology, Other	Social sciences	Sociology, demography, and population studies	Sociology, demography, and population studies nec
16.0105	Applied Linguistics	Social sciences	Social sciences, other	Applied linguistics
16.0199	Linguistic, Comparative, and Related Language Studies and Services, Other	Social sciences	Social sciences, other	Applied linguistics
45.0301	Archaeology/ Archeology (SOCIAL SCIENCES)	Social sciences	Social sciences, other	Archeology
45.0301b	Archaeology/ Archeology (HUMANITIES)	Social sciences	Social sciences, other	Archeology
45.0401	Criminology	Social sciences	Social sciences, other	Criminology
45.0701	Geography	Social sciences	Social sciences, other	Geography and cartography
45.0702	Geographic Information Science and Cartography	Social sciences	Social sciences, other	Geography and cartography
45.0799	Geography, Other	Social sciences	Social sciences, other	Geography and cartography
45.0901	International Relations and Affairs	Social sciences	Social sciences, other	International relations and national security studies
45.0902	National Security Policy Studies	Social sciences	Social sciences, other	International relations and national security studies
45.0999	International Relations and National Security Studies, Other	Social sciences	Social sciences, other	International relations and national security studies

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
16.0102	Linguistics	Social sciences	Social sciences, other	Linguistics
30.1101	Gerontology (MULTIDISCIPLINARY STUDIES)	Social sciences	Social sciences, other	Social sciences nec
30.1101b	Gerontology (HEALTH SCIENCES)	Social sciences	Social sciences, other	Social sciences nec
30.1101c	Gerontology (SOCIAL SCIENCES)	Social sciences	Social sciences, other	Social sciences nec
30.4701	Linguistics and Anthropology	Social sciences	Social sciences, other	Social sciences nec
43.0104	Criminal Justice/ Safety Studies[j]	Social sciences	Social sciences, other	Social sciences nec
45.0101	Social Sciences, General	Social sciences	Social sciences, other	Social sciences nec
45.0102	Research Methodology and Quantitative Methods	Social sciences	Social sciences, other	Social sciences nec
45.0103	Survey Research/ Methodology	Social sciences	Social sciences, other	Social sciences nec
45.0199	Social Sciences, Other	Social sciences	Social sciences, other	Social sciences nec
45.1201	Urban Studies/ Affairs	Social sciences	Social sciences, other	Social sciences nec
45.1301	Sociology and Anthropology	Social sciences	Social sciences, other	Social sciences nec
45.1501	Geography and Anthropology	Social sciences	Social sciences, other	Social sciences nec
45.9999	Social Sciences, Other	Social sciences	Social sciences, other	Social sciences nec
52.0201	Business Administration and Management, General	Business	Business administration and management	Business management and administration
52.0201b	Business Management/ Administration	Business	Business administration and management	Business management and administration
52.0213	Organizational Leadership	Business	Business administration and management	Organizational leadership
49.0104	Aviation/ Airway Management and Operations	Business	Business administration and management	Business administration and management nec
52.0202	Purchasing, Procurement/ Acquisitions and Contracts Management	Business	Business administration and management	Business administration and management nec
52.0203	Logistics, Materials, and Supply Chain Management	Business	Business administration and management	Business administration and management nec
52.0204	Office Management and Supervision	Business	Business administration and management	Business administration and management nec
52.0205	Operations Management and Supervision	Business	Business administration and management	Business administration and management nec
52.0206	Non-Profit/ Public/ Organizational Management	Business	Business administration and management	Business administration and management nec
52.0207	Customer Service Management	Business	Business administration and management	Business administration and management nec
52.0208	E-Commerce/ Electronic Commerce	Business	Business administration and management	Business administration and management nec
52.0209	Transportation/ Mobility Management	Business	Business administration and management	Business administration and management nec
52.0210	Research and Development Management	Business	Business administration and management	Business administration and management nec
52.0211	Project Management	Business	Business administration and management	Business administration and management nec
52.0212	Retail Management	Business	Business administration and management	Business administration and management nec
52.0214	Research Administration	Business	Business administration and management	Business administration and management nec
52.0215	Risk Management	Business	Business administration and management	Business administration and management nec
52.0216	Science/ Technology Management	Business	Business administration and management	Business administration and management nec
52.0299	Business Administration, Management and Operations, Other	Business	Business administration and management	Business administration and management nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
52.0301	Accounting	Business	Business, other	Accounting and accounting-related
52.0302	Accounting Technology and Bookkeeping	Business	Business, other	Accounting and accounting-related
52.0303	Auditing	Business	Business, other	Accounting and accounting-related
52.0304	Accounting and Finance	Business	Business, other	Accounting and accounting-related
52.0305	Accounting and Business/ Management	Business	Business, other	Accounting and accounting-related
52.0399	Accounting and Related Services, Other	Business	Business, other	Accounting and accounting-related
52.0801	Finance, General	Business	Business, other	Finance and financial management
52.0803	Banking and Financial Support Services	Business	Business, other	Finance and financial management
52.0804	Financial Planning and Services	Business	Business, other	Finance and financial management
52.0806	International Finance	Business	Business, other	Finance and financial management
52.0807	Investments and Securities	Business	Business, other	Finance and financial management
52.0808	Public Finance	Business	Business, other	Finance and financial management
52.0809	Credit Management	Business	Business, other	Finance and financial management
52.0810	Financial Risk Management	Business	Business, other	Finance and financial management
52.0899	Finance and Financial Management Services, Other	Business	Business, other	Finance and financial management
52.1201	Management Information Systems, General	Business	Business, other	Management information systems
52.1206	Information Resources Management	Business	Business, other	Management information systems
52.1207	Knowledge Management	Business	Business, other	Management information systems
52.1299	Management Information Systems and Services, Other	Business	Business, other	Management information systems
52.0601	Business/ Managerial Economics	Business	Business, other	Management sciences
52.1301	Management Science	Business	Business, other	Management sciences
52.1302	Business Statistics	Business	Business, other	Management sciences
52.1399	Management Sciences and Quantitative Methods, Other	Business	Business, other	Management sciences
52.1401	Marketing/ Marketing Management, General	Business	Business, other	Marketing
52.1402	Marketing Research	Business	Business, other	Marketing
52.1403	International Marketing	Business	Business, other	Marketing
52.1404	Digital Marketing	Business	Business, other	Marketing
52.1499	Marketing, Other	Business	Business, other	Marketing
52.1003	Organizational Behavior Studies	Business	Business, other	Organizational behavior studies
52.0101	Business/ Commerce, General	Business	Business, other	Business nec
52.0401	Administrative Assistant and Secretarial Science, General	Business	Business, other	Business nec
52.0402	Executive Assistant/ Executive Secretary	Business	Business, other	Business nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
52.0406	Receptionist	Business	Business, other	Business nec
52.0407	Business/ Office Automation/ Technology/ Data Entry	Business	Business, other	Business nec
52.0408	General Office Occupations and Clerical Services	Business	Business, other	Business nec
52.0409	Parts, Warehousing, and Inventory Management Operations	Business	Business, other	Business nec
52.0410	Traffic, Customs, and Transportation Clerk/ Technician	Business	Business, other	Business nec
52.0411	Customer Service Support/ Call Center/ Teleservice Operation	Business	Business, other	Business nec
52.0499	Business Operations Support and Secretarial Services, Other	Business	Business, other	Business nec
52.0501	Business/ Corporate Communications, General	Business	Business, other	Business nec
52.0502	Grantsmanship	Business	Business, other	Business nec
52.0599	Business/ Corporate Communications, Other	Business	Business, other	Business nec
52.0701	Entrepreneurship/ Entrepreneurial Studies	Business	Business, other	Business nec
52.0702	Franchising and Franchise Operations	Business	Business, other	Business nec
52.0703	Small Business Administration/ Management	Business	Business, other	Business nec
52.0704	Social Entrepreneurship	Business	Business, other	Business nec
52.0799	Entrepreneurial and Small Business Operations, Other	Business	Business, other	Business nec
52.0901	Hospitality Administration/ Management, General	Business	Business, other	Business nec
52.0903	Tourism and Travel Services Management	Business	Business, other	Business nec
52.0904	Hotel/ Motel Administration/ Management	Business	Business, other	Business nec
52.0905	Restaurant/ Food Services Management	Business	Business, other	Business nec
52.0906	Resort Management	Business	Business, other	Business nec
52.0907	Meeting and Event Planning	Business	Business, other	Business nec
52.0908	Casino Management	Business	Business, other	Business nec
52.0909	Hotel, Motel, and Restaurant Management	Business	Business, other	Business nec
52.0910	Brewery/ Brewpub Operations/ Management	Business	Business, other	Business nec
52.0999	Hospitality Administration/ Management, Other	Business	Business, other	Business nec
52.1001	Human Resources Management/ Personnel Administration, General	Business	Business, other	Business nec
52.1002	Labor and Industrial Relations	Business	Business, other	Business nec
52.1004	Labor Studies	Business	Business, other	Business nec
52.1005	Human Resources Development	Business	Business, other	Business nec
52.1006	Executive/ Career Coaching	Business	Business, other	Business nec
52.1099	Human Resources Management and Services, Other	Business	Business, other	Business nec
52.1101	International Business/ Trade/ Commerce	Business	Business, other	Business nec
52.1501	Real Estate	Business	Business, other	Business nec
52.1601	Taxation	Business	Business, other	Business nec
52.1701	Insurance	Business	Business, other	Business nec
52.1801	Sales, Distribution, and Marketing Operations, General	Business	Business, other	Business nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
52.1802	Merchandising and Buying Operations	Business	Business, other	Business nec
52.1803	Retailing and Retail Operations	Business	Business, other	Business nec
52.1804	Selling Skills and Sales Operations	Business	Business, other	Business nec
52.1899	General Merchandising, Sales, and Related Marketing Operations, Other	Business	Business, other	Business nec
52.1901	Auctioneering	Business	Business, other	Business nec
52.1902	Fashion Merchandising	Business	Business, other	Business nec
52.1903	Fashion Modeling	Business	Business, other	Business nec
52.1904	Apparel and Accessories Marketing Operations	Business	Business, other	Business nec
52.1905	Tourism and Travel Services Marketing Operations	Business	Business, other	Business nec
52.1906	Tourism Promotion Operations	Business	Business, other	Business nec
52.1907	Vehicle and Vehicle Parts and Accessories Marketing Operations	Business	Business, other	Business nec
52.1908	Business and Personal/ Financial Services Marketing Operations	Business	Business, other	Business nec
52.1909	Special Products Marketing Operations	Business	Business, other	Business nec
52.1910	Hospitality and Recreation Marketing Operations	Business	Business, other	Business nec
52.1999	Specialized Merchandising, Sales, and Marketing Operations, Other	Business	Business, other	Business nec
52.2001	Construction Management, General	Business	Business, other	Business nec
52.2002	Construction Project Management	Business	Business, other	Business nec
52.2099	Construction Management, Other	Business	Business, other	Business nec
52.2101	Telecommunications Management	Business	Business, other	Business nec
52.9999	Business, Management, Marketing, and Related Support Services, Other	Business	Business, other	Business nec
13.0401	Educational Leadership and Administration, General	Education	Education leadership and administration	Educational leadership and administration, general
13.0406	Higher Education/ Higher Education Administration	Education	Education leadership and administration	Higher education and community college administration
13.0407	Community College Administration	Education	Education leadership and administration	Higher education and community college administration
13.0402	Administration of Special Education	Education	Education leadership and administration	Education leadership and administration nec
13.0403	Adult and Continuing Education Administration	Education	Education leadership and administration	Education leadership and administration nec
13.0404	Educational, Instructional, and Curriculum Supervision	Education	Education leadership and administration	Education leadership and administration nec
13.0408	Elementary and Middle School Administration/ Principalship	Education	Education leadership and administration	Education leadership and administration nec
13.0409	Secondary School Administration/ Principalship	Education	Education leadership and administration	Education leadership and administration nec
13.0410	Urban Education and Leadership	Education	Education leadership and administration	Education leadership and administration nec
13.0411	Superintendency and Educational System Administration	Education	Education leadership and administration	Education leadership and administration nec
13.0412	International School Administration/ Leadership	Education	Education leadership and administration	Education leadership and administration nec
13.0413	Education Entrepreneurship	Education	Education leadership and administration	Education leadership and administration nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
13.0414	Early Childhood Program Administration	Education	Education leadership and administration	Education leadership and administration nec
13.0499	Educational Administration and Supervision, Other	Education	Education leadership and administration	Education leadership and administration nec
13.0499b	Education and Human Resource Studies/ Development	Education	Education leadership and administration	Education leadership and administration nec
13.0499c	Organizational Leadership and Policy Development (Education)[b]	Education	Education leadership and administration	Education leadership and administration nec
13.0301	Curriculum and Instruction	Education	Education research	Curriculum and instruction
13.0601	Educational Evaluation and Research	Education	Education research	Educational assessment, evaluation, and research methods
13.0603	Educational Statistics and Research Methods	Education	Education research	Educational assessment, evaluation, and research methods
13.0604	Educational Assessment, Testing, and Measurement	Education	Education research	Educational assessment, evaluation, and research methods
13.0607	Learning Sciences	Education	Education research	Educational assessment, evaluation, and research methods
13.0699	Educational Assessment, Evaluation, and Research, Other	Education	Education research	Educational assessment, evaluation, and research methods
13.0501	Educational/ Instructional Technology	Education	Education research	Educational/ instructional technology and media design
13.0501b	Educational/ Instructional Media Design	Education	Education research	Educational/ instructional technology and media design
13.0501c	Learning/Instructional Design and Technology[b]	Education	Education research	Educational/ instructional technology and media design
13.0608	Institutional Research	Education	Education research	Higher education evaluation and research
13.0699b	Higher Education Evaluation and Research	Education	Education research	Higher education evaluation and research
13.1101	Counselor Education/ School Counseling and Guidance Services	Education	Education research	Student counseling and personnel services
13.1102	College Student Counseling and Personnel Services	Education	Education research	Student counseling and personnel services
13.1199	Student Counseling and Personnel Services, Other	Education	Education research	Student counseling and personnel services
13.0701	International and Comparative Education	Education	Education research	Education research nec
13.0901	Social and Philosophical Foundations of Education	Education	Education research	Education research nec
13.1201	Adult and Continuing Education and Teaching	Education	Teacher education	Adult, continuing, and workforce education and development
13.1201b	Workforce Education and Development	Education	Teacher education	Adult, continuing, and workforce education and development
13.0201	Bilingual and Multilingual Education	Education	Teacher education	Bilingual, multilingual, and multicultural education
13.0202	Multicultural Education	Education	Teacher education	Bilingual, multilingual, and multicultural education
13.0203	Indian/ Native American Education	Education	Teacher education	Bilingual, multilingual, and multicultural education

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
13.0299	Bilingual, Multilingual, and Multicultural Education, Other	Education	Teacher education	Bilingual, multilingual, and multicultural education
13.1311	Mathematics Teacher Education	Education	Teacher education	Mathematics teacher education
13.1312	Music Teacher Education	Education	Teacher education	Music teacher education
13.1001	Special Education and Teaching, General	Education	Teacher education	Special education and teaching
13.1003	Education/ Teaching of Individuals with Hearing Impairments Including Deafness	Education	Teacher education	Special education and teaching
13.1004	Education/ Teaching of the Gifted and Talented	Education	Teacher education	Special education and teaching
13.1005	Education/ Teaching of Individuals with Emotional Disturbances	Education	Teacher education	Special education and teaching
13.1006	Education/ Teaching of Individuals with Intellectual Disabilities	Education	Teacher education	Special education and teaching
13.1007	Education/ Teaching of Individuals with Multiple Disabilities	Education	Teacher education	Special education and teaching
13.1008	Education/ Teaching of Individuals with Orthopedic and Other Physical Health Impairments	Education	Teacher education	Special education and teaching
13.1009	Education/ Teaching of Individuals with Vision Impairments Including Blindness	Education	Teacher education	Special education and teaching
13.1011	Education/ Teaching of Individuals with Specific Learning Disabilities	Education	Teacher education	Special education and teaching
13.1012	Education/ Teaching of Individuals with Speech or Language Impairments	Education	Teacher education	Special education and teaching
13.1013	Education/ Teaching of Individuals with Autism	Education	Teacher education	Special education and teaching
13.1014	Education/ Teaching of Individuals Who are Developmentally Delayed	Education	Teacher education	Special education and teaching
13.1015	Education/ Teaching of Individuals in Early Childhood Special Education Programs	Education	Teacher education	Special education and teaching
13.1016	Education/ Teaching of Individuals with Traumatic Brain Injuries	Education	Teacher education	Special education and teaching
13.1017	Education/ Teaching of Individuals in Elementary Special Education Programs	Education	Teacher education	Special education and teaching
13.1018	Education/ Teaching of Individuals in Junior High/ Middle School Special Education Programs	Education	Teacher education	Special education and teaching
13.1019	Education/ Teaching of Individuals in Secondary Special Education Programs	Education	Teacher education	Special education and teaching
13.1099	Special Education and Teaching, Other	Education	Teacher education	Special education and teaching
13.1213	Science, Technology, Engineering, and Mathematics (STEM) Educational Methods	Education	Teacher education	STEM educational methods
13.1301	Agricultural Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1316	Science Teacher Education/ General Science Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1317	Social Science Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1321	Computer Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1322	Biology Teacher Education	Education	Teacher education	Teacher education, science and engineering

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
13.1323	Chemistry Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1329	Physics Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1332	Geography Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1335	Psychology Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1337	Earth Science Teacher Education	Education	Teacher education	Teacher education, science and engineering
13.1338	Environmental Education	Education	Teacher education	Teacher education, science and engineering
13.1202	Elementary Education and Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1203	Junior High/ Intermediate/ Middle School Education and Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1205	Secondary Education and Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1206	Teacher Education, Multiple Levels	Education	Teacher education	Teacher education, specific levels and methods
13.1207	Montessori Teacher Education	Education	Teacher education	Teacher education, specific levels and methods
13.1208	Waldorf/ Steiner Teacher Education	Education	Teacher education	Teacher education, specific levels and methods
13.1209	Kindergarten/ Preschool Education and Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1210	Early Childhood Education and Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1211	Online Educator/ Online Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1212	International Teaching and Learning	Education	Teacher education	Teacher education, specific levels and methods
13.1214	College/ Postsecondary/ University Teaching	Education	Teacher education	Teacher education, specific levels and methods
13.1214b	Developmental Education[b]	Education	Teacher education	Teacher education, specific levels and methods
13.1299	Teacher Education and Professional Development, Specific Levels and Methods, Other	Education	Teacher education	Teacher education, specific levels and methods
13.1299b	Teaching and Learning[b]	Education	Teacher education	Teacher education, specific levels and methods
13.1302	Art Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1303	Business and Innovation/ Entrepreneurship Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1304	Driver and Safety Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1305	English/ Language Arts Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1306	Foreign Language Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1307	Health Teacher Education[k]	Education	Teacher education	Teacher education, specific subject areas
13.1308	Family and Consumer Sciences/ Home Economics Teacher Education	Education	Teacher education	Teacher education, specific subject areas

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
13.1309	Technology Teacher Education/ Industrial Arts Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1310	Sales and Marketing Operations/ Marketing and Distribution Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1314	Physical Education Teaching and Coaching	Education	Teacher education	Teacher education, specific subject areas
13.1315	Reading Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1315b	Language and Literacy Education[b]	Education	Teacher education	Teacher education, specific subject areas
13.1318	Social Studies Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1319	Technical Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1320	Trade and Industrial Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1324	Drama and Dance Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1325	French Language Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1326	German Language Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1327	Health Occupations Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1328	History Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1330	Spanish Language Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1331	Speech Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1333	Latin Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1334	School Librarian/ School Library Media Specialist	Education	Teacher education	Teacher education, specific subject areas
13.1339	Communication Arts and Literature Teacher Education	Education	Teacher education	Teacher education, specific subject areas
13.1399	Teacher Education and Professional Development, Specific Subject Areas, Other	Education	Teacher education	Teacher education, specific subject areas
13.1401	Teaching English as a Second or Foreign Language/ ESL Language Instructor	Education	Teacher education	Teacher education, specific subject areas
13.1402	Teaching French as a Second or Foreign Language	Education	Teacher education	Teacher education, specific subject areas
13.1499	Teaching English or French as a Second or Foreign Language, Other	Education	Teacher education	Teacher education, specific subject areas
13.0101	Education, General	Education	Education, other	Education, general
13.0101b	Educational Studies[b]	Education	Education, other	Education, general
13.1501	Teacher Assistant/ Aide	Education	Education, other	Education nec
13.1502	Adult Literacy Tutor/ Instructor	Education	Education, other	Education nec
13.1599	Teaching Assistants/ Aides, Other	Education	Education, other	Education nec
13.9999	Education, Other	Education	Education, other	Education nec
23.1402	American Literature (United States)	Humanities	English language and literature, letters	American literature (United States)

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
23.1402b	African-American/ Black Literature	Humanities	English language and literature, letters	American literature (United States)
23.1302	Creative Writing	Humanities	English language and literature, letters	Creative writing
23.0101	English Language and Literature, General	Humanities	English language and literature, letters	English language and literature, general
23.1404	English Literature (British and Commonwealth)	Humanities	English language and literature, letters	English literature (British and Commonwealth)
23.1301	Writing, General	Humanities	English language and literature, letters	Rhetoric, composition, and writing studies
23.1303	Professional, Technical, Business, and Scientific Writing	Humanities	English language and literature, letters	Rhetoric, composition, and writing studies
23.1304	Rhetoric and Composition	Humanities	English language and literature, letters	Rhetoric, composition, and writing studies
23.1399	Rhetoric and Composition/ Writing Studies, Other	Humanities	English language and literature, letters	Rhetoric, composition, and writing studies
23.1401	General Literature	Humanities	English language and literature, letters	English language and literature nec
23.1403	American Literature (Canadian)	Humanities	English language and literature, letters	English language and literature nec
23.1405	Children's and Adolescent Literature	Humanities	English language and literature, letters	English language and literature nec
23.1499	Literature, Other	Humanities	English language and literature, letters	English language and literature nec
23.9999	English Language and Literature/ Letters, Other	Humanities	English language and literature, letters	English language and literature nec
16.0104	Comparative Literature	Humanities	Foreign languages, literatures, and linguistics	Comparative literature
16.0908	Hispanic and Latin American Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Hispanic and Latin American languages, literatures, and linguistics
16.0900	Romance Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0901	French Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0902	Italian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0904	Portuguese Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0906	Romanian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0999	Romance Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Romance languages, literatures, and linguistics
16.0905	Spanish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Spanish language and literature
16.0907	Catalan Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Spanish language and literature
16.0101	Foreign Languages and Literatures, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0103	Language Interpretation and Translation	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0201	African Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0300	East Asian Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
16.0301	Chinese Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0302	Japanese Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0303	Korean Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0304	Tibetan Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0399	East Asian Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0400	Slavic Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0401	Baltic Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0402	Russian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0404	Albanian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0405	Bulgarian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0406	Czech Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0407	Polish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0408	Bosnian, Serbian, and Croatian Languages and Literatures	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0409	Slovak Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0410	Ukrainian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0499	Slavic, Baltic, and Albanian Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0500	Germanic Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0501	German Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0502	Scandinavian Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0503	Danish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0504	Dutch/ Flemish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0505	Norwegian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0506	Swedish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0599	Germanic Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0601	Modern Greek Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0700	South Asian Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0701	Hindi Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
16.0702	Sanskrit and Classical Indian Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0704	Bengali Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0705	Punjabi Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0706	Tamil Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0707	Urdu Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0799	South Asian Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.0801	Iranian Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1001	American Indian/ Native American Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1100	Middle/ Near Eastern and Semitic Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1101	Arabic Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1102	Hebrew Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1103	Ancient Near Eastern and Biblical Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1199	Middle/ Near Eastern and Semitic Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1301	Celtic Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1400	Southeast Asian Languages, Literatures, and Linguistics, General	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1401	Australian/ Oceanic/ Pacific Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1402	Indonesian/ Malay Languages and Literatures	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1403	Burmese Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1404	Filipino/ Tagalog Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1405	Khmer/ Cambodian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1406	Lao Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1407	Thai Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1408	Vietnamese Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1409	Hawaiian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1499	Southeast Asian and Australasian/ Pacific Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1501	Turkish Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
16.1502	Uralic Languages, Literatures, and Linguistics	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1503	Hungarian/ Magyar Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1504	Mongolian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1599	Turkic, Uralic-Altaic, Caucasian, and Central Asian Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1601	American Sign Language (ASL)	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1602	Linguistics of ASL and Other Sign Languages	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1603	Sign Language Interpretation and Translation	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1699	American Sign Language, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1701	English as a Second Language	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.1801	Armenian Language and Literature	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
16.9999	Foreign Languages, Literatures, and Linguistics, Other	Humanities	Foreign languages, literatures, and linguistics	Foreign languages, literatures, and linguistics nec
54.0102	American History (United States)	Humanities	History	American history (United States)
54.0102b	African-American/ Black History	Humanities	History	American history (United States)
54.0103	European History	Humanities	History	European history
54.0101	History, General	Humanities	History	History, general
54.0106	Asian History	Humanities	History	History, regional focus
54.0107	Canadian History	Humanities	History	History, regional focus
54.0199c	African History	Humanities	History	History, regional focus
54.0199d	Latin American History	Humanities	History	History, regional focus
54.0199e	Middle/ Near East History	Humanities	History	History, regional focus
54.0105	Public/ Applied History	Humanities	History	History nec
54.0108	Military History	Humanities	History	History nec
54.0199	History, Other	Humanities	History	History nec
38.0001	Philosophy and Religious Studies, General	Humanities	Philosophy and religious studies	Philosophy
38.0101	Philosophy	Humanities	Philosophy and religious studies	Philosophy
38.0102	Logic (PHIOLOSPHY)	Humanities	Philosophy and religious studies	Philosophy
38.0103	Ethics	Humanities	Philosophy and religious studies	Philosophy
38.0104	Applied and Professional Ethics	Humanities	Philosophy and religious studies	Philosophy
38.0199	Philosophy, Other	Humanities	Philosophy and religious studies	Philosophy
38.9999	Philosophy and Religious Studies, Other	Humanities	Philosophy and religious studies	Philosophy
38.0201	Religion/ Religious Studies	Humanities	Philosophy and religious studies	Religion/ religious studies

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
38.0202	Buddhist Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0203	Christian Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0204	Hindu Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0205	Islamic Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0206	Jewish/ Judaic Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0207	Talmudic Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0208	Catholic Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0209	Mormon Studies	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
38.0299	Religion/ Religious Studies, Other	Humanities	Philosophy and religious studies	Philosophy and religious studies nec
39.0201	Bible/ Biblical Studies	Humanities	Humanities, other	Bible/ biblical studies
24.0103	Humanities/ Humanistic Studies	Humanities	Humanities, other	Humanities and humanistic studies
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	Humanities	Humanities, other	Humanities and humanistic studies
39.0301	Missions/ Missionary Studies	Humanities	Humanities, other	Theological and ministerial studies
39.0302	Church Planting	Humanities	Humanities, other	Theological and ministerial studies
39.0399	Missions/ Missionary Studies and Missiology, Other	Humanities	Humanities, other	Theological and ministerial studies
39.0401	Religious Education	Humanities	Humanities, other	Theological and ministerial studies
39.0501	Religious/ Sacred Music	Humanities	Humanities, other	Theological and ministerial studies
39.0502	Worship Ministry	Humanities	Humanities, other	Theological and ministerial studies
39.0599	Religious Music and Worship, Other	Humanities	Humanities, other	Theological and ministerial studies
39.0601	Theology/ Theological Studies	Humanities	Humanities, other	Theological and ministerial studies
39.0602	Divinity/ Ministry	Humanities	Humanities, other	Theological and ministerial studies
39.0604	Pre-Theology/ Pre-Ministerial Studies	Humanities	Humanities, other	Theological and ministerial studies
39.0605	Rabbinical Studies	Humanities	Humanities, other	Theological and ministerial studies
39.0699	Theological and Ministerial Studies, Other	Humanities	Humanities, other	Theological and ministerial studies
39.0701	Pastoral Studies/ Counseling	Humanities	Humanities, other	Theological and ministerial studies
39.0702	Youth Ministry	Humanities	Humanities, other	Theological and ministerial studies
39.0703	Urban Ministry	Humanities	Humanities, other	Theological and ministerial studies
39.0704	Women's Ministry	Humanities	Humanities, other	Theological and ministerial studies

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
39.0705	Lay Ministry	Humanities	Humanities, other	Theological and ministerial studies
39.0706	Chaplain/ Chaplaincy Studies	Humanities	Humanities, other	Theological and ministerial studies
39.0799	Pastoral Counseling and Specialized Ministries, Other	Humanities	Humanities, other	Theological and ministerial studies
39.0801	Religious Institution Administration and Management	Humanities	Humanities, other	Theological and ministerial studies
39.0802	Religious/ Canon Law	Humanities	Humanities, other	Theological and ministerial studies
39.0899	Religious Institution Administration and Law, Other	Humanities	Humanities, other	Theological and ministerial studies
39.9999	Theology and Religious Vocations, Other	Humanities	Humanities, other	Theological and ministerial studies
50.0301	Dance, General	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0302	Ballet	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0399	Dance, Other	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0501	Drama and Dramatics/ Theatre Arts, General	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0502	Technical Theatre/ Theatre Design and Technology	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0504	Playwriting and Screenwriting	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0505	Theatre Literature, History and Criticism	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0506	Acting	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0507	Directing and Theatrical Production	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0509	Musical Theatre	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0510	Costume Design	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0511	Comedy Writing and Performance	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0512	Theatre and Dance	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0599	Dramatic/ Theatre Arts and Stagecraft, Other	Visual and performing arts	Music and performing arts	Dance, drama, theatre arts, and stagecraft
50.0903	Music Performance, General	Visual and performing arts	Music and performing arts	Music performance
50.0906	Conducting	Visual and performing arts	Music and performing arts	Music performance
50.0907	Keyboard Instruments	Visual and performing arts	Music and performing arts	Music performance
50.0908	Voice and Opera	Visual and performing arts	Music and performing arts	Music performance
50.0910	Jazz/ Jazz Studies	Visual and performing arts	Music and performing arts	Music performance
50.0911	Stringed Instruments	Visual and performing arts	Music and performing arts	Music performance

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
50.0914	Brass Instruments	Visual and performing arts	Music and performing arts	Music performance
50.0915	Woodwind Instruments	Visual and performing arts	Music and performing arts	Music performance
50.0916	Percussion Instruments	Visual and performing arts	Music and performing arts	Music performance
50.0904	Music Theory and Composition	Visual and performing arts	Music and performing arts	Music theory and composition
50.0905	Musicology and Ethnomusicology	Visual and performing arts	Music and performing arts	Musicology and ethnomusicology
50.0901	Music, General	Visual and performing arts	Music and performing arts	Music nec
50.0902	Music History, Literature, and Theory	Visual and performing arts	Music and performing arts	Music nec
50.0912	Music Pedagogy	Visual and performing arts	Music and performing arts	Music nec
50.0913	Music Technology	Visual and performing arts	Music and performing arts	Music nec
50.0917	Sound Arts	Visual and performing arts	Music and performing arts	Music nec
50.0999	Music, Other	Visual and performing arts	Music and performing arts	Music nec
50.0703	Art History, Criticism and Conservation	Visual and performing arts	Visual arts, media studies, and design	Art history, criticism and conservation
50.0601	Film/ Cinema/ Media Studies	Visual and performing arts	Visual arts, media studies, and design	Film, cinema, and media studies
50.0602	Cinematography and Film/ Video Production	Visual and performing arts	Visual arts, media studies, and design	Film, cinema, and media studies
50.0605	Photography	Visual and performing arts	Visual arts, media studies, and design	Film, cinema, and media studies
50.0607	Documentary Production	Visual and performing arts	Visual arts, media studies, and design	Film, cinema, and media studies
50.0699	Film/ Video and Photographic Arts, Other	Visual and performing arts	Visual arts, media studies, and design	Film, cinema, and media studies
50.0101	Visual and Performing Arts, General	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0102	Digital Arts	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0201	Crafts/ Craft Design, Folk Art and Artisanry	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0401	Design and Visual Communications, General	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0402	Commercial and Advertising Art	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0404	Industrial and Product Design	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0406	Commercial Photography	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0407	Fashion/ Apparel Design	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0408	Interior Design	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0409	Graphic Design	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
50.0410	Illustration	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0411	Game and Interactive Media Design	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0499	Design and Applied Arts, Other	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0701	Art/ Art Studies, General	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0702	Fine/ Studio Arts, General	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0705	Drawing	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0706	Intermedia/ Multimedia	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0708	Painting	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0709	Sculpture	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0710	Printmaking	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0711	Ceramic Arts and Ceramics	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0712	Fiber, Textile and Weaving Arts	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0713	Jewelry Arts	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0714	Metal Arts	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.0799	Fine Arts and Art Studies, Other	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1001	Arts, Entertainment, and Media Management, General	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1002	Fine and Studio Arts Management	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1003	Music Management	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1004	Theatre/ Theatre Arts Management	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1099	Arts, Entertainment, and Media Management, Other	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.1101	Community/ Environmental/ Socially-Engaged Art	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
50.9999	Visual and Performing Arts, Other	Visual and performing arts	Visual arts, media studies, and design	Visual arts, media studies, and design nec
09.0900	Public Relations, Advertising, and Applied Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0901	Organizational Communication, General	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0902	Public Relations/ Image Management	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0903	Advertising	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0904	Political Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
09.0905	Health Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0906	Sports Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0907	International and Intercultural Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0908	Technical and Scientific Communication	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0909	Communication Management and Strategic Communications	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0999	Public Relations, Advertising, and Applied Communication, Other	Other non-science and engineering	Communications and journalism	Applied communication, advertising, and public relations
09.0101	Speech Communication and Rhetoric	Other non-science and engineering	Communications and journalism	Communication and media studies
09.0199	Communication and Media Studies, Other	Other non-science and engineering	Communications and journalism	Communication and media studies
09.0100	Communication, General	Other non-science and engineering	Communications and journalism	Communication, general
09.0100d	Communication Studies[b]	Other non-science and engineering	Communications and journalism	Communication, general
09.0102	Mass Communication/ Media Studies	Other non-science and engineering	Communications and journalism	Mass communication/ media studies
09.0100b	Communication Research	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0100c	Communication Theory	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0401	Journalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0402	Broadcast Journalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0404	Photojournalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0405	Business and Economic Journalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0406	Cultural Journalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0407	Science/ Health/ Environmental Journalism	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0499	Journalism, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0701	Radio and Television	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0702	Digital Communication and Media/ Multimedia	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.0799	Radio, Television, and Digital Communication, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.1001	Publishing	Other non-science and engineering	Communications and journalism	Communications and journalism nec
09.9999	Communication, Journalism, and Related Programs, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0105	Communications Technology	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0201	Photographic and Film/ Video Technology	Other non-science and engineering	Communications and journalism	Communications and journalism nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
10.0202	Radio and Television Broadcasting Technology	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0203	Recording Arts Technology	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0204	Voice Writing Technology	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0299	Audiovisual Communications Technologies, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0301	Graphic Communications, General	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0302	Printing Management	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0303	Prepress/ Desktop Publishing and Digital Imaging Design	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0304	Animation, Interactive Technology, Video Graphics, and Special Effects	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0305	Graphic and Printing Equipment Operator, General Production	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0306	Platemaker/ Imager	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0307	Printing Press Operator	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0308	Computer Typography and Composition Equipment Operator	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.0399	Graphic Communications, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
10.9999	Communications Technologies and Support Services, Other	Other non-science and engineering	Communications and journalism	Communications and journalism nec
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
16.1202	Ancient/ Classical Greek Language and Literature	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
16.1203	Latin Language and Literature	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
16.1299	Classics and Classical Languages, Literatures, and Linguistics, Other	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
30.2201	Ancient Studies/ Civilization	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
30.2202	Classical, Ancient Mediterranean, and Near Eastern Studies and Archaeology	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
30.2299	Classical and Ancient Studies, Other	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Classical and ancient studies
30.9999f	Interdisciplinary Leadership/Leadership Studies[b]	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Interdisciplinary leadership/ leadership studies[o]
16.0199b	Translation Studies[b]	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
24.0101	Liberal Arts and Sciences/ Liberal Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
24.0102	General Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.0000	Multi-/ Interdisciplinary Studies, General	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.0001	Comprehensive Transition and Postsecondary (CTP) Program	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
30.1201	Historic Preservation and Conservation, General	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.1202	Cultural Resource Management and Policy Analysis	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.1299	Historic Preservation and Conservation, Other	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.1301	Medieval and Renaissance Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.1401	Museology/ Museum Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.2801	Dispute Resolution	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.2901	Maritime Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.3601	Cultural Studies and Comparative Literature	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.4501	History and Language/ Literature	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.4501b	African-American/ Black History and Literature	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.5201	Digital Humanities and Textual Studies, General	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.5202	Digital Humanities	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.5203	Textual Studies	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.5299	Digital Humanities and Textual Studies, Other	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.9999	Multi-/ Interdisciplinary Studies, Other	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
30.9999g	Second Language Acquisition[b]	Other non-science and engineering	Multidisciplinary/ interdisciplinary studies	Multidisciplinary/ interdisciplinary studies nec
44.0201	Community Organization and Advocacy	Other non-science and engineering	Public administration and social services	Public administration
44.0401	Public Administration	Other non-science and engineering	Public administration and social services	Public administration
44.0402	Public Works Management	Other non-science and engineering	Public administration and social services	Public administration
44.0403	Transportation and Infrastructure Planning/ Studies	Other non-science and engineering	Public administration and social services	Public administration
44.0499	Public Administration, Other	Other non-science and engineering	Public administration and social services	Public administration
44.9999b	Public Administration and Policy[b]	Other non-science and engineering	Public administration and social services	Public administration
44.0000	Human Services, General	Other non-science and engineering	Public administration and social services	Social work and human services
44.0701	Social Work	Other non-science and engineering	Public administration and social services	Social work and human services
44.0702	Youth Services/ Administration	Other non-science and engineering	Public administration and social services	Social work and human services
44.0703	Forensic Social Work	Other non-science and engineering	Public administration and social services	Social work and human services
44.0799	Social Work, Other	Other non-science and engineering	Public administration and social services	Social work and human services

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Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
44.9999	Public Administration and Social Service Professions, Other[l]	Other non-science and engineering	Public administration and social services	Social work and human services
04.0200	Pre-Architecture Studies	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0201	Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0202	Architectural Design	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0299	Architecture, Other	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0401	Environmental Design/ Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0402	Healthcare Environment Design/ Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0403	Sustainable Design/ Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0499	Environmental Design, Other	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0501	Interior Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0601	Landscape Architecture	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0801	Architectural History and Criticism, General	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0802	Architectural Conservation	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0803	Architectural Studies	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0899	Architectural History, Criticism, and Conservation, Other	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0901	Architectural Technology	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0902	Architectural and Building Sciences/ Technology	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0999	Architectural Sciences and Technology, Other	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.1001	Real Estate Development	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.9999	Architecture and Related Services, Other	Other non-science and engineering	Non-science and engineering, other	Architecture and architectural studies
04.0301	City/ Urban, Community, and Regional Planning	Other non-science and engineering	Non-science and engineering, other	City/ urban, community, and regional planning
19.0101	Family and Consumer Sciences/ Human Sciences, General	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0201	Business Family and Consumer Sciences/ Human Sciences	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0202	Family and Consumer Sciences/ Human Sciences Communication	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0203	Consumer Merchandising/ Retailing Management	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0299	Family and Consumer Sciences/ Human Sciences Business Services, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0401	Family Resource Management Studies, General	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
19.0402	Consumer Economics	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0403	Consumer Services and Advocacy	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0499	Family and Consumer Economics and Related Services, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0501	Foods, Nutrition, and Wellness Studies, General	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0504	Human Nutrition	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0505	Foodservice Systems Administration/ Management	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0599	Foods, Nutrition, and Related Services, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0601	Housing and Human Environments, General	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0604	Facilities Planning and Management	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0605	Home Furnishings and Equipment Installers	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0699	Housing and Human Environments, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0704	Family Systems	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0707	Family and Community Services	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0708	Child Care and Support Services Management	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0709	Child Care Provider/ Assistant	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0710	Developmental Services Worker	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0711	Early Childhood and Family Studies	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0712	Parent Education Services	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0799	Human Development, Family Studies, and Related Services, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0901	Apparel and Textiles, General	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0902	Apparel and Textile Manufacture	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0904	Textile Science	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0905	Apparel and Textile Marketing Management	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0906	Fashion and Fabric Consultant	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.0999	Apparel and Textiles, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.1001	Work and Family Studies	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences
19.9999	Family and Consumer Sciences/ Human Sciences, Other	Other non-science and engineering	Non-science and engineering, other	Family, consumer, and human sciences

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
43.0100	Criminal Justice and Corrections, General[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0102	Corrections[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0103	Criminal Justice/ Law Enforcement Administration[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0107	Criminal Justice/ Police Science[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0109	Security and Loss Prevention Services[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0110	Juvenile Corrections[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0112	Securities Services Administration/ Management[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0113	Corrections Administration[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0114	Law Enforcement Investigation and Interviewing[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0115	Law Enforcement Record-Keeping and Evidence Management[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0119	Critical Incident Response/ Special Police Operations[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0120	Protective Services Operations[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0121	Suspension and Debarment Investigation[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0122	Maritime Law Enforcement[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0123	Cultural/ Archaeological Resources Protection[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0199	Corrections and Criminal Justice, Other[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0201	Fire Prevention and Safety Technology	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0202	Fire Services Administration	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0203	Fire Science/ Fire-fighting	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0204	Fire Systems Technology	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0205	Fire/ Arson Investigation and Prevention	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0206	Wildland/ Forest Firefighting and Investigation	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0299	Fire Protection, Other	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0301	Homeland Security	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0302	Crisis/ Emergency/ Disaster Management	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0303	Critical Infrastructure Protection	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0304	Terrorism and Counterterrorism Operations	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
43.0399	Homeland Security, Other	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0401	Security Science and Technology, General	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0402	Criminalistics and Criminal Science[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0403	Cyber/ Computer Forensics and Counterterrorism[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0404	Cybersecurity Defense Strategy/ Policy	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0405	Financial Forensics and Fraud Investigation	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0406	Forensic Science and Technology[m]	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0407	Geospatial Intelligence	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0408	Law Enforcement Intelligence Analysis	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.0499	Security Science and Technology, Other	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
43.9999	Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other	Other non-science and engineering	Non-science and engineering, other	Homeland security and protective services
22.0000	Legal Studies	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0001	Pre-Law Studies	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0099	Non-Professional Legal Studies, Other	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0101	Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0201	Advanced Legal Research/ Studies, General	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0202	Programs for Foreign Lawyers	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0203	American/ US Law/ Legal Studies/ Jurisprudence	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0204	Canadian Law/ Legal Studies/ Jurisprudence	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0205	Banking, Corporate, Finance, and Securities Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0206	Comparative Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0207	Energy, Environment, and Natural Resources Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0208	Health Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0209	International Law and Legal Studies	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0210	International Business, Trade, and Tax Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0211	Tax Law/ Taxation	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0212	Intellectual Property Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
22.0213	Patent Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0214	Agriculture Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0215	Arts and Entertainment Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0216	Compliance Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0217	Criminal Law and Procedure	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0218	Entrepreneurship Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0219	Family/ Child/ Elder Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0220	Human Resources Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0221	Insurance Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0222	Real Estate and Land Development Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0223	Transportation Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0224	Tribal/ Indigenous Law	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0299	Legal Research and Advanced Professional Studies, Other	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0301	Legal Administrative Assistant/ Secretary	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0302	Legal Assistant/ Paralegal	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0303	Court Reporting and Captioning/ Court Reporter	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0304	Court Interpreter	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0305	Scopist	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.0399	Legal Support Services, Other	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
22.9999	Legal Professions and Studies, Other	Other non-science and engineering	Non-science and engineering, other	Law/ legal studies and research
31.0101	Parks, Recreation, and Leisure Studies	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0301	Parks, Recreation, and Leisure Facilities Management, General	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0302	Golf Course Operation and Grounds Management	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0399	Parks, Recreation, and Leisure Facilities Management, Other	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0501	Sports, Kinesiology, and Physical Education/ Fitness, General	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
31.0504	Sport and Fitness Administration/ Management	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0507	Physical Fitness Technician	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0508	Sports Studies	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0599	Sports, Kinesiology, and Physical Education/ Fitness, Other	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.0601	Outdoor Education	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
31.9999	Parks, Recreation, Leisure, Fitness, and Kinesiology, Other	Other non-science and engineering	Non-science and engineering, other	Parks, recreation, leisure, fitness, and sport studies and management
01.0504	Dog/ Pet/ Animal Grooming	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.0505	Animal Training	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.0507	Equestrian/ Equine Studies	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.0508	Taxidermy/ Taxidermist	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.0509	Farrier Science	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.0599	Agricultural and Domestic Animal Services, Other[n]	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.8201	Veterinary Administrative Services, General	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.8202	Veterinary Office Management/ Administration	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.8203	Veterinary Reception/ Receptionist	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.8204	Veterinary Administrative/ Executive Assistant and Veterinary Secretary	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
01.8299	Veterinary Administrative Services, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.0101	Library and Information Science	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.0102	Children and Youth Library Services	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.0103	Archives/ Archival Administration	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.0199	Library Science and Administration, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.0301	Library and Archives Assisting	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
25.9999	Library Science, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0201	Intelligence, General (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0202	Strategic Intelligence (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec

Table A-5

Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

(Field)

SED-CIP code	SED-CIP title	New broad field	New major field	New detailed field
29.0203	Signal/ Geospatial Intelligence (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0204	Command & Control (C3, C4I) Systems and Operations (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0205	Information Operations/ Joint Information Operations (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0206	Information/ Psychological Warfare and Military Media Relations	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0207	Cyber/ Electronic Operations and Warfare (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0299	Intelligence, Command Control and Information Operations, Other (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0301	Combat Systems Engineering (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0302	Directed Energy Systems (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0303	Engineering Acoustics (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0304	Low-Observables and Stealth Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0305	Space Systems Operations (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0306	Operational Oceanography (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0307	Undersea Warfare (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0399	Military Applied Sciences, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0401	Aerospace Ground Equipment Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0402	Air and Space Operations Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0403	Aircraft Armament Systems Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0404	Explosive Ordinance/ Bomb Disposal (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0405	Joint Command/ Task Force (C3, C4I) Systems (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0406	Military Information Systems Technology	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0407	Missile and Space Systems Technology	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0408	Munitions Systems/ Ordinance Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0409	Radar Communications and Systems Technology (MILITARY)	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0499	Military Systems and Maintenance Technology, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.0601	Military Technology and Applied Sciences Management	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec
29.9999	Military Technologies and Applied Sciences, Other	Other non-science and engineering	Non-science and engineering, other	Other non-science and engineering nec

CIP = Classification of Instructional Programs; nec = not elsewhere classified; SED = Survey of Earned Doctorates; STEM = science, technology, engineering, and mathematics.

[a] SED-CIP code moved from Biochemistry, biophysics, and molecular biology nec to improve alignment with the National Center for Science and Engineering Statistics' Taxonomy of Disciplines (NCSES TOD) in 2022.

[b] New SED-CIP code added in 2022.

[c] SED-CIP code moved from Neurobiology and neurosciences nec to improve alignment with the NCSES TOD in 2022.

[d] SED-CIP code moved from Science and engineering-related nec to improve alignment with the NCSES TOD in 2022.

[e] SED-CIP code moved from Chemical and petroleum engineering nec to improve alignment with the NCSES TOD in 2022.

[f] SED-CIP code moved from Geological and earth sciences nec to improve alignment with the NCSES TOD in 2022.

[g] SED-CIP code moved from Statistics nec to improve alignment with the NCSES TOD in 2022.

[h] SED-CIP code moved from Mathematics nec to improve alignment with the NCSES TOD in 2022.

[i] SED-CIP code split from 30.9999 Multidisciplinary and Interdisciplinary Studies nec in non-science and engineering into a new SED-CIP in science and engineering in 2022.

[j] SED-CIP code moved from Criminal justice and corrections to improve alignment with the NCSES TOD in 2022.

[k] SED-CIP code moved from Teacher education in science and engineering to improve alignment with the NCSES TOD in 2022.

[l] SED-CIP code moved from Public administration to improve alignment with the NCSES TOD in 2022.

[m] SED-CIP code moved from Criminal justice and corrections to improve alignment with the NCSES TOD in 2022.

[n] SED-CIP code moved from Agricultural, animal, plant, and veterinary sciences nec to improve alignment with the NCSES-TOD in 2022.

[o] New SED detailed field added in 2022.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection, and new broad, major, and detailed fields are used in tables reporting data from 2021 to the present, see the summary field list in table A-4.and table A-6 for the SED-CIP code crosswalk to the historical field taxonomy. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200). Between 2021 and 2022, minor changes were made to the SED-CIP crosswalk for the SED detailed fields to better align with the National Center for Science and Engineering Statistics' Taxonomy of Disciplines. These changes affect the reported counts for 2021; see table A-5 for more information.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table A-6

Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
01.0103	Agricultural Economics	Life sciences	Agricultural sciences and natural resources	Agricultural economics
03.0204	Environmental/ Natural Resource Economics (NATURAL RESOURCES/ CONSERVATION SCIENCES)	Life sciences	Agricultural sciences and natural resources	Natural resources/ environmental economics (agricultural sciences)
01.0904	Animal Nutrition	Life sciences	Agricultural sciences and natural resources	Animal nutrition
01.0907	Poultry Science	Life sciences	Agricultural sciences and natural resources	Animal science, poultry or avian
01.0302	Animal/ Livestock Husbandry and Production	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0306	Dairy Husbandry and Production	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0307	Horse Husbandry/ Equine Science and Management	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0505	Animal Training	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0507	Equestrian/ Equine Studies	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0509	Farrier Science	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0599	Agricultural and Domestic Animal Services, Other	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0901	Animal Sciences, General	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0902	Agricultural Animal Breeding	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0903	Animal Health	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0905	Dairy Science	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0906	Livestock Management	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0999	Animal Sciences, Other	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
26.0708	Animal Behavior and Ethology	Life sciences	Agricultural sciences and natural resources	Animal sciences, other
01.0304	Crop Production	Life sciences	Agricultural sciences and natural resources	Agronomy and crop science
01.1102	Agronomy and Crop Science	Life sciences	Agricultural sciences and natural resources	Agronomy and crop science
01.1104	Agricultural and Horticultural Plant Breeding	Life sciences	Agricultural sciences and natural resources	Agricultural and horticultural plant breeding
26.0305b	Plant Pathology/ Phytopathology (AGRICULTURAL SCIENCES)	Life sciences	Agricultural sciences and natural resources	Plant pathology/ phytopathology (agricultural sciences)
01.1101	Plant Sciences, General	Life sciences	Agricultural sciences and natural resources	Plant sciences, other
01.1105	Plant Protection and Integrated Pest Management	Life sciences	Agricultural sciences and natural resources	Plant sciences, other
01.1199	Plant Sciences, Other	Life sciences	Agricultural sciences and natural resources	Plant sciences, other
01.1001	Food Science	Life sciences	Agricultural sciences and natural resources	Food science
01.0401	Agricultural and Food Products Processing	Life sciences	Agricultural sciences and natural resources	Food science and technology, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
01.1002	Food Technology and Processing	Life sciences	Agricultural sciences and natural resources	Food science and technology, other
01.1003	Brewing Science	Life sciences	Agricultural sciences and natural resources	Food science and technology, other
01.1004	Viticulture and Enology	Life sciences	Agricultural sciences and natural resources	Food science and technology, other
01.1005	Zymology/ Fermentation Science	Life sciences	Agricultural sciences and natural resources	Food science and technology, other
01.1099	Food Science and Technology, Other	Life sciences	Agricultural sciences and natural resources	Food science and technology, other
01.1202	Soil Chemistry and Physics	Life sciences	Agricultural sciences and natural resources	Soil chemistry/ microbiology
01.1203	Soil Microbiology	Life sciences	Agricultural sciences and natural resources	Soil chemistry/ microbiology
01.1203b	Soil Chemistry and Microbiology	Life sciences	Agricultural sciences and natural resources	Soil chemistry/ microbiology
01.1201	Soil Science and Agronomy, General	Life sciences	Agricultural sciences and natural resources	Soil sciences, other
01.1299	Soil Sciences, Other	Life sciences	Agricultural sciences and natural resources	Soil sciences, other
01.0601	Applied Horticulture/ Horticulture Operations, General	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0603	Ornamental Horticulture	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0604	Greenhouse Operations and Management	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0605	Landscaping and Groundskeeping	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0606	Plant Nursery Operations and Management	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0607	Turf and Turfgrass Management	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0608	Floriculture/ Floristry Operations and Management	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0609	Public Horticulture	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0610	Urban and Community Horticulture	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0699	Applied Horticulture/ Horticultural Business Services, Other	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.1103	Horticultural Science	Life sciences	Agricultural sciences and natural resources	Horticulture science
01.0303	Aquaculture	Life sciences	Agricultural sciences and natural resources	Fishing and fisheries sciences/ management
03.0301	Fishing and Fisheries Sciences and Management	Life sciences	Agricultural sciences and natural resources	Fishing and fisheries sciences/ management
03.0502	Forest Sciences and Biology	Life sciences	Agricultural sciences and natural resources	Forest sciences and biology
03.0506	Forest Management/ Forest Resources Management	Life sciences	Agricultural sciences and natural resources	Forest/ forest resources management
03.0510	Forest Resources Production and Management	Life sciences	Agricultural sciences and natural resources	Forest/ forest resources management
03.0101	Natural Resources/ Conservation, General	Life sciences	Agricultural sciences and natural resources	Natural resources and conservation

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
03.0199	Natural Resources Conservation and Research, Other	Life sciences	Agricultural sciences and natural resources	Natural resources and conservation
03.9999	Natural Resources and Conservation, Other	Life sciences	Agricultural sciences and natural resources	Natural resources and conservation
30.3301	Sustainability Studies	Life sciences	Agricultural sciences and natural resources	Natural resources and conservation
03.0501	Forestry, General	Life sciences	Agricultural sciences and natural resources	Forestry, other
03.0508	Urban Forestry	Life sciences	Agricultural sciences and natural resources	Forestry, other
03.0509	Wood Science and Wood Products/ Pulp and Paper Technology	Life sciences	Agricultural sciences and natural resources	Forestry, other
03.0511	Forest Technology	Life sciences	Agricultural sciences and natural resources	Forestry, other
03.0599	Forestry, Other	Life sciences	Agricultural sciences and natural resources	Forestry, other
01.1106	Range Science and Management	Life sciences	Agricultural sciences and natural resources	Wildlife/ range management
03.0601	Wildlife, Fish and Wildlands Science and Management	Life sciences	Agricultural sciences and natural resources	Wildlife/ range management
03.0103	Environmental Studies	Life sciences	Agricultural sciences and natural resources	Environmental science
03.0104	Environmental Science	Life sciences	Agricultural sciences and natural resources	Environmental science
01.0000	Agriculture, General	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, general
01.0701	International Agriculture	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, general
01.0201	Agricultural Mechanization, General	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0204	Agricultural Power Machinery Operation	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0205	Agricultural Mechanics and Equipment/ Machine Technology	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0207	Irrigation Management Technology	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0299	Agricultural Mechanization, Other	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0308	Agroecology and Sustainable Agriculture	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.0399	Agricultural Production Operations, Other	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.1399	Agriculture/ Veterinary Preparatory Programs, Other	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
01.9999	Agricultural/ Animal/ Plant/ Veterinary Science and Related Fields, Other	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
03.0210	Bioenergy	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
30.1801	Natural Sciences	Life sciences	Agricultural sciences and natural resources	Agricultural sciences/ natural resources, other
03.0201	Environmental/ Natural Resources Management and Policy, General	Life sciences	Agricultural sciences and natural resources	Natural resource/ environmental policy
03.0209	Energy and Environmental Policy	Life sciences	Agricultural sciences and natural resources	Natural resource/ environmental policy

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
03.0299	Environmental/ Natural Resources Management and Policy, Other	Life sciences	Agricultural sciences and natural resources	Natural resource/ environmental policy
26.0202	Biochemistry	Life sciences	Biological and biomedical sciences	Biochemistry (biological sciences)
26.0205	Molecular Biochemistry	Life sciences	Biological and biomedical sciences	Biochemistry (biological sciences)
26.0210	Biochemistry and Molecular Biology	Life sciences	Biological and biomedical sciences	Biochemistry (biological sciences)
26.1103	Bioinformatics	Life sciences	Biological and biomedical sciences	Bioinformatics
26.1199	Biomathematics, Bioinformatics, and Computational Biology, Other	Life sciences	Biological and biomedical sciences	Bioinformatics
51.2706	Medical Informatics	Life sciences	Biological and biomedical sciences	Bioinformatics
51.2706b	Biomedical and Health Informatics	Life sciences	Biological and biomedical sciences	Bioinformatics
26.0102	Biomedical Sciences, General	Life sciences	Biological and biomedical sciences	Biomedical sciences
26.0907	Cardiovascular Science	Life sciences	Biological and biomedical sciences	Biomedical sciences
26.1104	Computational Biology	Life sciences	Biological and biomedical sciences	Computational biology
26.0203	Biophysics (BIOLOGY)	Life sciences	Biological and biomedical sciences	Biophysics (biological sciences)
26.0206	Molecular Biophysics	Life sciences	Biological and biomedical sciences	Biophysics (biological sciences)
26.1201	Biotechnology	Life sciences	Biological and biomedical sciences	Biotechnology
26.0503	Medical Microbiology and Bacteriology	Life sciences	Biological and biomedical sciences	Bacteriology
26.0805	Plant Genetics	Life sciences	Biological and biomedical sciences	Plant genetics
26.0305	Plant Pathology/ Phytopathology (BIOLOGY)	Life sciences	Biological and biomedical sciences	Plant pathology/ phytopathology (biological sciences)
26.0307	Plant Physiology	Life sciences	Biological and biomedical sciences	Plant physiology
26.0301	Botany/ Plant Biology	Life sciences	Biological and biomedical sciences	Botany and plant biology
26.0308	Plant Molecular Biology	Life sciences	Biological and biomedical sciences	Botany and plant biology
26.0399	Botany/ Plant Biology, Other	Life sciences	Biological and biomedical sciences	Botany and plant biology
26.0403	Anatomy	Life sciences	Biological and biomedical sciences	Anatomy
26.1101	Biometry/ Biometrics	Life sciences	Biological and biomedical sciences	Biometrics and biostatistics
26.1102	Biostatistics	Life sciences	Biological and biomedical sciences	Biometrics and biostatistics
26.1309	Epidemiology	Life sciences	Biological and biomedical sciences	Epidemiology
26.1311	Epidemiology and Biostatistics	Life sciences	Biological and biomedical sciences	Epidemiology
26.0401	Cell/ Cellular Biology and Histology	Life sciences	Biological and biomedical sciences	Cell/ cellular biology and histology

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
26.0407	Cell Biology and Anatomy	Life sciences	Biological and biomedical sciences	Cell/ cellular biology and histology
26.0499	Cell/ Cellular Biology and Anatomical Sciences, Other	Life sciences	Biological and biomedical sciences	Cell/ cellular biology and histology
26.1303	Evolutionary Biology	Life sciences	Biological and biomedical sciences	Evolutionary biology
26.1306	Population Biology	Life sciences	Biological and biomedical sciences	Evolutionary biology
26.1307	Conservation Biology	Life sciences	Biological and biomedical sciences	Evolutionary biology
26.1308	Systematic Biology/ Biological Systematics	Life sciences	Biological and biomedical sciences	Evolutionary biology
26.1399	Ecology, Evolution, Systematics and Population Biology, Other	Life sciences	Biological and biomedical sciences	Evolutionary biology
26.1301	Ecology	Life sciences	Biological and biomedical sciences	Ecology
26.1310	Ecology and Evolutionary Biology	Life sciences	Biological and biomedical sciences	Ecology
26.1399b	Ecology, Evolution, and Behavior	Life sciences	Biological and biomedical sciences	Ecology
26.0404	Developmental Biology and Embryology	Life sciences	Biological and biomedical sciences	Developmental biology and embryology
26.0904	Endocrinology	Life sciences	Biological and biomedical sciences	Endocrinology
01.0310	Apiculture	Life sciences	Biological and biomedical sciences	Entomology
26.0702	Entomology	Life sciences	Biological and biomedical sciences	Entomology
26.0702c	Entomology and Nematology	Life sciences	Biological and biomedical sciences	Entomology
26.0506	Mycology	Life sciences	Biological and biomedical sciences	Immunology
26.0507	Immunology	Life sciences	Biological and biomedical sciences	Immunology
26.0509	Infectious Disease and Global Health	Life sciences	Biological and biomedical sciences	Immunology
26.0599	Microbiological Sciences and Immunology, Other	Life sciences	Biological and biomedical sciences	Immunology
26.0204	Molecular Biology	Life sciences	Biological and biomedical sciences	Molecular biology
26.0406	Cell/ Cellular and Molecular Biology	Life sciences	Biological and biomedical sciences	Molecular biology
26.0207	Structural Biology	Life sciences	Biological and biomedical sciences	Structural biology
26.0502	Microbiology, General	Life sciences	Biological and biomedical sciences	Microbiology
26.0508	Microbiology and Immunology	Life sciences	Biological and biomedical sciences	Microbiology
26.0911	Oncology and Cancer Biology	Life sciences	Biological and biomedical sciences	Cancer biology
26.1401	Molecular Medicine	Life sciences	Biological and biomedical sciences	Molecular medicine
26.1501	Neuroscience	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
26.1502	Neuroanatomy	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology
26.1503	Neurobiology and Anatomy	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology
26.1504	Neurobiology and Behavior	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology
26.1599	Neurobiology and Neurosciences, Other	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology
26.1599c	Computational Neuroscience	Life sciences	Biological and biomedical sciences	Neurosciences and neurobiology
19.0504	Human Nutrition	Life sciences	Biological and biomedical sciences	Nutrition sciences
30.1901	Nutrition Sciences	Life sciences	Biological and biomedical sciences	Nutrition sciences
51.3101	Dietetics/ Dietitian	Life sciences	Biological and biomedical sciences	Nutrition sciences
51.3102	Clinical Nutrition/ Nutritionist	Life sciences	Biological and biomedical sciences	Nutrition sciences
51.3103	Dietetic Technician	Life sciences	Biological and biomedical sciences	Nutrition sciences
51.3104	Dietitian Assistant	Life sciences	Biological and biomedical sciences	Nutrition sciences
51.3199	Dietetics and Clinical Nutrition Services, Other	Life sciences	Biological and biomedical sciences	Nutrition sciences
26.0505	Parasitology	Life sciences	Biological and biomedical sciences	Parasitology
26.1006	Environmental Toxicology	Life sciences	Biological and biomedical sciences	Environmental toxicology
26.0504	Virology	Life sciences	Biological and biomedical sciences	Virology
26.1004	Toxicology	Life sciences	Biological and biomedical sciences	Toxicology
26.1005	Molecular Toxicology	Life sciences	Biological and biomedical sciences	Toxicology
26.1099	Pharmacology and Toxicology, Other	Life sciences	Biological and biomedical sciences	Toxicology
26.0801	Genetics, General	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0802	Molecular Genetics	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0803	Microbial and Eukaryotic Genetics	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0804	Animal Genetics	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0806	Human/ Medical Genetics	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0807	Genome Sciences/ Genomics	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
26.0899	Genetics, Other	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
51.0914	Gene/ Genetic Therapy	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal
51.1010	Cytogenetics/ Genetics/ Clinical Genetics Technology/ Technologist	Life sciences	Biological and biomedical sciences	Genetics/ genomics, human and animal

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
26.0910	Pathology/ Experimental Pathology	Life sciences	Biological and biomedical sciences	Pathology, human and animal
26.0999b	Pathobiology/Integrative Pathobiology	Life sciences	Biological and biomedical sciences	Pathology, human and animal
51.0811	Pathology/ Pathologist Assistant	Life sciences	Biological and biomedical sciences	Pathology, human and animal
26.1001	Pharmacology	Life sciences	Biological and biomedical sciences	Pharmacology, human and animal
26.1002	Molecular Pharmacology	Life sciences	Biological and biomedical sciences	Pharmacology, human and animal
26.1003	Neuropharmacology	Life sciences	Biological and biomedical sciences	Pharmacology, human and animal
26.1007	Pharmacology and Toxicology	Life sciences	Biological and biomedical sciences	Pharmacology, human and animal
26.0707	Animal Physiology	Life sciences	Biological and biomedical sciences	Physiology, human and animal
26.0901	Physiology, General	Life sciences	Biological and biomedical sciences	Physiology, human and animal
26.0902	Molecular Physiology	Life sciences	Biological and biomedical sciences	Physiology, human and animal
26.0903	Cell Physiology	Life sciences	Biological and biomedical sciences	Physiology, human and animal
26.0999	Physiology, Pathology, and Related Sciences, Other	Life sciences	Biological and biomedical sciences	Physiology, human and animal
26.0709	Wildlife Biology	Life sciences	Biological and biomedical sciences	Wildlife biology
26.0701	Zoology/ Animal Biology	Life sciences	Biological and biomedical sciences	Zoology
26.0799	Zoology/ Animal Biology, Other	Life sciences	Biological and biomedical sciences	Zoology
26.0101	Biology/ Biological Sciences, General	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.0101b	Integrative/Interdisciplinary Biology, Biosciences, and Biomedical Sciences	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.0208	Photobiology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.0209	Radiation Biology/ Radiobiology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.0299	Biochemistry, Biophysics and Molecular Biology, Other	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.0905	Reproductive Biology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.1304	Aquatic Biology/ Limnology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.1305	Environmental Biology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
26.9999	Biological and Biomedical Sciences, Other	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
30.2701	Human Biology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
51.1405	Tropical Medicine	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, general
15.0401	Biomedical Technology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
26.0702b	Nematology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
26.0909	Vision Science/ Physiological Optics	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
26.0912	Aerospace Physiology and Medicine	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
26.0913	Biomechanics	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
30.0101	Biological and Physical Sciences	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
30.5301	Thanatology	Life sciences	Biological and biomedical sciences	Biological and biomedical sciences, other
51.0201	Communication Sciences and Disorders, General	Life sciences	Health sciences	Speech-language pathology and audiology
51.0202	Audiology/ Audiologist	Life sciences	Health sciences	Speech-language pathology and audiology
51.0203	Speech-Language Pathology/ Pathologist	Life sciences	Health sciences	Speech-language pathology and audiology
51.0204	Audiology/ Audiologist and Speech-Language Pathology/ Pathologist	Life sciences	Health sciences	Speech-language pathology and audiology
51.0299	Communication Disorders Sciences and Services, Other	Life sciences	Health sciences	Speech-language pathology and audiology
51.0816	Speech-Language Pathology Assistant	Life sciences	Health sciences	Speech-language pathology and audiology
51.0918	Hearing Instrument Specialist	Life sciences	Health sciences	Speech-language pathology and audiology
51.0401	Dentistry	Life sciences	Health sciences	Oral biology/ oral pathology
51.0501	Dental Clinical Sciences, General	Life sciences	Health sciences	Oral biology/ oral pathology
51.0502	Advanced General Dentistry	Life sciences	Health sciences	Oral biology/ oral pathology
51.0503	Oral Biology and Oral and Maxillofacial Pathology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0504	Dental Public Health and Education	Life sciences	Health sciences	Oral biology/ oral pathology
51.0505	Dental Materials	Life sciences	Health sciences	Oral biology/ oral pathology
51.0506	Endodontics/ Endodontology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0507	Oral/ Maxillofacial Surgery	Life sciences	Health sciences	Oral biology/ oral pathology
51.0508	Orthodontics/ Orthodontology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0509	Pediatric Dentistry/ Pedodontics	Life sciences	Health sciences	Oral biology/ oral pathology
51.0510	Periodontics/ Periodontology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0511	Prosthodontics/ Prosthodontology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0512	Digital Dentistry	Life sciences	Health sciences	Oral biology/ oral pathology
51.0513	Geriatric Dentistry	Life sciences	Health sciences	Oral biology/ oral pathology
51.0514	Implantology/ Implant Dentistry	Life sciences	Health sciences	Oral biology/ oral pathology
51.0599	Advanced/ Graduate Dentistry and Oral Sciences, Other	Life sciences	Health sciences	Oral biology/ oral pathology
51.0601	Dental Assisting/ Assistant	Life sciences	Health sciences	Oral biology/ oral pathology
51.0602	Dental Hygiene/ Hygienist	Life sciences	Health sciences	Oral biology/ oral pathology
51.0603	Dental Laboratory Technology	Life sciences	Health sciences	Oral biology/ oral pathology
51.0699	Dental Services and Allied Professions, Other	Life sciences	Health sciences	Oral biology/ oral pathology
51.1101	Pre-Dentistry Studies	Life sciences	Health sciences	Oral biology/ oral pathology
51.1404	Temporomandibular Disorders and Orofacial Pain	Life sciences	Health sciences	Oral biology/ oral pathology
51.2202	Environmental Health	Life sciences	Health sciences	Environmental health

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.0701	Health/ Health Care Administration/ Management	Life sciences	Health sciences	Health systems administration
51.0702	Hospital and Health Care Facilities Administration/ Management	Life sciences	Health sciences	Health systems administration
51.0703	Health Unit Coordinator/ Ward Clerk	Life sciences	Health sciences	Health systems administration
51.0704	Health Unit Manager/ Ward Supervisor	Life sciences	Health sciences	Health systems administration
51.0705	Medical Office Management/ Administration	Life sciences	Health sciences	Health systems administration
51.0706	Health Information/ Medical Records Administration/ Administrator	Life sciences	Health sciences	Health systems administration
51.0708	Medical Transcription/ Transcriptionist	Life sciences	Health sciences	Health systems administration
51.0709	Medical Office Computer Specialist/ Assistant	Life sciences	Health sciences	Health systems administration
51.0710	Medical Office Assistant/ Specialist	Life sciences	Health sciences	Health systems administration
51.0711	Medical/ Health Management and Clinical Assistant/ Specialist	Life sciences	Health sciences	Health systems administration
51.0712	Medical Reception/ Receptionist	Life sciences	Health sciences	Health systems administration
51.0713	Medical Insurance Coding Specialist/ Coder	Life sciences	Health sciences	Health systems administration
51.0714	Medical Insurance Specialist/ Medical Biller	Life sciences	Health sciences	Health systems administration
51.0715	Health/ Medical Claims Examiner	Life sciences	Health sciences	Health systems administration
51.0716	Medical Administrative/ Executive Assistant and Medical Secretary	Life sciences	Health sciences	Health systems administration
51.0717	Medical Staff Services Technology	Life sciences	Health sciences	Health systems administration
51.0718	Long Term Care Administration/ Management	Life sciences	Health sciences	Health systems administration
51.0721	Disease Registry Data Management	Life sciences	Health sciences	Health systems administration
51.0723	Healthcare Information Privacy Assurance and Security	Life sciences	Health sciences	Health systems administration
51.0799	Health and Medical Administrative Services, Other	Life sciences	Health sciences	Health systems administration
51.0801	Medical/ Clinical Assistant	Life sciences	Health sciences	Health systems administration
51.0802	Clinical/ Medical Laboratory Assistant	Life sciences	Health sciences	Health systems administration
51.0899	Allied Health and Medical Assisting Services, Other	Life sciences	Health sciences	Health systems administration
51.0910	Diagnostic Medical Sonography/ Sonographer and Ultrasound Technician	Life sciences	Health sciences	Health systems administration
51.1504	Community Health Services/ Liaison/ Counseling	Life sciences	Health sciences	Health systems administration
51.2211	Health Services Administration	Life sciences	Health sciences	Health systems administration
51.0707	Health Information/ Medical Records Technology	Life sciences	Health sciences	Health services research
51.0719	Clinical Research Coordinator	Life sciences	Health sciences	Health services research
51.0720	Regulatory Science/ Affairs	Life sciences	Health sciences	Health services research
51.0722	Healthcare Innovation	Life sciences	Health sciences	Health services research
51.2211b	Health Services Research	Life sciences	Health sciences	Health services research
51.2213	Patient Safety and Healthcare Quality	Life sciences	Health sciences	Health services research
51.2201	Public Health, General	Life sciences	Health sciences	Public health
51.2206	Occupational Health and Industrial Hygiene	Life sciences	Health sciences	Public health
51.2207	Public Health Education and Promotion	Life sciences	Health sciences	Public health
51.2208	Community Health and Preventive Medicine	Life sciences	Health sciences	Public health
51.2209	Maternal and Child Health	Life sciences	Health sciences	Public health
51.2210	International Public Health/ International Health	Life sciences	Health sciences	Public health
51.2214	Public Health Genetics	Life sciences	Health sciences	Public health
51.2299	Public Health, Other	Life sciences	Health sciences	Public health

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
26.0908	Exercise Physiology and Kinesiology	Life sciences	Health sciences	Kinesiology and exercise science
31.0501	Sports, Kinesiology, and Physical Education/ Fitness, General	Life sciences	Health sciences	Kinesiology and exercise science
31.0505	Exercise Science and Kinesiology	Life sciences	Health sciences	Kinesiology and exercise science
31.0599	Sports, Kinesiology, and Physical Education/ Fitness, Other	Life sciences	Health sciences	Kinesiology and exercise science
31.9999	Parks, Recreation, Leisure, Fitness, and Kinesiology, Other	Life sciences	Health sciences	Kinesiology and exercise science
51.0913	Athletic Training/ Trainer	Life sciences	Health sciences	Kinesiology and exercise science
51.3601	Movement Therapy and Movement Education	Life sciences	Health sciences	Kinesiology and exercise science
51.3602	Yoga Teacher Training/ Yoga Therapy	Life sciences	Health sciences	Kinesiology and exercise science
51.3699	Movement and Mind-Body Therapies and Education, Other	Life sciences	Health sciences	Kinesiology and exercise science
30.1101b	Gerontology (HEALTH SCIENCES)	Life sciences	Health sciences	Gerontology (health sciences)
51.1512	Hospice and Palliative Care	Life sciences	Health sciences	Gerontology (health sciences)
51.1105	Pre-Nursing Studies	Life sciences	Health sciences	Nursing science
51.3801	Registered Nursing/ Registered Nurse	Life sciences	Health sciences	Nursing science
51.3802	Nursing Administration	Life sciences	Health sciences	Nursing science
51.3803	Adult Health Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3804	Nurse Anesthetist	Life sciences	Health sciences	Nursing science
51.3805	Family Practice Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3806	Maternal/ Child Health and Neonatal Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3807	Nurse Midwife/ Nursing Midwifery	Life sciences	Health sciences	Nursing science
51.3808	Nursing Science	Life sciences	Health sciences	Nursing science
51.3809	Pediatric Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3810	Psychiatric/ Mental Health Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3811	Public Health/ Community Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3812	Perioperative/ Operating Room and Surgical Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3813	Clinical Nurse Specialist	Life sciences	Health sciences	Nursing science
51.3814	Critical Care Nursing	Life sciences	Health sciences	Nursing science
51.3815	Occupational and Environmental Health Nursing	Life sciences	Health sciences	Nursing science
51.3816	Emergency Room/ Trauma Nursing	Life sciences	Health sciences	Nursing science
51.3818	Nursing Practice	Life sciences	Health sciences	Nursing science
51.3819	Palliative Care Nursing	Life sciences	Health sciences	Nursing science
51.3820	Clinical Nurse Leader	Life sciences	Health sciences	Nursing science
51.3821	Geriatric Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3822	Women's Health Nurse/ Nursing	Life sciences	Health sciences	Nursing science
51.3824	Forensic Nursing	Life sciences	Health sciences	Nursing science
51.3899	Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing, Other	Life sciences	Health sciences	Nursing science
51.3901	Licensed Practical/ Vocational Nurse Training	Life sciences	Health sciences	Nursing science
51.3902	Nursing Assistant/ Aide and Patient Care Assistant/ Aide	Life sciences	Health sciences	Nursing science
51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other	Life sciences	Health sciences	Nursing science
51.0805	Pharmacy Technician/ Assistant	Life sciences	Health sciences	Pharmaceutical sciences
51.1103	Pre-Pharmacy Studies	Life sciences	Health sciences	Pharmaceutical sciences
51.2001	Pharmacy	Life sciences	Health sciences	Pharmaceutical sciences

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.2002	Pharmacy Administration and Pharmacy Policy and Regulatory Affairs	Life sciences	Health sciences	Pharmaceutical sciences
51.2003	Pharmaceutics and Drug Design	Life sciences	Health sciences	Pharmaceutical sciences
51.2006	Clinical and Industrial Drug Development	Life sciences	Health sciences	Pharmaceutical sciences
51.2007	Pharmacoeconomics/ Pharmaceutical Economics	Life sciences	Health sciences	Pharmaceutical sciences
51.2008	Clinical, Hospital, and Managed Care Pharmacy	Life sciences	Health sciences	Pharmaceutical sciences
51.2009	Industrial and Physical Pharmacy and Cosmetic Sciences	Life sciences	Health sciences	Pharmaceutical sciences
51.2010	Pharmaceutical Sciences	Life sciences	Health sciences	Pharmaceutical sciences
51.2011	Pharmaceutical Marketing and Management	Life sciences	Health sciences	Pharmaceutical sciences
51.2099	Pharmacy, Pharmaceutical Sciences, and Administration, Other	Life sciences	Health sciences	Pharmaceutical sciences
51.0803	Occupational Therapist Assistant	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.0806	Physical Therapy Assistant	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.1107	Pre-Occupational Therapy Studies	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.1109	Pre-Physical Therapy Studies	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.1501	Substance Abuse/ Addiction Counseling	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2300	Rehabilitation and Therapeutic Professions, General	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2302	Dance Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2306	Occupational Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2307	Orthotist/ Prosthetist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2308	Physical Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2309	Therapeutic Recreation/ Recreational Therapy	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2310	Vocational Rehabilitation Counseling/ Counselor	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2311	Kinesiotherapy/ Kinesiotherapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2312	Assistive/ Augmentative Technology and Rehabilitation Engineering	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2313	Animal-Assisted Therapy	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2314	Rehabilitation Science	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2315	Drama Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2316	Horticulture Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2317	Play Therapy/ Therapist	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2399	Rehabilitation and Therapeutic Professions, Other	Life sciences	Health sciences	Rehabilitation/ therapeutic services

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.2604	Rehabilitation Aide	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.2605	Physical Therapy Technician/ Aide	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.3501	Massage Therapy/ Therapeutic Massage	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.3502	Asian Bodywork Therapy	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.3503	Somatic Bodywork	Life sciences	Health sciences	Rehabilitation/ therapeutic services
51.3599	Somatic Bodywork and Related Therapeutic Services, Other	Life sciences	Health sciences	Rehabilitation/ therapeutic services
01.1302	Pre-Veterinary Studies	Life sciences	Health sciences	Veterinary sciences
01.8001	Veterinary Medicine	Life sciences	Health sciences	Veterinary sciences
01.8101	Veterinary Sciences/ Veterinary Clinical Sciences, General	Life sciences	Health sciences	Veterinary sciences
01.8102	Comparative and Laboratory Animal Medicine	Life sciences	Health sciences	Veterinary sciences
01.8103	Large Animal/ Food Animal and Equine Surgery and Medicine	Life sciences	Health sciences	Veterinary sciences
01.8104	Small/ Companion Animal Surgery and Medicine	Life sciences	Health sciences	Veterinary sciences
01.8105	Veterinary Anatomy	Life sciences	Health sciences	Veterinary sciences
01.8106	Veterinary Infectious Diseases	Life sciences	Health sciences	Veterinary sciences
01.8107	Veterinary Microbiology and Immunobiology	Life sciences	Health sciences	Veterinary sciences
01.8108	Veterinary Pathology and Pathobiology	Life sciences	Health sciences	Veterinary sciences
01.8109	Veterinary Physiology	Life sciences	Health sciences	Veterinary sciences
01.8110	Veterinary Preventive Medicine, Epidemiology, and Public Health	Life sciences	Health sciences	Veterinary sciences
01.8111	Veterinary Toxicology and Pharmacology	Life sciences	Health sciences	Veterinary sciences
01.8199	Veterinary Biomedical and Clinical Sciences, Other	Life sciences	Health sciences	Veterinary sciences
01.8201	Veterinary Administrative Services, General	Life sciences	Health sciences	Veterinary sciences
01.8202	Veterinary Office Management/ Administration	Life sciences	Health sciences	Veterinary sciences
01.8203	Veterinary Reception/ Receptionist	Life sciences	Health sciences	Veterinary sciences
01.8204	Veterinary Administrative/ Executive Assistant and Veterinary Secretary	Life sciences	Health sciences	Veterinary sciences
01.8299	Veterinary Administrative Services, Other	Life sciences	Health sciences	Veterinary sciences
01.8301	Veterinary/ Animal Health Technology and Veterinary Assistant	Life sciences	Health sciences	Veterinary sciences
01.8399	Veterinary/ Animal Health Technologies, Other	Life sciences	Health sciences	Veterinary sciences
51.2212	Behavioral Aspects of Health	Life sciences	Health sciences	Health and behavior
51.0000	Health Services/ Allied Health/ Health Sciences, General	Life sciences	Health sciences	Health sciences, general
51.0000b	Health sciences, general	Life sciences	Health sciences	Health sciences, general
51.0001	Health and Wellness, General	Life sciences	Health sciences	Health sciences, general
51.0912	Physician Assistant	Life sciences	Health sciences	Health sciences, general
30.3701	Design for Human Health	Life sciences	Health sciences	Health sciences, other
51.0101	Chiropractic	Life sciences	Health sciences	Health sciences, other
51.0809	Anesthesiologist Assistant	Life sciences	Health sciences	Health sciences, other
51.0810	Emergency Care Attendant (EMT Ambulance)	Life sciences	Health sciences	Health sciences, other
51.0812	Respiratory Therapy Technician/ Assistant	Life sciences	Health sciences	Health sciences, other
51.0813	Chiropractic Technician/ Assistant	Life sciences	Health sciences	Health sciences, other
51.0815	Lactation Consultant	Life sciences	Health sciences	Health sciences, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.0901	Cardiovascular Technology/ Technologist	Life sciences	Health sciences	Health sciences, other
51.0902	Electrocardiograph Technology	Life sciences	Health sciences	Health sciences, other
51.0903	Electroneurodiagnostic/ Electroencephalographic Technology/ Technologist	Life sciences	Health sciences	Health sciences, other
51.0904	Emergency Medical Technology (EMT Paramedic)	Life sciences	Health sciences	Health sciences, other
51.0908	Respiratory Care Therapy/ Therapist	Life sciences	Health sciences	Health sciences, other
51.0909	Surgical Technology/ Technologist	Life sciences	Health sciences	Health sciences, other
51.0915	Cardiopulmonary Technology/ Technologist	Life sciences	Health sciences	Health sciences, other
51.0917	Polysomnography	Life sciences	Health sciences	Health sciences, other
51.0921	Hyperbaric Medicine Technology	Life sciences	Health sciences	Health sciences, other
51.0922	Intraoperative Neuromonitoring Technology	Life sciences	Health sciences	Health sciences, other
51.0923	Orthopedic Technology	Life sciences	Health sciences	Health sciences, other
51.0999	Allied Health Diagnostic, Intervention, and Treatment Professions, Other	Life sciences	Health sciences	Health sciences, other
51.1001	Blood Bank Technology Specialist	Life sciences	Health sciences	Health sciences, other
51.1002	Cytotechnology/ Cytotechnologist	Life sciences	Health sciences	Health sciences, other
51.1003	Hematology Technology	Life sciences	Health sciences	Health sciences, other
51.1004	Clinical/ Medical Laboratory Technician	Life sciences	Health sciences	Health sciences, other
51.1005	Clinical Laboratory Science/ Medical Technology/ Technologist	Life sciences	Health sciences	Health sciences, other
51.1006	Ophthalmic Laboratory Technology	Life sciences	Health sciences	Health sciences, other
51.1007	Histologic Technology/ Histotechnologist	Life sciences	Health sciences	Health sciences, other
51.1008	Histologic Technician	Life sciences	Health sciences	Health sciences, other
51.1009	Phlebotomy Technician/ Phlebotomist	Life sciences	Health sciences	Health sciences, other
51.1011	Renal/ Dialysis Technologist/ Technician	Life sciences	Health sciences	Health sciences, other
51.1012	Sterile Processing Technology	Life sciences	Health sciences	Health sciences, other
51.1099	Clinical/ Medical Laboratory Science and Allied Professions, Other	Life sciences	Health sciences	Health sciences, other
51.1102	Pre-Medicine/ Pre-Medical Studies	Life sciences	Health sciences	Health sciences, other
51.1106	Pre-Chiropractic Studies	Life sciences	Health sciences	Health sciences, other
51.1108	Pre-Optometry Studies	Life sciences	Health sciences	Health sciences, other
51.1110	Pre-Art Therapy	Life sciences	Health sciences	Health sciences, other
51.1111	Pre-Physician Assistant	Life sciences	Health sciences	Health sciences, other
51.1199	Health/ Medical Preparatory Programs, Other	Life sciences	Health sciences	Health sciences, other
51.1201	Medicine	Life sciences	Health sciences	Health sciences, other
51.1202	Osteopathic Medicine/ Osteopathy	Life sciences	Health sciences	Health sciences, other
51.1203	Podiatric Medicine/ Podiatry	Life sciences	Health sciences	Health sciences, other
51.1299	Medicine, Other	Life sciences	Health sciences	Health sciences, other
51.1401	Medical Science/ Scientist	Life sciences	Health sciences	Health sciences, other
51.1402	Clinical and Translational Science	Life sciences	Health sciences	Health sciences, other
51.1403	Pain Management	Life sciences	Health sciences	Health sciences, other
51.1499	Medical Clinical Sciences/ Graduate Medical Studies, Other	Life sciences	Health sciences	Health sciences, other
51.1499b	Clinical Investigation and Sciences	Life sciences	Health sciences	Health sciences, other
51.1701	Optometry	Life sciences	Health sciences	Health sciences, other
51.1801	Opticianry/ Ophthalmic Dispensing Optician	Life sciences	Health sciences	Health sciences, other
51.1802	Optometric Technician/ Assistant	Life sciences	Health sciences	Health sciences, other
51.1803	Ophthalmic Technician/ Technologist	Life sciences	Health sciences	Health sciences, other
51.1804	Orthoptics/ Orthoptist	Life sciences	Health sciences	Health sciences, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.1899	Ophthalmic and Optometric Support Services and Allied Professions, Other	Life sciences	Health sciences	Health sciences, other
51.2601	Health Aide	Life sciences	Health sciences	Health sciences, other
51.2602	Home Health Aide/ Home Attendant	Life sciences	Health sciences	Health sciences, other
51.2603	Medication Aide	Life sciences	Health sciences	Health sciences, other
51.2699	Health Aides/ Attendants/ Orderlies, Other	Life sciences	Health sciences	Health sciences, other
51.2799	Medical Illustration and Informatics, Other	Life sciences	Health sciences	Health sciences, other
51.3204	Medical/ Health Humanities	Life sciences	Health sciences	Health sciences, other
51.3300	Alternative and Complementary Medicine and Medical Systems, General	Life sciences	Health sciences	Health sciences, other
51.3301	Acupuncture and Oriental Medicine	Life sciences	Health sciences	Health sciences, other
51.3302	Traditional Chinese Medicine and Chinese Herbology	Life sciences	Health sciences	Health sciences, other
51.3303	Naturopathic Medicine/ Naturopathy	Life sciences	Health sciences	Health sciences, other
51.3304	Homeopathic Medicine/ Homeopathy	Life sciences	Health sciences	Health sciences, other
51.3305	Ayurvedic Medicine/ Ayurveda	Life sciences	Health sciences	Health sciences, other
51.3306	Holistic/ Integrative Health	Life sciences	Health sciences	Health sciences, other
51.3399	Alternative and Complementary Medicine and Medical Systems, Other	Life sciences	Health sciences	Health sciences, other
51.3401	Direct Entry Midwifery	Life sciences	Health sciences	Health sciences, other
51.3499	Alternative and Complementary Medical Support Services, Other	Life sciences	Health sciences	Health sciences, other
51.3701	Aromatherapy	Life sciences	Health sciences	Health sciences, other
51.3702	Herbalism/ Herbalist	Life sciences	Health sciences	Health sciences, other
51.3703	Polarity Therapy	Life sciences	Health sciences	Health sciences, other
51.3704	Reiki	Life sciences	Health sciences	Health sciences, other
51.3799	Energy and Biologically Based Therapies, Other	Life sciences	Health sciences	Health sciences, other
51.9999	Health Professions and Related Clinical Sciences, Other	Life sciences	Health sciences	Health sciences, other
51.9999b	Health Sciences, Other	Life sciences	Health sciences	Health sciences, other
51.0814	Radiologist Assistant	Life sciences	Health sciences	Medical physics/ radiological science
51.0905	Nuclear Medical Technology/ Technologist	Life sciences	Health sciences	Medical physics/ radiological science
51.0906	Perfusion Technology/ Perfusionist	Life sciences	Health sciences	Medical physics/ radiological science
51.0907	Medical Radiologic Technology/ Science - Radiation Therapist	Life sciences	Health sciences	Medical physics/ radiological science
51.0911	Radiologic Technology/ Science - Radiographer	Life sciences	Health sciences	Medical physics/ radiological science
51.0916	Radiation Protection/ Health Physics Technician	Life sciences	Health sciences	Medical physics/ radiological science
51.0919	Mammography Technology	Life sciences	Health sciences	Medical physics/ radiological science
51.0920	Magnetic Resonance Imaging (MRI) Technology	Life sciences	Health sciences	Medical physics/ radiological science
51.2205	Health/ Medical Physics	Life sciences	Health sciences	Medical physics/ radiological science
40.0502	Analytical Chemistry	Physical sciences and earth sciences	Chemistry	Analytical chemistry
40.0503	Inorganic Chemistry	Physical sciences and earth sciences	Chemistry	Inorganic chemistry

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
40.0504	Organic Chemistry	Physical sciences and earth sciences	Chemistry	Organic chemistry
40.0599b	Chemical Biology	Physical sciences and earth sciences	Chemistry	Chemical biology
51.2004	Medicinal and Pharmaceutical Chemistry	Physical sciences and earth sciences	Chemistry	Medicinal chemistry
51.2005	Natural Products Chemistry and Pharmacognosy	Physical sciences and earth sciences	Chemistry	Medicinal chemistry
40.0506	Physical Chemistry	Physical sciences and earth sciences	Chemistry	Physical chemistry
40.0507	Polymer Chemistry	Physical sciences and earth sciences	Chemistry	Polymer chemistry
40.0511	Theoretical Chemistry	Physical sciences and earth sciences	Chemistry	Theoretical chemistry
40.0511b	Computational Chemistry	Physical sciences and earth sciences	Chemistry	Theoretical chemistry
40.0501	Chemistry, General	Physical sciences and earth sciences	Chemistry	Chemistry, general
40.0509	Environmental Chemistry	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.0510	Forensic Chemistry	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.0512	Cheminformatics/ Chemistry Informatics	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.0599	Chemistry, Other	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.1002	Materials Chemistry	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.1099b	Fiber and Polymer Sciences	Physical sciences and earth sciences	Chemistry	Chemistry, other
40.9999b	Polymer Sciences	Physical sciences and earth sciences	Chemistry	Chemistry, other
26.1302	Marine Biology and Biological Oceanography	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Marine biology and biological oceanography
30.3501	Climate Science	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric chemistry and climatology
40.0402	Atmospheric Chemistry and Climatology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric chemistry and climatology
40.0403	Atmospheric Physics and Dynamics	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric physics and dynamics
40.0404	Meteorology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Meteorology
40.0401	Atmospheric Sciences and Meteorology, General	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric sciences and meteorology, general
30.5001	Mathematics and Atmospheric/ Oceanic Science	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric sciences and meteorology, other
40.0499	Atmospheric Sciences and Meteorology, Other	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric sciences and meteorology, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
40.0499b	Planetary Sciences	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Atmospheric sciences and meteorology, other
40.0601c	Geology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geology
40.0602	Geochemistry	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geochemistry
40.0603	Geophysics and Seismology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geophysics and seismology
40.0604	Paleontology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Paleontology
40.0606	Geochemistry and Petrology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Mineralogy and petrology
40.0699c	Stratigraphy and Sedimentation	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Stratigraphy and sedimentation
40.0699b	Geomorphology and Glacial Geology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geomorphology and glacial geology
30.3801	Earth Systems Science	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
30.3801b	Earth & Environmental Sciences	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
30.4101	Environmental Geosciences	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
30.4201	Geoarcheaology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
30.4301	Geobiology	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
40.0601	Geology/ Earth Science, General	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
40.0601b	Earth Science	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, general
40.0699	Geological and Earth Sciences/ Geosciences, Other	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Geological and earth sciences, other
03.0205	Water, Wetlands, and Marine Resources Management	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Hydrology and water resources
40.0605	Hydrology and Water Resources Science	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Hydrology and water resources
29.0306	Operational Oceanography (MILITARY)	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Oceanography, chemical and physical

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
40.0607	Oceanography, Chemical and Physical	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Oceanography, chemical and physical
30.2901	Maritime Studies	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Marine sciences
30.3201	Marine Sciences	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Marine sciences
30.3201b	Ocean/ Marine Science, Other	Physical sciences and earth sciences	Geosciences, atmospheric sciences, and ocean sciences	Ocean/ marine sciences, other
40.0201	Astronomy	Physical sciences and earth sciences	Physics and astronomy	Astronomy
40.0203	Planetary Astronomy and Science	Physical sciences and earth sciences	Physics and astronomy	Astronomy
40.0202	Astrophysics	Physical sciences and earth sciences	Physics and astronomy	Astrophysics
40.1101	Physics and Astronomy	Physical sciences and earth sciences	Physics and astronomy	Astrophysics
40.1101b	Cosmology	Physical sciences and earth sciences	Physics and astronomy	Astrophysics
40.0299	Astronomy and Astrophysics, Other	Physical sciences and earth sciences	Physics and astronomy	Astronomy and astrophysics, other
40.0299b	Cosmology	Physical sciences and earth sciences	Physics and astronomy	Astronomy and astrophysics, other
40.0809	Acoustics	Physical sciences and earth sciences	Physics and astronomy	Acoustics
40.0508	Chemical Physics	Physical sciences and earth sciences	Physics and astronomy	Atomic/ molecular/ chemical physics
40.0802	Atomic/ Molecular Physics	Physical sciences and earth sciences	Physics and astronomy	Atomic/ molecular/ chemical physics
40.0804	Elementary Particle Physics	Physical sciences and earth sciences	Physics and astronomy	Elementary particle physics
26.0203b	Biophysics (PHYSICS)	Physical sciences and earth sciences	Physics and astronomy	Biophysics (physics)
40.0806	Nuclear Physics	Physical sciences and earth sciences	Physics and astronomy	Nuclear physics
40.0807	Optics/ Optical Sciences	Physical sciences and earth sciences	Physics and astronomy	Optics/ photonics
40.0805	Plasma and High-Temperature Physics	Physical sciences and earth sciences	Physics and astronomy	Plasma/ high-temperature physics
40.0808b	Polymer Physics	Physical sciences and earth sciences	Physics and astronomy	Polymer physics
40.0808	Condensed Matter and Materials Physics	Physical sciences and earth sciences	Physics and astronomy	Condensed matter/ low-temperature physics
40.0899b	Applied Physics	Physical sciences and earth sciences	Physics and astronomy	Applied physics
40.0801	Physics, General	Physical sciences and earth sciences	Physics and astronomy	Physics, general
40.0101	Physical Sciences, General	Physical sciences and earth sciences	Physics and astronomy	Physics, other
40.0810	Theoretical and Mathematical Physics	Physical sciences and earth sciences	Physics and astronomy	Physics, other
40.0899	Physics, Other	Physical sciences and earth sciences	Physics and astronomy	Physics, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
40.9999	Physical Sciences, Other	Physical sciences and earth sciences	Physics and astronomy	Physics, other
11.0102	Artificial Intelligence	Mathematics and computer sciences	Computer and information sciences	Computer science
11.0104	Informatics	Mathematics and computer sciences	Computer and information sciences	Computer science
11.0701	Computer Science	Mathematics and computer sciences	Computer and information sciences	Computer science
11.0701b	Computing Theory and Practice (COMPUTER SCIENCE)	Mathematics and computer sciences	Computer and information sciences	Computer science
30.3101	Human Computer Interaction	Mathematics and computer sciences	Computer and information sciences	Computer science
11.0103	Information Technology	Mathematics and computer sciences	Computer and information sciences	Information science and systems
11.0301	Data Processing and Data Processing Technology	Mathematics and computer sciences	Computer and information sciences	Information science and systems
11.0401	Information Science/ Studies	Mathematics and computer sciences	Computer and information sciences	Information science and systems
29.0406	Military Information Systems Technology	Mathematics and computer sciences	Computer and information sciences	Information science and systems
11.0101	Computer and Information Sciences, General	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0201	Computer Programming/ Programmer, General	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0202	Computer Programming, Specific Applications	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0203	Computer Programming, Vendor/ Product Certification	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0204	Computer Game Programming	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0205	Computer Programming, Specific Platforms	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0901	Computer Systems Networking and Telecommunications	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0902	Cloud Computing	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
11.0999	Computer Systems Networking and Telecommunications, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
11.1006	Computer Support Specialist	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, general
10.0308	Computer Typography and Composition Equipment Operator	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0105	Human-Centered Technology Design	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0199	Computer and Information Sciences, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0299	Computer Programming, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0501	Computer Systems Analysis/ Analyst	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0801	Web Page, Digital/ Multimedia and Information Resources Design	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0802	Data Modeling/ Warehousing and Database Administration	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0803	Computer Graphics	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0804	Modeling, Virtual Environments and Simulation	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.0899	Computer Software and Media Applications, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1001	Network and System Administration/ Administrator	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1002	System, Networking, and LAN/ WAN Management/ Manager	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1003	Computer and Information Systems Security/ Auditing/ Information Assurance	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1004	Web/ Multimedia Management and Webmaster	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1005	Information Technology Project Management	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.1099	Computer/ Information Technology Services Administration and Management, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
11.9999	Computer and Information Sciences and Support Services, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
29.0207	Cyber/ Electronic Operations and Warfare (MILITARY)	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
29.0299	Intelligence, Command Control and Information Operations, Other (MILITARY)	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
30.7001	Data Science, General	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
30.7099	Data Science, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
30.7099b	Data Mining and Machine Learning	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
30.7101	Data Analytics, General	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
30.7199	Data Analytics, Other	Mathematics and computer sciences	Computer and information sciences	Computer and information sciences, other
27.0301	Applied Mathematics, General	Mathematics and computer sciences	Mathematics and statistics	Applied mathematics
27.0304	Computational and Applied Mathematics	Mathematics and computer sciences	Mathematics and statistics	Applied mathematics
27.0399	Applied Mathematics, Other	Mathematics and computer sciences	Mathematics and statistics	Applied mathematics
30.0801	Mathematics and Computer Science	Mathematics and computer sciences	Mathematics and statistics	Applied mathematics
30.7103	Data Visualization	Mathematics and computer sciences	Mathematics and statistics	Applied mathematics
27.0102	Algebra and Number Theory	Mathematics and computer sciences	Mathematics and statistics	Algebra
27.0102b	Algebra	Mathematics and computer sciences	Mathematics and statistics	Algebra
27.0103	Analysis and Functional Analysis	Mathematics and computer sciences	Mathematics and statistics	Analysis and functional analysis
27.0104	Geometry/ Geometric Analysis	Mathematics and computer sciences	Mathematics and statistics	Geometry/ geometric analysis
27.0199c	Logic (MATHEMATICS)	Mathematics and computer sciences	Mathematics and statistics	Logic
27.0102c	Number Theory	Mathematics and computer sciences	Mathematics and statistics	Number theory
27.0501	Statistics (MATHEMATICS)	Mathematics and computer sciences	Mathematics and statistics	Statistics (mathematics)
27.0502	Mathematical Statistics and Probability	Mathematics and computer sciences	Mathematics and statistics	Statistics (mathematics)

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
27.0601	Applied Statistics, General	Mathematics and computer sciences	Mathematics and statistics	Statistics (mathematics)
27.0105	Topology and Foundations	Mathematics and computer sciences	Mathematics and statistics	Topology/ foundations
11.0701c	Computing Theory and Practice (MATHEMATICS)	Mathematics and computer sciences	Mathematics and statistics	Computing theory and practice
27.0303	Computational Mathematics	Mathematics and computer sciences	Mathematics and statistics	Computational mathematics
30.3001	Computational Science	Mathematics and computer sciences	Mathematics and statistics	Computational mathematics
14.3701b	Operations Research (MATHEMATICS)	Mathematics and computer sciences	Mathematics and statistics	Operations research (mathematics)
27.0101	Mathematics, General	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, general
27.0101b	Mathematical Sciences	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, general
27.0503	Mathematics and Statistics	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, general
27.0199	Mathematics, Other	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, other
27.0305	Financial Mathematics	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, other
27.0306	Mathematical Biology	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, other
27.0599	Statistics, Other	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, other
27.9999	Mathematics and Statistics, Other	Mathematics and computer sciences	Mathematics and statistics	Mathematics/ statistics, other
42.2801	Clinical Psychology	Psychology and social sciences	Psychology	Clinical psychology
42.2899	Clinical, Counseling and Applied Psychology, Other	Psychology and social sciences	Psychology	Clinical psychology
51.1502	Psychiatric/ Mental Health Services Technician	Psychology and social sciences	Psychology	Clinical psychology
51.1506	Clinical Pastoral Counseling/ Patient Counseling	Psychology and social sciences	Psychology	Clinical psychology
51.1507	Psychoanalysis and Psychotherapy	Psychology and social sciences	Psychology	Clinical psychology
42.2814	Applied Behavior Analysis	Psychology and social sciences	Psychology	Behavioral analysis
42.2701	Cognitive Psychology and Psycholinguistics	Psychology and social sciences	Psychology	Cognitive psychology and psycholinguistics

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
42.2803	Counseling Psychology	Psychology and social sciences	Psychology	Counseling
51.1509	Genetic Counseling/ Counselor	Psychology and social sciences	Psychology	Counseling
51.1513	Trauma Counseling	Psychology and social sciences	Psychology	Counseling
51.1599	Mental and Social Health Services and Allied Professions, Other	Psychology and social sciences	Psychology	Counseling
30.2801	Dispute Resolution	Psychology and social sciences	Psychology	Marriage and family therapy/ counseling
51.1505	Marriage and Family Therapy/ Counseling	Psychology and social sciences	Psychology	Marriage and family therapy/ counseling
51.1510	Infant/ Toddler Mental Health Services	Psychology and social sciences	Psychology	Marriage and family therapy/ counseling
51.1511	Medical Family Therapy/ Therapist	Psychology and social sciences	Psychology	Marriage and family therapy/ counseling
42.2703	Developmental and Child Psychology	Psychology and social sciences	Psychology	Developmental and child psychology
42.2710	Developmental and Adolescent Psychology	Psychology and social sciences	Psychology	Developmental and child psychology
42.2807	Clinical Child Psychology	Psychology and social sciences	Psychology	Developmental and child psychology
19.0701	Human Development and Family Studies, General	Psychology and social sciences	Psychology	Human development and family studies
19.0702	Adult Development and Aging	Psychology and social sciences	Psychology	Human development and family studies
19.0704	Family Systems	Psychology and social sciences	Psychology	Human development and family studies
19.0706	Child Development	Psychology and social sciences	Psychology	Human development and family studies
19.0711	Early Childhood and Family Studies	Psychology and social sciences	Psychology	Human development and family studies
19.1001	Work and Family Studies	Psychology and social sciences	Psychology	Human development and family studies
42.2810	Health/ Medical Psychology	Psychology and social sciences	Psychology	Health and medical psychology
51.1508	Mental Health Counseling/ Counselor	Psychology and social sciences	Psychology	Health and medical psychology
42.2704	Experimental Psychology	Psychology and social sciences	Psychology	Experimental psychology
42.2806	Educational Psychology (PSYCHOLOGY)	Psychology and social sciences	Psychology	Educational psychology (psychology)
42.2811	Family Psychology	Psychology and social sciences	Psychology	Family psychology
42.2804	Industrial and Organizational Psychology	Psychology and social sciences	Psychology	Industrial and organizational psychology
42.2705	Personality Psychology	Psychology and social sciences	Psychology	Personality psychology
26.1599b	Cognitive Neuroscience	Psychology and social sciences	Psychology	Cognitive neuroscience
30.1701	Behavioral Sciences	Psychology and social sciences	Psychology	Cognitive neuroscience
30.2501	Cognitive Science, General	Psychology and social sciences	Psychology	Cognitive neuroscience

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
30.2599	Cognitive Science, Other	Psychology and social sciences	Psychology	Cognitive neuroscience
42.2706	Behavioral Neuroscience	Psychology and social sciences	Psychology	Cognitive neuroscience
30.1001	Biopsychology	Psychology and social sciences	Psychology	Neuropsychology/ physiological psychology
42.2799b	Physiological/ Psychobiology Psychology	Psychology and social sciences	Psychology	Neuropsychology/ physiological psychology
42.2708	Psychometrics and Quantitative Psychology	Psychology and social sciences	Psychology	Psychometrics and quantitative psychology
42.2805	School Psychology (PSYCHOLOGY)	Psychology and social sciences	Psychology	School psychology (psychology)
42.2707	Social Psychology	Psychology and social sciences	Psychology	Social psychology
42.2802	Community Psychology	Psychology and social sciences	Psychology	Community psychology
42.0101	Psychology, General	Psychology and social sciences	Psychology	Psychology, general
42.2702	Comparative Psychology	Psychology and social sciences	Psychology	Psychology, general
29.0206	Information/ Psychological Warfare and Military Media Relations	Psychology and social sciences	Psychology	Psychology, other
30.2502	Contemplative Studies/ Inquiry	Psychology and social sciences	Psychology	Psychology, other
42.2709	Psychopharmacology	Psychology and social sciences	Psychology	Psychology, other
42.2799	Research and Experimental Psychology, Other	Psychology and social sciences	Psychology	Psychology, other
42.2799c	Human Factors Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2808	Environmental Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2809	Geropsychology	Psychology and social sciences	Psychology	Psychology, other
42.2812	Forensic Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2813	Applied Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2815	Performance and Sport Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2816	Somatic Psychology	Psychology and social sciences	Psychology	Psychology, other
42.2817	Transpersonal/ Spiritual Psychology	Psychology and social sciences	Psychology	Psychology, other
42.9999	Psychology, Other	Psychology and social sciences	Psychology	Psychology, other
51.3603	Hypnotherapy/ Hypnotherapist	Psychology and social sciences	Psychology	Psychology, other
30.3401	Anthrozoology	Psychology and social sciences	Anthropology	Anthropology, general
45.0201	Anthropology, General	Psychology and social sciences	Anthropology	Anthropology, general
45.0205	Forensic Anthropology	Psychology and social sciences	Anthropology	Anthropology, general

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
45.0299	Anthropology, Other	Psychology and social sciences	Anthropology	Anthropology, general
45.1301	Sociology and Anthropology	Psychology and social sciences	Anthropology	Anthropology, general
45.0204	Cultural Anthropology	Psychology and social sciences	Anthropology	Anthropology, cultural
45.0202	Physical and Biological Anthropology	Psychology and social sciences	Anthropology	Anthropology, physical and biological
45.0203	Medical Anthropology	Psychology and social sciences	Anthropology	Anthropology, physical and biological
45.0602b	Environmental/ Natural Resource Economics (SOCIAL SCIENCES)	Psychology and social sciences	Economics	Natural resources/ environmental economics (social sciences)
30.3901	Economics and Computer Science	Psychology and social sciences	Economics	Other economics
30.4001	Economics and Foreign Language/ Literature	Psychology and social sciences	Economics	Other economics
30.4901	Mathematical Economics	Psychology and social sciences	Economics	Other economics
45.0601	Economics, General	Psychology and social sciences	Economics	Other economics
45.0602	Applied Economics	Psychology and social sciences	Economics	Other economics
45.0604	Development Economics and International Development	Psychology and social sciences	Economics	Other economics
45.0605	International Economics	Psychology and social sciences	Economics	Other economics
45.0699	Economics, Other	Psychology and social sciences	Economics	Other economics
45.0603	Econometrics and Quantitative Economics	Psychology and social sciences	Economics	Econometrics
45.1001	Political Science and Government, General	Psychology and social sciences	Political science and government	Political science and government
45.1002	American Government and Politics (United States)	Psychology and social sciences	Political science and government	Political science and government
45.1003	Canadian Government and Politics	Psychology and social sciences	Political science and government	Political science and government
45.1004	Political Economy	Psychology and social sciences	Political science and government	Political science and government
45.1099	Political Science and Government, Other	Psychology and social sciences	Political science and government	Political science and government
45.1101	Sociology, General	Psychology and social sciences	Sociology	Sociology
45.1102	Applied/ Public Sociology	Psychology and social sciences	Sociology	Sociology
45.1103	Rural Sociology	Psychology and social sciences	Sociology	Sociology
45.1199	Sociology, Other	Psychology and social sciences	Sociology	Sociology
44.0503	Health Policy Analysis	Psychology and social sciences	Other social sciences	Health policy analysis
05.0207	Women's Studies	Psychology and social sciences	Other social sciences	Gender and women’s studies
05.0208	Gay/ Lesbian Studies	Psychology and social sciences	Other social sciences	Gender and women’s studies

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
05.0101	African Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0103	Asian Studies/ Civilization	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0104	East Asian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0105	Russian, Central European, East European and Eurasian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0106	European Studies/ Civilization	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0107	Latin American Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0109	Pacific Area/ Pacific Rim Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0110	Russian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0111	Scandinavian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0112	South Asian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0113	Southeast Asian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0114	Western European Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0115	Canadian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0116	Balkans Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0117	Baltic Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0118	Slavic Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0119	Caribbean Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0120	Ural-Altaic and Central Asian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0121	Commonwealth Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0122	Regional Studies (US, Canadian, Foreign)	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0123	Chinese Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0124	French Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0125	German Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0126	Italian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0127	Japanese Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0128	Korean Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0129	Polish Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
05.0130	Spanish and Iberian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0131	Tibetan Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0132	Ukraine Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0133	Irish Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0134	Latin American and Caribbean Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0135	Appalachian Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0136	Arctic Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0199	Area Studies, Other	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0200	Ethnic Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0202	American Indian/ Native American Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0203	Hispanic-American, Puerto Rican, Latinx, and Mexican-American/ Chicano Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0206	Asian-American Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0209	Folklore Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0210	Disability Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0211	Deaf Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0212	Comparative Group Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.0299	Ethnic, Cultural Minority, Gender, and Group Studies, Other	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
05.9999	Area, Ethnic, Cultural, Gender, and Group Studies, Other	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
30.2301	Intercultural/ Multicultural and Diversity Studies	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
30.2601	Cultural Studies/ Critical Theory and Analysis	Psychology and social sciences	Other social sciences	Area/ ethnic/ cultural studies
45.0301	Archaeology/ Archeology (SOCIAL SCIENCES)	Psychology and social sciences	Other social sciences	Archaeology (social sciences)
03.0208	Environmental/ Natural Resources Law Enforcement and Protective Services	Psychology and social sciences	Other social sciences	Criminal justice and corrections
29.0201	Intelligence, General (MILITARY)	Psychology and social sciences	Other social sciences	Criminal justice and corrections
29.0202	Strategic Intelligence (MILITARY)	Psychology and social sciences	Other social sciences	Criminal justice and corrections
29.0203	Signal/ Geospatial Intelligence (MILITARY)	Psychology and social sciences	Other social sciences	Criminal justice and corrections
29.0205	Information Operations/ Joint Information Operations (MILITARY)	Psychology and social sciences	Other social sciences	Criminal justice and corrections
29.0404	Explosive Ordinance/ Bomb Disposal (MILITARY)	Psychology and social sciences	Other social sciences	Criminal justice and corrections

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
43.0100	Criminal Justice and Corrections, General	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0102	Corrections	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0103	Criminal Justice/ Law Enforcement Administration	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0104	Criminal Justice/ Safety Studies	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0107	Criminal Justice/ Police Science	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0109	Security and Loss Prevention Services	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0110	Juvenile Corrections	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0112	Securities Services Administration/ Management	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0113	Corrections Administration	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0114	Law Enforcement Investigation and Interviewing	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0115	Law Enforcement Record-Keeping and Evidence Management	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0119	Critical Incident Response/ Special Police Operations	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0120	Protective Services Operations	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0121	Suspension and Debarment Investigation	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0122	Maritime Law Enforcement	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0123	Cultural/ Archaeological Resources Protection	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0199	Corrections and Criminal Justice, Other	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0201	Fire Prevention and Safety Technology	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0203	Fire Science/ Fire-fighting	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0204	Fire Systems Technology	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0205	Fire/ Arson Investigation and Prevention	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0206	Wildland/ Forest Firefighting and Investigation	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0299	Fire Protection, Other	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0301	Homeland Security	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0302	Crisis/ Emergency/ Disaster Management	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0303	Critical Infrastructure Protection	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0304	Terrorism and Counterterrorism Operations	Psychology and social sciences	Other social sciences	Criminal justice and corrections

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
43.0399	Homeland Security, Other	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0401	Security Science and Technology, General	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0403	Cyber/ Computer Forensics and Counterterrorism	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0404	Cybersecurity Defense Strategy/ Policy	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0405	Financial Forensics and Fraud Investigation	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0406	Forensic Science and Technology	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0407	Geospatial Intelligence	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0408	Law Enforcement Intelligence Analysis	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0499	Security Science and Technology, Other	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.9999	Homeland Security, Law Enforcement, Firefighting and Related Protective Services, Other	Psychology and social sciences	Other social sciences	Criminal justice and corrections
43.0402	Criminalistics and Criminal Science	Psychology and social sciences	Other social sciences	Criminology
45.0401	Criminology	Psychology and social sciences	Other social sciences	Criminology
45.0501	Demography and Population Studies	Psychology and social sciences	Other social sciences	Demography/ population studies
45.0502	Applied Demography	Psychology and social sciences	Other social sciences	Demography/ population studies
45.0599	Demography, Other	Psychology and social sciences	Other social sciences	Demography/ population studies
30.4401	Geography and Environmental Studies	Psychology and social sciences	Other social sciences	Geography
45.0701	Geography	Psychology and social sciences	Other social sciences	Geography
45.0702	Geographic Information Science and Cartography	Psychology and social sciences	Other social sciences	Geography
45.0799	Geography, Other	Psychology and social sciences	Other social sciences	Geography
45.1501	Geography and Anthropology	Psychology and social sciences	Other social sciences	Geography
30.2001	International/ Globalization Studies	Psychology and social sciences	Other social sciences	International relations/ affairs
45.0901	International Relations and Affairs	Psychology and social sciences	Other social sciences	International relations/ affairs
45.0902	National Security Policy Studies	Psychology and social sciences	Other social sciences	International relations/ affairs
45.0999	International Relations and National Security Studies, Other	Psychology and social sciences	Other social sciences	International relations/ affairs
16.0105	Applied Linguistics	Psychology and social sciences	Other social sciences	Applied linguistics
16.0102	Linguistics	Psychology and social sciences	Other social sciences	Linguistics
16.0199	Linguistic, Comparative, and Related Language Studies and Services, Other	Psychology and social sciences	Other social sciences	Linguistics

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
16.0199b	Translation Studies	Psychology and social sciences	Other social sciences	Linguistics
30.4701	Linguistics and Anthropology	Psychology and social sciences	Other social sciences	Linguistics
30.4801	Linguistics and Computer Science	Psychology and social sciences	Other social sciences	Linguistics
30.1202	Cultural Resource Management and Policy Analysis	Psychology and social sciences	Other social sciences	Public policy analysis
44.0501	Public Policy Analysis, General	Psychology and social sciences	Other social sciences	Public policy analysis
44.0504	International Policy Analysis	Psychology and social sciences	Other social sciences	Public policy analysis
44.0599	Public Policy Analysis, Other	Psychology and social sciences	Other social sciences	Public policy analysis
44.0599b	Public Policy and Administration	Psychology and social sciences	Other social sciences	Public policy analysis
30.1101	Gerontology (MULTIDISCIPLINARY STUDIES)	Psychology and social sciences	Other social sciences	Gerontology (social sciences)
30.1101c	Gerontology (SOCIAL SCIENCES)	Psychology and social sciences	Other social sciences	Gerontology (social sciences)
27.0599b	Statistics (SOCIAL SCIENCES)	Psychology and social sciences	Other social sciences	Statistics (social sciences)
45.0102	Research Methodology and Quantitative Methods	Psychology and social sciences	Other social sciences	Statistics (social sciences)
45.0103	Survey Research/ Methodology	Psychology and social sciences	Other social sciences	Statistics (social sciences)
45.1201	Urban Studies/ Affairs	Psychology and social sciences	Other social sciences	Urban studies/ affairs
03.0206	Land Use Planning and Management/ Development	Psychology and social sciences	Other social sciences	Urban, city, community and regional planning
04.0301	City/ Urban, Community, and Regional Planning	Psychology and social sciences	Other social sciences	Urban, city, community and regional planning
04.1001	Real Estate Development	Psychology and social sciences	Other social sciences	Urban, city, community and regional planning
45.0101	Social Sciences, General	Psychology and social sciences	Other social sciences	Social sciences, general
30.0501	Peace Studies and Conflict Resolution	Psychology and social sciences	Other social sciences	Social sciences, other
30.0501b	Conflict Analysis and Resolution	Psychology and social sciences	Other social sciences	Social sciences, other
45.0199	Social Sciences, Other	Psychology and social sciences	Other social sciences	Social sciences, other
45.9999	Social Sciences, Other	Psychology and social sciences	Other social sciences	Social sciences, other
30.1501	Science, Technology and Society	Psychology and social sciences	Other social sciences	History, science and technology and society
51.3205	History of Medicine	Psychology and social sciences	Other social sciences	History, science and technology and society
54.0104	History and Philosophy of Science and Technology	Psychology and social sciences	Other social sciences	History, science and technology and society
05.0102	American/ United States Studies/ Civilization	Psychology and social sciences	Other social sciences	American/ U.S. studies
14.0201	Aerospace, Aeronautical, and Astronautical/ Space Engineering, General	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
14.0202	Astronautical Engineering	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
14.0202b	Aeronautics and Astronautics	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
14.0299	Aerospace, Aeronautical, and Astronautical/ Space Engineering, Other	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
15.0801	Aeronautical/ Aerospace Engineering Technology	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
29.0305	Space Systems Operations (MILITARY)	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
29.0401	Aerospace Ground Equipment Technology (MILITARY)	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
29.0402	Air and Space Operations Technology (MILITARY)	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
29.0403	Aircraft Armament Systems Technology (MILITARY)	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
29.0407	Missile and Space Systems Technology	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
49.0101	Aeronautics/ Aviation/ Aerospace Science and Technology, General	Engineering	Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical and astronautical engineering
14.0501	Bioengineering and Biomedical Engineering	Engineering	Bioengineering and biomedical engineering	Bioengineering and biomedical engineering
14.4501	Biological/ Biosystems Engineering	Engineering	Bioengineering and biomedical engineering	Bioengineering and biomedical engineering
14.0701	Chemical Engineering	Engineering	Chemical engineering	Chemical engineering
14.0702	Chemical and Biomolecular Engineering	Engineering	Chemical engineering	Chemical engineering
14.0799	Chemical Engineering, Other	Engineering	Chemical engineering	Chemical engineering
14.4301	Biochemical Engineering	Engineering	Chemical engineering	Chemical engineering
15.0615	Chemical Engineering Technology	Engineering	Chemical engineering	Chemical engineering
14.0401	Architectural Engineering	Engineering	Civil engineering	Civil engineering
14.0801	Civil Engineering, General	Engineering	Civil engineering	Civil engineering
14.0899	Civil Engineering, Other	Engineering	Civil engineering	Civil engineering
14.0899b	Civil and Environmental Engineering	Engineering	Civil engineering	Civil engineering
14.3301	Construction Engineering	Engineering	Civil engineering	Civil engineering
14.3801	Surveying Engineering	Engineering	Civil engineering	Civil engineering
15.0201	Civil Engineering Technologies	Engineering	Civil engineering	Civil engineering
15.1001	Construction Engineering Technology	Engineering	Civil engineering	Civil engineering
15.1102	Surveying Technology/ Surveying	Engineering	Civil engineering	Civil engineering
15.1103	Hydraulics and Fluid Power Technology	Engineering	Civil engineering	Civil engineering
15.1304	Civil Drafting and Civil Engineering CAD/ CADD	Engineering	Civil engineering	Civil engineering
14.1001	Electrical and Electronics Engineering	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
14.1003	Laser and Optical Engineering	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
14.1004	Telecommunications Engineering	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
14.1099	Electrical, Electronics, and Communications Engineering, Other	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
14.4701	Electrical and Computer Engineering	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0303	Electrical, Electronic, and Communications Engineering Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0304	Laser and Optical Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0305	Telecommunications Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0306	Integrated Circuit Design Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0307	Audio Engineering Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0399	Electrical/ Electronic Engineering Technologies, Other	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
15.0403	Electromechanical/ Electromechanical Engineering Technology	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
29.0409	Radar Communications and Systems Technology (MILITARY)	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
30.9999b	Electrical Engineering and Computer Science	Engineering	Electrical, electronics, and communications engineering	Electrical, electronics and communications engineering
14.3501	Industrial Engineering	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
14.3501b	Industrial and Systems Engineering	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
14.3601	Manufacturing Engineering	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0612	Industrial Technology	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0613	Manufacturing Engineering Technology	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0616	Semiconductor Manufacturing Technology	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0699	Industrial Production Technologies, Other	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0703	Industrial Safety Technology	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering
15.0704	Hazardous Materials Information Systems Technology	Engineering	Industrial and manufacturing engineering	Industrial and manufacturing engineering

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
14.0601	Ceramic Sciences and Engineering	Engineering	Materials science engineering	Materials science engineering
14.1801	Materials Engineering	Engineering	Materials science engineering	Materials science engineering
14.1801b	Materials Science and Engineering	Engineering	Materials science engineering	Materials science engineering
14.2801	Textile Sciences and Engineering	Engineering	Materials science engineering	Materials science engineering
14.4001	Paper Science and Engineering	Engineering	Materials science engineering	Materials science engineering
15.0617	Composite Materials Technology	Engineering	Materials science engineering	Materials science engineering
30.9999e	Polymer Science and Engineering	Engineering	Materials science engineering	Materials science engineering
40.1001	Materials Science	Engineering	Materials science engineering	Materials science engineering
40.1099	Materials Sciences, Other	Engineering	Materials science engineering	Materials science engineering
14.1901	Mechanical Engineering	Engineering	Mechanical engineering	Mechanical engineering
14.1901b	Mechanical and Aerospace Engineering	Engineering	Mechanical engineering	Mechanical engineering
14.4101	Electromechanical Engineering	Engineering	Mechanical engineering	Mechanical engineering
15.0406	Automation Engineer Technology	Engineering	Mechanical engineering	Mechanical engineering
15.0499	Electromechanical Technologies, Other	Engineering	Mechanical engineering	Mechanical engineering
15.0805	Mechanical/ Mechanical Engineering Technology	Engineering	Mechanical engineering	Mechanical engineering
15.0899	Mechanical Engineering Related Technologies, Other	Engineering	Mechanical engineering	Mechanical engineering
14.0301	Agricultural Engineering	Engineering	Other engineering	Agricultural engineering
14.0803	Structural Engineering	Engineering	Other engineering	Structural engineering
14.1099b	Communications Engineering	Engineering	Other engineering	Communications engineering
14.0901	Computer Engineering, General	Engineering	Other engineering	Computer engineering
14.0902	Computer Hardware Engineering	Engineering	Other engineering	Computer engineering
14.0903	Computer Software Engineering	Engineering	Other engineering	Computer engineering
14.0999	Computer Engineering, Other	Engineering	Other engineering	Computer engineering
15.1201	Computer Engineering Technology	Engineering	Other engineering	Computer engineering
15.1202	Computer/ Computer Systems Technology	Engineering	Other engineering	Computer engineering
15.1203	Computer Hardware Technology	Engineering	Other engineering	Computer engineering
15.1204	Computer Software Technology	Engineering	Other engineering	Computer engineering
15.1299	Computer Engineering Technologies, Other	Engineering	Other engineering	Computer engineering
30.9999d	Computer Science and Engineering	Engineering	Other engineering	Computer engineering
14.1101	Engineering Mechanics	Engineering	Other engineering	Engineering mechanics
14.1101b	Computational Mechanics	Engineering	Other engineering	Engineering mechanics
14.1201	Engineering Physics	Engineering	Other engineering	Engineering physics
29.0303	Engineering Acoustics (MILITARY)	Engineering	Other engineering	Engineering physics
29.0304	Low-Observables and Stealth Technology (MILITARY)	Engineering	Other engineering	Engineering physics
14.1301	Engineering Science	Engineering	Other engineering	Engineering science
14.4401	Engineering Chemistry	Engineering	Other engineering	Engineering science
15.0404	Instrumentation Technology	Engineering	Other engineering	Engineering science
14.0805	Water Resources Engineering	Engineering	Other engineering	Environmental/ environmental health engineering
14.1401	Environmental/ Environmental Health Engineering	Engineering	Other engineering	Environmental/ environmental health engineering

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
14.3401	Forest Engineering	Engineering	Other engineering	Environmental/ environmental health engineering
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology	Engineering	Other engineering	Environmental/ environmental health engineering
15.0507	Environmental/ Environmental Engineering Technology	Engineering	Other engineering	Environmental/ environmental health engineering
15.0508	Hazardous Materials Management and Waste Technology	Engineering	Other engineering	Environmental/ environmental health engineering
15.0599	Environmental Control Technologies, Other	Engineering	Other engineering	Environmental/ environmental health engineering
14.0802	Geotechnical and Geoenvironmental Engineering	Engineering	Other engineering	Geotechnical and geoenvironmental engineering
14.3901	Geological/ Geophysical Engineering	Engineering	Other engineering	Geotechnical and geoenvironmental engineering
14.2001	Metallurgical Engineering	Engineering	Other engineering	Metallurgical engineering
15.0611	Metallurgical Technology	Engineering	Other engineering	Metallurgical engineering
15.0614	Welding Engineering Technology	Engineering	Other engineering	Metallurgical engineering
14.2301	Nuclear Engineering	Engineering	Other engineering	Nuclear engineering
15.1401	Nuclear Engineering Technology	Engineering	Other engineering	Nuclear engineering
14.2201	Naval Architecture and Marine Engineering	Engineering	Other engineering	Ocean engineering
14.2401	Ocean Engineering	Engineering	Other engineering	Ocean engineering
14.3701	Operations Research (ENGINEERING)	Engineering	Other engineering	Operations research (engineering)
14.2501	Petroleum Engineering	Engineering	Other engineering	Petroleum engineering
15.0903	Petroleum Technology	Engineering	Other engineering	Petroleum engineering
15.0999	Mining and Petroleum Technologies, Other	Engineering	Other engineering	Petroleum engineering
14.3201	Polymer/ Plastics Engineering	Engineering	Other engineering	Polymer and plastics engineering
15.0607	Plastics and Polymer Engineering Technology	Engineering	Other engineering	Polymer and plastics engineering
14.2701	Systems Engineering	Engineering	Other engineering	Systems engineering
29.0301	Combat Systems Engineering (MILITARY)	Engineering	Other engineering	Systems engineering
14.0804	Transportation and Highway Engineering	Engineering	Other engineering	Transportation and highway engineering
14.9999c	Engineering Management and Administration	Engineering	Other engineering	Engineering management and administration
15.0702	Quality Control Technology	Engineering	Other engineering	Engineering management and administration
15.0705	Process Safety Technology	Engineering	Other engineering	Engineering management and administration
15.0799	Quality Control and Safety Technologies, Other	Engineering	Other engineering	Engineering management and administration
15.1501	Engineering/ Industrial Management	Engineering	Other engineering	Engineering management and administration
14.0101	Engineering, General	Engineering	Other engineering	Engineering, general
14.0102	Pre-Engineering	Engineering	Other engineering	Engineering, general
14.0103	Applied Engineering	Engineering	Other engineering	Engineering, general
15.0000	Engineering Technologies, General	Engineering	Other engineering	Engineering, general
15.0001	Applied Engineering Technologies	Engineering	Other engineering	Engineering, general
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology	Engineering	Other engineering	Engineering, general
15.1301	Drafting and Design Technology, General	Engineering	Other engineering	Engineering, general

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
15.1302	CAD/ CADD Drafting and/ or Design Technology	Engineering	Other engineering	Engineering, general
15.1303	Architectural Drafting and Architectural CAD/ CADD	Engineering	Other engineering	Engineering, general
15.1305	Electrical/ Electronics Drafting and Electrical/ Electronics CAD/ CADD	Engineering	Other engineering	Engineering, general
15.1306	Mechanical Drafting and Mechanical Drafting CAD/ CADD	Engineering	Other engineering	Engineering, general
15.1307	3-D Modeling and Design Technology	Engineering	Other engineering	Engineering, general
15.1502	Engineering Design	Engineering	Other engineering	Engineering, general
14.2101	Mining and Mineral Engineering	Engineering	Other engineering	Engineering, other
14.4801	Energy Systems Engineering, General	Engineering	Other engineering	Engineering, other
14.4802	Power Plant Engineering	Engineering	Other engineering	Engineering, other
14.4899	Energy Systems Engineering, Other	Engineering	Other engineering	Engineering, other
14.9999	Engineering, Other	Engineering	Other engineering	Engineering, other
14.9999d	Computational Engineering	Engineering	Other engineering	Engineering, other
14.9999e	Nanoengineering/Nanoscale Engineering	Engineering	Other engineering	Engineering, other
15.0101	Architectural Engineering Technologies	Engineering	Other engineering	Engineering, other
15.0701	Occupational Safety and Health Technology	Engineering	Other engineering	Engineering, other
15.0803	Automotive Engineering Technology	Engineering	Other engineering	Engineering, other
15.0806	Marine Engineering Technology	Engineering	Other engineering	Engineering, other
15.0807	Motorsports Engineering Technology	Engineering	Other engineering	Engineering, other
15.0901	Mining Technology	Engineering	Other engineering	Engineering, other
15.1199	Engineering-Related Technologies, Other	Engineering	Other engineering	Engineering, other
15.1399	Drafting/ Design Engineering Technologies, Other	Engineering	Other engineering	Engineering, other
15.1503	Packaging Science	Engineering	Other engineering	Engineering, other
15.1599	Engineering-Related Fields, Other	Engineering	Other engineering	Engineering, other
15.1601	Nanotechnology	Engineering	Other engineering	Engineering, other
15.1701	Energy Systems Technology	Engineering	Other engineering	Engineering, other
15.1702	Power Plant Technology	Engineering	Other engineering	Engineering, other
15.1703	Solar Energy Technology	Engineering	Other engineering	Engineering, other
15.1704	Wind Energy Technology	Engineering	Other engineering	Engineering, other
15.1705	Hydroelectric Energy Technology	Engineering	Other engineering	Engineering, other
15.1706	Geothermal Energy Technology	Engineering	Other engineering	Engineering, other
15.1799	Energy Systems Technologies, Other	Engineering	Other engineering	Engineering, other
15.9999	Engineering/ Engineering-Related Technologies, Other	Engineering	Other engineering	Engineering, other
29.0302	Directed Energy Systems (MILITARY)	Engineering	Other engineering	Engineering, other
29.0408	Munitions Systems/ Ordinance Technology (MILITARY)	Engineering	Other engineering	Engineering, other
30.3001b	Computational Science and Engineering	Engineering	Other engineering	Engineering, other
30.3001c	Computational Science, Engineering, and Mathematics	Engineering	Other engineering	Engineering, other
30.9999c	Nanosciences/ Nanoscale Sciences	Engineering	Other engineering	Engineering, other
14.4201	Mechatronics, Robotics, and Automation Engineering	Engineering	Other engineering	Robotics
15.0405	Robotics Technology	Engineering	Other engineering	Robotics
15.0407	Mechatronics, Robotics, and Automation Engineering Technology	Engineering	Other engineering	Robotics
13.0499b	Education and Human Resource Studies/ Development	Education	Education administration	Educational and human resource studies/ development

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
13.0402	Administration of Special Education	Education	Education administration	Educational administration and supervision
13.0403	Adult and Continuing Education Administration	Education	Education administration	Educational administration and supervision
13.0404	Educational, Instructional, and Curriculum Supervision	Education	Education administration	Educational administration and supervision
13.0407	Community College Administration	Education	Education administration	Educational administration and supervision
13.0408	Elementary and Middle School Administration/ Principalship	Education	Education administration	Educational administration and supervision
13.0409	Secondary School Administration/ Principalship	Education	Education administration	Educational administration and supervision
13.0411	Superintendency and Educational System Administration	Education	Education administration	Educational administration and supervision
13.0413	Education Entrepreneurship	Education	Education administration	Educational administration and supervision
13.0414	Early Childhood Program Administration	Education	Education administration	Educational administration and supervision
13.0499	Educational Administration and Supervision, Other	Education	Education administration	Educational administration and supervision
13.0410	Urban Education and Leadership	Education	Education administration	Urban education and leadership
13.0401	Educational Leadership and Administration, General	Education	Education administration	Educational leadership
13.0412	International School Administration/ Leadership	Education	Education administration	Educational leadership
13.0499c	Organizational Leadership and Policy Development (Education)	Education	Education administration	Educational leadership
13.0301	Curriculum and Instruction	Education	Education research	Curriculum and instruction
13.0607	Learning Sciences	Education	Education research	Learning sciences
44.0502	Education Policy Analysis	Education	Education research	Educational policy analysis
13.0501b	Educational/ Instructional Media Design	Education	Education research	Educational/ instructional media design
13.0501c	Learning/Instructional Design and Technology	Education	Education research	Educational/ instructional media design
13.0501	Educational/ Instructional Technology	Education	Education research	Educational/ instructional technology
13.0601	Educational Evaluation and Research	Education	Education research	Educational statistics/ research methods
13.0603	Educational Statistics and Research Methods	Education	Education research	Educational statistics/ research methods
13.0604	Educational Assessment, Testing, and Measurement	Education	Education research	Educational assessment/ testing/ measurement
13.0699	Educational Assessment, Evaluation, and Research, Other	Education	Education research	Educational assessment/ testing/ measurement
42.2806b	Educational Psychology (EDUCATION)	Education	Education research	Educational psychology (education)
42.2805b	School Psychology (EDUCATION)	Education	Education research	School psychology (education)
13.0901	Social and Philosophical Foundations of Education	Education	Education research	Social/ philosophical foundations of education
13.0701	International and Comparative Education	Education	Education research	International education
13.1212	International Teaching and Learning	Education	Education research	International education
13.1001	Special Education and Teaching, General	Education	Education research	Special education
13.1003	Education/ Teaching of Individuals with Hearing Impairments Including Deafness	Education	Education research	Special education

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
13.1004	Education/ Teaching of the Gifted and Talented	Education	Education research	Special education
13.1005	Education/ Teaching of Individuals with Emotional Disturbances	Education	Education research	Special education
13.1006	Education/ Teaching of Individuals with Intellectual Disabilities	Education	Education research	Special education
13.1007	Education/ Teaching of Individuals with Multiple Disabilities	Education	Education research	Special education
13.1008	Education/ Teaching of Individuals with Orthopedic and Other Physical Health Impairments	Education	Education research	Special education
13.1009	Education/ Teaching of Individuals with Vision Impairments Including Blindness	Education	Education research	Special education
13.1011	Education/ Teaching of Individuals with Specific Learning Disabilities	Education	Education research	Special education
13.1012	Education/ Teaching of Individuals with Speech or Language Impairments	Education	Education research	Special education
13.1013	Education/ Teaching of Individuals with Autism	Education	Education research	Special education
13.1014	Education/ Teaching of Individuals Who are Developmentally Delayed	Education	Education research	Special education
13.1015	Education/ Teaching of Individuals in Early Childhood Special Education Programs	Education	Education research	Special education
13.1016	Education/ Teaching of Individuals with Traumatic Brain Injuries	Education	Education research	Special education
13.1017	Education/ Teaching of Individuals in Elementary Special Education Programs	Education	Education research	Special education
13.1018	Education/ Teaching of Individuals in Junior High/ Middle School Special Education Programs	Education	Education research	Special education
13.1019	Education/ Teaching of Individuals in Secondary Special Education Programs	Education	Education research	Special education
13.1099	Special Education and Teaching, Other	Education	Education research	Special education
13.1101	Counselor Education/ School Counseling and Guidance Services	Education	Education research	Counseling education/ counseling and guidance
13.1102	College Student Counseling and Personnel Services	Education	Education research	Counseling education/ counseling and guidance
13.1199	Student Counseling and Personnel Services, Other	Education	Education research	Counseling education/ counseling and guidance
13.0406	Higher Education/ Higher Education Administration	Education	Education research	Higher education evaluation and research
13.0608	Institutional Research	Education	Education research	Higher education evaluation and research
13.0699b	Higher Education Evaluation and Research	Education	Education research	Higher education evaluation and research
13.1207	Montessori Teacher Education	Education	Teacher education	Pre-elementary/ early childhood teacher education
13.1208	Waldorf/ Steiner Teacher Education	Education	Teacher education	Pre-elementary/ early childhood teacher education
13.1209	Kindergarten/ Preschool Education and Teaching	Education	Teacher education	Pre-elementary/ early childhood teacher education
13.1210	Early Childhood Education and Teaching	Education	Teacher education	Pre-elementary/ early childhood teacher education
13.1202	Elementary Education and Teaching	Education	Teacher education	Elementary teacher education

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
13.1203	Junior High/ Intermediate/ Middle School Education and Teaching	Education	Teacher education	Secondary teacher education
13.1205	Secondary Education and Teaching	Education	Teacher education	Secondary teacher education
13.1201	Adult and Continuing Education and Teaching	Education	Teacher education	Adult and continuing teacher education
13.1502	Adult Literacy Tutor/ Instructor	Education	Teacher education	Adult and continuing teacher education
01.0801	Agricultural and Extension Education Services	Education	Teaching fields	Agricultural education
13.1301	Agricultural Teacher Education	Education	Teaching fields	Agricultural education
13.1302	Art Teacher Education	Education	Teaching fields	Art education
13.1401	Teaching English as a Second or Foreign Language/ ESL Language Instructor	Education	Teaching fields	English as a second or foreign language
13.1499	Teaching English or French as a Second or Foreign Language, Other	Education	Teaching fields	English as a second or foreign language
16.1701	English as a Second Language	Education	Teaching fields	English as a second or foreign language
13.1305	English/ Language Arts Teacher Education	Education	Teaching fields	English education
13.0201	Bilingual and Multilingual Education	Education	Teaching fields	Bilingual and multilingual education
13.0299	Bilingual, Multilingual, and Multicultural Education, Other	Education	Teaching fields	Bilingual and multilingual education
13.1306	Foreign Language Teacher Education	Education	Teaching fields	Foreign languages education
13.1325	French Language Teacher Education	Education	Teaching fields	Foreign languages education
13.1326	German Language Teacher Education	Education	Teaching fields	Foreign languages education
13.1330	Spanish Language Teacher Education	Education	Teaching fields	Foreign languages education
13.1333	Latin Teacher Education	Education	Teaching fields	Foreign languages education
13.1402	Teaching French as a Second or Foreign Language	Education	Teaching fields	Foreign languages education
30.9999g	Second Language Acquisition	Education	Teaching fields	Foreign languages education
13.1307	Health Teacher Education	Education	Teaching fields	Health education
13.1327	Health Occupations Teacher Education	Education	Teaching fields	Health education
51.3202	Health Professions Education	Education	Teaching fields	Health education
51.3299	Health Professions Education, Ethics, and Humanities, Other	Education	Teaching fields	Health education
13.1308	Family and Consumer Sciences/ Home Economics Teacher Education	Education	Teaching fields	Family and consumer/ human science education
13.1311	Mathematics Teacher Education	Education	Teaching fields	Mathematics education
13.1312	Music Teacher Education	Education	Teaching fields	Music education
51.3203	Nursing Education	Education	Teaching fields	Nursing education
13.1314	Physical Education Teaching and Coaching	Education	Teaching fields	Physical education and coaching
13.1315	Reading Teacher Education	Education	Teaching fields	Literacy and reading education
13.1315b	Language and Literacy Education	Education	Teaching fields	Literacy and reading education
13.1331	Speech Teacher Education	Education	Teaching fields	Literacy and reading education
13.1339	Communication Arts and Literature Teacher Education	Education	Teaching fields	Literacy and reading education
13.1213	Science, Technology, Engineering, and Mathematics (STEM) Educational Methods	Education	Teaching fields	Science education
13.1316	Science Teacher Education/ General Science Teacher Education	Education	Teaching fields	Science education
13.1321	Computer Teacher Education	Education	Teaching fields	Science education
13.1322	Biology Teacher Education	Education	Teaching fields	Science education
13.1323	Chemistry Teacher Education	Education	Teaching fields	Science education
13.1329	Physics Teacher Education	Education	Teaching fields	Science education

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
13.1332	Geography Teacher Education	Education	Teaching fields	Science education
13.1335	Psychology Teacher Education	Education	Teaching fields	Science education
13.1337	Earth Science Teacher Education	Education	Teaching fields	Science education
13.1338	Environmental Education	Education	Teaching fields	Science education
14.9999b	Engineering Education	Education	Teaching fields	Science education
13.1317	Social Science Teacher Education	Education	Teaching fields	Social science education
13.1318	Social Studies Teacher Education	Education	Teaching fields	Social science education
13.1328	History Teacher Education	Education	Teaching fields	Social science education
13.0202	Multicultural Education	Education	Teaching fields	Teacher education and professional development, other
13.0203	Indian/ Native American Education	Education	Teaching fields	Teacher education and professional development, other
13.1206	Teacher Education, Multiple Levels	Education	Teaching fields	Teacher education and professional development, other
13.1211	Online Educator/ Online Teaching	Education	Teaching fields	Teacher education and professional development, other
13.1214	College/ Postsecondary/ University Teaching	Education	Teaching fields	Teacher education and professional development, other
13.1214b	Developmental Education	Education	Teaching fields	Teacher education and professional development, other
13.1299	Teacher Education and Professional Development, Specific Levels and Methods, Other	Education	Teaching fields	Teacher education and professional development, other
13.1299b	Teaching and Learning	Education	Teaching fields	Teacher education and professional development, other
13.1303	Business and Innovation/ Entrepreneurship Teacher Education	Education	Teaching fields	Teacher education and professional development, other
13.1304	Driver and Safety Teacher Education	Education	Teaching fields	Teacher education and professional development, other
13.1309	Technology Teacher Education/ Industrial Arts Teacher Education	Education	Teaching fields	Teacher education and professional development, other
13.1310	Sales and Marketing Operations/ Marketing and Distribution Teacher Education	Education	Teaching fields	Teacher education and professional development, other
13.1324	Drama and Dance Teacher Education	Education	Teaching fields	Teacher education and professional development, other
13.1334	School Librarian/ School Library Media Specialist	Education	Teaching fields	Teacher education and professional development, other
13.1399	Teacher Education and Professional Development, Specific Subject Areas, Other	Education	Teaching fields	Teacher education and professional development, other
13.1201b	Workforce Education and Development	Education	Other education	Workforce education and development
13.1319	Technical Teacher Education	Education	Other education	Workforce education and development
13.1320	Trade and Industrial Teacher Education	Education	Other education	Workforce education and development
13.0101	Education, General	Education	Other education	Education, general
13.0101b	Educational Studies	Education	Other education	Education, general
13.1501	Teacher Assistant/ Aide	Education	Other education	Education, general
13.1599	Teaching Assistants/ Aides, Other	Education	Other education	Education, general
13.9999	Education, Other	Education	Other education	Education, other
16.0901	French Language and Literature	Humanities and arts	Foreign languages and literature	French language and literature
16.0500	Germanic Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Germanic language and literature

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
16.0501	German Language and Literature	Humanities and arts	Foreign languages and literature	Germanic language and literature
16.0599	Germanic Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Germanic language and literature
16.0902	Italian Language and Literature	Humanities and arts	Foreign languages and literature	Italian language and literature
16.0905	Spanish Language and Literature	Humanities and arts	Foreign languages and literature	Spanish language and literature
16.0908	Hispanic and Latin American Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Latin American languages and literature
16.0402	Russian Language and Literature	Humanities and arts	Foreign languages and literature	Russian language and literature
16.0301	Chinese Language and Literature	Humanities and arts	Foreign languages and literature	Chinese language and literature
16.0302	Japanese Language and Literature	Humanities and arts	Foreign languages and literature	Japanese language and literature
16.1101	Arabic Language and Literature	Humanities and arts	Foreign languages and literature	Arabic language and literature
16.0101	Foreign Languages and Literatures, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0103	Language Interpretation and Translation	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0201	African Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0300	East Asian Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0303	Korean Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0304	Tibetan Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0399	East Asian Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0400	Slavic Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0401	Baltic Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0404	Albanian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0405	Bulgarian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0406	Czech Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0407	Polish Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0408	Bosnian, Serbian, and Croatian Languages and Literatures	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0409	Slovak Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0410	Ukrainian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0499	Slavic, Baltic, and Albanian Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0502	Scandinavian Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
16.0503	Danish Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0504	Dutch/ Flemish Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0505	Norwegian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0506	Swedish Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0601	Modern Greek Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0700	South Asian Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0701	Hindi Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0702	Sanskrit and Classical Indian Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0704	Bengali Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0705	Punjabi Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0706	Tamil Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0707	Urdu Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0799	South Asian Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0801	Iranian Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0900	Romance Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0904	Portuguese Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0906	Romanian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0907	Catalan Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.0999	Romance Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1001	American Indian/ Native American Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1100	Middle/ Near Eastern and Semitic Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1102	Hebrew Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1103	Ancient Near Eastern and Biblical Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1199	Middle/ Near Eastern and Semitic Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1301	Celtic Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1400	Southeast Asian Languages, Literatures, and Linguistics, General	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1401	Australian/ Oceanic/ Pacific Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
16.1402	Indonesian/ Malay Languages and Literatures	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1403	Burmese Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1404	Filipino/ Tagalog Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1405	Khmer/ Cambodian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1406	Lao Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1407	Thai Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1408	Vietnamese Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1409	Hawaiian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1499	Southeast Asian and Australasian/ Pacific Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1501	Turkish Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1502	Uralic Languages, Literatures, and Linguistics	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1503	Hungarian/ Magyar Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1504	Mongolian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1599	Turkic, Uralic-Altaic, Caucasian, and Central Asian Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1601	American Sign Language (ASL)	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1602	Linguistics of ASL and Other Sign Languages	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1603	Sign Language Interpretation and Translation	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1699	American Sign Language, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.1801	Armenian Language and Literature	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
16.9999	Foreign Languages, Literatures, and Linguistics, Other	Humanities and arts	Foreign languages and literature	Foreign languages and literatures, other
54.0102	American History (United States)	Humanities and arts	History	American history (U.S. and Canada)
54.0107	Canadian History	Humanities and arts	History	American history (U.S. and Canada)
54.0106	Asian History	Humanities and arts	History	Asian history
30.1301	Medieval and Renaissance Studies	Humanities and arts	History	European history
54.0103	European History	Humanities and arts	History	European history
54.0199c	African History	Humanities and arts	History	African history
54.0199d	Latin American History	Humanities and arts	History	Latin American history

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
05.0108	Near and Middle Eastern Studies	Humanities and arts	History	Middle/ Near East studies
54.0199e	Middle/ Near East History	Humanities and arts	History	Middle/ Near East studies
54.0101	History, General	Humanities and arts	History	History, general
30.2101	Holocaust and Related Studies	Humanities and arts	History	History, other
30.4501	History and Language/ Literature	Humanities and arts	History	History, other
30.4601	History and Political Science	Humanities and arts	History	History, other
54.0105	Public/ Applied History	Humanities and arts	History	History, other
54.0108	Military History	Humanities and arts	History	History, other
54.0199	History, Other	Humanities and arts	History	History, other
16.1200	Classics and Classical Languages, Literatures, and Linguistics, General	Humanities and arts	Letters	Classics
16.1202	Ancient/ Classical Greek Language and Literature	Humanities and arts	Letters	Classics
16.1203	Latin Language and Literature	Humanities and arts	Letters	Classics
16.1299	Classics and Classical Languages, Literatures, and Linguistics, Other	Humanities and arts	Letters	Classics
30.2201	Ancient Studies/ Civilization	Humanities and arts	Letters	Classics
30.2202	Classical, Ancient Mediterranean, and Near Eastern Studies and Archaeology	Humanities and arts	Letters	Classics
30.2299	Classical and Ancient Studies, Other	Humanities and arts	Letters	Classics
16.0104	Comparative Literature	Humanities and arts	Letters	Comparative literature
30.3601	Cultural Studies and Comparative Literature	Humanities and arts	Letters	Comparative literature
23.1401	General Literature	Humanities and arts	Letters	American literature (U.S. and Canada)
23.1402	American Literature (United States)	Humanities and arts	Letters	American literature (U.S. and Canada)
23.1403	American Literature (Canadian)	Humanities and arts	Letters	American literature (U.S. and Canada)
23.1405	Children's and Adolescent Literature	Humanities and arts	Letters	American literature (U.S. and Canada)
23.1499	Literature, Other	Humanities and arts	Letters	American literature (U.S. and Canada)
23.1404	English Literature (British and Commonwealth)	Humanities and arts	Letters	English literature (British and commonwealth)
23.0101	English Language and Literature, General	Humanities and arts	Letters	English language
23.9999	English Language and Literature/ Letters, Other	Humanities and arts	Letters	English language
23.1302	Creative Writing	Humanities and arts	Letters	Creative writing

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
50.0504	Playwriting and Screenwriting	Humanities and arts	Letters	Creative writing
09.0101	Speech Communication and Rhetoric	Humanities and arts	Letters	Speech and rhetorical studies
23.1304	Rhetoric and Composition	Humanities and arts	Letters	Rhetoric and composition
23.1399	Rhetoric and Composition/ Writing Studies, Other	Humanities and arts	Letters	Rhetoric and composition
23.1301	Writing, General	Humanities and arts	Letters	Letters, general
23.1303	Professional, Technical, Business, and Scientific Writing	Humanities and arts	Letters	Letters, general
05.0201	African-American/ Black Studies	Humanities and arts	Other humanities and arts	African American studies/ literature/ history
23.1402b	African-American/ Black Literature	Humanities and arts	Other humanities and arts	African American studies/ literature/ history
30.4501b	African-American/ Black History and Literature	Humanities and arts	Other humanities and arts	African American studies/ literature/ history
54.0102b	African-American/ Black History	Humanities and arts	Other humanities and arts	African American studies/ literature/ history
30.1201	Historic Preservation and Conservation, General	Humanities and arts	Other humanities and arts	Archaeology (humanities)
30.1299	Historic Preservation and Conservation, Other	Humanities and arts	Other humanities and arts	Archaeology (humanities)
45.0301b	Archaeology/ Archeology (HUMANITIES)	Humanities and arts	Other humanities and arts	Archaeology (humanities)
30.5203	Textual Studies	Humanities and arts	Other humanities and arts	Art history/ criticism/ conservation
50.0703	Art History, Criticism and Conservation	Humanities and arts	Other humanities and arts	Art history/ criticism/ conservation
38.0206	Jewish/ Judaic Studies	Humanities and arts	Other humanities and arts	Jewish/ Judaic studies
50.0601	Film/ Cinema/ Media Studies	Humanities and arts	Other humanities and arts	Film/ cinema/ media studies
50.0602	Cinematography and Film/ Video Production	Humanities and arts	Other humanities and arts	Film/ cinema/ media studies
50.0607	Documentary Production	Humanities and arts	Other humanities and arts	Film/ cinema/ media studies
50.0699	Film/ Video and Photographic Arts, Other	Humanities and arts	Other humanities and arts	Film/ cinema/ media studies
50.1099	Arts, Entertainment, and Media Management, Other	Humanities and arts	Other humanities and arts	Film/ cinema/ media studies
50.0901	Music, General	Humanities and arts	Other humanities and arts	Music
50.0902	Music History, Literature, and Theory	Humanities and arts	Other humanities and arts	Music
50.0912	Music Pedagogy	Humanities and arts	Other humanities and arts	Music
50.0913	Music Technology	Humanities and arts	Other humanities and arts	Music
38.0103	Ethics	Humanities and arts	Other humanities and arts	Ethics
38.0104	Applied and Professional Ethics	Humanities and arts	Other humanities and arts	Ethics

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
51.3201	Bioethics/ Medical Ethics	Humanities and arts	Other humanities and arts	Ethics
30.5101	Philosophy, Politics, and Economics	Humanities and arts	Other humanities and arts	Philosophy
38.0001	Philosophy and Religious Studies, General	Humanities and arts	Other humanities and arts	Philosophy
38.0101	Philosophy	Humanities and arts	Other humanities and arts	Philosophy
38.0102	Logic (PHIOLOSPHY)	Humanities and arts	Other humanities and arts	Philosophy
38.0199	Philosophy, Other	Humanities and arts	Other humanities and arts	Philosophy
50.0904	Music Theory and Composition	Humanities and arts	Other humanities and arts	Music theory and composition
50.0903	Music Performance, General	Humanities and arts	Other humanities and arts	Music performance
50.0906	Conducting	Humanities and arts	Other humanities and arts	Music performance
50.0907	Keyboard Instruments	Humanities and arts	Other humanities and arts	Music performance
50.0908	Voice and Opera	Humanities and arts	Other humanities and arts	Music performance
50.0910	Jazz/ Jazz Studies	Humanities and arts	Other humanities and arts	Music performance
50.0911	Stringed Instruments	Humanities and arts	Other humanities and arts	Music performance
50.0914	Brass Instruments	Humanities and arts	Other humanities and arts	Music performance
50.0915	Woodwind Instruments	Humanities and arts	Other humanities and arts	Music performance
50.0916	Percussion Instruments	Humanities and arts	Other humanities and arts	Music performance
50.0905	Musicology and Ethnomusicology	Humanities and arts	Other humanities and arts	Musicology/ ethnomusicology
50.0917	Sound Arts	Humanities and arts	Other humanities and arts	Music, other
50.0999	Music, Other	Humanities and arts	Other humanities and arts	Music, other
50.1003	Music Management	Humanities and arts	Other humanities and arts	Music, other
38.0201	Religion/ Religious Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0202	Buddhist Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0203	Christian Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0204	Hindu Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0205	Islamic Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0207	Talmudic Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0208	Catholic Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
38.0209	Mormon Studies	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.0299	Religion/ Religious Studies, Other	Humanities and arts	Other humanities and arts	Religion/ religious studies
38.9999	Philosophy and Religious Studies, Other	Humanities and arts	Other humanities and arts	Religion/ religious studies
39.0802	Religious/ Canon Law	Humanities and arts	Other humanities and arts	Religion/ religious studies
39.0899	Religious Institution Administration and Law, Other	Humanities and arts	Other humanities and arts	Religion/ religious studies
39.0201	Bible/ Biblical Studies	Humanities and arts	Other humanities and arts	Bible/ biblical studies
50.0501	Drama and Dramatics/ Theatre Arts, General	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0502	Technical Theatre/ Theatre Design and Technology	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0505	Theatre Literature, History and Criticism	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0506	Acting	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0507	Directing and Theatrical Production	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0509	Musical Theatre	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0510	Costume Design	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0511	Comedy Writing and Performance	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0599	Dramatic/ Theatre Arts and Stagecraft, Other	Humanities and arts	Other humanities and arts	Drama/ theater arts/ performance studies
50.0301	Dance, General	Humanities and arts	Other humanities and arts	Dance
50.0302	Ballet	Humanities and arts	Other humanities and arts	Dance
50.0399	Dance, Other	Humanities and arts	Other humanities and arts	Dance
24.0103	Humanities/ Humanistic Studies	Humanities and arts	Other humanities and arts	Humanities, general
50.0102	Digital Arts	Humanities and arts	Other humanities and arts	Humanities, general
50.0409	Graphic Design	Humanities and arts	Other humanities and arts	Humanities, general
30.1401	Museology/ Museum Studies	Humanities and arts	Other humanities and arts	Humanities, other
30.5201	Digital Humanities and Textual Studies, General	Humanities and arts	Other humanities and arts	Humanities, other
30.5202	Digital Humanities	Humanities and arts	Other humanities and arts	Humanities, other
30.5299	Digital Humanities and Textual Studies, Other	Humanities and arts	Other humanities and arts	Humanities, other
50.0101	Visual and Performing Arts, General	Humanities and arts	Other humanities and arts	Humanities, other
50.0201	Crafts/ Craft Design, Folk Art and Artisanry	Humanities and arts	Other humanities and arts	Humanities, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
50.0406	Commercial Photography	Humanities and arts	Other humanities and arts	Humanities, other
50.0410	Illustration	Humanities and arts	Other humanities and arts	Humanities, other
50.0512	Theatre and Dance	Humanities and arts	Other humanities and arts	Humanities, other
50.0605	Photography	Humanities and arts	Other humanities and arts	Humanities, other
50.0701	Art/ Art Studies, General	Humanities and arts	Other humanities and arts	Humanities, other
50.0702	Fine/ Studio Arts, General	Humanities and arts	Other humanities and arts	Humanities, other
50.0705	Drawing	Humanities and arts	Other humanities and arts	Humanities, other
50.0706	Intermedia/ Multimedia	Humanities and arts	Other humanities and arts	Humanities, other
50.0708	Painting	Humanities and arts	Other humanities and arts	Humanities, other
50.0709	Sculpture	Humanities and arts	Other humanities and arts	Humanities, other
50.0710	Printmaking	Humanities and arts	Other humanities and arts	Humanities, other
50.0711	Ceramic Arts and Ceramics	Humanities and arts	Other humanities and arts	Humanities, other
50.0712	Fiber, Textile and Weaving Arts	Humanities and arts	Other humanities and arts	Humanities, other
50.0713	Jewelry Arts	Humanities and arts	Other humanities and arts	Humanities, other
50.0714	Metal Arts	Humanities and arts	Other humanities and arts	Humanities, other
50.0799	Fine Arts and Art Studies, Other	Humanities and arts	Other humanities and arts	Humanities, other
50.1002	Fine and Studio Arts Management	Humanities and arts	Other humanities and arts	Humanities, other
50.1101	Community/ Environmental/ Socially-Engaged Art	Humanities and arts	Other humanities and arts	Humanities, other
50.9999	Visual and Performing Arts, Other	Humanities and arts	Other humanities and arts	Humanities, other
51.2301	Art Therapy/ Therapist	Humanities and arts	Other humanities and arts	Humanities, other
51.2305	Music Therapy/ Therapist	Humanities and arts	Other humanities and arts	Humanities, other
51.3206	Arts in Medicine/ Health	Humanities and arts	Other humanities and arts	Humanities, other
39.0301	Missions/ Missionary Studies	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0302	Church Planting	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0399	Missions/ Missionary Studies and Missiology, Other	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0401	Religious Education	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0501	Religious/ Sacred Music	Humanities and arts	Other humanities and arts	Theology/ religious education

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
39.0502	Worship Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0599	Religious Music and Worship, Other	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0601	Theology/ Theological Studies	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0602	Divinity/ Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0604	Pre-Theology/ Pre-Ministerial Studies	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0605	Rabbinical Studies	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0699	Theological and Ministerial Studies, Other	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0701	Pastoral Studies/ Counseling	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0702	Youth Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0703	Urban Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0704	Women's Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0705	Lay Ministry	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0706	Chaplain/ Chaplaincy Studies	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0799	Pastoral Counseling and Specialized Ministries, Other	Humanities and arts	Other humanities and arts	Theology/ religious education
39.0801	Religious Institution Administration and Management	Humanities and arts	Other humanities and arts	Theology/ religious education
39.9999	Theology and Religious Vocations, Other	Humanities and arts	Other humanities and arts	Theology/ religious education
30.1601	Accounting and Computer Science	Other	Business management and administration	Accounting
52.0301	Accounting	Other	Business management and administration	Accounting
52.0302	Accounting Technology and Bookkeeping	Other	Business management and administration	Accounting
52.0303	Auditing	Other	Business management and administration	Accounting
52.0304	Accounting and Finance	Other	Business management and administration	Accounting
52.0305	Accounting and Business/ Management	Other	Business management and administration	Accounting
52.0399	Accounting and Related Services, Other	Other	Business management and administration	Accounting
30.7104	Financial Analytics	Other	Business management and administration	Finance
52.0801	Finance, General	Other	Business management and administration	Finance
52.0803	Banking and Financial Support Services	Other	Business management and administration	Finance
52.0804	Financial Planning and Services	Other	Business management and administration	Finance

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
52.0806	International Finance	Other	Business management and administration	Finance
52.0807	Investments and Securities	Other	Business management and administration	Finance
52.0808	Public Finance	Other	Business management and administration	Finance
52.0809	Credit Management	Other	Business management and administration	Finance
52.0810	Financial Risk Management	Other	Business management and administration	Finance
52.0899	Finance and Financial Management Services, Other	Other	Business management and administration	Finance
01.0102	Agribusiness/ Agricultural Business Operations	Other	Business management and administration	Business administration and management
01.0106	Agricultural Business Technology	Other	Business management and administration	Business administration and management
52.0101	Business/ Commerce, General	Other	Business management and administration	Business administration and management
52.0201	Business Administration and Management, General	Other	Business management and administration	Business administration and management
52.0202	Purchasing, Procurement/ Acquisitions and Contracts Management	Other	Business management and administration	Business administration and management
52.0203	Logistics, Materials, and Supply Chain Management	Other	Business management and administration	Business administration and management
52.0204	Office Management and Supervision	Other	Business management and administration	Business administration and management
52.0205	Operations Management and Supervision	Other	Business management and administration	Business administration and management
52.0206	Non-Profit/ Public/ Organizational Management	Other	Business management and administration	Business administration and management
52.0207	Customer Service Management	Other	Business management and administration	Business administration and management
52.0208	E-Commerce/ Electronic Commerce	Other	Business management and administration	Business administration and management
52.0209	Transportation/ Mobility Management	Other	Business management and administration	Business administration and management
52.0210	Research and Development Management	Other	Business management and administration	Business administration and management
52.0212	Retail Management	Other	Business management and administration	Business administration and management
52.0299	Business Administration, Management and Operations, Other	Other	Business management and administration	Business administration and management
52.0401	Administrative Assistant and Secretarial Science, General	Other	Business management and administration	Business administration and management
52.0402	Executive Assistant/ Executive Secretary	Other	Business management and administration	Business administration and management
52.0406	Receptionist	Other	Business management and administration	Business administration and management
52.0407	Business/ Office Automation/ Technology/ Data Entry	Other	Business management and administration	Business administration and management
52.0408	General Office Occupations and Clerical Services	Other	Business management and administration	Business administration and management
52.0409	Parts, Warehousing, and Inventory Management Operations	Other	Business management and administration	Business administration and management

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
52.0410	Traffic, Customs, and Transportation Clerk/ Technician	Other	Business management and administration	Business administration and management
52.0411	Customer Service Support/ Call Center/ Teleservice Operation	Other	Business management and administration	Business administration and management
52.0499	Business Operations Support and Secretarial Services, Other	Other	Business management and administration	Business administration and management
52.0703	Small Business Administration/ Management	Other	Business management and administration	Business administration and management
52.1801	Sales, Distribution, and Marketing Operations, General	Other	Business management and administration	Business administration and management
52.1802	Merchandising and Buying Operations	Other	Business management and administration	Business administration and management
52.1803	Retailing and Retail Operations	Other	Business management and administration	Business administration and management
52.1804	Selling Skills and Sales Operations	Other	Business management and administration	Business administration and management
52.1899	General Merchandising, Sales, and Related Marketing Operations, Other	Other	Business management and administration	Business administration and management
52.2101	Telecommunications Management	Other	Business management and administration	Business administration and management
52.0901	Hospitality Administration/ Management, General	Other	Business management and administration	Hospitality, food service and tourism management
52.0903	Tourism and Travel Services Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0904	Hotel/ Motel Administration/ Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0905	Restaurant/ Food Services Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0906	Resort Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0907	Meeting and Event Planning	Other	Business management and administration	Hospitality, food service and tourism management
52.0908	Casino Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0909	Hotel, Motel, and Restaurant Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0910	Brewery/ Brewpub Operations/ Management	Other	Business management and administration	Hospitality, food service and tourism management
52.0999	Hospitality Administration/ Management, Other	Other	Business management and administration	Hospitality, food service and tourism management
52.1905	Tourism and Travel Services Marketing Operations	Other	Business management and administration	Hospitality, food service and tourism management
52.1906	Tourism Promotion Operations	Other	Business management and administration	Hospitality, food service and tourism management
52.1910	Hospitality and Recreation Marketing Operations	Other	Business management and administration	Hospitality, food service and tourism management
52.0601	Business/ Managerial Economics	Other	Business management and administration	Business/ managerial economics
52.1101	International Business/ Trade/ Commerce	Other	Business management and administration	International business/ trade/ commerce
30.7102	Business Analytics	Other	Business management and administration	Management information systems/ business statistics
52.1201	Management Information Systems, General	Other	Business management and administration	Management information systems/ business statistics

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
52.1206	Information Resources Management	Other	Business management and administration	Management information systems/ business statistics
52.1207	Knowledge Management	Other	Business management and administration	Management information systems/ business statistics
52.1299	Management Information Systems and Services, Other	Other	Business management and administration	Management information systems/ business statistics
52.1301	Management Science	Other	Business management and administration	Management information systems/ business statistics
52.1302	Business Statistics	Other	Business management and administration	Management information systems/ business statistics
52.1304	Actuarial Science	Other	Business management and administration	Management information systems/ business statistics
52.1399	Management Sciences and Quantitative Methods, Other	Other	Business management and administration	Management information systems/ business statistics
52.1401	Marketing/ Marketing Management, General	Other	Business management and administration	Marketing management and research
52.1402	Marketing Research	Other	Business management and administration	Marketing management and research
52.1403	International Marketing	Other	Business management and administration	Marketing management and research
52.1404	Digital Marketing	Other	Business management and administration	Marketing management and research
52.1499	Marketing, Other	Other	Business management and administration	Marketing management and research
52.1907	Vehicle and Vehicle Parts and Accessories Marketing Operations	Other	Business management and administration	Marketing management and research
52.1908	Business and Personal/ Financial Services Marketing Operations	Other	Business management and administration	Marketing management and research
52.1909	Special Products Marketing Operations	Other	Business management and administration	Marketing management and research
52.1001	Human Resources Management/ Personnel Administration, General	Other	Business management and administration	Human resources development
52.1002	Labor and Industrial Relations	Other	Business management and administration	Human resources development
52.1004	Labor Studies	Other	Business management and administration	Human resources development
52.1005	Human Resources Development	Other	Business management and administration	Human resources development
52.1006	Executive/ Career Coaching	Other	Business management and administration	Human resources development
52.1099	Human Resources Management and Services, Other	Other	Business management and administration	Human resources development
14.3701c	Operations Research (BUSINESS)	Other	Business management and administration	Operations research (business)
52.0213	Organizational Leadership	Other	Business management and administration	Organizational behavior
52.1003	Organizational Behavior Studies	Other	Business management and administration	Organizational behavior
01.0101	Agricultural Business and Management, General	Other	Business management and administration	Business management/ administration, general
52.0201b	Business Management/ Administration	Other	Business management and administration	Business management/ administration, general
52.0701	Entrepreneurship/ Entrepreneurial Studies	Other	Business management and administration	Business management/ administration, general

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
52.0702	Franchising and Franchise Operations	Other	Business management and administration	Business management/ administration, general
52.2001	Construction Management, General	Other	Business management and administration	Business management/ administration, general
01.0104	Farm/ Farm and Ranch Management	Other	Business management and administration	Business management/ administration, other
01.0105	Agricultural/ Farm Supplies Retailing and Wholesaling	Other	Business management and administration	Business management/ administration, other
01.0199	Agricultural Business and Management, Other	Other	Business management and administration	Business management/ administration, other
01.0301	Agricultural Production Operations, General	Other	Business management and administration	Business management/ administration, other
49.0104	Aviation/ Airway Management and Operations	Other	Business management and administration	Business management/ administration, other
50.1001	Arts, Entertainment, and Media Management, General	Other	Business management and administration	Business management/ administration, other
50.1004	Theatre/ Theatre Arts Management	Other	Business management and administration	Business management/ administration, other
52.0211	Project Management	Other	Business management and administration	Business management/ administration, other
52.0214	Research Administration	Other	Business management and administration	Business management/ administration, other
52.0215	Risk Management	Other	Business management and administration	Business management/ administration, other
52.0216	Science/ Technology Management	Other	Business management and administration	Business management/ administration, other
52.0502	Grantsmanship	Other	Business management and administration	Business management/ administration, other
52.0704	Social Entrepreneurship	Other	Business management and administration	Business management/ administration, other
52.0799	Entrepreneurial and Small Business Operations, Other	Other	Business management and administration	Business management/ administration, other
52.1501	Real Estate	Other	Business management and administration	Business management/ administration, other
52.1601	Taxation	Other	Business management and administration	Business management/ administration, other
52.1701	Insurance	Other	Business management and administration	Business management/ administration, other
52.1901	Auctioneering	Other	Business management and administration	Business management/ administration, other
52.1999	Specialized Merchandising, Sales, and Marketing Operations, Other	Other	Business management and administration	Business management/ administration, other
52.2002	Construction Project Management	Other	Business management and administration	Business management/ administration, other
52.2099	Construction Management, Other	Other	Business management and administration	Business management/ administration, other
52.9999	Business, Management, Marketing, and Related Support Services, Other	Other	Business management and administration	Business management/ administration, other
09.0100b	Communication Research	Other	Communication	Communication research
09.0407	Science/ Health/ Environmental Journalism	Other	Communication	Communication research
09.0102	Mass Communication/ Media Studies	Other	Communication	Mass communication/ media studies
09.0199	Communication and Media Studies, Other	Other	Communication	Mass communication/ media studies

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
09.0401	Journalism	Other	Communication	Film, radio, TV and digital communication
09.0402	Broadcast Journalism	Other	Communication	Film, radio, TV and digital communication
09.0404	Photojournalism	Other	Communication	Film, radio, TV and digital communication
09.0405	Business and Economic Journalism	Other	Communication	Film, radio, TV and digital communication
09.0406	Cultural Journalism	Other	Communication	Film, radio, TV and digital communication
09.0499	Journalism, Other	Other	Communication	Film, radio, TV and digital communication
09.0701	Radio and Television	Other	Communication	Film, radio, TV and digital communication
09.0702	Digital Communication and Media/ Multimedia	Other	Communication	Film, radio, TV and digital communication
09.0799	Radio, Television, and Digital Communication, Other	Other	Communication	Film, radio, TV and digital communication
10.0201	Photographic and Film/ Video Technology	Other	Communication	Film, radio, TV and digital communication
10.0202	Radio and Television Broadcasting Technology	Other	Communication	Film, radio, TV and digital communication
10.0203	Recording Arts Technology	Other	Communication	Film, radio, TV and digital communication
10.0204	Voice Writing Technology	Other	Communication	Film, radio, TV and digital communication
10.0299	Audiovisual Communications Technologies, Other	Other	Communication	Film, radio, TV and digital communication
09.0100c	Communication Theory	Other	Communication	Communication theory
09.0100	Communication, General	Other	Communication	Communication, general
09.0100d	Communication Studies	Other	Communication	Communication, general
09.0901	Organizational Communication, General	Other	Communication	Communication, general
09.0902	Public Relations/ Image Management	Other	Communication	Communication, general
09.0903	Advertising	Other	Communication	Communication, general
09.0905	Health Communication	Other	Communication	Communication, general
10.0105	Communications Technology	Other	Communication	Communication, general
10.0301	Graphic Communications, General	Other	Communication	Communication, general
10.0303	Prepress/ Desktop Publishing and Digital Imaging Design	Other	Communication	Communication, general
10.0304	Animation, Interactive Technology, Video Graphics, and Special Effects	Other	Communication	Communication, general
10.0305	Graphic and Printing Equipment Operator, General Production	Other	Communication	Communication, general
10.0306	Platemaker/ Imager	Other	Communication	Communication, general
10.0307	Printing Press Operator	Other	Communication	Communication, general
10.0399	Graphic Communications, Other	Other	Communication	Communication, general
10.9999	Communications Technologies and Support Services, Other	Other	Communication	Communication, general
51.2703	Medical Illustration/ Medical Illustrator	Other	Communication	Communication, general
52.0501	Business/ Corporate Communications, General	Other	Communication	Communication, general
01.0802	Agricultural Communication/ Journalism	Other	Communication	Communication, other
09.0900	Public Relations, Advertising, and Applied Communication	Other	Communication	Communication, other

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
09.0904	Political Communication	Other	Communication	Communication, other
09.0906	Sports Communication	Other	Communication	Communication, other
09.0907	International and Intercultural Communication	Other	Communication	Communication, other
09.0908	Technical and Scientific Communication	Other	Communication	Communication, other
09.0909	Communication Management and Strategic Communications	Other	Communication	Communication, other
09.0999	Public Relations, Advertising, and Applied Communication, Other	Other	Communication	Communication, other
09.1001	Publishing	Other	Communication	Communication, other
09.9999	Communication, Journalism, and Related Programs, Other	Other	Communication	Communication, other
10.0302	Printing Management	Other	Communication	Communication, other
50.0401	Design and Visual Communications, General	Other	Communication	Communication, other
50.0402	Commercial and Advertising Art	Other	Communication	Communication, other
50.0404	Industrial and Product Design	Other	Communication	Communication, other
50.0411	Game and Interactive Media Design	Other	Communication	Communication, other
50.0499	Design and Applied Arts, Other	Other	Communication	Communication, other
52.0599	Business/ Corporate Communications, Other	Other	Communication	Communication, other
04.0200	Pre-Architecture Studies	Other	Non-S&E fields nec	Architecture/ environmental design
04.0201	Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0202	Architectural Design	Other	Non-S&E fields nec	Architecture/ environmental design
04.0299	Architecture, Other	Other	Non-S&E fields nec	Architecture/ environmental design
04.0401	Environmental Design/ Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0402	Healthcare Environment Design/ Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0403	Sustainable Design/ Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0499	Environmental Design, Other	Other	Non-S&E fields nec	Architecture/ environmental design
04.0501	Interior Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0601	Landscape Architecture	Other	Non-S&E fields nec	Architecture/ environmental design
04.0801	Architectural History and Criticism, General	Other	Non-S&E fields nec	Architecture/ environmental design
04.0802	Architectural Conservation	Other	Non-S&E fields nec	Architecture/ environmental design
04.0803	Architectural Studies	Other	Non-S&E fields nec	Architecture/ environmental design
04.0899	Architectural History, Criticism, and Conservation, Other	Other	Non-S&E fields nec	Architecture/ environmental design
04.0901	Architectural Technology	Other	Non-S&E fields nec	Architecture/ environmental design
04.0902	Architectural and Building Sciences/ Technology	Other	Non-S&E fields nec	Architecture/ environmental design
04.0999	Architectural Sciences and Technology, Other	Other	Non-S&E fields nec	Architecture/ environmental design
04.9999	Architecture and Related Services, Other	Other	Non-S&E fields nec	Architecture/ environmental design

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
50.0408	Interior Design	Other	Non-S&E fields nec	Architecture/ environmental design
19.0101	Family and Consumer Sciences/ Human Sciences, General	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0201	Business Family and Consumer Sciences/ Human Sciences	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0202	Family and Consumer Sciences/ Human Sciences Communication	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0203	Consumer Merchandising/ Retailing Management	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0299	Family and Consumer Sciences/ Human Sciences Business Services, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0401	Family Resource Management Studies, General	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0402	Consumer Economics	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0403	Consumer Services and Advocacy	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0499	Family and Consumer Economics and Related Services, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0501	Foods, Nutrition, and Wellness Studies, General	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0505	Foodservice Systems Administration/ Management	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0599	Foods, Nutrition, and Related Services, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0601	Housing and Human Environments, General	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0604	Facilities Planning and Management	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0605	Home Furnishings and Equipment Installers	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0699	Housing and Human Environments, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0707	Family and Community Services	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0708	Child Care and Support Services Management	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0709	Child Care Provider/ Assistant	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0710	Developmental Services Worker	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0712	Parent Education Services	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0799	Human Development, Family Studies, and Related Services, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0901	Apparel and Textiles, General	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0902	Apparel and Textile Manufacture	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0904	Textile Science	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0905	Apparel and Textile Marketing Management	Other	Non-S&E fields nec	Family, consumer science, and human science

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
19.0906	Fashion and Fabric Consultant	Other	Non-S&E fields nec	Family, consumer science, and human science
19.0999	Apparel and Textiles, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
19.9999	Family and Consumer Sciences/ Human Sciences, Other	Other	Non-S&E fields nec	Family, consumer science, and human science
50.0407	Fashion/ Apparel Design	Other	Non-S&E fields nec	Family, consumer science, and human science
52.1902	Fashion Merchandising	Other	Non-S&E fields nec	Family, consumer science, and human science
52.1903	Fashion Modeling	Other	Non-S&E fields nec	Family, consumer science, and human science
52.1904	Apparel and Accessories Marketing Operations	Other	Non-S&E fields nec	Family, consumer science, and human science
22.0000	Legal Studies	Other	Non-S&E fields nec	Law
22.0001	Pre-Law Studies	Other	Non-S&E fields nec	Law
22.0099	Non-Professional Legal Studies, Other	Other	Non-S&E fields nec	Law
22.0101	Law	Other	Non-S&E fields nec	Law
22.0201	Advanced Legal Research/ Studies, General	Other	Non-S&E fields nec	Law
22.0202	Programs for Foreign Lawyers	Other	Non-S&E fields nec	Law
22.0203	American/ US Law/ Legal Studies/ Jurisprudence	Other	Non-S&E fields nec	Law
22.0204	Canadian Law/ Legal Studies/ Jurisprudence	Other	Non-S&E fields nec	Law
22.0205	Banking, Corporate, Finance, and Securities Law	Other	Non-S&E fields nec	Law
22.0206	Comparative Law	Other	Non-S&E fields nec	Law
22.0207	Energy, Environment, and Natural Resources Law	Other	Non-S&E fields nec	Law
22.0208	Health Law	Other	Non-S&E fields nec	Law
22.0209	International Law and Legal Studies	Other	Non-S&E fields nec	Law
22.0210	International Business, Trade, and Tax Law	Other	Non-S&E fields nec	Law
22.0211	Tax Law/ Taxation	Other	Non-S&E fields nec	Law
22.0212	Intellectual Property Law	Other	Non-S&E fields nec	Law
22.0213	Patent Law	Other	Non-S&E fields nec	Law
22.0214	Agriculture Law	Other	Non-S&E fields nec	Law
22.0215	Arts and Entertainment Law	Other	Non-S&E fields nec	Law
22.0216	Compliance Law	Other	Non-S&E fields nec	Law
22.0217	Criminal Law and Procedure	Other	Non-S&E fields nec	Law
22.0218	Entrepreneurship Law	Other	Non-S&E fields nec	Law
22.0219	Family/ Child/ Elder Law	Other	Non-S&E fields nec	Law
22.0220	Human Resources Law	Other	Non-S&E fields nec	Law
22.0221	Insurance Law	Other	Non-S&E fields nec	Law
22.0222	Real Estate and Land Development Law	Other	Non-S&E fields nec	Law
22.0223	Transportation Law	Other	Non-S&E fields nec	Law
22.0224	Tribal/ Indigenous Law	Other	Non-S&E fields nec	Law
22.0299	Legal Research and Advanced Professional Studies, Other	Other	Non-S&E fields nec	Law
22.0301	Legal Administrative Assistant/ Secretary	Other	Non-S&E fields nec	Law
22.0302	Legal Assistant/ Paralegal	Other	Non-S&E fields nec	Law
22.0303	Court Reporting and Captioning/ Court Reporter	Other	Non-S&E fields nec	Law
22.0304	Court Interpreter	Other	Non-S&E fields nec	Law

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
22.0305	Scopist	Other	Non-S&E fields nec	Law
22.0399	Legal Support Services, Other	Other	Non-S&E fields nec	Law
22.9999	Legal Professions and Studies, Other	Other	Non-S&E fields nec	Law
25.0101	Library and Information Science	Other	Non-S&E fields nec	Library science
25.0102	Children and Youth Library Services	Other	Non-S&E fields nec	Library science
25.0103	Archives/ Archival Administration	Other	Non-S&E fields nec	Library science
25.0199	Library Science and Administration, Other	Other	Non-S&E fields nec	Library science
25.0301	Library and Archives Assisting	Other	Non-S&E fields nec	Library science
25.9999	Library Science, Other	Other	Non-S&E fields nec	Library science
03.0207	Environmental/ Natural Resource Recreation and Tourism	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0101	Parks, Recreation, and Leisure Studies	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0301	Parks, Recreation, and Leisure Facilities Management, General	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0302	Golf Course Operation and Grounds Management	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0399	Parks, Recreation, and Leisure Facilities Management, Other	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0504	Sport and Fitness Administration/ Management	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0507	Physical Fitness Technician	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0508	Sports Studies	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
31.0601	Outdoor Education	Other	Non-S&E fields nec	Parks/ sports/ recreation/ leisure/ fitness
01.0899	Agricultural Public Services, Other	Other	Non-S&E fields nec	Public administration
43.0202	Fire Services Administration	Other	Non-S&E fields nec	Public administration
44.0201	Community Organization and Advocacy	Other	Non-S&E fields nec	Public administration
44.0401	Public Administration	Other	Non-S&E fields nec	Public administration
44.0402	Public Works Management	Other	Non-S&E fields nec	Public administration
44.0403	Transportation and Infrastructure Planning/ Studies	Other	Non-S&E fields nec	Public administration
44.0499	Public Administration, Other	Other	Non-S&E fields nec	Public administration
44.9999	Public Administration and Social Service Professions, Other	Other	Non-S&E fields nec	Public administration
44.9999b	Public Administration and Policy	Other	Non-S&E fields nec	Public administration
44.0000	Human Services, General	Other	Non-S&E fields nec	Social work
44.0701	Social Work	Other	Non-S&E fields nec	Social work
44.0702	Youth Services/ Administration	Other	Non-S&E fields nec	Social work
44.0703	Forensic Social Work	Other	Non-S&E fields nec	Social work
44.0799	Social Work, Other	Other	Non-S&E fields nec	Social work
51.1503	Clinical/ Medical Social Work	Other	Non-S&E fields nec	Social work
01.0504	Dog/ Pet/ Animal Grooming	Other	Non-S&E fields nec	Other fields nec
01.0508	Taxidermy/ Taxidermist	Other	Non-S&E fields nec	Other fields nec
11.0601	Data Entry/ Microcomputer Applications, General	Other	Non-S&E fields nec	Other fields nec
11.0602	Word Processing	Other	Non-S&E fields nec	Other fields nec
11.0699	Data Entry/ Microcomputer Applications, Other	Other	Non-S&E fields nec	Other fields nec
24.0101	Liberal Arts and Sciences/ Liberal Studies	Other	Non-S&E fields nec	Other fields nec
24.0102	General Studies	Other	Non-S&E fields nec	Other fields nec

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Doctoral SED-CIP code crosswalk to historical broad, major, and fine fields: 2022

(Field)

SED-CIP code	SED-CIP title	Historical broad field	Historical major field	Historical fine field
24.0199	Liberal Arts and Sciences, General Studies and Humanities, Other	Other	Non-S&E fields nec	Other fields nec
29.0204	Command & Control (C3, C4I) Systems and Operations (MILITARY)	Other	Non-S&E fields nec	Other fields nec
29.0307	Undersea Warfare (MILITARY)	Other	Non-S&E fields nec	Other fields nec
29.0399	Military Applied Sciences, Other	Other	Non-S&E fields nec	Other fields nec
29.0405	Joint Command/ Task Force (C3, C4I) Systems (MILITARY)	Other	Non-S&E fields nec	Other fields nec
29.0499	Military Systems and Maintenance Technology, Other	Other	Non-S&E fields nec	Other fields nec
29.0601	Military Technology and Applied Sciences Management	Other	Non-S&E fields nec	Other fields nec
29.9999	Military Technologies and Applied Sciences, Other	Other	Non-S&E fields nec	Other fields nec
30.0000	Multi-/ Interdisciplinary Studies, General	Other	Non-S&E fields nec	Other fields nec
30.0001	Comprehensive Transition and Postsecondary (CTP) Program	Other	Non-S&E fields nec	Other fields nec
30.0601	Systems Science and Theory	Other	Non-S&E fields nec	Other fields nec
30.9999	Multi-/ Interdisciplinary Studies, Other	Other	Non-S&E fields nec	Other fields nec
30.9999f	Interdisciplinary Leadership/Leadership Studies	Other	Non-S&E fields nec	Other fields nec
30.9999z	Multi-/ Interdisciplinary Sciences, Other	Other	Non-S&E fields nec	Other fields nec

CIP = Classification of Instructional Programs; nec = not elsewhere classified; S&E = science and engineering; SED = Survey of Earned Doctorates; STEM = science, technology, engineering, and mathematics.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. Therefore, the field of doctorate data prior to 2021 may not be comparable to subsequent years. See table A-4 for a summary of SED-CIP codes in the new SED field taxonomy and table A-5 for the full list of SED-CIP codes in the new field taxonomy. For more information, see "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table B-1

SED data table crosswalk: 2020 vs. 2021–22

(Crosswalk)

2020	2021–22	Current table title
Trends in research doctorate recipient characteristics		
Table 1	Table 1-1	Research doctorate recipients from U.S. colleges and universities: 1958–2022
Table 11	Table 1-2	Research doctorate recipients, by historical broad field of doctorate and 2018 Carnegie Classification of doctorate institution: 2012–22
Table 12	Table 1-3	Research doctorate recipients, by historical major field of doctorate: Selected years, 1992–2022
Table 14	Table 1-4	Research doctorate recipients, by historical broad field of doctorate and sex: Selected years, 1992–2022
Table 15	Table 1-5	Research doctorate recipients, by historical major field of doctorate and sex: 2012–22
Table 17	Table 1-6	Research doctorate recipients, by historical broad field of doctorate and citizenship status: Selected years, 1977–2022
Table 18	Table 1-7	Research doctorate recipients, by historical major field of doctorate and citizenship status: 2012–22
Table 19	Table 1-8	Research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22
Table 20	Table 1-9	Male research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22
Table 21	Table 1-10	Female research doctorate recipients, by ethnicity, race, and citizenship status: 2012–22
Table 23	Table 1-11	U.S. citizen and permanent resident research doctorate recipients, by historical broad field of doctorate, ethnicity, and race: Selected years, 1977–2022
Table 31	Table 1-12	Median years to research doctorate, by historical major field of doctorate: Selected years, 1972–2022
Table 39	Table 1-13	Education-related debt of research doctorate recipients, by historical broad field of doctorate: 2012–22
Table 34	Table 1-14	Highest educational attainment of either parent of research doctorate recipients: 1970–2022
Trends in postgraduation commitments of research doctorate recipients		
Table 42	Table 2-1	Postgraduation commitment of research doctorate recipients, by historical broad field of doctorate: Selected years, 1993–2022
Table 43	Table 2-2	Postgraduation commitment of research doctorate recipients, by sex, citizenship status, ethnicity, and race: Selected years, 1993–2022
Table 44	Table 2-3	Postgraduation plans of research doctorate recipients with definite commitments, by historical broad field of doctorate: Selected years, 1993–2022
Table 45	Table 2-4	Postgraduation plans of research doctorate recipients with definite commitments, by sex, citizenship status, ethnicity, and race: Selected years, 1993–2022
Table 50	Table 2-5	Sources of support for research doctorate recipients with postdoctoral training commitments, by sex, citizenship status, ethnicity, and race: Selected years, 1993–2022
Table 46	Table 2-6	Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by historical broad field of doctorate: Selected years, 1992–2022
Table 47	Table 2-7	Employment sector of research doctorate recipients with definite postgraduation commitments for employment in the United States, by sex, citizenship status, ethnicity, and race: Selected years, 1992–2022
Table 53	Table 2-8	Research doctorate recipients with temporary visas intending to stay in the United States after doctorate receipt, by country or economy of citizenship: 2015–22
Field and demographic characteristics of research doctorate recipients		
Table 13	Table 3-1	Research doctorate recipients, by detailed field of doctorate: 2022
Table 16	Table 3-2	Research doctorate recipients, by detailed field of doctorate and sex: 2022
Table 22	Table 3-3	Research doctorate recipients, by detailed field of doctorate, citizenship status, ethnicity, and race: 2022
Table 24	Table 3-4	U.S. citizen and permanent resident research doctorate recipients, by major field of doctorate, ethnicity, and race: 2022
Table 32	Table 3-5	Median years to science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
Table 32	Table 3-6	Median years to non-science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
Table 27	Table 3-7	Median age and age distribution of research doctorate recipients, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022
Financial support and education-related debt of research doctorate recipients		
Table 35	Table 4-1	Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2022
Table 36	Table 4-2	Research doctorate recipients' sources of financial support, by broad field of doctorate and sex: 2022
Table 37	Table 4-3	Research doctorate recipients' sources of financial support, by sex and broad field of doctorate: 2022
Table 38	Table 4-4	Education-related debt of research doctorate recipients, by broad field of doctorate: 2022

Table B-1

SED data table crosswalk: 2020 vs. 2021–22

(Crosswalk)

2020	2021–22	Current table title
Table 40	Table 4-5	Education-related debt of research doctorate recipients, by sex, citizenship status, ethnicity, and race: 2022
Table 41	Table 4-6	U.S. citizen and permanent resident research doctorate recipients with graduate education-related debt, by ethnicity, race, and broad field of doctorate: 2022
Educational and background characteristics of research doctorate recipients		
Table 30	Table 5-1	Research doctorate recipients who attended community college, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
New	Table 5-2	Research doctorate recipients who earned a bachelor's degree related to doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
Table 29	Table 5-3	Research doctorate recipients who earned a master's degree related to doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
New	Table 5-4	Baccalaureate-origin institution characteristics of research doctorate recipients, by broad field of doctorate: 2022
Table 33	Table 5-5	Educational attainment of research doctorate recipients' parents, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2022
Table 28	Table 5-6	Research doctorate recipients reporting one or more functional limitations, by broad field of doctorate, sex, and citizenship status: 2022
Postgraduation commitments and salaries of research doctorate recipients		
Table 51	Table 6-1	Research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022
Table 51	Table 6-2	U.S. citizen and permanent resident research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022
Table 51	Table 6-3	Temporary visa holding research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022
Table 52	Table 6-4	Female research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022
Table 52	Table 6-5	Male research doctorate recipients with definite postgraduation commitments, by major field of doctorate: 2022
Table 48	Table 6-6	Median basic annual salary for research doctorate recipients with definite postgraduation plans in the United States, by broad field of doctorate, type of postgraduation plans, and sex: 2022
Table 49	Table 6-7	Median basic annual salary for research doctorate recipients with definite postgraduation plans for employment in the United States, by broad field of doctorate and employment sector: 2022
Doctorate institutions, locations, and countries of origins of research doctorate recipients		
Table 2	Table 7-1	Doctorate-granting institutions and research doctorate recipients per institution: 1973–2022
Table 3	Table 7-2	Top 50 doctorate-granting institutions ranked by total number of research doctorate recipients, by sex: 2022
Table 4	Table 7-3	Top 20 doctorate-granting institutions ranked by total number of research doctorate recipients, by broad field of doctorate and sex: 2022
Table 9	Table 7-4	Top 20 doctorate-granting institutions ranked by number of minority U.S. citizen and permanent resident research doctorate recipients, by ethnicity and race: 5-year total, 2017–22
Table 10	Table 7-5	Top 20 doctorate-granting institutions, ranked by number of research doctorate recipients holding temporary visas: 2022
Table 5	Table 7-6	State or location of doctorate institution ranked by total number of research doctorate recipients, by field of doctorate and sex: 2022
Table 26	Table 7-7	Top 10 countries or economies of origin of temporary visa holders earning U.S. research doctorates, by country or economy of citizenship and field of doctorate: 2012–22
Table 25	Table 7-8	Top 40 countries or economies of origin of temporary visa holders earning U.S. research doctorates, by number of doctorate recipients: 2022
New	Table 7-9	Top 20 baccalaureate-origin institutions ranked by 2018 Carnegie Classification category and total number of research doctorate recipients, by field of doctorate: 2022
Table 6	Table 7-10	Research doctorate recipients, by state or location of doctorate institution and broad field of doctorate: 2022
Statistical profiles of research doctorate recipients		
Table 54	Table 8-1	Science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022
Table 54	Table 8-2	Non-science and engineering research doctorate recipients, statistical profile by sex and broad field of doctorate: 2022
Table 56	Table 8-3	Agricultural sciences and natural resources research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 56	Table 8-4	Biological and biomedical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 60	Table 8-5	Computer and information sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 64	Table 8-6	Engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 58	Table 8-7	Geosciences, atmospheric, and ocean sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 56	Table 8-8	Health sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022

Table B-1

SED data table crosswalk: 2020 vs. 2021–22

(Crosswalk)

2020	2021–22	Current table title
Table 60	Table 8-9	Mathematics and statistics research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
New	Table 8-10	Multidisciplinary/ interdisciplinary sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 58	Table 8-11	Physical sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 62	Table 8-12	Psychology research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 63	Table 8-13	Social sciences research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 66	Table 8-14	Education research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 68	Table 8-15	Humanities research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 70	Table 8-16	Business research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 70	Table 8-17	Visual and performing arts research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 70	Table 8-18	Other non-science and engineering research doctorate recipients, statistical profile by sex and major field of doctorate: 2022
Table 72	Table 8-19	Statistical profile of research doctorate recipients, by ethnicity, race, and citizenship status: 2022
Postgraduation plans of research doctorate recipients		
Table 55	Table 9-1	Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022
Table 55	Table 9-2	Non-science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2022
Table 57	Table 9-3	Agricultural sciences and natural resources research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 57	Table 9-4	Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 61	Table 9-5	Computer and information sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 65	Table 9-6	Engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 59	Table 9-7	Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 57	Table 9-8	Health sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 61	Table 9-9	Mathematics and statistics research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
New	Table 9-10	Multidisciplinary/ interdisciplinary sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 59	Table 9-11	Physical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 62	Table 9-12	Psychology research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 63	Table 9-13	Social sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 67	Table 9-14	Education research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 69	Table 9-15	Humanities research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 71	Table 9-16	Business research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 71	Table 9-17	Visual and performing arts research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 71	Table 9-18	Other non-science and engineering research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022
Table 72	Table 9-19	Postgraduation plans of research doctorate recipients, by ethnicity, race, and citizenship status: 2022
Technical tables		
Table A-2	Table A-1	Research doctoral degrees included in the Survey of Earned Doctorates: 2018–22
Table A-3	Table A-2	Survey response rates: 1970–2022
Table A-4	Table A-3	Item response rates: 2012–22
Table A-6	Table A-4	SED field of doctorate taxonomy, by SED-CIP series/ codes: 2022
New	Table A-5	Doctoral SED-CIP codes in new broad, major, and detailed fields: 2022

Table B-1

SED data table crosswalk: 2020 vs. 2021–22

(Crosswalk)

2020	2021–22	Current table title
New	Table A-6	Doctoral SED-CIP code crosswalk to historical broad, major and fine fields: 2022
New	Table B-1	SED data table crosswalk: 2020 vs. 2021 and 2022
New	Table B-2	Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

CIP = Classification of Instructional Programs; SED = Survey of Earned Doctorates.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection. The new broad, major, and detailed fields were used in tables reporting data from 2021 to the present, and the historical broad and major fields were used in the tables reporting multiple data years. As a result, the data tables were reorganized and renumbered in 2021 and the field of doctorate data may not be comparable to subsequent years.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Science and engineering	Science and engineering
Life sciences	Not applicable
Agricultural sciences and natural resources	Agricultural sciences and natural resources
Agricultural sciences	Agricultural sciences
Agricultural and horticultural plant breeding	Agricultural and horticultural plant breeding
Agricultural economics	Agricultural economics
Agronomy and crop science	Agronomy and crop science
Animal nutrition	Animal nutrition
Animal science, poultry or avian	Animal science, poultry or avian
Animal sciences, other	Animal sciences, other
Food science	Food science
Food science and technology, other	Food science and technology, other
Horticulture science	Horticulture science
Plant pathology/ phytopathology (agricultural sciences)	Plant pathology/ phytopathology (agricultural sciences)
Plant sciences, other	Plant sciences, other
Soil chemistry/ microbiology	Soil chemistry/ microbiology
Soil sciences, other	Soil sciences, other
Natural resources and conservation	Natural resources and conservation
Environmental science	Environmental science
Fishing and fisheries sciences/ management	Fishing and fisheries sciences/ management
Forest sciences and biology	Forest sciences and biology
Forest/ forest resources management	Forest/ forest resources management
Forestry, other	Forestry, other
Natural resource/ environmental policy	Natural resource/ environmental policy
Natural resources/ conservation	Natural resources/ conservation
Natural resources/ environmental economics (agricultural sciences)	Natural resources/ environmental economics (agricultural sciences)
Wildlife/ range management	Wildlife/ range management
Agricultural sciences/ natural resources, general	Agricultural sciences/ natural resources, general
Agricultural sciences/ natural resources, other	Agricultural sciences/ natural resources, other
Biological and biomedical sciences	Biological and biomedical sciences
Anatomy	Anatomy
Bacteriology	Bacteriology
Biochemistry (biological sciences)	Biochemistry (biological sciences)
Bioinformatics	Bioinformatics
Biomedical sciences	Biomedical sciences
Biometrics and biostatistics	Biometrics and biostatistics
Biophysics (biological sciences)	Biophysics (biological sciences)
Biotechnology	Biotechnology
Botany/ plant biology	Botany/ plant biology
Cancer biology	Cancer biology
Cell/ cellular biology and histology	Cell/ cellular biology and histology
Computational biology	Computational biology
Developmental biology/ embryology	Developmental biology/ embryology
Ecology	Ecology
Endocrinology	Endocrinology
Entomology	Entomology
Environmental toxicology	Environmental toxicology
Epidemiology	Epidemiology
Evolutionary biology	Evolutionary biology
Genetics/ genomics, human and animal	Genetics/ genomics, human and animal

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Immunology	Immunology
Microbiology	Microbiology
Molecular biology	Molecular biology
Molecular medicine	Molecular medicine
Neurosciences and neurobiology	Neurosciences and neurobiology
Nutrition sciences	Nutrition sciences
Parasitology	Parasitology
Pathology, human and animal	Pathology, human and animal
Pharmacology, human and animal	Pharmacology, human and animal
Physiology, human and animal	Physiology, human and animal
Plant genetics	Plant genetics
Plant pathology and phytopathology (biological sciences)	Plant pathology and phytopathology (biological sciences)
Plant physiology	Plant physiology
Structural biology	Structural biology
Toxicology	Toxicology
Virology	Virology
Wildlife biology	Wildlife biology
Zoology	Zoology
Biological/ biomedical sciences, general	Biological/ biomedical sciences, general
Biological/ biomedical sciences, other	Biological/ biomedical sciences, other
Health sciences	Health sciences
Environmental health	Environmental health
Gerontology (health sciences)	Gerontology (health sciences)
Health and behavior	Health and behavior
Health services research	Health services research
Health systems administration	Health systems administration
Kinesiology/ exercise science	Kinesiology/ exercise science
Medical physics/ radiological science	Medical physics/ radiological science
Nursing science	Nursing science
Oral biology/ oral pathology	Oral biology/ oral pathology
Pharmaceutical sciences	Pharmaceutical sciences
Public health	Public health
Rehabilitation/ therapeutic services	Rehabilitation/ therapeutic services
Speech-language pathology and audiology	Speech-language pathology and audiology
Veterinary sciences	Veterinary sciences
Health sciences, general	Health sciences, general
Health sciences, other	Health sciences, other
Mathematics and computer sciences	Not applicable
Computer and information sciences	Computer and information sciences
Computer science	Computer science
Information science and systems	Information science and systems
Computer and information sciences, general	Computer and information sciences, general
Computer and information sciences, other	Computer and information sciences, other
Mathematics and statistics	Mathematics and statistics
Algebra	Algebra
Analysis and functional analysis	Analysis and functional analysis
Applied mathematics	Applied mathematics
Computational mathematics	Computational mathematics
Computing theory and practice	Computing theory and practice
Geometry/ geometric analysis	Geometry/ geometric analysis
Logic	Logic

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Number theory	Number theory
Operations research (mathematics)	Operations research (mathematics)
Statistics (mathematics)	Statistics (mathematics)
Topology/ foundations	Topology/ foundations
Mathematics/ statistics, general	Mathematics/ statistics, general
Mathematics/ statistics, other	Mathematics/ statistics, other
Engineering	Engineering
Aerospace, aeronautical, and astronautical engineering	Aerospace, aeronautical, and astronautical engineering
Bioengineering and biomedical engineering	Bioengineering and biomedical engineering
Chemical engineering	Chemical engineering
Civil engineering	Civil engineering
Electrical, electronics, and communications engineering	Electrical, electronics, and communications engineering
Industrial and manufacturing engineering	Industrial and manufacturing engineering
Materials science engineering	Materials science engineering
Mechanical engineering	Mechanical engineering
Other engineering	Other engineering
Agricultural engineering	Agricultural engineering
Communications engineering	Communications engineering
Computer engineering	Computer engineering
Engineering management and administration	Engineering management and administration
Engineering mechanics	Engineering mechanics
Engineering physics	Engineering physics
Engineering science	Engineering science
Environmental/ environmental health engineering	Environmental/ environmental health engineering
Geotechnical and geoenvironmental engineering	Geotechnical and geoenvironmental engineering
Metallurgical engineering	Metallurgical engineering
Nuclear engineering	Nuclear engineering
Ocean engineering	Ocean engineering
Operations research (engineering)	Operations research (engineering)
Petroleum engineering	Petroleum engineering
Polymer and plastics engineering	Polymer and plastics engineering
Robotics	Robotics
Structural engineering	Structural engineering
Systems engineering	Systems engineering
Transportation and highway engineering	Transportation and highway engineering
Engineering, general	Engineering, general
Engineering, other	Engineering, other
Physical sciences and earth sciences	Not applicable
Physical sciences	Physical sciences
Astronomy and astrophysics	Astronomy and astrophysics
Astronomy	Astronomy
Astrophysics	Astrophysics
Astronomy and astrophysics, other	Astronomy and astrophysics, other
Chemistry	Chemistry
Analytical chemistry	Analytical chemistry
Chemical biology	Chemical biology
Inorganic chemistry	Inorganic chemistry
Medicinal chemistry	Medicinal chemistry
Organic chemistry	Organic chemistry
Physical chemistry	Physical chemistry
Polymer chemistry	Polymer chemistry

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Theoretical chemistry	Theoretical chemistry
Chemistry, general	Chemistry, general
Chemistry, other	Chemistry, other
Physics	Physics
Acoustics	Acoustics
Applied physics	Applied physics
Atomic/ molecular/ chemical physics	Atomic/ molecular/ chemical physics
Biophysics (physics)	Biophysics (physics)
Condensed matter/ low-temperature physics	Condensed matter/ low-temperature physics
Elementary particle physics	Elementary particle physics
Nuclear physics	Nuclear physics
Optics and photonics	Optics and photonics
Plasma/ high-temperature physics	Plasma/ high-temperature physics
Polymer physics	Polymer physics
Physics, general	Physics, general
Physics, other	Physics, other
Geosciences, atmospheric sciences, and ocean sciences	Geosciences, atmospheric sciences, and ocean sciences
Atmospheric science and meteorology	Atmospheric science and meteorology
Atmospheric chemistry and climatology	Atmospheric chemistry and climatology
Atmospheric physics and dynamics	Atmospheric physics and dynamics
Meteorology	Meteorology
Atmospheric science/ meteorology, general	Atmospheric science/ meteorology, general
Atmospheric science/ meteorology, other	Atmospheric science/ meteorology, other
Geological sciences	Geological sciences
Geochemistry	Geochemistry
Geology	Geology
Geomorphology and glacial geology	Geomorphology and glacial geology
Geophysics and seismology	Geophysics and seismology
Mineralogy and petrology	Mineralogy and petrology
Paleontology	Paleontology
Stratigraphy and sedimentation	Stratigraphy and sedimentation
Geological and earth sciences, general	Geological and earth sciences, general
Geological and earth sciences, other	Geological and earth sciences, other
Ocean and marine sciences	Ocean and marine sciences
Hydrology and water resources	Hydrology and water resources
Marine biology and biological oceanography	Marine biology and biological oceanography
Marine sciences	Marine sciences
Oceanography, chemical and physical	Oceanography, chemical and physical
Ocean/ marine sciences, other	Ocean/ marine sciences, other
Psychology and social sciences	Not applicable
Psychology	Psychology
Behavioral analysis	Behavioral analysis
Clinical psychology	Clinical psychology
Cognitive neuroscience	Cognitive neuroscience
Cognitive psychology and psycholinguistics	Cognitive psychology and psycholinguistics
Community psychology	Community psychology
Counseling	Counseling
Developmental and child psychology	Developmental and child psychology
Educational psychology (psychology)	Educational psychology (psychology)
Experimental psychology	Experimental psychology
Family psychology	Family psychology

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Health and medical psychology	Health and medical psychology
Human development and family studies	Human development and family studies
Industrial and organizational psychology	Industrial and organizational psychology
Marriage and family therapy/ counseling	Marriage and family therapy/ counseling
Neuropsychology/ physiological psychology	Neuropsychology/ physiological psychology
Personality psychology	Personality psychology
Psychometrics and quantitative psychology	Psychometrics and quantitative psychology
School psychology (psychology)	School psychology (psychology)
Social psychology	Social psychology
Psychology, general	Psychology, general
Psychology, other	Psychology, other
Social sciences	Social sciences
Anthropology	Anthropology
Anthropology, cultural	Anthropology, cultural
Anthropology, general	Anthropology, general
Anthropology, physical and biological	Anthropology, physical and biological
Economics	Economics
Econometrics	Econometrics
Natural resources/ environmental economics (social sciences)	Natural resources/ environmental economics (social sciences)
Other economics	Other economics
Political science and government	Political science and government
Sociology	Sociology
Other social sciences	Other social sciences
American/ U.S. studies	American/ U.S. studies
Applied linguistics	Applied linguistics
Archaeology (social sciences)	Archaeology (social sciences)
Area/ ethnic/ cultural studies	Area/ ethnic/ cultural studies
Criminal justice and corrections	Criminal justice and corrections
Criminology	Criminology
Demography/ population studies	Demography/ population studies
Gender and women's studies	Gender and women's studies
Geography	Geography
Gerontology (social sciences)	Gerontology (social sciences)
Health policy analysis	Health policy analysis
History, science and technology and society	History, science and technology and society
International relations/ affairs	International relations/ affairs
Linguistics	Linguistics
Public policy analysis	Public policy analysis
Statistics (social sciences)	Statistics (social sciences)
Urban studies/ affairs	Urban studies/ affairs
Urban, city, community and regional planning	Urban, city, community and regional planning
Social sciences, general	Social sciences, general
Social sciences, other	Social sciences, other
Non-science and engineering	Non-science and engineering
Education	Education
Education administration	Education administration
Educational administration and supervision	Educational administration and supervision
Educational and human resource studies/ development	Educational and human resource studies/ development
Educational leadership	Educational leadership
Urban education and leadership	Urban education and leadership
Education research	Education research

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Counseling education/ counseling and guidance	Counseling education/ counseling and guidance
Curriculum and instruction	Curriculum and instruction
Educational assessment/ testing/ measurement	Educational assessment/ testing/ measurement
Educational policy analysis	Educational policy analysis
Educational psychology (education)	Educational psychology (education)
Educational statistics/ research methods	Educational statistics/ research methods
Educational/ instructional media design	Educational/ instructional media design
Educational/ instructional technology	Educational/ instructional technology
Higher education evaluation and research	Higher education evaluation and research
International education	International education
Learning sciences	Learning sciences
School psychology (education)	School psychology (education)
Social/ philosophical foundations of education	Social/ philosophical foundations of education
Special education	Special education
Teacher education	Teacher education
Adult and continuing teacher education	Adult and continuing teacher education
Elementary teacher education	Elementary teacher education
Pre-elementary/ early childhood teacher education	Pre-elementary/ early childhood teacher education
Secondary teacher education	Secondary teacher education
Teaching fields	Teaching fields
Agricultural education	Agricultural education
Art education	Art education
Bilingual and multilingual education	Bilingual and multilingual education
English as a second or foreign language	English as a second or foreign language
English education	English education
Family and consumer/ human science education	Family and consumer/ human science education
Foreign languages education	Foreign languages education
Health education	Health education
Literacy and reading education	Literacy and reading education
Mathematics education	Mathematics education
Music education	Music education
Nursing education	Nursing education
Physical education and coaching	Physical education and coaching
Science education	Science education
Social science education	Social science education
Teacher education and professional development, other	Teacher education and professional development, other
Other education	Other education
Workforce education and development	Workforce education and development
Education, general	Education, general
Education, other	Education, other
Humanities and arts	Humanities and arts
Foreign languages and literature	Foreign languages and literature
Arabic language and literature	Arabic language and literature
Chinese language and literature	Chinese language and literature
French language and literature	French language and literature
Germanic language and literature	Germanic language and literature
Italian language and literature	Italian language and literature
Japanese language and literature	Japanese language and literature
Latin American languages and literature	Latin American languages and literature
Russian language and literature	Russian language and literature
Spanish language and literature	Spanish language and literature

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Foreign languages and literatures, other	Foreign languages and literatures, other
History	History
African history	African history
American history (U.S. and Canada)	American history (U.S. and Canada)
Asian history	Asian history
European history	European history
Latin American history	Latin American history
Middle/ Near East history	Middle/ Near East history
History, general	History, general
History, other	History, other
Letters	Letters
American literature (U.S. and Canada)	American literature (U.S. and Canada)
Classics	Classics
Comparative literature	Comparative literature
Creative writing	Creative writing
English language	English language
English literature (British and Commonwealth)	English literature (British and Commonwealth)
Rhetoric and composition	Rhetoric and composition
Speech and rhetorical studies	Speech and rhetorical studies
Letters, general	Letters, general
Letters, other	Letters, other
Other humanities and arts	Other humanities and arts
African American studies/ literature/ history	African American studies/ literature/ history
Archaeology (humanities)	Archaeology (humanities)
Art history/ criticism/ conservation	Art history/ criticism/ conservation
Bible/ biblical studies	Bible/ biblical studies
Dance	Dance
Drama/ theater arts/ performance studies	Drama/ theater arts/ performance studies
Ethics	Ethics
Film/ cinema/ media studies	Film/ cinema/ media studies
Jewish/ Judaic studies	Jewish/ Judaic studies
Music	Music
Music performance	Music performance
Music theory and composition	Music theory and composition
Music, other	Music, other
Musicology/ ethnomusicology	Musicology/ ethnomusicology
Philosophy	Philosophy
Religion/ religious studies	Religion/ religious studies
Theology/ religious education	Theology/ religious education
Humanities, general	Humanities, general
Humanities, other	Humanities, other
Other non-science and engineering	Not applicable
Business management and administration	Business
Accounting	Accounting
Business administration and management	Business administration and management
Business/ managerial economics	Business/ managerial economics
Finance	Finance
Hospitality, food service and tourism management	Hospitality, food service and tourism management
Human resources development	Human resources development
International business/ trade/ commerce	International business/ trade/ commerce
Management information systems/ business statistics	Management information systems/ business statistics

Table B-2

Crosswalk of historical broad fields and their constituent fields in the SED data tables and the summary report

(Crosswalk)

Historical field aggregations in the data tables	Trend field aggregations in the summary report
Marketing management and research	Marketing management and research
Operations research (business)	Operations research (business)
Organizational behavior	Organizational behavior
Business management/ administration, general	Business management/ administration, general
Business management/ administration, other	Business management/ administration, other
Not applicable	Other non-science and engineering
Communication	Communication
Communication research	Communication research
Communication theory	Communication theory
Film, radio, TV and digital communication	Film, radio, TV and digital communication
Mass communication/ media studies	Mass communication/ media studies
Communication, general	Communication, general
Communication, other	Communication, other
Non-science and engineering fields nec	Non-science and engineering fields nec
Architecture/ environmental design	Architecture/ environmental design
Family/ consumer sciences/ human sciences	Family/ consumer sciences/ human sciences
Law	Law
Library science	Library science
Parks/ sports/ recreation/ leisure/ fitness	Parks/ sports/ recreation/ leisure/ fitness
Public administration	Public administration
Social work	Social work
Other fields nec	Other fields nec

nec = not elsewhere classified; SED = Survey of Earned Doctorates.

Note(s):
Beginning in 2021, a modified version of the 2020 Classification of Instructional Programs (CIP) codes was used in the survey data collection; the historical fields were constructed using the SED-CIP code crosswalk in table A-6. The trend data at the broad field level are comparable across the years but may be less so at the detailed field level. For more information, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200). The data tables that present trend data use 5 broad science and engineering (S&E) fields: life sciences; mathematics and computer sciences; engineering, physical sciences and earth sciences; psychology and social sciences; and 3 broad non-S&E fields: education, humanities; and other non-science and engineering. The trend data presented in the summary report use 10 broad S&E fields: agricultural sciences and natural resources; biological and biomedical sciences; computer and information sciences; engineering; geosciences, atmospheric sciences, and ocean sciences; health sciences; mathematics and statistics; physical sciences; psychology; social sciences; and the non-S&E field total, or 4 broad non-S&E fields: business, education, humanities and arts; and other non-S&E fields.

Source(s):
National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

Additional Resources

The National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation has a wealth of information on the U.S. science and engineering (S&E) enterprise, including additional data and analysis on degree recipients and degree-granting institutions. The latest information from NCSES is available at https://ncses.nsf.gov/.

Data tools

NCSES data tools at ncsesdata.nsf.gov provide additional ways to interact with data from the Survey of Earned Doctorates (SED).

- The NCSES interactive data tool enables the creation of visualizations and custom tables from the SED and other NCSES surveys. To build a custom table using SED data, visit ncsesdata.nsf.gov/builder/sed.
- The SED Restricted Data Analysis System (RDAS) (ncsesdata.nsf.gov/rdas/) expands public access to SED data through a secure platform to analyze a more comprehensive set of SED data items starting with the 2017 survey. The SED RDAS uses statistical procedures to produce estimates that reflect the entire population of doctorate recipients while protecting confidentiality of individuals' data.

Publications

Survey of Earned Doctorates

The SED questionnaire, all editions of *Doctorate Recipients from U.S. Universities*, InfoBriefs, and other data products related to the SED are available at https://ncses.nsf.gov/surveys/earned-doctorates/.

Science and Engineering Indicators

Science and Engineering Indicators is a biennial report that offers a comprehensive look at the U.S. S&E enterprise, including education, demographics, employment, research and development expenditures, science and technology capabilities, and public attitudes and understanding about science. SED data are included in the *Science and Engineering Indicators* report *Higher Education in Science and Engineering* available at https://ncses.nsf.gov/indicators.

Diversity and STEM: Women, Minorities, and Persons with Disabilities

The biennial report *Diversity and STEM: Women, Minorities, and Persons with Disabilities* looks at the participation of these three groups in S&E education and employment. Topics in the report include enrollment; field of degree; employment status; and occupation, including academic careers. SED data are included in the report, which is available at https://ncses.nsf.gov/wmpd.

Related survey

Survey of Doctorate Recipients

The SED data are used to build a sampling frame for the Survey of Doctorate Recipients (SDR). The SDR provides demographic, education, and career history information from individuals with a U.S. research doctoral degree in a science, engineering, or health field. The SDR is a unique source of information about the educational and occupational achievements and career movement of U.S.-trained doctoral scientists and engineers in the United States and abroad. The survey description, questionnaires, data tables, and latest SDR publications are available at https://ncses.nsf.gov/surveys/doctorate-recipients/.

Contact Us

Thank you for visiting the *Doctorate Recipients from U.S. Universities* website from the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF).

To report an issue with this website, please e-mail ncsesweb@nsf.gov. For questions about NSF, please visit the NSF help page.

For more information on the data tables or the Survey of Earned Doctorates, contact the survey manager. You may also reach the summary report author or NCSES using the contact information below.

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