

Table 3-5

Median years to science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2021

(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 bachelor's degree																											
Doctorate recipients reporting year of bachelor's degree	49,332	8.7	39,132	8.0	1,144	8.6	7,880	8.0	2,051	8.8	9,096	7.5	1,005	8.0	2,362	11.3	1,839	7.0	1,224	8.9	4,602	6.6	3,405	8.6	4,524	10.0	
Sex																											
Male	26,610	8.3	22,238	8.0	562	8.6	3,768	8.0	1,572	8.6	6,733	7.6	558	8.0	729	10.0	1,327	7.0	723	8.4	3,098	6.7	927	8.6	2,241	9.8	
Female	22,718	9.0	16,891	8.3	582	8.4	4,112	7.8	479	9.1	2,362	7.2	447	7.8	1,633	12.0	512	7.0	501	9.1	1,503	6.3	2,478	8.6	2,282	10.3	
Citizenship status																											
U.S. citizen or permanent resident	31,287	9.0	23,620	8.0	687	8.3	5,811	7.7	692	9.0	3,760	7.0	663	7.6	1,825	12.0	844	6.8	670	9.2	2,686	6.3	3,016	8.6	2,966	10.3	
Temporary visa holder	17,216	8.3	14,894	8.1	445	8.8	1,987	8.3	1,310	8.6	5,176	7.8	331	8.1	496	9.8	968	7.2	535	8.3	1,860	7.2	305	8.4	1,481	9.4	
Ethnicity and race (U.S. citizens and permanent residents)																											
Hispanic or Latino	2,808	8.6	2,134	8.0	42	8.5	565	7.4	32	8.5	311	6.6	48	7.5	132	12.3	65	6.6	67	8.8	216	6.3	346	8.4	310	10.1	
Not Hispanic or Latino																											
American Indian or Alaska Native	97	11.0	63	9.0	D	D	D	D	0	-	6	6.4	D	D	8	13.6	0	-	D	D	D	9	11.3	15	9.4		
Asian	2,986	8.6	2,521	8.3	40	9.0	D	D	136	8.5	579	7.3	30	8.8	174	11.3	96	7.2	70	8.2	D	D	190	9.0	254	10.0	
Black or African American	2,397	12.3	1,439	10.2	30	10.9	262	8.3	35	11.6	155	8.8	13	8.3	259	15.0	28	9.6	50	12.8	76	6.3	239	10.0	292	12.0	
White	21,142	8.6	16,090	7.8	533	8.0	3,969	7.6	441	9.0	2,500	6.9	526	7.5	1,161	12.0	596	6.6	439	9.2	1,980	6.3	2,012	8.3	1,933	10.3	
More than one race	1,084	8.3	830	7.6	12	8.4	211	7.5	27	9.0	115	6.5	33	7.9	54	11.2	33	6.4	27	8.1	96	6.3	125	8.3	97	10.0	
Other race or race not reported	363	10.0	273	8.8	D	D	52	8.8	11	8.3	51	8.0	D	D	14	13.5	13	8.0	D	D	26	6.3	45	9.3	35	9.3	
Ethnicity not reported	410	10.3	270	8.8	16	7.8	51	8.3	10	10.4	43	8.9	4	7.8	23	11.0	13	7.3	6	10.5	24	6.4	50	8.5	30	10.4	
Years since entering graduate school																											
Doctorate recipients reporting year of graduate school entry	47,958	7.3	38,204	6.8	1,119	7.3	7,778	6.3	2,003	7.3	8,832	6.7	993	6.8	2,349	8.9	1,794	6.1	1,197	7.6	4,510	5.9	3,196	6.9	4,433	8.4	
Sex																											
Male	25,925	7.0	21,762	6.8	555	7.3	3,720	6.5	1,523	7.3	6,548	6.8	554	6.9	725	7.8	1,293	6.1	713	7.3	3,043	6.0	884	7.0	2,204	8.3	
Female	22,028	7.6	16,438	6.9	564	7.0	4,058	6.3	480	7.4	2,284	6.3	439	6.7	1,624	9.6	501	6.2	483	7.8	1,466	5.8	2,312	6.9	2,227	8.7	
Citizenship status																											
U.S. citizen or permanent resident	30,394	7.3	23,051	6.7	657	6.9	5,708	6.3	681	7.8	3,666	6.2	654	6.3	1,817	9.7	824	6.0	648	7.8	2,635	5.8	2,855	6.9	2,906	8.5	
Temporary visa holder	16,838	7.3	14,612	7.0	447	7.7	1,992	6.9	1,277	7.3	5,044	6.9	326	7.3	496	7.6	942	6.6	531	7.4	1,827	6.3	278	7.3	1,452	8.5	
Ethnicity and race (U.S. citizens and permanent residents)																											
Hispanic or Latino	2,730	7.3	2,070	6.8	41	7.8	551	6.3	31	7.3	299	6.0	47	6.0	136	10.1	63	6.2	66	7.0	209	5.8	320	7.0	307	8.3	
Not Hispanic or Latino																											
American Indian or Alaska Native	92	8.8	61	7.9	D	D	D	D	0	-	D	D	D	D	9	8.3	0	-	D	D	5	7.0	8	8.3	15	8.9	
Asian	2,938	7.0	2,484	6.8	39	8.0	684	6.5	135	7.3	569	6.4	30	7.0	177	9.3	91	6.0	68	7.1	261	6.0	180	7.0	250	8.3	
Black or African American	2,327	9.8	1,414	8.3	28	8.7	261	6.8	36	9.1	155	7.0	13	6.6	257	11.3	28	8.6	47	10.3	73	5.7	231	8.0	285	10.0	
White	20,725	7.0	15,822	6.3	518	6.7	3,917	6.2	436	7.8	2,460	6.0	521	6.3	1,157	9.0	588	6.0	427	7.8	1,953	5.8	1,940	6.8	1,905	8.3	
More than one race	1,074	6.9	824	6.3	11	5.8	212	6.3	26	7.0	113	5.8	33	6.0	54	8.4	32	6.0	27	6.5	96	5.8	124	6.1	96	8.3	

Table 3-5

Median years to science and engineering research doctorate, by sex, citizenship status, ethnicity, race, and broad field of doctorate: 2021

(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	
Other race or race not reported	306	8.2	225	7.7	D	D	D	D	11	6.8	D	D	D	D	13	9.8	12	7.4	D	D	22	5.9	33	7.3	33	8.8
Ethnicity not reported	202	8.0	151	7.3	8	7.2	28	6.7	6	6.0	31	7.3	2	6.7	14	9.7	10	6.7	2	8.3	16	6.3	19	8.3	15	9.0
Years since entering doctoral program ^a																										
Doctorate recipients reporting year of doctoral program entry ^b	46,743	5.7	37,259	5.6	1,090	5.0	7,632	5.8	1,941	5.8	8,605	5.3	967	5.3	2,279	5.3	1,759	5.3	1,160	5.5	4,405	5.5	3,077	6.0	4,344	6.0
Sex																										
Male	25,250	5.7	21,205	5.5	535	4.9	3,639	5.8	1,476	5.8	6,376	5.3	540	5.3	710	5.3	1,264	5.3	695	5.7	2,965	5.8	847	5.9	2,158	5.8
Female	21,488	5.8	16,050	5.7	555	5.0	3,993	5.7	465	5.6	2,229	5.3	427	5.3	1,569	5.2	495	5.3	464	5.4	1,439	5.3	2,230	6.0	2,184	6.0
Citizenship status																										
U.S. citizen or permanent resident	29,543	5.8	22,422	5.8	637	5.1	5,595	5.8	662	6.0	3,553	5.3	636	5.5	1,761	5.3	803	5.7	623	5.8	2,571	5.4	2,743	6.0	2,838	6.0
Temporary visa holder	16,486	5.3	14,306	5.3	438	4.8	1,960	5.7	1,235	5.4	4,935	5.3	318	5.3	482	5.0	928	5.2	519	5.3	1,786	5.7	273	5.8	1,432	5.8
Ethnicity and race (U.S. citizens and permanent residents)																										
Hispanic or Latino	2,640	5.8	2,007	5.8	41	5.6	532	5.8	30	5.8	295	5.3	43	5.8	131	5.3	61	5.7	61	5.8	206	5.5	308	6.0	299	6.3
Not Hispanic or Latino																										
American Indian or Alaska Native	88	6.0	59	5.9	D	D	D	D	0	-	D	D	D	D	9	6.0	0	-	D	D	D	D	7	6.2	15	5.8
Asian	2,860	5.8	2,414	5.8	39	5.5	671	5.8	132	6.1	554	5.6	30	6.0	174	5.1	86	5.3	66	5.8	250	5.7	171	6.0	241	6.7
Black or African American	2,220	5.8	1,351	5.8	25	5.8	254	5.8	36	5.9	149	5.5	11	5.3	245	5.8	28	5.2	42	5.5	71	5.3	221	6.2	269	6.0
White	20,218	5.8	15,440	5.7	502	5.0	3,853	5.7	425	6.0	2,381	5.3	511	5.3	1,124	5.3	575	5.7	416	5.8	1,912	5.4	1,868	5.9	1,873	6.0
More than one race	1,044	5.8	803	5.8	11	4.8	205	5.7	26	6.3	110	5.3	33	5.9	53	5.3	32	5.8	26	6.0	93	5.5	119	5.8	95	6.0
Other race or race not reported	288	5.9	213	5.8	D	D	D	D	10	5.8	D	D	D	D	11	4.0	11	6.3	D	D	D	D	32	6.0	32	6.0
Ethnicity not reported	185	5.8	135	5.9	7	6.7	26	5.3	3	6.3	28	5.9	1	5.3	14	5.0	10	6.0	2	5.8	13	5.9	17	6.0	14	7.0

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

^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 the new broad, major, and detailed fields were used in tables reporting only the most recent data year. Therefore, the field of doctorate data in 2021 may not be comparable to prior years; see the "Technical Notes" for more information, table A-4 for a summary of SED-CIP codes in the new SED field taxonomy, 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.

Source(s):

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.