

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 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	

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		
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		
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	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	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://nces.nsf.gov/pubs/nces23200>).

Source(s):

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