

TABLE 4-1

Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2023

(Percent)

Field and primary source of support	Total ^a	Sex		Citizenship status		U.S. citizens and permanent residents							
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	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 doctorate recipients (number)	57,862	30,356	27,499	35,566	19,393	3,449	115	3,828	2,725	23,057	1,296	459	637
All doctorate recipients reporting primary source of support, all fields (number)	51,139	26,849	24,284	32,973	17,878	3,178	92	3,611	2,507	21,838	1,263	314	170
Teaching assistantships	21.2	22.0	20.2	19.7	23.8	18.3	10.9	18.1	11.4	21.2	18.1	19.7	20.0
Research assistantships or traineeships ^b	35.6	40.5	30.1	28.8	48.1	22.7	6.5	35.9	16.1	30.1	29.9	28.0	15.3
Fellowships, scholarships, or dissertation grants	24.6	22.7	26.6	26.7	20.7	35.3	42.4	30.2	26.7	24.6	30.6	27.7	29.4
Own resources	14.7	10.8	19.1	20.4	4.1	20.5	32.6	12.5	40.8	19.4	17.5	21.7	29.4
Employer or other sources	4.0	4.0	4.0	4.4	3.3	3.2	7.6	3.4	4.9	4.7	3.9	2.9	5.9
Science and engineering (number)	40,922	22,695	18,221	25,160	15,542	2,409	58	3,064	1,534	16,706	1,034	233	122
Teaching assistantships	20.2	21.0	19.1	18.3	23.2	16.5	D	17.1	12.3	19.4	16.4	D	17.2
Research assistantships or traineeships ^b	41.5	46.1	35.8	34.9	52.2	27.3	D	39.5	21.1	36.7	34.8	D	18.0
Fellowships, scholarships, or dissertation grants	24.2	21.5	27.5	28.0	18.1	38.9	53.4	29.9	31.3	25.4	32.3	27.5	34.4
Own resources	10.9	7.9	14.6	15.5	3.4	15.2	29.3	10.4	31.8	14.9	13.4	17.6	23.8
Employer or other sources	3.2	3.5	2.9	3.3	3.0	2.1	3.4	3.1	3.5	3.5	3.0	3.4	6.6
Agricultural sciences and natural resources (number)	1,118	498	620	705	407	58	D	44	D	537	27	3	4
Teaching assistantships	13.3	11.8	14.5	14.9	10.8	13.8	0.0	D	16.7	15.5	D	0.0	0.0
Research assistantships or traineeships ^b	53.3	55.0	51.9	46.4	65.1	34.5	0.0	50.0	50.0	47.5	44.4	33.3	50.0
Fellowships, scholarships, or dissertation grants	18.1	17.9	18.2	19.3	16.0	36.2	0.0	D	D	17.3	25.9	33.3	25.0
Own resources	10.3	9.0	11.3	14.3	3.4	13.8	D	15.9	16.7	14.2	D	33.3	0.0
Employer or other sources	5.0	6.2	4.0	5.1	4.7	1.7	0.0	0.0	6.7	5.6	7.4	0.0	25.0

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Biological and biomedical sciences (number)	8,843	4,006	4,836	6,598	2,210	680	11	860	311	4,338	319	57	22
Teaching assistantships	13.4	14.4	12.6	12.4	16.2	10.3	0.0	7.4	7.1	14.5	8.2	7.0	13.6
Research assistantships or traineeships ^b	39.8	41.2	38.6	36.9	48.8	27.6	0.0	37.8	28.6	38.9	36.1	47.4	4.5
Fellowships, scholarships, or dissertation grants	35.8	33.8	37.4	38.6	27.4	53.7	100.0	43.3	51.4	33.9	42.3	33.3	54.5
Own resources	8.5	8.0	8.9	9.9	4.4	7.2	0.0	8.8	11.9	10.3	11.0	10.5	18.2
Employer or other sources	2.5	2.6	2.4	2.2	3.3	1.2	0.0	2.7	1.0	2.4	2.5	1.8	9.1
Computer and information sciences (number)	1,994	1,501	493	746	1,228	43	D	175	D	448	21	9	8
Teaching assistantships	16.0	15.1	18.7	11.7	18.8	D	0.0	12.6	14.6	11.6	D	0.0	12.5
Research assistantships or traineeships ^b	57.2	59.4	50.5	47.1	63.4	D	0.0	56.6	D	48.7	33.3	55.6	62.5
Fellowships, scholarships, or dissertation grants	15.5	14.6	18.5	19.6	13.0	44.2	D	D	34.1	17.6	33.3	11.1	0.0
Own resources	7.3	7.1	8.1	15.8	2.0	18.6	0.0	D	34.1	15.4	D	22.2	0.0
Employer or other sources	3.9	3.8	4.3	5.9	2.7	2.3	0.0	4.0	7.3	6.7	0.0	11.1	25.0
Engineering (number)	9,475	6,968	2,507	4,215	5,211	380	D	688	D	2,730	171	32	16
Teaching assistantships	11.6	11.9	11.0	7.8	14.7	8.2	D	D	5.2	7.7	8.8	3.1	0.0
Research assistantships or traineeships ^b	59.3	60.2	56.6	49.9	66.9	41.1	D	D	32.0	51.3	46.8	D	31.3
Fellowships, scholarships, or dissertation grants	19.8	17.6	26.0	29.1	12.3	38.9	D	24.4	41.8	27.5	35.7	D	50.0
Own resources	5.3	5.6	4.4	8.3	2.9	8.2	D	7.6	D	8.2	5.8	6.3	18.8
Employer or other sources	4.0	4.7	1.9	4.8	3.2	3.7	0.0	3.5	6.7	5.3	2.9	3.1	0.0

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Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2023

(Percent)

Field and primary source of support	Total ^a	Sex		Citizenship status		U.S. citizens and permanent residents							
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
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Geosciences, atmospheric, and ocean sciences (number)	1,107	609	498	739	362	57	D	54	D	576	28	4	2
Teaching assistantships	18.6	18.7	18.5	20.4	14.4	D	0.0	20.4	D	20.8	D	0.0	0.0
Research assistantships or traineeships ^b	47.7	51.2	43.4	42.4	58.8	21.1	D	D	D	44.1	53.6	0.0	50.0
Fellowships, scholarships, or dissertation grants	24.7	20.0	30.3	28.4	17.4	47.4	D	24.1	35.7	26.2	D	75.0	50.0
Own resources	5.3	5.3	5.4	6.5	3.0	D	D	D	D	6.8	D	0.0	0.0
Employer or other sources	3.7	4.8	2.4	2.3	6.4	1.8	0.0	5.6	0.0	2.1	0.0	25.0	0.0
Health sciences (number)	2,366	677	1,689	1,779	577	149	9	183	227	1,124	57	16	14
Teaching assistantships	10.8	15.1	9.1	8.8	17.0	9.4	0.0	9.3	4.0	9.6	10.5	0.0	21.4
Research assistantships or traineeships ^b	24.6	28.7	22.9	19.2	41.1	17.4	0.0	25.7	11.9	20.4	17.5	18.8	0.0
Fellowships, scholarships, or dissertation grants	22.0	22.6	21.7	21.6	23.2	32.2	D	28.4	D	19.9	21.1	12.5	7.1
Own resources	33.3	24.7	36.8	41.2	8.8	38.3	D	29.0	D	39.6	38.6	56.3	71.4
Employer or other sources	9.3	9.0	9.4	9.1	9.9	2.7	11.1	7.7	7.0	10.5	12.3	12.5	0.0
Mathematics and statistics (number)	1,849	1,324	524	875	958	60	0	129	20	612	41	11	2
Teaching assistantships	62.3	63.7	58.6	63.1	61.5	60.0	-	58.1	50.0	65.8	51.2	54.5	50.0
Research assistantships or traineeships ^b	16.0	15.0	18.5	13.1	18.7	D	-	D	D	12.7	12.2	18.2	0.0
Fellowships, scholarships, or dissertation grants	15.8	15.4	17.0	17.0	14.8	20.0	-	24.8	D	14.4	D	27.3	0.0
Own resources	4.4	4.3	4.6	5.5	3.3	D	-	D	D	6.0	D	0.0	50.0
Employer or other sources	1.5	1.5	1.3	1.3	1.7	3.3	-	1.6	0.0	1.0	2.4	0.0	0.0

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Research doctorate recipients' primary source of financial support, by broad field of doctorate, sex, citizenship status, ethnicity, and race: 2023

(Percent)

Field and primary source of support	Total ^a	Sex		Citizenship status		U.S. citizens and permanent residents							
		Male	Female	U.S. citizen or permanent resident	Temporary visa holder	Hispanic or Latino	Not Hispanic or Latino						Ethnicity not reported
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Multidisciplinary/interdisciplinary sciences (number)	1,527	951	576	756	764	69	D	106	D	486	24	6	8
Teaching assistantships	17.7	17.0	18.9	16.1	19.4	17.4	0.0	16.0	D	16.9	D	16.7	12.5
Research assistantships or traineeships ^b	47.5	52.8	38.9	35.7	59.6	24.6	0.0	47.2	29.1	35.6	37.5	33.3	37.5
Fellowships, scholarships, or dissertation grants	21.3	17.7	27.4	27.4	15.3	40.6	0.0	23.6	23.6	27.0	29.2	33.3	12.5
Own resources	9.9	8.5	12.2	15.9	3.8	13.0	D	8.5	D	15.6	D	16.7	12.5
Employer or other sources	3.5	4.0	2.6	4.9	2.0	4.3	50.0	4.7	0.0	4.9	8.3	0.0	25.0
Physical sciences (number)	4,900	3,227	1,672	2,931	1,942	274	D	331	D	2,080	110	33	11
Teaching assistantships	25.8	26.3	24.8	23.8	28.7	23.4	D	25.1	33.3	23.2	D	24.2	27.3
Research assistantships or traineeships ^b	52.8	55.4	47.5	49.5	57.6	40.9	0.0	51.1	32.2	51.3	50.0	42.4	36.4
Fellowships, scholarships, or dissertation grants	16.8	13.9	22.4	20.5	11.3	29.2	0.0	21.1	31.1	18.6	24.5	24.2	27.3
Own resources	3.6	3.4	3.8	5.0	1.3	5.1	0.0	1.8	D	5.7	D	9.1	9.1
Employer or other sources	1.1	1.0	1.4	1.1	1.1	1.5	0.0	0.9	1.1	1.2	0.0	0.0	0.0
Psychology (number)	3,192	733	2,458	2,874	297	318	8	211	274	1,884	135	28	16
Teaching assistantships	24.1	28.5	22.8	22.7	39.1	16.0	0.0	25.1	15.0	24.2	26.7	32.1	31.3
Research assistantships or traineeships ^b	22.9	19.0	24.1	22.9	23.2	20.8	0.0	17.5	14.2	25.3	25.9	14.3	6.3
Fellowships, scholarships, or dissertation grants	18.0	18.8	17.7	17.4	22.9	23.0	D	23.2	16.1	15.9	16.3	D	18.8
Own resources	33.3	31.0	34.0	35.3	13.5	37.7	D	31.8	53.6	32.9	30.4	D	43.8
Employer or other sources	1.7	2.7	1.4	1.7	1.3	2.5	0.0	2.4	1.1	1.7	0.7	0.0	0.0
Social sciences (number)	4,551	2,201	2,348	2,942	1,586	321	15	283	278	1,891	101	34	19

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							American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Teaching assistantships	34.8	36.5	33.3	31.4	41.2	30.2	D	40.6	16.5	32.9	25.7	D	21.1
Research assistantships or traineeships ^b	14.6	13.9	15.4	14.5	14.8	12.5	0.0	12.7	12.6	15.5	16.8	14.7	0.0
Fellowships, scholarships, or dissertation grants	33.7	34.7	32.7	31.7	37.5	36.4	60.0	35.0	30.6	29.9	36.6	26.5	63.2
Own resources	13.7	11.7	15.5	19.0	3.8	19.6	D	8.8	35.6	18.1	15.8	D	10.5
Employer or other sources	3.2	3.3	3.1	3.4	2.6	1.2	0.0	2.8	4.7	3.5	5.0	5.9	5.3
Non-science and engineering (number)	10,217	4,154	6,063	7,813	2,336	769	34	547	973	5,132	229	81	48
Teaching assistantships	25.0	27.4	23.4	24.2	27.9	24.1	D	23.4	10.2	27.0	25.3	D	27.1
Research assistantships or traineeships ^b	11.8	10.1	12.9	9.1	20.7	8.2	D	15.5	8.1	8.7	7.9	D	8.3
Fellowships, scholarships, or dissertation grants	26.1	29.2	24.0	22.6	38.0	23.8	23.5	32.2	19.5	22.0	23.1	28.4	16.7
Own resources	30.0	26.5	32.4	36.4	8.6	37.3	38.2	23.9	55.0	34.0	35.8	33.3	43.8
Employer or other sources	7.0	6.9	7.1	7.7	4.8	6.6	14.7	4.9	7.2	8.3	7.9	1.2	4.2
Business (number)	1,289	710	579	598	680	35	D	112	D	364	15	8	4
Teaching assistantships	16.7	16.3	17.1	11.9	20.9	D	D	14.3	8.5	11.5	D	0.0	0.0
Research assistantships or traineeships ^b	22.9	22.3	23.7	14.9	30.1	D	0.0	18.8	D	17.0	D	12.5	25.0
Fellowships, scholarships, or dissertation grants	33.9	36.1	31.3	26.9	40.0	22.9	0.0	40.2	D	24.7	D	62.5	0.0
Own resources	22.4	21.0	24.2	40.1	6.8	51.4	0.0	25.0	64.4	39.3	60.0	25.0	50.0
Employer or other sources	4.1	4.4	3.8	6.2	2.2	D	0.0	1.8	8.5	7.4	D	0.0	25.0
Education (number)	3,424	920	2,504	2,995	404	325	19	169	542	1,831	76	15	18
Teaching assistantships	11.0	10.5	11.1	9.9	18.6	7.7	0.0	13.6	5.7	11.5	7.9	6.7	11.1
Research assistantships or traineeships ^b	15.7	13.9	16.4	13.4	33.4	14.2	D	22.5	11.3	12.9	D	20.0	16.7

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Fellowships, scholarships, or dissertation grants	13.0	13.2	12.9	11.7	22.0	14.5	D	20.7	14.0	9.3	D	13.3	16.7
Own resources	46.9	47.7	46.6	51.3	13.9	51.1	42.1	33.1	59.8	50.7	47.4	53.3	55.6
Employer or other sources	13.5	14.7	13.0	13.7	12.1	12.6	21.1	10.1	9.2	15.5	15.8	6.7	0.0
Humanities (number)	2,885	1,468	1,417	2,315	558	232	8	122	138	1,700	69	32	14
Teaching assistantships	39.8	39.3	40.2	40.3	37.5	44.4	D	30.3	D	41.8	44.9	40.6	50.0
Research assistantships or traineeships ^b	1.6	1.0	2.3	1.3	2.7	D	0.0	0.0	D	1.5	0.0	0.0	0.0
Fellowships, scholarships, or dissertation grants	36.0	35.8	36.1	32.5	50.5	30.2	D	49.2	33.3	31.8	D	28.1	14.3
Own resources	19.5	19.8	19.3	22.7	6.6	21.6	D	15.6	40.6	21.8	D	31.3	28.6
Employer or other sources	3.1	4.0	2.1	3.2	2.7	D	0.0	4.9	3.6	3.2	D	0.0	7.1
Visual and performing arts (number)	719	311	408	546	170	47	D	37	D	406	16	8	8
Teaching assistantships	35.0	36.7	33.8	36.6	30.0	D	0.0	D	D	38.7	D	37.5	37.5
Research assistantships or traineeships ^b	2.8	2.3	3.2	2.7	2.9	D	0.0	D	0.0	3.0	D	0.0	0.0
Fellowships, scholarships, or dissertation grants	42.6	41.2	43.6	39.4	52.4	34.0	0.0	43.2	59.1	38.7	43.8	37.5	37.5
Own resources	17.8	18.0	17.6	20.0	11.2	29.8	D	13.5	31.8	18.2	D	25.0	25.0
Employer or other sources	1.8	1.9	1.7	1.3	3.5	0.0	0.0	2.7	0.0	1.5	0.0	0.0	0.0
Other non-science and engineering (number)	1,900	745	1,155	1,359	524	130	4	107	212	831	53	18	4
Teaching assistantships	29.9	31.4	28.9	28.8	33.4	26.9	0.0	35.5	14.6	32.0	28.3	27.8	25.0
Research assistantships or traineeships ^b	15.9	14.8	16.7	12.8	23.7	7.7	25.0	23.4	7.5	13.4	13.2	22.2	0.0

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							American Indian or Alaska Native	Asian	Black or African American	White	More than one race	Other race or race not reported	
Fellowships, scholarships, or dissertation grants	23.5	24.4	22.9	21.3	29.6	32.3	50.0	18.7	21.2	20.3	13.2	22.2	0.0
Own resources	25.3	22.1	27.4	31.7	8.2	30.0	0.0	21.5	51.9	27.7	39.6	27.8	75.0
Employer or other sources	5.4	7.2	4.2	5.4	5.2	3.1	25.0	0.9	4.7	6.6	5.7	0.0	0.0

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

^a Total includes doctorate recipients who did not report sex or citizenship status.

^b Research assistantships or traineeships 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 about the 2021 taxonomy change, see the "Technical Notes."

Source(s):

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