

**Table 9-1. Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2024**

(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)	52,265	42,002	1,193	9,098	2,256	9,455	1,113	2,526	1,833	1,501	4,952	3,371	4,704
Definite postdoctoral training plans	27.8	32.0	30.7	41.2	19.6	25.1	47.4	23.8	33.5	23.2	37.1	45.2	22.7
Definite employment plans	42.4	38.1	38.7	21.9	56.5	44.5	28.9	46.8	38.3	49.4	30.0	35.3	51.7
Seeking employment or study	26.7	26.8	28.6	30.6	22.0	28.3	22.4	26.3	26.4	25.3	31.1	17.2	23.0
Other status <sup>a</sup>	3.0	3.0	1.9	6.1	1.9	2.1	1.3	3.0	1.6	1.9	1.8	2.1	2.5
Definite postdoctoral training plans (%) <sup>b</sup>													
Postdoc fellowship or research associateship	95.2	95.2	97.5	95.1	96.2	96.7	98.7	88.8	97.6	96.6	98.2	87.7	96.8
Other training or unknown <sup>c</sup>	4.8	4.8	2.5	4.9	3.8	3.3	1.3	11.2	2.4	3.4	1.8	12.3	3.2
Definite employment plans (%) <sup>d</sup>													
Academe	40.9	32.1	37.7	32.0	30.3	15.9	27.6	49.7	40.7	30.6	18.2	39.3	55.1
In tenure track faculty position (%)	43.0	42.4	35.6	21.8	61.4	43.3	19.1	41.6	45.1	49.8	22.6	39.6	52.3
Not in tenure track position (%)	53.3	53.3	61.5	74.5	35.5	48.7	75.3	53.2	50.3	47.6	68.9	56.5	45.5
Government	7.8	9.0	14.7	8.6	2.4	7.8	26.4	8.1	3.8	6.1	6.1	13.5	14.2
Industry or business <sup>e</sup>	39.1	50.0	36.6	50.9	63.0	71.3	37.9	28.3	47.6	56.9	71.0	28.3	16.9
Nonprofit organization	6.4	5.9	8.7	7.1	3.1	3.1	5.6	10.1	4.0	3.8	3.0	9.7	9.8
Other or unknown <sup>f</sup>	5.8	2.9	2.4	1.5	1.3	1.9	2.5	3.8	3.8	2.7	1.7	9.2	4.0
Primary activity <sup>g</sup>													
Research and development	43.1	52.0	51.5	56.2	65.5	59.7	48.9	32.3	46.0	57.7	67.2	25.3	41.2
Teaching	25.6	18.2	20.8	13.9	16.9	7.6	13.1	32.2	32.1	17.7	11.8	21.9	32.2
Management or administration	9.8	5.7	11.4	5.8	2.6	2.9	8.9	10.8	1.9	6.5	2.9	9.2	9.2
Professional services and other	21.4	24.1	16.3	24.1	15.0	29.7	29.1	24.7	20.0	18.1	18.1	43.5	17.4
Secondary activity <sup>g</sup>													
Research and development	24.5	22.4	24.8	18.1	21.6	19.7	24.6	30.1	27.2	21.9	13.7	22.9	30.3
Teaching	13.5	10.4	8.9	6.3	12.9	5.9	5.1	16.6	8.7	11.8	2.2	15.7	20.8
Management or administration	12.2	13.0	22.4	16.7	8.4	12.0	16.0	17.0	6.6	10.2	14.7	13.9	11.5
Professional services and other	11.6	13.3	12.3	10.7	16.1	18.9	10.2	10.4	11.3	16.3	11.5	9.1	9.3
No secondary activity	38.2	40.9	31.5	48.3	41.0	43.5	44.1	25.9	46.2	39.8	58.0	38.3	28.1
Activity unknown	3.2	3.1	3.2	2.7	2.3	3.3	2.8	4.9	3.1	2.6	2.6	4.4	2.7
Postgraduation location (%) <sup>h</sup>													
United States <sup>i</sup>	92.0	92.1	91.2	95.3	92.3	93.2	90.6	93.3	86.2	91.0	91.5	97.1	84.3
Midwest	16.5	16.0	25.2	16.4	10.4	15.0	8.0	20.2	17.0	11.7	17.1	19.2	15.1
Northeast	21.7	22.3	11.2	28.3	21.4	18.5	18.0	21.1	21.2	23.4	23.4	22.8	23.4
South	28.9	27.0	33.2	26.8	21.7	28.2	26.7	35.1	23.5	25.1	21.1	30.2	27.8
West	24.5	26.4	21.1	23.6	38.4	31.2	37.6	16.3	24.1	30.5	29.6	24.4	17.5

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(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	8.0	7.8	8.7	4.6	7.6	6.7	9.3	6.7	13.7	8.8	8.4	2.9	15.7
Location unknown	0.1	0.1	0.1	*	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	40.1	39.2	45.3	48.3	32.8	40.6	37.5	46.0	26.7	35.9	34.1	36.9	32.5
Male doctorate recipients reporting postgraduation status (number)	26,908	22,866	548	3,999	1,678	6,818	556	757	1,267	923	3,270	822	2,228
Definite postdoctoral training plans	28.0	31.1	33.8	43.4	19.4	24.7	49.8	25.9	34.2	21.1	38.7	39.4	21.9
Definite employment plans	42.9	39.9	38.0	21.6	57.6	45.9	28.1	46.8	37.0	53.2	29.4	39.4	53.8
Seeking employment or study	26.2	26.3	27.4	28.2	21.0	27.5	21.0	24.7	26.9	24.2	30.4	18.9	21.6
Other status <sup>a</sup>	2.7	2.7	0.9	6.6	2.0	1.8	1.1	2.5	1.8	1.4	1.6	2.1	2.6
Definite postdoctoral training plans (%) <sup>b</sup>													
Postdoc fellowship or research associateship	95.8	95.9	97.3	94.8	96.0	96.9	98.2	84.2	98.2	97.9	98.7	84.6	97.3
Other training or unknown <sup>c</sup>	4.2	4.1	2.7	5.2	4.0	3.1	1.8	15.8	1.8	2.1	1.3	15.4	2.7
Definite employment plans (%) <sup>d</sup>													
Academe	35.1	27.2	39.4	31.3	26.9	14.4	24.4	41.8	37.7	25.5	17.7	36.1	54.0
In tenure track faculty position (%)	44.9	43.6	37.8	21.9	58.8	42.9	23.7	45.9	45.8	52.8	20.6	39.3	52.9
Not in tenure track position (%)	51.3	52.0	61.0	74.8	38.1	49.1	71.1	45.9	49.2	45.6	71.2	53.8	45.7
Government	8.0	8.7	14.4	7.8	2.2	8.0	26.3	9.3	3.6	5.9	5.6	17.9	16.6
Industry or business <sup>e</sup>	47.7	57.5	35.1	54.5	67.1	73.0	42.3	38.1	51.2	63.3	72.6	31.5	17.9
Nonprofit organization	4.8	4.1	7.7	5.2	2.6	2.8	3.8	6.5	4.1	2.2	2.4	7.4	8.0
Other or unknown <sup>f</sup>	4.3	2.4	3.4	1.3	1.2	1.9	3.2	4.2	3.4	3.1	1.7	7.1	3.4
Primary activity <sup>g</sup>													
Research and development	49.9	57.4	58.1	59.3	67.7	61.1	52.3	41.7	48.7	62.7	69.7	28.7	42.1
Teaching	21.5	15.2	19.2	13.5	15.0	7.1	11.9	23.7	30.2	14.7	11.3	21.0	30.6
Management or administration	7.2	4.0	9.1	4.8	2.4	2.7	5.3	8.6	1.1	4.4	2.3	7.1	7.4
Professional services and other	21.4	23.4	13.6	22.4	14.9	29.1	30.5	26.0	20.0	18.1	16.7	43.2	19.9
Secondary activity <sup>g</sup>													
Research and development	23.3	21.2	24.7	17.9	20.3	19.4	23.8	26.3	26.7	19.8	14.0	21.6	30.6
Teaching	12.5	9.4	10.6	6.7	11.4	5.1	6.0	16.6	7.9	10.3	2.8	15.5	22.4
Management or administration	12.4	13.2	23.7	18.0	9.1	12.6	16.6	21.9	7.0	9.5	14.4	15.8	12.2
Professional services and other	13.2	15.0	9.6	12.1	17.6	19.7	11.9	10.4	11.9	17.5	13.1	9.0	8.7
No secondary activity	38.7	41.2	31.3	45.3	41.7	43.1	41.7	24.9	46.5	42.9	55.6	38.1	26.1
Activity unknown	3.4	3.2	4.8	3.0	2.0	3.5	3.2	4.5	3.2	3.3	3.3	4.3	2.6
Postgraduation location (%) <sup>h</sup>													
United States <sup>i</sup>	90.5	90.7	89.8	94.8	92.2	92.5	90.1	92.2	83.8	91.4	90.0	96.1	80.0

**Table 9-1. Science and engineering research doctorate recipients, postgraduation plans by sex and broad field of doctorate: 2024**

(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
Midwest	15.9	15.4	25.7	16.3	10.9	14.8	8.5	22.4	16.4	10.5	16.7	20.4	14.4
Northeast	21.6	22.0	9.7	29.9	21.1	18.0	20.6	22.0	20.8	23.2	23.1	22.4	23.5
South	27.0	25.7	32.6	25.4	21.5	28.6	26.1	31.1	22.1	24.2	20.6	27.8	26.6
West	25.6	27.2	21.9	22.9	38.3	30.7	34.6	16.2	24.1	33.2	29.2	25.3	15.1
Outside the United States	9.4	9.2	9.9	5.2	7.6	7.4	9.7	7.8	16.0	8.6	9.8	3.9	20.0
Location unknown	0.1	0.1	0.3	0.0	0.2	0.1	0.2	0.0	0.2	0.0	0.1	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	37.9	37.9	44.0	46.5	33.7	41.2	33.5	41.3	25.7	34.5	34.2	37.8	29.6
Female doctorate recipients reporting postgraduation status (number)	25,357	19,136	645	5,099	578	2,637	557	1,769	566	578	1,682	2,549	2,476
Definite postdoctoral training plans	27.6	33.1	28.1	39.4	20.4	25.9	45.1	22.8	32.0	26.5	34.0	47.1	23.5
Definite employment plans	41.9	35.9	39.4	22.2	53.1	41.0	29.8	46.7	41.2	43.4	31.2	33.9	49.8
Seeking employment or study	27.1	27.6	29.6	32.4	24.9	30.5	23.7	27.0	25.3	27.2	32.5	16.7	24.2
Other status <sup>a</sup>	3.3	3.3	2.8	5.8	1.6	2.6	1.4	3.2	1.2	2.8	2.3	2.1	2.5
Definite postdoctoral training plans (%) <sup>b</sup>													
Postdoc fellowship or research associateship	94.6	94.4	97.8	95.4	96.6	96.3	99.2	91.1	96.1	94.8	97.0	88.6	96.4
Other training or unknown <sup>c</sup>	5.4	5.6	2.2	4.6	3.4	3.7	0.8	8.9	3.9	5.2	3.0	11.4	3.6
Definite employment plans (%) <sup>d</sup>													
Academe	47.3	38.5	36.2	32.6	41.0	20.3	30.7	53.1	46.8	40.6	19.1	40.5	56.2
In tenure track faculty position (%)	41.4	41.3	33.7	21.7	66.7	44.3	15.7	40.1	44.0	46.1	26.0	39.7	51.7
Not in tenure track position (%)	54.8	54.6	62.0	74.3	30.2	47.9	78.4	55.6	52.3	50.0	65.0	57.4	45.4
Government	7.5	9.4	15.0	9.3	2.9	7.4	26.5	7.6	4.3	6.4	6.9	11.9	11.8
Industry or business <sup>e</sup>	29.7	40.2	37.8	48.1	49.8	66.6	33.7	24.1	40.3	44.2	68.1	27.2	15.8
Nonprofit organization	8.1	8.2	9.4	8.5	4.6	3.8	7.2	11.6	3.9	6.8	4.2	10.5	11.6
Other or unknown <sup>f</sup>	7.5	3.6	1.6	1.6	1.6	1.9	1.8	3.6	4.7	2.0	1.7	9.9	4.6
Primary activity <sup>g</sup>													
Research and development	35.7	44.8	46.2	53.8	58.2	55.8	45.7	28.3	40.7	48.0	62.7	24.1	40.4
Teaching	30.1	22.2	22.1	14.3	23.2	9.3	14.2	35.9	35.8	23.4	12.5	22.2	33.8
Management or administration	12.7	8.0	13.3	6.6	3.0	3.7	12.3	11.7	3.5	10.5	4.1	10.0	10.9
Professional services and other	21.5	25.1	18.5	25.3	15.5	31.1	27.8	24.1	19.9	18.1	20.7	43.7	15.0
Secondary activity <sup>g</sup>													
Research and development	25.9	23.9	24.9	18.2	25.9	20.3	25.3	31.7	28.3	25.8	13.1	23.3	30.1
Teaching	14.7	11.8	7.6	6.1	17.5	8.3	4.3	16.6	10.2	14.5	1.2	15.8	19.2
Management or administration	12.1	12.8	21.3	15.6	6.4	10.2	15.4	14.9	5.8	11.7	15.1	13.2	10.9
Professional services and other	9.8	11.1	14.5	9.7	11.1	16.6	8.6	10.4	10.2	14.1	8.5	9.2	9.8
No secondary activity	37.6	40.4	31.7	50.5	39.1	44.7	46.3	26.4	45.6	33.9	62.2	38.5	30.0

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(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
Activity unknown	3.1	3.0	2.0	2.4	3.3	2.8	2.4	5.1	3.0	1.2	1.1	4.4	2.8
Postgraduation location (%) <sup>h</sup>													
United States <sup>i</sup>	93.6	93.9	92.4	95.7	92.5	95.1	91.1	93.7	91.3	90.3	94.6	97.3	88.4
Midwest	17.1	16.7	24.8	16.5	8.9	15.4	7.4	19.3	18.4	13.9	18.0	18.8	15.7
Northeast	21.7	22.8	12.6	26.9	22.1	19.8	15.3	20.7	22.0	23.8	24.1	23.0	23.3
South	30.9	28.7	33.8	27.9	22.1	27.0	27.3	37.0	26.6	26.7	21.9	31.0	28.8
West	23.4	25.4	20.5	24.1	38.6	32.3	40.8	16.4	24.2	25.7	30.6	24.2	19.8
Outside the United States	6.4	6.0	7.6	4.2	7.5	4.8	8.9	6.2	8.7	9.2	5.4	2.7	11.6
Location unknown	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.5	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	42.5	40.8	46.4	49.7	30.4	39.2	41.7	48.1	28.7	38.1	33.8	36.6	35.2

\* = value between 0.00% and 0.05%.

<sup>a</sup> Other status 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.<sup>b</sup> Definite postdoctoral training plans excludes doctorate recipients reporting plans for other full-time degree program. Percentages are based on the number of doctorate recipients reporting definite postdoctoral plans for study.<sup>c</sup> Other training includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.<sup>d</sup> Percentages are based on the number of doctorate recipients reporting definite postgraduation plans for employment.<sup>e</sup> Industry or business includes doctorate recipients reporting self-employment.<sup>f</sup> Other is mainly composed of elementary and secondary schools.<sup>g</sup> Percentages are based on the number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.<sup>h</sup> Percentages are based on the number of doctorate recipients reporting definite postgraduation plans and type of plans.<sup>i</sup> United States 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 about the 2021 taxonomy change, see the "Technical Notes."

**Source(s):**

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