

Table 9-4. Biological and biomedical sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2025

(Number and percent)

Characteristic	All biological and biomedical sciences fields	Biochemistry, biophysics, and molecular biology	Bioinformatics, biostatistics, and computational biology	Biological and biomedical sciences, general	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)	9,194	1,415	684	805	730	1,025	451	1,082	1,268	355	789	590
Definite postdoctoral training plans (%)	41.0	41.9	30.1	39.9	39.6	45.1	38.4	39.9	46.1	41.1	41.4	40.0
Definite employment plans (%)	18.4	15.3	35.8	15.3	14.2	22.5	16.6	14.0	14.0	20.3	20.7	22.5
Seeking employment or study (%)	34.1	37.3	30.0	39.0	38.4	29.8	37.5	37.4	30.3	33.5	28.3	34.4
Other status (%) ^a	6.3	5.3	4.1	5.2	7.5	2.5	7.3	8.7	9.4	5.1	9.6	2.7
Definite postdoctoral training plans (%) ^b												
Postdoc fellowship or research associateship	95.6	97.0	95.6	96.3	94.5	98.5	94.2	93.8	95.6	94.5	92.0	97.5
Other training or unknown ^c	4.4	3.0	4.4	3.7	5.5	1.5	5.8	6.3	4.4	5.5	8.0	2.5
Definite employment plans (%) ^d												
Academe	36.1	25.0	26.5	43.1	45.2	42.4	32.0	41.1	31.1	26.4	50.3	38.3
In tenure track faculty position	22.0	D	27.7	11.3	25.5	16.3	20.8	14.5	14.5	D	43.9	27.5
Not in tenure track position	74.3	D	67.7	84.9	70.2	81.6	75.0	83.9	83.6	D	52.4	70.6
Government	8.0	D	4.1	6.5	D	22.5	D	10.6	4.0	8.3	D	15.8
Industry or business ^e	46.8	62.5	61.2	39.0	42.3	21.6	57.3	43.0	55.9	65.3	41.1	32.3
Nonprofit organization	6.9	D	7.3	7.3	D	10.8	D	4.0	6.2	0.0	D	9.8
Other or unknown ^f	2.2	3.2	0.8	4.1	1.0	2.6	2.7	1.3	2.8	0.0	1.8	3.8
Primary activity ^g												
Research and development	54.1	65.4	77.4	44.8	43.7	48.2	58.9	56.4	47.4	43.7	43.9	40.9
Teaching	16.3	15.2	D	19.0	26.2	19.7	D	15.4	14.6	8.5	26.8	22.8
Management or administration	7.7	3.3	D	16.4	10.7	10.5	D	6.0	6.4	12.7	7.0	15.0
Professional services and other	21.9	16.1	18.0	19.8	19.4	21.5	24.7	22.1	31.6	35.2	22.3	21.3
Secondary activity ^g												
Research and development	19.9	12.8	14.2	21.6	19.4	29.8	12.3	13.4	21.1	16.9	29.9	23.6
Teaching	7.0	3.8	9.6	7.8	6.8	7.0	9.6	8.1	D	D	7.6	11.8

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Management or administration	15.4	19.9	9.6	15.5	14.6	15.8	15.1	20.8	12.9	12.7	14.6	18.1
Professional services and other	12.7	11.4	17.6	7.8	10.7	11.0	12.3	12.1	D	D	14.0	8.7
No secondary activity	45.0	52.1	49.0	47.4	48.5	36.4	50.7	45.6	43.9	62.0	33.8	37.8
Activity unknown	2.7	2.3	2.4	5.7	1.0	1.3	2.7	1.3	3.4	1.4	3.7	4.5
Postgraduation location (%) ^h												
United States ⁱ	95.0	95.7	96.0	95.9	95.9	92.8	93.5	95.4	95.4	98.2	96.1	90.8
Midwest	17.0	16.9	16.4	14.4	17.3	16.2	16.9	19.7	14.4	22.5	21.0	14.4
Northeast	26.4	28.7	30.2	27.0	32.3	20.9	25.0	26.8	31.9	24.8	21.2	16.3
South	26.3	23.0	20.2	31.8	25.2	26.3	28.6	27.3	22.6	28.9	31.2	31.7
West	25.0	26.8	28.8	22.5	20.4	29.1	23.0	21.1	25.9	21.6	22.0	28.2
Outside the United States	4.9	D	3.8	3.8	4.1	7.1	6.5	4.6	4.5	D	3.9	9.2
Location unknown	0.1	D	0.2	0.2	0.0	0.1	0.0	0.0	0.1	D	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	50.7	51.8	49.0	54.7	53.2	44.2	53.2	51.1	51.2	54.6	50.0	50.9
Male doctorate recipients reporting postgraduation status (number)	3,977	735	371	323	276	376	176	438	522	127	377	256
Definite postdoctoral training plans (%)	42.4	43.0	30.7	44.6	41.7	45.2	39.2	40.6	50.2	37.8	43.8	41.4
Definite employment plans (%)	17.8	14.0	36.1	9.9	11.2	23.4	15.3	12.3	11.7	20.5	23.3	25.0
Seeking employment or study (%)	32.5	36.9	28.8	36.8	38.8	29.0	35.8	37.2	27.6	33.1	22.8	31.3
Other status (%) ^a	7.1	5.9	4.3	7.4	8.0	2.4	9.7	9.8	10.5	8.7	10.1	2.0
Definite postdoctoral training plans (%) ^b												
Postdoc fellowship or research associateship	94.3	95.9	93.9	94.4	93.0	98.2	97.1	92.7	94.7	89.6	87.3	97.2
Other training or unknown ^c	5.7	4.1	6.1	5.6	7.0	1.8	2.9	7.3	5.3	10.4	12.7	2.8
Definite employment plans (%) ^d												
Academe	34.5	23.3	28.4	25.0	D	44.3	D	D	24.6	D	D	32.8
In tenure track faculty position	26.2	D	28.9	D	D	23.1	D	D	D	D	D	23.8

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Not in tenure track position	70.9	D	65.8	D	66.7	74.4	80.0	85.7	D	D	53.7	71.4
Government	8.8	D	3.7	D	0.0	28.4	D	9.3	D	D	D	18.8
Industry or business ^e	48.2	62.1	59.0	50.0	41.9	13.6	51.9	37.0	63.9	76.9	47.7	34.4
Nonprofit organization	6.2	D	8.2	D	D	10.2	D	D	D	0.0	D	10.9
Other or unknown ^f	2.4	4.9	0.7	6.3	3.2	3.4	3.7	0.0	1.6	0.0	1.1	3.1
Primary activity ^g												
Research and development	61.5	76.0	D	48.3	46.7	50.6	D	D	62.1	D	51.2	45.0
Teaching	14.8	13.0	4.5	17.2	33.3	19.5	D	16.7	D	0.0	25.6	16.7
Management or administration	6.7	D	D	17.2	D	10.3	0.0	D	D	D	5.8	20.0
Professional services and other	17.0	D	13.6	17.2	D	19.5	19.2	20.4	24.1	30.8	17.4	18.3
Secondary activity ^g												
Research and development	19.5	D	13.6	27.6	20.0	27.6	D	18.5	19.0	D	D	25.0
Teaching	7.6	D	10.6	D	0.0	6.9	D	13.0	D	D	7.0	11.7
Management or administration	17.2	20.0	12.1	D	D	20.7	19.2	20.4	17.2	D	16.3	21.7
Professional services and other	14.4	13.0	18.9	D	D	10.3	D	13.0	D	D	D	8.3
No secondary activity	41.4	48.0	44.7	48.3	56.7	34.5	61.5	35.2	37.9	61.5	27.9	33.3
Activity unknown	2.8	2.9	1.5	9.4	3.2	1.1	3.7	0.0	4.9	0.0	2.3	6.3
Postgraduation location (%) ^h												
United States ⁱ	94.7	95.5	96.4	D	94.5	91.9	91.7	96.1	92.6	100.0	D	86.5
Midwest	17.0	16.0	17.7	20.5	18.5	17.1	20.8	19.0	11.1	23.0	19.8	12.4
Northeast	27.4	30.8	29.0	D	34.2	22.9	22.9	28.4	34.4	29.7	D	13.5
South	26.2	23.4	22.6	31.8	24.7	24.4	27.1	25.4	21.4	29.7	32.8	34.7
West	23.7	25.1	26.6	19.3	15.1	26.7	20.8	23.3	25.4	17.6	22.9	25.9
Outside the United States	5.3	4.5	3.6	D	5.5	8.1	8.3	3.9	7.1	0.0	D	13.5
Location unknown	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	49.8	50.6	50.4	57.4	53.4	40.3	52.1	50.0	49.5	56.8	47.8	48.8

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Female doctorate recipients reporting postgraduation status (number)	5,217	680	313	482	454	649	275	644	746	228	412	334
Definite postdoctoral training plans (%)	39.9	40.7	29.4	36.7	38.3	45.0	37.8	39.4	43.3	43.0	39.3	38.9
Definite employment plans (%)	18.8	16.6	35.5	18.9	16.1	22.0	17.5	15.1	15.5	20.2	18.2	20.7
Seeking employment or study (%)	35.3	37.8	31.3	40.5	38.1	30.2	38.5	37.6	32.2	33.8	33.3	36.8
Other status (%) ^a	5.7	4.7	3.8	3.7	7.3	2.6	5.8	7.9	8.6	3.1	9.2	3.3
Definite postdoctoral training plans (%) ^b												
Postdoc fellowship or research associateship	96.7	98.2	97.8	97.7	95.4	98.6	92.3	94.5	96.3	96.9	96.9	97.7
Other training or unknown ^c	3.3	1.8	2.2	2.3	4.6	1.4	7.7	5.5	3.7	3.1	3.1	2.3
Definite employment plans (%) ^d												
Academe	37.3	26.5	24.3	49.5	D	41.3	D	D	34.5	D	D	43.5
In tenure track faculty position	19.1	D	25.9	D	D	11.9	D	D	D	D	D	30.0
Not in tenure track position	76.5	D	70.4	D	71.9	86.4	71.4	82.4	D	78.6	51.2	70.0
Government	7.4	D	4.5	D	D	18.9	D	11.3	D	D	0.0	13.0
Industry or business ^e	45.8	62.8	64.0	35.2	42.5	26.6	60.4	46.4	51.7	58.7	33.3	30.4
Nonprofit organization	7.3	D	6.3	D	8.2	11.2	D	D	D	0.0	D	8.7
Other or unknown ^f	2.1	1.8	0.9	3.3	0.0	2.1	2.1	2.1	3.4	0.0	2.7	4.3
Primary activity ^g												
Research and development	48.8	55.9	D	43.7	42.5	46.8	D	D	39.8	D	35.2	37.3
Teaching	17.3	17.1	D	19.5	23.3	19.9	10.6	14.7	D	13.3	28.2	28.4
Management or administration	8.4	D	0.0	16.1	D	10.6	D	D	D	D	8.5	10.4
Professional services and other	25.5	D	23.4	20.7	D	22.7	27.7	23.2	35.4	37.8	28.2	23.9
Secondary activity ^g												
Research and development	20.3	D	15.0	19.5	19.2	31.2	D	10.5	22.1	D	D	22.4

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Teaching	6.6	D	8.4	D	9.6	7.1	D	5.3	D	0.0	8.5	11.9
Management or administration	14.1	19.8	6.5	D	D	12.8	12.8	21.1	10.6	D	12.7	14.9
Professional services and other	11.5	9.9	15.9	D	D	11.3	D	11.6	D	D	D	9.0
No secondary activity	47.5	55.9	54.2	47.1	45.2	37.6	44.7	51.6	46.9	62.2	40.8	41.8
Activity unknown	2.5	1.8	3.6	4.4	0.0	1.4	2.1	2.1	2.6	2.2	5.3	2.9
Postgraduation location (%) ^h												
United States ⁱ	95.3	95.9	95.6	D	96.8	93.3	94.7	94.9	97.5	97.2	D	94.5
Midwest	17.0	17.9	14.8	10.4	16.6	15.6	14.5	20.2	16.9	22.2	22.4	16.1
Northeast	25.5	26.4	31.5	D	31.2	19.8	26.3	25.6	30.1	22.2	D	18.6
South	26.3	22.6	17.2	31.7	25.5	27.4	29.6	28.5	23.5	28.5	29.5	29.1
West	26.0	28.7	31.5	24.6	23.5	30.6	24.3	19.7	26.2	23.6	21.1	30.2
Outside the United States	4.5	D	3.9	D	3.2	6.4	5.3	5.1	2.5	D	D	5.5
Location unknown	0.2	D	0.5	0.4	0.0	0.2	0.0	0.0	0.0	D	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	51.5	53.1	47.3	53.0	53.0	46.4	53.9	51.9	52.4	53.5	52.3	52.8

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

^a 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.

^b 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.

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

^d Percentages are based on the number of doctorate recipients reporting definite postgraduation plans for employment.

^e Industry or business includes doctorate recipients reporting self-employment.

^f Other is mainly composed of elementary and secondary schools.

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

^h Percentages are based on the number of doctorate recipients reporting definite postgraduation plans and type of plans.

ⁱ 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. The survey data collection for the field of study changed in 2021, which may affect the data comparisons across years. This table uses the new field taxonomy based on a modified version of the 2020 Classification of Instructional Programs (CIP) codes and does not match data that uses the trend field taxonomy. For more information about the field taxonomy changes, see the "Technical Notes."

Source(s):

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