Table 9-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Doctorate recipients reporting postgraduation status (number)	1,078	609	46
Definite postdoctoral training plans	49.6	42.5	58
Definite employment plans	26.0	29.7	21
Seeking employment or study	22.4	25.0	19
Other status <sup>a</sup>	2.0	2.8	1
Definite postdoctoral training plans (%) <sup>b</sup>			
Postdoc fellowship or research associateship	98.5	98.1	98
Other training or unknown <sup>C</sup>	1.5	1.9	•
Definite employment plans (%) <sup>d</sup>			
Academe	23.2	22.7	24
In tenure track faculty position (%)	29.2	31.7	2
Not in tenure track position (%)	66.2	61.0	7:
Government	25.4	24.9	2
Industry or business <sup>e</sup>	42.9	44.2	4
Nonprofit organization	5.7	6.1	
Other or unknown <sup>f</sup>	2.9	2.2	
Primary activity <sup>g</sup>			
Research and development	50.5	46.9	5
Teaching	D	D	1
Management or administration	D	D	
Professional services and other	28.2	31.1	2
Secondary activity <sup>g</sup>			
Research and development	27.5	32.2	1
Teaching	7.7	D	
Management or administration	11.4	D	
Professional services and other	12.5	13.0	1
No secondary activity	41.0	35.0	5
Activity unknown	2.5	2.2	
Postgraduation location (%) <sup>h</sup>			
United States <sup>i</sup>	91.0	88.2	9
Midwest	7.2	9.3	
Northeast	18.4	15.5	2
South	27.5	25.0	3
West	37.2	38.0	3
Outside the United States	9.0	11.8	
Location unknown	0.0	0.0	
Postgraduation location in same state as doctorate institution (%)	38.4	37.0	4
Male doctorate recipients reporting	582	352	2
postgraduation status (number)  Definite postdoctoral training plans	52.2	44.3	6
Definite employment plans	25.9	30.4	0
Seeking employment or study	20.1	23.0	<u> </u>
Other status <sup>a</sup>	1.7	2.3	'
Definite postdoctoral training plans (%) <sup>b</sup>	1.7	2.3	
Postdoc fellowship or research associateship	98.0	97.4	9

Table 9-7

Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Other training or unknown <sup>c</sup>	2.0	2.6	1.4
Definite employment plans (%) <sup>d</sup>			
Academe	23.2	21.5	27.3
In tenure track faculty position (%)	34.3	D	
Not in tenure track position (%)	62.9	D	
Government	D	D	
Industry or business <sup>e</sup>	47.7	50.5	40.9
Nonprofit organization	D	D	40.3
Other or unknown <sup>f</sup>	_		
	4.6	2.8	9.1
Primary activity <sup>g</sup>			
Research and development	54.8	52.4	60.5
Teaching	D	D	
Management or administration	D	D	
Professional services and other	26.7	31.1	16.3
Secondary activity <sup>g</sup>			
Research and development	26.0	28.2	20.9
Teaching	8.2	D	
Management or administration	12.3	D	
Professional services and other	15.1	D	
No secondary activity	38.4	35.9	44.2
Activity unknown	3.3	3.7	2.3
Postgraduation location (%) <sup>h</sup>			
United States <sup>i</sup>	90.1	87.1	94.3
Midwest	7.5	8.4	6.3
Northeast	18.0	13.7	24.0
South	26.8	27.4	26.0
West	37.1	36.9	37.5
Outside the United States	9.9	12.9	5.7
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	38.2	35.7	41.7
Female doctorate recipients reporting postgraduation status (number)	496	257	239
Definite postdoctoral training plans	46.6	40.1	53.6
Definite employment plans	26.0	28.8	23.0
Seeking employment or study	25.0	27.6	22.2
Other status <sup>a</sup>	2.4	3.5	1.3
Definite postdoctoral training plans (%) <sup>b</sup>			
Postdoc fellowship or research associateship	99.1	99.0	99.2
Other training or unknown <sup>c</sup>	0.9	1.0	0.8
Definite employment plans (%) <sup>d</sup>	0.9	1.0	0.0
Academe Academe	23.3	24.3	21.8
In tenure track faculty position (%)	23.3	D D	21.0
Not in tenure track position (%)	70.0	D	
Government Government	D	D	
Industry or business <sup>e</sup> Nonprofit organization	37.2 D	35.1 D	40.0 D

Table 9-7

## Geosciences, atmospheric, and ocean sciences research doctorate recipients, postgraduation plans by sex and major field of doctorate: 2022

(Number and percent)

Characteristic	All geosciences, atmospheric, and ocean sciences fields	Geological and earth sciences	Ocean, marine, and atmospheric sciences
Other or unknown <sup>f</sup>	0.8	1.4	0.0
Primary activity <sup>g</sup>			
Research and development	45.7	39.2	54.7
Teaching	D	17.6	D
Management or administration	D	12.2	D
Professional services and other	29.9	31.1	28.3
Secondary activity <sup>g</sup>			
Research and development	29.1	37.8	17.0
Teaching	7.1	D	
Management or administration	10.2	9.5	11.3
Professional services and other	9.4	D	
No secondary activity	44.1	33.8	58.5
Activity unknown	1.6	0.0	3.6
Postgraduation location (%) <sup>h</sup>			
United States <sup>i</sup>	92.2	89.8	94.5
Midwest	6.9	10.7	3.3
Northeast	18.9	18.1	19.7
South	28.3	21.5	35.0
West	37.2	39.5	35.0
Outside the United States	7.8	10.2	5.5
Location unknown	0.0	0.0	0.0
Postgraduation location in same state as doctorate institution (%)	38.6	39.0	38.3

D = suppressed to avoid disclosure of confidential information.

## 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, see the "Technical Notes" and the SED 2021 Taxonomy Changes Working Paper (available at https://ncses.nsf.gov/pubs/ncses23200).

## Source(s):

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

<sup>&</sup>lt;sup>a</sup> 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>&</sup>lt;sup>b</sup> Excludes doctorate recipients reporting plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postdoctoral plans for study.

<sup>&</sup>lt;sup>c</sup> Other includes doctorate recipients who reported definite postdoctoral plans for traineeship, internship or clinical residency, or other study.

<sup>&</sup>lt;sup>d</sup> Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

<sup>&</sup>lt;sup>e</sup> Includes doctorate recipients reporting self-employment.

<sup>&</sup>lt;sup>f</sup> Other is mainly composed of elementary and secondary schools.

<sup>&</sup>lt;sup>9</sup> Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary or secondary work activity.

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

<sup>&</sup>lt;sup>i</sup> 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.