

Table 65. Statistical profile of postgraduation plans of doctorate recipients in engineering fields, by sex and field of study: 2015

| Characteristic | All engineering fields | Aerospace, aeronautical, and astronautical engineering | Bioengineering and biomedical engineering | Chemical engineering | Civil engineering | Electrical, electronics, and communications engineering | Industrial and manufacturing engineering | Materials science engineering | Mechanical engineering | Other engineering |
|--|-------------------------------|---|--|-----------------------------|--------------------------|--|---|--------------------------------------|-------------------------------|--------------------------|
| All doctorate recipients (number) ^a | 9,897 | 361 | 1,129 | 1,002 | 633 | 2,004 | 244 | 874 | 1,467 | 2,183 |
| Postgraduation status (number) ^b | | | | | | | | | | |
| Definite postgraduation study | 1,694 | 64 | 304 | 175 | 113 | 267 | 17 | 182 | 254 | 318 |
| Definite employment | 3,064 | 124 | 215 | 318 | 169 | 736 | 98 | 233 | 430 | 741 |
| Seeking employment or study | 3,359 | 116 | 405 | 343 | 211 | 608 | 86 | 338 | 535 | 717 |
| Other ^c | 358 | 11 | 70 | 32 | 21 | 74 | 6 | 19 | 33 | 92 |
| Definite postgraduation study (%) ^d | | | | | | | | | | |
| Postdoc fellowship | 35.2 | 40.6 | 54.9 | 36.0 | 21.2 | 28.8 | 35.3 | 31.3 | 34.3 | 28.0 |
| Postdoc research associateship | 63.2 | 59.4 | 42.1 | 62.9 | 77.0 | 70.0 | 64.7 | 67.6 | 65.7 | 69.2 |
| Other or unknown ^e | 1.6 | 0.0 | 3.0 | 1.1 | 1.8 | 1.1 | 0.0 | 1.1 | 0.0 | 2.8 |
| Definite employment (%) ^f | | | | | | | | | | |
| Academe | 17.2 | 16.9 | 16.7 | 8.2 | 32.5 | 9.8 | 35.7 | 10.3 | 20.9 | 22.8 |
| Government | 10.1 | 28.2 | 5.1 | D | 14.2 | 8.3 | D | 6.4 | 9.5 | 14.3 |
| Industry or business ^g | 68.7 | 46.0 | 72.1 | 85.5 | 49.7 | 78.5 | 54.1 | 80.7 | 67.7 | 57.6 |
| Nonprofit organization | 3.1 | 8.1 | 4.7 | D | 3.0 | 3.0 | 6.1 | D | 1.4 | 3.9 |
| Other or unknown ^h | 0.9 | 0.8 | 1.4 | 0.6 | 0.6 | 0.4 | D | D | 0.5 | 1.3 |
| Primary activity ⁱ | | | | | | | | | | |
| R&D | 74.6 | 75.2 | 73.3 | 84.7 | 47.8 | 84.8 | 64.5 | 77.4 | 76.8 | 65.7 |
| Teaching | 8.3 | 7.4 | 4.4 | 3.9 | 18.0 | 4.5 | 16.1 | 5.4 | 10.7 | 11.6 |
| Management or administration | 4.6 | 6.6 | 8.7 | 2.6 | 8.1 | 1.7 | 8.6 | 3.6 | 2.2 | 7.1 |
| Professional services | 8.7 | 6.6 | 10.7 | 4.9 | 22.4 | 5.5 | 7.5 | 11.3 | 7.1 | 10.6 |

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|--|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| Other | 3.7 | 4.1 | 2.9 | 3.9 | 3.7 | 3.5 | 3.2 | 2.3 | 3.2 | 4.9 |
| Secondary activity ^j | | | | | | | | | | |
| R&D | 12.1 | 13.2 | 9.2 | 7.5 | 21.1 | 7.9 | 17.2 | 6.8 | 12.7 | 17.6 |
| Teaching | 7.3 | 7.4 | 4.4 | 2.9 | 11.8 | 4.4 | 16.1 | 5.4 | 9.5 | 9.9 |
| Management or administration | 18.6 | 19.8 | 31.6 | 21.1 | 18.6 | 14.1 | 14.0 | 26.7 | 17.1 | 16.9 |
| Professional services | 7.0 | D | 8.3 | 6.5 | D | 5.9 | 6.5 | 8.1 | 6.8 | 7.8 |
| Other | 2.1 | D | 3.9 | 3.9 | D | 2.0 | 1.1 | 2.3 | 2.0 | 1.0 |
| No secondary activity | 53.0 | 54.5 | 42.7 | 58.1 | 37.3 | 65.7 | 45.2 | 50.7 | 52.0 | 46.6 |
| Activity unknown | 3.9 | 2.4 | 4.2 | 3.1 | 4.7 | 3.7 | 5.1 | 5.2 | 4.7 | 3.6 |
| Postgraduation location (%) ^k | | | | | | | | | | |
| United States ^l | 89.7 | 92.0 | 90.2 | 91.5 | 87.2 | 91.8 | 83.5 | 88.7 | 90.6 | 87.4 |
| New England | 8.1 | D | 13.5 | 9.9 | 4.3 | 7.6 | D | 8.9 | 6.9 | 7.5 |
| Middle Atlantic | 11.0 | 4.8 | 14.6 | 14.2 | 9.9 | 9.7 | 10.4 | 10.8 | 10.5 | 10.8 |
| East North Central | 12.7 | 14.4 | 11.8 | 16.4 | 7.8 | 11.4 | 19.1 | 15.7 | 17.3 | 8.7 |
| West North Central | 3.8 | 5.3 | 4.4 | 4.5 | 5.3 | 2.6 | 6.1 | 4.1 | 3.2 | 3.6 |
| South Atlantic | 14.0 | 23.9 | 15.4 | 9.9 | 16.7 | 10.3 | 13.9 | 10.1 | 17.0 | 16.1 |
| East South Central | 2.5 | D | 1.7 | 2.4 | 4.3 | 1.0 | D | 3.6 | 2.3 | 3.2 |
| West South Central | 8.1 | 5.3 | 5.8 | 12.6 | 12.8 | 6.0 | 10.4 | 5.1 | 6.6 | 10.5 |
| Mountain | 5.3 | 6.4 | 2.1 | 4.9 | 5.0 | 6.0 | 4.3 | 4.6 | 6.1 | 6.0 |
| Pacific and insular | 24.2 | 22.9 | 20.8 | 16.4 | 21.3 | 37.3 | 11.3 | 25.8 | 20.8 | 21.1 |
| Not in United States | 9.9 | 8.0 | 9.8 | 8.1 | 12.4 | 7.8 | 16.5 | 11.1 | 9.1 | 11.9 |
| Location unknown | 0.4 | 0.0 | 0.0 | 0.4 | 0.4 | 0.4 | 0.0 | 0.2 | 0.3 | 0.7 |
| Male doctorate recipients (number) | 7,596 | 308 | 701 | 685 | 458 | 1,711 | 154 | 651 | 1,265 | 1,663 |

Table 65. Statistical profile of postgraduation plans of doctorate recipients in engineering fields, by sex and field of study: 2015

| Characteristic | All engineering fields | Aerospace, aeronautical, and astronautical engineering | Bioengineering and biomedical engineering | Chemical engineering | Civil engineering | Electrical, electronics, and communications engineering | Industrial and manufacturing engineering | Materials science engineering | Mechanical engineering | Other engineering |
|--|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| Postgraduation status (number) ^b | | | | | | | | | | |
| Definite postgraduation study | 1,304 | 56 | 188 | 126 | 93 | 225 | 9 | 144 | 221 | 242 |
| Definite employment | 2,412 | 109 | 142 | 210 | 118 | 648 | 60 | 166 | 370 | 589 |
| Seeking employment or study | 2,544 | 98 | 247 | 239 | 151 | 511 | 60 | 254 | 459 | 525 |
| Other ^c | 257 | 8 | 45 | 20 | 18 | 56 | 3 | 14 | 28 | 65 |
| Definite postgraduation study (%) ^d | | | | | | | | | | |
| Postdoc fellowship | 34.0 | D | 52.7 | 38.1 | D | 27.1 | D | 34.0 | 34.4 | 26.4 |
| Postdoc research associateship | 64.4 | D | 44.7 | 61.1 | D | 71.6 | D | 64.6 | 65.6 | 70.7 |
| Other or unknown ^e | 1.5 | 0.0 | 2.7 | 0.8 | 2.2 | 1.3 | 0.0 | 1.4 | 0.0 | 2.9 |
| Definite employment (%) ^f | | | | | | | | | | |
| Academe | 16.1 | D | 16.2 | 7.1 | 30.5 | D | 38.3 | 10.8 | 20.0 | 21.2 |
| Government | 10.1 | D | 4.2 | 3.8 | D | 8.5 | D | 4.8 | D | 14.8 |
| Industry or business ^g | 70.1 | 45.0 | 73.9 | 87.6 | 55.1 | 79.3 | 51.7 | 81.9 | 69.5 | 59.4 |
| Nonprofit organization | 2.8 | D | 3.5 | D | D | D | D | D | D | 3.1 |
| Other or unknown ^h | 0.9 | 0.0 | 2.1 | D | 0.8 | 0.5 | D | D | 0.5 | 1.5 |
| Primary activity ⁱ | | | | | | | | | | |
| R&D | 76.6 | 75.0 | 75.2 | 87.3 | 52.6 | 85.7 | 62.5 | 78.8 | 79.8 | 67.0 |
| Teaching | 7.2 | D | D | D | 13.2 | 4.3 | D | D | 9.1 | 10.2 |

Table 65. Statistical profile of postgraduation plans of doctorate recipients in engineering fields, by sex and field of study: 2015

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|--|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| Management or administration | 4.8 | 7.4 | D | D | D | D | D | D | D | 7.2 |
| Professional services | 8.0 | D | 9.5 | D | 21.1 | 5.0 | D | 10.9 | D | 10.5 |
| Other | 3.4 | D | 1.5 | 3.9 | D | D | 1.8 | 1.9 | 2.0 | 5.1 |
| Secondary activity ^j | | | | | | | | | | |
| R&D | 11.3 | D | 10.2 | D | 17.5 | 7.6 | 17.9 | D | 10.5 | 16.7 |
| Teaching | 7.4 | D | D | D | D | 3.7 | D | D | D | 9.8 |
| Management or administration | 18.4 | D | 27.7 | 22.0 | 19.3 | 15.1 | D | 27.6 | 17.9 | 16.3 |
| Professional services | 7.2 | D | D | 7.3 | 9.6 | 5.3 | D | D | D | 8.6 |
| Other | 1.9 | D | 5.1 | 2.9 | D | 2.1 | 0.0 | 1.9 | 2.0 | 0.7 |
| No secondary activity | 53.8 | 54.6 | 43.1 | 59.5 | 36.0 | 66.2 | 41.1 | 48.1 | 52.3 | 47.8 |
| Activity unknown | 3.9 | 0.9 | 3.5 | 2.4 | 3.4 | 4.0 | 6.7 | 6.0 | 4.9 | 3.4 |
| Postgraduation location (%) ^k | | | | | | | | | | |
| United States ^l | 90.0 | D | 92.1 | 91.1 | 88.2 | 92.2 | D | 89.4 | D | 87.6 |
| New England | 8.0 | 6.1 | 14.8 | 10.7 | D | 7.3 | D | 8.4 | 6.8 | 7.3 |
| Middle Atlantic | 11.0 | D | 17.0 | 14.0 | 9.5 | 9.5 | D | 11.9 | 10.7 | 10.6 |
| East North Central | 13.0 | D | 11.2 | 16.7 | 7.6 | 12.1 | D | 15.5 | 18.1 | 9.1 |
| West North Central | 3.7 | 6.1 | 4.8 | D | D | D | D | 3.9 | 2.9 | 3.6 |
| South Atlantic | 13.7 | 22.4 | 15.8 | 10.1 | 15.6 | 10.2 | 13.0 | 9.0 | 16.9 | 15.2 |
| East South Central | 2.5 | D | D | D | D | D | D | D | D | 3.2 |
| West South Central | 8.1 | D | 4.5 | 12.2 | 13.7 | 6.1 | D | 4.8 | 6.3 | 11.4 |
| Mountain | 5.2 | D | D | 5.1 | D | 5.7 | D | D | 5.4 | 6.0 |

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|--|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| Pacific and insular | 24.7 | 21.8 | 19.7 | 15.8 | 22.7 | 37.8 | 11.6 | 26.8 | 20.5 | 21.1 |
| Not in United States | 9.7 | D | 7.9 | 8.3 | 11.8 | 7.4 | D | 10.3 | D | 11.8 |
| Location unknown | 0.3 | 0.0 | 0.0 | 0.6 | 0.0 | 0.3 | 0.0 | 0.3 | 0.3 | 0.6 |
| Female doctorate recipients (number) | 2,301 | 53 | 428 | 317 | 175 | 293 | 90 | 223 | 202 | 520 |
| Postgraduation status (number) ^b | | | | | | | | | | |
| Definite postgraduation study | 390 | 8 | 116 | 49 | 20 | 42 | 8 | 38 | 33 | 76 |
| Definite employment | 652 | 15 | 73 | 108 | 51 | 88 | 38 | 67 | 60 | 152 |
| Seeking employment or study | 815 | 18 | 158 | 104 | 60 | 97 | 26 | 84 | 76 | 192 |
| Other ^c | 101 | 3 | 25 | 12 | 3 | 18 | 3 | 5 | 5 | 27 |
| Definite postgraduation study (%) ^d | | | | | | | | | | |
| Postdoc fellowship | 39.0 | D | 58.6 | 30.6 | D | 38.1 | D | 21.1 | 33.3 | 32.9 |
| Postdoc research associateship | 59.2 | D | 37.9 | 67.3 | D | 61.9 | D | 78.9 | 66.7 | 64.5 |
| Other or unknown ^e | 1.8 | 0.0 | 3.4 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 |
| Definite employment (%) ^f | | | | | | | | | | |
| Academe | 21.3 | D | 17.8 | 10.2 | 37.3 | D | 31.6 | 9.0 | 26.7 | 28.9 |
| Government | 10.0 | D | 6.8 | D | D | 6.8 | 0.0 | 10.4 | D | 12.5 |
| Industry or business ^g | 63.5 | 53.3 | 68.5 | 81.5 | 37.3 | 72.7 | 57.9 | 77.6 | 56.7 | 50.7 |
| Nonprofit organization | 4.4 | D | 6.8 | D | D | D | D | D | D | 7.2 |

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|--|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| Other or unknown ^h | 0.8 | 6.7 | 0.0 | D | 0.0 | 0.0 | D | D | 0.0 | 0.7 |
| Primary activity ⁱ | | | | | | | | | | |
| R&D | 67.3 | 76.9 | 69.6 | 79.6 | 36.2 | 78.2 | 67.6 | 73.8 | 58.6 | 60.7 |
| Teaching | 12.3 | D | D | D | 29.8 | 5.7 | D | D | 20.7 | 17.2 |
| Management or administration | 3.7 | 0.0 | D | D | D | D | D | D | D | 6.9 |
| Professional services | 11.5 | D | 13.0 | D | 25.5 | 9.2 | D | 12.3 | D | 11.0 |
| Other | 5.1 | D | 5.8 | 3.9 | D | D | 5.4 | 3.1 | 10.3 | 4.1 |
| Secondary activity ^j | | | | | | | | | | |
| R&D | 15.1 | D | 7.2 | D | 29.8 | 10.3 | 16.2 | D | 25.9 | 21.4 |
| Teaching | 6.9 | D | D | D | D | 9.2 | D | D | D | 10.3 |
| Management or administration | 19.2 | D | 39.1 | 19.4 | 17.0 | 6.9 | D | 24.6 | 12.1 | 19.3 |
| Professional services | 6.3 | 0.0 | D | 4.9 | D | 10.3 | D | D | D | 4.8 |
| Other | 2.6 | 0.0 | 1.4 | 5.8 | 2.1 | 1.1 | 2.7 | 3.1 | 1.7 | 2.1 |
| No secondary activity | 50.0 | 53.8 | 42.0 | 55.3 | 40.4 | 62.1 | 51.4 | 56.9 | 50.0 | 42.1 |
| Activity unknown | 4.3 | 13.3 | 5.5 | 4.6 | 7.8 | 1.1 | 2.6 | 3.0 | 3.3 | 4.6 |
| Postgraduation location (%) ^k | | | | | | | | | | |
| United States ^l | 88.9 | D | 86.8 | 92.4 | 84.5 | 89.2 | D | 86.7 | D | 86.8 |
| New England | 8.3 | D | 11.1 | 8.3 | D | 9.2 | D | 10.5 | 7.5 | 7.9 |
| Middle Atlantic | 10.9 | D | 10.6 | 14.6 | 11.3 | 10.8 | D | 7.6 | 9.7 | 11.4 |
| East North Central | 11.3 | D | 12.7 | 15.9 | 8.5 | 6.2 | D | 16.2 | 11.8 | 7.0 |
| West North Central | 4.2 | 0.0 | 3.7 | D | D | D | D | 4.8 | 5.4 | 3.5 |
| South Atlantic | 15.4 | 34.8 | 14.8 | 9.6 | 19.7 | 10.8 | 15.2 | 13.3 | 17.2 | 19.3 |

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|----------------------|------------------------|--|---|----------------------|-------------------|---|--|-------------------------------|------------------------|-------------------|
| East South Central | 2.3 | 0.0 | D | D | D | D | D | D | D | 3.1 |
| West South Central | 8.3 | D | 7.9 | 13.4 | 9.9 | 5.4 | D | 5.7 | 8.6 | 7.0 |
| Mountain | 5.6 | D | D | 4.5 | D | 7.7 | D | D | 10.8 | 6.1 |
| Pacific and insular | 22.3 | 30.4 | 22.8 | 17.8 | 16.9 | 33.8 | 10.9 | 22.9 | 22.6 | 21.1 |
| Not in United States | 10.7 | D | 13.2 | 7.6 | 14.1 | 10.0 | D | 13.3 | D | 12.3 |
| Location unknown | 0.4 | 0.0 | 0.0 | 0.0 | 1.4 | 0.8 | 0.0 | 0.0 | 0.0 | 0.9 |

D = suppressed to avoid disclosure of confidential information.

^a Includes respondents who did not report sex.

^b Includes only respondents who reported postgraduation status.

^c Includes respondents who indicated that they did not plan to work or study, respondents who indicated some other type of postgraduation plans, and respondents who indicated definite plans for other full-time degree program.

^d Excludes respondents who indicated plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postgraduation plans for study.

^e "Other" includes respondents who indicated definite postgraduation study plans for traineeship, internship or clinical residency, or other study.

^f Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

^g Includes doctorate recipients who indicated self-employment.

^h "Other" is mainly composed of elementary and secondary schools.

ⁱ Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary work activity.

^j Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and secondary work activity.

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

^l Includes cases with an unknown U.S. region of employment after doctorate; see technical notes for states or territories included in regions.

NOTES: Due to rounding, percentages may not sum to 100. See table A-6 in the technical notes for a listing of major fields and their constituent subfields.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Earned Doctorates, 2015.