



Foreign-Trained Academic S&E Doctoral Workforce

U.S. universities and colleges have long employed S&E doctorate holders from foreign countries; most received their doctorate from a U.S. institution, but many earned it overseas. In 2015, approximately 68,000 foreign-trained S&E doctorate holders worked in U.S. higher education institutions. Approximately 70% of the foreign-trained doctorate holders were men, and 30% were women.

Because the Survey of Doctorate Recipients (SDR) uses a more restrictive definition of the research doctorate, some complications exist in comparing National Survey of College Graduates S&E fields with those from the SDR, particularly with regard to the life sciences and psychology. Taking these complications into consideration, the field distribution of the foreign-trained doctorate holders nonetheless varies from the U.S.-trained doctorate holders. The majority (just over 55%) of the foreign-trained individuals hold doctorates in the life sciences, while the majority of their U.S.-trained counterparts hold doctorates in the life sciences (34%) or the social sciences (18%) (Table 5-B; Appendix Table 5-14). In 2015, female foreign-trained S&E doctorate holders were largely concentrated in the life sciences, whereas their male counterparts had large concentrations in the life sciences and physical sciences (Table 5-B).

Foreign-trained doctorate holders have a substantial presence in conducting academic R&D, with about 90% reporting that research was their primary or secondary work activity in 2015 and more than one-half (52%) reporting support from federal grants and contracts. A smaller percentage of foreign-trained S&E doctorate holders is heavily engaged in teaching. In 2015, about 28% reported that teaching was their primary or secondary work activity (Table 5-C).

TABLE 5-B 
Foreign-trained S&E doctorate holders employed in academia, by degree field and sex: 2015

(Number)

Degree field	Total	Male	Female
Full-time positions			
All fields	64,000	46,000	18,000
Physical sciences	16,000	15,000	s
Computer and mathematical sciences	6,000	4,000	s
Life sciences	36,000	22,000	14,000
Social sciences and psychology	3,000	2,000	s
Engineering	3,000	3,000	s
Part-time positions			
All fields	4,000	2,000	2,000

s = suppressed for reasons of confidentiality and/or reliability.

Note(s)

Detail may not add to total because of suppression. Numbers are rounded to the nearest 100.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2017) of the 2015 National Survey of College Graduates (NSCG).

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TABLE 5-C 

Foreign-trained S&E doctorate holders employed in academia, by research and teaching focus: 2015

(Percent)

Field	Federal support	R&D	Teaching
Full-time positions			
All fields	51.6	90.6	28.1
Physical sciences	31.3	93.8	25.0
Computer and mathematical sciences	33.3	83.3	50.0
Life sciences	66.7	91.7	19.4
Social sciences and psychology	s	66.7	66.7
Engineering	66.7	100.0	66.7
Part-time positions			
All fields	25.0	50.0	75.0

s = suppressed for reasons of confidentiality and/or reliability.

Note(s)

The percentage conducting R&D is the percentage of S&E doctorate holders reporting that their primary or secondary work activity is R&D. The percentage teaching is the percentage of S&E doctorate holders reporting that their primary or secondary work activity is teaching.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2017) of the 2015 National Survey of College Graduates (NSCG).

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