

TABLE 1-2b

Sex of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in science: 1977–2021

(Number and percent)

| Year | Graduate students | | | | | Postdoctoral appointees | | | | | Doctorate-holding nonfaculty researchers | | | | |
|----------------------|-------------------|---------|---------|---------|---------|-------------------------|--------|---------|--------|---------|--|--------|---------|--------|---------|
| | Total | Male | | Female | | Total | Male | | Female | | Total | Male | | Female | |
| | | Number | Percent | Number | Percent | | Number | Percent | Number | Percent | | Number | Percent | Number | Percent |
| 1977 | 242,932 | 168,724 | 69.5 | 74,208 | 30.5 | na | na | na | na | na | na | na | na | na | na |
| 1978 | 236,465 | NA | NA | NA | NA | na | na | na | na | na | na | na | na | na | na |
| 1979 | 247,235 | 163,845 | 66.3 | 83,390 | 33.7 | 12,519 | 10,045 | 80.2 | 2,474 | 19.8 | 1,915 | 1,448 | 75.6 | 467 | 24.4 |
| 1980 | 251,265 | 163,212 | 65.0 | 88,053 | 35.0 | 13,042 | 10,427 | 79.9 | 2,615 | 20.1 | 2,184 | 1,662 | 76.1 | 522 | 23.9 |
| 1981 | 252,404 | 160,306 | 63.5 | 92,098 | 36.5 | 13,731 | 10,859 | 79.1 | 2,872 | 20.9 | 2,445 | 1,910 | 78.1 | 535 | 21.9 |
| 1982 | 255,146 | 160,354 | 62.8 | 94,792 | 37.2 | 13,698 | 10,538 | 76.9 | 3,160 | 23.1 | 2,809 | 2,177 | 77.5 | 632 | 22.5 |
| 1983 | 255,820 | 159,126 | 62.2 | 96,694 | 37.8 | 14,562 | 11,191 | 76.9 | 3,371 | 23.1 | 3,348 | 2,659 | 79.4 | 689 | 20.6 |
| 1984 | 256,903 | 159,672 | 62.2 | 97,231 | 37.8 | 14,979 | 11,446 | 76.4 | 3,533 | 23.6 | 3,442 | 2,654 | 77.1 | 788 | 22.9 |
| 1985 | 261,973 | 162,435 | 62.0 | 99,538 | 38.0 | 15,576 | 11,724 | 75.3 | 3,852 | 24.7 | 3,529 | 2,637 | 74.7 | 892 | 25.3 |
| 1986 | 266,077 | 164,075 | 61.7 | 102,002 | 38.3 | 16,512 | 12,288 | 74.4 | 4,224 | 25.6 | 3,356 | 2,456 | 73.2 | 900 | 26.8 |
| 1987 | 269,256 | 165,060 | 61.3 | 104,196 | 38.7 | 17,369 | 12,845 | 74.0 | 4,524 | 26.0 | 3,250 | 2,379 | 73.2 | 871 | 26.8 |
| 1988 | 272,309 | 164,199 | 60.3 | 108,110 | 39.7 | 18,024 | 13,282 | 73.7 | 4,742 | 26.3 | 3,348 | 2,483 | 74.2 | 865 | 25.8 |
| 1989 | 278,577 | 166,313 | 59.7 | 112,264 | 40.3 | 18,978 | 13,845 | 73.0 | 5,133 | 27.0 | 3,470 | 2,554 | 73.6 | 916 | 26.4 |
| 1990 | 289,383 | 170,340 | 58.9 | 119,043 | 41.1 | 19,853 | 14,426 | 72.7 | 5,427 | 27.3 | 3,745 | 2,804 | 74.9 | 941 | 25.1 |
| 1991 | 299,057 | 173,925 | 58.2 | 125,132 | 41.8 | 20,595 | 14,882 | 72.3 | 5,713 | 27.7 | 3,872 | 2,862 | 73.9 | 1,010 | 26.1 |
| 1992 | 312,478 | 179,486 | 57.4 | 132,992 | 42.6 | 21,514 | 15,336 | 71.3 | 6,178 | 28.7 | 3,660 | 2,727 | 74.5 | 933 | 25.5 |
| 1993 | 318,851 | 180,001 | 56.5 | 138,850 | 43.5 | 22,219 | 15,724 | 70.8 | 6,495 | 29.2 | 4,003 | 2,930 | 73.2 | 1,073 | 26.8 |
| 1994 | 318,118 | 177,057 | 55.7 | 141,061 | 44.3 | 23,181 | 16,218 | 70.0 | 6,963 | 30.0 | 4,156 | 3,022 | 72.7 | 1,134 | 27.3 |
| 1995 | 315,265 | 173,068 | 54.9 | 142,197 | 45.1 | 23,512 | 16,335 | 69.5 | 7,177 | 30.5 | 4,395 | 3,245 | 73.8 | 1,150 | 26.2 |
| 1996 | 311,957 | 168,540 | 54.0 | 143,417 | 46.0 | 23,892 | 16,585 | 69.4 | 7,307 | 30.6 | 4,426 | 3,185 | 72.0 | 1,241 | 28.0 |
| 1997 | 306,482 | 163,191 | 53.2 | 143,291 | 46.8 | 24,293 | 16,745 | 68.9 | 7,548 | 31.1 | 4,408 | 3,151 | 71.5 | 1,257 | 28.5 |
| 1998 | 304,818 | 160,379 | 52.6 | 144,439 | 47.4 | 25,023 | 17,080 | 68.3 | 7,943 | 31.7 | 4,497 | 3,182 | 70.8 | 1,315 | 29.2 |
| 1999 | 309,491 | 160,982 | 52.0 | 148,509 | 48.0 | 25,784 | 17,545 | 68.0 | 8,239 | 32.0 | 4,761 | 3,312 | 69.6 | 1,449 | 30.4 |
| 2000 | 309,424 | 159,691 | 51.6 | 149,733 | 48.4 | 26,911 | 18,456 | 68.6 | 8,455 | 31.4 | 4,931 | 3,447 | 69.9 | 1,484 | 30.1 |
| 2001 | 319,736 | 164,574 | 51.5 | 155,162 | 48.5 | 27,044 | 18,275 | 67.6 | 8,769 | 32.4 | 4,707 | 3,150 | 66.9 | 1,557 | 33.1 |
| 2002 | 335,166 | 171,516 | 51.2 | 163,650 | 48.8 | 28,371 | 18,844 | 66.4 | 9,527 | 33.6 | 5,019 | 3,369 | 67.1 | 1,650 | 32.9 |
| 2003 | 347,268 | 176,458 | 50.8 | 170,810 | 49.2 | 29,856 | 19,675 | 65.9 | 10,181 | 34.1 | 5,493 | 3,691 | 67.2 | 1,802 | 32.8 |
| 2004 | 352,307 | 177,714 | 50.4 | 174,593 | 49.6 | 30,116 | 19,835 | 65.9 | 10,281 | 34.1 | 5,880 | 3,877 | 65.9 | 2,003 | 34.1 |
| 2005 | 357,710 | 178,297 | 49.8 | 179,413 | 50.2 | 30,290 | 19,791 | 65.3 | 10,499 | 34.7 | 6,069 | 4,042 | 66.6 | 2,027 | 33.4 |
| 2006 | 363,246 | 180,084 | 49.6 | 183,162 | 50.4 | 30,245 | 19,542 | 64.6 | 10,703 | 35.4 | 6,658 | 4,460 | 67.0 | 2,198 | 33.0 |
| 2007old ^a | 372,120 | 183,799 | 49.4 | 188,321 | 50.6 | 30,986 | 20,339 | 65.6 | 10,647 | 34.4 | 6,517 | 4,327 | 66.4 | 2,190 | 33.6 |
| 2007new ^a | 384,523 | 187,722 | 48.8 | 196,801 | 51.2 | 31,281 | 20,532 | 65.6 | 10,749 | 34.4 | 6,526 | 4,332 | 66.4 | 2,194 | 33.6 |
| 2008 | 391,419 | 190,959 | 48.8 | 200,460 | 51.2 | 32,741 | 20,760 | 63.4 | 11,981 | 36.6 | 8,669 | 5,497 | 63.4 | 3,172 | 36.6 |
| 2009 | 401,008 | 196,577 | 49.0 | 204,431 | 51.0 | 34,388 | 21,616 | 62.9 | 12,772 | 37.1 | 8,698 | 5,421 | 62.3 | 3,277 | 37.7 |
| 2010 ^{b,c} | 407,291 | 201,263 | 49.4 | 206,028 | 50.6 | 37,351 | 23,052 | 61.7 | 14,299 | 38.3 | 12,751 | 7,819 | 61.3 | 4,932 | 38.7 |
| 2011 ^c | 414,440 | 205,449 | 49.6 | 208,991 | 50.4 | 37,335 | 23,027 | 61.7 | 14,308 | 38.3 | 13,363 | 8,245 | 61.7 | 5,118 | 38.3 |
| 2012 | 413,033 | 205,036 | 49.6 | 207,997 | 50.4 | 36,738 | 22,662 | 61.7 | 14,076 | 38.3 | 13,264 | 8,167 | 61.6 | 5,097 | 38.4 |
| 2013 | 417,251 | 208,262 | 49.9 | 208,989 | 50.1 | 36,289 | 22,340 | 61.6 | 13,949 | 38.4 | 13,932 | 8,534 | 61.3 | 5,398 | 38.7 |
| 2014old ^d | 425,148 | 215,884 | 50.8 | 209,264 | 49.2 | 36,184 | 22,270 | 61.5 | 13,914 | 38.5 | 14,283 | 8,777 | 61.5 | 5,506 | 38.5 |
| 2014new ^d | 437,395 | 223,592 | 51.1 | 213,803 | 48.9 | 37,316 | 22,953 | 61.5 | 14,363 | 38.5 | 14,674 | 8,977 | 61.2 | 5,697 | 38.8 |
| 2015 | 448,654 | 229,578 | 51.2 | 219,076 | 48.8 | 37,639 | 23,011 | 61.1 | 14,628 | 38.9 | 15,667 | 9,568 | 61.1 | 6,099 | 38.9 |
| 2016 | 452,046 | 231,826 | 51.3 | 220,220 | 48.7 | 37,941 | 23,225 | 61.2 | 14,716 | 38.8 | 15,940 | 9,681 | 60.7 | 6,259 | 39.3 |
| 2017old ^e | 450,343 | 227,482 | 50.5 | 222,861 | 49.5 | 37,816 | 22,991 | 60.8 | 14,825 | 39.2 | na | na | na | na | na |
| 2017new ^e | 415,568 | 214,568 | 51.6 | 201,000 | 48.4 | 38,241 | 23,262 | 60.8 | 14,979 | 39.2 | 17,268 | 10,346 | 59.9 | 6,922 | 40.1 |
| 2018 | 432,255 | 219,433 | 50.8 | 212,822 | 49.2 | 37,564 | 22,749 | 60.6 | 14,815 | 39.4 | 18,278 | 11,026 | 60.3 | 7,252 | 39.7 |
| 2019 | 453,691 | 226,904 | 50.0 | 226,787 | 50.0 | 38,503 | 23,069 | 59.9 | 15,434 | 40.1 | 18,819 | 11,253 | 59.8 | 7,566 | 40.2 |
| 2020 | 464,646 | 226,999 | 48.9 | 237,647 | 51.1 | 38,741 | 22,764 | 58.8 | 15,977 | 41.2 | 18,212 | 10,639 | 58.4 | 7,573 | 41.6 |

TABLE 1-2b

Sex of graduate students, postdoctoral appointees, and doctorate-holding nonfaculty researchers in science: 1977–2021

(Number and percent)

| Year | Graduate students | | | | | Postdoctoral appointees | | | | | Doctorate-holding nonfaculty researchers | | | | |
|----------------------|-------------------|---------|---------|---------|---------|-------------------------|--------|---------|--------|---------|--|--------|---------|--------|---------|
| | Total | Male | | Female | | Total | Male | | Female | | Total | Male | | Female | |
| | | Number | Percent | Number | Percent | | Number | Percent | Number | Percent | | Number | Percent | Number | Percent |
| 2021 | 509,784 | 246,910 | 48.4 | 262,874 | 51.6 | 37,189 | 21,594 | 58.1 | 15,595 | 41.9 | 18,728 | 10,964 | 58.5 | 7,764 | 41.5 |
| Master's students | | | | | | | | | | | | | | | |
| 2017new ^e | 229,169 | 115,056 | 50.2 | 114,113 | 49.8 | na | na | na | na | na | na | na | na | na | na |
| 2018 | 241,327 | 118,413 | 49.1 | 122,914 | 50.9 | na | na | na | na | na | na | na | na | na | na |
| 2019 | 259,795 | 125,525 | 48.3 | 134,270 | 51.7 | na | na | na | na | na | na | na | na | na | na |
| 2020 | 267,904 | 125,619 | 46.9 | 142,285 | 53.1 | na | na | na | na | na | na | na | na | na | na |
| 2021 | 305,796 | 143,605 | 47.0 | 162,191 | 53.0 | na | na | na | na | na | na | na | na | na | na |
| Doctoral students | | | | | | | | | | | | | | | |
| 2017new ^e | 186,399 | 99,512 | 53.4 | 86,887 | 46.6 | na | na | na | na | na | na | na | na | na | na |
| 2018 | 190,928 | 101,020 | 52.9 | 89,908 | 47.1 | na | na | na | na | na | na | na | na | na | na |
| 2019 | 193,896 | 101,379 | 52.3 | 92,517 | 47.7 | na | na | na | na | na | na | na | na | na | na |
| 2020 | 196,742 | 101,380 | 51.5 | 95,362 | 48.5 | na | na | na | na | na | na | na | na | na | na |
| 2021 | 203,988 | 103,305 | 50.6 | 100,683 | 49.4 | na | na | na | na | na | na | na | na | na | na |

na = not applicable; master's and doctoral students were not reported separately until 2017, and data on postdoctoral appointees (postdocs) and nonfaculty researchers (NFRs) were not collected until 1979. NA = not available; master's-granting institutions were not surveyed in 1978, and the survey of doctorate-granting institutions did not collect data by sex.

^a In 2007, eligible fields were reclassified, newly eligible fields were added, and the survey was redesigned to improve coverage and coding of eligible units. "2007new" presents data as collected in 2007; "2007old" shows data as they would have been collected in prior years. See appendix A in <https://www.nsf.gov/statistics/nsf10307/> for more detail.

^b In 2010, the postdoc and NFR section of the survey was expanded and significant effort was made to ensure that appropriate personnel were providing postdoc and NFR data. Thus, it is unclear how much of the increases in 2010 and later years over 2009 and prior years are from growth in postdocs and NFRs and how much are from improved data collection. More information on the changes to the data collection is available at <https://www.nsf.gov/statistics/infbrief/nsf13334/>.

^c Postdoc and NFR data from 2010 and 2011 were reimputed following the 2012 data collection; these data supersede those contained in previous reports.

^d In 2014, the survey frame was updated following a comprehensive frame evaluation study. The study identified potentially eligible but not previously surveyed academic institutions in the United States with master's- or doctorate-granting programs in science, engineering, or health. A total of 151 newly eligible institutions were added, and two private for-profit institutions offering mostly practitioner-based graduate degrees were determined to be ineligible. For more information, see <https://www.nsf.gov/statistics/2016/nsf16314>.

^e As part of 2017 Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS) redesign, the GSS taxonomy was changed to align with the National Center for Science and Engineering Statistics (NCSES) Taxonomy of Disciplines (TOD), thus increasing comparability with other NCSES surveys. As a result, some eligible fields were reclassified and a small number of fields became fully or partially ineligible. Comparisons to prior years should use the 2017old estimates and should be limited to broad areas of study—detailed field comparisons are not recommended. Due to changes in reporting, NFR estimates for 2017old are not available.

Note(s):

Percentages may not add to total because of rounding.

Source(s):

National Center for Science and Engineering Statistics, Survey of Graduate Students and Postdoctorates in Science and Engineering.