

## APPENDIX TABLE 2-38

**S&E doctoral degrees in the United States and selected European countries or economies, by field: 2000–14**

(Number)

| Country or economy and field                                    | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Austria                                                         | 1,790 | 1,871 | 2,125 | 2,197 | 2,445 | 2,228 | 2,158 | 2,085 | 2,205 | 2,284 | 2,500 | 2,359 | 2,412 | 2,228 | 2,207 |
| All S&E                                                         | 987   | 1,059 | 1,152 | 1,108 | 1,193 | 1,225 | NA    | 537   | 1,249 | 1,322 | 1,386 | 1,369 | 1,417 | 1,330 | 1,305 |
| Physical and biological sciences and mathematics and statistics | 359   | 384   | 431   | 377   | 373   | 418   | NA    | NA    | 397   | 461   | 463   | 454   | 440   | 493   | 416   |
| Computer sciences                                               | 53    | 21    | 67    | 63    | 71    | 74    | NA    | NA    | 93    | 99    | 129   | 96    | 139   | 111   | 114   |
| Agricultural sciences                                           | 85    | 92    | 135   | 135   | 97    | 101   | NA    | 103   | 115   | 103   | 96    | 93    | 80    | 71    | 56    |
| Social and behavioral sciences                                  | 149   | 162   | 171   | 210   | 250   | 224   | NA    | NA    | 206   | 230   | 235   | 262   | 271   | 223   | 209   |
| Engineering                                                     | 341   | 400   | 348   | 323   | 402   | 408   | NA    | 434   | 438   | 429   | 463   | 464   | 487   | 433   | 512   |
| Belgium                                                         | 1,147 | 1,317 | 1,413 | NA    | 1,479 | 1,608 | 1,718 | 1,716 | 1,880 | 1,902 | 2,126 | 2,165 | 2,368 | 2,464 | 2,581 |
| All S&E                                                         | 808   | 898   | 919   | NA    | NA    | NA    | 1,094 | 1,044 | 1,186 | 951   | 1,281 | 1,313 | 1,431 | 1,546 | 1,575 |
| Physical and biological sciences and mathematics and statistics | 479   | 519   | 468   | NA    | NA    | NA    | 493   | 439   | 651   | 312   | 422   | 438   | 464   | 455   | 504   |
| Computer sciences                                               | *     | 2     | 80    | NA    | NA    | NA    | 66    | 112   | 82    | 11    | 54    | 58    | 55    | 67    | 64    |
| Agricultural sciences                                           | 66    | 77    | 76    | NA    | NA    | NA    | 89    | 84    | 109   | 109   | 111   | 105   | 115   | 133   | 135   |
| Social and behavioral sciences                                  | 109   | 124   | 120   | NA    | NA    | NA    | 157   | 130   | 153   | 118   | 193   | 205   | 238   | 264   | 266   |
| Engineering                                                     | 154   | 176   | 175   | NA    | NA    | NA    | 289   | 279   | 191   | 401   | 501   | 507   | 559   | 627   | 606   |
| Bulgaria                                                        | 399   | 376   | 385   | 401   | 392   | 528   | NA    | 583   | 601   | 636   | 596   | 638   | 979   | 1,202 | 1,363 |
| All S&E                                                         | 164   | 163   | 166   | 232   | 181   | 237   | NA    | 273   | 333   | 364   | 314   | 365   | 483   | 567   | 706   |



| Country or economy and field                                    | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011  | 2012  | 2013 | 2014 |
|-----------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|------|------|
| Physical and biological sciences and mathematics and statistics | 86   | 68   | 63   | 89   | 77   | 89   | NA   | 86   | 112  | 126  | 84   | 104   | 131   | 140  | 174  |
| Computer sciences                                               | *    | *    | *    | *    | *    | *    | NA   | *    | 8    | 5    | 7    | 15    | 24    | 25   | 33   |
| Agricultural sciences                                           | 22   | 27   | 28   | 28   | 11   | 36   | NA   | 37   | 26   | 26   | 20   | 24    | 32    | 37   | 47   |
| Social and behavioral sciences                                  | 12   | 8    | 14   | 61   | 12   | 22   | NA   | 19   | 77   | 74   | 66   | 93    | 132   | 135  | 177  |
| Engineering                                                     | 44   | 60   | 61   | 54   | 81   | 90   | NA   | 131  | 110  | 133  | 137  | 129   | 164   | 230  | 275  |
| Croatia                                                         | 338  | 280  | 255  | 314  | NA   | 385  | 439  | 466  | 494  | 572  | 838  | 1,072 | 1,338 | NA   | 855  |
| All S&E                                                         | 208  | 172  | 154  | 182  | NA   | 228  | 240  | 252  | 265  | 314  | 467  | NA    | 692   | NA   | 564  |
| Physical and biological sciences and mathematics and statistics | 71   | 61   | 55   | 68   | NA   | 87   | 88   | 115  | 101  | 106  | 170  | NA    | 227   | NA   | 155  |
| Computer sciences                                               | 5    | 1    | 4    | 7    | NA   | 8    | 3    | 3    | 6    | 11   | 19   | NA    | 12    | NA   | 29   |
| Agricultural sciences                                           | 27   | 22   | 20   | 14   | NA   | 35   | 48   | 32   | 38   | 39   | 50   | NA    | 103   | NA   | 50   |
| Social and behavioral sciences                                  | 43   | 50   | 21   | 37   | NA   | 26   | 35   | 27   | 51   | 61   | 93   | NA    | 188   | NA   | 186  |
| Engineering                                                     | 62   | 38   | 54   | 56   | NA   | 72   | 66   | 75   | 69   | 97   | 135  | NA    | 162   | NA   | 144  |
| Cyprus                                                          | NA   | NA   | 3    | 2    | 13   | 5    | 29   | 16   | 28   | 30   | 30   | 43    | 48    | 52   | 60   |
| All S&E                                                         | NA   | NA   | 1    | 1    | 8    | NA   | 18   | 8    | 18   | 24   | 17   | 31    | 34    | 35   | 37   |
| Physical and biological sciences and mathematics and statistics | NA   | NA   | *    | *    | 6    | NA   | 14   | 6    | 15   | 10   | 6    | 12    | 14    | 13   | 14   |
| Computer sciences                                               | NA   | NA   | 1    | *    | *    | NA   | 2    | 1    | *    | 5    | 6    | 8     | 5     | 4    | 4    |
| Agricultural sciences                                           | NA   | NA   | *    | *    | *    | NA   | *    | *    | *    | *    | *    | *     | *     | 1    | *    |
| Social and behavioral sciences                                  | NA   | NA   | *    | 1    | 2    | NA   | 2    | 1    | 3    | 6    | 2    | 3     | 7     | 4    | 6    |
| Engineering                                                     | NA   | NA   | *    | *    | *    | NA   | *    | *    | *    | 3    | 3    | 8     | 8     | 13   | 13   |



| Country or economy and field                                    | 2000 | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-----------------------------------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Czech Republic                                                  | 895  | 1,066 | 1,327 | 1,546 | 1,732 | 1,905 | 2,023 | 2,272 | 2,382 | 2,391 | 2,228 | 2,462 | 2,683 | 2,433 | 2,484 |
| All S&E                                                         | 619  | 727   | 883   | 1,055 | 1,118 | 1,212 | 1,312 | 1,414 | 1,576 | 1,533 | 1,412 | 1,564 | 1,672 | 1,515 | 1,551 |
| Physical and biological sciences and mathematics and statistics | 216  | 228   | 305   | 372   | 360   | 423   | 433   | 428   | 580   | 573   | 586   | 623   | 621   | 585   | 613   |
| Computer sciences                                               | 110  | 121   | 138   | 29    | 50    | 59    | 50    | 62    | 69    | 80    | 75    | 81    | 97    | 101   | 79    |
| Agricultural sciences                                           | 57   | 67    | 100   | 109   | 112   | 132   | 136   | 170   | 133   | 113   | 131   | 165   | 183   | 150   | 150   |
| Social and behavioral sciences                                  | 51   | 100   | 104   | 129   | 95    | 83    | 126   | 130   | 174   | 151   | 132   | 188   | 187   | 166   | 153   |
| Engineering                                                     | 185  | 211   | 236   | 416   | 501   | 515   | 567   | 624   | 620   | 616   | 488   | 507   | 584   | 513   | 556   |
| Denmark                                                         | NA   | 795   | 732   | 859   | 788   | 955   | 910   | 973   | 1,102 | 1,188 | 1,388 | 1,503 | 1,552 | 1,888 | 2,126 |
| All S&E                                                         | NA   | 530   | 394   | 602   | 620   | 583   | 572   | 570   | 653   | 704   | 802   | 944   | 968   | 1,224 | 1,289 |
| Physical and biological sciences and mathematics and statistics | NA   | 190   | 177   | 131   | 100   | 210   | 166   | 150   | 205   | 212   | 261   | 258   | 276   | 335   | 373   |
| Computer sciences                                               | NA   | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     | *     |
| Agricultural sciences                                           | NA   | 58    | 83    | 84    | 89    | 78    | 67    | 84    | 93    | 98    | 74    | 128   | 136   | 210   | 230   |
| Social and behavioral sciences                                  | NA   | 75    | 63    | 51    | 55    | 96    | 108   | 95    | 114   | 134   | 134   | 179   | 170   | 197   | 213   |
| Engineering                                                     | NA   | 207   | 71    | 336   | 376   | 199   | 231   | 241   | 241   | 260   | 333   | 379   | 386   | 482   | 473   |
| Estonia                                                         | 117  | 149   | 188   | 226   | 209   | 131   | 143   | 153   | 161   | 160   | 175   | 250   | 190   | 233   | 213   |
| All S&E                                                         | 52   | 38    | 53    | 70    | 76    | 79    | 87    | 87    | 110   | 102   | 112   | 167   | 142   | 153   | 151   |
| Physical and biological sciences and mathematics and statistics | 31   | 21    | 27    | 31    | 47    | 33    | 42    | 49    | 47    | 48    | 56    | 74    | 62    | 68    | 71    |
| Computer sciences                                               | 5    | 1     | 4     | 1     | 3     | 5     | 5     | 6     | 8     | 7     | 12    | 17    | 14    | 13    | 9     |
| Agricultural sciences                                           | 6    | 2     | 5     | 8     | 5     | 7     | 5     | 5     | 6     | 6     | 6     | 6     | 9     | 8     | 12    |



| Country or economy and field                                    | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   |
|-----------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Social and behavioral sciences                                  | 4      | 5      | 8      | 11     | 4      | 8      | 14     | 8      | 12     | 12     | 11     | 36     | 22     | 23     | 23     |
| Engineering                                                     | 6      | 9      | 9      | 19     | 17     | 26     | 21     | 19     | 37     | 29     | 27     | 34     | 35     | 41     | 36     |
| Finland                                                         | 1,797  | 1,797  | 1,738  | 1,759  | 1,861  | NA     | 1,846  | 1,925  | NA     | 1,943  | 1,748  | 1,850  | 1,830  | 1,899  | 2,013  |
| All S&E                                                         | 955    | 969    | 966    | NA     | NA     | NA     | NA     | 707    | NA     | 1,079  | 984    | 1,037  | 1,006  | 1,076  | 1,121  |
| Physical and biological sciences and mathematics and statistics | 300    | 281    | 294    | NA     | NA     | NA     | NA     | NA     | NA     | 316    | 276    | 295    | 276    | 274    | 306    |
| Computer sciences                                               | 45     | 41     | 51     | NA     | NA     | NA     | NA     | NA     | NA     | 52     | 50     | 67     | 48     | 61     | 70     |
| Agricultural sciences                                           | 51     | 41     | 40     | NA     | NA     | NA     | NA     | 42     | NA     | 44     | 38     | 58     | 47     | 55     | 62     |
| Social and behavioral sciences                                  | 222    | 221    | 204    | NA     | NA     | NA     | NA     | 231    | NA     | 235    | 217    | 234    | 220    | 230    | 224    |
| Engineering                                                     | 337    | 385    | 377    | NA     | NA     | NA     | NA     | 434    | NA     | 432    | 403    | 383    | 415    | 456    | 459    |
| France                                                          | 9,903  | NA     | 10,404 | 8,420  | 9,578  | 9,818  | 10,650 | 11,309 | 11,941 | 12,595 | NA     | NA     | 13,188 | 13,419 | 13,729 |
| All S&E                                                         | 6,653  | NA     | 6,971  | 5,651  | 6,867  | 26     | 7,408  | 7,835  | 8,356  | 8,905  | NA     | NA     | 9,466  | 9,731  | 10,023 |
| Physical and biological sciences and mathematics and statistics | 4,281  | NA     | 4,494  | 3,638  | 3,984  | NA     | 4,521  | 4,765  | 4,988  | 5,215  | NA     | NA     | 5,488  | 5,805  | 5,731  |
| Computer sciences                                               | 478    | NA     | 494    | 404    | 449    | NA     | 610    | 605    | 642    | 686    | NA     | NA     | 697    | 698    | 736    |
| Agricultural sciences                                           | 22     | NA     | 23     | 18     | 35     | 26     | 13     | 18     | 13     | 13     | NA     | NA     | *      | *      | *      |
| Social and behavioral sciences                                  | 939    | NA     | 989    | 800    | 1,140  | NA     | 1,086  | 1,173  | 1,334  | 1,315  | NA     | NA     | 1,453  | 1,433  | 1,684  |
| Engineering                                                     | 933    | NA     | 971    | 791    | 1,259  | NA     | 1,178  | 1,274  | 1,379  | 1,676  | NA     | NA     | 1,828  | 1,795  | 1,872  |
| Germany                                                         | 25,780 | 24,796 | 23,838 | 23,043 | 23,138 | 25,952 | 24,946 | 24,439 | 25,190 | 25,084 | 25,629 | 26,981 | 26,807 | 27,707 | 28,147 |
| All S&E                                                         | 11,927 | 11,292 | 10,661 | 10,376 | 10,146 | 11,651 | 10,928 | 11,146 | 11,930 | 11,755 | 12,632 | 13,338 | 13,700 | 14,646 | 14,625 |
| Physical and biological sciences and mathematics and statistics | 6,937  | 6,361  | 5,863  | 5,701  | 5,536  | 6,171  | 5,789  | 5,938  | 6,255  | 6,328  | 6,816  | 7,127  | 7,385  | 8,153  | 7,975  |



| Country or economy and field                                    | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Computer sciences                                               | 441   | 470   | 417   | 387   | 489   | 520   | 566   | 593   | 699   | 738   | 838   | 906   | 886   | 941   | 994   |
| Agricultural sciences                                           | 917   | 883   | 878   | 895   | 929   | 1,106 | 934   | 923   | 878   | 856   | 880   | 902   | 925   | 803   | 834   |
| Social and behavioral sciences                                  | 1,151 | 1,224 | 1,089 | 1,144 | 1,046 | 1,448 | 1,395 | 1,393 | 1,514 | 1,475 | 1,528 | 1,562 | 1,658 | 1,689 | 1,637 |
| Engineering                                                     | 2,481 | 2,354 | 2,414 | 2,249 | 2,146 | 2,406 | 2,244 | 2,299 | 2,584 | 2,358 | 2,570 | 2,841 | 2,846 | 3,060 | 3,185 |
| Greece                                                          | NA    | 875   | 1,154 | NA    | 1,295 | 1,248 | 1,556 | 2,436 | 1,406 | NA    | 1,892 | 1,696 | 1,734 | 1,527 | 1,601 |
| All S&E                                                         | NA    | NA    | NA    | NA    | 927   | 926   | NA    | 667   | 705   | NA    | 1,070 | 900   | 745   | 834   | 868   |
| Physical and biological sciences and mathematics and statistics | NA    | NA    | NA    | NA    | 595   | 492   | NA    | 267   | 213   | NA    | 278   | 244   | 221   | 221   | 218   |
| Computer sciences                                               | NA    | NA    | NA    | NA    | 116   | 27    | NA    | 20    | 74    | NA    | 133   | 85    | 70    | 95    | 65    |
| Agricultural sciences                                           | NA    | NA    | NA    | NA    | 39    | 89    | NA    | 63    | 93    | NA    | 159   | 80    | 79    | 88    | 83    |
| Social and behavioral sciences                                  | NA    | NA    | NA    | NA    | 51    | 59    | NA    | 85    | 86    | NA    | 139   | 137   | 95    | 149   | 151   |
| Engineering                                                     | NA    | NA    | NA    | NA    | 126   | 259   | NA    | 232   | 239   | NA    | 361   | 354   | 280   | 281   | 351   |
| Hungary                                                         | 717   | 793   | 983   | 1,067 | 893   | 1,069 | 1,012 | 1,059 | 1,141 | 1,376 | 1,275 | 1,234 | 1,242 | 1,069 | 1,154 |
| All S&E                                                         | 429   | 313   | 380   | 582   | 349   | 348   | 401   | NA    | 420   | 603   | 643   | 533   | 569   | 604   | 659   |
| Physical and biological sciences and mathematics and statistics | 190   | 137   | 151   | 198   | 162   | 149   | 170   | NA    | 188   | 260   | 345   | 254   | 257   | 249   | 236   |
| Computer sciences                                               | 4     | 5     | 14    | 10    | 9     | 8     | 11    | NA    | 39    | 25    | 51    | 31    | 36    | 52    | 66    |
| Agricultural sciences                                           | 41    | 55    | 61    | 100   | 66    | 66    | 76    | NA    | 73    | 91    | 84    | 83    | 97    | 57    | 67    |
| Social and behavioral sciences                                  | 83    | 66    | 70    | 82    | 76    | 79    | 92    | NA    | 90    | 97    | 63    | 93    | 80    | 150   | 162   |
| Engineering                                                     | 111   | 50    | 84    | 192   | 36    | 46    | 52    | NA    | 30    | 130   | 100   | 72    | 99    | 96    | 128   |
| Ireland                                                         | 501   | 572   | 520   | 668   | 683   | 810   | 979   | 1,035 | 1,090 | 1,211 | 1,222 | NA    | 1,447 | 1,532 | 1,738 |



| Country or economy and field                                    | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006   | 2007   | 2008   | 2009 | 2010 | 2011   | 2012   | 2013   | 2014   |
|-----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|------|------|--------|--------|--------|--------|
| All S&E                                                         | 328   | 416   | 354   | 441   | 423   | 192   | 23     | 23     | 30     | 771  | 714  | NA     | 846    | 849    | 833    |
| Physical and biological sciences and mathematics and statistics | 221   | 274   | 229   | 290   | 237   | NA    | NA     | NA     | NA     | 381  | 323  | NA     | 384    | 385    | 423    |
| Computer sciences                                               | 12    | 19    | 15    | 14    | 28    | NA    | NA     | NA     | NA     | 86   | 71   | NA     | 128    | 76     | 106    |
| Agricultural sciences                                           | 17    | 19    | 12    | 19    | 21    | 23    | 23     | 23     | 30     | 23   | 37   | NA     | 15     | 40     | 20     |
| Social and behavioral sciences                                  | 29    | 41    | 26    | 41    | 29    | 54    | NA     | NA     | NA     | 93   | 86   | NA     | 111    | 130    | 127    |
| Engineering                                                     | 49    | 63    | 72    | 77    | 108   | 115   | NA     | NA     | NA     | 188  | 197  | NA     | 208    | 218    | 157    |
| Italy                                                           | 4,044 | 3,977 | 4,456 | 6,351 | 8,346 | 8,466 | 10,188 | 10,188 | 12,591 | NA   | NA   | 11,270 | 11,458 | 10,687 | 10,678 |
| All S&E                                                         | 2,100 | 1,958 | 2,760 | 3,942 | NA    | 5,075 | 6,107  | 6,156  | NA     | NA   | NA   | 6,409  | 6,294  | 6,131  | 6,185  |
| Physical and biological sciences and mathematics and statistics | 821   | 818   | 1,274 | 1,867 | NA    | 2,271 | 2,531  | 2,484  | NA     | NA   | NA   | 2,531  | 2,569  | 2,502  | 2,571  |
| Computer sciences                                               | *     | *     | 33    | 64    | NA    | 66    | 149    | 117    | NA     | NA   | NA   | 140    | 124    | 135    | 134    |
| Agricultural sciences                                           | 350   | 342   | 306   | 384   | NA    | 496   | 669    | 645    | NA     | NA   | NA   | 684    | 688    | 650    | 619    |
| Social and behavioral sciences                                  | 121   | 60    | 294   | 450   | NA    | 703   | 799    | 914    | NA     | NA   | NA   | 971    | 877    | 810    | 808    |
| Engineering                                                     | 808   | 738   | 853   | 1,177 | NA    | 1,539 | 1,959  | 1,996  | NA     | NA   | NA   | 2,083  | 2,036  | 2,034  | 2,053  |
| Latvia                                                          | 40    | 37    | 52    | 64    | 84    | 114   | 106    | 146    | 139    | 174  | 132  | 297    | 267    | 315    | 264    |
| All S&E                                                         | 27    | 29    | 29    | 34    | 48    | 76    | 53     | 71     | 72     | 105  | 78   | 157    | 158    | 173    | 164    |
| Physical and biological sciences and mathematics and statistics | 4     | 16    | 7     | 4     | 10    | 19    | 9      | 23     | 18     | 36   | 16   | 56     | 38     | 51     | 34     |
| Computer sciences                                               | 6     | 2     | *     | 3     | 5     | 1     | 5      | 9      | 8      | 10   | 4    | 10     | 15     | 17     | 12     |
| Agricultural sciences                                           | *     | 2     | 4     | 1     | 6     | 7     | 2      | 5      | 4      | 5    | 10   | 12     | 5      | 10     | 9      |
| Social and behavioral sciences                                  | 1     | 2     | 7     | 10    | 14    | 10    | 14     | 5      | 12     | 19   | 18   | 27     | 40     | 30     | 37     |



| Country or economy and field                                    | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|-----------------------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Engineering                                                     | 16   | 7    | 11   | 16   | 13   | 39   | 23   | 29   | 30   | 35   | 30   | 52   | 60   | 65   | 72   |
| Lithuania                                                       | 442  | 261  | 387  | 252  | 301  | 321  | 326  | 367  | 369  | 397  | 406  | 353  | 398  | 441  | 411  |
| All S&E                                                         | 259  | 155  | 180  | 113  | 177  | 169  | 210  | 237  | 233  | 228  | 254  | 219  | 266  | 281  | 262  |
| Physical and biological sciences and mathematics and statistics | 58   | 40   | 51   | 34   | 68   | 41   | 81   | 71   | 75   | 60   | 75   | 63   | 72   | 64   | 84   |
| Computer sciences                                               | 6    | 2    | 6    | 2    | 2    | 9    | 5    | 16   | 5    | 5    | 11   | 11   | 4    | 13   | 11   |
| Agricultural sciences                                           | 13   | 4    | 11   | 2    | 11   | 21   | 12   | 19   | 32   | 22   | 16   | 31   | 29   | 21   | 23   |
| Social and behavioral sciences                                  | 85   | 49   | 54   | 34   | 34   | 42   | 49   | 59   | 50   | 56   | 71   | 53   | 71   | 62   | 47   |
| Engineering                                                     | 97   | 60   | 58   | 41   | 62   | 56   | 63   | 72   | 71   | 85   | 81   | 61   | 90   | 121  | 97   |
| Luxembourg                                                      | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 8    | NA   | NA   | NA   | 57   | 64   | 82   |
| All S&E                                                         | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 41   | 45   | 55   |
| Physical and biological sciences and mathematics and statistics | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 17   | 12   | 17   |
| Computer sciences                                               | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 12   | 13   | 16   |
| Agricultural sciences                                           | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | *    | *    | *    |
| Social and behavioral sciences                                  | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 5    | 11   | 14   |
| Engineering                                                     | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   | 7    | 9    | 8    |
| Malta                                                           | 6    | 6    | 11   | 8    | 5    | 5    | 4    | 9    | 11   | 19   | 12   | 19   | 13   | 24   | 22   |
| All S&E                                                         | 2    | 2    | 2    | 0    | 2    | 0    | 2    | 4    | 5    | 3    | 6    | 7    | NA   | 12   | 13   |
| Physical and biological sciences and mathematics and statistics | 2    | *    | *    | *    | *    | *    | 1    | 1    | 4    | 1    | 4    | 3    | NA   | 2    | 4    |
| Computer sciences                                               | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | 1    | NA   | 1    | *    |



| Country or economy and field                                    | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Agricultural sciences                                           | *     | 1     | 1     | *     | 2     | *     | *     | *     | *     | *     | *     | *     | NA    | *     | *     |
| Social and behavioral sciences                                  | *     | *     | *     | *     | *     | *     | *     | 1     | *     | *     | 1     | *     | NA    | 3     | *     |
| Engineering                                                     | *     | 1     | 1     | *     | *     | *     | 1     | 2     | 1     | 2     | 1     | 3     | NA    | 6     | 9     |
| Netherlands                                                     | 2,489 | 2,533 | 2,556 | 2,584 | 2,679 | 2,879 | 2,993 | 3,160 | 3,214 | 3,301 | 3,736 | 3,715 | 4,040 | 4,321 | 4,528 |
| All S&E                                                         | 1,478 | 1,524 | 1,523 | 1,019 | 1,552 | 1,286 | 785   | 815   | 852   | 823   | 237   | 949   | 1,232 | 280   | 340   |
| Physical and biological sciences and mathematics and statistics | 446   | 530   | 489   | NA    | 499   | 508   | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    |
| Computer sciences                                               | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    |
| Agricultural sciences                                           | 209   | 229   | 264   | 219   | 259   | 221   | 250   | 266   | 289   | 222   | 237   | 230   | 213   | 280   | 340   |
| Social and behavioral sciences                                  | 427   | 375   | 326   | 347   | 311   | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    |
| Engineering                                                     | 396   | 390   | 444   | 453   | 483   | 557   | 535   | 549   | 563   | 601   | NA    | 719   | 1,019 | NA    | NA    |
| Poland                                                          | NA    | 4,400 | 4,400 | 5,450 | 5,460 | 5,722 | 5,917 | 6,072 | 5,616 | 5,068 | 3,317 | 3,055 | 3,590 | 3,719 | 3,376 |
| All S&E                                                         | NA    | NA    | NA    | NA    | NA    | 541   | 581   | 457   | 397   | 293   | NA    | NA    | NA    | NA    | 1,811 |
| Physical and biological sciences and mathematics and statistics | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | 734   |
| Computer sciences                                               | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | 10    |
| Agricultural sciences                                           | NA    | NA    | NA    | NA    | NA    | 541   | 581   | 457   | 397   | 293   | NA    | NA    | NA    | NA    | 227   |
| Social and behavioral sciences                                  | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | 279   |
| Engineering                                                     | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | 561   |
| Portugal                                                        | 1,586 | NA    | 2,991 | 3,723 | 3,963 | 4,150 | 5,342 | 6,038 | 4,863 | 4,376 | 2,927 | 2,314 | 2,909 | 4,155 | 4,008 |
| All S&E                                                         | 955   | NA    | 1,678 | 1,998 | 2,431 | 2,659 | 3,287 | 3,518 | 3,419 | 2,702 | 1,443 | 1,332 | 1,777 | 2,491 | 2,328 |





| Country or economy and field                                    | 2000 | 2001 | 2002 | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-----------------------------------------------------------------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Physical and biological sciences and mathematics and statistics | 284  | NA   | 477  | 570   | 822   | 919   | 1,192 | 1,305 | 1,093 | 791   | 404   | 415   | 658   | 820   | 717   |
| Computer sciences                                               | 51   | NA   | 45   | 75    | 211   | 239   | 321   | 283   | 342   | 253   | 45    | 34    | 69    | 111   | 157   |
| Agricultural sciences                                           | 38   | NA   | 71   | 79    | 68    | 71    | 102   | 86    | 85    | 54    | 45    | 36    | 31    | 49    | 50    |
| Social and behavioral sciences                                  | 244  | NA   | 505  | 629   | 636   | 703   | 824   | 961   | 859   | 815   | 396   | 313   | 403   | 593   | 535   |
| Engineering                                                     | 338  | NA   | 580  | 645   | 694   | 727   | 848   | 883   | 1,040 | 789   | 553   | 534   | 616   | 918   | 869   |
| Romania                                                         | NA   | NA   | NA   | 2,580 | 2,680 | 3,871 | 3,180 | 2,983 | 3,271 | 4,618 | 4,764 | 5,615 | 5,158 | 5,370 | 3,777 |
| All S&E                                                         | NA   | NA   | NA   | NA    | 1,223 | 710   | 1,649 | 1,076 | 1,887 | 2,272 | 2,783 | 3,195 | 1,887 | 2,756 | 1,982 |
| Physical and biological sciences and mathematics and statistics | NA   | NA   | NA   | NA    | 151   | 214   | 281   | 284   | 462   | 241   | 420   | 521   | NA    | 517   | 350   |
| Computer sciences                                               | NA   | NA   | NA   | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    | NA    |
| Agricultural sciences                                           | NA   | NA   | NA   | NA    | 1     | 122   | 800   | 178   | 310   | 353   | 586   | 304   | 501   | 390   | 231   |
| Social and behavioral sciences                                  | NA   | NA   | NA   | NA    | 381   | 44    | 128   | 120   | 664   | 137   | 745   | 188   | NA    | 431   | 337   |
| Engineering                                                     | NA   | NA   | NA   | NA    | 690   | 330   | 440   | 494   | 451   | 1,541 | 1,032 | 2,182 | 1,386 | 1,418 | 1,064 |
| Slovakia                                                        | 446  | 532  | 734  | 2,126 | 854   | 1,022 | 1,218 | 1,371 | 1,655 | 1,937 | 2,878 | 1,672 | 2,181 | 2,119 | 2,182 |
| All S&E                                                         | 228  | 312  | 390  | 635   | 438   | 537   | 547   | 688   | 776   | 899   | 1,386 | 814   | 1,115 | 1,087 | 1,068 |
| Physical and biological sciences and mathematics and statistics | 70   | 110  | 130  | 318   | 167   | 196   | 194   | 247   | 208   | 261   | 408   | 192   | 257   | 303   | 338   |
| Computer sciences                                               | 7    | 1    | 6    | 10    | 10    | 14    | 18    | 22    | 26    | 32    | 61    | 45    | 32    | 40    | 46    |
| Agricultural sciences                                           | 37   | 39   | 52   | 56    | 42    | 50    | 47    | 76    | 74    | 83    | 131   | 70    | 81    | 56    | 68    |
| Social and behavioral sciences                                  | 14   | 31   | 33   | 101   | 64    | 67    | 67    | 81    | 112   | 113   | 210   | 97    | 179   | 149   | 148   |
| Engineering                                                     | 100  | 131  | 169  | 150   | 155   | 210   | 221   | 262   | 356   | 410   | 576   | 410   | 566   | 539   | 468   |



| Country or economy and field                                    | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013   | 2014   |
|-----------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| Slovenia                                                        | NA    | 298   | 318   | 367   | 355   | 369   | 395   | 415   | 405   | 466   | 465   | 523   | 569   | 1,165  | 1,003  |
| All S&E                                                         | NA    | 182   | 208   | 227   | 238   | 236   | 240   | 265   | 276   | 301   | 316   | 310   | 416   | 741    | 662    |
| Physical and biological sciences and mathematics and statistics | NA    | 62    | 77    | 74    | 85    | 74    | 78    | 99    | 108   | 113   | 139   | 83    | 112   | 218    | 202    |
| Computer sciences                                               | NA    | 14    | 10    | 13    | 8     | 18    | 12    | 19    | 5     | 15    | 16    | 23    | 42    | 44     | 36     |
| Agricultural sciences                                           | NA    | 13    | 10    | 22    | 8     | 11    | 14    | 17    | 23    | 14    | 17    | 22    | 56    | 110    | 110    |
| Social and behavioral sciences                                  | NA    | 36    | 28    | 27    | 47    | 41    | 46    | 50    | 47    | 43    | 36    | 54    | 103   | 141    | 133    |
| Engineering                                                     | NA    | 57    | 83    | 91    | 90    | 92    | 90    | 80    | 93    | 116   | 108   | 128   | 103   | 228    | 181    |
| Spain                                                           | 6,007 | 6,453 | 6,905 | 7,479 | 8,168 | 6,902 | 7,159 | 7,150 | 7,302 | 7,915 | 8,696 | 8,747 | 9,483 | 10,504 | 10,889 |
| All S&E                                                         | 2,945 | 3,138 | 3,398 | 3,756 | 3,990 | 3,587 | 3,717 | 3,872 | 3,917 | 4,272 | 4,932 | 5,576 | 5,812 | 6,474  | 6,708  |
| Physical and biological sciences and mathematics and statistics | 1,629 | 1,699 | 1,875 | 1,929 | 2,032 | 1,795 | 2,029 | 1,984 | 1,981 | 2,157 | 2,100 | 3,211 | 3,053 | 3,374  | 3,396  |
| Computer sciences                                               | 132   | 143   | 194   | 202   | 217   | 167   | 174   | 190   | 192   | 245   | 305   | 507   | 422   | 439    | 520    |
| Agricultural sciences                                           | 255   | 213   | 253   | 325   | 322   | 273   | 253   | 233   | 275   | 249   | 292   | 218   | 298   | 297    | 235    |
| Social and behavioral sciences                                  | 513   | 531   | 597   | 740   | 791   | 690   | 697   | 765   | 722   | 738   | 938   | 1,032 | 1,237 | 1,439  | 1,367  |
| Engineering                                                     | 416   | 552   | 479   | 560   | 628   | 662   | 564   | 700   | 747   | 883   | 1,297 | 608   | 802   | 925    | 1,190  |
| Sweden                                                          | 3,049 | 3,388 | 3,517 | 3,558 | 3,836 | 2,778 | 3,781 | 3,904 | 3,625 | 3,564 | 3,371 | 3,356 | 3,343 | 3,345  | NA     |
| All S&E                                                         | 1,883 | 2,001 | 2,124 | 2,197 | 2,415 | 1,489 | 2,355 | 2,303 | 2,175 | 2,033 | 1,955 | 1,998 | 2,014 | 2,055  | NA     |
| Physical and biological sciences and mathematics and statistics | 625   | 695   | 725   | 759   | 822   | 521   | 709   | 776   | 704   | 701   | 673   | 678   | 726   | 670    | NA     |
| Computer sciences                                               | 64    | 51    | 75    | 111   | 122   | 61    | 146   | 146   | 138   | 130   | 106   | 139   | 141   | 125    | NA     |
| Agricultural sciences                                           | 96    | 93    | 106   | 71    | 72    | 64    | 79    | 84    | 63    | 65    | 59    | 60    | 58    | 68     | NA     |



| Country or economy and field                                    | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   | 2013   | 2014   |
|-----------------------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Social and behavioral sciences                                  | 253    | 244    | 287    | 294    | 296    | 211    | 278    | 282    | 304    | 254    | 272    | 272    | 220    | 246    | NA     |
| Engineering                                                     | 845    | 918    | 931    | 962    | 1,103  | 632    | 1,143  | 1,015  | 966    | 883    | 845    | 849    | 869    | 946    | NA     |
| Switzerland                                                     | 2,733  | 2,745  | 2,800  | 2,742  | 2,952  | 3,304  | 3,381  | 3,428  | 3,426  | 3,641  | 3,800  | 3,709  | NA     | 3,631  | 3,847  |
| All S&E                                                         | 1,280  | 1,305  | 1,332  | 1,210  | 1,330  | 1,541  | 1,704  | 1,714  | 1,631  | 1,741  | 1,752  | 1,804  | NA     | 1,801  | 2,035  |
| Physical and biological sciences and mathematics and statistics | 804    | 743    | 770    | 698    | 743    | 897    | 1,004  | 984    | 912    | 950    | 922    | 978    | NA     | 987    | 1,051  |
| Computer sciences                                               | 47     | 52     | 54     | 53     | 48     | 82     | 79     | 81     | 65     | 77     | 103    | 96     | NA     | 81     | 116    |
| Agricultural sciences                                           | 114    | 118    | 135    | 127    | 159    | 151    | 164    | 139    | 153    | 147    | 170    | 128    | NA     | 106    | 105    |
| Social and behavioral sciences                                  | 74     | 75     | 103    | 121    | 154    | 189    | 208    | 215    | 234    | 252    | 275    | 321    | NA     | 294    | 317    |
| Engineering                                                     | 315    | 392    | 373    | 332    | 380    | 411    | 457    | 510    | 501    | 567    | 557    | 602    | NA     | 627    | 763    |
| United Kingdom                                                  | 11,566 | 14,145 | 14,232 | 14,936 | 15,257 | 15,778 | 16,465 | 17,545 | 16,606 | 17,651 | 18,756 | 20,076 | 20,438 | 25,896 | 25,020 |
| All S&E                                                         | 7,480  | 8,885  | 8,732  | 8,980  | 9,274  | 9,582  | 9,919  | 10,529 | 9,679  | 10,437 | 11,322 | 11,859 | 12,103 | 14,732 | 14,271 |
| Physical and biological sciences and mathematics and statistics | 3,952  | 4,812  | 4,827  | 4,875  | 4,376  | 4,450  | 4,426  | 4,609  | 4,203  | 4,390  | 4,696  | 4,965  | 4,874  | 7,454  | 7,198  |
| Computer sciences                                               | 312    | 389    | 376    | 377    | 468    | 545    | 711    | 720    | 706    | 797    | 843    | 871    | 902    | 1,038  | 925    |
| Agricultural sciences                                           | 349    | 341    | 339    | 301    | 318    | 310    | 309    | 252    | 194    | 224    | 215    | 218    | 232    | 305    | 288    |
| Social and behavioral sciences                                  | 1,020  | 1,144  | 1,159  | 1,179  | 1,886  | 2,022  | 2,074  | 2,301  | 2,212  | 2,395  | 2,787  | 2,954  | 3,091  | 2,349  | 2,339  |
| Engineering                                                     | 1,847  | 2,199  | 2,031  | 2,248  | 2,226  | 2,255  | 2,399  | 2,647  | 2,364  | 2,631  | 2,780  | 2,851  | 3,004  | 3,586  | 3,521  |
| United States                                                   | 44,947 | 45,068 | 44,311 | 46,177 | 48,560 | 52,855 | 56,309 | 60,887 | 61,716 | 61,730 | 57,405 | 59,847 | 62,071 | 64,887 | 67,591 |
| All S&E                                                         | 26,062 | 26,118 | 25,086 | 26,278 | 27,346 | 29,353 | 31,201 | 33,386 | 34,338 | 34,194 | 33,703 | 35,194 | 36,397 | 37,977 | 39,834 |
| Physical and biological sciences and mathematics and statistics | 10,249 | 9,903  | 9,559  | 10,563 | 10,881 | 11,730 | 12,509 | 13,564 | 14,221 | 14,755 | 14,752 | 15,054 | 15,499 | 15,871 | 16,599 |



| Country or economy and field   | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014   |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| Computer sciences              | 787   | 770   | 759   | 820   | 918   | 1,124 | 1,419 | 1,598 | 1,703 | 1,576 | 1,564 | 1,565 | 1,699 | 1,812 | 1,941  |
| Agricultural sciences          | 999   | 942   | 973   | 947   | 921   | 893   | 869   | 944   | 897   | 968   | 824   | 884   | 937   | 992   | 952    |
| Social and behavioral sciences | 8,531 | 8,801 | 8,431 | 8,541 | 8,591 | 8,959 | 8,877 | 9,168 | 9,332 | 8,870 | 8,611 | 9,066 | 9,187 | 9,632 | 10,012 |
| Engineering                    | 5,496 | 5,702 | 5,364 | 5,407 | 6,035 | 6,647 | 7,527 | 8,112 | 8,185 | 8,025 | 7,952 | 8,625 | 9,075 | 9,670 | 10,330 |

\* = nil or negligible; NA = not available.

#### Note(s)

Physical and biological sciences and mathematics and statistics include biological and related sciences, environmental sciences, and physical sciences. Computer sciences include information and communication technologies. Agricultural sciences include agriculture, forestry, fisheries, and veterinary sciences. Social and behavioral sciences include social and behavioral sciences, and journalism and information. Engineering includes engineering and engineering trades, manufacturing and processing, and architecture and construction. To facilitate international comparison, data for the United States reflect the most recent classification in the International Standard Classification of Education Fields of Education and Training (ISCED-F), which varies slightly from the National Science Foundation classification of fields presented in other sections of the chapter. Data for doctoral degrees use ISCED 2011 level 8. S&E data do not include health fields.

#### Source(s)

United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics database, special tabulations (2016); National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Completions Survey; National Science Foundation, National Center for Science and Engineering Statistics, Integrated Science and Engineering Resources Data System (WebCASPAR), <https://ncesdata.nsf.gov/webcaspar/>.

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