

TABLE A-16. Imputed amounts for total and federally financed higher education R&D expenditures, by R&D field: FY 2011
(Dollars in millions)

| R&D field | Total | | | Federally financed | | |
|---|--|----------------|------------------------------|--|----------------|------------------------------|
| | All separately budgeted R&D expenditures | Imputed amount | Imputed amount as % of total | All separately budgeted R&D expenditures | Imputed amount | Imputed amount as % of total |
| All R&D fields | 65,073 | 259 | 0.4 | 40,765 | 169 | 0.4 |
| All science and engineering | 61,891 | 433 | 0.7 | 39,658 | 232 | 0.6 |
| Computer sciences | 1,735 | 4 | 0.2 | 1,289 | 3 | 0.2 |
| Environmental sciences | 3,167 | 29 | 0.9 | 2,188 | 17 | 0.8 |
| Atmospheric sciences | 481 | 9 | 1.8 | 385 | 9 | 2.2 |
| Earth sciences | 1,142 | 8 | 0.7 | 799 | 7 | 0.8 |
| Oceanography | 1,049 | 16 | 1.5 | 705 | 14 | 2.0 |
| Environmental sciences, nec | 495 | 39 | 7.8 | 300 | 30 | 9.8 |
| Life sciences | 37,232 | 301 | 0.8 | 23,680 | 137 | 0.6 |
| Agricultural sciences | 3,129 | 14 | 0.4 | 1,041 | 7 | 0.6 |
| Biological sciences | 11,802 | 147 | 1.2 | 8,227 | 73 | 0.9 |
| Medical sciences | 20,356 | 112 | 0.6 | 13,200 | 38 | 0.3 |
| Life sciences, nec | 1,945 | 27 | 1.4 | 1,212 | 20 | 1.6 |
| Mathematical sciences | 636 | 2 | 0.2 | 459 | 1 | 0.3 |
| Physical sciences | 4,779 | 38 | 0.8 | 3,538 | 27 | 0.8 |
| Astronomy | 582 | 1 | 0.1 | 408 | 0 | 0.1 |
| Chemistry | 1,786 | 17 | 0.9 | 1,244 | 7 | 0.6 |
| Physics | 2,109 | 19 | 0.9 | 1,662 | 18 | 1.1 |
| Physical sciences, nec | 303 | 2 | 0.6 | 224 | 2 | 0.7 |
| Psychology | 1,119 | 5 | 0.4 | 816 | 4 | 0.4 |
| Social sciences | 2,045 | 15 | 0.7 | 947 | 10 | 1.1 |
| Economics | 389 | 4 | 1.1 | 150 | 3 | 1.9 |
| Political sciences | 364 | 1 | 0.3 | 149 | 0 | 0.1 |
| Sociology | 425 | 2 | 0.6 | 232 | 2 | 0.8 |
| Social sciences, nec | 866 | 14 | 1.6 | 417 | 12 | 2.8 |
| Sciences, nec | 1,132 | 57 | 5.0 | 463 | 7 | 1.6 |
| Engineering | 10,045 | 38 | 0.4 | 6,277 | 25 | 0.4 |
| Aeronautical/astronautical engineering | 672 | 120 | 17.8 | 503 | 98 | 19.5 |
| Bioengineering/biomedical engineering | 815 | 45 | 5.6 | 513 | 20 | 4.0 |
| Chemical engineering | 927 | 55 | 5.9 | 496 | 20 | 4.1 |
| Civil engineering | 1,211 | 75 | 6.2 | 545 | 20 | 3.6 |
| Electrical engineering | 2,209 | 306 | 13.9 | 1,514 | 251 | 16.6 |
| Mechanical engineering | 1,556 | 217 | 14.0 | 1,032 | 178 | 17.2 |
| Metallurgical/materials engineering | 738 | 22 | 3.0 | 455 | 2 | 0.5 |
| Engineering, nec | 1,918 | 341 | 17.8 | 1,219 | 284 | 23.3 |
| All non-science and engineering | 3,183 | 45 | 1.4 | 1,107 | 9 | 0.8 |
| Business and management | 395 | 4 | 1.1 | 101 | 0 | 0.2 |
| Communications, journalism, and library science | 148 | 2 | 1.1 | 53 | 1 | 2.7 |
| Education | 1,104 | 5 | 0.5 | 625 | 2 | 0.3 |
| Humanities | 296 | 1 | 0.4 | 59 | 0 | 0.5 |

TABLE A-16. Imputed amounts for total and federally financed higher education R&D expenditures, by R&D field: FY 2011
(Dollars in millions)

| R&D field | Total | | | Federally financed | | |
|----------------------------------|--|----------------|------------------------------|--|----------------|------------------------------|
| | All separately budgeted R&D expenditures | Imputed amount | Imputed amount as % of total | All separately budgeted R&D expenditures | Imputed amount | Imputed amount as % of total |
| Law | 119 | 2 | 1.7 | 27 | 0 | 1.3 |
| Social work | 191 | 1 | 0.4 | 104 | 0 | 0.1 |
| Visual and performing arts | 73 | 0 | 0.4 | 7 | 0 | 0.1 |
| Non-science and engineering, nec | 857 | 28 | 3.3 | 132 | 5 | 3.8 |

nec = not elsewhere classified.

NOTES: Imputation rate at total level is lower than imputation rates at R&D field levels because some institutions could provide totals but not R&D field details. Because of rounding, detail may not add to total. Percentages calculated on unrounded numbers.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics, Higher Education Research and Development Survey, FY 2011.