TABLE 92

**Federal obligations for basic research, by detailed field of science and engineering: FYs 2003–13**

(Dollars in millions)

| Field | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| All fields | 24,751 | 26,121 | 27,140 | 26,585 | 26,866 | 27,154 | 32,879 | 31,795 | 29,314 | 30,959 | 29,779 |
| Computer sciences and mathematics | 1,120 | 1,239 | 1,228 | 1,208 | 1,294 | 1,407 | 1,861 | 1,663 | 1,788 | 1,795 | 1,691 |
| Computer sciences | 730 | 712 | 658 | 671 | 708 | 734 | 978 | 874 | 936 | 922 | 860 |
| Mathematics | 360 | 479 | 543 | 519 | 561 | 645 | 804 | 717 | 741 | 806 | 757 |
| Other computer sciences and mathematics | 30 | 48 | 28 | 19 | 24 | 29 | 79 | 73 | 111 | 66 | 73 |
| Engineering | 1,913 | 2,272 | 2,300 | 2,365 | 2,630 | 2,736 | 3,406 | 3,491 | 3,168 | 3,459 | 3,408 |
| Aeronautical engineering | 256 | 304 | 318 | 243 | 195 | 150 | 185 | 151 | 153 | 402 | 409 |
| Astronautical engineering | 59 | 67 | 73 | 58 | 44 | 32 | 35 | 32 | 33 | 79 | 85 |
| Chemical engineering | 72 | 69 | 67 | 68 | 109 | 112 | 168 | 143 | 183 | 94 | 84 |
| Civil engineering | 51 | 56 | 62 | 67 | 124 | 126 | 186 | 155 | 149 | 35 | 28 |
| Electrical engineering | 226 | 200 | 213 | 205 | 246 | 221 | 297 | 295 | 281 | 299 | 259 |
| Mechanical engineering | 96 | 90 | 77 | 70 | 78 | 66 | 84 | 80 | 82 | 156 | 147 |
| Metallurgy and materials engineering | 581 | 592 | 666 | 811 | 960 | 993 | 1,113 | 1,091 | 1,077 | 1,186 | 1,201 |
| Other engineering | 572 | 895 | 826 | 842 | 875 | 1,036 | 1,338 | 1,544 | 1,209 | 1,207 | 1,194 |
| Environmental sciences | 1,900 | 2,023 | 1,966 | 1,849 | 1,728 | 1,593 | 2,143 | 1,787 | 1,796 | 2,259 | 2,396 |
| Atmospheric sciences | 668 | 727 | 744 | 666 | 584 | 523 | 650 | 597 | 612 | 952 | 995 |
| Geological sciences | 462 | 482 | 470 | 445 | 427 | 303 | 430 | 333 | 396 | 502 | 411 |
| Oceanography | 442 | 453 | 431 | 416 | 437 | 434 | 549 | 472 | 483 | 494 | 457 |
| Other environmental sciences | 327 | 362 | 321 | 322 | 280 | 333 | 514 | 386 | 305 | 310 | 533 |
| Life sciences | 14,765 | 14,490 | 15,248 | 14,934 | 15,643 | 15,557 | 17,587 | 17,748 | 15,373 | 16,016 | 15,317 |
| Agricultural sciences | 528 | 504 | 511 | 514 | 533 | 495 | 531 | 571 | 547 | 480 | 462 |
| Biological sciences (excluding environmental biology) | 10,471 | 7,223 | 7,608 | 7,700 | 8,076 | 8,259 | 9,600 | 9,417 | 8,277 | 8,317 | 7,919 |
| Environmental biology | 324 | 329 | 339 | 344 | 351 | 368 | 467 | 435 | 435 | 407 | 384 |
| Medical sciences | 2,919 | 5,477 | 5,703 | 5,454 | 5,504 | 5,314 | 5,748 | 5,787 | 5,086 | 5,528 | 5,326 |
| Other life sciences | 522 | 957 | 1,087 | 922 | 1,180 | 1,122 | 1,241 | 1,537 | 1,029 | 1,283 | 1,226 |
| Physical sciences | 3,454 | 3,663 | 3,739 | 3,516 | 3,544 | 3,403 | 4,121 | 3,984 | 3,815 | 4,557 | 4,432 |
| Astronomy | 696 | 765 | 778 | 687 | 593 | 483 | 618 | 504 | 499 | 925 | 974 |
| Chemistry | 749 | 776 | 764 | 721 | 733 | 726 | 835 | 828 | 774 | 776 | 715 |
| Physics | 1,821 | 1,905 | 1,996 | 1,911 | 2,012 | 1,987 | 2,370 | 2,377 | 2,275 | 2,568 | 2,469 |
| Other physical sciences | 189 | 217 | 200 | 197 | 207 | 208 | 298 | 275 | 267 | 287 | 275 |
| Psychology | 544 | 979 | 1,040 | 945 | 979 | 936 | 1,100 | 1,129 | 979 | 1,088 | 1,016 |
| Biological aspects | 11 | 1 | * | 1 | 1 | 1 | 2 | 10 | 13 | 13 | 14 |
| Social aspects | 4 | 5 | 4 | 5 | 5 | 7 | 19 | 18 | 17 | 13 | 16 |
| Other psychological sciences | 529 | 973 | 1,035 | 939 | 972 | 929 | 1,080 | 1,101 | 949 | 1,061 | 986 |
| Social sciences | 353 | 419 | 391 | 381 | 361 | 330 | 432 | 359 | 371 | 381 | 374 |
| Anthropology | 13 | 13 | 15 | 14 | 15 | 15 | 28 | 24 | 26 | 27 | 24 |
| Economics | 48 | 48 | 51 | 46 | 52 | 44 | 52 | 44 | 54 | 55 | 58 |
| Political science | 6 | 7 | 11 | 11 | 9 | 16 | 13 | 10 | 9 | 10 | 9 |
| Sociology | 49 | 49 | 18 | 19 | 41 | 14 | 33 | 30 | 36 | 39 | 24 |
| Other social sciences | 237 | 303 | 296 | 290 | 244 | 241 | 306 | 251 | 246 | 251 | 258 |
| Other sciences nec | 703 | 1,036 | 1,228 | 1,386 | 686 | 1,191 | 2,228 | 1,633 | 2,023 | 1,405 | 1,146 |

* = amount greater than $0 but less than $500,000.

nec = not elsewhere classified.

**Note(s):**
Because of rounding, detail may not add to total. FYs 2009 and 2010 obligations include additional funding provided by the American Recovery and Reinvestment Act of 2009.

**Source(s):**
National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.