

TABLE 73

Federal obligations for research and development, by agency: FYs 2013–22

(Dollars in millions)

| Agency | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (preliminary) |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------------------|
| All agencies | 125,720 | 130,561 | 128,753 | 115,833 | 118,975 | 129,425 | 142,424 | 167,403 | 190,151 | 189,059 |
| Departments | | | | | | | | | | |
| Department of Agriculture | 2,019 | 2,258 | 2,341 | 2,358 | 2,418 | 2,479 | 2,637 | 2,644 | 2,898 | 3,266 |
| Agricultural Marketing Service | 5 | 6 | 7 | 7 | 7 | 7 | 8 | 7 | 13 | 15 |
| Agricultural Research Service | 1,014 | 1,122 | 1,132 | 1,144 | 1,170 | 1,201 | 1,292 | 1,424 | 1,510 | 1,599 |
| Animal and Plant Health Inspection Service | 37 | 40 | 40 | 40 | 39 | 39 | 39 | 40 | 42 | 45 |
| Economic Research Service | 71 | 78 | 85 | 85 | 86 | 86 | 86 | 82 | 85 | 90 |
| Foreign Agricultural Service | 1 | * | 1 | * | * | 0 | 0 | 0 | 0 | 0 |
| Forest Service | 329 | 335 | 332 | 341 | 328 | 327 | 327 | 342 | 286 | 345 |
| Grain Inspection, Packers, and Stockyards Administration | 5 | 6 | 6 | 6 | * | na | na | na | na | na |
| National Agricultural Statistics Service | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 11 |
| National Institute of Food and Agriculture | 546 | 657 | 726 | 721 | 774 | 805 | 871 | 738 | 937 | 1,148 |
| Natural Resources Conservation Service | NA | NA | NA | NA | NA | NA | NA | NA | 13 | 13 |
| Rural Business-Cooperative Service | 4 | 6 | 4 | 4 | 3 | 4 | 4 | 3 | 0 | 0 |
| Department of Commerce | 1,092 | 1,375 | 1,331 | 1,351 | 1,612 | 1,439 | 1,535 | 1,622 | 1,813 | 2,043 |
| Census Bureau | 131 | 259 | 142 | 200 | 220 | 110 | 96 | 111 | 109 | 149 |
| National Institute of Standards and Technology | 535 | 602 | 634 | 629 | 716 | 686 | 712 | 735 | 885 | 891 |
| National Oceanic and Atmospheric Administration | 419 | 504 | 544 | 511 | 668 | 634 | 719 | 768 | 812 | 996 |
| National Telecommunications and Information Administration | 7 | 10 | 12 | 11 | 8 | 9 | 8 | 8 | 7 | 7 |
| Department of Defense | 63,558 | 64,980 | 61,514 | 44,749 | 44,873 | 52,973 | 58,780 | 66,695 | 70,707 | 75,473 |
| Defense Advanced Research Projects Agency | 2,372 | 2,822 | 2,816 | 2,933 | 2,895 | 3,018 | 3,321 | 3,664 | 3,606 | 3,809 |
| Defense Health Agency | na | NA | NA | NA | NA | NA | NA | 2,870 | 2,852 | 2,537 |
| Department of the Air Force | 23,524 | 24,210 | 22,320 | 7,322 | 8,099 | 11,203 | 15,077 | 11,683 | 12,390 | 13,245 |
| Department of the Army | 7,883 | 7,332 | 6,764 | 6,372 | 7,531 | 8,581 | 10,275 | 10,786 | 11,921 | 12,934 |
| Department of the Navy | 15,419 | 15,567 | 15,490 | 16,644 | 15,236 | 15,446 | 15,341 | 19,114 | 16,734 | 18,669 |
| Space Force | na | na | na | na | na | na | na | 4,386 | 5,342 | 4,593 |
| Other defense agencies | 14,359 | 15,048 | 14,124 | 11,477 | 11,112 | 14,725 | 14,766 | 14,191 | 17,863 | 19,686 |
| Department of Education | 310 | 322 | 251 | 244 | 262 | 266 | 236 | 240 | 364 | 407 |
| Department of Energy | 9,841 | 10,526 | 11,391 | 12,209 | 12,308 | 12,832 | 14,376 | 13,453 | 13,453 | 13,912 |
| Advanced Research Projects Agency—Energy | 182 | 261 | 242 | 299 | 274 | 160 | 405 | 438 | 315 | 450 |
| Bonneville Power Administration | 14 | 16 | 16 | 16 | 14 | NA | NA | NA | NA | NA |
| Electricity Delivery and Energy Reliability | 83 | 104 | 97 | 112 | 133 | 146 | 138 | 140 | 129 | 127 |
| Energy Efficiency and Renewable Energy | 918 | 866 | 1,079 | 1,288 | 1,441 | 1,686 | 1,696 | 2,096 | 2,114 | 2,062 |
| Environmental Management | 9 | 28 | 25 | 30 | 31 | 38 | 26 | 22 | 30 | 35 |
| Fossil Energy | 342 | 426 | 524 | 609 | 605 | 662 | 659 | 679 | 691 | 736 |
| National Nuclear Security Administration | 4,180 | 4,417 | 4,271 | 4,568 | 4,435 | 4,057 | 5,741 | 3,984 | 4,213 | 4,107 |
| Defense Programs | 2,893 | 3,026 | 2,975 | 3,107 | 2,966 | 2,572 | 3,660 | 2,298 | 2,703 | 2,492 |
| Naval Nuclear Propulsion Program | 994 | 1,094 | 1,083 | 1,216 | 1,220 | 1,206 | 1,789 | 1,387 | 1,140 | 1,246 |

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|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|
| Office of Defense Nuclear Nonproliferation | 294 | 297 | 213 | 245 | 249 | 280 | 292 | 298 | 369 | 368 |
| Nuclear Energy | 263 | 324 | 728 | 763 | 891 | 1,116 | 606 | 573 | 455 | 479 |
| Office of Cybersecurity, Energy Security, and Emergency Response | na | na | na | na | na | 0 | 52 | 51 | 2 | 120 |
| Office of Science | 3,848 | 4,085 | 4,409 | 4,524 | 4,485 | 4,968 | 5,054 | 5,470 | 5,506 | 5,795 |
| Department of Health and Human Services | 29,382 | 30,656 | 30,272 | 32,216 | 33,774 | 36,911 | 39,191 | 60,006 | 76,651 | 69,153 |
| Administration for Children and Families | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 5 | 4 |
| Administration for Community Living | 0 | 0 | 76 | 83 | 83 | 83 | 83 | 90 | 107 | 111 |
| Agency for Healthcare Research and Quality | 365 | 364 | 364 | 334 | 324 | 334 | 338 | 338 | 338 | 350 |
| Agency for Toxic Substances and Disease Registry | 1 | 1 | 2 | 2 | 3 | 3 | 7 | 10 | 11 | 11 |
| Biomedical Advanced Research and Development Authority | NA | NA | NA | NA | NA | NA | 736 | 15,666 | 33,881 | 26,433 |
| Centers for Disease Control and Prevention | 363 | 409 | 489 | 521 | 475 | 451 | 419 | 497 | 696 | 661 |
| Centers for Medicare and Medicaid Services | 20 | 34 | 24 | 30 | 29 | 231 | 133 | 224 | 421 | 421 |
| Food and Drug Administration | 361 | 389 | 376 | 486 | 375 | 478 | 493 | 464 | 589 | 669 |
| Health Resources and Services Administration | 37 | 38 | 41 | 41 | 46 | 36 | 33 | 35 | 41 | 38 |
| National Institutes of Health | 28,215 | 29,400 | 28,880 | 30,698 | 32,419 | 35,276 | 36,929 | 42,664 | 40,546 | 40,436 |
| Office of the Secretary of Health and Human Services | 19 | 19 | 18 | 18 | 17 | 17 | 17 | 16 | 17 | 18 |
| Office of the Assistant Secretary for Planning and Evaluation | 19 | 19 | 18 | 18 | 17 | 17 | 17 | 16 | 17 | 18 |
| Department of Homeland Security | 391 | 583 | 742 | 572 | 857 | 912 | 647 | 507 | 529 | 601 |
| Coast Guard | 22 | 26 | 20 | 23 | 22 | 22 | 20 | 5 | 10 | 7 |
| Countering Weapons of Mass Destruction Office | NA | 84 | 71 | 63 | 69 | 30 | 81 | 37 | 32 | 39 |
| Cybersecurity and Infrastructure Security Agency | na | na | na | na | na | 7 | 13 | 8 | 13 | 11 |
| Science and Technology Directorate | 369 | 472 | 651 | 486 | 766 | 832 | 511 | 422 | 444 | 506 |
| Secret Service | NA | NA | NA | NA | NA | 1 | 2 | 13 | 1 | 2 |
| Transportation Security Administration | NA | NA | NA | NA | NA | 20 | 21 | 23 | 29 | 35 |
| Department of Housing and Urban Development | 67 | 54 | 58 | 67 | 64 | 62 | 61 | NA | NA | NA |
| Department of the Interior | 709 | 758 | 800 | 857 | 863 | 766 | 827 | 837 | 902 | 1,165 |
| Bureau of Indian Affairs | NA | NA | NA | NA | NA | 5 | 5 | * | 5 | 4 |
| Bureau of Land Management | NA | NA | 16 | 18 | 18 | 21 | 21 | 21 | 10 | 12 |
| Bureau of Ocean Energy Management | 40 | 48 | 50 | 72 | 76 | 78 | 86 | 73 | 77 | 84 |
| Bureau of Reclamation | 10 | 12 | 10 | 21 | 27 | 21 | 23 | 27 | 38 | 42 |
| Bureau of Safety and Environmental Enforcement | 16 | 33 | 20 | 27 | 11 | 5 | 9 | 8 | 21 | 16 |
| Fish and Wildlife Service | NA | NA | 30 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |

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|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------|
| Geological Survey | 636 | 649 | 666 | 677 | 688 | 593 | 640 | 665 | 691 | 947 |
| National Park Service | 7 | 15 | 8 | 9 | 10 | 10 | 10 | 10 | 28 | 28 |
| Office of Surface Mining Reclamation and Enforcement | NA | NA | NA | NA | NA | 0 | * | 1 | 0 | 0 |
| Department of Justice | 119 | 161 | 150 | 208 | 127 | 107 | 121 | 96 | 85 | 88 |
| Bureau of Prisons | 11 | 11 | 11 | 11 | 10 | 6 | 7 | 8 | * | * |
| Federal Bureau of Investigation | 39 | 10 | 13 | 13 | 2 | 3 | 1 | 5 | 4 | 5 |
| Office of Justice Programs | 69 | 140 | 126 | 184 | 115 | 98 | 114 | 84 | 81 | 83 |
| Department of Labor | 16 | 14 | 14 | 10 | 5 | 5 | 4 | 5 | 3 | 4 |
| Employee Benefits Security Administration | 10 | 7 | 7 | 5 | 3 | 3 | 3 | 3 | 1 | 2 |
| Occupational Safety and Health Administration | 4 | 4 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| Pension Benefit Guaranty Corp. | 3 | 3 | 4 | 4 | 0 | 0 | NA | NA | NA | NA |
| Department of State | 1 | NA | 2 | 2 | 2 | 62 | 62 | 40 | 64 | 67 |
| Department of Transportation | 855 | 828 | 856 | 937 | 949 | 1,046 | 1,012 | 1,184 | 1,108 | 1,096 |
| Federal Aviation Administration | 292 | 280 | 313 | 403 | 399 | 375 | 387 | 432 | 507 | 516 |
| Federal Highway Administration | 397 | 398 | 313 | 332 | 352 | 491 | 452 | 512 | 410 | 391 |
| Federal Motor Carrier Safety Administration | 8 | 8 | 8 | 11 | 12 | 9 | 8 | 9 | 13 | 16 |
| Federal Railroad Administration | 50 | 40 | 44 | 41 | 44 | 47 | 39 | 46 | 42 | 51 |
| Federal Transit Administration | 16 | 8 | 82 | 35 | 55 | 10 | 3 | 40 | 43 | 33 |
| National Highway Traffic Safety Administration | 65 | 65 | 63 | 87 | 69 | 76 | 76 | 69 | 66 | 50 |
| Office of the Secretary of Transportation | 11 | 15 | 11 | 18 | 11 | 16 | 20 | 34 | 12 | 15 |
| Pipeline and Hazardous Materials Safety Administration | 11 | 14 | 22 | 10 | 7 | 22 | 28 | 41 | 16 | 24 |
| Research and Innovative Technology Administration | 5 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Department of the Treasury | 74 | 74 | 73 | 85 | 8 | 38 | 57 | 61 | 54 | 65 |
| Bureau of Engraving and Printing | 9 | 9 | 9 | 19 | 7 | 38 | 57 | 60 | 54 | 64 |
| Internal Revenue Service | 65 | 64 | 64 | 65 | 0 | 0 | 0 | 0 | NA | NA |
| Mint | * | 1 | * | 2 | 1 | 0 | * | * | * | 1 |
| Department of Veterans Affairs | 639 | 589 | 662 | 695 | 682 | 1,349 | 1,508 | 1,565 | 1,698 | 1,831 |
| Other agencies | | | | | | | | | | |
| Administrative Office of the U.S. Courts | NA | NA | NA | 7 | 8 | 7 | 6 | 5 | 4 | 1 |
| Agency for Global Media | NA | NA | NA | NA | NA | NA | 6 | 5 | 5 | 8 |
| Agency for International Development | 125 | 60 | 212 | 193 | 192 | 167 | 221 | 194 | 82 | 82 |
| Appalachian Regional Commission | * | 1 | * | 1 | * | 1 | 1 | 1 | 1 | * |
| Consumer Product Safety Commission | 1 | 2 | 2 | 2 | 2 | 1 | 1 | * | * | * |
| Environmental Protection Agency | 523 | 531 | 516 | 508 | 494 | 487 | 485 | 489 | 520 | 525 |
| Federal Communications Commission | 5 | 7 | 5 | 5 | 7 | 5 | 2 | 2 | 0 | 0 |
| Federal Trade Commission | 3 | 3 | 2 | 3 | 6 | 6 | 6 | 6 | 8 | 9 |
| Library of Congress | 1 | 1 | 1 | 2 | 2 | 3 | 2 | 3 | 3 | 3 |
| National Aeronautics and Space Administration | 10,368 | 10,754 | 11,361 | 12,404 | 12,595 | 10,717 | 13,570 | 10,538 | 11,753 | 11,404 |
| National Archives and Records Administration | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | NA | NA |

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|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------------|
| National Science Foundation | 4,956 | 5,403 | 5,670 | 5,589 | 5,518 | 5,849 | 5,996 | 6,351 | 6,705 | 7,036 |
| Nuclear Regulatory Commission | 76 | 85 | 92 | 81 | 67 | 78 | 75 | 69 | 80 | 82 |
| Patient-Centered Outcomes Research Trust Fund | 334 | 283 | 152 | 115 | 884 | 492 | 578 | 470 | 460 | 481 |
| Postal Service | NA | NA | 28 | 29 | 73 | 53 | 27 | 18 | 15 | 16 |
| RESTORE Act Centers of Excellence Research Grants Program | na | na | na | na | na | na | na | 9 | 0 | 7 |
| Smithsonian Institution | 195 | 195 | 196 | 206 | 208 | 228 | 236 | 210 | 63 | 95 |
| Social Security Administration | 57 | 60 | 59 | 129 | 110 | 72 | 146 | 70 | 105 | 99 |
| Tennessee Valley Authority | NA | NA | NA | NA | 6 | 13 | 10 | 8 | 17 | 41 |

* = amount greater than \$0 but less than \$500,000; na = not applicable; agency or subagency did not exist as such or in that organization in that year. NA = not available; data were not collected at that level for that fiscal year.

Note(s):

Because of rounding, detail may not add to total. Only those agencies and subdivisions that had obligations in variables represented by this table appear in the table. Beginning with FY 2016, the totals reported for development obligations represent a refinement to this category by more narrowly defining it to be "experimental development." Most notably, totals for development do not include the Department of Defense (DOD) Budget Activity 7 (Operational Systems Development) obligations. Those funds, previously included in DOD's development obligation totals, support the development efforts to upgrade systems that have been fielded or have received approval for full-rate production and anticipate production funding in the current or subsequent fiscal year. Therefore, the data are not directly comparable with totals reported in previous years. FYs 2020, 2021, and 2022 obligations include additional funding provided by supplemental COVID-19 pandemic-related appropriations (e.g., Coronavirus Aid, Relief, and Economic Security [CARES] Act). See technical table A-2 for additional notes associated with the agencies listed in this table.

Source(s):

National Center for Science and Engineering Statistics, Survey of Federal Funds for Research and Development.