TABLE 5

Federal obligations for research and experimental development, by agency and type of R&D: FY 2022
(Dollars in thousands)

| Agency                                                        | Total R&D   | Basic<br>research | Applied research | Experimental development |                     |                  |
|---------------------------------------------------------------|-------------|-------------------|------------------|--------------------------|---------------------|------------------|
|                                                               |             |                   |                  | Total                    | Advanced technology | Major<br>systems |
| All agencies                                                  | 190,421,895 | 45,392,702        | 48,414,424       | 96,614,768               | 10,138,394          | 52,047,587       |
| Departments                                                   |             |                   |                  |                          |                     |                  |
| Department of Agriculture                                     | 3,135,387   | 1,417,114         | 1,442,986        | 275,287                  | na                  | na               |
| Agricultural Marketing Service                                | 9,865       | 0                 | 9,865            | 0                        | na                  | na               |
| Agricultural Research Service                                 | 1,650,574   | 825,287           | 660,230          | 165,057                  | na                  | na               |
| Animal and Plant Health Inspection Service                    | 44,792      | 23,598            | 0                | 21,194                   | na                  | na               |
| Economic Research Service                                     | 87,794      | 0                 | 87,794           | 0                        | na                  | na               |
| Forest Service                                                | 329,688     | 85,255            | 160,583          | 83,850                   | na                  | na               |
| National Agricultural Statistics Service                      | 11,070      | 0                 | 6,126            | 4,944                    | na                  | na               |
| National Institute of Food and Agriculture                    | 985,983     | 468,236           | 517,747          | 0                        | na                  | na               |
| Natural Resources Conservation Service                        | 15,621      | 14,738            | 642              | 241                      | na                  | na               |
| Department of Commerce                                        | 2,011,056   | 273,297           | 1,416,683        | 321,077                  | na                  | na               |
| Census Bureau                                                 | 201,701     | 0                 | 150,213          | 51,488                   | na                  | na               |
| National Institute of Standards and                           | ,           |                   | ,                |                          |                     |                  |
| Technology                                                    | 862,291     | 273,297           | 506,911          | 82,083                   | na                  | na               |
| National Oceanic and Atmospheric<br>Administration            | 935,764     | 0                 | 748,259          | 187,505                  | na                  | na               |
| National Telecommunications and<br>Information Administration | 11,300      | 0                 | 11,300           | 0                        | na                  | na               |
| Department of Defense                                         | 72,351,779  | 3,149,547         | 7,016,251        | 62,185,981               | 10,138,394          | 52,047,587       |
| Defense Advanced Research Projects Agency                     | 3,608,857   | 440,129           | 1,358,129        | 1,810,599                | 1,574,470           | 236,129          |
| Defense Health Agency                                         | 2,136,331   | 10,713            | 134,635          | 1,990,983                | 1,723,906           | 267,07           |
| Department of the Air Force                                   | 13,898,093  | 969,884           | 1,955,684        | 10,972,525               | 951,735             | 10,020,790       |
| Department of the Army                                        | 12,059,676  | 513,592           | 1,290,220        | 10,255,864               | 1,821,172           | 8,434,692        |
| Department of the Navy                                        | 17,487,922  | 661,985           | 1,076,932        | 15,749,004               | 903,941             | 14,845,063       |
| Space Force                                                   | 4,950,769   | 70,945            | 104,248          | 4,775,577                | 0                   | 4,775,57         |
| Other defense agencies                                        | 18,210,131  | 482,300           | 1,096,402        | 16,631,430               | 3,163,170           | 13,468,260       |
| Department of Education                                       | 401,521     | 31,589            | 267,496          | 102,437                  | na                  | na               |
| Department of Energy                                          | 13,697,342  | 6,107,867         | 5,000,763        | 2,588,711                | na                  | n                |
| Advanced Research Projects Agency—Energy                      | 402,963     | 0                 | 201,482          | 201,482                  | na                  | na               |
| Electricity Delivery and Energy Reliability                   | 113,827     | 7,920             | 53,394           | 52,512                   | na                  | na               |
| Energy Efficiency and Renewable Energy                        | 1,610,159   | 0                 | 678,802          | 931,357                  | na                  | na               |
| Environmental Management                                      | 35,781      | 0                 | 11,808           | 23,973                   | na                  | na               |
| Fossil Energy                                                 | 558,637     | 0                 | 558,637          | . 0                      | na                  | na               |
| National Nuclear Security Administration                      | 4,011,075   | 121,426           | 2,672,387        | 1,217,262                | na                  | na               |
| Defense Programs                                              | 2,837,617   | 0                 | 2,336,964        | 500,653                  | na                  | na               |
| Naval Nuclear Propulsion Program                              | 807,365     | 0                 | 191,110          | 616,255                  | na                  | na               |
| Office of Defense Nuclear Nonproliferation                    | 366,093     | 121,426           | 144,313          | 100,354                  | na                  | na               |
| Nuclear Energy                                                | 804,001     | 0                 | 657,246          | 146,754                  | na                  | na               |
| Office of Cybersecurity, Energy Security, and                 | 30.,001     |                   | 007,210          | 1.10,701                 |                     |                  |
| Emergency Response                                            | 36,749      | 5,126             | 16,251           | 15,372                   | na                  | na               |
| Office of Science                                             | 6,124,150   | 5,973,395         | 150,755          | 0                        | na                  | na               |
| Department of Health and Human Services                       | 74,096,906  | 22,410,508        | 25,860,920       | 25,825,478               | na                  | na               |
| Administration for Children and Families                      | 5,228       | 0                 | 5,228            | 0                        | na                  | na               |
| Administration for Community Living                           | 106,731     | 0                 | 106,731          | 0                        | na                  | na               |
| Agency for Healthcare Research and Quality                    | 350,400     | 0                 | 314,345          | 36,055                   | na                  | na               |
| Agency for Toxic Substances and Disease Registry              | 11,777      | 0                 | 11,777           | 0                        | na                  | na               |
| Biomedical Advanced Research and Development Authority        | 28,412,831  | 0                 | 2,644,021        |                          | na                  | na               |

TABLE 5

Federal obligations for research and experimental development, by agency and type of R&D: FY 2022
(Dollars in thousands)

|                                                                          | Total R&D  | Basic<br>research | Applied research | Experimental development |                     |                  |
|--------------------------------------------------------------------------|------------|-------------------|------------------|--------------------------|---------------------|------------------|
| Agency                                                                   |            |                   |                  | Total                    | Advanced technology | Major<br>systems |
| Centers for Disease Control and Prevention                               | 565,368    | 89,675            | 460,691          | 15,002                   | na                  | na               |
| Centers for Medicare and Medicaid Services                               | 419,105    | 419,105           | 0                | 0                        | na                  | na               |
| Food and Drug Administration                                             | 560,910    | 0                 | 560,910          | 0                        | na                  | na               |
| Health Resources and Services Administration                             | 40,495     | 2,455             | 32,429           | 5,610                    | na                  | na               |
| National Institutes of Health                                            | 43,588,544 | 21,899,274        | 21,689,271       | 0                        | na                  | na               |
| Office of the Secretary of Health and Human Services                     | 35,517     | 0                 | 35,517           | 0                        | na                  | na               |
| Office of the Assistant Secretary for<br>Planning and Evaluation         | 35,517     | 0                 | 35,517           | 0                        | na                  | na               |
| Department of Homeland Security                                          | 570,524    | 69,204            | 258,612          | 242,709                  | na                  | na               |
| Coast Guard                                                              | 7,476      | 0                 | 2,243            | 5,233                    | na                  | na               |
| Countering Weapons of Mass Destruction<br>Office                         | 65,709     | 8,720             | 26,159           | 30,831                   | na                  | na               |
| Cybersecurity and Infrastructure Security Agency                         | 5,616      | 0                 | 3,440            | 2,176                    | na                  | na               |
| Science and Technology Directorate                                       | 490,781    | 60,235            | 226,771          | 203,776                  | na                  | na               |
| Secret Service                                                           | 942        | 250               | 0                | 692                      | na                  | na               |
| Transportation Security Administration                                   | *          | 0                 | *                | *                        | na                  | na               |
| Department of the Interior                                               | 940,042    | 93,945            | 691,384          | 154,714                  | na                  | na               |
| Bureau of Indian Affairs                                                 | 5,000      | 0                 | 5,000            | 0                        | na                  | na               |
| Bureau of Land Management                                                | 12,049     | 2,004             | 8,579            | 1,466                    | na                  | na               |
| Bureau of Ocean Energy Management                                        | 85,745     | 0                 | 66,305           | 19,440                   | na                  | na               |
| Bureau of Reclamation                                                    | 27,723     | 0                 | 17,705           | 10,018                   | na                  | na               |
| Bureau of Safety and Environmental                                       |            |                   |                  |                          |                     |                  |
| Enforcement                                                              | 8,776      | 1,286             | 4,770            | 2,720                    | na                  | na               |
| Fish and Wildlife Service                                                | 35,000     | 0                 | 35,000           | 0                        | na                  | na               |
| Geological Survey                                                        | 737,395    | 90,655            | 526,802          | 119,938                  | na                  | na               |
| National Park Service                                                    | 28,354     | 0                 | 27,222           | 1,132                    | na                  | na               |
| Department of Justice                                                    | 111,184    | 16,931            | 86,014           | 8,240                    | na                  | na               |
| Bureau of Prisons                                                        | 5          | 0                 | 2                | 3                        | na                  | na               |
| Federal Bureau of Investigation                                          | 8,887      | 0                 | 8,887            | 0                        | na                  | na               |
| Office of Justice Programs                                               | 102,292    | 16,931            | 77,125           | 8,236                    | na                  | na               |
| Department of Labor                                                      | 3,698      | 0                 | 3,698            | 0                        | na                  | na               |
| Employee Benefits Security Administration Occupational Safety and Health | 1,910      | 0                 | 1,910            | 0                        | na                  | na               |
| Administration                                                           | 1,788      | 0                 | 1,788            | 0                        | na                  | na               |
| Department of State                                                      | 65,000     | 7,000             | 38,000           | 20,000                   | na                  | na               |
| Department of Transportation                                             | 1,073,354  | 2,117             | 806,251          | 264,985                  | na                  | na               |
| Federal Aviation Administration                                          | 477,513    | 0                 | 260,969          | 216,544                  | na                  | na               |
| Federal Highway Administration                                           | 382,519    | 0                 | 341,879          | 40,640                   | na                  | na               |
| Federal Motor Carrier Safety Administration                              | 23,772     | 0                 | 21,154           | 2,618                    | na                  | na               |
| Federal Railroad Administration                                          | 36,282     | 0                 | 32,291           | 3,991                    | na                  | na               |
| Federal Transit Administration                                           | 13,102     | 0                 | 11,909           | 1,192                    | na                  | na               |
| National Highway Traffic Safety<br>Administration                        | 91,739     | 0                 | 91,739           | 0                        | na                  | na               |
| Office of the Secretary of Transportation                                | 24,389     | 21                | 24,368           | 0                        | na                  | na               |
| Pipeline and Hazardous Materials Safety<br>Administration                | 24,038     | 2,096             | 21,942           | 0                        | na                  | na               |
| Department of the Treasury                                               | 47,481     | 0                 | 37,082           | 10,399                   | na                  | na               |
| Bureau of Engraving and Printing                                         | 47,481     | 0                 | 37,082           | 10,399                   | na                  | na               |
| Department of Veterans Affairs                                           | 1,696,494  | 665,094           | 940,865          | 90,535                   | na                  | na               |

TABLE 5
Federal obligations for research and experimental development, by agency and type of R&D: FY 2022 (Dollars in thousands)

| Agency                                                       | Total R&D  | Basic<br>research | Applied research | Experimental development |                     |                  |
|--------------------------------------------------------------|------------|-------------------|------------------|--------------------------|---------------------|------------------|
|                                                              |            |                   |                  | Total                    | Advanced technology | Major<br>systems |
| Other agencies                                               |            |                   |                  |                          |                     |                  |
| Administrative Office of the U.S. Courts                     | 1,443      | 0                 | 1,443            | 0                        | na                  | n                |
| Agency for Global Media                                      | 8,413      | 0                 | 8,413            | 0                        | na                  | n                |
| Agency for International Development                         | 220,614    | 0                 | 152,853          | 67,761                   | na                  | n                |
| Appalachian Regional Commission                              | 804        | 0                 | 804              | 0                        | na                  | n                |
| Consumer Product Safety Commission                           | 165        | 0                 | 165              | 0                        | na                  | n                |
| Environmental Protection Agency                              | 525,457    | 0                 | 406,371          | 119,086                  | na                  | n                |
| Federal Trade Commission                                     | 2,713      | 0                 | 2,713            | 0                        | na                  | n                |
| Library of Congress                                          | 3,055      | 0                 | 512              | 2,543                    | na                  | n                |
| National Aeronautics and Space Administration                | 11,623,146 | 5,057,913         | 2,246,909        | 4,318,325                | na                  | n                |
| National Science Foundation                                  | 6,896,067  | 5,863,175         | 1,032,892        | 0                        | na                  | n                |
| Nuclear Regulatory Commission                                | 61,399     | 0                 | 61,399           | 0                        | na                  | n                |
| Patient-Centered Outcomes Research Trust<br>Fund             | 521,671    | 0                 | 521,671          | 0                        | na                  | n                |
| Postal Service                                               | 13,860     | 0                 | 13,860           | 0                        | na                  | n                |
| RESTORE Act Centers of Excellence Research<br>Grants Program | 6,960      | 0                 | 6,960            | 0                        | na                  | n                |
| Smithsonian Institution                                      | 227,400    | 227,400           | 0                | 0                        | na                  | n                |
| Social Security Administration                               | 78,704     | 0                 | 78,704           | 0                        | na                  | n                |
| Tennessee Valley Authority                                   | 28,254     | 0                 | 11,752           | 16,502                   | na                  | n                |

<sup>\* =</sup> amount greater than \$0 but less than \$500.

na = not applicable; data were not collected at this level of detail for this agency or subagency.

## 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. FY 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, FYs 2022–23.