TABLE 31

Federal obligations for applied research, by agency and performer: FY 2022
(Dollars in thousands)

|   |                      |                                  |                 | Extramural        |                               |                         |                             |                        |  |
|---|----------------------|----------------------------------|-----------------|-------------------|-------------------------------|-------------------------|-----------------------------|------------------------|--|
| Agency  | Total                | Intramural                       |                 |                   |                               |                         |                             |                        |  |
|   |                      | Federal<br>agencies <sup>a</sup> | FFRDCs          | Businesses        | Higher education <sup>b</sup> | Nonprofit organizations | State and local governments | Non-U.S.<br>performers |  |
| All agencies  | 48,414,424           | 12,831,123                       | 4,402,075       | 8,821,535         | 16,808,860                    | 4,815,617               | 318,751                     | 416,463                |  |
| Departments   |                      |                                  |                 |                   |                               |                         |                             |                        |  |
| Department of Agriculture                             | 1,442,986            | 790,232                          | 0               | 17,784            | 602,498                       | 25,656                  | 4,116                       | 2,700                  |  |
| Agricultural Marketing<br>Service                     | 9,865                | 9,865                            | 0               | 0                 | 0                             | 0                       | 0                           | 0                      |  |
| Agricultural Research<br>Service                      | 660,230              | 556,754                          | 0               | 0                 | 92,120                        | 8,879                   | 36                          | 2,441                  |  |
| Economic Research<br>Service                          | 87,794               | 78,038                           | 0               | 0                 | 5,166                         | 4,590                   | 0                           | 0                      |  |
| Forest Service  | 160,583              | 133,647                          | 0               | 1,114             | 20,762                        | 2,412                   | 2,416                       | 232                    |  |
| National Agricultural<br>Statistics Service           | 6,126                | 5,729                            | 0               | 0                 | 54                            | 343                     | 0                           | 0                      |  |
| National Institute of Food<br>and Agriculture         | 517,747              | 6,199                            | 0               | 16,670            | 483,754                       | 9,432                   | 1,665                       | 27                     |  |
| Natural Resources<br>Conservation Service             | 642                  | 0                                | 0               | 0                 | 642                           | 0                       | 0                           | 0                      |  |
| Department of Commerce                                | 1,416,683            | 1,022,823                        | 18,615          | 54,197            | 300,880                       | 16,721                  | 1,770                       | 1,677                  |  |
| Census Bureau   | 150,213              | 150,213                          | 0               | 0                 | 0                             | 0                       | 0                           | 0                      |  |
| National Institute of<br>Standards and Technology     | 506,911              | 419,118                          | 13,058          | 30,567            | 40,120                        | 2,167                   | 206                         | 1,674                  |  |
| National Oceanic and<br>Atmospheric<br>Administration | 748,259              | 442,192                          | 5,557           | 23,630            | 260,759                       | 14,554                  | 1,563                       | 4                      |  |
| National Telecommunications and Information           | 11 200               | 11 200                           | 0               |                   | 0                             | 0                       | 0                           | 0                      |  |
| Administration  | 11,300               | 11,300                           |                 | 1.040.000         | 047167                        | 0                       | 0                           | 07.044                 |  |
| Department of Defense  Defense Advanced               | 7,016,251            | 3,094,419                        | 708,163         | 1,949,023         | 947,167                       | 288,117                 | 1,417<br>450                | 27,944                 |  |
| Research Projects Agency  Defense Health Agency       | 1,358,129<br>134,635 | 82,729<br>25,189                 | 76,236<br>1,549 | 782,537<br>30,051 | 310,374<br>34,264             | 95,275<br>36,955        | 0                           | 10,527<br>6,627        |  |
| Department of the Air Force                           | 1,955,684            | 1,802,710                        | 47,324          | 10,933            | 57,316                        | 37,388                  | 12                          | 0,027                  |  |
| Department of the Army                                | 1,290,220            | 457,720                          | 8,191           | 639,348           | 148,579                       | 33,856                  | 0                           | 2,526                  |  |
| Department of the Navy                                | 1,076,932            | 377,777                          | 18,538          | 272,462           | 347,537                       | 51,410                  | 955                         | 8,254                  |  |
| Space Force   | 104,248              | 98,646                           | 5,602           | 0                 | 0                             | 0                       | 0                           | 0                      |  |
| Other defense agencies                                | 1,096,402            | 249,649                          | 550,723         | 213,692           | 49,096                        | 33,233                  | 0                           | 10                     |  |
| Department of Education                               | 267,496              | 0                                | 0               | 20,167            | 121,735                       | 92,533                  | 33,061                      | 0                      |  |
| Department of Energy                                  | 5,000,763            | 643,554                          | 3,112,924       | 843,202           | 318,128                       | 78,355                  | 3,154                       | 1,446                  |  |
| Advanced Research<br>Projects Agency—Energy           | 201,482              | 937                              | 24,650          | 94,950            | 73,287                        | 7,659                   | 0                           | 0                      |  |
| Electricity Delivery and<br>Energy Reliability        | 53,394               | 1,223                            | 38,422          | 6,188             | 3,663                         | 3,732                   | 166                         | 0                      |  |
| Energy Efficiency and<br>Renewable Energy             | 678,802              | 6,534                            | 420,293         | 128,772           | 88,000                        | 33,552                  | 1,650                       | 0                      |  |
| Environmental<br>Management                           | 11,808               | 0                                | 9,601           | 2,124             | 0                             | 83                      | 0                           | 0                      |  |
| Fossil Energy   | 558,637              | 362,570                          | 85,349          | 0                 | 80,418                        | 28,708                  | 1,143                       | 449                    |  |
| National Nuclear Security<br>Administration           | 2,672,387            | 234,957                          | 2,043,413       | 384,161           | 9,857                         | 0                       | 0                           | 0                      |  |
| Defense Programs                                      | 2,336,964            | 232,777                          | 1,910,517       | 183,863           | 9,807                         | 0                       | 0                           | 0                      |  |

TABLE 31

Federal obligations for applied research, by agency and performer: FY 2022
(Dollars in thousands)

| Agency   |            | Ind                              |         | Extramural |                                  |                         |                             |                     |  |
|--|------------|----------------------------------|---------|------------|----------------------------------|-------------------------|-----------------------------|---------------------|--|
|  | Total      | Intramural                       |         |            |                                  | s and U.S. territories  |                             |                     |  |
|  |            | Federal<br>agencies <sup>a</sup> | FFRDCs  | Businesses | Higher<br>education <sup>b</sup> | Nonprofit organizations | State and local governments | Non-U.S. performers |  |
| Naval Nuclear<br>Propulsion Program                                    | 191,110    | 0                                | 1,650   | 189,460    | 0                                | 0                       | 0                           | 0                   |  |
| Office of Defense<br>Nuclear Nonproliferation                          | 144,313    | 2,180                            | 131,245 | 10,838     | 50                               | 0                       | 0                           | 0                   |  |
| Nuclear Energy   | 657,246    | 37,333                           | 484,214 | 76,251     | 53,634                           | 4,622                   | 196                         | 997                 |  |
| Office of Cybersecurity,<br>Energy Security, and<br>Emergency Response | 16,251     | 0                                | 6,982   | 0          | 9,270                            | 0                       | 0                           | 0                   |  |
| Office of Science  | 150,755    | 0                                | 0       | 150,755    | . 0                              | 0                       | 0                           | 0                   |  |
| Department of Health and<br>Human Services                             | 25,860,920 | 4,591,790                        | 358,141 | 3,768,616  | 13,259,050                       | 3,512,354               | 86,050                      | 284,920             |  |
| Administration for<br>Children and Families                            | 5,228      | 365                              | 0       | 0          | 1,800                            | 3,063                   | 0                           | 0                   |  |
| Administration for<br>Community Living                                 | 106,731    | 0                                | 0       | 4,898      | 77,027                           | 24,338                  | 468                         | 0                   |  |
| Agency for Healthcare<br>Research and Quality                          | 314,345    | 46,928                           | 0       | 133,403    | 103,809                          | 30,110                  | 95                          | 0                   |  |
| Agency for Toxic<br>Substances and Disease<br>Registry                 | 11,777     | 0                                | 0       | 0          | 7,529                            | 2,500                   | 1,250                       | 498                 |  |
| Biomedical Advanced<br>Research and<br>Development Authority           | 2,644,021  | 0                                | 0       | 2,322,179  | 46,050                           | 154,611                 | 0                           | 121,181             |  |
| Centers for Disease<br>Control and Prevention                          | 460,691    | 55,771                           | 0       |            | 208,955                          | 55,503                  | 20,147                      | 27,035              |  |
| Food and Drug<br>Administration  | 560,910    | 396,452                          | 0       | 14,100     | 82,155                           | 57,680                  | 2,819                       | 7,704               |  |
| Health Resources and<br>Services Administration                        | 32,429     | 1,467                            | 0       | 0          | 30,121                           | 841                     | 0                           | 0                   |  |
| National Institutes of<br>Health                                       | 21,689,271 | 4,089,288                        | 358,141 | 1,175,358  | 12,701,157                       | 3,175,553               | 61,271                      | 128,502             |  |
| Office of the Secretary of Health and Human                            | 25 517     | 1 E10                            | 0       | 25 207     | 447                              | 8,155                   | 0                           | 0                   |  |
| Services Office of the Assistant                                       | 35,517     | 1,519                            | U       | 25,397     | 447                              | 6,155                   | U                           | 0                   |  |
| Secretary for Planning and Evaluation                                  | 35,517     | 1,519                            | 0       | 25,397     | 447                              | 8,155                   | 0                           | 0                   |  |
| Department of Homeland<br>Security                                     | 258,612    | 96,580                           | 21,387  | 125,571    | 6,609                            | 6,176                   | 162                         | 2,127               |  |
| Coast Guard  | 2,243      | 0                                | 0       | 2,243      | 0                                | 0                       | 0                           | 0                   |  |
| Countering Weapons of<br>Mass Destruction Office                       | 26,159     | 7,000                            | 7,001   | 10,600     | 0                                | 0                       | 0                           | 1,558               |  |
| Cybersecurity and<br>Infrastructure Security<br>Agency                 | 3,440      | 1,342                            | 0       | 0          | 0                                | 2,098                   | 0                           | 0                   |  |
| Science and Technology<br>Directorate                                  | 226,771    | 88,238                           | 14,387  | 112,728    | 6,609                            | 4,078                   | 162                         | 569                 |  |
| Transportation Security Administration                                 | *          | 0                                | 0       | *          | 0                                | 0                       | 0                           | 0                   |  |
| Department of the Interior   | 691,384    | 611,830                          | 0       | 13,981     | 46,612                           | 5,065                   | 13,238                      | 657                 |  |
| Bureau of Indian Affairs   | 5,000      | 0                                | 0       | 0          | 0                                | 0                       | 5,000                       | 0                   |  |
| Bureau of Land<br>Management   | 8,579      | 3,057                            | 0       | 117        | 4,347                            | 940                     | 118                         | 0                   |  |

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Federal obligations for applied research, by agency and performer: FY 2022
(Dollars in thousands)

|  |         |                                  |        | Extramural |                               |                         |                             |                        |  |
|--|---------|----------------------------------|--------|------------|-------------------------------|-------------------------|-----------------------------|------------------------|--|
| Agency   |         | Intramural                       |        |            | United States                 | and U.S. territor       | ries                        |                        |  |
|  | Total   | Federal<br>agencies <sup>a</sup> | FFRDCs | Businesses | Higher education <sup>b</sup> | Nonprofit organizations | State and local governments | Non-U.S.<br>performers |  |
| Bureau of Ocean Energy                                       |         |                                  |        |            |                               |                         |                             |                        |  |
| Management   | 66,305  | 42,651                           | 0      |            | 9,798                         | 3,149                   | 2,517                       | 585                    |  |
| Bureau of Reclamation  | 17,705  | 13,257                           | 0      | 3,100      | 1,128                         | 0                       | 148                         | 72                     |  |
| Bureau of Safety and<br>Environmental<br>Enforcement         | 4,770   | 1,512                            | 0      | 2,655      | 461                           | 142                     | 0                           | 0                      |  |
| Fish and Wildlife Service                                    | 35,000  | 35,000                           | 0      | 0          | 0                             | 0                       | 0                           | 0                      |  |
| Geological Survey  | 526,802 | 499,641                          | 0      | 505        | 20,486                        | 715                     | 5,455                       | 0                      |  |
| National Park Service  | 27,222  | 16,712                           | 0      | 0          | 10,391                        | 119                     | 0                           | 0                      |  |
| Department of Justice  | 86,014  | 3,180                            | 0      | 11,745     | 35,225                        | 35,316                  | 547                         | 0                      |  |
| Bureau of Prisons  | 2       | 2                                | 0      |            | 0                             | 0                       | 0                           | 0                      |  |
| Federal Bureau of<br>Investigation                           | 8,887   | 49                               | 0      |            | 1,350                         | 0                       | 0                           | 0                      |  |
| Office of Justice  |         |                                  |        |            |                               |                         |                             |                        |  |
| Programs   | 77,125  | 3,130                            | 0      | 4,257      | 33,875                        | 35,316                  | 547                         | 0                      |  |
| Department of Labor  | 3,698   | 2,689                            | 0      | 1,009      | 0                             | 0                       | 0                           | 0                      |  |
| Employee Benefits<br>Security Administration                 | 1,910   | 901                              | 0      | 1,009      | 0                             | 0                       | 0                           | 0                      |  |
| Occupational Safety and<br>Health Administration             | 1,788   | 1,788                            | 0      | 0          | 0                             | 0                       | 0                           | 0                      |  |
| Department of State  | 38,000  | 38,000                           | 0      | 0          | 0                             | 0                       | 0                           | 0                      |  |
| Department of<br>Transportation                              | 806,251 | 180,036                          | 7,150  | 282,258    | 116,220                       | 54,077                  | 163,452                     | 3,059                  |  |
| Federal Aviation<br>Administration                           | 260,969 | 63,964                           | 3,647  | 117,017    | 67,047                        | 6,584                   | 425                         | 2,285                  |  |
| Federal Highway<br>Administration                            | 341,879 | 65,577                           | 1,878  | 77,556     | 11,141                        | 26,785                  | 158,942                     | 0                      |  |
| Federal Motor Carrier<br>Safety Administration               | 21,154  | 6,634                            | 1,625  | 11,484     | 0                             | 1,411                   | 0                           | 0                      |  |
| Federal Railroad<br>Administration                           | 32,291  | 8,381                            | 0      | 12,176     | 6,526                         | 4,435                   | 0                           | 773                    |  |
| Federal Transit<br>Administration                            | 11,909  | 5,950                            | 0      | 0          | 1,875                         | 0                       | 4,084                       | 0                      |  |
| National Highway Traffic<br>Safety Administration            | 91,739  | 0                                | 0      | 55,559     | 24,237                        | 11,942                  | 0                           | 0                      |  |
| Office of the Secretary of<br>Transportation                 | 24,368  | 22,099                           | 0      | 2,269      | 0                             | 0                       | 0                           | 0                      |  |
| Pipeline and Hazardous<br>Materials Safety<br>Administration | 21,942  | 7,431                            | 0      | 6,197      | 5,394                         | 2,920                   | 0                           | 0                      |  |
| Department of the Treasury                                   | 37,082  | 2,500                            | 8,850  |            | 0                             | 510                     | 0                           | 14,436                 |  |
| Bureau of Engraving and<br>Printing                          | 37,082  | 2,500                            | 8,850  |            | 0                             | 510                     | 0                           | 14,436                 |  |
| Department of Veterans<br>Affairs                            | 940,865 | 940,865                          | 0      |            | 0                             | 0                       | 0                           | 0                      |  |
| Other agencies   |         | · .                              |        |            |                               |                         |                             |                        |  |
| Administrative Office of the U.S. Courts                     | 1,443   | 0                                | 1,443  | 0          | 0                             | 0                       | 0                           | 0                      |  |
| Agency for Global Media                                      | 8,413   | 791                              | 0      |            | 0                             | 0                       | 0                           | 0                      |  |
| Agency for International<br>Development                      | 152,853 | 18,441                           | 0      |            | 32,549                        | 30,635                  |                             | 62,932                 |  |

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Federal obligations for applied research, by agency and performer: FY 2022
(Dollars in thousands)

|   |           |                                  |         | Extramural |                               |                         |                             |                        |  |
|---|-----------|----------------------------------|---------|------------|-------------------------------|-------------------------|-----------------------------|------------------------|--|
|   | Total     | Intramural                       |         |            |                               |                         |                             |                        |  |
| Agency  |           | Federal<br>agencies <sup>a</sup> | FFRDCs  | Businesses | Higher education <sup>b</sup> | Nonprofit organizations | State and local governments | Non-U.S.<br>performers |  |
| Appalachian Regional<br>Commission                              | 804       | 0                                | 0       | 445        | 162                           | 197                     | 0                           | (                      |  |
| Consumer Product Safety<br>Commission                           | 165       | 165                              | 0       | 0          | 0                             | 0                       | 0                           | (                      |  |
| Environmental Protection<br>Agency                              | 406,371   | 211,102                          | 1,118   | 136,557    | 46,217                        | 11,378                  | 0                           | (                      |  |
| Federal Trade Commission  | 2,713     | 2,713                            | 0       | 0          | 0                             | 0                       | 0                           | (                      |  |
| Library of Congress   | 512       | 512                              | 0       | 0          | 0                             | 0                       | 0                           | (                      |  |
| National Aeronautics and<br>Space Administration                | 2,246,909 | 529,581                          | 131,860 | 1,325,847  | 208,129                       | 43,982                  | 495                         | 7,014                  |  |
| National Science<br>Foundation                                  | 1,032,892 | 818                              | 0       | 192,840    | 748,262                       | 82,886                  | 4,329                       | 3,758                  |  |
| Nuclear Regulatory<br>Commission                                | 61,399    | 1,038                            | 32,425  | 7,917      | 15,592                        | 753                     | 0                           | 3,674                  |  |
| Patient-Centered Outcomes<br>Research Trust Fund                | 521,671   | 0                                | 0       | 0          | 0                             | 521,671                 | 0                           | (                      |  |
| Postal Service  | 13,860    | 0                                | 0       | 13,860     | 0                             | 0                       | 0                           | (                      |  |
| RESTORE Act Centers of<br>Excellence Research Grants<br>Program | 6,960     | 0                                | 0       | 0          | 0                             | 0                       | 6,960                       | (                      |  |
| Social Security<br>Administration                               | 78,704    | 47,465                           | 0       | 20,763     | 3,825                         | 6,532                   | 0                           | 119                    |  |
| Tennessee Valley Authority                                      | 11,752    | 0                                | 0       | 9,049      | 0                             | 2,703                   | 0                           | (                      |  |

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

FFRDC = federally funded research and development center.

## 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.

<sup>&</sup>lt;sup>a</sup> Federal agencies' activities cover costs associated with the administration of federal R&D performance and R&D procurements from nonfederal performers by federal personnel, transfers of funds to other federal agencies for purposes related to R&D, and actual federal performance.

<sup>&</sup>lt;sup>b</sup> Higher education includes both public and private institutions as well as University Affiliated Research Centers.