

**Table 2. Summary of federal obligations and outlays for research, experimental development, and R&D plant, by type of R&D, performer, and field of R&D: FYs 2023–25**

(Dollars in millions)

| Type of R&D, performer, and field                     | 2023    | 2024    | 2025 (preliminary) | % change FY 2023–24 | % change FY 2024–25 (preliminary) |
|---|---------|---------|--------------------|---------------------|-----------------------------------|
| Outlays for R&D and R&D plant                         | 173,861 | 183,953 | 185,241            | 5.8                 | 0.7                               |
| R&D   | 169,099 | 178,848 | 180,414            | 5.8                 | 0.9                               |
| R&D plant   | 4,762   | 5,105   | 4,827              | 7.2                 | -5.4                              |
| Obligations for R&D and R&D plant                     | 191,740 | 199,455 | 198,703            | 4.0                 | -0.4                              |
| R&D   | 186,076 | 194,243 | 194,056            | 4.4                 | -0.1                              |
| Performer   |         |         |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 43,700  | 51,072  | 55,387             | 16.9                | 8.5                               |
| FFRDCs  | 16,389  | 16,350  | 17,819             | -0.2                | 9.0                               |
| Businesses  | 67,990  | 69,917  | 65,715             | 2.8                 | -6.0                              |
| Higher education <sup>b</sup>                         | 45,018  | 44,407  | 42,683             | -1.4                | -3.9                              |
| Nonprofit organizations                               | 11,507  | 10,604  | 10,967             | -7.9                | 3.4                               |
| State and local governments                           | 694     | 795     | 716                | 14.6                | -9.9                              |
| Non-U.S. performers                                   | 778     | 1,098   | 769                | 41.2                | -30.0                             |
| Research  | 101,256 | 99,556  | 95,241             | -1.7                | -4.3                              |
| Performer   |         |         |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 20,400  | 24,486  | 21,659             | 20.0                | -11.5                             |
| FFRDCs  | 11,575  | 11,790  | 13,276             | 1.9                 | 12.6                              |
| Businesses  | 17,149  | 13,003  | 11,583             | -24.2               | -10.9                             |
| Higher education <sup>b</sup>                         | 41,780  | 40,503  | 39,136             | -3.1                | -3.4                              |
| Nonprofit organizations                               | 9,220   | 8,640   | 8,625              | -6.3                | -0.2                              |
| State and local governments                           | 585     | 639     | 522                | 9.4                 | -18.3                             |
| Non-U.S. performers                                   | 548     | 494     | 439                | -9.8                | -11.1                             |
| Field of R&D  |         |         |                    |                     |                                   |
| Computer and information sciences                     | 5,136   | 6,664   | 5,088              | 29.8                | -23.6                             |
| Geosciences, atmospheric sciences, and ocean sciences | 5,884   | 5,693   | 5,854              | -3.2                | 2.8                               |
| Life sciences   | 43,750  | 38,622  | 37,374             | -11.7               | -3.2                              |
| Mathematics and statistics                            | 997     | 865     | 891                | -13.2               | 3.0                               |
| Physical sciences                                     | 12,703  | 12,759  | 12,503             | 0.4                 | -2.0                              |
| Psychology  | 4,947   | 5,286   | 5,237              | 6.9                 | -0.9                              |
| Social sciences                                       | 2,679   | 3,138   | 3,053              | 17.1                | -2.7                              |
| Engineering   | 15,670  | 17,551  | 16,345             | 12.0                | -6.9                              |
| Other fields  | 9,491   | 8,978   | 8,895              | -5.4                | -0.9                              |
| Basic research  | 46,981  | 47,494  | 45,361             | 1.1                 | -4.5                              |
| Performer   |         |         |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 7,914   | 10,069  | 7,832              | 27.2                | -22.2                             |
| FFRDCs  | 6,858   | 6,622   | 8,076              | -3.4                | 22.0                              |
| Businesses  | 4,163   | 4,668   | 4,316              | 12.1                | -7.5                              |

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(Dollars in millions)

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|---|--------|--------|--------------------|---------------------|-----------------------------------|
| Higher education <sup>b</sup>                         | 23,778 | 22,047 | 21,073             | -7.3                | -4.4                              |
| Nonprofit organizations                               | 3,913  | 3,791  | 3,775              | -3.1                | -0.4                              |
| State and local governments                           | 117    | 111    | 106                | -5.4                | -4.0                              |
| Non-U.S. performers                                   | 238    | 185    | 183                | -22.0               | -1.2                              |
| Field of R&D  |        |        |                    |                     |                                   |
| Computer and information sciences                     | 2,342  | 3,893  | 2,179              | 66.2                | -44.0                             |
| Geosciences, atmospheric sciences, and ocean sciences | 3,661  | 3,494  | 3,577              | -4.5                | 2.4                               |
| Life sciences   | 18,353 | 17,606 | 17,348             | -4.1                | -1.5                              |
| Mathematics and statistics                            | 671    | 585    | 606                | -12.7               | 3.5                               |
| Physical sciences                                     | 9,532  | 9,447  | 9,340              | -0.9                | -1.1                              |
| Psychology  | 2,513  | 2,661  | 2,627              | 5.9                 | -1.3                              |
| Social sciences                                       | 1,166  | 1,331  | 1,301              | 14.2                | -2.3                              |
| Engineering   | 3,991  | 3,929  | 3,754              | -1.5                | -4.4                              |
| Other fields  | 4,753  | 4,547  | 4,629              | -4.3                | 1.8                               |
| Applied research                                      | 54,274 | 52,062 | 49,879             | -4.1                | -4.2                              |
| Performer   |        |        |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 12,486 | 14,417 | 13,827             | 15.5                | -4.1                              |
| FFRDCs  | 4,717  | 5,168  | 5,200              | 9.6                 | 0.6                               |
| Businesses  | 12,985 | 8,335  | 7,267              | -35.8               | -12.8                             |
| Higher education <sup>b</sup>                         | 18,002 | 18,456 | 18,063             | 2.5                 | -2.1                              |
| Nonprofit organizations                               | 5,306  | 4,849  | 4,850              | -8.6                | 0.0                               |
| State and local governments                           | 467    | 529    | 416                | 13.1                | -21.3                             |
| Non-U.S. performers                                   | 310    | 309    | 256                | -0.5                | -17.1                             |
| Field of R&D  |        |        |                    |                     |                                   |
| Computer and information sciences                     | 2,793  | 2,771  | 2,909              | -0.8                | 5.0                               |
| Geosciences, atmospheric sciences, and ocean sciences | 2,223  | 2,199  | 2,277              | -1.1                | 3.6                               |
| Life sciences   | 25,397 | 21,015 | 20,026             | -17.3               | -4.7                              |
| Mathematics and statistics                            | 326    | 280    | 286                | -14.1               | 2.0                               |
| Physical sciences                                     | 3,171  | 3,312  | 3,163              | 4.4                 | -4.5                              |
| Psychology  | 2,434  | 2,625  | 2,609              | 7.8                 | -0.6                              |
| Social sciences                                       | 1,513  | 1,807  | 1,752              | 19.4                | -3.0                              |
| Engineering   | 11,679 | 13,622 | 12,591             | 16.6                | -7.6                              |
| Other fields  | 4,738  | 4,431  | 4,266              | -6.5                | -3.7                              |
| Experimental development                              | 84,820 | 94,687 | 98,815             | 11.6                | 4.4                               |
| Performer   |        |        |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 23,300 | 26,585 | 33,728             | 14.1                | 26.9                              |
| FFRDCs  | 4,814  | 4,561  | 4,543              | -5.3                | -0.4                              |
| Businesses  | 50,841 | 56,914 | 54,132             | 11.9                | -4.9                              |

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|---|--------|--------|--------------------|---------------------|-----------------------------------|
| Higher education <sup>b</sup>                         | 3,238  | 3,903  | 3,546              | 20.5                | -9.1                              |
| Nonprofit organizations                               | 2,288  | 1,963  | 2,342              | -14.2               | 19.3                              |
| State and local governments                           | 109    | 156    | 194                | 42.8                | 24.5                              |
| Non-U.S. performers                                   | 230    | 604    | 330                | 162.8               | -45.4                             |
| Field of R&D  |        |        |                    |                     |                                   |
| Computer and information sciences                     | 3,632  | 4,477  | 4,326              | 23.3                | -3.4                              |
| Geosciences, atmospheric sciences, and ocean sciences | 960    | 864    | 787                | -10.0               | -9.0                              |
| Life sciences   | 5,688  | 7,026  | 5,179              | 23.5                | -26.3                             |
| Mathematics and statistics                            | 282    | 293    | 295                | 4.2                 | 0.4                               |
| Physical sciences                                     | 3,958  | 4,407  | 4,559              | 11.4                | 3.4                               |
| Psychology  | 448    | 453    | 452                | 1.1                 | -0.2                              |
| Social sciences                                       | 178    | 220    | 194                | 23.7                | -11.7                             |
| Engineering   | 51,424 | 53,502 | 58,526             | 4.0                 | 9.4                               |
| Other fields  | 18,251 | 23,444 | 24,498             | 28.5                | 4.5                               |
| R&D plant   | 5,664  | 5,212  | 4,647              | -8.0                | -10.8                             |
| Performer   |        |        |                    |                     |                                   |
| Federal agencies <sup>a</sup>                         | 1,420  | 1,378  | 1,361              | -3.0                | -1.2                              |
| FFRDCs  | 2,570  | 2,364  | 2,274              | -8.0                | -3.8                              |
| Businesses  | 1,088  | 970    | 517                | -10.9               | -46.7                             |
| Higher education <sup>b</sup>                         | 458    | 376    | 377                | -17.9               | 0.1                               |
| Nonprofit organizations                               | 114    | 117    | 113                | 2.8                 | -3.1                              |
| State and local governments                           | 13     | 5      | 5                  | -65.0               | 3.4                               |
| Non-U.S. performers                                   | *      | 2      | 1                  | 1,573.5             | -52.7                             |

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

FFRDC = federally funded research and development center.

<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>b</sup> Higher education includes both public and private institutions as well as University Affiliated Research Centers.**Note(s):**Because of rounding, detail may not add to total. Percentages are computed using actual dollars reported. For additional notes associated with the taxonomy changes to the fields listed in the table, see technical table A-3 at <https://ncses.nsf.gov/surveys/federal-funds-research-development/2024-2025#technical-tables>.**Source(s):**

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