

TABLE 87

**Federal obligations for basic research to foreign performers, by region, country, or economy, and agency: FY 2019**

(Dollars in thousands)

| Region, country, or economy       | Total     | DOC   | DOD      | DOE     | HHS       | NASA     | NSF      | USDA    |
|-----------------------------------|-----------|-------|----------|---------|-----------|----------|----------|---------|
| All areas and organizations       | 249,523.2 | 302.6 | 83,802.9 | 1,236.2 | 123,026.4 | 14,974.7 | 24,688.8 | 1,491.7 |
| Africa                            | 41,717.6  | 0.0   | 87.5     | 0.0     | 41,576.8  | 0.8      | 0.0      | 52.5    |
| Botswana                          | 570.0     | 0.0   | 0.0      | 0.0     | 570.0     | 0.0      | 0.0      | 0.0     |
| Congo, Democratic Republic of the | 69.5      | 0.0   | 0.0      | 0.0     | 69.5      | 0.0      | 0.0      | 0.0     |
| Côte d'Ivoire                     | 16.8      | 0.0   | 0.0      | 0.0     | 0.0       | 0.0      | 0.0      | 16.8    |
| Eritrea                           | 115.9     | 0.0   | 0.0      | 0.0     | 115.9     | 0.0      | 0.0      | 0.0     |
| Ethiopia                          | 711.3     | 0.0   | 0.0      | 0.0     | 711.3     | 0.0      | 0.0      | 0.0     |
| Gambia, The                       | 53.3      | 0.0   | 0.0      | 0.0     | 53.3      | 0.0      | 0.0      | 0.0     |
| Ghana                             | 2,053.7   | 0.0   | 0.0      | 0.0     | 2,053.7   | 0.0      | 0.0      | 0.0     |
| Kenya                             | 1,821.0   | 0.0   | 76.0     | 0.0     | 1,718.0   | 0.0      | 0.0      | 27.0    |
| Madagascar                        | 69.3      | 0.0   | 0.0      | 0.0     | 69.3      | 0.0      | 0.0      | 0.0     |
| Malawi                            | 384.4     | 0.0   | 0.0      | 0.0     | 384.4     | 0.0      | 0.0      | 0.0     |
| Mali                              | 1,255.8   | 0.0   | 0.0      | 0.0     | 1,255.8   | 0.0      | 0.0      | 0.0     |
| Mozambique                        | 732.3     | 0.0   | 0.0      | 0.0     | 732.3     | 0.0      | 0.0      | 0.0     |
| Namibia                           | 16.4      | 0.0   | 0.0      | 0.0     | 15.6      | 0.8      | 0.0      | 0.0     |
| Nigeria                           | 3,377.2   | 0.0   | 0.0      | 0.0     | 3,377.2   | 0.0      | 0.0      | 0.0     |
| Rwanda                            | 368.7     | 0.0   | 0.0      | 0.0     | 368.7     | 0.0      | 0.0      | 0.0     |
| South Africa                      | 23,073.8  | 0.0   | 11.5     | 0.0     | 23,053.5  | 0.0      | 0.0      | 8.8     |
| Tanzania                          | 993.0     | 0.0   | 0.0      | 0.0     | 993.0     | 0.0      | 0.0      | 0.0     |
| Uganda                            | 4,530.0   | 0.0   | 0.0      | 0.0     | 4,530.0   | 0.0      | 0.0      | 0.0     |
| Zambia                            | 743.6     | 0.0   | 0.0      | 0.0     | 743.6     | 0.0      | 0.0      | 0.0     |
| Zimbabwe                          | 761.6     | 0.0   | 0.0      | 0.0     | 761.6     | 0.0      | 0.0      | 0.0     |
| Asia                              | 19,351.0  | 4.6   | 12,357.8 | 268.5   | 6,189.1   | 229.6    | 0.0      | 301.3   |
| Bangladesh                        | 1,210.1   | 0.0   | 0.0      | 0.0     | 1,210.1   | 0.0      | 0.0      | 0.0     |
| China                             | 529.7     | 0.0   | 0.0      | 0.0     | 485.2     | 0.0      | 0.0      | 44.6    |
| Cyprus                            | 212.0     | 0.0   | 212.0    | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Georgia                           | 98.9      | 0.0   | 0.0      | 0.0     | 98.9      | 0.0      | 0.0      | 0.0     |
| Hong Kong                         | 4.6       | 4.6   | 0.0      | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| India                             | 1,785.1   | 0.0   | 847.9    | 0.0     | 937.3     | 0.0      | 0.0      | 0.0     |
| Israel                            | 3,296.3   | 0.0   | 2,090.3  | 268.5   | 496.7     | 200.3    | 0.0      | 240.4   |
| Japan                             | 3,253.2   | 0.0   | 3,104.2  | 0.0     | 149.0     | *        | 0.0      | 0.0     |
| Korea, South                      | 1,045.2   | 0.0   | 1,005.9  | 0.0     | 27.8      | 0.0      | 0.0      | 11.5    |
| Lebanon                           | 78.9      | 0.0   | 0.0      | 0.0     | 78.9      | 0.0      | 0.0      | 0.0     |
| Malaysia                          | 249.1     | 0.0   | 179.4    | 0.0     | 69.7      | 0.0      | 0.0      | 0.0     |
| Nepal                             | 101.1     | 0.0   | 0.0      | 0.0     | 101.1     | 0.0      | 0.0      | 0.0     |
| Pakistan                          | 75.9      | 0.0   | 0.0      | 0.0     | 75.9      | 0.0      | 0.0      | 0.0     |
| Philippines                       | 329.1     | 0.0   | 329.1    | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Saudi Arabia                      | 103.3     | 0.0   | 98.5     | 0.0     | 0.0       | 0.0      | 0.0      | 4.8     |
| Singapore                         | 938.2     | 0.0   | 908.9    | 0.0     | 0.0       | 29.3     | 0.0      | 0.0     |
| Sri Lanka                         | 203.3     | 0.0   | 0.0      | 0.0     | 203.3     | 0.0      | 0.0      | 0.0     |
| Taiwan                            | 723.8     | 0.0   | 723.8    | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Thailand                          | 2,711.1   | 0.0   | 768.9    | 0.0     | 1,942.2   | 0.0      | 0.0      | 0.0     |
| Turkey                            | 228.0     | 0.0   | 228.0    | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Vietnam                           | 520.2     | 0.0   | 207.1    | 0.0     | 313.1     | 0.0      | 0.0      | 0.0     |
| Asian countries, other            | 1,653.9   | 0.0   | 1,653.9  | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Europe                            | 105,662.3 | 298.0 | 43,852.7 | 548.2   | 32,061.6  | 13,359.0 | 15,188.9 | 353.9   |
| Austria                           | 5,530.5   | 0.0   | 1,798.1  | 0.0     | 0.0       | 1,219.5  | 2,512.9  | 0.0     |
| Belgium                           | 3,186.5   | 0.0   | 534.9    | 0.0     | 146.2     | 2,505.5  | 0.0      | 0.0     |
| Croatia                           | 76.3      | 0.0   | 76.3     | 0.0     | 0.0       | 0.0      | 0.0      | 0.0     |
| Czechia                           | 393.7     | 0.0   | 392.4    | 0.0     | 0.0       | 1.3      | 0.0      | 0.0     |

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(Dollars in thousands)

| Region, country, or economy | Total    | DOC   | DOD      | DOE   | HHS      | NASA    | NSF     | USDA  |
|-----------------------------|----------|-------|----------|-------|----------|---------|---------|-------|
| Denmark                     | 1,990.8  | 0.0   | 667.4    | 0.0   | 330.7    | 992.7   | 0.0     | 0.0   |
| Estonia                     | 145.6    | 0.0   | 145.6    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Finland                     | 564.5    | 0.0   | 120.9    | 0.0   | 443.6    | 0.0     | 0.0     | 0.0   |
| France                      | 14,689.7 | 48.0  | 9,075.6  | 0.0   | 4,008.0  | 5.0     | 1,487.9 | 65.2  |
| Germany                     | 20,719.0 | 0.0   | 3,048.6  | 0.0   | 8,902.0  | 807.7   | 7,900.0 | 60.8  |
| Greece                      | 413.3    | 0.0   | 413.3    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Hungary                     | 180.8    | 0.0   | 180.8    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Ireland                     | 656.7    | 0.0   | 383.9    | 0.0   | 206.8    | 66.0    | 0.0     | 0.0   |
| Italy                       | 2,552.2  | 0.0   | 1,880.4  | 0.0   | 579.3    | 0.0     | 0.0     | 92.5  |
| Luxembourg                  | 326.2    | 0.0   | 326.2    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Netherlands                 | 4,474.7  | 250.0 | 1,349.9  | 0.0   | 2,497.9  | 277.0   | 100.0   | 0.0   |
| Norway                      | 3,565.6  | 0.0   | 291.9    | 0.0   | 0.0      | 3,273.7 | 0.0     | 0.0   |
| Poland                      | 354.3    | 0.0   | 354.3    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Romania                     | 60.0     | 0.0   | 60.0     | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Serbia                      | 66.1     | 0.0   | 66.1     | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Slovenia                    | 265.9    | 0.0   | 265.9    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Spain                       | 5,232.8  | 0.0   | 1,147.6  | 0.0   | 69.5     | 3,955.2 | 0.0     | 60.5  |
| Sweden                      | 4,504.2  | 0.0   | 527.2    | 0.0   | 1,038.9  | *       | 2,938.0 | 0.0   |
| Switzerland                 | 5,752.8  | 0.0   | 1,984.6  | 0.0   | 3,681.7  | 76.5    | 0.0     | 10.0  |
| Ukraine                     | 387.6    | 0.0   | 153.7    | 0.0   | 233.9    | 0.0     | 0.0     | 0.0   |
| United Kingdom              | 29,024.3 | 0.0   | 18,607.1 | 0.0   | 9,923.0  | 179.1   | 250.1   | 65.0  |
| European countries, other   | 548.2    | 0.0   | 0.0      | 548.2 | 0.0      | 0.0     | 0.0     | 0.0   |
| North America               | 48,928.6 | 0.0   | 13,266.0 | 419.5 | 25,678.6 | 329.8   | 9,055.9 | 178.8 |
| Bahamas, The                | 19.6     | 0.0   | 19.6     | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Bermuda                     | 6,949.9  | 0.0   | 0.0      | 0.0   | 0.0      | 0.0     | 6,949.9 | 0.0   |
| Canada                      | 32,859.8 | 0.0   | 9,197.2  | 419.5 | 21,049.2 | 225.0   | 1,906.0 | 63.1  |
| Costa Rica                  | 3,495.5  | 0.0   | 0.0      | 0.0   | 3,432.0  | 14.4    | 0.0     | 49.2  |
| Greenland                   | 90.4     | 0.0   | 0.0      | 0.0   | 0.0      | 90.4    | 0.0     | 0.0   |
| Guatemala                   | 158.7    | 0.0   | 0.0      | 0.0   | 158.7    | 0.0     | 0.0     | 0.0   |
| Haiti                       | 970.0    | 0.0   | 0.0      | 0.0   | 970.0    | 0.0     | 0.0     | 0.0   |
| Mexico                      | 4,268.8  | 0.0   | 4,039.7  | 0.0   | 0.0      | 0.0     | 200.0   | 29.1  |
| Nicaragua                   | 68.8     | 0.0   | 0.0      | 0.0   | 68.8     | 0.0     | 0.0     | 0.0   |
| Panama                      | 37.6     | 0.0   | 0.0      | 0.0   | 0.0      | 0.0     | 0.0     | 37.6  |
| Virgin Islands, British     | 9.5      | 0.0   | 9.5      | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| Oceania                     | 20,975.9 | 0.0   | 10,664.7 | 0.0   | 9,182.4  | 870.2   | 0.0     | 258.5 |
| Australia                   | 17,843.5 | 0.0   | 9,818.8  | 0.0   | 7,255.4  | 510.8   | 0.0     | 258.5 |
| Fiji                        | 43.5     | 0.0   | 43.5     | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |
| New Zealand                 | 3,088.8  | 0.0   | 802.3    | 0.0   | 1,927.1  | 359.4   | 0.0     | 0.0   |
| South America               | 12,067.5 | 0.0   | 2,753.8  | 0.0   | 8,337.9  | 185.3   | 443.9   | 346.6 |
| Argentina                   | 1,579.5  | 0.0   | 116.8    | 0.0   | 1,152.1  | 0.0     | 0.0     | 310.6 |
| Brazil                      | 3,390.0  | 0.0   | 969.0    | 0.0   | 2,324.3  | 81.7    | 0.0     | 15.0  |
| Chile                       | 1,981.5  | 0.0   | 1,504.4  | 0.0   | 396.6    | 80.6    | 0.0     | 0.0   |
| Colombia                    | 523.5    | 0.0   | 42.0     | 0.0   | 481.5    | 0.0     | 0.0     | 0.0   |
| Paraguay                    | 1.0      | 0.0   | 0.0      | 0.0   | 0.0      | 0.0     | 0.0     | 1.0   |
| Peru                        | 3,985.0  | 0.0   | 121.6    | 0.0   | 3,820.3  | 23.1    | 0.0     | 20.0  |
| Suriname                    | 163.1    | 0.0   | 0.0      | 0.0   | 163.1    | 0.0     | 0.0     | 0.0   |
| Uruguay                     | 443.9    | 0.0   | 0.0      | 0.0   | 0.0      | 0.0     | 443.9   | 0.0   |
| International organizations | 820.4    | 0.0   | 820.4    | 0.0   | 0.0      | 0.0     | 0.0     | 0.0   |

\* = amount greater than \$0 but less than \$50.

DOC = Department of Commerce; DOD = Department of Defense; DOE = Department of Energy; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; NSF = National Science Foundation; USDA = Department of Agriculture.

**Note(s):**

Because of rounding, detail may not add to total. Only those countries that had obligations in variables represented by this table appear in the table. 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 2019–20.