

TABLE 103

Federal obligations for research, development, and R&D plant, by agency: FYs 2012–21

(Dollars in millions)

Agency	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
All agencies	140,670.2	127,625.5	132,779.0	131,578.3	118,273.8	121,626.6	133,277.5	146,800.7	173,552.9	185,408.1
Departments										
Department of Agriculture	2,187.6	2,031.2	2,269.0	2,352.0	2,380.4	2,575.2	2,522.7	2,666.1	3,433.5	2,769.7
Agricultural Marketing Service	4.3	5.0	5.7	6.8	6.7	7.2	7.2	7.7	7.0	7.0
Agricultural Research Service	1,094.6	1,017.0	1,123.2	1,132.6	1,152.0	1,317.6	1,229.0	1,311.7	2,203.9	1,607.0
Animal and Plant Health Inspection Service	37.4	36.9	39.6	40.2	40.3	39.5	38.8	39.5	39.8	41.9
Economic Research Service	77.2	71.0	77.6	85.1	85.1	86.4	86.5	85.6	81.7	87.0
Foreign Agricultural Service	0.7	0.7	0.2	0.6	0.2	0.2	0.0	0.0	0.0	0.0
Forest Service	340.5	337.3	342.9	339.7	354.0	336.9	342.7	336.8	351.4	276.6
Grain Inspection, Packers, and Stockyards Administration	6.7	6.2	7.6	8.1	8.0	0.3	na	na	na	na
National Agricultural Statistics Service	7.4	7.5	9.4	9.3	9.3	9.4	9.5	9.5	9.0	9.5
National Institute of Food and Agriculture	614.2	546.1	657.0	726.1	721.3	774.4	804.9	871.4	737.9	737.9
Rural Business-Cooperative Service	4.5	3.6	5.8	3.5	3.6	3.3	4.2	3.9	2.8	2.8
Department of Commerce	1,230.7	1,293.9	1,567.8	1,519.4	1,635.6	1,847.1	1,832.3	1,999.0	1,980.9	2,432.7
National Institute of Standards and Technology	548.1	608.6	665.7	673.6	750.6	806.6	791.1	831.3	877.8	1,276.1
National Oceanic and Atmospheric Administration	573.4	546.7	633.8	691.9	674.9	811.9	922.2	1,064.2	984.3	1,024.9
National Telecommunications and Information Administration	7.6	7.3	9.6	12.3	10.6	8.2	9.0	7.9	7.7	11.2
U.S. Census Bureau	101.7	131.3	258.8	141.6	199.6	220.3	109.9	95.6	111.1	120.5
Department of Defense	73,973.6	63,654.7	65,128.6	61,683.0	44,926.7	45,163.8	53,444.0	59,389.2	67,006.8	69,456.0
Defense Advanced Research Projects Agency	2,749.7	2,371.8	2,822.5	2,815.6	2,933.4	2,894.5	3,018.2	3,321.0	3,664.3	3,608.2
Defense Health Agency	na	na	NA	NA	NA	NA	NA	NA	2,885.9	2,718.0
Department of the Air Force	27,688.3	23,599.7	24,331.1	22,443.1	7,441.1	8,324.4	11,412.8	15,269.4	11,923.9	11,539.8
Department of the Army	9,219.8	7,883.3	7,332.1	6,764.3	6,373.4	7,530.8	8,581.3	10,274.8	10,786.4	12,222.1
Department of the Navy	17,753.1	15,439.9	15,590.6	15,525.4	16,682.4	15,284.5	15,525.0	15,484.4	19,158.5	18,840.9
U.S. Space Force	na	na	na	na	na	na	na	na	4,385.7	5,038.9
Other defense agencies	16,562.7	14,360.1	15,052.4	14,134.6	11,496.5	11,129.5	14,906.8	15,039.6	14,202.1	15,488.1

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Department of Education	338.0	309.9	322.0	251.3	244.4	261.8	266.2	235.8	240.1	379.2
Department of Energy	10,635.2	10,397.1	11,296.3	12,343.0	13,343.2	13,583.9	14,894.1	16,621.9	15,778.0	17,241.2
Advanced Research Projects Agency—Energy	102.8	182.1	260.9	241.6	299.3	273.8	159.9	405.0	438.0	427.0
Bonneville Power Administration	14.5	14.4	16.0	15.6	15.6	14.0	0.0	0.0	0.0	0.0
Electricity Delivery and Energy Reliability	101.3	83.0	103.6	97.2	112.4	133.0	145.8	137.7	139.8	133.8
Energy Efficiency and Renewable Energy	986.1	922.3	870.0	1,082.8	1,291.3	1,444.6	1,913.3	2,001.3	2,149.5	2,015.3
Environmental Management	45.8	9.1	27.6	25.1	29.7	31.4	38.0	26.1	22.2	29.3
Fossil Energy	382.7	357.5	441.7	539.8	608.7	620.3	682.9	682.0	708.0	714.0
National Nuclear Security Administration	4,126.7	4,255.2	4,532.2	4,527.6	4,818.7	4,739.9	4,531.0	6,077.9	4,557.6	6,435.2
Defense Programs	2,815.2	2,967.5	3,119.7	3,076.4	3,198.0	3,070.7	2,831.4	3,997.8	2,625.0	4,299.7
Naval Nuclear Propulsion Program	1,080.0	994.1	1,115.5	1,238.5	1,375.5	1,420.1	1,420.0	1,788.6	1,634.4	1,774.4
Office of Defense Nuclear Nonproliferation	231.5	293.6	297.0	212.7	245.2	249.0	279.5	291.5	298.1	361.0
Nuclear Energy	361.2	263.4	323.9	728.1	762.8	891.3	1,115.6	606.4	573.2	517.6
Office of Cybersecurity, Energy Security, and Emergency Response	na	na	na	na	na	na	0.0	51.9	50.7	51.1
Office of Science	4,514.0	4,309.9	4,720.4	5,085.4	5,404.8	5,435.7	6,307.6	6,633.6	7,139.0	6,918.0
Department of Health and Human Services	31,335.8	29,512.8	30,799.1	30,425.5	32,366.8	33,901.8	37,115.8	39,434.2	61,774.8	71,189.0
Administration for Children and Families	8.4	2.4	3.2	2.2	3.1	2.4	3.0	2.3	1.6	3.1
Administration for Community Living	0.0	0.0	0.0	76.0	83.1	83.3	82.7	83.1	90.4	91.9
Agency for Healthcare Research and Quality	365.8	365.0	364.0	364.0	334.0	324.0	334.0	338.0	338.0	308.1
Agency for Toxic Substances and Disease Registry	1.4	1.1	1.4	1.8	2.2	2.8	2.8	7.0	9.6	9.6
Biomedical Advanced Research and Development Authority	NA	NA	NA	NA	NA	NA	NA	736.2	16,962.2	27,478.7
Centers for Disease Control and Prevention	512.4	362.9	408.9	489.3	521.2	475.5	451.1	419.4	496.8	543.1

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Centers for Medicare and Medicaid Services	21.0	20.0	33.6	24.0	29.5	28.9	230.7	133.5	223.6	228.0
Food and Drug Administration	358.9	364.3	395.1	382.4	491.2	379.6	485.1	519.1	484.3	519.8
Health Resources and Services Administration	38.2	37.3	38.5	41.7	41.5	46.3	36.3	32.6	34.9	33.8
National Institutes of Health	30,010.1	28,341.3	29,535.9	29,026.0	30,843.0	32,542.0	35,473.0	37,146.0	43,117.0	41,956.0
Office of the Secretary of Health and Human Services	19.5	18.6	18.6	18.0	18.0	16.9	17.1	17.0	16.5	16.9
Office of the Assistant Secretary for Planning and Evaluation	19.5	18.6	18.6	18.0	18.0	16.9	17.1	17.0	16.5	16.9
Department of Homeland Security	832.2	718.8	943.8	1,645.2	689.2	869.9	913.1	648.5	507.5	541.0
Countering Weapons of Mass Destruction Office	NA	NA	84.4	71.3	63.0	69.3	29.9	81.4	37.5	35.9
Cybersecurity and Infrastructure Security Agency	na	na	na	na	na	na	7.2	13.1	7.7	9.4
Science and Technology Directorate	792.0	695.9	832.0	1,553.0	601.4	777.8	832.0	510.5	421.8	444.0
Transportation Security Administration	NA	NA	NA	NA	NA	NA	20.2	20.6	22.9	29.5
U.S. Coast Guard	40.2	22.9	27.4	20.9	24.7	22.8	22.8	20.8	4.9	10.3
U.S. Secret Service	NA	NA	NA	NA	NA	NA	1.0	1.9	12.7	11.9
Department of Housing and Urban Development	89.6	67.4	54.3	58.5	66.8	63.8	62.0	61.0	NA	NA
Department of the Interior	742.7	717.3	762.4	808.7	859.9	868.1	768.6	831.5	844.4	891.1
Bureau of Indian Affairs	NA	NA	NA	NA	NA	NA	5.0	5.0	*	*
Bureau of Land Management	NA	NA	NA	16.4	18.0	18.0	20.8	20.8	20.8	15.8
Bureau of Ocean Energy Management	39.0	39.5	48.0	50.4	72.2	75.7	78.3	85.5	72.9	81.7
Bureau of Reclamation	12.0	13.0	14.2	12.7	22.0	28.6	22.6	24.3	29.2	27.5
Bureau of Safety and Environmental Enforcement	13.2	21.4	35.6	25.3	29.5	15.7	6.8	12.6	13.4	29.7
National Park Service	5.6	7.0	15.2	8.3	8.7	9.5	9.9	10.1	10.2	10.2
Office of Surface Mining Reclamation and Enforcement	NA	NA	NA	NA	NA	NA	0.0	0.3	0.6	2.2

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U.S. Fish and Wildlife Service	NA	NA	NA	29.8	32.5	32.8	32.7	32.7	32.7	32.7
U.S. Geological Survey	672.8	636.3	649.5	665.8	676.9	687.8	592.6	640.2	664.8	691.3
Department of Justice	85.0	118.7	160.5	149.7	208.0	126.9	106.6	121.2	96.4	99.5
Bureau of Prisons	10.5	11.1	10.8	11.0	11.0	9.6	5.8	6.6	8.1	8.7
Federal Bureau of Investigation	7.7	39.0	9.6	12.9	13.0	2.2	2.9	1.0	4.7	0.9
Office of Justice Programs	66.8	68.6	140.1	125.8	184.0	115.1	98.0	113.6	83.6	89.9
Department of Labor	21.5	16.3	14.1	14.2	9.6	4.6	4.8	4.4	4.7	4.3
Employee Benefits Security Administration	12.8	9.6	7.5	6.5	4.6	2.6	3.0	2.6	2.7	2.3
Occupational Safety and Health Administration	6.0	4.2	3.6	3.4	0.7	2.0	1.9	1.7	2.0	2.0
Pension Benefit Guaranty Corp.	2.7	2.6	3.0	4.3	4.3	0.0	0.0	NA	NA	NA
Department of State	2.2	1.5	NA	2.0	2.0	2.1	62.1	62.2	40.0	43.0
Department of Transportation	936.1	875.8	847.7	884.5	961.5	987.0	1,076.6	1,051.7	1,224.5	1,180.6
Federal Aviation Administration	360.5	310.5	296.9	339.7	425.8	435.3	403.6	424.3	470.3	563.2
Federal Highway Administration	403.3	397.4	397.6	313.0	332.2	351.7	490.6	451.6	512.2	376.6
Federal Motor Carrier Safety Administration	7.3	7.8	7.5	7.6	10.6	11.7	9.3	7.8	8.9	11.4
Federal Railroad Administration	46.1	52.7	43.1	46.7	43.6	45.9	49.0	41.4	48.3	49.4
Federal Transit Administration	25.5	16.4	8.2	81.7	35.3	55.4	10.2	2.8	40.2	54.0
National Highway Traffic Safety Administration	68.7	64.8	65.1	62.5	86.6	69.0	76.0	76.3	68.9	66.0
Office of the Secretary of Transportation	8.9	10.9	15.1	11.5	17.9	11.1	16.4	19.8	34.4	41.0
Pipeline and Hazardous Materials Safety Administration	11.0	10.7	14.2	21.8	9.6	7.0	21.6	27.8	41.4	19.0
Research and Innovative Technology Administration	4.9	4.7	NA	NA	NA	NA	NA	NA	NA	NA
Department of the Treasury	75.6	74.1	74.0	73.1	85.2	8.2	37.7	61.3	60.6	63.4
Bureau of Engraving and Printing	5.0	9.4	9.4	9.5	18.8	6.9	37.7	58.8	60.4	63.3
Internal Revenue Service	69.0	64.5	64.0	63.6	64.6	0.0	0.0	0.0	0.0	0.0
U.S. Mint	1.6	0.2	0.6	*	1.8	1.3	0.0	2.5	0.2	0.1

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Agency	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
Department of Veterans Affairs	614.8	639.0	588.8	661.6	695.2	682.3	1,349.0	1,507.9	1,565.1	1,689.4
Other agencies										
Administrative Office of the U.S. Courts	NA	NA	NA	NA	6.8	8.0	6.8	6.4	5.0	6.4
Agency for International Development	77.4	125.5	59.9	212.2	192.8	192.2	166.6	220.6	194.3	194.3
Appalachian Regional Commission	0.6	0.2	0.6	0.4	0.9	0.1	0.5	0.9	0.7	*
Consumer Product Safety Commission	2.0	1.3	1.8	2.0	2.0	1.9	1.0	0.9	0.4	0.4
Environmental Protection Agency	581.1	529.7	538.0	520.7	513.3	498.4	492.1	490.0	493.0	524.1
Federal Communications Commission	4.0	5.2	6.7	4.8	5.1	7.2	5.5	2.0	1.8	2.6
Federal Trade Commission	2.9	2.7	2.5	1.9	3.0	5.7	5.8	6.0	6.0	7.5
Library of Congress	1.1	1.3	1.2	1.3	1.7	1.9	3.3	1.9	2.8	2.7
National Aeronautics and Space Administration	10,758.3	10,494.3	10,880.6	11,413.1	12,461.7	12,638.1	10,813.9	13,616.4	10,573.6	8,833.5
National Archives and Records Administration	2.0	1.1	0.9	0.7	0.7	0.5	0.5	0.5	0.0	0.0
National Science Foundation	5,705.4	5,328.5	5,800.2	5,989.7	6,022.3	5,945.7	6,358.0	6,648.3	6,792.5	6,938.9
Nuclear Regulatory Commission	82.6	75.9	85.0	91.9	80.6	67.4	77.7	74.9	69.2	76.3
Patient-Centered Outcomes Research Trust Fund	41.1	334.4	282.6	152.1	114.9	883.9	491.7	578.4	469.7	390.9
RESTORE Act Centers of Excellence Research Grants Program	na	na	na	na	na	na	na	na	9.2	5.0
Smithsonian Institution	246.2	240.3	230.9	229.0	235.0	240.5	260.6	269.0	276.0	281.0
Social Security Administration	64.9	56.7	59.6	58.9	129.0	109.5	71.6	146.2	69.7	129.4
Tennessee Valley Authority	NA	NA	NA	NA	NA	5.6	13.2	9.7	8.4	11.1
U.S. Agency for Global Media	NA	NA	NA	NA	NA	NA	NA	6.1	4.8	4.8
U.S. Postal Service	NA	NA	NA	28.0	29.4	73.3	53.2	26.7	18.2	19.0

* = amount greater than \$0 but less than \$50,000; 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 and 2021 obligations include additional funding provided by supplemental COVID-19 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.