

TABLE 99

## Federal outlays for research and development, by agency: FYs 2012–21

(Dollars in millions)

Agency	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
All agencies	128,559.8	127,224.8	128,476.5	128,089.9	109,551.8	110,000.2	117,072.2	124,854.5	144,919.9	166,468.4
Departments										
Department of Agriculture	2,290.2	2,231.9	2,320.7	2,320.3	2,411.5	2,329.8	2,308.1	2,497.8	2,458.8	2,538.7
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	1,095.0	1,071.2	1,025.4	1,077.2	1,118.3	1,148.8	1,101.3	1,149.6	1,263.9	1,288.0
Animal and Plant Health Inspection Service	31.8	31.3	37.1	34.2	39.1	39.1	38.5	39.1	39.5	41.5
Economic Research Service	80.2	78.6	77.0	74.4	94.4	81.5	86.6	82.2	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	355.0	342.0	330.0	336.0	336.0	334.0	327.0	323.0	317.0	365.0
Grain Inspection, Packers, and Stockyards Administration	5.0	4.7	5.7	6.0	6.0	0.2	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	706.8	688.0	824.4	772.3	798.0	706.1	735.3	884.0	737.9	737.9
Rural Business-Cooperative Service	3.9	3.0	5.8	3.5	3.6	3.3	2.8	2.8	2.8	2.8
Department of Commerce	1,112.1	1,081.7	1,266.7	1,220.7	1,330.4	1,526.5	1,414.6	1,521.9	1,546.4	1,681.1
National Institute of Standards and Technology	570.2	524.1	553.2	606.9	644.7	644.4	670.5	703.4	679.6	773.5
National Oceanic and Atmospheric Administration	432.8	418.6	504.4	461.0	505.0	653.7	627.0	714.0	748.0	776.0
National Telecommunications and Information Administration	7.4	7.8	7.9	11.3	10.3	8.1	7.3	8.9	7.7	11.2
U.S. Census Bureau	101.7	131.3	201.2	141.6	170.4	220.3	109.9	95.6	111.1	120.5
Department of Defense	65,252.9	65,019.6	63,509.3	62,100.4	42,700.4	41,292.2	44,843.2	48,135.3	55,832.5	60,085.1
Defense Advanced Research Projects Agency	2,833.3	2,692.2	2,807.7	2,832.5	2,870.6	2,877.1	2,996.0	3,253.7	3,465.8	3,505.4
Defense Health Agency	na	na	NA	NA	NA	NA	NA	NA	2,001.0	2,521.4
Department of the Air Force	25,042.8	24,789.7	23,204.7	23,322.8	7,137.3	7,439.3	11,014.9	11,830.4	9,049.8	9,755.4
Department of the Army	6,688.5	7,816.8	7,653.1	7,306.3	6,800.4	6,911.1	7,011.3	9,293.2	10,867.8	11,542.5
Department of the Navy	14,363.0	15,487.4	15,437.3	14,669.0	15,166.4	14,397.6	12,522.6	10,902.7	14,787.5	13,994.5
U.S. Space Force	na	na	na	na	na	na	na	na	4,337.8	4,962.7
Other defense agencies	16,325.4	14,233.4	14,406.5	13,969.8	10,725.8	9,667.2	11,298.4	12,855.2	11,322.7	13,803.2

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Department of Education	101.6	97.2	344.8	318.0	212.2	245.8	235.3	226.4	227.2	260.4
Department of Energy	9,599.3	9,302.1	10,364.2	11,303.4	11,855.3	12,019.6	14,606.7	13,656.5	10,810.2	13,978.7
Advanced Research Projects Agency—Energy	142.4	143.6	187.2	245.2	237.9	269.2	250.9	247.1	269.8	365.0
Bonneville Power Administration	14.5	0.0	16.0	15.6	15.6	14.0	0.0	0.0	0.0	0.0
Electricity Delivery and Energy Reliability	101.1	45.3	73.1	107.6	91.7	133.0	103.8	144.2	142.1	134.4
Energy Efficiency and Renewable Energy	909.8	704.9	960.5	1,043.1	1,142.1	1,280.0	1,341.0	1,451.2	1,447.2	1,612.1
Environmental Management	45.8	9.1	23.2	24.2	22.8	28.7	38.0	29.3	31.4	20.9
Fossil Energy	285.7	360.4	425.6	631.9	624.5	620.3	661.6	659.0	584.1	678.0
National Nuclear Security Administration	3,919.8	3,855.7	4,312.2	4,221.9	4,544.8	4,636.1	4,025.5	5,477.1	3,475.2	5,765.8
Defense Programs	2,648.2	2,568.1	2,921.5	2,925.9	2,980.1	3,167.0	2,536.7	3,359.5	2,070.3	4,263.9
Naval Nuclear Propulsion Program	1,040.1	994.0	1,093.7	1,083.4	1,215.7	1,220.0	1,172.8	1,788.6	1,113.2	1,140.3
Office of Defense Nuclear Nonproliferation	231.5	293.6	297.0	212.7	348.9	249.0	316.0	329.0	291.7	361.7
Nuclear Energy	361.2	263.4	323.9	760.4	832.6	811.1	846.0	1,109.5	1.2	0.7
Office of Cybersecurity, Energy Security, and Emergency Response	na	na	na	na	na	na	0.0	36.3	50.7	51.1
Office of Science	3,819.1	3,919.7	4,042.4	4,253.3	4,343.4	4,227.3	7,340.0	4,502.9	4,808.5	5,350.6
Department of Health and Human Services	30,721.0	29,282.5	30,403.9	29,497.0	29,522.1	31,168.6	32,997.0	35,270.7	53,408.1	67,823.0
Administration for Children and Families	8.1	2.6	2.6	2.5	3.0	2.0	1.3	2.4	1.6	3.1
Administration for Community Living	0.0	0.0	0.0	76.0	83.1	83.3	82.7	83.1	91.8	92.9
Agency for Healthcare Research and Quality	0.0	365.0	364.0	364.0	334.0	324.0	334.0	338.0	338.0	338.0
Agency for Toxic Substances and Disease Registry	1.4	1.1	1.4	1.8	2.2	2.8	2.8	7.0	*	*
Biomedical Advanced Research and Development Authority	NA	NA	NA	NA	NA	NA	NA	280.8	17,441.0	26,996.1
Centers for Disease Control and Prevention	445.3	300.5	198.0	275.3	198.0	208.0	200.1	187.2	217.7	239.2

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Agency	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
Centers for Medicare and Medicaid Services	33.8	20.0	33.6	24.0	29.5	29.8	230.7	5.8	31.3	31.9
Food and Drug Administration	315.7	322.8	348.3	336.3	455.3	435.0	427.5	443.7	415.3	506.5
Health Resources and Services Administration	20.3	36.6	37.8	41.1	41.0	45.8	33.7	26.6	25.0	16.4
National Institutes of Health	29,876.8	28,215.3	29,399.6	28,358.0	28,358.0	30,021.0	31,667.0	33,879.0	34,830.0	39,582.0
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	593.4	334.9	448.0	475.8	538.4	840.7	862.2	863.2	866.7	927.1
Countering Weapons of Mass Destruction Office	NA	NA	73.5	71.3	63.0	69.3	64.9	81.4	85.0	77.0
Cybersecurity and Infrastructure Security Agency	na	na	na	na	na	na	7.2	13.1	7.7	9.4
Science and Technology Directorate	572.7	314.0	350.5	380.0	454.4	750.6	752.2	724.0	736.3	789.0
Transportation Security Administration	NA	NA	NA	NA	NA	NA	20.2	20.6	22.9	29.5
U.S. Coast Guard	20.7	20.8	24.0	24.5	20.9	20.9	16.5	22.1	4.9	10.3
U.S. Secret Service	NA	NA	NA	NA	NA	NA	1.2	1.9	9.9	11.9
Department of Housing and Urban Development	53.5	63.8	66.7	56.0	74.7	71.0	70.5	63.0	NA	NA
Department of the Interior	738.7	698.3	739.4	805.4	856.8	861.2	750.8	800.7	821.6	852.4
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	30.5	48.0	50.0	73.0	73.1	77.4	73.3	73.3	72.5
Bureau of Reclamation	10.0	10.1	12.0	9.8	20.9	27.4	23.4	23.2	27.5	26.4
Bureau of Safety and Environmental Enforcement	11.6	14.4	14.8	23.3	26.8	21.4	5.6	12.5	7.9	15.6
National Park Service	5.3	7.0	15.2	8.3	8.7	9.5	0.8	0.9	0.9	0.9
Office of Surface Mining Reclamation and Enforcement	NA	NA	NA	NA	NA	NA	1.1	1.0	0.7	0.8

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U.S. Fish and Wildlife Service	NA	NA	NA	31.9	32.5	24.0	24.0	24.0	25.8	29.2
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	67.0	109.7	160.5	56.9	69.1	23.8	19.7	19.6	23.9	20.6
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	30.0	9.6	12.9	13.0	2.2	2.9	1.0	4.7	0.9
Office of Justice Programs	48.8	68.6	140.1	33.0	45.2	12.0	11.0	12.0	11.0	11.0
Department of Labor	18.8	14.7	12.3	12.5	8.0	3.1	3.3	2.8	3.0	2.5
Employee Benefits Security Administration	11.5	8.2	5.9	5.1	3.0	1.1	1.4	1.1	1.0	0.5
Occupational Safety and Health Administration	4.6	3.9	3.6	3.4	0.7	2.0	1.9	1.7	2.0	2.0
Pension Benefit Guaranty Corp.	2.7	2.6	2.9	4.1	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	719.2	659.8	786.1	697.2	719.0	681.6	629.9	668.9	650.8	720.9
Federal Aviation Administration	224.0	198.0	209.0	209.0	223.0	234.0	209.0	211.0	195.0	289.0
Federal Highway Administration	311.3	280.9	385.9	353.0	353.0	274.4	261.4	287.1	278.4	233.7
Federal Motor Carrier Safety Administration	6.7	6.9	7.5	7.6	10.6	11.7	10.3	7.1	6.9	8.5
Federal Railroad Administration	43.9	40.9	52.1	41.3	38.9	41.1	33.3	33.4	41.4	47.2
Federal Transit Administration	25.9	10.5	9.1	17.0	6.8	40.7	36.0	39.7	19.5	23.0
National Highway Traffic Safety Administration	82.6	95.0	93.0	46.0	49.0	55.0	53.0	64.0	67.2	63.4
Office of the Secretary of Transportation	13.9	15.6	13.9	11.5	18.5	11.4	16.4	8.5	24.3	27.7
Pipeline and Hazardous Materials Safety Administration	8.0	7.3	15.6	11.9	19.3	13.4	10.5	18.0	18.1	28.2
Research and Innovative Technology Administration	3.0	4.7	NA	NA	NA	NA	NA	NA	NA	NA
Department of the Treasury	75.6	74.1	76.4	66.5	85.2	10.5	37.7	44.7	44.7	52.6
Bureau of Engraving and Printing	5.0	9.4	9.4	9.5	18.8	9.2	37.7	44.5	44.5	52.4
Internal Revenue Service	69.0	64.5	64.4	53.7	64.6	0.0	0.0	0.0	0.0	0.0
U.S. Mint	1.6	0.1	2.6	3.4	1.8	1.3	0.0	0.2	0.2	0.2

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Agency	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021 (preliminary)
Department of Veterans Affairs	614.8	639.0	608.3	612.1	583.1	594.1	644.0	685.0	778.0	762.0
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	0.5	0.6	0.6	0.4	0.6	0.6	0.6	0.9	0.5
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	576.3	522.8	530.9	515.6	508.0	493.6	487.4	485.3	488.5	521.8
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	1.0	1.0	1.0	1.1	1.6	1.8	3.3	1.9	2.8	2.7
National Aeronautics and Space Administration	10,427.0	11,265.4	11,128.1	12,150.2	11,936.7	10,528.0	10,765.1	13,260.0	10,481.0	9,103.9
National Archives and Records Administration	2.0	1.1	0.9	0.7	0.7	0.5	0.5	0.5	*	*
National Science Foundation	5,124.0	5,269.0	5,198.0	5,059.0	5,120.0	5,279.0	5,207.0	5,273.0	5,370.0	6,030.0
Nuclear Regulatory Commission	81.0	85.0	90.6	70.8	86.0	67.4	77.7	74.9	69.2	76.3
Patient-Centered Outcomes Research Trust Fund	41.1	74.2	93.6	244.2	354.1	1,345.0	491.7	578.5	469.8	390.9
RESTORE Act Centers of Excellence Research Grants Program	na	na	na	na	na	na	na	na	7.1	5.0
Smithsonian Institution	195.3	204.0	194.8	195.6	207.8	210.0	230.1	236.4	209.8	213.6
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 in that fiscal year.

**Note(s):**

Because of rounding, detail may not add to total. Only those agencies and subdivisions that had outlays in variables represented by this table appear in the table. Beginning with FY 2016, the totals reported for development outlays 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) outlays. Those funds, previously included in DOD's development outlay 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 outlays 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.