TABLE 73

Federal obligations for research and development, by agency: FYs 2014–23 (Dollars in millions)

Agency	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (preliminary)
All agencies	130,561	128,753	115,833	118,975	129,425	142,424	167,403	189,614	190,422	186,448
Departments										
Department of Agriculture	2,258	2,341	2,358	2,418	2,479	2,637	2,644	2,898	3,135	3,487
Agricultural Marketing Service	6	7	7	7	7	8	7	13	10	9
Agricultural Research Service	1,122	1,132	1,144	1,170	1,201	1,292	1,424	1,510	1,651	1,858
Animal and Plant Health Inspection Service	40	40	40	39	39	39	40	42	45	49
Economic Research Service	78	85	85	86	86	86	82	85	88	93
Foreign Agricultural Service	*	1	*	*	0	0	0	0	0	0
Forest Service	335	332	341	328	327	327	342	286	330	307
Grain Inspection, Packers, and Stockyards Administration	6	6	6	*	na	na	na	na	na	na
National Agricultural Statistics Service	9	9	9	9	9	9	9	9	11	11
National Institute of Food and Agriculture	657	726	721	774	805	871	738	937	986	1,145
Natural Resources Conservation Service	NA	13	16	16						
Rural Business-Cooperative Service	6	4	4	3	4	4	3	0	0	0
Department of Commerce	1,375	1,331	1,351	1,612	1,439	1,535	1,622	1,813	2,011	2,805
Census Bureau	259	142	200	220	110	96	111	109	202	312
National Institute of Standards and Technology	602	634	629	716	686	712	735	885	862	1,364
National Oceanic and Atmospheric Administration	504	544	511	668	634	719	768	812	936	1,116
National Telecommunications and Information Administration	10	12	11	8	9	8	8	7	11	13
Department of Defense	64,980	61,514	44,749	44,873	52,973	58,780	66,695	70,707	72,352	88,865
Defense Advanced Research Projects Agency	2,822	2,816	2,933	2,895	3,018	3,321	3,664	3,606	3,609	4,191
Defense Health Agency	NA	NA	NA	NA	NA	NA	2,870	2,852	2,136	2,562
Department of the Air Force	24,210	22,320	7,322	8,099	11,203	15,077	11,683	12,390	13,898	15,883
Department of the Army	7,332	6,764	6,372	7,531	8,581	10,275	10,786	11,921	12,060	15,518
Department of the Navy	15,567	15,490	16,644	15,236	15,446	15,341	19,114	16,734	17,488	22,082
Space Force	na	na	na	na	na	na	4,386	5,342	4,951	8,626
Other defense agencies	15,048	14,124	11,477	11,112	14,725	14,766	14,191	17,863	18,210	20,003
Department of Education	322	251	244	262	266	236	240	364	402	354
Department of Energy	10,526	11,391	12,209	12,308	12,832	14,376	13,453	13,453	13,697	15,106
Advanced Research Projects Agency—Energy	261	242	299	274	160	405	438	315	403	470
Bonneville Power Administration	16	16	16	14	NA	NA	NA	NA	NA	NA
Electricity Delivery and Energy Reliability	104	97	112	133	146	138	140	129	114	156
Energy Efficiency and Renewable Energy	866	1,079	1,288	1,441	1,686	1,696	2,096	2,114	1,610	1,762
Environmental Management	28	25	30	31	38	26	22	30	36	43
Fossil Energy	426	524	609	605	662	659	679	691	559	938
National Nuclear Security Administration	4,417	4,271	4,568	4,435	4,057	5,741	3,984	4,213	4,011	4,182
Defense Programs	3,026	2,975	3,107	2,966	2,572	3,660	2,298	2,703	2,838	2,938
Naval Nuclear Propulsion Program	1,094	1,083	1,216	1,220	1,206	1,789	1,387	1,140	807	841

TABLE 73

Federal obligations for research and development, by agency: FYs 2014–23 (Dollars in millions)

Agency	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (preliminary)
Office of Defense Nuclear	007	010	0.45	0.40	000	000	000	260	266	400
Nonproliferation	297 324	213 728	245 763	249 891	280 1,116	292 606	298 573	369 455	366 804	402 1,118
Nuclear Energy Office of Cybersecurity, Energy Security, and Emergency Response	na	na	na	na	0	52	573	2	37	63
Office of Science	4,085	4,409	4,524	4,485	4,968	5,054	5,470	5,506	6,124	6,375
Department of Health and Human Services	30,656	30,272	32,216	33,774	36,911	39,191	60,006	76,651	74,097	49,270
Administration for Children and Families	3	2	3	2	3	2	2	5	5	9
Administration for Community Living	0	76	83	83	83	83	90	107	107	113
Agency for Healthcare Research and Quality	364	364	334	324	334	338	338	338	350	374
Agency for Toxic Substances and Disease Registry	1	2	2	3	3	7	10	11	12	12
Biomedical Advanced Research and Development Authority	NA	NA	NA	NA	NA	736	15,666	33,881	28,413	818
Centers for Disease Control and Prevention	409	489	521	475	451	419	497	696	565	459
Centers for Medicare and Medicaid Services	34	24	30	29	231	133	224	421	419	427
Food and Drug Administration	389	376	486	375	478	493	464	589	561	630
Health Resources and Services Administration	38	41	41	46	36	33	35	41	40	50
National Institutes of Health	29,400	28,880	30,698	32,419	35,276	36,929	42,664	40,546	43,589	46,341
Office of the Secretary of Health and Human Services	19	18	18	17	17	17	16	17	36	38
Office of the Assistant Secretary for Planning and Evaluation	19	18	18	17	17	17	16	17	36	38
Department of Homeland Security	583	742	572	857	912	647	507	529	571	544
Coast Guard	26	20	23	22	22	20	5	10	7	7
Countering Weapons of Mass Destruction Office	84	71	63	69	30	81	37	32	66	65
Cybersecurity and Infrastructure Security Agency	na	na	na	na	7	13	8	13	6	9
Science and Technology Directorate	472	651	486	766	832	511	422	444	491	459
Secret Service	NA	NA	NA	NA	1	2	13	1	1	4
Transportation Security Administration	NA	NA	NA	NA	20	21	23	29	*	÷
Department of Housing and Urban Development	54	58	67	64	62	61	NA	NA	NA	NA
Department of the Interior	758	800	857	863	766	827	837	902	940	1,044
Bureau of Indian Affairs	NA	NA	NA 12	NA	5	5	*	5	5	5
Bureau of Land Management	NA	16	18	18	21	21	21	10	12	13
Bureau of Ocean Energy Management	48	50	72	76	78	86	73	77	86	88
Bureau of Reclamation	12	10	21	27	21	23	27	38	28	44
Bureau of Safety and Environmental Enforcement	33	20	27	11	5	9	8	21	9	17
Fish and Wildlife Service	NA	30	32	33	33	33	33	33	35	44

TABLE 73

Federal obligations for research and development, by agency: FYs 2014–23 (Dollars in millions)

Agency	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (preliminary)
Geological Survey	649	666	677	688	593	640	665	691	737	803
National Park Service	15	8	9	10	10	10	10	28	28	28
Office of Surface Mining Reclamation and Enforcement	NA	NA	NA	NA	0	*	1	0	NA	NA
Department of Justice	161	150	208	127	107	121	96	85	111	139
Bureau of Prisons	11	11	11	10	6	7	8	*	*	*
Federal Bureau of Investigation	10	13	13	2	3	1	5	4	9	21
Office of Justice Programs	140	126	184	115	98	114	84	81	102	118
Department of Labor	14	14	10	5	5	4	5	3	4	4
Employee Benefits Security Administration	7	7	5	3	3	3	3	1	2	2
Occupational Safety and Health Administration	4	3	1	2	2	2	2	2	2	2
Pension Benefit Guaranty Corp.	3	4	4	0	0	NA	NA	NA	NA	NA
Department of State	NA	2	2	2	62	62	40	64	65	60
Department of Transportation	828	856	937	949	1,046	1,012	1,184	1,108	1,073	1,226
Federal Aviation Administration	280	313	403	399	375	387	432	507	478	486
Federal Highway Administration	398	313	332	352	491	452	512	410	383	463
Federal Motor Carrier Safety Administration	8	8	11	12	9	8	9	13	24	15
Federal Railroad Administration	40	44	41	44	47	39	46	42	36	44
Federal Transit Administration	8	82	35	55	10	3	40	43	13	49
National Highway Traffic Safety Administration	65	63	87	69	76	76	69	66	92	96
Office of the Secretary of										
Transportation	15	11	18	11	16	20	34	12	24	51
Pipeline and Hazardous Materials Safety Administration	14	22	10	7	22	28	41	16	24	22
Department of the Treasury	74	73	85	8	38	57	61	54	47	72
Bureau of Engraving and Printing	9	9	19	7	38	57	60	54	47	72
Internal Revenue Service	64	64	65	0	0	0	0	NA	NA	NA
Mint	1	*	2	1	0	*	*	*	0	0
Department of Veterans Affairs	589	662	695	682	1,349	1,508	1,565	1,698	1,696	1,930
Other agencies										
Administrative Office of the U.S. Courts	NA	NA	7	8	7	6	5	4	1	0
Agency for Global Media	NA	NA	NA	NA	NA	6	5	5	8	8
Agency for International Development	60	212	193	192	167	221	194	82	221	221
Appalachian Regional Commission	1	*	1	*	1	1	1	1	1	1
Consumer Product Safety Commission	2	2	2	2	1	1	*	*	*	*
Environmental Protection Agency	531	516	508	494	487	485	489	520	525	572
Federal Communications Commission	7	5	5	7	5	2	2	0	NA	NA
Federal Trade Commission	3	2	3	6	6	6	6	8	3	10
Library of Congress	1	1	2	2	3	2	3	3	3	3
National Aeronautics and Space Administration	10,754	11,361	12,404	12,595	10,717	13,570	10,538	11,215	11,623	11,750
National Archives and Records Administration	1	1	1	1	1	1	0	NA	NA	NA
National Science Foundation	5,403	5,670	5,589	5,518	5,849	5,996	6,351	6,705	6,896	7,854
Nuclear Regulatory Commission	85	92	81	67	78	75	69	80	61	83

TABLE 73 Federal obligations for research and development, by agency: FYs 2014-23

(Dollars in millions)

Agency	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (preliminary)
Patient-Centered Outcomes Research Trust Fund	283	152	115	884	492	578	470	460	522	560
Postal Service	NA	28	29	73	53	27	18	15	14	14
RESTORE Act Centers of Excellence Research Grants Program	na	na	na	na	na	na	9	0	7	23
Smithsonian Institution	195	196	206	208	228	236	210	63	227	242
Social Security Administration	60	59	129	110	72	146	70	105	79	106
Tennessee Valley Authority	NA	NA	NA	6	13	10	8	17	28	94

<sup>\* =</sup> amount greater than \$0 but less than \$500,000. 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 System 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, 2021, and 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.

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