TABLE 67

Federal outlays 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	128,476	128,090	109,552	110,000	117,072	124,854	144,920	174,529	178,880	171,890
Departments										
Department of Agriculture	2,321	2,320	2,411	2,330	2,308	2,498	2,459	2,593	2,849	3,562
Agricultural Marketing Service	6	7	7	7	7	8	7	7	5	5
Agricultural Research Service	1,025	1,077	1,118	1,149	1,101	1,150	1,264	1,378	1,494	2,043
Animal and Plant Health Inspection Service	37	34	39	39	39	39	40	42	45	49
Economic Research Service	77	74	94	82	87	82	82	85	88	93
Foreign Agricultural Service	*	1	*	*	0	0	0	0	0	(
Forest Service	330	336	336	334	327	323	317	290	297	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	824	772	798	706	735	884	738	779	908	1,054
Natural Resources Conservation Service	NA	1	1							
Rural Business-Cooperative Service	6	4	4	3	3	3	3	0	0	(
Department of Commerce	1,267	1,221	1,330	1,526	1,415	1,522	1,546	1,689	1,934	2,363
Census Bureau	201	142	170	220	110	96	111	109	202	312
National Institute of Standards and Technology	553	607	645	644	670	703	680	769	807	1,010
National Oceanic and Atmospheric Administration	504	461	505	654	627	714	748	800	914	1,028
National Telecommunications and Information Administration	8	11	10	8	7	9	8	10	11	13
Department of Defense	63,509	62,100	42,700	41,292	44,843	48,135	55,832	63,275	68,717	81,66
Defense Advanced Research Projects Agency	2,808	2,832	2,871	2,877	2,996	3,254	3,466	3,508	3,703	3,93
Defense Health Agency	NA	NA	NA	NA	NA	NA	2,001	2,427	2,112	2,01
Department of the Air Force	23,205	23,323	7,137	7,439	11,015	11,830	9,050	10,563	12,935	14,550
Department of the Army	7,653	7,306	6,800	6,911	7,011	9,293	10,868	11,440	11,284	14,418
Department of the Navy	15,437	14,669	15,166	14,398	12,523	10,903	14,788	16,260	16,425	20,10
Space Force	na	na	na	na	na	na	4,338	4,393	4,319	8,23
Other defense agencies	14,407	13,970	10,726	9,667	11,298	12,855	11,323	14,686	17,938	18,40
Department of Education	345	318	212	246	235	226	227	214	285	27
Department of Energy	10,364	11,303	11,855	12,020	14,607	13,657	10,810	12,263	12,461	13,620
Advanced Research Projects Agency—Energy	187	245	238	269	251	247	270	308	339	38
Bonneville Power Administration	16	16	16	14	NA	NA	NA	NA	NA	N/
Electricity Delivery and Energy Reliability	73	108	92	133	104	144	142	146	111	14
Energy Efficiency and Renewable Energy	960	1,043	1,142	1,280	1,341	1,451	1,447	1,513	1,426	1,559
Environmental Management	23	24	23	29	38	29	31	23	22	20
Fossil Energy	426	632	624	620	662	659	584	681	610	77
National Nuclear Security	4015	4.005	4 - 4 -	4.50-	4.00=	F 43-	0 47-	0.055	0.045	0.53
Administration	4,312	4,222	4,545	4,636	4,025	5,477	3,475	3,866	3,942	3,860
Defense Programs	2,921	2,926	2,980	3,167	2,537	3,360	2,070	2,384	2,827	2,661
Naval Nuclear Propulsion Program	1,094	1,083	1,216	1,220	1,173	1,789	1,113	1,140	749	803

TABLE 67

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

gency	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 (preliminary)
Office of Defense Nuclear	207	010	0.40	0.40	016	200	200	0.40	0.4.6	40.0
Nonproliferation	297	213	349	249	316	329	292	342	366	402
Nuclear Energy	324	760	833	811	846	1,110	1	455	562	87
Office of Cybersecurity, Energy Security, and Emergency Response	na	na	na	na	0	36	51	31	*	,
Office of Science	4,042	4,253	4,343	4,227	7,340	4,503	4,809	5,241	5,449	6,00
Department of Health and Human Services	30,404	29,497	29,522	31,169	32,997	35,271	53,408	72,664	68,926	44,732
Administration for Children and Families	3	3	3	2	1	2	2	5	4	4
Administration for Community Living	0	76	83	83	83	83	92	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	*	11	12	12
Biomedical Advanced Research and Development Authority	NA	NA	NA	NA	NA	281	17,441	33,881	28,413	818
Centers for Disease Control and Prevention	198	275	198	208	200	187	218	299	232	190
Centers for Medicare and Medicaid Services	34	24	30	30	231	6	31	36	270	27
Food and Drug Administration	348	336	455	435	428	444	415	528	502	56
Health Resources and Services Administration	38	41	41	46	34	27	25	56	40	30
National Institutes of Health	29,400	28,358	28,358	30,021	31,667	33,879	34,830	37,386	38,962	42,30
Office of the Secretary of Health and Human Services	19	18	18	17	17	17	16	17	36	3
Office of the Assistant Secretary for Planning and Evaluation	19	18	18	17	17	17	16	17	36	3
Department of Homeland Security	448	476	538	841	862	863	867	553	537	62
Coast Guard	24	24	21	21	17	22	5	10	7	
Countering Weapons of Mass Destruction Office	74	71	63	69	65	81	85	87	66	6
Cybersecurity and Infrastructure Security Agency	na	na	na	na	7	13	8	13	6	
Science and Technology Directorate	351	380	454	751	752	724	736	411	457	54
Secret Service	NA	NA	NA	NA	1	2	10	3	1	
Transportation Security Administration	NA	NA	NA	NA	20	21	23	29	*	
Department of Housing and Urban Development	67	56	75	71	71	63	NA	NA	NA	N/
Department of the Interior	739	805	857	861	751	801	822	874	916	1,03
Bureau of Indian Affairs	NA	NA	NA	NA	5	5	*	5	5	
Bureau of Land Management	NA	16	18	18	21	21	21	9	12	1:
Bureau of Ocean Energy Management	48	50	73	73	77	73	73	70	66	8
Bureau of Reclamation	12	10	21	27	23	23	27	38	28	4
Bureau of Safety and Environmental Enforcement	15	23	27	21	6	12	8	14	8	10
Fish and Wildlife Service	NA	32	32	24	24	24	26	23	35	4

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Federal outlays 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	1	1	1	23	25	25
Office of Surface Mining Reclamation and Enforcement	NA	NA	NA	NA	1	1	1	0	NA	N/
Department of Justice	161	57	69	24	20	20	24	11	18	31
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	33	45	12	11	12	11	8	9	11
Department of Labor	12	13	8	3	3	3	3	3	3	3
Employee Benefits Security Administration	6	5	3	1	1	1	1	1	1	1
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	N/
Department of State	NA	2	2	2	62	62	40	64	65	60
Department of Transportation	786	697	719	682	630	669	651	642	668	779
Federal Aviation Administration	209	209	223	234	209	211	195	221	222	308
Federal Highway Administration	386	353	353	274	261	287	278	257	263	237
Federal Motor Carrier Safety Administration	8	8	11	12	10	7	7	3	11	1!
Federal Railroad Administration	52	41	39	41	33	33	41	38	41	44
Federal Transit Administration	9	17	7	41	36	40	20	29	27	2
National Highway Traffic Safety Administration	93	46	49	55	53	64	67	60	69	7:
Office of the Secretary of Transportation	14	11	19	11	16	9	24	13	25	5
Pipeline and Hazardous Materials Safety Administration	16	12	19	13	10	18	18	21	9	22
Department of the Treasury	76	67	85	10	38	45	45	54	48	7:
Bureau of Engraving and Printing	9	9	19	9	38	45	45	54	48	7:
Internal Revenue Service	64	54	65	0	0	0	0	NA	NA	N
Mint	3	3	2	1	0	*	*	*	0	
Department of Veterans Affairs	608	612	583	594	644	685	778	1,475	1,610	1,64
Other agencies										
Administrative Office of the U.S. Courts	NA	NA	7	8	7	6	5	4	1	(
Agency for Global Media	NA	NA	NA	NA	NA	6	5	5	8	1
Agency for International Development	60	212	193	192	167	221	194	82	221	22
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	57:
Federal Communications Commission	7	5	5	7	5	2	2	0	NA	N/
Federal Trade Commission	3	2	3	6	6	6	6	8	3	1
Library of Congress	1	1	2	2	3	2	3	3	3	;
National Aeronautics and Space Administration	11,128	12,150	11,937	10,528	10,765	13,260	10,481	11,089	12,137	12,900
National Archives and Records Administration	1	1	1	1	1	1	*	NA	NA	N/
National Science Foundation	5,198	5,059	5,120	5,279	5,207	5,273	5,370	5,546	5,989	6,592
Nuclear Regulatory Commission	91	71	86	67	78	75	69	77	82	9;

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Federal outlays 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	94	244	354	1,345	492	579	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	7	4	4	4
Smithsonian Institution	195	196	208	210	230	236	210	219	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

^{* =} 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 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 System 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, 2021, and 2022 outlays 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.

Source(s):

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