TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D f	ield				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
All agencies	34,497,051	1,076,009 i	6,705,027	1,561,889	1,798,608	247,027	2,435,019	23,625	272,520	17,624,189	2,753,137 i
Department of Agriculture	1,685,343	875,344 i	476,112 i	11,674	4,900 i	4,986	86,703 i	0	84,683	11,566 i	129,375 i
Agricultural Research Service	1,237,476	553,690 i	469,492 i	1,448	i 4,900 i	0 i	71,501 i	0 i	2,673 i	10,024 i	123,748 i
Midwest Area	165,788	74,179 i	62,899 i	194	i 657 i	0 i	9,579 i	0 i	358 i	1,343 i	16,579 i
Northeast Area	261,199	116,870 i	99,098 i	306	i 1,034 i	0 i	15,092 i	0 i	564 i	2,116 i	26,120 i
Pacific West Area	208,801	93,425 i	79,218 i	244	i 827 i	0 i	12,065 i	0 i	451 i	1,691 i	20,880 i
Plains Area	314,563	140,747 i	119,344 i	368	i 1,246 i	0 i	18,175 i	0 i	679 i	2,548 i	31,456 i
Southeast Area	287,125	128,470 i	108,934 i	336	i 1,137 i	0 i	16,590 i	0 i	620 i	2,326 i	28,713 i
Animal and Plant Health Inspection Service	48,982	30,114	6,620	0	0	1,324	1,324	0	3,972	0	5,627
Forest Pest Methods Laboratory	6,618	6,618	0	0	0	0	0	0	0	0	0
Insect Management and Molecular Diagnostics Laboratory	1,358	1,358	0	0	0	0	0	0	0	0	0
National Veterinary Services Laboratories/ Center for Veterinary Biologics	5,790	5,790	0	0	0	0	0	0	0	0	0
National Wildlife Research Center	33,101	14,234	6,620	0	0	1,324	1,324	0	3,972	0	5,627
Plant Pathogen Confirmatory Diagnostics Laboratory	1,665	1,665	0	0	0	0	0	0	0	0	0
Treatment and Inspection Methods Laboratory	450	450	0	0	0	0	0	0	0	0	0
Economic Research Service	78,038	0	0	0	0	0	0	0	78,038	0	0
Forest Service	299,844	280,762	0	0	0	3,662	13,878	0	0	1,542	0
Forest Products Laboratory	19,275	193	0	0	0	3,662	13,878	0	0	1,542	0
International Institute of Tropical Forestry	7,856	7,856	0	0	0	0	0	0	0	0	0
Northern Research Station	53,497	53,497	0	0	0	0	0	0	0	0	0
Pacific Northwest Research Station	52,212	52,212	0	0	0	0	0	0	0	0	0
Pacific Southwest Research Station	22,703	22,703	0	0	0	0	0	0	0	0	0
Rocky Mountain Research Station	76,579	76,579	0	0	0	0	0	0	0	0	0
Southern Research Station	50,301	50,301	0	0	0	0	0	0	0	0	0
Washington Office Research and Development	17,420	17,420	0	0	0	0	0	0	0	0	0
National Agricultural Statistics Service	10,226	0	0	10,226	0	0	0	0	0	0	0
Natural Resources Conservation Service	10,777	10,777	0	0	0	0	0	0	0	0	0
Plant Materials Center	10,258	10,258	0	0	0	0	0	0	0	0	0
Soil Science Research Branch	520	520	0	0	0	0	0	0	0	0	0
Department of Commerce	1,373,618	0	29,424	200,877	557,894	15,752	228,758	0	91,492	230,661	18,759

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Census Bureau	156,946	0	0	54,883	0	10,993	0	0	91,070	0	0
National Institute of Standards and Technology	660,622	0	29,424	145,994	9,153	4,760	228,758	0	422	223,351	18,759
National Oceanic and Atmospheric Administration	548,741	0	0	0	548,741	0	0	0	0	0	0
Mission Support	21,517	0	0	0	21,517	0	0	0	0	0	0
Office of the Chief Administrative Officer	21,504	0	0	0	21,504	0	0	0	0	0	0
Office of the Chief Information Officer	13	0	0	0	13	0	0	0	0	0	0
National Environmental Satellite, Data, and Information Service	33,185	0	0	0	33,185	0	0	0	0	0	0
Center for Satellite Applications and Research	27,813	0	0	0	27,813	0	0	0	0	0	0
National Centers for Environmental Information	5,372	0	0	0	5,372	0	0	0	0	0	0
National Marine Fisheries Service	65,086	0	0	0	65,086	0	0	0	0	0	0
Alaska Fisheries Science Center	10,842	0	0	0	10,842	0	0	0	0	0	0
Alaska Regional Office	3,500	0	0	0	3,500	0	0	0	0	0	0
Greater Atlantic Region Fisheries Office	2,467	0	0	0	2,467	0	0	0	0	0	0
Northeast Fisheries Science Center	6,421	0	0	0	6,421	0	0	0	0	0	0
Northwest Fisheries Science Center	5,252	0	0	0	5,252	0	0	0	0	0	0
Office of Habitat Conservation	1,993	0	0	0	1,993	0	0	0	0	0	0
Office of Protected Resources	767	0	0	0	767	0	0	0	0	0	0
Office of Science and Technology	3,037	0	0	0	3,037	0	0	0	0	0	0
Office of Sustainable Fisheries	858	0	0	0	858	0	0	0	0	0	0
Pacific Island Fisheries Science Center	4,380	0	0	0	4,380	0	0	0	0	0	0
Pacific Islands Regional Office	1,978	0	0	0	1,978	0	0	0	0	0	0
Southeast Fisheries Science Center	8,142	0	0	0	8,142	0	0	0	0	0	0
Southeast Regional Office	3,597	0	0	0	3,597	0	0	0	0	0	0
Southwest Fisheries Science Center	5,811	0	0	0	5,811	0	0	0	0	0	0
West Coast Region	6,042	0	0	0	6,042	0	0	0	0	0	0
National Ocean Service	46,567	0	0	0	46,567	0	0	0	0	0	0
Center for Operational Oceanographic Products and Services	1,392	0	0	0	1,392	0	0	0	0	0	0
Integrated Ocean Observing System	1,968	0	0	0	1,968	0	0	0	0	0	0
National Centers for Coastal Ocean Science	27,813	0	0	0	27,813	0	0	0	0	0	0
National Geodetic Survey	7,123	0	0	0	7,123	0	0	0	0	0	0
Office for Coastal Management	143	0	0	0	143	0	0	0	0	0	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Office of Response and Restoration	1,213	0	0	0	1,213	0	0	0	0	0	0
Office of the Coast Survey	6,914	0	0	0	6,914	0	0	0	0	0	0
National Weather Service	20,210	0	0	0	20,210	0	0	0	0	0	0
National Centers for Environmental Prediction	11,695	0	0	0	11,695	0	0	0	0	0	0
Office of Science and Technology Integration	2,258	0	0	0	2,258	0	0	0	0	0	0
Office of Water Prediction	6,257	0	0	0	6,257	0	0	0	0	0	0
Oceanic and Atmospheric Research	336,599	0	0	0	336,599	0	0	0	0	0	0
Air Resources Laboratory	8,013	0	0	0	8,013	0	0	0	0	0	0
Atlantic Oceanographic and Meteorological Laboratory	25,169	0	0	0	25,169	0	0	0	0	0	0
Chemical Sciences Laboratory	21,670	0	0	0	21,670	0	0	0	0	0	0
Climate Program Office	36,844	0	0	0	36,844	0	0	0	0	0	0
Earth System Research Laboratories	2,995	0	0	0	2,995	0	0	0	0	0	0
Geophysical Fluid Dynamics Laboratory	26,840	0	0	0	26,840	0	0	0	0	0	0
Global Monitoring Laboratory	18,811	0	0	0	18,811	0	0	0	0	0	0
Global Ocean Monitoring and Observing Program	16,745	0	0	0	16,745	0	0	0	0	0	0
Global Systems Laboratory	15,959	0	0	0	15,959	0	0	0	0	0	0
Great Lakes Environmental Research Laboratory	12,660	0	0	0	12,660	0	0	0	0	0	0
National Sea Grant College Program	21,562	0	0	0	21,562	0	0	0	0	0	0
National Severe Storms Laboratory	26,747	0	0	0	26,747	0	0	0	0	0	0
Ocean Acidification Program	1,475	0	0	0	1,475	0	0	0	0	0	0
Office of Ocean Exploration and Research	24,242	0	0	0	24,242	0	0	0	0	0	0
Office of Research Transition and Application	7,988	0	0	0	7,988	0	0	0	0	0	0
Pacific Marine Environment Laboratory	26,030	0	0	0	26,030	0	0	0	0	0	0
Physical Sciences Laboratory	19,840	0	0	0	19,840	0	0	0	0	0	0
Weather Program Office	23,007	0	0	0	23,007	0	0	0	0	0	0
Office of Marine and Aviation Operations	25,577	0	0	0	25,577	0	0	0	0	0	0
Marine and Aviation Operations Center	5,424	0	0	0	5,424	0	0	0	0	0	0
National Oceanic and Atmospheric Administration Corps	20,152	0	0	0	20,152	0	0	0	0	0	0
National Telecommunications and Information Administration	7,310 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	7,310 i	i 0
Institute for Telecommunication Sciences	7,310 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	7,310 i	i 0
Department of Defense	20,864,136	60,907	822,741	1,303,782	123,579	211,133	916,826	12,928	40,323	14,851,963	2,519,955

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Defense Information Systems Agency	64,816	0	0	58,148	0	0	0	0	0	216	6,452
Department of the Air Force	6,364,822 i	123 i	11,557 i	95,305	i 166 i	3,617 i	75,567 i	224 i	1,231 i	4,415,852	1,761,179
Materiel Command	6,364,822 i	123 i	11,557 i	95,305	i 166 i	3,617 i	75,567 i	224 i	1,231 i	4,415,852	1,761,179
Air Force Civil Engineer Center	27,922 i	0 i	0 i	0	i 0 i	0 i	0 i	0 i	0 i	0 i	27,922
Air Force Life Cycle Management Center	2,560,962 i	0 i	0 i	45,116	i 166 i	0 i	24,629 i	0 i	0 i	1,150,018	i 1,341,033
Air Force Nuclear Weapons Center	511,311 i	0 i	0 i	1,034	i 0 i	0 i	1,176 i	0 i	0 i	449,656	59,446
Air Force Research Laboratory	2,670,981 i	123 i	11,557 i	49,154	i 0 i	3,617 i	49,763 i	224 i	1,231 i	2,267,209	288,103
Air Force Test Center	593,645 i	0 i	0 i	0	i 0 i	0 i	0 i	0 i	0 i	548,969	44,676
Department of the Army	5,816,747	60,784	653,639	252,884	26,448	26,229	182,022	1,763	38,949	4,281,957	292,073
Army Cyber Command	455,350 i	4,758 i	51,169 i	19,796	i 2,070 i	2,053 i	14,249 i	138 i	3,049 i	335,203	22,864
Army Engineer Research and Development Center	725,537	50,233	25,926	107,352	7,292	17,419	108,567	0	31,193	377,555	0
Army Medical Research and Development Command	472,520	0	472,520	0	0	0	0	0	0	0	0
Army Research Institute for the Behavioral and Social Sciences	455,350 i	4,758 i	51,169 i	19,796	i 2,070 i	2,053 i	14,249 i	138 i	3,049 i	335,203	22,864
Combat Capabilities Development Command (DEVCOM)	3,630,576	1,034 i	52,856	105,940	15,015	4,703	44,956	1,487	1,658	3,163,996	238,931
Armaments Center	708,689	0	0	0	0	0	0	0	0	708,689	0
Army Research Laboratory	251,882	0	6,709	43,104	14,565	4,257	29,009	946	995	45,804	106,494
Aviation and Missile Center	1,920,096	0	0	0	0	0	0	0	0	1,920,096	0
Chemical Biological Center	102,085	0	35,025	0	0	0	0	0	0	27,692	39,367
Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance Center	214,162	0	0	55,682	0	0	12,850	0	0	145,630	0
Data and Analysis Center	10,018	0	0	2,851	0	0	0	512	0	6,656	0
DEVCOM Headquarters	88,100	0	0	0	0	0	0	0	0	0	88,100
Ground Vehicle Systems Center	236,569	0	0	0	0	0	0	0	0	236,569	0
Soldier Center	98,974	1,034 i	11,122 i	4,303	i 450 i	446 i	3,097 i	30 i	663 i	72,859	i 4,970
Space and Missile Defense Command	77,414	0	0	0	0	0	0	0	0	70,000	7,414
Department of the Navy	5,783,576	0	157,544	895,834	96,964	181,288	659,237	10,941	143	3,336,519	445,106
Bureau of Medicine and Surgery	129,796	0	112,145	0	0	0	0	6,896	0	10,754	0
Naval Medical Research Command ^a	129,796	0	112,145	0	0	0	0	6,896	0	10,754	0
Naval Health Research Center	26,826	0	26,826	0	0	0	0	0	0	0	0
Naval Medical Research Unit - Dayton	22,122	0	8,628	0	0	0	0	2,740	0	10,754	0
Naval Medical Research Unit - INDO PACIFIC	1,314	0	1,314	0	0	0	0	0	0	0	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Naval Medical Research Unit - San Antonio	11,803	0	11,803	0	0	0	0	0	0	0	0
Naval Medical Research Unit - South	9,466	0	9,466	0	0	0	0	0	0	0	0
Naval Submarine Medical Research Laboratory	8,990	0	4,834	0	0	0	0	4,156	0	0	0
Marine Corps	287,952 i	0 i	9,062 i	41,773	i 5,578 i	10,428 i	37,921 i	629 i	8 i	166,215 i	16,337
Naval Air Warfare Center Aircraft Division	857,385	0	0	187,009	0	0	0	0	0	492,770	177,606
Naval Air Warfare Center Weapon Division	777,721	0 i	0 i	169,633	i 0 i	0 i	0 i	0 i	0 i	446,984 i	161,104 i
Naval Facilities Engineering and Expeditionary Warfare Center	57,092	0	0	0	0	0	0	0	0	57,092	0
Naval Information Warfare Systems Command	565,094	0	5,083	177,337	11,100	45,237	17,016	3,284	133	251,027	54,877
Naval Information Warfare Center Atlantic	145,315	0	0	37,753	0	34,498	770	276	0	51,093	20,925
Naval Information Warfare Center Pacific	419,779	0	5,083	139,584	11,100	10,739	16,245	3,008	133	199,934	33,952
Naval Observatory	29,941 i	0 i	942 i	4,343	i 580 i	1,084 i	3,943 i	65 i	1 i	17,283 i	1,699 i
Naval Oceanographic Office	29,941 i	0 i	942 i	4,343	i 580 i	1,084 i	3,943 i	65 i	1 i	17,283 i	1,699 i
Naval Sea Systems Command Warfare Centers	2,180,415	0	3,442	258,162	0	123,454	125,784	0	0	1,669,572	0
Naval Surface Warfare Center	1,842,591	0	740	199,719	0	110,955	118,352	0	0	1,412,826	0
Naval Undersea Warfare Center	337,824	0	2,703	58,444	0	12,499	7,432	0	0	256,746	0
Office of Naval Research	868,240	0	25,926	53,233	79,127	0	470,630	0	0	207,539	31,785
Naval Research Laboratory	868,240	0	25,926	53,233	79,127	0	470,630	0	0	207,539	31,785
Missile Defense Agency	420,524	0	0	0	0	0	0	0	0	420,524	0
Space Force	2,413,651	0	0	1,611	0	0	0	0	0	2,396,896	15,145
Advanced Extremely High Frequency Military Satellite Communications (MILSATCOM) Space Modernization Initiative	27,003	0	0	0	0	0	0	0	0	27,003	0
Commercial Satellite Communications (SATCOM)	20,205	0	0	0	0	0	0	0	0	20,205	0
Counter Communications System	5,895	0	0	0	0	0	0	0	0	5,895	0
Electro-Optical/ Infrared Weather Systems	1,862	0	0	0	0	0	0	0	0	0	1,862
Evolved Strategic SATCOM	108,519	0	0	0	0	0	0	0	0	108,519	0
Global Positioning Systems III Follow-on	138,971	0	0	0	0	0	0	0	0	138,971	0
Ground Based Optical Sensor System	45,388	0	0	0	0	0	0	0	0	45,388	0
Joint Execution and Tasking System for Space	2,087	0	0	1,611	0	0	0	0	0	0	477
National Security Space Launch	91,491	0	0	0	0	0	0	0	0	91,491	0
NAVSTAR Global Positioning System (User Equipment)	290,005	0	0	0	0	0	0	0	0	290,005	0
Next-Generation Overhead Persistent Infrared Block 0 Geosynchronous	334,688	0	0	0	0	0	0	0	0	334,688	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Next-Generation Overhead Persistent Infrared Block 0 Polar	343,144	0	0	0	0	0	0	0	0	343,144	0
Next-Generation Overhead Persistent Infrared Ground (aka Future Operationally Resilient Ground Evolution)	311,140	0	0	0	0	0	0	0	0	311,140	0
Next-Generation Overhead Persistent Infrared Integration	23,796	0	0	0	0	0	0	0	0	23,718	78
Next-Generation Overhead Persistent Infrared Space Mod Initiative	56,529	0	0	0	0	0	0	0	0	56,529	0
Polar MILSATCOM Enhanced Polar System Recapitalization	50,402	0	0	0	0	0	0	0	0	50,402	0
Protected Tactical Enterprise Service	51,780	0	0	0	0	0	0	0	0	51,780	0
Protected Tactical Service	185,948	0	0	0	0	0	0	0	0	185,948	0
Rocket System Launch Program	21,481	0	0	0	0	0	0	0	0	21,481	0
Space Control Technology	31,361	0	0	0	0	0	0	0	0	31,361	0
Space Rapid Capabilities Office	83,186	0	0	0	0	0	0	0	0	83,186	0
Space Situation Awareness Systems	100,674	0	0	0	0	0	0	0	0	100,674	0
Space Situational Awareness Environmental Monitoring	364	0	0	0	0	0	0	0	0	0	364
Space Systems Prototype Transitions Assault Breaker II	49,909	0	0	0	0	0	0	0	0	49,909	0
Space Test and Training Range Development	742	0	0	0	0	0	0	0	0	742	0
Space Test Program	24,717	0	0	0	0	0	0	0	0	24,717	0
Weather System Follow-On	12,364	0	0	0	0	0	0	0	0	0	12,364
Department of Energy	100,005	0	0 i	0 i	9,500 i	0	15,901 i	0	0 i	74,604 i	0
National Energy Technology Laboratory	100,005	0	0 i	0 i	9,500 i	0	15,901 i	0	0 i	74,604 i	0
Department of Health and Human Services	3,359,936	62,977	3,191,761	32,837	0	5,023	9,488	2,044	11,497	40,616	3,693
Centers for Disease Control and Prevention	145,593	0	111,714	236	0	270	3,867	917	1,353	26,681	555
National Center for Emerging and Zoonotic Infectious Diseases	3,094	0	3,094	0	0	0	0	0	0	0	0
National Center for HIV, Viral Hepatitis, STD, and Tuberculosis Prevention	28,238	0	28,231	0	0	0	0	0	0	0	7
National Center for Immunization and Respiratory Diseases	44,783	0	44,783	0	0	0	0	0	0	0	0
National Center on Birth Defects and Developmental Disabilities	243	0	0	0	0	0	0	0	0	0	243
National Institute for Occupational Safety and Health	69,235	0	35,606	236	0	270	3,867	917	1,353	26,681	305
Food and Drug Administration	458,410	62,977	374,465	3,673	0	4,753	0	0	1,370	8,035	3,137
Center for Biologics Evaluation and Research	66,565	0	66,565	0	0	0	0	0	0	0	0
Center for Devices and Radiological Health	7,913	0	3,913	0	0	0	0	0	0	4,000	0
Center for Drug Evaluation and Research	73,608	0	73,608	0	0	0	0	0	0	0	0
Center for Food Safety and Applied Nutrition	95,059	38,023	52,282	0	0	4,753	0	0	0	0	0

TABLE 5
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(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Center for Tobacco Products	93,521	0	93,521	0	0	0	0	0	0	0	0
Center for Veterinary Medicine	20,184	20,184	0	0	0	0	0	0	0	0	0
National Center for Toxicological Research	88,645	3,019	73,710	3,673	0	0	0	0	1,070	4,035	3,137
Office of Regulatory Affairs	3,000	1,750	950	0	0	0	0	0	300	0	0
Oncology Center of Excellence	9,915	0	9,915	0	0	0	0	0	0	0	0
National Institutes of Health	2,755,933	0	2,705,582	28,928	0	0	5,621	1,128	8,774	5,900	0
Clinical Center	618,605	0	618,605	0	0	0	0	0	0	0	0
Eunice Kennedy Shriver National Institute of Child Health and Human Development	221,061	0	197,687	14,599	0	0	0	0	8,774	0	0
National Cancer Institute	104,607	0	98,987	0	0	0	5,621	0	0	0	0
National Center for Advancing Translational Sciences	150,884	0	150,884	0	0	0	0	0	0	0	0
National Center for Complementary and Integrative Health	15,500	0	15,500	0	0	0	0	0	0	0	0
National Eye Institute	105,189	0	105,189	0	0	0	0	0	0	0	0
National Heart, Lung, and Blood Institute	173,071	0	173,071	0	0	0	0	0	0	0	0
National Human Genome Research Institute	133,478	0	119,614	13,864	0	0	0	0	0	0	0
National Institute of Allergy and Infectious Diseases	425,092	0	425,092	0	0	0	0	0	0	0	0
National Institute of Arthritis and Musculoskeletal and Skin Diseases	57,611	0	57,611	0	0	0	0	0	0	0	0
National Institute of Biomedical Imaging and Bioengineering	5,900	0	0	0	0	0	0	0	0	5,900	0
National Institute of Dental and Craniofacial Research	70,666	0	70,666	0	0	0	0	0	0	0	0
National Institute of Diabetes and Digestive and Kidney Diseases	142,684	0	142,684	0	0	0	0	0	0	0	0
National Institute of Environmental Health Sciences	124,012	0	124,012	0	0	0	0	0	0	0	0
National Institute of Mental Health	1,128	0	0	0	0	0	0	1,128	0	0	0
National Institute of Neurological Disorders and Stroke	217,704	0	217,704	0	0	0	0	0	0	0	0
National Institute of Nursing Research	3,923	0	3,459	464	0	0	0	0	0	0	0
National Institute on Aging	4,299	0	4,299	0	0	0	0	0	0	0	0
National Institute on Alcohol Abuse and Alcoholism	48,509	0	48,509	0	0	0	0	0	0	0	0
National Institute on Deafness and Other Communication Disorders	29,974	0	29,974	0	0	0	0	0	0	0	0
National Institute on Drug Abuse	66,351	0	66,351	0	0	0	0	0	0	0	0
National Institute on Minority Health and Health Disparities	9,919	0	9,919	0	0	0	0	0	0	0	0
National Library of Medicine	25,766	0	25,766	0	0	0	0	0	0	0	0
Department of Homeland Security	39,016	1,550	0	1,044	0	3,500	6,390	800	0	25,732	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Coast Guard	17,500	0	0	0	0	3,500	2,000	800	0	11,200	0
Acquisition Directorate, Research and Development Center	17,500	0	0	0	0	3,500	2,000	800	0	11,200	0
Cybersecurity and Infrastructure Security Agency	1,216 i	0 i	0 i	1,044 i	0 i	0 i	0	i 0 i	0 i	172 i	0
Science and Technology Directorate	20,300	1,550	0	0	0	0	4,390	0	0	14,360	0
Office of National Laboratories	20,300	1,550	0	0	0	0	4,390	0	0	14,360	0
Chemical Security Analysis Center	4,390	0	0	0	0	0	4,390	0	0	0	0
National Urban Security Technology Laboratory	3,480	0	0	0	0	0	0	0	0	3,480	0
Plum Island Animal Disease Center	1,550	1,550	0	0	0	0	0	0	0	0	0
Transportation Security Laboratory	10,880	0	0	0	0	0	0	0	0	10,880	0
Department of the Interior	1,170,882	32,743	387,357	2,420	711,847	0	1,695	0	20,671	13,424	725
Bureau of Land Management	301	0	301	0	0	0	0	0	0	0	0
Bureau of Ocean Energy Management	36,016	0	0	2,411	19,810	0	1,695	0	11,375	0	725
Bureau of Reclamation	16,124	2,700	0	0	0	0	0	0	0	13,424	0
Fish and Wildlife Service	24,000	24,000	0	0	0	0	0	0	0	0	0
Geological Survey	1,079,102	0	387,056	9	692,036	0	0	0	0	0	0
Core Science Systems Mission Area	126,178	0	0	9	126,169	0	0	0	0	0	0
Ecosystems Mission Area	387,056	0	387,056	0	0	0	0	0	0	0	0
Energy and Minerals Mission Area	88,126	0	0	0	88,126	0	0	0	0	0	0
Natural Hazards Mission Area	156,535	0	0	0	156,535	0	0	0	0	0	0
Water Resources Mission Area	321,206	0	0	0	321,206	0	0	0	0	0	0
National Park Service	15,339	6,043	0	0	0	0	0	0	9,296	0	0
Department of Transportation	129,610	0	16,319	5,250	10,527	4,409	0	7,852	134	75,029	10,090
Federal Aviation Administration	74,873	0	16,319	5,250	10,527	4,409	0	7,852	134	20,292	10,090
Office of Aerospace Medicine	16,319	0	16,319	0	0	0	0	0	0	0	0
Office of NextGen	58,554	0	0	5,250	10,527	4,409	0	7,852	134	20,292	10,090
Federal Highway Administration	31,961	0	0	0	0	0	0	0	0	31,961	0
Intelligence Transportation Systems Joint Program Office	15,026	0	0	0	0	0	0	0	0	15,026	0
Office of Administrations	11,000	0	0	0	0	0	0	0	0	11,000	0
Office of Operations	1,999	0	0	0	0	0	0	0	0	1,999	0
Office of Planning	653	0	0	0	0	0	0	0	0	653	0
Office of Research, Development, and Technology	3,283	0	0	0	0	0	0	0	0	3,283	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

(Housalius of dollars)						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
National Highway Traffic Safety Administration	3,634	0	0	0	0	0	0	0	0	3,634	0
Office of Vehicle Safety Research	3,634	0	0	0	0	0	0	0	0	3,634	0
Vehicle Research and Test Center	3,634	0	0	0	0	0	0	0	0	3,634	0
Office of the Assistant Secretary for Research and Technology	19,142 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	19,142 i	0 i
John A. Volpe National Transportation Systems Center	19,142 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	19,142 i	0 i
Department of Veterans Affairs	1,529,302	0	1,529,302	0	0	0	0	0	0	0	0
Office of Research and Development Central Office	113,943	0	113,943	0	0	0	0	0	0	0	0
Veterans Integrated Services Network (VISN) 1: New England Health Care System	248,067	0	248,067	0	0	0	0	0	0	0	0
Bedford Health Care System	12,543	0	12,543	0	0	0	0	0	0	0	0
Boston Health Care System, Jamaica Plain Campus	159,315	0	159,315	0	0	0	0	0	0	0	0
Central Western Massachusetts Health Care	1,613	0	1,613	0	0	0	0	0	0	0	0
Connecticut Health Care System, West Haven Medical Center	45,873	0	45,873	0	0	0	0	0	0	0	0
Manchester Medical Center	144	0	144	0	0	0	0	0	0	0	0
Providence Medical Center	19,570	0	19,570	0	0	0	0	0	0	0	0
Togus Maine Health Care System	292	0	292	0	0	0	0	0	0	0	0
White River Junction Medical Center	8,717	0	8,717	0	0	0	0	0	0	0	0
VISN 2: New York/ New Jersey Veterans Health Care Network	53,168	0	53,168	0	0	0	0	0	0	0	0
Bronx Health Care, James J. Peters Medical Center	27,179	0	27,179	0	0	0	0	0	0	0	0
New Jersey Health Care	6,282	0	6,282	0	0	0	0	0	0	0	0
New York Harbor Health Care	7,626	0	7,626	0	0	0	0	0	0	0	0
Northport Medical Center	4,139	0	4,139	0	0	0	0	0	0	0	0
Western New York Health Care, Buffalo Medical Center	7,942	0	7,942	0	0	0	0	0	0	0	0
VISN 4: Health Care	44,924	0	44,924	0	0	0	0	0	0	0	0
Coatesville Medical Center	154	0	154	0	0	0	0	0	0	0	0
Philadelphia Health Care, Corporal Michael J. Crescenz Medical Center	20,663	0	20,663	0	0	0	0	0	0	0	0
Pittsburgh Medical Center-University Drive	24,093	0	24,093	0	0	0	0	0	0	0	0
Wilkes-Barre Medical Center	14	0	14	0	0	0	0	0	0	0	0
VISN 5: Capitol Health Care Network	40,732	0	40,732	0	0	0	0	0	0	0	0
Huntington Health Care, Hershel (Woody) Williams Medical Center	1,223	0	1,223	0	0	0	0	0	0	0	0
Maryland Health Care, Baltimore Medical Center	23,383	0	23,383	0	0	0	0	0	0	0	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Washington DC Health Care, Washington Medical Center	16,126	0	16,126	0	0	0	0	0	0	0	0
VISN 6: Mid-Atlantic Health Care Network	55,346	0	55,346	0	0	0	0	0	0	0	0
Asheville Health Care, Charles George Medical Center	778	0	778	0	0	0	0	0	0	0	0
Durham Medical Center	33,256	0	33,256	0	0	0	0	0	0	0	0
Hampton Medical Center	250	0	250	0	0	0	0	0	0	0	0
Richmond Health Care, Hunter Holmes McGuire Hospital	13,915	0	13,915	0	0	0	0	0	0	0	0
Salem Medical Center	3,703	0	3,703	0	0	0	0	0	0	0	0
Salisbury Health Care, W.G. (Bill) Hefner Salisbury Medical Center	3,443	0	3,443	0	0	0	0	0	0	0	0
VISN 7: Southeast Network	88,038	0	88,038	0	0	0	0	0	0	0	0
Atlanta Medical Center	33,002	0	33,002	0	0	0	0	0	0	0	0
Augusta Health Care, Charlie Norwood Medical Center	5,240	0	5,240	0	0	0	0	0	0	0	0
Birmingham Medical Center	11,113	0	11,113	0	0	0	0	0	0	0	0
Charleston Health Care, Ralph H. Johnson Medical Center	31,940	0	31,940	0	0	0	0	0	0	0	0
Columbia South Carolina Health Care, William Jennings Bryan Dorn Medical Center	4,253	0	4,253	0	0	0	0	0	0	0	0
Tuscaloosa Medical Center	2,490	0	2,490	0	0	0	0	0	0	0	0
VISN 8: Sunshine Health Care Network	39,065	0	39,065	0	0	0	0	0	0	0	0
Bay Pines Health Care System	2,316	0	2,316	0	0	0	0	0	0	0	0
Caribbean Health Care System	526	0	526	0	0	0	0	0	0	0	0
Miami Health Care System	11,126	0	11,126	0	0	0	0	0	0	0	0
North Florida/ South Georgia Health Care System	12,506	0	12,506	0	0	0	0	0	0	0	0
Orlando Medical Center	592	0	592	0	0	0	0	0	0	0	0
Tampa Health Care, James A. Haley Veterans' Hospital	11,999	0	11,999	0	0	0	0	0	0	0	0
VISN 9: MidSouth Health Care Network	51,828	0	51,828	0	0	0	0	0	0	0	0
Lexington Medical Center (Troy Bowling Campus)	5,146	0	5,146	0	0	0	0	0	0	0	0
Louisville Health Care, Robley Rex Medical Center	3,476	0	3,476	0	0	0	0	0	0	0	0
Memphis Medical Center	7,373	0	7,373	0	0	0	0	0	0	0	0
Mountain Home Health Care, James H. Quillen Medical Center	3,218	0	3,218	0	0	0	0	0	0	0	0
Tennessee Valley Health Care, Nashville Medical Center	32,614	0	32,614	0	0	0	0	0	0	0	0
VISN 10: Health Care System	107,300	0	107,300	0	0	0	0	0	0	0	0
Ann Arbor Health Care System	31,274	0	31,274	0	0	0	0	0	0	0	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Battle Creek Medical Center	5	0	5	0	0	0	0	0	0	0	0
Cincinnati Medical Center	7,700	0	7,700	0	0	0	0	0	0	0	0
Dayton Medical Center	1,167	0	1,167	0	0	0	0	0	0	0	0
Detroit Health Care, John D. Dingell Medical Center	9,562	0	9,562	0	0	0	0	0	0	0	0
Indiana Health Care, Richard L. Roudebush Medical Center	27,341	0	27,341	0	0	0	0	0	0	0	0
Northeast Ohio Health Care, Louis Stokes Cleveland Medical Center	30,251	0	30,251	0	0	0	0	0	0	0	0
VISN 12: Great Lakes Health Care System	75,386	0	75,386	0	0	0	0	0	0	0	0
Chicago Health Care, Jesse Brown Medical Center	19,642	0	19,642	0	0	0	0	0	0	0	0
Hines Health Care, Edward Hines Junior Hospital	29,727	0	29,727	0	0	0	0	0	0	0	0
Madison Health Care, William S. Middleton Memorial Veterans' Hospital	18,242	0	18,242	0	0	0	0	0	0	0	0
Milwaukee Health Care, Clement J. Zablocki Medical Center	7,776	0	7,776	0	0	0	0	0	0	0	0
VISN 15: Heartland Health Care Network	12,330	0	12,330	0	0	0	0	0	0	0	0
Kansas City Medical Center	4,515	0	4,515	0	0	0	0	0	0	0	0
St. Louis Health Care, John J. Cochran Veterans Hospital	7,814	0	7,814	0	0	0	0	0	0	0	0
VISN 16: South Central Health Care Network	47,956	0	47,956	0	0	0	0	0	0	0	0
Central Arkansas Health Care, Eugene J. Towbin Health Care Center	13,208	0	13,208	0	0	0	0	0	0	0	0
Houston Health Care, Michael E. DeBakey Medical Center	26,763	0	26,763	0	0	0	0	0	0	0	0
Jackson Health Care, G.V. (Sonny) Montgomery Medical Center	1,119	0	1,119	0	0	0	0	0	0	0	0
Shreveport Health Care, Overton Brooks Medical Center	497	0	497	0	0	0	0	0	0	0	0
Southeast Louisiana Health Care System	6,368	0	6,368	0	0	0	0	0	0	0	0
VISN 17: Heart of Texas Health Care Network	27,491	0	27,491	0	0	0	0	0	0	0	0
Central Texas Health Care	3,132	0	3,132	0	0	0	0	0	0	0	0
North Texas, Dallas Medical Center	6,955	0	6,955	0	0	0	0	0	0	0	0
South Texas Health Care	17,403	0	17,403	0	0	0	0	0	0	0	0
VISN 19: Rocky Mountain Network	90,167	0	90,167	0	0	0	0	0	0	0	0
Eastern Colorado, Rocky Mountain Regional Medical Center	33,422	0	33,422	0	0	0	0	0	0	0	0
Eastern Oklahoma, Jack C. Montgomery Medical Center	436	0	436	0	0	0	0	0	0	0	0
Oklahoma City Medical Center	8,676	0	8,676	0	0	0	0	0	0	0	0
Salt Lake City Health Care	47,633	0	47,633	0	0	0	0	0	0	0	0
VISN 20: Northwest Network	111,071	0	111,071	0	0	0	0	0	0	0	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022
(Thousands of dollars)

						R&D fi	eld				
Agency or facility	All R&D expenditures	Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other field
Boise Medical Center	2,749	0	2,749	0	0	0	0	0	0	0	0
Portland Health Care System	48,302	0	48,302	0	0	0	0	0	0	0	0
Puget Sound Health Care, Seattle Medical Center	60,019	0	60,019	0	0	0	0	0	0	0	0
VISN 21: Sierra Pacific Network	148,509	0	148,509	0	0	0	0	0	0	0	0
Central California Health Care System	409	0	409	0	0	0	0	0	0	0	0
Northern California Health Care System	7,744	0	7,744	0	0	0	0	0	0	0	0
Pacific Islands Health Care System	2,180	0	2,180	0	0	0	0	0	0	0	0
Palo Alto Health Care System	74,320	0	74,320	0	0	0	0	0	0	0	0
San Francisco Health Care System	62,638	0	62,638	0	0	0	0	0	0	0	0
Sierra Nevada Health Care System	577	0	577	0	0	0	0	0	0	0	0
Southern Nevada Health Care System	640	0	640	0	0	0	0	0	0	0	0
VISN 22: Desert Pacific Health Care Network	136,105	0	136,105	0	0	0	0	0	0	0	0
Greater Los Angeles, West Los Angeles Medical Center	31,993	0	31,993	0	0	0	0	0	0	0	0
Loma Linda Health Care System	5,570	0	5,570	0	0	0	0	0	0	0	0
Long Beach Health Care System	8,534	0	8,534	0	0	0	0	0	0	0	0
New Mexico Health Care System	26,569	0	26,569	0	0	0	0	0	0	0	0
Phoenix Health Care System	3,448	0	3,448	0	0	0	0	0	0	0	0
San Diego Health Care System	55,386	0	55,386	0	0	0	0	0	0	0	0
Southern Arizona Health Care System	4,606	0	4,606	0	0	0	0	0	0	0	0
VISN 23: Midwest Health Care Network	37,877	0	37,877	0	0	0	0	0	0	0	0
Fargo Health Care System	144	0	144	0	0	0	0	0	0	0	0
Minneapolis Health Care System	26,578	0	26,578	0	0	0	0	0	0	0	0
Nebraska-Western Iowa Health Care System	10,283	0	10,283	0	0	0	0	0	0	0	0
Sioux Falls Health Care System	823	0	823	0	0	0	0	0	0	0	0
St. Cloud Health Care	49	0	49	0	0	0	0	0	0	0	0
Other agencies	4,245,202	42,490	252,010	4,005	380,360	2,224	1,169,259	0	23,719 i	2,300,595	70,541
Environmental Protection Agency	292,399	32,897	82,616	4,005	120,517	2,224	6,982	0	1,689	41,469	0
Center for Computational Toxicology and Exposure	54,685	6,152	15,452	749	22,539	416	1,306	0	316	7,755	0
Center for Environmental Measurement and Modeling	84,799	9,541	23,957	1,162	34,953	645	2,025	0	490	12,027	0
Center for Environmental Solutions and Emergency Response	52,849	5,946	14,933	724	21,782	402	1,262	0	305	7,495	0
Center for Public Health and Environmental Assessment	82,802	9,316	23,396	1,134	34,128	630	1,977	0	478	11,743	0

TABLE 5
Federal facility R&D expenditures, by R&D field: FY 2022

Agency or facility	All R&D expenditures	R&D field									
		Agricultural sciences and natural resources and conservation	Biological, biomedical, and health sciences	Computer and information sciences	Geosciences, atmospheric sciences, and ocean sciences	Mathematics and statistics	Physical sciences	Psychology	Social sciences	Engineering	Other fields
Office of Science Advisor, Policy, and Engagement	17,264	1,942	4,878	236	7,116	131	412	0	100	2,448	0
Federal Trade Commission	1,492 i	0 i	0 i	0 i	0 i	0 i	0 i	0 i	1,492 i	0 i	0
Library of Congress	2,902	0	0	0	0	0	2,469	0	0	0	433
Digital Services Directorate	433	0	0	0	0	0	0	0	0	0	433
Preservation Directorate	2,469	0	0	0	0	0	2,469	0	0	0	0
National Aeronautics and Space Administration (NASA)	3,764,686	0	119,014	0	239,927	0	1,125,584	0	0	2,220,749	59,412
Ames Research Center	276,848	0	26,492	0	1,378	0	62,028	0	0	186,949	0
Armstrong (Dryden) Flight Research Center	28,301	0	0	0	2,294	0	83	0	0	25,924	0
Glenn Research Center	240,357	0	3,434	0	372	0	29,913	0	0	206,630	9
Goddard Space Flight Center	1,067,753	0	3	0	124,492	0	650,875	0	0	292,383	0
Johnson Space Center	799,127	0	75,674	0	3,823	0	72,110	0	0	588,951	58,569
Kennedy Space Center	178,778	0	8,266	0	10,974	0	94,338	0	0	65,175	25
Langley Research Center	240,270	0	3,506	0	12,422	0	25,122	0	0	198,633	587
Marshall Space Flight Center	691,175	0	288	0	3,860	0	123,741	0	0	563,065	221
NASA Headquarters	233,119	0	1,352	0	80,311	0	67,360	0	0	84,097	0
Stennis Space Center	8,957	0	0	0	0	0	13	0	0	8,944	0
Smithsonian Institution	183,723 i	9,592 i	50,380 i	0 i	19,915 i	0 i	34,224 i	0 i	20,537 i	38,377 i	10,697
Archives of American Art	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
Center for Astrophysics	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
Smithsonian Astrophysical Observatory	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
National Museum of Natural History	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
Smithsonian Conservation Biology Institute	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
Smithsonian Environmental Research Center	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783
Smithsonian Tropical Research Institute	30,620 i	1,599 i	8,397 i	0 i	3,319 i	0 i	5,704 i	0 i	3,423 i	6,396 i	1,783

i = more than 50% of the estimate is imputed, including cases where there is only one facility listed and its data are imputed.

Source(s)

National Center for Science and Engineering Statistics, Federal Facilities Research and Development Survey, FY 2022.

^a Naval Medical Research Command headquarters and its subfacilities responded separately to the survey. Data displayed for the Naval Medical Research Command includes both the headquarters and listed subfacilities totals.