TABLE 23

State agency R&D intramural personnel, by state, department or agency, headcount, and full-time equivalent: FY 2022 (Number)

	R&D personnel headcount				R&D personnel (full-time equivalent)				
State and department or agency	Total	Researchers <sup>a</sup>	Technicians	Support staff	Total	Researchersa	Technicians	Support staff	
United States <sup>b</sup>	9,444	4,962	3,128	1,354	6,056.1	3,402.8	1,765.9	887.4	
Alabama	103	60	28	15	77.2	58.0	9.4	9.8	
Education, Department of	25	25	0	0	25.0	25.0	0.0	0.0	
Forensic Sciences, Department of	2	2	0	0	2.0	2.0	0.0	0.0	
Geological Survey	34	28	3	3	32.2	28.0	2.4	1.8	
Marine Environmental Science Consortium, Dauphin Island Sea Lab	42	5	25	12	18.0	3.0	7.0	8.0	
Alaska	94	58	21	15	77.7	51.5	17.5	8.7	
Environmental Conservation, Department of	5	1	0	4	0.7	0.5	0.0	0.2	
Natural Resources, Department of; Division of Geological and Geophysical Surveys	67	44	16	7	67.0	44.0	16.0	7.0	
Railroad Corporation	16	10	5	1	6.5	4.0	1.5	1.0	
Transportation and Public Facilities, Department of	6	3	0	3	3.5	3.0	0.0	0.5	
Arizona	40	21	14	5	34.3	17.5	12.0	4.8	
Game and Fish Department	23	14	8	1	17.3	10.5	6.0	0.8	
Juvenile Corrections, Department of	5	3	2	0	5.0	3.0	2.0	0.0	
Transportation, Department of	12	4	4	4	12.0	4.0	4.0	4.0	
Arkansas	10	6	1	3	4.1	3.0	0.3	0.8	
Natural Heritage Commission	2	2	0	0	2.0	2.0	0.0	0.0	
Transportation, Department of	8	4	1	3	2.1	1.0	0.3	3.0	
California	630	458	41	131	561.3	412.3	31.0	118.0	
Air Resources Board	71	58	3	10	70.0	58.0	2.4	9.6	
Children and Families Commission (First 5 California)	2	2	0	0	2.0	2.0	0.0	0.0	
Conservation, Department of	16	14	2	0	5.1	5.0	0.1	0.0	
Earthquake Authority	4	2	0	2	3.0	1.5	0.0	1.5	
Energy Commission	103	86	0	17	103.0	86.0	0.0	17.0	
Environmental Health Hazard Assessment, Office of	123	88	0	35	121.0	87.4	0.0	33.6	
Forestry and Fire Protection, Department of	28	12	12	4	10.0	5.0	5.0	0.0	
Housing and Community Development, Department of	24	3	20	1	24.0	3.0	20.0	1.0	
Mental Health Services Oversight and Accountability Commission	14	12	0	2	14.0	12.0	0.0	2.0	
Motor Vehicles, Department of	18	14	0	4	17.2	14.0	0.0	3.2	
Pesticide Regulation, Department of	84	60	0	24	83.6	59.7	0.0	23.9	
Public Health, Department of	8	8	0	0	2.5	2.5	0.0	0.0	
Rehabilitation, Department of	12	0	0	12	10.5	0.0	0.0	10.5	
State Water Resources Control Board	22	17	0	5	10.0	9.3	0.0	0.7	
Toxic Substances Control, Department of	15	15	0	0	3.4	3.4	0.0	0.0	
Transportation, Department of	81	62	4	15	80.0	61.5	3.5	15.0	
Water Resources, Department of	5		0	0	2.0	2.0	0.0	0.0	
Colorado	107	64	37	6	49.1	41.3	6.3	1.5	
Agriculture, Department of	35	5	30	0	7.2	1.4	5.8	0.0	
Natural Resources, Department of	51	39	7	5	23.0	22.0	0.5	0.5	
Public Health and Environment, Department									
of	9	9	0	0	8.7	8.7	0.0	0.0	
Public Safety, Department of; Division of Criminal Justice	7		0	0	5.2	5.2	0.0	0.0	
Transportation, Department of	5	4	0	1	5.0	4.0	0.0	1.0	

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State agency R&D intramural personnel, by state, department or agency, headcount, and full-time equivalent: FY 2022 (Number)

		R&D persor	nel headcoun	t	R&D personnel (full-time equivalent)				
State and department or agency	Total	Researchers <sup>a</sup>	Technicians	Support staff	Total	Researchers	Technicians	Support staff	
Connecticut	261	173	34	54	154.4	108.6	30.0	15.8	
Agricultural Experiment Station	88	48	26	14	88.0	48.0	26.0	14.0	
Energy and Environmental Protection, Department of	55	47	8	0	27.0	23.0	4.0	0.0	
Mental Health and Addiction Services, Department of	41	40	0	1	33.3	32.3	0.0	1.0	
Social Services, Department of	32	32	0	0	2.2	2.2	0.0	0.0	
Transportation, Department of	45	6	0	39	3.9	3.1	0.0	0.8	
Delaware	16	10	3	3	16.0	10.0	3.0	3.0	
Geological Survey	16	10	3	3	16.0	10.0	3.0	3.0	
District of Columbia	29	7	10	12	14.7	6.2	4.5	4.0	
Health, Department of	23	2	9	12	9.7	1.7	4.0	4.0	
Transportation, Department of	2	1	1	0	1.5	1.0	0.5	0.0	
Water and Sewer Authority	4	4	0	0	3.5	3.5	0.0	0.0	
Florida	874	667	73	134	626.2	494.3	35.3	96.6	
Agriculture and Consumer Services, Department of	11	4	7	0	11.0	4.0	7.0	0.0	
Citrus, Department of	2	1	1	0	1.5	0.0	0.5	1.0	
Fish and Wildlife Conservation Commission	849	658	58	133	605.0	488.0	22.0	95.0	
Transportation, Department of	12	4	7	1	8.7	2.3	5.8	0.6	
Georgia	11	7	1	3	8.6	5.7	1.0	1.9	
Natural Resources, Department of	2	2	0	0	1.5	1.5	0.0	0.0	
Southern States Energy Board	9	5	1	3	7.1	4.2	1.0	1.9	
Hawaii	12	5	1	6	4.9	1.5	0.2	3.2	
Agriculture, Department of	10	5	1	4	2.9	1.5	0.2	1.2	
Business, Economic Development, and Tourism, Department of	2	0	0	2	2.0	0.0	0.0	2.0	
Idaho	87	28	54	5	69.7	20.2	45.6	3.9	
Fish and Game, Department of	85	28	54	3	67.7	20.2	45.6	1.9	
Transportation Department	2	0	0	2	2.0	0.0	0.0	2.0	
Illinois	8	4	2	2	5.6	3.3	1.5	0.8	
Transportation, Department of	8	4	2	2	5.6	3.3	1.5	0.8	
Indiana	46	22	17	7	16.9	11.5	4.0	1.4	
Natural Resources, Department of	16	12	3	1	1.5	1.5		0.0	
Transportation, Department of	30	10	14	6	15.4	10.0	-	1.4	
lowa	43	28	14	1	26.9			0.7	
Human Rights, Criminal and Juvenile Justice Planning, Division of, Department of	11	11	0	0	5.0	5.0		0.0	
Natural Resources, Department of	32	17	14	1	21.9	10.9	10.3	0.7	
Kansas	25	16	4	5	19.1	11.1	4.0	4.0	
State Board of Regents	2	2	0	0	0.1	0.1	0.0	0.0	
Transportation, Department of	16	9	4	3	16.0			3.0	
Water Office	7	5	0	2	3.0			1.0	
Kentucky	222	124	92	6	15.3			0.3	
Fish and Wildlife Resources, Department of	220	122	92	6	14.3			0.3	
Nature Preserves, Office of Kentucky	2	2	0	0	1.0			0.0	
Louisiana	240	128	69	43	101.3			9.6	
Coastal Protection and Restoration Authority	11	7	0	4	7.5			1.0	
Transportation and Development, Department of	55	25	25	5	55.0			5.0	

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State agency R&D intramural personnel, by state, department or agency, headcount, and full-time equivalent: FY 2022 (Number)

		R&D persor	nel headcoun	t	R&D personnel (full-time equ			alent)
State and department or agency	Total	Researchers	Technicians	Support staff	Total	Researchers	Technicians	Support staff
Wildlife and Fisheries, Department of	174	96	44	34	38.8	31.4	3.8	3.6
Maine	173	73	52	48	149.6	58.9	49.0	41.7
Agriculture, Conservation and Forestry, Department of	11	7	2	2	10.0	7.0	2.0	1.0
Aquaculture Innovation Center	4	2	2	0	4.0	2.0	2.0	0.0
Inland Fisheries and Wildlife, Department of	35	15	15	5	26.0	8.0	15.0	3.0
Marine Resources, Department of	42	29	9	4	31.4	22.4	6.5	2.5
MDI Biological Laboratory, Center for Biomedical Innovation	78	18	23	37	75.2	17.5	22.5	35.2
Transportation, Department of	3	2	1	0	3.0	2.0	1.0	0.0
Maryland	42	23	13	6	30.3	17.0	9.3	4.0
Natural Resources, Department of	25	17	7	1	24.3	17.0	6.3	1.0
Transportation, Department of	17	6	6	5	6.0	0.0	3.0	3.0
Massachusetts	86	37	41	8	16.0	9.7	4.7	1.6
Environmental Protection, Department of	32	12	16	4	6.0	3.0	2.0	1.0
Fish and Game, Department of	50	22	24	4	8.0	5.0	2.5	0.5
Gaming Commission	2	2	0	0	1.6	1.5	0.0	0.3
Water Resources Authority	2	1	1	0	0.4	0.2	0.2	0.0
Michigan	7	2	4	1	0.7	0.5	0.0	0.2
Agriculture and Rural Development, Department of	1	1	0	0	0.5	0.5	0.0	0.0
Environmental, Great Lakes, and Energy, Department of	6	1	4	1	0.2	0.0	0.0	0.2
Minnesota	82	50	23	9	60.9	42.0	12.9	6.0
Agriculture, Department of	30	11	15	4	8.9	3.0	4.9	1.0
Natural Resources, Department of	52	39	8	5	52.0	39.0	8.0	5.0
Mississippi	136	40	85	11	38.9	13.9	21.6	3.4
Environmental Quality, Department of	12	4	0	8	0.5	0.1	0.0	0.4
Gulf States Marine Fisheries Commission	1	1	0	0	1.0	1.0	0.0	0.0
Marine Resources, Department of	7	5	2	0	2.3	1.5	0.8	0.0
Transportation, Department of	3	0	0	3	3.0	0.0	0.0	3.0
Wildlife, Fisheries, and Parks, Department of	113	30	83	0	32.1	11.3	20.8	0.0
Missouri	228	77	143	8	113.0	60.0	51.0	2.0
Conservation, Department of	228	77	143	8	113.0	60.0	51.0	2.0
Montana	102	27	68	7	15.3	4.6	5.7	5.0
Environmental Quality, Department of	3	2	1	0	1.2	1.0	0.2	0.0
Fish, Wildlife and Parks, Department of	50	21	26	3	9.4	3.2	5.2	1.0
Natural Resources and Conservation, Department of	4	4	0	0	0.4	0.4	0.0	0.0
Transportation, Department of	45	0	41	4	4.3	0.0	0.3	4.0
Nebraska	45	22	22	1	33.7	21.5	11.2	1.0
Game and Parks Commission	35	20	14	1	32.0	20.0	11.0	1.0
Transportation, Department of	10	2	8	0	1.7	1.5	0.2	0.0
Nevada	3	1	2	0	1.5	0.5	1.0	0.0
Agriculture, Department of	3	1	2	0	1.5	0.5	1.0	0.0
New Hampshire	16	2	3	11	2.2	2.0	0.1	0.1
Transportation, Department of	16	2	3	11	2.2	2.0	0.1	0.1
New Jersey	54	48	2	4	23.5	19.0	1.5	3.0
Agriculture, Department of	4	2	1	1	4.0	2.0	1.0	1.0
Children and Families, Department of	16	16	0	0	1.9		0.0	0.0

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	R&D personnel headcount				R&D personnel (full-time equivalent)				
State and department or agency	Total	Researchersa	Technicians	Support staff	Total	Researchers	Technicians	Support staff	
Community Affairs, Department of	2	2	0	0	0.1	0.1	0.0	0.0	
Corrections, Department of	4	4	0	0	4.0	4.0	0.0	0.0	
Environmental Protection, Department of	20	18	1	1	10.0	9.0	0.5	0.5	
Pinelands Commission	5	5	0	0	1.0	1.0	0.0	0.0	
State Parole Board, New Jersey	3	1	0	2	2.5	1.0	0.0	1.5	
New Mexico	27	15	6	6	11.1	7.0	1.8	2.3	
Cultural Affairs, Department of	1	1	0	0	0.7	0.7	0.0	0.0	
Game and Fish, Department of	20	10	6	4	4.4	2.3	1.8	0.3	
Transportation, Department of	6	4	0	2	6.0	4.0	0.0	2.0	
New York	3,102	1,438	1,252	412	2,308.1	1,023.6	914.7	369.8	
Agriculture and Markets, Department of	14	13	1	0	8.0	7.0	1.0	0.0	
Energy Research and Development Authority	33	20	0	13	26.5	20.0	0.0	6.5	
Environmental Conservation, Department of	87	55	24	8	47.2	28.9	15.8	2.5	
Health, Department of	345	235	89	21	234.0	166.8	52.9	14.3	
Mental Health, Office of	1,516	639	686	191	998.0	368.0	455.0	175.0	
People with Developmental Disabilities, Office of	28	17	4	7	18.5	10.1	2.1	6.3	
Power Authority	11	10	0	1	11.0	10.0	0.0	1.0	
Roswell Park Comprehensive Cancer Center	990	419	407	164	887.3	382.8	347.3	157.2	
State Museum	73	27	41	5	72.6	27.0	40.6	5.0	
Transportation, Department of	5	3	0	2	5.0	3.0	0.0	2.0	
North Carolina	208	98	78	32	171.3	77.3	69.0	25.0	
Agriculture and Consumer Services, Department of	125	50	59	16	125.0	50.0	59.0	16.0	
Environmental Quality, Department of	39	18	12	9	23.8	12.3	5.5	6.0	
Natural and Cultural Resources, Department of	39	26	7	6	17.5	11.0	3.5	3.0	
Transportation, Department of	5	4	0	1	5.0	4.0	1.0	0.0	
North Dakota	11	10	1	0	4.8	4.5	0.3	0.0	
Historical Society of North Dakota	5	5	0	0	2.0	2.0	0.0	0.0	
Transportation, Department of	6	5	1	0	2.8	2.5	0.3	0.0	
Ohio	32	16	11	5	9.6	6.5	2.7	0.4	
Education, Department of	1	1	0	0	0.1	0.1	0.0	0.0	
Environmental Protection Agency	9	3	4	2	0.7	0.2	0.4	0.1	
Natural Resources, Department of	22	12	7	3	8.8	6.2		0.3	
Oklahoma	59	25	28	6	18.2	10.0	5.9	2.3	
Environmental Quality, Department of	30	12	16	2	2.4	1.0	1.4	0.0	
Grand River Dam Authority	8	3	4	1	2.0	1.5	0.5	0.0	
Health, Department of	12	5	6	1	5.8			0.3	
Human Services, Department of	2	0	1	1	1.0			1.0	
Transportation, Department of	6	4	1	1	6.0			1.0	
Wildlife Conservation, Department of	1	1	0	0	1.0			0.0	
Oregon	278	99	156	23	147.1	73.9		8.7	
Environmental Quality, Department of	7	4	3	0	0.9			0.0	
Fish and Wildlife, Department of	194	50	134	10	90.8			4.3	
Forestry, Department of	20	5	10	5	8.5			1.0	
Geology and Mineral Industries, Department					5.0	3.0			
of	15	10	2	3	6.8	5.0	1.5	0.3	
Human Services, Department of	21	11	7	3	21.0			3.0	
Transportation, Department of	8	8	0	0	8.0			0.0	

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State and department or agency	Total	Researchers <sup>a</sup>	Technicians	Support staff	Total	Researchers	Technicians	Support staff	
Water Resources Department	11	11	0	0	11.0	11.0	0.0	0.0	
Watershed Enhancement Board	2	0	0	2	0.1	0.0	0.0	0.1	
Pennsylvania	176	85	84	7	112.0	48.4	57.0	6.6	
Conservation and Natural Resources, Department of	6	5	1	0	3.5	1.4	0.6	1.5	
Environmental Protection, Department of	6	6	0	0	0.4	0.4	0.0	0.0	
Fish and Boat Commission	38	22	16	0	2.1	1.0	1.1	0.0	
Game Commission	114	45	64	5	105.0	45.0	55.0	5.0	
Susquehanna River Basin Commission	12	7	3	2	1.0	0.6	0.3	0.1	
Rhode Island	48	41	2	5	35.5	30.0	1.0	4.5	
Fish and Wildlife; Environmental Management, Department of	22	20	0	2	12.0	10.0	0.0	2.0	
Marine Fisheries; Environmental Management, Department of	19	17	0	2	19.0	17.0	0.0	2.0	
Narragansett Bay National Estuarine Research Reserve; Environmental Management, Department of	3	2	1	0	2.5	2.0	0.5	0.0	
Transportation, Department of	3	1	1	1	1.5	0.5	0.5	0.5	
Water Resources Board	1	1	0	0	0.5	0.5		0.0	
South Carolina	437	210	143	84	250.4	143.3	77.0	30.1	
Health and Environmental Control,	107	2.0		0.1	200.1	1 10.0	77.0		
Department of	74	33	4	37	7.5	5.8	1.0	0.7	
Mental Health, Department of	2	1	0	1	0.2	0.1	0.0	0.1	
Natural Resources, Department of	326	151	137	38	222.0	124.0	76.0	22.0	
Sea Grant Consortium	20	12	2	6	18.0	12.0	0.0	6.0	
Transportation, Department of	15	13	0	2	2.7	1.4	0.0	1.3	
South Dakota	6	5	0	1	4.5	4.0	0.0	0.5	
Soybean Research and Promotion Council	1	0	0	1	0.5	0.0	0.0	0.5	
Transportation, Department of	5	5	0	0	4.0	4.0	0.0	0.0	
Tennessee	7	6	0	1	7.0	6.0	0.0	1.0	
Environment and Conservation, Department of	7	6	0	1	7.0	6.0	0.0	1.0	
Texas	56	39	6	11	37.1	25.3	6.0	5.8	
Parks and Wildlife Department	29	19	5	5	23.3	14.5		3.8	
State Health Services, Department of	27	20	1	6	13.8	10.8	1.0	2.0	
Utah	80	47	22	11	38.8	29.6		2.0	
Environmental Quality, Department of	13	3	10	0	0.8	0.6		0.0	
Natural Resources, Department of	60	40	10	10	31.0	25.0		1.0	
Transportation, Department of	7	4	2	10	7.0	4.0		1.0	
Vermont	30	9	17	4	6.3	1.6		0.6	
Human Services, Agency of	13	5	5	3	4.6	0.0		0.6	
Transportation, Agency of	17	4	12	1	1.7	1.6		0.0	
		82	39			70.1			
Virginia  Education, Department of	154		1	33	113.7 2.2	1.6	25.3	18.3	
Energy, Department of	21	3 17	3	1	17.5	1.6		0.3	
Environmental Quality, Department of	21		0	0	0.2	0.2			
· ·	7	7						0.0	
Forensic Science, Department of			0	0	6.0	6.0		0.0	
Forestry, Department of	6	1	5	0	6.0	1.0		0.0	
Innovation Partnership Corporation Institute for Advanced Learning and Research	10	1	0	0	1.0	1.0		5.0	

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State and department or agency	Total	Researchers <sup>a</sup>	Technicians	Support staff	Total	Researchers <sup>a</sup>	Technicians	Support staff	
Marine Resources Commission	2	1	1	0	2.0	1.0	1.0	0.0	
Natural History, Museum of	10	4	2	4	10.0	4.0	2.0	4.0	
Social Services, Department of	18	6	10	2	17.0	6.0	10.0	1.0	
Transportation, Department of	71	38	16	17	45.8	33.8	5.0	7.0	
Washington	640	352	173	115	270.7	173.2	62.0	35.5	
Ecology, Department of	44	21	22	1	12.9	5.6	7.0	0.3	
Fish and Wildlife, Department of	421	259	82	80	149.0	106.0	35.0	8.0	
Health, Department of	11	7	2	2	6.9	4.8	1.0	1.1	
Labor and Industries, Department of	28	24	0	4	28.0	24.0	0.0	4.0	
Natural Resources, Department of	107	33	54	20	52.0	26.0	12.0	14.0	
Puget Sound Partnership	2	2	0	0	0.9	0.8	0.0	0.1	
Transportation, Department of	15	3	7	5	11.0	3.0	3.0	5.0	
Tree Fruit Research Commission	12	3	6	3	10.0	3.0	4.0	3.0	
West Virginia	115	47	49	19	80.2	40.0	32.0	8.2	
Agriculture, Department of	4	4	0	0	4.0	3.0	0.0	1.0	
Geological and Economic Survey	34	21	8	5	34.0	21.0	8.0	5.0	
Higher Education Policy Commission	3	0	0	3	1.2	0.0	0.0	1.2	
Natural Resources, Department of	74	22	41	11	41.0	16.0	24.0	1.0	
Wisconsin	105	34	66	5	25.2	19.6	0.6	5.0	
Natural Resources, Department of	41	33	8	0	20.2	19.6	0.6	0.0	
Transportation, Department of	64	1	58	5	5.0	0.0	0.0	5.0	
Wyoming	41	16	21	4	35.6	13.0	18.6	4.0	
Enhanced Oil Recovery Institute	11	6	3	2	7.8	3.0	2.8	2.0	
Game and Fish Department	11	0	11	0	11.0	0.0	11.0	0.0	
State Geological Survey	16	10	4	2	16.0	10.0	4.0	2.0	
Transportation, Department of	3	0	3	0	0.8	0.0	0.8	0.0	
Puerto Rico <sup>c</sup>	153	31	75	47	115.4	24.7	58.3	32.4	
Comprehensive Cancer Center	88	9	48	31	78.0	9.0	48.0	21.0	
Innovation & Technology Services	11	0	7	4	2.9	0.0	1.7	1.2	
Institute of Statistics	35	7	20	8	20.5	5.7	8.6	6.2	
Science, Technology and Research Trust	19	15	0	4	14.0	10.0	0.0	4.0	

<sup>&</sup>lt;sup>a</sup> Researchers include R&D scientists and engineers and their managers.

## Source(s):

National Center for Science and Engineering Statistics, Survey of State Government Research and Development, FY 2022.

 $<sup>^{\</sup>rm b}$  U.S. total reflects all 50 states and the District of Columbia.

<sup>&</sup>lt;sup>c</sup> Puerto Rico is not included in U.S. total due to its classification as a U.S. territory.