

TABLE 53

## Domestic full-time equivalent R&amp;D employees and researchers, by work status, industry, and company size: 2021

(Thousands)

Industry and company size	NAICS code	FTE R&D employees <sup>a</sup>				FTE R&D scientists and engineers <sup>b</sup>				
		Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D	Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D	
All industries	21-23, 31-33, 42-81	1,941	1,590	327	24	1,311	1,113	187	10	i
Manufacturing industries	31-33	923	792	123	8	622	564	54	4	i
Food	311	24	19	4	*	12	11	1	i	*
Beverage and tobacco products	312	4	4	1	*	3	3	*	i	*
Textile, apparel, and leather products	313-16	5	4	1	*	2	2	*		i
Wood products	321	4	1	2	*	1	1	*		0
Paper	322	5	4	1	*	4	3	*		i
Printing and related support activities	323	2	1	1	*	1	1	*		i
Petroleum and coal products	324	5	4	*	*	1	1	*		*
Chemicals	325	190	176	13	2	121	118	3		1
Basic chemicals	3251	11	10	1	*	7	6	*		*
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	6	5	*	*	4	3	*		*
Pesticide, fertilizer, and other agricultural chemicals	3253	4	4	*	*	3	3	*		*
Pharmaceuticals and medicines	3254	149	139	10	1	94	91	2		*
Soap, cleaning compound, and toilet preparations	3256	11	10	1	*	8	8	*	i	*
Paint, coating, adhesive, and other chemicals	3255, 3259	9	8	1	*	6	6	*		*
Plastics and rubber products	326	19	14	5	*	10	8	2	i	*
Nonmetallic mineral products	327	7	5	1	1	4	3	1		i
Primary metals	331	7	2	5	*	2	1	1		r
Fabricated metal products	332	35	20	15	1	12	8	4		*
Machinery	333	86	66	20	1	57	46	11		1
Agricultural implement	33311	9	9	1	*	6	6	*		*
Semiconductor machinery	333242	14	13	*	*	8	7	*	i	i
Engine, turbine, and power transmission equipment	3336	7	7	1	*	6	6	*		*
Other machinery	other 333	56	37	18	1	37	26	10		*
Computer and electronic products	334	247	229	17	i	194	183	10	i	1
Communications equipment	3342	48	47	1	*	33	33	*	i	*
Semiconductor and other electronic components	3344	88	81	7	*	76	72	4		i
Navigational, measuring, electromedical, and control instruments	3345	51	43	8	i	33	28	5	i	*
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	8	7	1	*	5	4	*		i
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	19	14	5	i	10	7	4	i	*
Other measuring and controlling devices	other 3345	24	22	2	*	18	17	1		*

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		Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D	Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D
Other computer and electronic products	other 334	60	58	1	r *	51	51	1	*
Electrical equipment, appliances, and components	335	24	21	2	*	15	14	1	*
Transportation equipment	336	176	148	27	1	130	113	16	i 1 i
Motor vehicles, bodies, trailers, and parts	3361-63	104	98	6	*	80	77	3	*
Aerospace products and parts	3364	61	40	20	1	44	31	i 13 i	* i
Aircraft, aircraft engine, and aircraft parts	336411-13	57	38	i 18	1 i	42	i 29 i	12 i	* i
Guided missile, space vehicle, and related parts	336414-15, 336419	4	2	2	*	3	1	1	*
Military armored vehicle, tank, and tank components	336992	*	*	*	* i	*	*	*	0
Other transportation	other 336	11	9	2	*	5	5	* i	*
Furniture and related products	337	3	2	1	*	2	1	*	*
Miscellaneous	339	78	71	7	1	51	48	2	* i
Medical equipment and supplies	3391	63	58	4	1	42	41	1	* i
Other miscellaneous manufacturing	3399	16	13	3	*	9	7	1	*
Nonmanufacturing industries	21-23, 42-81	1,017	798	204	16	689	549	132	7 i
Mining, quarrying, oil and gas extraction, and support activities	21	7	6	1	i *	4	4	* i	* i
Utilities	22	2	i 1 i	1 i	* i	1 i	1 i	* i	* i
Wholesale trade	42	17	i 9 i	8 i	* i	8 i	5 i	3 i	*
Electronic shopping and electronic auctions	454111-12	98 - 120	12 - 73	27 - 88	*	66 - 102	0 - 48	17 - 71	* i
Transportation and warehousing	48-49	17	10	7	* i	10	6	4	* i
Information	51	434	405	28	1	317	302	14	1
Publishing	511	122	115	7	*	96	92	3	*
Newspaper, periodical, book, and directory publishers	5111	1	i 1 i	* i	* r	* i	* i	* r	* r
Software publishers	5112	121	114	7	*	95	92	3	*
Telecommunications	517	21	i 18 i	3 i	*	10 i	9 i	1 i	*
Data processing, hosting, and related services	518	159	143	16	1	107	i 98 i	9	* i
Other information	other 51	132	130	2	*	105	103	1	*
Finance and insurance	52	72	56	i 16	*	51	i 44 i	7 i	* i
Real estate and rental and leasing	53	4	4	* i	*	4	4	* i	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	* i	* i	* i	0	* i	* i	* i	0
Other real estate and rental and leasing	other 53	4	4	*	*	3	3	*	*
Professional, scientific, and technical services	54	303	232	59	13	177	136	36	5 i

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		Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D	Total	Full-time R&D employees	Full-time employees working on R&D part time	Part-time employees working on R&D
Architectural, engineering, and related services	5413	46	19	25	2	32	13	17	1
Computer systems design and related services	5415	92	76	15	2	64	54	9	1
Scientific research and development services	5417	122	104	9	9	57	51	4	3
Research and development in nanotechnology	541713	1	1	*	*	1	1	*	*
Research and development in biotechnology (except nanobiotechnology)	541714	34	34	*	*	13	12	*	*
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	78	67	8	2	41	36	4	1
Research and development in the social sciences and humanities	541720	9	3	1	6	3	1	*	1
Other professional, scientific, and technical services	other 54	43	33	10	*	24	18	6	*
Health care services	621-23	8	7	1	*	4	4	*	*
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	29 - 51	0 - 51	0 - 51	*	6 - 51	0 - 48	0 - 51	*
All companies (number of domestic employees)		- 1,941	1,590	327	24	1,311	1,113	187	10
Small companies									
10-19 <sup>c</sup>		- 31	22	8	1	18	13	4	*
20-49		- 82	56	25	2	48	36	11	1
Medium companies									
50-99		- 76	51	23	2	45	34	10	1
100-249		- 133	100	31	2	70	57	12	1
Large companies									
250-499		- 91	70	20	1	57	48	9	1
500-999		- 96	81	15	1	63	56	7	*
1,000-4,999		- 308	263	43	3	206	183	22	1
5,000-9,999		- 200	170	22	7	133	119	11	3
10,000-24,999		- 287	257	27	2	184	168	15	1
25,000 or more		- 636	521	113	2	486	400	84	2

\* = amount < 500 employees; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse; r = relative standard error is more than 50%.

FTE = full-time equivalent; NAICS = 2017 North American Industry Classification System.

<sup>a</sup> Includes scientists and engineers; their managers; and technicians, technologists, and support staff.

<sup>b</sup> Includes scientists and engineers and their managers.

<sup>c</sup> The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.

**Note(s):**

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

**Source(s):**

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2021.