

TABLE 51

## Domestic total employment, R&amp;D employment, and level of education of researchers, by activity, industry, and company size: 2021

(Thousands)

Industry and company size	NAICS code	Total employment	Total R&D employment	Researchers <sup>a</sup>		R&D technicians and equivalent staff	Other R&D supporting staff
				Total	With PhD		
All industries	21-23, 31-33, 42-81	23,654	2,132	1,426	130	501	205
Manufacturing industries	31-33	10,334	1,015	680	78	215	120
Food	311	1,142	27	13	2	9	5
Beverage and tobacco products	312	425	5	3	*	1	1
Textile, apparel, and leather products	313-16	207	7	3	1	3	1
Wood products	321	129	6	2	i *	2	2
Paper	322	194	6	4	*	2	1
Printing and related support activities	323	130	3	1	* i	1	1
Petroleum and coal products	324	103	5	1	*	3	1
Chemicals	325	1,392	201	131	35	34	35
Basic chemicals	3251	208	12	7	2	3	1
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	82	6	4	1	2	1
Pesticide, fertilizer, and other agricultural chemicals	3253	70	5	3	1	1	1
Pharmaceuticals and medicines	3254	638	157	103	28	25	29
Soap, cleaning compound, and toilet preparations	3256	253	11	8	1	2	2
Paint, coating, adhesive, and other chemicals	3255, 3259	140	9	7	1	2	1
Plastics and rubber products	326	493	23	12	2 i	9	3
Nonmetallic mineral products	327	136	8	5	1	3	1
Primary metals	331	127	9	3	*	2	5
Fabricated metal products	332	709	50	15	1	26	9
Machinery	333	932	100	65	4	26	9
Agricultural implement	33311	101	10	7	*	2	1
Semiconductor machinery	333242	40	14	8	2	6	*
Engine, turbine, and power transmission equipment	3336	84	8	6	*	2	*
Other machinery	other 333	706	68	44	2	17	7
Computer and electronic products	334	1,058	256	207	18	28	21
Communications equipment	3342	168	49	34	1 i	4	11
Semiconductor and other electronic components	3344	270	93	80	9	10	4
Navigational, measuring, electromedical, and control instruments	3345	362	54	42	4	9	3
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	54	8	5	1 i	2	1
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	120	21	17	1	3	1
Other measuring and controlling devices	other 3345	188	25	20	3	4	1
Other computer and electronic products	other 334	258	60	52	3 i	5 i	3

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Electrical equipment, appliances, and components	335	271	26	16	2	7	3
Transportation equipment	336	1,863	196	143	8	37	16
Motor vehicles, bodies, trailers, and parts	3361-63	889	108	82	4	17	9
Aerospace products and parts	3364	794	75	54	3	16	5
Aircraft, aircraft engine, and aircraft parts	336411-13	759	69	50	3	14	5
Guided missile, space vehicle, and related parts	336414-15, 336419	35	7	4	*	3	*
Military armored vehicle, tank, and tank components	336992	2	*	*	*	*	*
Other transportation	other 336	177	12	7	* i	3	3
Furniture and related products	337	137	4	2	* i	1	1
Miscellaneous	339	886	83	53	5	21	8
Medical equipment and supplies	3391	619	65	44	5	15	6
Other miscellaneous manufacturing	3399	267	18	10	*	6	2
Nonmanufacturing industries	21-23, 42-81	13,320	1,117	747	52 i	286	84
Mining, quarrying, oil and gas extraction, and support activities	21	158	9 i	5	0-1 i	3 i	2 i
Utilities	22	341	3-24	3	* i	0-21	0-8
Wholesale trade	42	651 i	24 i	10 i	1 i	9 i	6 i
Electronic shopping and electronic auctions	454111-12	98-5,080	98-120	67-102	*	18	0-13
Transportation and warehousing	48-49	1,087	22	11	* i	9	2
Information	51	2,186	449	327	25 i	92	29
Publishing	511	460	127	99	8 i	18	9
Newspaper, periodical, book, and directory publishers	5111	6	1 i	* i	0	1 i	* i
Software publishers	5112	454	125	99	8 i	17	9
Telecommunications	517	542	22	10 i	1 i	9 i	2
Data processing, hosting, and related services	518	786	168	112	4 i	41	14
Other information	other 51	399	133	105	13	24	3
Finance and insurance	52	1,729	87	50-68	0-3 i	13-32	0-7
Real estate and rental and leasing	53	94	4	4	*	1	* i
Lessors of nonfinancial intangible assets (except copyrighted works)	533	3	*	* i	*	* i	* i
Other real estate and rental and leasing	other 53	90	4	4	*	1	* i
Professional, scientific, and technical services	54	1,530	343	207	23 i	104	33 i
Architectural, engineering, and related services	5413	296	65	45	2	15	4

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				Total	With PhD		
Computer systems design and related services	5415	540	102	71	4 i	23	8
Scientific research and development services	5417	277	130	65	14 i	47 i	18 i
Research and development in nanotechnology	541713	2	1	1	*	*	*
Research and development in biotechnology (except nanobiotechnology)	541714	108	36	16	3	19	1
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	155	84 i	45 i	11 i	28 i	11 i
Research and development in the social sciences and humanities	541720	12	9	3	*	*	6
Other professional, scientific, and technical services	other 54	416	47	26	2 i	19	2 i
Health care services	621-23	420	9	5	0-2	3	1
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	49-5,031	50	6-51	0-2	0-38	0-8
All companies (number of domestic employees)	-	23,654	2,132	1,426	130	501	205
Small companies							
10-19 <sup>b</sup>	-	85	36	20	3	12	4
20-49	-	298	99	56	8	32	11
Medium companies							
50-99	-	418	92	53	6	29	10
100-249	-	886	157	82	9	58	18
Large companies							
250-499	-	741	110	66	7	31	13
500-999	-	926	110	71	6	28	12
1,000-4,999	-	3,148	340	223	19 i	82	34
5,000-9,999	-	1,933	211	140	15	41	30
10,000-24,999	-	3,260	309	204	23	79	26
25,000 or more	-	11,959	668	511	34 i	109	48

\* = amount &lt; 500 employees; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2017 North American Industry Classification System.

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