

TABLE 57

Domestic total employment, R&D employment, and level of education of researchers, by activity, industry, and company size: 2018

(Thousands)

Industry and company size	NAICS code	Total employment	Total R&D employment	Researchers ^a		R&D technicians and equivalent staff	Other R&D supporting staff
				Total	With PhD		
All industries	21–23, 31–33, 42–81	20,645	1,766	1,212	129	394	161
Manufacturing industries	31–33	10,013	981	684	80	195	101
Food	311	1,016	24	14	2 i	6	4
Beverage and tobacco products	312	441	6	4	1	2	1
Textile, apparel, and leather products	313–16	257	8	3	1	3	2
Wood products	321	81	3	1	*	1	*
Paper	322	192	6	4	*	1	1
Printing and related support activities	323	114	3	1	*	1	1
Petroleum and coal products	324	108	7	1	*	4	1
Chemicals	325	1,383	189	131	33	36	21
Basic chemicals	3251	195	13	7	3	4	1
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	82	7	5	2	2	1
Pesticide, fertilizer, and other agricultural chemicals	3253	78	8	6	2	2	*
Pharmaceuticals and medicines	3254	624	138	98	24	23	17
Soap, cleaning compound, and toilet preparation	3256	246	12	9	1	2	1
Paint, coating, adhesive, and other chemicals	3255, 3259	158	11	7	1	3	1
Plastics and rubber products	326	423	25	12	1 i	9	5
Nonmetallic mineral products	327	153	6	3	*	2	1
Primary metals	331	236	9	3	*	3	3
Fabricated metal products	332	384	28	12	* i	10	7
Machinery	333	902	93	61	4	24	8
Agricultural implement	33311	95	12	7	*	3	1
Semiconductor machinery	333242	32	11	9	1	2	*
Engine, turbine, and power transmission equipment	3336	108	13	11	*	1	*
Other machinery	other 333	666	58	34	2	18	6
Computer and electronic products	334	1,296	277	226	24 i	33	18
Communications equipment	3342	157	45	36	2	6	3
Semiconductor and other electronic components	3344	358	100	86 i	12 i	10	4 i
Navigational, measuring, electromedical, and control instruments	3345	500	73	56	6	12	4
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	89	15 i	11	2 i	3 i	1 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	220	33	26	1	5	2
Other measuring and controlling device	other 3345	191	25	19	3	4	2
Other computer and electronic products	other 334	281	59	47	5 i	5	7
Electrical equipment, appliances, and components	335	289	24	18	2	5	1
Transportation equipment	336	1,881	197	143	8 i	34	20
Motor vehicles, bodies, trailers, and parts	3361–63	957	110	85	4	17	8
Aerospace products and parts	3364	745	75	51 i	4 i	14 i	10 i
Aircraft, aircraft engine, and aircraft parts	336411–13	708	68 i	47 i	4 i	13	8 i

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Guided missile, space vehicle, and related parts	336414-15, 336419	37	8	5	i *	2	i 1
Military armored vehicle, tank, and tank component	336992	1	*	*	*	*	0
Other transportation	other 336	178	12	6	* i	3	2
Furniture and related products	337	155	4	2	*	2	1
Miscellaneous	339	703	71	46	4	18	7
Medical equipment and supplies	3391	468	54	37	4	13	4
Other miscellaneous manufacturing	3399	234	17	9	1 i	5	3
Nonmanufacturing industries	21-23, 42-81	10,632	785	527	48 i	198	60
Mining, quarrying, oil and gas extraction, and support activities	21	204	12	8	1	3	1
Utilities	22	385	2	1	*	*	1
Wholesale trade	42	176	i 12	i 5	i *	i 4	i 3
Electronic shopping and electronic auctions	454111-12	51 - 3,232	52	37	1 i	8 - 16	0 - 7
Transportation and warehousing	48-49	1,205	6	4	*	1	1
Information	51	2,030	342	256	23 i	66	20
Publishing	511	567	115	91	7 i	16	9
Newspaper, periodical, book, and directory publishers	5111	32	i 1	i 1	i *	* i	* i
Software publishers	5112	535	114	91	7 i	15	8
Telecommunications	517	633	22	10	i *	i 11	i *
Data processing, hosting, and related services	518	436	105	75	3 i	20	9
Other information	other 51	394	100	79	12	19	2
Finance and insurance	52	1,394	47	24	1	19	3
Real estate and rental and leasing	53	22	4	3	* i	1	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1	*	*	0	*	*
Other real estate and rental and leasing	other 53	21	4	3	* i	1	*
Professional, scientific, and technical services	54	1,446	271	168	20 i	81	23
Architectural, engineering, and related services	5413	324	51	33	2	13	4
Computer systems design and related services	5415	487	92	67	6 i	19	6
Scientific research and development services	5417	300	97	49	10	39	i 10
Research and development in biotechnology	541711	133	31	13	2	17	i 1
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	161	61	32	6	21	8
Research and development in the social sciences and humanities	541720	6	5	4	i 1	* i	1 i
Other professional, scientific, and technical services	other 54	336	32	19	2	10	i 3
Health care services	621-23	511	6	3	1 i	2	1
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	31 - 3,212	32	18	1	8 - 12	1 - 5

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(Thousands)

Industry and company size	NAICS code	Total employment	Total R&D employment	Researchers ^a		R&D technicians and equivalent staff	Other R&D supporting staff
				Total	With PhD		
All companies (number of domestic employees)	-	20,645	1,766	1,212	129	394	161
Small companies							
10-19 ^b	-	64	25	17	4	6	2
20-49	-	236	68	45	7	18	6
Medium companies							
50-99	-	342	80	47	6	24	9
100-249	-	771	126	70	8	42	14
Large companies							
250-499	-	732	102	63	7	28	11
500-999	-	849	91	56	6	22	12
1,000-4,999	-	2,816	306	216	22 i	61	29
5,000-9,999	-	1,713	178	115	12	42	21
10,000-24,999	-	3,454	304	216	25 i	69	20
25,000 or more	-	9,667	486	366	32 i	82	38

* = amount < 500 employees; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

^a Researchers include R&D scientists and engineers and their managers.

^b Business 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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates 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 U.S. Census Bureau, Business Research and Development Survey, 2018.