

TABLE 58

## Foreign total employment, R&amp;D employment, and level of education of researchers, by occupation, industry, and company size: 2017

(Thousands)

Industry and company size	NAICS code	Total employment	Total	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	10,557	740	526	28	149	65
Manufacturing industries	31-33	7,316	436	342	22	59	36
Food	311	572	12	9	*	2	1
Beverage and tobacco products	312	415	3	2	*	1	*
Textile, apparel, and leather products	313-16	133	1	*	*	1	*
Wood products	321	5	*	*	0	*	*
Paper	322	151	4	3	*	1	*
Printing and related support activities	323	72	*	*	i	*	*
Petroleum and coal products	324	9	1	*	*	i	*
Chemicals	325	977	70	45	8	13	12
Basic chemicals	3251	127	7	4	1	2	1
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	68	3	2	*	1	*
Pesticide, fertilizer, and other agricultural chemicals	3253	30	2	1	*	i	*
Pharmaceuticals and medicines	3254	371	43	27	6	7	9
Soap, cleaning compound, and toilet preparation	3256	236	6	5	1	*	1
Paint, coating, adhesive, and other chemicals	3255, 3259	146	9	6	*	2	1
Plastics and rubber products	326	201	7	4	1	2	1
Nonmetallic mineral products	327	62	2	1	i	*	i
Primary metals	331	105	2	2	*	*	*
Fabricated metal products	332	130	4	3	*	*	*
Machinery	333	716	35	29	1	5	2
Agricultural implement	33311	55	5	4	*	1	*
Semiconductor machinery	333242	47	6	6	1	*	*
Engine, turbine, and power transmission equipment	3336	72	5	4	*	*	*
Other machinery	other 333	542	19	14	1	i	3
Computer and electronic products	334	1,355	160	134	i	6	i
Communications equipment	3342	118	30	26	*	i	1
Semiconductor and other electronic components	3344	427	60	55	i	2	i
Navigational, measuring, electromedical, and control instruments	3345	393	32	23	3	5	i
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	69	7	4	i	1	i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	109	i	6	5	i	*
Other measuring and controlling device	other 3345	215	19	15	2	3	1
Other computer and electronic products	other 334	417	38	29	i	1	i
Electrical equipment, appliances, and components	335	566	31	26	i	*	i

TABLE 58

## Foreign total employment, R&amp;D employment, and level of education of researchers, by occupation, industry, and company size: 2017

(Thousands)

Industry and company size	NAICS code	Total employment	Total	Researchers <sup>a</sup>		R&D technicians and equivalent staff	Other R&D supporting staff
				Total	With PhD		
Transportation equipment	336	1,292	81	67	2 i	11	3
Automobiles, bodies, trailers, and parts	3361-63	893	40	31	2 i	7	2
Aerospace products and parts	3364	353	40	35	1	4	1
Aircraft, aircraft engine, and aircraft parts	336411-13	340	40	35	1	4	1
Guided missile, space vehicle, and related parts	336414-15, 336419	12	*	*	0	0	0
Military armored vehicle, tank, and tank component	336992	0	0	0	0	0	0
Other transportation	other 336	46	2	1	*	*	*
Furniture and related products	337	31	*	*	0	*	*
Miscellaneous manufacturing	339	523	22	15	1	5	2
Medical equipment and supplies	3391	425	19	13	1	5	1
Other miscellaneous manufacturing	3399	97	3 i	2 i	* i	1	* i
Nonmanufacturing industries	21-23, 42-81	3,241	303	185	7	90	29
Mining, extraction, and support activities	21	211	3 i	2 i	* i	*	* i
Utilities	22	13	*	*	*	*	* i
Wholesale trade	42	90	i 1	*	*	*	1 i
Electronic shopping and electronic auctions	454111-12	150	30	14	* i	14	2
Transportation and warehousing	48-49	291	*	*	0	*	0
Information	51	672	133	95	3	24	13
Publishing	511	372	90	69	1	9	11
Newspaper, periodical, book, and directory publishers	5111	*	*	*	0	*	0
Software publishers	5112	371	90	69	1	9	11
Telecommunications	517	68	1	*	* i	1 i	*
Data processing, hosting, and related services	518	165	29	16	*	12	2
Other information	other 51	68	13	9	1	3	* i
Finance and insurance	52	320	10	7	* i	3	* i
Real estate and rental and leasing	53	5	*	*	* i	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1	i *	* i	* i	0	0
Other real estate and rental and leasing	other 53	4	*	*	0	*	*
Professional, scientific, and technical services	54	1,083	123	64	3	47	12
Architectural, engineering, and related services	5413	96	1	1	*	*	*
Computer systems design and related services	5415	585	52	42	1	4 i	6
Scientific research and development services	5417	104	62	15	1	42	5 i
Biotechnology research and development	541711	19	13	7	1	6	*
Physical, engineering, and life sciences (except biotechnology) research and development	541712	85	49	8 i	1 i	36	5 i

TABLE 58

## Foreign total employment, R&amp;D employment, and level of education of researchers, by occupation, industry, and company size: 2017

(Thousands)

Industry and company size	NAICS code	Total employment	Total	Researchers <sup>a</sup>		R&D technicians and equivalent staff	Other R&D supporting staff				
				Total	With PhD						
Social sciences and humanities research and development	541720	*	*	*	0	*	i	0			
Other professional, scientific, and technical services	other 54	298	i	9	7	i	*	i	1	i	
Health care services	621-23	7	*	*	i	*	i	*	i	*	i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	399	4	2	*	1	1	1			
All companies (number of domestic employees)	-	10,557	740	526	28	149	65				
Small companies											
10-19 <sup>b</sup>	-	25	2	1	*	*	1				
20-49	-	44	7	5	*	2	*				
Medium companies											
50-99	-	34	6	4	*	2	*				
100-249	-	293	18	13	1	4	1	i			
Large companies											
250-499	-	268	29	21	1	6	2				
500-999	-	302	30	22	1	4	3				
1,000-4,999	-	1,712	136	99	5	28	9				
5,000-9,999	-	1,604	125	69	4	45	10				
10,000-24,999	-	2,116	119	85	i	7	i	12	i		
25,000 or more	-	4,158	267	207	9	35	25				

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

NAICS = 2012 North American Industry Classification System.

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

<sup>b</sup> 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. Statistics are representative of companies located in the United States that performed or funded R&D.

**Source(s)**

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2017.