

TABLE 53

## Worldwide, domestic, and foreign total and R&amp;D employment, by industry and company size: 2017

(Thousands and percent)

Industry and company size	NAICS code	Worldwide employees			Domestic employees			Foreign employees		
		Total	R&D	% R&D employees	Total	R&D	% R&D employees	Total	R&D	% R&D employees
All industries	21-23, 31-33, 42-81	30,450	2,349	7.7	19,893	1,609	8.1	10,557	740	7.0
Manufacturing industries	31-33	17,235	1,352	7.8	9,919	916	9.2	7,316	436	6.0
Food	311	1,845	35	1.9	1,273	23	1.8	572	12	2.1
Beverage and tobacco products	312	868	7	0.8	453	4	1.0	415	3	0.7
Textile, apparel, and leather products	313-16	407	8	2.0	273	7	2.5	133	1	0.8
Wood products	321	83	3	3.9	78	3	4.2	5	*	0.2
Paper	322	395	12	3.1	244	8	3.2	151	4	2.9
Printing and related support activities	323	243	3	1.2	171	3	1.7	72	*	0.1
Petroleum and coal products	324	76	3	3.9	66	2	3.5	9	1	6.7
Chemicals	325	2,211	245	11.1	1,234	174	14.1	977	70	7.2
Basic chemicals	3251	311	23	7.4	184	16	8.6	127	7	5.5
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	134	7	5.0	66	4	6.0	68	3	4.0
Pesticide, fertilizer, and other agricultural chemicals	3253	84	7	8.5	54	5	9.6	30	2	6.5
Pharmaceuticals and medicines	3254	889	170	19.1	518	127	24.6	371	43	11.6
Soap, cleaning compound, and toilet preparation	3256	474	18	3.7	238	12	4.9	236	6	2.5
Paint, coating, adhesive, and other chemicals	3255, 3259	320	20	6.3	174	11	6.2	146	9	6.5
Plastics and rubber products	326	695	35	5.0	494	28	5.7	201	7	3.3
Nonmetallic mineral products	327	185	8	4.5	122	7	5.5	62	2	2.5
Primary metals	331	303	10	3.4	198	8	4.0	105	2	2.2
Fabricated metal products	332	488	31	6.3	358	26	7.4	130	4	3.1
Machinery	333	1,555	120	7.7	839	85	10.1	716	35	4.9
Agricultural implement	33311	147	14	9.6	91	9	9.9	55	5	9.1
Semiconductor machinery	333242	79	16	20.6	31	10	32.1	47	6	13.1
Engine, turbine, and power transmission equipment	3336	164	16	9.6	92	11	11.4	72	5	7.2
Other machinery	other 333	1,166	74	6.3	624	55	8.8	542	19	3.5
Computer and electronic products	334	2,555	419	16.4	1,200	258	21.5	1,355	160	11.8
Communications equipment	3342	274	75	27.2	156	45	28.6	118	30	25.4
Semiconductor and other electronic components	3344	703	148	21.1	276	88	31.8	427	60	14.2
Navigational, measuring, electromedical, and control instruments	3345	874	101	11.5	480	69	14.4	393	32	8.0
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	148	20	13.5	78	13	16.7	69	7	9.8
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	319	39	12.1	210	33	15.6	109	6	5.5
Other measuring and controlling device	other 3345	407	42	10.3	192	23	12.1	215	19	8.7

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Other computer and electronic products	other 334	705	95	13.5	287	57	19.7	417	38	9.2
Electrical equipment, appliances, and components	335	858	60	7.0	291	29	10.1	566	31	5.4
Transportation equipment	336	3,063	253	8.3	1,771	172	9.7	1,292	81	6.3
Automobiles, bodies, trailers, and parts	3361-63	1,745	131	7.5	852	92	10.8	893	40	4.5
Aerospace products and parts	3364	1,063	107	10.1	710	67	9.5	353	40	11.3
Aircraft, aircraft engine, and aircraft parts	336411-13	1,007	95	9.4	667	55	8.3	340	40	11.7
Guided missile, space vehicle, and related parts	336414-15, 336419	56	12	21.7	44	12	27.9	12	*	*
Military armored vehicle, tank, and tank components	336992	1	*	6.0	1	*	6.0	0	0	NA
Other transportation	other 336	254	14	5.7	208	13	6.1	46	2	3.6
Furniture and related products	337	198	5	2.7	167	5	3.0	31	*	0.9
Miscellaneous manufacturing	339	1,210	95	7.9	687	73	10.6	523	22	4.2
Medical equipment and supplies	3391	901	72	8.0	475	53	11.2	425	19	4.4
Other miscellaneous manufacturing	3399	309	23	7.4	212	20	9.4	97	3 i	3.3
Nonmanufacturing industries	21-23, 42-81	13,215	997	7.5	9,974	693	7.0	3,241	303	9.4
Mining, extraction, and support activities	21	423	15	3.6	212	13	6.0	211	3 i	1.3
Utilities	22	476	3	0.6	464	3	0.6	13	*	0.8
Wholesale trade	42	372 i	10	2.6	282 i	8	3.0	90 i	1	1.3
Electronic shopping and electronic auctions	454111-12	441	71	16.0	291	41	14.1	150	30	19.8
Transportation and warehousing	48-49	1,418	7	0.5	1,127	7	0.6	291	*	*
Information	51	2,618	438	16.7	1,945	305	15.7	672	133	19.7
Publishing	511	953	224	23.5	581	135	23.2	372	90	24.1
Newspaper, periodical, book, and directory publishers	5111	9	1	7.2	9	1	6.9	*	*	19.0
Software publishers	5112	944	224	23.7	572	134	23.4	371	90	24.1
Telecommunications	517	842	32	3.8	775	31	4.0	68	1	1.7
Data processing, hosting, and related services	518	556	110	19.9	390	81	20.8	165	29	17.7
Other information	other 51	267	72	26.8	199	59	29.6	68	13	18.7
Finance and insurance	52	1,531	47	3.0	1,211	36	3.0	320	10	3.2
Real estate and rental and leasing	53	43	7	16.6	38	7	18.0	5	*	4.7
Lessors of nonfinancial intangible assets (except copyrighted works)	533	13 i	3 i	20.8	12 i	3 i	22.1	1 i	* i	6.3
Other real estate and rental and leasing	other 53	30	4	14.7	26	4	16.1	4	*	4.2
Professional, scientific, and technical services	54	2,413	358	14.8	1,330	235	17.7	1,083	123	11.3
Architectural, engineering, and related services	5413	397	46	11.5	301	45	14.9	96	1	0.6
Computer systems design and related services	5415	1,041	130	12.5	456	78	17.1	585	52	8.8
Scientific research and development services	5417	387	148	38.3	283	86	30.5	104	62	59.8

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Biotechnology research and development	541711	141	32	22.6	122	19	15.6	19	13	68.3	
Physical, engineering, and life sciences (except biotechnology) research and development	541712	232	106	45.5	148	57	38.4	85	49	57.9	
Social sciences and humanities research and development	541720	14	11	78.1	14	11	78.1	*	*	83.0	
Other professional, scientific, and technical services	other 54	587	34	5.8	289	25	8.7	298	i	9	2.9
Health care services	621-23	573	7	1.2	565	6	1.1	7	*	5.9	
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	2,907	35	1.2	2,508	32	1.3	399		4	0.9
All companies (number of domestic employees)	-	30,450	2,349	7.7	19,893	1,609	8.1	10,557	740	7.0	
Small companies											
10-19 <sup>a</sup>	-	98	28	28.1	73	26	35.3	25	2	7.4	
20-49	-	329	85	25.8	285	78	27.3	44	7	16.2	
Medium companies											
50-99	-	400	80	20.1	366	74	20.3	34	6	17.6	
100-249	-	962	129	13.4	669	111	16.5	293	18	6.2	
Large companies											
250-499	-	954	116	12.2	686	87	12.6	268	29	10.9	
500-999	-	1,151	120	10.4	849	90	10.6	302	30	10.0	
1,000-4,999	-	4,380	411	9.4	2,668	275	10.3	1,712	136	7.9	
5,000-9,999	-	3,313	310	9.3	1,710	185	10.8	1,604	125	7.8	
10,000-24,999	-	5,124	367	7.2	3,007	248	8.2	2,116	119	5.6	
25,000 or more	-	13,739	704	5.1	9,581	437	4.6	4,158	267	6.4	

\* = amount &lt; 500 employees or less than 0.05%; i = &gt; 50% of the estimate is a combination of imputation and reweighting to account for nonresponse; NA = not available.

NAICS = 2012 North American Industry Classification System.

<sup>a</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&amp;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&amp;D.

**Source(s)**

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