

TABLE 55

## Worldwide, domestic, and foreign R&amp;D employment, by sex, industry, and company size: 2018

(Thousands)

Industry and company size	NAICS code	Worldwide			Domestic			Foreign		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
All industries	21-23, 31-33, 42-81	2,564	1,846	717	1,766	1,298	468	797	548	249
Manufacturing industries	31-33	1,432	1,068	364	981	737	244	450	330	120
Food	311	37	21	16	24	14	10	13	7	6
Beverage and tobacco products	312	9	5	4	6	4	2	2	1	1
Textile, apparel, and leather products	313-16	10	5	4	8	4	4	2	1	1
Wood products	321	3	2	*	3	2	*	*	*	*
Paper	322	7	6	2	6	4	1	2	1	*
Printing and related support activities	323	3	3	1	3	2	1	*	*	*
Petroleum and coal products	324	8	6	2	7	5	2	2	1	1
Chemicals	325	268	140	128	189	101	88	79	39	41
Basic chemicals	3251	18	12	6	13	9	4	5	3	2
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	13	9	3	7	5	2	5	4	1
Pesticide, fertilizer, and other agricultural chemicals	3253	10	6	4	8	5	3	2 i	1 i	1 i
Pharmaceuticals and medicines	3254	191	90	101	138	67	70	53	22	31
Soap, cleaning compound, and toilet preparation	3256	18	9	9	12	6	6	6	3	3
Paint, coating, adhesive, and other chemicals	3255, 3259	19	14	5	11	8	3	8	6	2
Plastics and rubber products	326	29	23	6	25	20	5	4	3	1
Nonmetallic mineral products	327	8	7	1	6	6	1	1	1	*
Primary metals	331	11	9	1 i	9	8	1	2	2 i	* i
Fabricated metal products	332	30	26	4	28	25	4	2	1	*
Machinery	333	142	122	20	93	81	12	49	41	8
Agricultural implement	33311	20	18	3	12	10	1	9	7	1
Semiconductor machinery	333242	18	16	3	11	9	2	7	6	1
Engine, turbine, and power transmission equipment	3336	22	19	3	13	11	2	9	8	1
Other machinery	other 333	82	70	12 i	58	50	7 i	24	20 i	5
Computer and electronic products	334	463	372	91	277	224	53	186	148 i	38 i
Communications equipment	3342	77	64	13	45	38	8	32	27	6
Semiconductor and other electronic components	3344	179	145 i	34 i	100	81 i	19 i	80	64 i	15 i
Navigational, measuring, electromedical, and control instruments	3345	108	84	25	73	57	15	35	26	9
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	22 i	15 i	7 i	15 i	10	5 i	7 i	5 i	2 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	40	33	7	33	27	6	8	6	2 i
Other measuring and controlling device	other 3345	46	35	10	25	20	5	21	15	5
Other computer and electronic products	other 334	98	80	19	59	48	11	39	31 i	8 i
Electrical equipment, appliances, and components	335	45	36 i	9 i	24	20	4	21	16 i	5 i
Transportation equipment	336	258	215	42	197	164	33	61	51	10
Motor vehicles, bodies, trailers, and parts	3361-63	160	134	26	110	92	18	50	42	8
Aerospace products and parts	3364	84	71 i	13	75	64 i	12	8	7	1

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		Total	Male	Female	Total	Male	Female	Total	Male	Female
Aircraft, aircraft engine, and aircraft parts	336411-13	76	65	12	68	57	10	8	7	1
Guided missile, space vehicle, and related parts	336414-15, 336419	8	6	1	8	6	1	*	*	*
Military armored vehicle, tank, and tank component	336992	*	*	*	*	*	*	0	0	0
Other transportation	other 336	14	11	3	12	9	3	2	2	*
Furniture and related products	337	5	4	1	4	3	1	*	*	*
Miscellaneous	339	95	66	30	71	50	22	24	16	8
Medical equipment and supplies	3391	75	51	25	54	37	17	21	14	7
Other miscellaneous manufacturing	3399	20	15	5	17	13	4	3	2	1
Nonmanufacturing industries	21-23, 42-81	1,132	779	354	785	561	225	347	218	129
Mining, quarrying, oil and gas extraction, and support activities	21	15	12	3	12	10	2	2	2	*
Utilities	22	2	2	*	2	2	*	*	*	*
Wholesale trade	42	12	10	2	12	10	2	1	*	*
Electronic shopping and electronic auctions	454111-12	71 - 99	66	5 - 34	52	32 - 53	0 - 20	19 - 47	13 - 33	0 - 17
Transportation and warehousing	48-49	6	4	2	6	4	2	*	*	*
Information	51	493	371	123	342	260	82	151	110	41
Publishing	511	184	133	51	115	86	29	68	47	22
Newspaper, periodical, book, and directory publishers	5111	1	1	1	1	1	1	*	*	*
Software publishers	5112	183	132	50	114	85	29	68	47	22
Telecommunications	517	23	18	5	22	17	5	1	1	*
Data processing, hosting, and related services	518	164	124	40	105	79	25	60	45	15
Other information	other 51	122	96	26	100	78	22	22	18	4
Finance and insurance	52	61	36	24	47	28	19	14	9	5
Real estate and rental and leasing	53	4	3	1	4	3	1	*	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	*	*	*	*	*	0	0	0
Other real estate and rental and leasing	other 53	4	3	1	4	3	1	*	*	*
Professional, scientific, and technical services	54	405	243	162	271	178	94	134	66	68
Architectural, engineering, and related services	5413	52	38	13	51	38	13	1	1	*
Computer systems design and related services	5415	139	107	32	92	71	20	48	36	12
Scientific research and development services	5417	177	72	104	97	47	50	80	25	54
Research and development in biotechnology	541711	56	20	36	31	12	19	25	9	16
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	116	49	66	61	33	28	54	16	38
Research and development in the social sciences and humanities	541720	5	2	3	5	2	3	*	*	*
Other professional, scientific, and technical services	other 54	38	26	12	32	21	10	6	4	2
Health care services	621-23	6	3	4	6	3	4	*	*	*

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Industry and company size	NAICS code	Worldwide			Domestic			Foreign		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	31 - 59	29	2 - 31	32	9 - 30	2 - 23	0 - 28	0 - 20	0 - 17
All companies (number of domestic employees)	-	2,564	1,846	717	1,766	1,298	468	797	548	249
Small companies										
10-19 <sup>a</sup>	-	27	21	6	25	19	6	2	1	*
20-49	-	75	60	15	68	55	14	7	6	1
Medium companies										
50-99	-	87	69	18	80	63	17	7	6	2
100-249	-	146	112	35	126	97	29	20	14	6
Large companies										
250-499	-	122	92	30	102	77	25	20	15	5
500-999	-	120	91	29	91	69	22	29	22	8
1,000-4,999	-	452	333	118	306	226	79	146	107	39
5,000-9,999	-	308	198	110	178	122	56	130	76	54
10,000-24,999	-	478	319	159	304	207	97	173	112	62
25,000 or more	-	748	552	197	486	362	124	263	189	73

\* = 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.

<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&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.