

TABLE 31. Worldwide, domestic, and foreign total and R&D employment, by industry and company size: 2011
(Thousands)

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	29,327	2,025	6.9	19,285	1,471	7.6	10,042	554	5.5
Manufacturing industries	31-33	17,532	1,211	6.9	9,998	865	8.7	7,534	345	4.6
Food	311	2,008	36	1.8	1,072	29	2.7	937	7	0.8
Beverage and tobacco products	312	832	6	0.7	385	4	1.0	447	2	0.4
Textile, apparel, and leather products	313-316	258	8	3.0	201	7	3.5	56	1	1.1
Wood products	321	120	3	2.6	102	3	3.0	18	*	0.1
Paper	322	405	13	3.3	235	9	3.7	170	5	2.7
Printing and related support activities	323	141	3	2.3	122	3	2.3	19	*	2.0
Petroleum and coal products	324	D	6	D	73	5	6.6	D	1	D
Chemicals	325	2,594	225	8.7	1,479	160	10.8	1,115	65	5.8
Basic chemicals	3251	704	27	3.8	469	18	3.8	235	9	3.8
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	210	8	3.8	123	6	4.5	86	3	3.0
Pesticide, fertilizer, and other agricultural chemical	3253	52	8	14.4	38	6	14.8	14	2	13.6
Pharmaceuticals and medicines	3254	1,003	147	14.7	549	107	19.5	453	40	8.9
Soap, cleaning compound, and toilet preparation	3256	426	21	4.9	172	14	8.2	254	7	2.6
Paint, coating, adhesive, and other chemicals	3255, 3259	200	15	7.4	128	10	7.8	71	5	6.7
Plastics and rubber products	326	631	25	4.0	475	22	4.7	156	3	2.1
Nonmetallic mineral products	327	221	12	5.4	145	8	5.5	76	4	5.2
Primary metals	331	364	7	1.8	260	6	2.2	104	1	0.7
Fabricated metal products	332	561	33	5.8	430	31	7.2	131	2	1.3
Machinery	333	1,805	121	6.7	1,029	88	8.6	776	33	4.3
Agricultural implement	33311	111	9	8.5	77	7	9.5	34	2	6.3
Semiconductor machinery	333295	41	9	22.0	24	7	28.5	18	2	13.3
Engine, turbine, and power transmission equipment	3336	428	D	D	237	25	10.4	190	D	D
Other machinery	other 333	1,225	D	D	691	49	7.1	534	D	D
Computer and electronic products	334	2,951	392	13.3	1,408	258	18.3	1,543	133	8.6
Communications equipment	3342	322	79	24.5	186	52	28.1	136	27	19.6
Semiconductor and other electronic components	3344	873	153	17.6	303	87	28.7	571	66	11.6
Navigational, measuring, electromedical, and control instruments	3345	978	91	9.3	624	74	11.9	353	17	4.7
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	176	26	14.7	142	22	15.8	34	3	9.8
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	388	33	8.6	280	31	10.9	108	3	2.6
Other measuring and controlling device	other 3345	414	32	7.7	202	21	10.5	212	11	5.0
Other computer and electronic products	other 334	778	68	8.8	295	45	15.1	483	23	4.9
Electrical equipment, appliances, and components	335	859	53	6.2	347	29	8.4	512	24	4.6
Transportation equipment	336	2,596	198	7.6	1,521	145	9.5	1,075	53	4.9
Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	1,631	106	6.5	738	61	8.3	893	44	5.0
Aerospace products and parts	3364	762	80	10.5	635	72	11.4	126	7	5.9
Aircraft, aircraft engine, and aircraft parts	336411-13	711	74	10.5	590	67	11.3	121	7	6.1

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Guided missile, space vehicle, and related parts	336414-15, 336419	51	5	10.5	45	5	11.8	6	*	0.4
Military armored vehicle, tank, and tank component	336992	4	*	5.8	3	*	6.4	*	0	0.0
Other transportation equipment	other 336	200	13	6.3	145	11	7.8	55	1	2.2
Furniture and related products	337	199	5	2.3	160	4	2.8	39	*	0.2
Miscellaneous manufacturing	339	D	66	D	551	54	9.8	D	12	D
Medical equipment and supplies	3391	483	39	8.0	316	33	10.3	167	6	3.6
Other miscellaneous manufacturing	3399	D	27	D	236	21	9.1	D	6	D
Nonmanufacturing industries	21-23, 42-81	11,795	814	6.9	9,287	606	6.5	2,508	209	8.3
Mining, extraction, and support activities	21	495	14	2.8	284	11	3.9	211	3	1.2
Utilities	22	448	2	0.5	436	2	0.4	11	*	1.7
Wholesale trade	42	436	21 i	4.7	327	16 i	5.0	109 i	4 i	4.0
Electronic shopping and electronic auctions	454111-12	85	5	5.3	60	4	7.2	25	*	1.0
Transportation and warehousing	48-49	824	1	0.1	691	1	0.2	133	* i	0.1
Information	51	2,647	326	12.3	1,876	232	12.3	771	94	12.3
Publishing	511	1,185	229	19.3	566	147	25.9	619	83	13.4
Newspaper, periodical, book, and directory publishers	5111	65	4	6.3	55	4	6.8	10	*	3.3
Software publishers	5112	1,120	225	20.1	511	143	27.9	609	82	13.5
Telecommunications	517	882	24 i	2.7	864	22 i	2.6	18	1	7.1
Data processing, hosting, and related services	518	221	37	16.6	166	33	19.8	55	4	6.9
Other information	other 51	359	36	10.1	280	30	10.6	79	7	8.5
Finance and insurance	52	1,729	31	1.8	1,499	26	1.8	230	5	2.2
Real estate and rental and leasing	53	50	2	3.8	46	1	3.0	4	1	15.1
Lessors of nonfinancial intangible assets (except copyrighted works)	533	9	2	17.5	6	1	16.9	3	1	18.8
Other real estate and rental and leasing	other 53	41	*	0.9	40	*	0.9	1	*	3.6
Professional, scientific, and technical services	54	2,799	369	13.2	1,977	270	13.7	822	99	12.0
Architectural, engineering, and related services	5413	479	66	13.8	380	62	16.3	99	4	4.1
Computer systems design and related services	5415	1,050	156	14.9	597	103	17.2	454 i	53	11.8
Scientific research and development services	5417	237	97	41.1	196	73	37.0	40	25	60.9
Biotechnology research and development	541711	75	21	28.0	72	20	27.2	3	1	52.0
Physical, engineering, and life sciences (except biotechnology) research and development	541712	155	72	46.7	117	49	41.9	38	23	61.5
Social sciences and humanities research and development	541720	7	4	56.9	7	4	56.9	*	*	64.8
Other professional, scientific, and technical services	other 54	1,033	50	4.8	804	33	4.1	229	17	7.3
Health care services	621-23	344	9	2.5	339	9	2.5	5	* i	2.3
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,939	35	1.8	1,752	33	1.9	188	3	1.4
All companies (number of domestic employees)	-	29,327	2,025	6.9	19,285	1,471	7.6	10,042	554	5.5
Small companies ^a										
5-499	-	4,796	529	11.0	3,635	481	13.2	1,162	47	4.1

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5-99	-	1,675	297	17.7	1,469	274	18.7	206	22	10.9
5-49	-	1,042	204	19.6	927	189	20.3	115	16	13.6
5-9	-	132	38	28.8	129	37	28.9	4	1	25.5
10-24	-	370	84	22.5	328	74	22.6	43	10	22.4
25-49	-	539	83	15.3	470	77	16.4	69	5	7.6
50-99	-	633	92	14.6	543	86	15.8	91	7	7.4
100-249	-	1,289	123	9.6	1,057	113	10.7	233	10	4.3
250-499	-	1,832	109	5.9	1,109	94	8.5	723	15	2.1
Medium and large companies										
500-999	-	1,024	76	7.4	750	61	8.1	273	15	5.5
1,000-4,999	-	4,828	346	7.2	3,064	233	7.6	1,764	114	6.5
5,000-9,999	-	3,304	199	6.0	1,916	113	5.9	1,388	86	6.2
10,000-24,999	-	4,076	273	6.7	2,689	204	7.6	1,387	70	5.0
25,000 or more	-	11,300	602	5.3	7,231	379	5.2	4,069	223	5.5

* = amount < 500 employees; D = data withheld to avoid disclosing operations of individual companies; i = value > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

^a Upper bound based on U.S. Small Business Administration's definition of a small business; Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics and U.S. Census Bureau, Business R&D and Innovation Survey, 2011.