

TABLE 27. Worldwide, domestic, and foreign all and R&D employment, by industry and company size: 2008

(Thousands of employees)

Industry and company size	NAICS code	Worldwide employees			Domestic employees			Foreign employees		
		All	R&D	% R&D employees	All	R&D	% R&D employees	All	R&D	% R&D employees
All industries	21-23, 31-33, 42-81	27,068	1,867	6.9	18,515	1,425	7.7	8,552	442	5.2
Manufacturing industries	31-33	16,745	1,143	6.8	10,173	850	8.4	6,571	293	4.5
Food	311	1,470	18	1.2	1,086	14	1.3	384	4	1.0
Beverage and tobacco products	312	539	4	0.7	310	3	1.0	229	1	0.4
Textiles, apparel, and leather products	313-316	577	10	1.7	361	6	1.7	216	4 i	1.9
Wood products	321	165	3	1.8	144	3	2.1	21	*	NA
Paper	322	370	12	3.2	232	8	3.4	138	4	2.9
Printing and related support activities	323	103	3	2.9	83	3	3.6	19	*	NA
Petroleum and coal products	324	257	7	2.7	74	6	8.1	183	1	0.5
Chemicals	325	2,471	229	9.3	1,396	175	12.5	1,074	55	5.1
Basic chemicals	3251	467	27	5.8	248	19	7.7	219	7	3.2
Resin, synthetic rubber, fibers, and filaments	3252	236	5	2.1	125	4	3.2	111	1	0.9
Pesticide, fertilizer, and other agricultural chemical	3253	84	6	7.1	64	5	7.8	19	1	5.3
Pharmaceuticals and medicines	3254	1,082	159	14.7	654	123	18.8	428	36	8.4
Soap, cleaning compound, and toilet preparation	3256	350	17	4.9	147	11	7.5	203	6	3.0
Paint, coating, adhesive, and other chemical	3255, 3259	252	15	6.0	158	12	7.6	94	3	3.2
Plastics and rubber products	326	636	23	3.6	453	17	3.8	183	6	3.3
Nonmetallic mineral products	327	284	12	4.2	220	9	4.1	64	3 i	4.7
Primary metals	331	349	7	2.0	224	7	3.1	124	1	0.8
Fabricated metal products	332	788	32	4.1	633	29	4.6	154	3 i	1.9
Machinery	333	1,433	78	5.4	831	60	7.2	602	18	3.0
Agricultural implement	33311	147	10	6.8	89	7	7.9	58	3	5.2
Semiconductor machinery	333295	42	9	21.4	27	7	25.9	15	2	13.3
Engine, turbine, and power transmission equipment	3336	131	9	6.9	97	7	7.2	34	1	2.9
Other machinery	other 333	1,113	50	4.5	617	38	6.2	496	11	2.2
Computer and electronic products	334	2,531	387	15.3	1,292	276	21.4	1,239	111	8.9
Communications equipment	3342	301	80	26.6	183	54	29.5	118	26	22.0
Semiconductor and other electronic components	3344	754	147	19.5	320	99	30.9	434	48	11.1
Navigational, measuring, electromedical, and control instruments	3345	887	95	10.7	537	76	14.2	350	18	5.1
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	278	27	9.7	149	20	13.4	129	7	5.4
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	276	40	14.5	231	37	16.0	45	3	6.7
Other measuring and controlling instruments	other 3345	333	28	8.4	157	19	12.1	175	8	4.6
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	589	65	11.0	252	47	18.7	337	18	5.3
Electrical equipment, appliances, and components	335	568	31	5.5	281	20	7.1	287	11	3.8
Transportation equipment	336	3,154	228	7.2	1,807	165	9.1	1,347	63	4.7

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Automobiles, bodies, trailers, and parts	3361-3363	1,756	101	5.8	757	57	7.5	999	44	4.4
Aerospace products and parts	3364	1,328	123	9.3	984	103	10.5	345	19	5.5
Aircraft, aircraft engine, and aircraft parts	336411-336413	1,095	115	10.5	765	96	12.5	330	18	5.5
Guided missile, space vehicle, and related parts	336414, 336415, 336419	233	8 i	3.4	218 i	7	3.2	15	1 i	6.7
Military armored vehicle, tank, and tank components	336992	3	*	NA	3	*	NA	0	0	NA
Other transportation	other 336	67	4	6.0	63	4	6.3	4	*	NA
Furniture and related products	337	205	5	2.4	181	5	2.8	23	*	NA
Miscellaneous manufacturing	339	846	53	6.3	563	45	8.0	283	8	2.8
Medical equipment and supplies	3391	443	31	7.0	319	26	8.2	124	5	4.0
Other miscellaneous manufacturing	3399	403	22	5.5	244	18	7.4	159	4	2.5
Nonmanufacturing industries	21-23, 42-81	10,323	725	7.0	8,342	575	6.9	1,981	149	7.5
Mining, extraction, and support activities	21	302	7	2.3	190	6	3.2	112	1	0.9
Utilities	22	368	1	0.3	351	1	0.3	17	*	NA
Construction	23	218	5	2.3	185	5	2.7	34	* i	NA
Wholesale trade	42	401	18	4.5	245	15	6.1	156	3	1.9
Retail trade	44, 45	431	6	1.4	424	4	0.9	7	2	28.6
Electronic shopping and mail-order houses	4541	20	4	20.0	12	3	25.0	7	2	28.6
Other retail trade	other 44, 45	412	1	0.2	412	1	0.2	0	0	NA
Transportation and warehousing	48, 49	866	3	0.3	762	2	0.3	104	1 i	1.0
Information	51	3,493	304	8.7	2,662	224	8.4	831	79	9.5
Publishing	511	2,005	218	10.9	1,368	153	11.2	637	65	10.2
Newspaper, periodical, book, and directory publishers	5111	103	2	1.9	52	1	1.9	51	1	2.0
Software publishers	5112	1,903	216	11.4	1,317	151	11.5	586	64	10.9
Telecommunications	517	832	31	3.7	809	29	3.6	23	2	8.7
Internet service providers, Web search portals, and data processing services	518	452	48	10.6	311	36	11.6	140	12 i	8.6
Other information	other 51	204	7	3.4	173	6	3.5	31	1	3.2
Finance and insurance	52	580	8	1.4	497	7	1.4	83	1	1.2
Real estate and rental and leasing	53	142	3	2.1	132	3	2.3	10	1	10.0
Professional, scientific, and technical services	54	1,712	328	19.2	1,177	267	22.7	535	60	11.2
Architectural, engineering, and related services	5413	195	39	20.0	137	38	27.7	57	1	1.8
Computer systems design and related services	5415	646	136	21.1	457	100	21.9	188	36	19.1
Scientific R&D services	5417	293	115	39.2	259	94	36.3	34	21	61.8
Other professional, scientific, and technical services	other 54	579	37	6.4	323	35	10.8	255	2	0.8
Health care services	621-623	202	12	5.9	201	12	6.0	1	*	NA
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	1,608	30	1.9	1,517	29	1.9	90	1	1.1

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All companies	21-23, 31-33, 42-81	27,066	1,867	6.9	18,515	1,425	7.7	8,550	442	5.2
Small companies (number of domestic employees) <sup>a</sup>										
5-499	-	3,340	457	13.7	2,864	411	14.4	476	46	9.7
5-99	-	1,225	261	21.3	1,116	243	21.8	110	18	16.4
5-49	-	716	184	25.7	653	173	26.5	63	11	17.5
5-24	-	383	113	29.5	354	109	30.8	29	3	10.3
25-49	-	333	71	21.3	299	64	21.4	34	7	20.6
50-99	-	509	77	15.1	462	70	15.2	47	7	14.9
100-249	-	1,207	124	10.3	1,039	106	10.2	168	18	10.7
250-499	-	907	72	7.9	710	61	8.6	198	11	5.6
Medium and large companies (number of domestic employees)										
500-999	-	980	78	8.0	669	63	9.4	311	14	4.5
1,000-4,999	-	4,056	312	7.7	2,587	224	8.7	1,470	87	5.9
5,000-9,999	-	2,623	191	7.3	1,464	125	8.5	1,159	66	5.7
10,000-24,999	-	5,580	283	5.1	3,903	191	4.9	1,677	92	5.5
25,000 or more	-	10,487	547	5.2	7,029	411	5.8	3,458	137	4.0

\* = amount < 500 employees; i = value > 50% of estimate is a combination of imputation and reweighting to account for nonresponse; NA = not available.

NAICS = 2002 North American Industry Classification System.

<sup>a</sup> Upper bound based on U.S. Small Business Administration's definition of small business; Business R&D and Innovation Survey (BRDIS) does not include companies with fewer than five domestic employees. After 2008 BRDIS sample was selected and surveyed, an error was identified that resulted in excluding 226,884 single-establishment companies with five paid employees from sample frame. Most excluded establishments were classified in industries with low R&D intensities, such as construction, retail trade, and service sectors. Based on available information for these small single-establishment companies, their contribution to 2008 R&D estimates is estimated to be negligible.

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 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, 2008.