

TABLE 47. Worldwide R&D employment, by occupation, industry, and company size: 2012  
(Thousands)

Industry and company size	NAICS code	Total	R&D scientists and engineers and their managers	R&D technicians and technologists	R&D support staff (clerical and others)
All industries	21–23, 31–33, 42–81	2,065	1,435	407	223
Manufacturing industries	31–33	1,261	905	227	128
Food	311	32	20	8	4
Beverage and tobacco products	312	6	3	2	1
Textile, apparel, and leather products	313–16	8	2 i	5 i	1
Wood products	321	8 i	1	5 i	1
Paper	322	8	4	4	*
Printing and related support activities	323	5	2 i	3 i	* i
Petroleum and coal products	324	6	4	1	1
Chemicals	325	220	141	44	35
Basic chemicals	3251	20	11	8	2
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	8	5	2	1
Pesticide, fertilizer, and other agricultural chemical	3253	8	5	2	1
Pharmaceuticals and medicines	3254	151	96	26	28
Soap, cleaning compound, and toilet preparation	3256	18	14	2	2
Paint, coating, adhesive, and other chemicals	3255, 3259	15	9	4	2
Plastics and rubber products	326	36	21 i	12 i	3
Nonmetallic mineral products	327	12	7 i	4	1
Primary metals	331	8	3	3 i	1
Fabricated metal products	332	33	14 i	12 i	6 i
Machinery	333	131	100	22	9
Agricultural implement	33311	13	11	1	*
Semiconductor machinery	333295	9	6	2	1
Engine, turbine, and power transmission equipment	3336	41	35	5	1
Other machinery	other 333	68	47	15 i	7 i
Computer and electronic products	334	426	341	50	35
Communications equipment	3342	79	66	8	5
Semiconductor and other electronic components	3344	175	138	20 i	17
Navigational, measuring, electromedical, and control instruments	3345	98	74 i	17 i	7 i
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	26	19	6 i	2 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	33	25	5 i	3 i
Other measuring and controlling device	other 3345	39	31 i	6 i	3 i
Other computer and electronic products	other 334	73	64 i	4	5
Electrical equipment, appliances, and components	335	42	30	8	4
Transportation equipment	336	202	159	26	18 i
Automobiles, bodies, trailers, and parts	3361–63	110	88	14	7
Aerospace products and parts	3364	82	65	9	7 i
Aircraft, aircraft engine, and aircraft parts	336411–13	76	61 i	9	7 i
Guided missile, space vehicle, and related parts	336414–15, 336419	5	5	*	*
Military armored vehicle, tank, and tank component	336992	*	*	*	*
Other transportation	other 336	11	5 i	3 i	3 i

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Furniture and related products	337	5	2 i	2 i	*
Miscellaneous manufacturing	339	75	52	16	8
Medical equipment and supplies	3391	52	36	11	5
Other miscellaneous manufacturing	3399	23	15	5	2
Nonmanufacturing industries	21-23, 42-81	804	530 i	179 i	95 i
Mining, extraction, and support activities	21	13	9	3 i	1 i
Utilities	22	2	2	*	*
Wholesale trade	42	26 i	13 i	8 i	5 i
Electronic shopping and electronic auctions	454111-12	11	2	7	3 i
Transportation and warehousing	48-49	4	1 i	1	2 i
Information	51	326	259	44	22
Publishing	511	233	196	18	19
Newspaper, periodical, book, and directory publishers	5111	3 i	1 i	1 i	1 i
Software publishers	5112	230	195	18	18
Telecommunications	517	14 i	11 i	3 i	1 i
Data processing, hosting, and related services	518	41	24	16 i	2
Other information	other 51	37	28	8	1
Finance and insurance	52	31	11	17	3
Real estate and rental and leasing	53	2	2	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	1	1	*	*
Other real estate and rental and leasing	other 53	1 i	* i	* i	* i
Professional, scientific, and technical services	54	353	213 i	91 i	49 i
Architectural, engineering, and related services	5413	42	32 i	7 i	3 i
Computer systems design and related services	5415	162 i	107 i	37 i	18 i
Scientific research and development services	5417	107	47	37	23
Biotechnology research and development	541711	32	23	6	2
Physical, engineering, and life sciences (except biotechnology) research and development	541712	72	24	29	19
Social sciences and humanities research and development	541720	4	1	2 i	1 i
Other professional, scientific, and technical services	other 54	41	26 i	9 i	5 i
Health care services	621-23	6	4 i	1 i	2 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	31	17	7 i	7 i
All companies (number of domestic employees)	-	2,065	1,435	407	223
Small companies <sup>a</sup>					
5-499	-	494	304 i	124 i	66 i
5-99	-	286	178 i	67 i	41 i
5-49	-	201	125 i	46 i	30 i
5-9	-	42	26 i	7 i	9 i
10-24	-	76	47 i	18 i	11 i
25-49	-	83	51 i	21 i	11 i
50-99	-	86	53 i	21 i	11 i

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100–249	–	116	68 i	34 i	15 i
250–499	–	93	58	23 i	11
Medium and large companies					
500–999	–	83	53	20	10
1,000–4,999	–	335	236	67	31
5,000–9,999	–	247	158	51	38
10,000–24,999	–	263	178	58	28
25,000 or more	–	643	506	88	50

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

NAICS = 2007 North American Industry Classification System.

<sup>a</sup> The upper bound is based on the U.S. Small Business Administration's definition of a small business; the 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. The 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: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2012.