

TABLE 53

Worldwide R&D employment and level of education of researchers, by occupation, industry, and company size: 2015

(Thousands)

Industry and company size	NAICS code	Total	Researchers ^a		R&D technicians and equivalent staff	Other R&D supporting staff
			Total	With PhD		
All industries	21-23, 31-33, 42-81	2,178	1,539	143	409	231
Manufacturing industries	31-33	1,308	950	91	214	143
Food	311	40	23	2	10	7
Beverages and tobacco products	312	7	4	1	2	1
Textiles, apparel, and leather products	313-16	8	4	1	3	1
Wood products	321	2	1	*	1	*
Paper	322	7	4	*	2	*
Printing and related support activities	323	4	2	*	1	1
Petroleum and coal products	324	2	1	*	1	*
Chemicals	325	231	151	38	39	41
Basic chemicals	3251	20	12	5	5	3
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	11	8	1	3	1
Pesticides, fertilizers, and other agricultural chemicals	3253	14	8	3	5	1
Pharmaceuticals and medicines	3254	161	107	26	20	34
Soaps, cleaning compounds, and toilet preparations	3256	9	7	2	1	1
Paints, coatings, adhesives, and other chemicals	3255, 3259	16	9	1	4	3
Plastics and rubber products	326	27	15	1	7	5
Nonmetallic mineral products	327	8	5	1	3	1
Primary metals	331	7	3	1	2	2
Fabricated metal products	332	39	18	*	13	8
Machinery	333	114	80	4	24	10
Agricultural implements	33311	15	11	*	3	1
Semiconductor machinery	333242	13	10	1	2	*
Engines, turbines, and power transmission equipment	3336	15	13	1	2	*
Other machinery	other 333	72	47	2	17	8
Computer and electronic products	334	415	345	24	41	29
Communications equipment	3342	90	77	3	8	5
Semiconductors and other electronic components	3344	157	138	12	10	8
Navigational, measuring, electromedical, and control instruments	3345	92	71	5	14	7
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	20	14	2	5	2
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	33	27	1	4	3
Other measuring and controlling devices	other 3345	39	30	2	6	3
Other computer and electronic products	other 334	77	60	4	8	9
Electrical equipment, appliances, and components	335	53	42	3	8	2
Transportation equipment	336	255	193	9	41	22

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Automobiles, bodies, trailers, and parts	3361-63	148	113	5 i	23	12
Aerospace products and parts	3364	93	72	5	15	6
Aircraft, aircraft engines, and aircraft parts	336411-13	81	63	4	12	6
Guided missiles, space vehicles, and related parts	336414-15, 336419	12	8	*	3	*
Military armored vehicles, tanks, and tank components	336992	*	*	*	*	* i
Other transportation	other 336	14	8 i	* i	3 i	3 i
Furniture and related products	337	5	3 i	* i	1 i	1 i
Miscellaneous manufacturing	339	83	58	6	16	10
Medical equipment and supplies	3391	62	43	5	12	6
Other miscellaneous manufacturing	3399	21	14 i	1 i	4	3 i
Nonmanufacturing industries	21-23, 42-81	871	588	52	194	88
Mining, extraction, and support activities	21	17	9	2	5	3
Utilities	22	3	1	*	*	1
Wholesale trade	42	26	13 i	* i	5 i	8 i
Electronic shopping and electronic auctions	454111-12	7	4 i	* i	1 i	2 i
Transportation and warehousing	48-49	2	1	*	*	1 i
Information	51	409	305	20	71	33
Publishing	511	247	197	9 i	24	26
Newspaper, periodical, book, and directory publishers	5111	1	* i	* i	* i	* i
Software publishers	5112	246	196	9 i	24	25
Telecommunications	517	25	16	1 i	8 i	1
Data processing, hosting, and related services	518	72	42	2	23	6 i
Other information	other 51	66	50	8	16	1
Finance and insurance	52	40	13	1 i	20	8
Real estate and rental and leasing	53	2	1	*	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	*	*	* i	*
Other real estate and rental and leasing	other 53	1	1	*	*	*
Professional, scientific, and technical services	54	344	229	28 i	86	29 i
Architectural, engineering, and related services	5413	52	40 i	8 i	8 i	4 i
Computer systems design and related services	5415	136	113	7	13	9
Scientific research and development services	5417	122	55	11	53	13
Biotechnology research and development	541711	31	24	4	6	2
Physical, engineering, and life sciences (except biotechnology) research and development	541712	84	31	7 i	44	9
Social sciences and humanities research and development	541720	7	* i	* i	4 i	3 i
Other professional, scientific, and technical services	other 54	34	20 i	1 i	12 i	2 i

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			Total	With PhD		
Health care services	621-23	6	2	i 1	i 2	i 2
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	15	9	i *	i 3	i 3
All companies (number of domestic employees)	-	2,178	1,539	143	409	231
Micro companies ^b						
5-9	-	29	20	i 2	i 5	i 4
Small companies						
10-19	-	54	37	i 4	i 10	i 7
20-49	-	99	68	i 7	i 20	i 12
Medium companies						
50-99	-	90	56	i 7	i 23	i 10
100-249	-	118	73	7	31	15
Large companies						
250-499	-	99	65	6	25	10
500-999	-	102	70	6	i 22	10
1,000-4,999	-	388	281	22	i 65	43
5,000-9,999	-	227	156	17	i 45	27
10,000-24,999	-	336	219	28	80	37
25,000 or more	-	637	495	38	85	57

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

NAICS = 2012 North American Industry Classification System.

^a Researchers include R&D scientists and engineers and their managers.

^b Business R&D and Innovation Survey does not include companies with fewer than five 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. Statistics are representative of companies located in the United States that performed or funded R&D.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.