

TABLE 122. Worldwide, domestic, and foreign R&D scientists and engineers, by highest academic degree, industry, and company size: 2010
(Thousands)

Industry and company size	NAICS code	Worldwide			Domestic			Foreign		
		Total	Doctorate ^a	Other education	Total	Doctorate ^a	Other education	Total	Doctorate ^a	Other education
All industries	21-23, 31-33, 42-81	1,307	155	1,152	950	123	828	357	32	324
Manufacturing industries	31-33	821	105	716	584	80	504	237	25	212
Food	311	15	2 i	13 i	12	2 i	10	4 i	* i	3 i
Beverage and tobacco products	312	5	1	5	3	*	2	3	*	3
Textiles, apparel, and leather products	313-316	2	*	2	2	*	2	*	*	*
Wood products	321	1	*	1	1	*	1	*	*	*
Paper	322	8	1	8	6	1	5	3	*	3
Printing and related support activities	323	2	*	1	1	*	1	*	*	*
Petroleum and coal products	324	4	1	3	3	1	2	1	*	1
Chemicals	325	146	39	107	109	31	78	37	8	29
Basic chemicals	3251	9	3	7	7	2	5	3	1	2
Resin, synthetic rubber, fibers, and filaments	3252	4	1	3 i	3	1	2	1 i	* i	1 i
Pesticide, fertilizer, and other agricultural chemical	3253	5	1	4	2	1	2	2	*	2
Pharmaceuticals and medicines	3254	99	28	71	78	23	55	21	5	16
Soap, cleaning compound, and toilet preparation	3256	14	2	12	9	2	7	5	1	4
Paint, coating, adhesive, and other chemical	3255, 3259	15	4	11	10	3	7	5	1	4
Plastics and rubber products	326	14	1	13	10	1	10	4	*	4
Nonmetallic mineral products	327	7	2 i	5	4	1	4	2 i	1 i	2 i
Primary metals	331	3	1	2	2	1	2	1	*	*
Fabricated metal products	332	13	1	12	12	1	11	1	*	1
Machinery	333	60	9	52	44	5	39	16	4	13
Agricultural implement	33311	7	*	7	6	*	5	2	*	2
Semiconductor machinery	333295	6	1	5	5	1	4	1	* i	1 i
Engine, turbine, and power transmission equipment	3336	6	*	5	5	*	4	1	*	1
Other machinery	other 333	41	7	34	29	3	25	12	3	9
Computer and electronic products	334	301	24	277	207	18	189	94	6 i	88
Communications equipment	3342	63	2	60 i	42	2 i	41 i	20	*	20
Semiconductor and other electronic components	3344	108	9	98	65	7	58	43	2 i	40
Navigational, measuring, electromedical, and control instruments	3345	76	8	68	64	6	58	12	2 i	10
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	17	4	13	15	3	12	2 i	1 i	1
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	38	2	36	36	2	34	2	*	2
Other measuring and controlling instruments	other 3345	21	2 i	19	14	2	12	7	1 i	6 i
Other computer and electronic products	other 334	55	4 i	51 i	36	3 i	33 i	19 i	1 i	18 i
Electrical equipment, appliances, and components	335	38	3	34	21	2	19	17	2 i	15
Transportation equipment	336	161	17 i	144	113	14 i	100	47	3	45
Automobiles, bodies, trailers, and parts	3361-3363	70	D	D	38	D	D	32	1	31 i
Aerospace products and parts	3364	78	9	69	63	8	55	15	1	14
Aircraft, aircraft engine, and aircraft parts	336411-336413	72	9	64	58	7	50	15	1	14
Guided missile, space vehicle, and related parts	336414, 336415, 336419	6	*	5	5	*	5	*	*	*
Military armored vehicle, tank, and tank components	336992	*	*	*	*	*	*	0	0	0

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Other transportation	other 336	12 i	D i	D i	12 i	D i	D i	1 i	* i	*
Furniture and related products	337	3	*	3	3	*	3	*	* i	*
Miscellaneous manufacturing	339	37	4	33	30	3	27	7	*	7
Medical equipment and supplies	3391	25	3	22	22	3	19	3	*	3
Other miscellaneous manufacturing	3399	12	1	11	8	*	8	4	*	4
Nonmanufacturing industries	21–23, 42–81	486	50	436	366	43	323	120	7	112
Mining, extraction, and support activities	21	6	1	4	5	1	4	1	*	1
Utilities	22	2	*	2	2	*	2	*	*	*
Construction	23	9	*	9 i	9	*	9	1	* i	1 i
Wholesale trade	42	6	1	5	6	1	5	*	* i	*
Retail trade	44, 45	2	*	1	2	*	1	*	*	*
Electronic shopping and electronic auctions	454111, 454112	1	*	1	1	*	1	*	*	*
Other retail trade	other 44, 45	1	* i	1	1	* i	1	*	*	*
Transportation and warehousing	48, 49	1	*	1	1	*	1	0	0	0
Information	51	240	18	222	164	14	150	76	4	72
Publishing	511	187	D	D	119	10	109	68	D	D
Newspaper, periodical, book, and directory publishers	5111	3	* i	3	3	* i	3	*	0	*
Software publishers	5112	184	D	D	116	10	106	68	D	D
Telecommunications	517	15 i	1 i	14 i	14 i	1 i	13 i	1	*	1
Data processing, hosting, and related services	518	14	1	13 i	12	*	11 i	2	*	2
Other information	other 51	24	D	D	19	2	17	5	D	D
Finance and insurance	52	10	1	9	8	1	7 i	2	*	2
Real estate and rental and leasing	53	1	*	1	1	*	1	*	*	*
Professional, scientific, and technical services	54	195	25	170	157	23	135	38	3	35
Architectural, engineering, and related services	5413	30	3	27	28	2	25	2 i	* i	2 i
Computer systems design and related services	5415	95	6	89	69	5	64	26	1 i	25
Scientific R&D services	5417	52	14	38	45	12	32	7	1	6
Biotechnology R&D	541711	20	6	15	16	5	11	5	1	4
Physical, engineering, and life sciences (except biotechnology) R&D	541712	30	8	22	28	7	21	2	1	1
Social sciences and humanities R&D	541720	1	*	1	1	*	1	*	*	*
Other professional, scientific, and technical services	other 54	19	3 i	16	15	2	13	3	1 i	3 i
Health care services	621–623	4	1	3	4	1	3	* i	* i	* i
Other nonmanufacturing	55, 56, 624, 71, 72, 81	11	2	8	10	2	7	1	*	1
All companies (number of employees)	–	1,307	155	1,152	950	123	828	357	32	324
Small companies (number of employees) ^b										
5–499	–	290	41	249	259	38	221	31	3	28
5–99	–	173	26	147	159	25	134	13	1	13
5–49	–	122	20	102	115	19	96	6	1	6
5–9	–	21	5	16	20	5	15	1	*	*
10–24	–	50	8	42	48	8	40	2	*	2
25–49	–	51	7	44	47	7	41	3	*	3

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50–99	–	51	6	45	44	6	38	7 i	*	7 i
100–249	–	67	10	57	58	9	49	9	1	8
250–499	–	50	6	45	41	5	37	9	1	8
Medium and large companies (number of employees)										
500–999	–	46	5	41	37	4	33	9	1	8
1,000–4,999	–	224	24	200	148	18	130	76	6	70
5,000–9,999	–	135	13	122	89	9	79	46	4	43
10,000–24,999	–	164	23	142	121	18	104	43	5	38
25,000 or more	–	448	49	398 i	296	35	261	152	14	138

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

NAICS = 2007 North American Industry Classification System.

^a Includes EngD, ScD; excludes MD, JD, and EdD.

^b 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.

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, 2010.