

TABLE 49

Worldwide, domestic, and foreign R&D employment, by sex, industry, and company size: 2021

(Thousands)

Industry and company size	NAICS code	Worldwide			Domestic			Foreign		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
All industries	21-23, 31-33, 42-81	3,161	2,229	933	2,132	1,536	596	1,029	693	336
Manufacturing industries	31-33	1,524	1,104	421	1,015	744	270	510	359	150
Food	311	40	23	18	27	16	11	13	7	6
Beverage and tobacco products	312	8	5	4	5	3	2	3	2	2
Textile, apparel, and leather products	313-16	9	5	3	7	4	2	2	1	1
Wood products	321	6	5	1 i	6	5	1 i	*	*	*
Paper	322	8	6	2	6	4	2	2	1	1
Printing and related support activities	323	3	2	1	3	2	1	*	*	*
Petroleum and coal products	324	7	5	2	5	4	2	2	1	1
Chemicals	325	278	140	137	201	104	96	77	36	41
Basic chemicals	3251	19	12	7 i	12	8	4	8	4	4 i
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	10	8	3	6	5	2	4	3	1
Pesticide, fertilizer, and other agricultural chemicals	3253	5	3	2	5	3	2	1	*	*
Pharmaceuticals and medicines	3254	211	99	113	157	76	82	54	23	31
Soap, cleaning compound, and toilet preparations	3256	18	9	9	11	6 i	6	6	3	3
Paint, coating, adhesive, and other chemicals	3255, 3259	14	10	4	9	7	3	4	3	1
Plastics and rubber products	326	29	23	6	23	18	5	6	4 i	1 i
Nonmetallic mineral products	327	9	7	2	8	6	2	1	1	*
Primary metals	331	10	9	1	9	8	1	1	* i	*
Fabricated metal products	332	52	45	7	50	43	7	2	2	*
Machinery	333	159	135	24	100	86	14	59	49	10
Agricultural implement	33311	17	15	2	10	9	1	7	6	1
Semiconductor machinery	333242	27	23	4	14	12	2	13	11	2
Engine, turbine, and power transmission equipment	3336	11	9	2	8	6	1	3	3	1
Other machinery	other 333	104	88	16	68	59	10	35	29	6
Computer and electronic products	334	464	353	111	256	199	57	208	154	54
Communications equipment	3342	81	66	15	49	40	9	32	26	6
Semiconductor and other electronic components	3344	188	137	51	93	69	24	95	68	28
Navigational, measuring, electromedical, and control instruments	3345	86	66	20	54	43	12	31	23	8
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	10	7	3	8	5	2	3	2	1
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	25	20	5	21	18	4	3	3	1
Other measuring and controlling devices	other 3345	51	38	12	25	20	6	25	19	7
Other computer and electronic products	other 334	109	85	24	60	47	13	49	37	12
Electrical equipment, appliances, and components	335	47	36	12	26	20	7	21 i	16 i	5 i
Transportation equipment	336	272	223	49	196	162	34	77	62	15

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Motor vehicles, bodies, trailers, and parts	3361-63	168	137	31	108	89	18	60	48	13
Aerospace products and parts	3364	86	72	14	75	63	12	11	9	2
Aircraft, aircraft engine, and aircraft parts	336411-13	79	66	13	69	58	11	10	9	2
Guided missile, space vehicle, and related parts	336414-15, 336419	7	5	1	7	5	1	*	*	*
Military armored vehicle, tank, and tank components	336992	*	*	*	*	*	*	0	0	0
Other transportation	other 336	18	14	4	12	9	3	6	5	1
Furniture and related products	337	4	3	1	4	3	1	*	*	* i
Miscellaneous	339	118	80	39	83	56	26	35	23	12
Medical equipment and supplies	3391	96	63	33	65	43	22	31	20	11
Other miscellaneous manufacturing	3399	22	17	6	18	13	4	4 i	3 i	1 i
Nonmanufacturing industries	21-23, 42-81	1,637	1,125	512	1,117	791	326	520	334	186
Mining, quarrying, oil and gas extraction, and support activities	21	9 - 91	7 - 90	1 - 46	9 i	8 i	2	0 - 82	0 - 82	0 - 44
Utilities	22	3 - 33	3 - 14	0 - 30	3 - 24	4	0 - 20	0 - 10	0 - 10	0 - 10
Wholesale trade	42	23 - 127 i	18 - 106 i	4 - 50 i	24 i	19 i	5 i	0 - 103 i	0 - 86 i	0 - 44 i
Electronic shopping and electronic auctions	454111-12	98 - 221	59 - 203	0 - 72	98 - 120	59 - 120	0 - 56	0 - 103	0 - 86	0 - 44
Transportation and warehousing	48-49	21 - 125	16 - 103	5 - 50	22	16	5	0 - 103	0 - 86	0 - 44
Information	51	692	504	188	449	330	119	242	174	68
Publishing	511	216	150	66	127	92	35	90	58	31
Newspaper, periodical, book, and directory publishers	5111	1 i	1 i	* i	1 i	1 i	* i	0	0	0
Software publishers	5112	215	149	66	125	91	34	90	58	31
Telecommunications	517	23	16 i	6	22	16 i	6	1	1	* i
Data processing, hosting, and related services	518	282	207	76	168	120	48	114	86	28
Other information	other 51	171	131	39	133	102	31	38	29	9
Finance and insurance	52	113	69	44	87	42 - 70	17 - 45	26	0 - 27	0 - 27
Real estate and rental and leasing	53	4 - 22	2 - 21	0 - 19	4	3	1	0 - 17	0 - 17	0 - 17
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	*	*	*	*	*	0	0	0
Other real estate and rental and leasing	other 53	4 - 22	2 - 21	0 - 19	4	3	1	0 - 17	0 - 17	0 - 17
Professional, scientific, and technical services	54	494	300	194	343	224	119	150	75	75 i
Architectural, engineering, and related services	5413	68	51	16	65	49	16	3 r	2 r	1

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Computer systems design and related services	5415	145	108	37	102	76	26	44	32	12
Scientific research and development services	5417	229 i	106 i	123 i	130	68 i	62 i	99 i	38 i	61 i
Research and development in nanotechnology	541713	1	1	*	1	1	*	* i	*	* i
Research and development in biotechnology (except nanobiotechnology)	541714	79	34	45	36	16	20	43	18	25
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	139 i	69 i	71 i	84 i	49 i	35 i	55 i	20 i	36 i
Research and development in the social sciences and humanities	541720	9	2	7	9	2	7	*	*	*
Other professional, scientific, and technical services	other 54	52	35	17	47	31	16	5	4	2 i
Health care services	621-23	8 - 22	3 - 17	4 - 18	9	4	5	0 - 13	0 - 13	0 - 13 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	49 - 153	0 - 137	0 - 72	50	0 - 51	0 - 51	0 - 103	0 - 86	0 - 44
All companies (number of domestic employees)	-	3,161	2,229	933	2,132	1,536	596	1,029	693	336
Small companies										
10-19 ^a	-	40	32	9	36	28	8	5	4	1
20-49	-	110	86	24	99	77	21	12	9	3
Medium companies										
50-99	-	102	81	20	92	74	18	9	7	2
100-249	-	178	139	39	157	124	34	21	16	5
Large companies										
250-499	-	148	110	38	110	82	29	38	29	9
500-999	-	154	113	41	110	82	29	43	31	12
1,000-4,999	-	507	359	148	340	242	98	168	117	50
5,000-9,999	-	315	223	92	211	149	62	103	74	30
10,000-24,999	-	541	346	195	309	200	109	232	146	86 i
25,000 or more	-	1,066	739	327	668	478	189	399	261	138

* = amount < 500 employees; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse; r = relative standard error is more than 50%.

NAICS = 2017 North American Industry Classification System.

^a The Business Enterprise Research and Development Survey does not include companies with fewer than 10 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 \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2021.