

TABLE 29

Domestic R&D paid for and performed by the company, by industry, company size, and domestic R&D program size: 2018

(Millions of U.S. dollars)

Industry	NAICS code	R&D program size					
		All companies	Less than \$1 million	\$1 million-\$9.999 million	\$10 million-\$49.999 million	\$50 million-\$99.999 million	\$100 million or more
All industries	21-23, 31-33, 42-81	377,806	4,459	25,777	33,923	23,273	290,374
Manufacturing industries	31-33	234,682	2,811	13,187	20,555	15,835	182,294
Food	311	4,412	201	546	537	509	2,619 i
Beverage and tobacco products	312	1,004	28	84	67	249	577
Textile, apparel, and leather products	313-16	986	40	208	270	278	190
Wood products	321	199	49	53	97	0	0
Paper	322	932	31	101	146	68	585
Printing and related support activities	323	238	31	93	114	0	0
Petroleum and coal products	324	1,246	19	61 - 85	113	104 - 128	924
Chemicals	325	73,584	445	2,497	7,109	5,488	58,045
Basic chemicals	3251	2,251	55	362 - 386	658	492 - 513	662
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,568	0 - 184	133	112	0	1,138 - 1,325
Pesticide, fertilizer, and other agricultural chemicals	3253	1,135 i	13	61 - 82	65	0	975 - 996 i
Pharmaceuticals and medicines	3254	64,800	157	1,513	5,765	4,649	52,716
Soap, cleaning compound, and toilet preparation	3256	2,573	37 - 52	190	231	146	1,953 - 1,969
Paint, coating, adhesive, and other chemicals	3255, 3259	1,257	0 - 184	201 - 219	278	180 - 202	393 - 598
Plastics and rubber products	326	2,667	187	711	1,002	180	588
Nonmetallic mineral products	327	1,361	52	133	155	75	946
Primary metals	331	817	42	230	208	177	160
Fabricated metal products	332	2,222	334	786	606	238	258
Machinery	333	13,765	344 - 379	1,940	1,791	1,277 - 1,315	8,377
Agricultural implement	33311	1,862	40	162	123	302	1,235
Semiconductor machinery	333242	3,623	9	0 - 45	27 - 204	99 - 229	3,139 - 3,489
Engine, turbine, and power transmission equipment	3336	2,310	0 - 120	75	5 - 175	0 - 170	1,891 - 2,061
Other machinery	other 333	5,970	174 - 331	1,657 - 1,705	1,291 - 1,468	704 - 828	1,761 - 1,974
Computer and electronic products	334	73,922	373	2,326	3,551	2,912	64,760
Communications equipment	3342	11,822	41	322 - 386	636	689 - 754	10,069
Semiconductor and other electronic components	3344	28,642	77	760	1,354	783	25,670
Navigational, measuring, electromedical, and control instruments	3345	10,864	217	1,010	1,079	880	7,678
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,046	52	272	377	448	1,897 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,388	0 - 63	126	162	50 - 113	2,989

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Other measuring and controlling device	other 3345	4,430	101 - 166	611	540	318 - 383	2,793
Other computer and electronic products	other 334	22,594	38	170 - 234	483	496 - 561	21,343
Electrical equipment, appliances, and components	335	4,222	161	683	912	704	1,762
Transportation equipment	336	35,894	163	1,293	1,623	2,461	30,354
Motor vehicles, bodies, trailers, and parts	3361-63	23,080	100	729	978	1,452	19,819
Aerospace products and parts	3364	11,160	35	348 - 389	468 - 525	781	9,428 - 9,527
Aircraft, aircraft engine, and aircraft parts	336411-13	10,746	34	298	402	740	9,272
Guided missile, space vehicle, and related parts	336414-15, 336419	414	2	49 - 91	66 - 124	41	156 - 256
Military armored vehicle, tank, and tank component	336992	6	*	5	0	0	0
Other transportation	other 336	1,649	28	168 - 210	119 - 176	227	1,009 - 1,108
Furniture and related products	337	404	49	108	247	0	0
Miscellaneous	339	16,807	221 - 256	1,310 - 1,340	2,008	1,080 - 1,119	12,150
Medical equipment and supplies	3391	14,267	115 - 150	778	1,475	921 - 960	10,941
Other miscellaneous manufacturing	3399	2,540	76 - 107	532 - 562	533	159	1,209
Nonmanufacturing industries	21-23, 42-81	143,123	1,648	12,589	13,368	7,438	108,080
Mining, quarrying, oil and gas extraction, and support activities	21	1,775	21	197	177	0	1,380
Utilities	22	224	6	50	120	48	0
Wholesale trade	42	881	i 182	573	i 125	i 0	0
Electronic shopping and electronic auctions	454111-12	11,557	i 11	1 - 817	10 - 535	0	10,197 - 11,536
Transportation and warehousing	48-49	935	11	75	202	251	396
Information	51	93,487	376	4,297	6,507	5,145	77,161
Publishing	511	32,281	164 - 173	1,367	1,828	1,503	27,408 - 27,420
Newspaper, periodical, book, and directory publishers	5111	131	3	30	97	i 0	0
Software publishers	5112	32,150	161 - 170	1,337	1,731	1,503	27,408 - 27,420
Telecommunications	517	3,631	24	181	498	172	2,755
Data processing, hosting, and related services	518	23,115	133 - 142	2,137 - 2,148	3,609	3,147	14,080
Other information	other 51	34,459	39 - 48	600 - 612	572	323	32,906 - 32,918

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Finance and insurance	52	7,426	44	264	807	347	5,965
Real estate and rental and leasing	53	1,022	6	27	112	0	877
Lessors of nonfinancial intangible assets (except copyrighted works)	533	6	*	6	0	0	0
Other real estate and rental and leasing	other 53	1,016	6	22	112	0	877
Professional, scientific, and technical services	54	22,374	878	6,119	4,312	1,159	9,906
Architectural, engineering, and related services	5413	2,277	233	1,007	568	315	153
Computer systems design and related services	5415	13,633	426	3,112	1,788	483	7,824
Scientific research and development services	5417	2,424	78	987	805	129	424
Research and development in biotechnology	541711	820	0 - 23	247 - 272	235 - 265	71	219
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	1,577	56	716	541	58	205
Research and development in the social sciences and humanities	541720	27	0 - 23	0 - 24	0 - 28	0	0
Other professional, scientific, and technical services	other 54	4,041	141	1,013	1,150	231	1,505
Health care services	621–23	1,401	27	174	476 i	345 i	379 i
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	2,041	86	0 - 816	0 - 525	142 i	476 - 1,815
All companies (number of domestic employees)	–	377,806	4,459	25,777	33,923	23,273	290,374
Small companies							
10–19 ^a	–	3,340	896	1,827	375	0	243
20–49	–	9,556	1,453	5,826	2,012	113	151 i
Medium companies							
50–99	–	10,446	665 - 857	4,844	3,929	709	105 - 297
100–249	–	14,626	834 - 1,030	5,753	5,359	2,390	96 - 292
Large companies							
250–499	–	16,604	232	3,351	5,496	3,069	4,456
500–999	–	15,561	109	2,085	4,360	3,685	5,323
1,000–4,999	–	58,509	69	1,707	8,523	8,751	39,460
5,000–9,999	–	36,274	3	187	2,175	2,160	31,749
10,000–24,999	–	74,423	6	106	1,111	1,861	71,339
25,000 or more	–	138,465	0	90	583	536	137,256

* = amount < \$500,000; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

^a Business 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. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. R&D program size classifications are based on R&D performance. 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 U.S. Census Bureau, Business Research and Development Survey, 2018.