

TABLE 15

Domestic R&D paid for by the company and others 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	441,036	4,951	29,394	39,071	27,283	340,337
Manufacturing industries	31-33	274,075	2,924	14,250	22,603	17,888	216,410
Food	311	4,654	201	558	614	572	2,708
Beverage and tobacco products	312	1,113	31	84	67	354	577
Textile, apparel, and leather products	313-16	989	41	211	270	278	190
Wood products	321	203	50	57	97	0	0
Paper	322	934	32	101	148	68	585
Printing and related support activities	323	242	31	97	114	0	0
Petroleum and coal products	324	1,269	19	84	115	127	924
Chemicals	325	84,137	462	2,709	7,739	6,242	66,986
Basic chemicals	3251	2,443	56	385	720	530	751
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,653	0 - 184	143	113	57 - 75	1,138 - 1,326
Pesticide, fertilizer, and other agricultural chemicals	3253	1,460	13	82	66	0	1,301
Pharmaceuticals and medicines	3254	74,592	161	1,691	6,324	5,309	61,106
Soap, cleaning compound, and toilet preparation	3256	2,710	51	190	231	146	2,091
Paint, coating, adhesive, and other chemicals	3255, 3259	1,278	0 - 184	218	284	180 - 202	409 - 598
Plastics and rubber products	326	2,751	195	739	1,016	212	589
Nonmetallic mineral products	327	1,385	53	146	165	75	946
Primary metals	331	839	50	232	218	179	160
Fabricated metal products	332	2,327	349	803	606	311	258
Machinery	333	14,799	378	2,097	1,966	1,406	8,953
Agricultural implement	33311	1,872	40	170	123	302	1,237
Semiconductor machinery	333242	4,166	9	44	203	228	3,683
Engine, turbine, and power transmission equipment	3336	2,483	0 - 120	81	174	50 - 170	2,060
Other machinery	other 333	6,278	207 - 331	1,801	1,467	704 - 828	1,973
Computer and electronic products	334	83,697	389	2,656	4,123	3,486	73,043
Communications equipment	3342	13,107	42	385	755	782	11,142
Semiconductor and other electronic components	3344	31,052	82	889	1,557	1,104	27,421
Navigational, measuring, electromedical, and control instruments	3345	16,727	227	1,150	1,268	1,039	13,043
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,208	52	288	421	544	1,903
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	8,843	0 - 64	146	271	50 - 113	8,314

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Other measuring and controlling device	other 3345	4,675	110 - 176	715	576	381 - 446	2,826
Other computer and electronic products	other 334	22,811	38	233	543	560	21,438
Electrical equipment, appliances, and components	335	4,487	171	723	992	704	1,899
Transportation equipment	336	52,629	166	1,462	2,014	2,755	46,233
Motor vehicles, bodies, trailers, and parts	3361–63	25,586	102	825	1,261	1,635	21,763
Aerospace products and parts	3364	24,291	36	417	577	893	22,368
Aircraft, aircraft engine, and aircraft parts	336411–13	22,968	34	326	454	821	21,333
Guided missile, space vehicle, and related parts	336414–15, 336419	1,323	3	90	123	72	1,035
Military armored vehicle, tank, and tank component	336992	11	*	11	0	0	0
Other transportation	other 336	2,741	28	209	175	227	2,102
Furniture and related products	337	410	52	110	247	0	0
Miscellaneous	339	17,209	255	1,382	2,093	1,120	12,360
Medical equipment and supplies	3391	14,531	149	820	1,560	961	11,041
Other miscellaneous manufacturing	3399	2,678	106	561	533	159	1,319
Nonmanufacturing industries	21–23, 42–81	166,961	2,027	15,144	16,468	9,394	123,927
Mining, quarrying, oil and gas extraction, and support activities	21	1,905	21	221	177	0	1,485
Utilities	22	275	6	59	132	78	0
Wholesale trade	42	906	i 186	595	i 125	i 0	0
Electronic shopping and electronic auctions	454111–12	11,652	i 12	1 - 817	10 - 535	93	10,197 - 11,536
Transportation and warehousing	48–49	942	11	82	202	251	396
Information	51	94,349	383	4,387	6,697	5,259	77,623
Publishing	511	32,770	172	1,387	1,944	1,503	27,764
Newspaper, periodical, book, and directory publishers	5111	131	3	31	97	i 0	0
Software publishers	5112	32,639	169	1,356	1,847	1,503	27,764
Telecommunications	517	3,696	24	217	527	172	2,755
Data processing, hosting, and related services	518	23,306	141	2,172	3,653	3,261	14,080
Other information	other 51	34,576	47	611	573	323	33,024
Finance and insurance	52	7,471	44	264	807	347	6,010
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	44,860	1,226	8,448	7,166	2,879	25,141

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Architectural, engineering, and related services	5413	3,961	280	1,463	855	372	990
Computer systems design and related services	5415	15,923	485	3,299	2,025	570	9,545
Scientific research and development services	5417	20,185	315	2,486	2,703	1,578	13,102
Research and development in biotechnology	541711	5,857	6 - 30	512	235 - 551	142	4,621 - 4,939
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	13,657	286	1,951	2,143	1,436	7,841
Research and development in the social sciences and humanities	541720	671	0 - 23	23	10 - 325	0	323 - 639
Other professional, scientific, and technical services	other 54	4,791	146	1,199	1,583	358	1,505
Health care services	621-23	1,476	44	205	503	345	379
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	2,103	88	43 - 860	15 - 541	142	476 - 1,815
All companies (number of domestic employees)	-	441,036	4,951	29,394	39,071	27,283	340,337
Small companies							
10-19 ^a	-	4,390	996	2,743	408	0	243
20-49	-	11,252	1,557	7,162	2,267	113	151
Medium companies							
50-99	-	12,321	856	5,386	5,064	719	296
100-249	-	18,547	1,093	6,148	7,184	3,297	826
Large companies							
250-499	-	19,645	254	3,565	6,213	4,399	5,215
500-999	-	17,657	115	2,184	4,939	4,370	6,049
1,000-4,999	-	68,578	71	1,799	9,003	9,585	48,120
5,000-9,999	-	45,337	3	208	2,266	2,187	40,672
10,000-24,999	-	84,420	6	108	1,117	2,046	81,144
25,000 or more	-	158,889	0	91	610	566	157,621

* = 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.