

TABLE 29

## Domestic R&amp;D paid for and performed by the company, by industry, company size, and domestic R&amp;D program size: 2017

(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	339,036	5,091	21,235	30,795	18,470	263,445
Manufacturing industries	31–33	216,155	2,810	12,428	18,393	13,198	169,326
Food	311	4,453	132	513	596	474	2,739
Beverage and tobacco products	312	968	19	57	114	157	620
Textile, apparel, and leather products	313–16	919	61	186	164	335	175
Wood products	321	170	19	54	96	0	0
Paper	322	1,292	28	99	108	62	995
Printing and related support activities	323	218	41	117	60	0	0
Petroleum and coal products	324	301	0 - 132	46 - 63	123	0 - 132	0
Chemicals	325	63,285	292	2,387	6,264	3,822	50,520
Basic chemicals	3251	2,393	57	368	742	412	814
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	612	27	195	103	0	287
Pesticide, fertilizer, and other agricultural chemicals	3253	1,092	0 - 133	75	96	0 - 249	538 - 923
Pharmaceuticals and medicines	3254	55,229	49	1,395	4,847	2,982	45,955
Soap, cleaning compound, and toilet preparation	3256	2,488	24 - 131	132	169	181	1,876 - 1,983
Paint, coating, adhesive, and other chemicals	3255, 3259	1,471	0 - 133	222	305	0 - 249	561 - 946
Plastics and rubber products	326	3,637	202	679	816	193	1,748
Nonmetallic mineral products	327	1,303	61	129	287	0	826
Primary metals	331	741	48	177	137	196	183
Fabricated metal products	332	2,099	312	968	457	362	0
Machinery	333	12,257	381 - 419	1,602	1,594	1,151 - 1,189	7,493
Agricultural implement	33311	1,511	38	111	72 - 130	0 - 1,040	191 - 1,290
Semiconductor machinery	333242	3,228	3	0 - 42	111	149	2,923 - 2,967
Engine, turbine, and power transmission equipment	3336	1,921	0 - 379	0 - 109	148	0 - 1,040	244 - 1,774
Other machinery	other 333	5,596	0 - 379	1,340 - 1,452	1,204 - 1,265	0 - 1,040	1,461 - 3,052
Computer and electronic products	334	69,942	477	1,932	2,879	2,749	61,904
Communications equipment	3342	10,972	51	360	451	739	9,372
Semiconductor and other electronic components	3344	27,859	105	578	923	794	25,460
Navigational, measuring, electromedical, and control instruments	3345	10,089	214	803	1,098	606	7,367
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,545	20	164	362	278	1,722
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,214	0 - 121	109	118	0 - 121	2,868

TABLE 29

## Domestic R&amp;D paid for and performed by the company, by industry, company size, and domestic R&amp;D program size: 2017

(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
Other measuring and controlling device	other 3345	4,329	72 - 195	530	619	206 - 329	2,778
Other computer and electronic products	other 334	21,022	108	191	408	611	19,705
Electrical equipment, appliances, and components	335	4,110	179	702	758	1,050	1,420
Transportation equipment	336	34,629	161	1,203	1,745	1,503	30,017
Automobiles, bodies, trailers, and parts	3361–63	21,137	49	742	1,148	944	18,253
Aerospace products and parts	3364	11,903	65 - 113	325 - 341	393 - 462	454 - 528	10,509 - 10,615
Aircraft, aircraft engine, and aircraft parts	336411–13	11,473	66	318	360	351	10,378
Guided missile, space vehicle, and related parts	336414–15, 336419	430	0 - 48	6 - 23	33 - 102	103 - 176	132 - 238
Military armored vehicle, tank, and tank components	336992	4	0 - 3	1 - 5	0	0	0
Other transportation	other 336	1,585	0 - 48	114 - 131	134 - 203	30 - 104	1,150 - 1,256
Furniture and related products	337	419	43	116	260	0	0
Miscellaneous manufacturing	339	15,410	176 - 348	1,442 - 1,469	1,936	970 - 1,143	10,686
Medical equipment and supplies	3391	13,348	149	1,055	1,600	796	9,748
Other miscellaneous manufacturing	3399	2,062	27 - 198	388 - 415	336	175 - 347	938
Nonmanufacturing industries	21–23, 42–81	122,881	2,281	8,807	12,402	5,272	94,119
Mining, extraction, and support activities	21	2,841	23	167	135	0	2,516
Utilities	22	281	5	23 - 47	180	48 - 71	0
Wholesale trade	42	503	194	309	0	0	0
Electronic shopping and electronic auctions	454111–12	9,318	8	31	45	0	9,234
Transportation and warehousing	48–49	1,116	13	28	309	0	767
Information	51	78,898	784 - 808	3,689	6,193	4,271 - 4,295	63,935
Publishing	511	33,276	423	1,179	1,704	1,134	28,835
Newspaper, periodical, book, and directory publishers	5111	74	17	21	36	0	0
Software publishers	5112	33,201	406	1,158	1,668	1,134	28,835
Data processing, hosting, and related services	518	16,037	275 - 300	2,030 - 2,057	3,958	2,506	7,241
Other information	other 51	29,586	61 - 86	454 - 481	530	630 - 656	27,859
Finance and insurance	52	7,565	4	203	655	139	6,565
Real estate and rental and leasing	53	708	132	58	47	104	367
Lessors of nonfinancial intangible assets (except copyrighted works)	533	138	90 - 133	0	5 - 48	0	0
Other real estate and rental and leasing	other 53	570	0 - 42	58	0 - 42	104	367

TABLE 29

## Domestic R&amp;D paid for and performed by the company, by industry, company size, and domestic R&amp;D program size: 2017

(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
Professional, scientific, and technical services	54	18,972	933	3,549	3,722	580	10,187
Architectural, engineering, and related services	5413	1,561	258	607	631	64	*
Computer systems design and related services	5415	11,669	431	1,261	1,346	266	8,364
Scientific research and development services	5417	2,817	113	1,128	986	172	417
Biotechnology research and development	541711	795	30	299	231	0	235
Physical, engineering, and life sciences (except biotechnology) research and development	541712	1,936	82	823	754	93	182
Social sciences and humanities research and development	541720	86	1	6	0	79	0
Other professional, scientific, and technical services	other 54	2,925	130	553	760	77	1,406
Health care services	621–23	958	i 36	145	668	i 109	0
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,722	120 - 149	576 - 605	450	0	548
All companies (number of domestic employees)	–	339,036	5,091	21,235	30,795	18,470	263,445
Small companies							
10–19 <sup>a</sup>	–	2,402	906	1,376	69	52	0
20–49	–	7,593	1,974	4,072	1,547	0	0
Medium companies							
50–99	–	8,070	971 - 1,037	4,041	2,709	282 - 348	0
100–249	–	13,514	773	5,006	5,131	1,841	763
Large companies							
250–499	–	11,773	209 - 282	2,724	4,745	1,676 - 1,750	2,347
500–999	–	16,295	114	1,975	5,925	3,182	5,098
1,000–4,999	–	52,341	64	1,628	7,489	7,276	35,884
5,000–9,999	–	32,701	2	206	1,796	2,311	28,386
10,000–24,999	–	63,415	7	121	781	1,360	61,147
25,000 or more	–	130,931	1	86	604	420	129,821

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

NAICS = 2012 North American Industry Classification System.

<sup>a</sup> 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. Statistics are representative of companies located in the United States that performed or funded R&D. 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, 2017.