

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: 2020

(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	537,619	5,553	32,702	40,732	30,159	428,473
Manufacturing industries	31–33	308,445	3,103	14,669	23,534	17,048	250,091
Food	311	5,239	201	685	599	821	2,933
Beverage and tobacco products	312	1,177	i 36	81	32	362	665
Textile, apparel, and leather products	313–16	822	38	136	235	224	188
Wood products	321	187	26	69	91	0	0
Paper	322	928	13	102	139	141	532
Printing and related support activities	323	283	47	90	146	i 0	0
Petroleum and coal products	324	1,311 - 1,324	0 - 162	91	240	67 - 103	764 - 927
Chemicals	325	101,079	399	3,107	8,076	5,818	83,680
Basic chemicals	3251	2,694	52	325	1,067	523	728
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,234	33	226	137	66	772
Pesticide, fertilizer, and other agricultural chemicals	3253	1,060 - 1,066	24 - 33	63	73	0	898
Pharmaceuticals and medicines	3254	91,776	81	2,081	6,334	5,096	78,185
Soap, cleaning compound, and toilet preparation	3256	2,665	102	165	171	56	2,170
Paint, coating, adhesive, and other chemicals	3255, 3259	1,643 - 1,649	96 - 105	248	293	78	927
Plastics and rubber products	326	2,634	225	734	974	469	232
Nonmetallic mineral products	327	1,717	i 53	165	219	50 - 212	1,070 - 1,232
Primary metals	331	815	51	171	388	0	206
Fabricated metal products	332	3,396	518	1,427	834	485	132
Machinery	333	16,223	381	2,149	2,195	1,301	10,197
Agricultural implement	33311	1,769 - 1,811	33	98	117	121 - 165	1,400
Semiconductor machinery	333242	4,807	8	52	197	217	4,332
Engine, turbine, and power transmission equipment	3336	1,645	18	56	250	169	1,153
Other machinery	other 333	7,959 - 8,001	322	1,944	1,632	749 - 793	3,312
Computer and electronic products	334	99,535	434	2,217	3,654	2,684	90,547
Communications equipment	3342	12,103	65	414	378	668	10,578
Semiconductor and other electronic components	3344	43,181	103	585	1,190	1,008	40,295
Navigational, measuring, electromedical, and control instruments	3345	18,505	220	1,007	1,633	686	14,959
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,858	25	267	716	253	1,596
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	10,586	0 - 24	116	344	50 - 73	10,054

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: 2020

(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	5,061	170 - 196	623	573	359 - 384	3,309	
Other computer and electronic products	other 334	25,747	46	211	453	322	24,715	
Electrical equipment, appliances, and components	335	4,998	137	624	1,112	975	2,150	
Transportation equipment	336	48,796	158	1,159	1,984	2,123	43,372	
Motor vehicles, bodies, trailers, and parts	3361–63	23,121	80	602	1,123	1,200	20,116	
Aerospace products and parts	3364	22,914	i 57	331	683	627	21,215	i
Aircraft, aircraft engine, and aircraft parts	336411–13	21,291	i 53	296	539	421	19,982	i
Guided missile, space vehicle, and related parts	336414–15, 336419	1,623	5	35	144	206	1,233	
Military armored vehicle, tank, and tank component	336992	11	3	8	0	0	0	
Other transportation	other 336	2,750	18	218	179	295	2,040	
Furniture and related products	337	496	43	226	227	0	0	
Miscellaneous	339	18,791 - 18,809	185 - 350	1,437	2,388	1,360 - 1,532	13,254	
Medical equipment and supplies	3391	16,116	186	893	1,775	1,139	12,124	
Other miscellaneous manufacturing	3399	2,674 - 2,692	0 - 165	544	613	221 - 393	1,131	i
Nonmanufacturing industries	21–23, 42–81	229,174	2,450	18,033	17,198	13,111	178,383	
Mining, quarrying, oil and gas extraction, and support activities	21	1,165	57	262	i 10 - 559	189	i 100 - 649	
Utilities	22	264	5	56	126	77	0	
Wholesale trade	42	1,058	314	706	i 38	i 0	0	
Electronic shopping and electronic auctions	454111–12	3,840 - 19,390	i 0 - 145	64	1,000	50 - 664	2,053 - 19,229	i
Transportation and warehousing	48–49	4,957	i 0 - 48	144	101	50 - 97	4,616	i
Information	51	129,463	581	5,910	6,841	8,062	108,068	
Publishing	511	35,025	355	2,023	1,552	850	30,246	
Newspaper, periodical, book, and directory publishers	5111	60	4	8	48	0	0	
Software publishers	5112	34,965	351	2,015	1,503	850	30,246	
Telecommunications	517	3,425 - 3,437	7 - 18	248	478	65	i 2,626	
Data processing, hosting, and related services	518	41,551	171	3,240	4,206	6,624	27,309	
Other information	other 51	49,449 - 49,463	36 - 49	399	605	523	47,887	
Finance and insurance	52	12,296	11	348	1,192	474	10,271	
Real estate and rental and leasing	53	3,249	4 - 150	13	10 - 960	50 - 664	1,462 - 3,172	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	7	5	2	0	0	0	

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: 2020

(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 real estate and rental and leasing	other 53	3,242	0 - 145	11	10 - 960	50 - 664	1,462 - 3,172
Professional, scientific, and technical services	54	54,367	1,238	8,938	7,400	3,140	33,652
Architectural, engineering, and related services	5413	4,214	279	1,565	1,028	549	792
Computer systems design and related services	5415	17,935	574	3,050	1,950	940	11,421
Scientific research and development services	5417	25,600	229 i	3,365	3,171	1,125	17,711 i
Research and development in nanotechnology	541713	179 i	25 i	155 i	0	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	6,191	41	700	749	328	4,373
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	18,539 i	124 - 164 i	2,483	1,857 - 2,413	797	12,683 - 13,239 i
Research and development in the social sciences and humanities	541720	691	0 - 38 i	28	10 - 564	0	100 - 654
Other professional, scientific, and technical services	other 54	6,618	156	958	1,251	525	3,727
Health care services	621–23	1,477	98	274	461	359	285
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	1,491 - 17,041	0 - 145	1,317	20 - 1,013	50 - 664 i	100 - 15,615
All companies (number of domestic employees)	–	537,619	5,553	32,702	40,732	30,159	428,473
Small companies							
10–19 ^a	–	5,047	1,153	3,405	334	0	155
20–49	–	12,994	2,112	7,513	3,130	239	0
Medium companies							
50–99	–	12,993	1,068	5,780	5,361	784	0
100–249	–	25,411	726	7,857	8,923	4,307	3,599
Large companies							
250–499	–	20,878	261	3,526	5,283	6,222	5,586
500–999	–	21,264	136	2,135	5,546	4,706	8,741
1,000–4,999	–	88,238	85	1,982	8,419	8,621	69,131
5,000–9,999	–	48,397	7	208	2,137	2,412	43,632
10,000–24,999	–	88,567	4	212	1,081	2,386	84,884
25,000 or more	–	213,829	1	83	517	483	212,745

i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

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. 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 Census Bureau, Business Enterprise Research and Development Survey, 2020.