

Table 29. Domestic R&D paid for and performed by the company, by industry, company size, and domestic R&D program size: 2023

(Millions of U.S. dollars)

Industry and company size	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	635,478	4,404	31,285	46,894	31,985	520,910
Manufacturing industries	31–33	342,966	2,368	13,813	23,782	19,523	283,479
Food	311	5,497	178	760	675	706	3,178
Beverage and tobacco products	312	971	49	171	227	322	202
Textile, apparel, and leather products	313–16	739	33	188	339	69	110
Wood products	321	251	21	75	87	68	0
Paper	322	1,233	13	73	220	55	873
Printing and related support activities	323	327	21	117	121	67	0
Petroleum and coal products	324	956	D	76	140	69	D
Chemicals	325	124,078	312	2,890	9,443	7,298	104,135
Basic chemicals	3251	2,941	D	403	757	539	D
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,335	39	D	221	0	D
Pesticide, fertilizer, and other agricultural chemicals	3253	D	29	115	101	0	D
Pharmaceuticals and medicines	3254	114,225	63	1,698	8,023	6,759	97,682
Soap, cleaning compound, and toilet preparations	3256	2,729	76	154	143	0	2,356
Paint, coating, adhesive, and other chemicals	3255, 3259	D	D	D	198	0	D
Plastics and rubber products	326	3,035	164	593	743	542	992
Nonmetallic mineral products	327	1,337	35	145	171	0	986
Primary metals	331	611	34	219	247	111	0
Fabricated metal products	332	2,901	288	888	602	591	532
Machinery	333	20,489	383	2,281	1,963	1,987	13,876
Agricultural implement	33311	D	D	D	83	D	D
Semiconductor machinery	333242	D	6	42	D	D	D
Engine, turbine, and power transmission equipment	3336	D	D	193	205	D	3,576
Other machinery	other 333	8,446	D	D	D	D	D
Computer and electronic products	334	103,031	396	2,108	3,425	2,698	94,403
Communications equipment	3342	11,837	71	533	D	546	D
Semiconductor and other electronic components	3344	46,698	75	477	1,103	1,163	43,881
Navigational, measuring, electromedical, and control instruments	3345	10,912	194	872	1,557	626	7,663
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,174	44	247	601	196	3,086
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	2,528	18	116	331	72	1,991
Other measuring and controlling devices	other 3345	4,210	132	510	625	357	2,586
Other computer and electronic products	other 334	33,583	56	226	D	364	D
Electrical equipment, appliances, and components	335	6,543	58	560	1,204	731	3,989
Transportation equipment	336	47,549	181	1,030	1,848	1,943	42,547
Motor vehicles, bodies, trailers, and parts	3361–63	30,450	124	441	1,153	1,120	27,613
Aerospace products and parts	3364	15,019	26	278	507	625	13,583
Aircraft, aircraft engine, and aircraft parts	336411–13	D	22	214	423	D	9,479
Guided missile, space vehicle, and related parts	336414–15, 336419	D	4	64	83	D	4,104
Military armored vehicle, tank, and tank components	336992	D	1	D	0	0	0
Other transportation	other 336	D	30	D	189	197	1,351

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Furniture and related products	337	467	41	102	258	66	0
Miscellaneous	339	22,951	D	1,536	2,068	2,202	D
Medical equipment and supplies	3391	20,198	78	1,080	1,531	1,658	15,852
Other miscellaneous manufacturing	3399	2,752	D	456	537	544	D
Nonmanufacturing industries	21–23, 42–81	292,512	2,036	17,472	23,112	12,462	237,431
Mining, quarrying, oil and gas extraction, and support activities	21	D	23 r	151	103	D	578
Utilities	22	585	D	90	119	D	297
Wholesale trade	42	2,198 i	224	1,121 i	496 i	358 i	0
Electronic shopping and electronic auctions	454111–12	8,026 i	44 r	40	151	275	7,517 i
Transportation and warehousing	48–49	12,253	27 r	49	253	167	11,758
Information	51	194,615	535	6,221	11,786	6,422	169,652
Publishing	511	51,517	271	2,120	3,683	1,645	43,798
Newspaper, periodical, book, and directory publishers	5111	12	3	10	0	0	0
Software publishers	5112	51,505	268	2,110	3,683	1,645	43,798
Telecommunications	517	D	17	177	D	170	2,508
Data processing, hosting, and related services	518	52,844	201	3,719	6,677	4,140	38,107
Other information	other 51	D	46	205	D	467	85,238
Finance and insurance	52	25,836	7	1,629 r	1,406	623	22,171
Real estate and rental and leasing	53	2,255	6	D	147	326	D
Lessors of nonfinancial intangible assets (except copyrighted works)	533	15 i	3 i	12 r	0	0	0
Other real estate and rental and leasing	other 53	2,239	3	D	147	326	D
Professional, scientific, and technical services	54	39,426	1,018	6,806	7,249	3,433	20,920
Architectural, engineering, and related services	5413	2,839	252	1,112	759	172	543
Computer systems design and related services	5415	21,120	562	3,009	3,163	1,655	12,731
Scientific research and development services	5417	7,160	79	1,797	1,969	794	2,521
Research and development in nanotechnology	541713	238	8	165	66	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	2,257	27	697	854	288	392
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,652	42	927	1,049	507	2,129
Research and development in the social sciences and humanities	541720	12	3	9	0	0	0
Other professional, scientific, and technical services	other 54	8,307	125	887	1,359	811	5,125
Health care services	621–23	D	D	220	412	208	1,579
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,841	D	D	990	D	D
All companies (number of domestic employees)	–	635,478	4,404	31,285	46,894	31,985	520,910
Small companies							
10–19 ^a	–	4,698	940	3,477	281	0	0
20–49	–	12,354	1,583	7,339	3,104	327	0
Medium companies							
50–99	–	13,528	813	5,961	5,749	1,005	0
100–249	–	27,037	675	6,492	10,174	6,029	3,667

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Large companies							
250–499	–	26,426	205	3,415	8,296	3,824	10,686
500–999	–	29,551	112	2,196	6,224	6,577	14,442
1,000–4,999	–	113,527	67	1,888	9,375	8,787	93,409
5,000–9,999	–	54,794	3	278	2,019	3,069	49,424
10,000–24,999	–	104,538	1	160	1,165	1,695	101,516
25,000 or more	–	249,027	3	79	507	671	247,767

D = data withheld to avoid disclosing operations of individual companies; 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. R&D program size classifications are based on R&D performance.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2023.