

Table 27. Domestic R&D paid for and performed by the company, by type of R&D, industry, and company size: 2024

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Basic research	Applied research	Development
All industries	21–23, 31–33, 42–81	679,371	34,856	95,812	548,704
Manufacturing industries	31–33	356,431	20,937	61,956	273,538
Food	311	6,020	330	1,286	4,404
Beverage and tobacco products	312	1,459	182	192	1,085
Textile, apparel, and leather products	313–16	783	68	65	649
Wood products	321	261	88	30	143
Paper	322	1,238	22	321	895
Printing and related support activities	323	253	50	39	164
Petroleum and coal products	324	1,004	167	308	529
Chemicals	325	131,790	12,185	31,732	87,874
Basic chemicals	3251	2,883	424	684	1,775
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	D	257	331	D
Pesticide, fertilizer, and other agricultural chemicals	3253	D	D	D	D
Pharmaceuticals and medicines	3254	122,656	11,182	29,665	81,809
Soap, cleaning compound, and toilet preparations	3256	2,684	50	465	2,170
Paint, coating, adhesive, and other chemicals	3255, 3259	D	D	D	D
Plastics and rubber products	326	2,767	171	429	2,167
Nonmetallic mineral products	327	1,556 i	211 i	338 i	1,007 i
Primary metals	331	1,129	109	147	873
Fabricated metal products	332	3,137	288	477	2,372
Machinery	333	19,844	1,091	3,001	15,753
Agricultural implement	33311	D	126	171	D
Semiconductor machinery	333242	D	237	D	D
Engine, turbine, and power transmission equipment	3336	D	81	D	3,088
Other machinery	other 333	8,060	647	D	D
Computer and electronic products	334	107,038	3,418	12,239	91,380
Communications equipment	3342	12,069	155	1,052	10,861
Semiconductor and other electronic components	3344	48,546	1,901 i	3,583 i	43,062 i
Navigational, measuring, electromedical, and control instruments	3345	10,736	489	1,975	8,272
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,046	81 i	916 i	2,049 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,190	148	265	2,776
Other measuring and controlling devices	other 3345	4,501	260	793	3,447
Other computer and electronic products	other 334	35,687	872	5,629	29,185
Electrical equipment, appliances, and components	335	6,135	337	815	4,983
Transportation equipment	336	47,039	1,312	7,054	38,673
Motor vehicles, bodies, trailers, and parts	3361–63	D	665	2,902 i	D
Aerospace products and parts	3364	15,130	549	3,954	10,627
Aircraft, aircraft engine, and aircraft parts	336411–13	D	D	D	7,880
Guided missile, space vehicle, and related parts	336414–15, 336419	D	D	D	2,747
Military armored vehicle, tank, and tank components	336992	23	2	2	20
Other transportation	other 336	D	96	196	D
Furniture and related products	337	450	41	57	352
Miscellaneous	339	24,528	869	3,426	20,234
Medical equipment and supplies	3391	21,840	552	3,221	18,067
Other miscellaneous manufacturing	3399	2,688	316	205	2,167
Nonmanufacturing industries	21–23, 42–81	322,940	13,918	33,856	275,166
Mining, quarrying, oil and gas extraction, and support activities	21	1,224	63	120	1,041
Utilities	22	D	20	150 i	D
Wholesale trade	42	D	139	305 i	D
Electronic shopping and electronic auctions	454111–12	7,898 i	56 i	3,450 i	4,392 i
Transportation and warehousing	48–49	D	170	1,075	D

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Information	51	226,853	8,622	13,986	204,244
Publishing	511	63,085	1,962	3,030	58,093
Newspaper, periodical, book, and directory publishers	5111	489 i	1 i	2 i	485 i
Software publishers	5112	62,597	1,961	3,027	57,608
Telecommunications	517	D	241	606	D
Data processing, hosting, and related services	518	58,017	2,273	6,090	49,654
Other information	other 51	D	4,146	4,261	D
Finance and insurance	52	25,362	1,288	4,147	19,928
Real estate and rental and leasing	53	2,750	123	994	1,633
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23	0	*	23
Other real estate and rental and leasing	other 53	2,727	123	994	1,610
Professional, scientific, and technical services	54	40,134	2,824	9,096	28,214
Architectural, engineering, and related services	5413	3,240	201	859	2,180
Computer systems design and related services	5415	22,353	1,392	4,349	16,612
Scientific research and development services	5417	5,705	503	2,011	3,192
Research and development in nanotechnology	541713	434	7	299	128
Research and development in biotechnology (except nanobiotechnology)	541714	1,204	163	464	576
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,060	333	1,246	2,481
Research and development in the social sciences and humanities	541720	8	*	2	6
Other professional, scientific, and technical services	other 54	8,835 i	728 i	1,877 i	6,230 i
Health care services	621–23	1,888	212	203	1,473
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,579	401	330	2,849
All companies (number of domestic employees)	–	679,371	34,856	95,812	548,704
Small companies					
10–19 ^a	–	3,734	343	898	2,493
20–49	–	14,153	1,145	3,293	9,715
Medium companies					
50–99	–	14,998	1,350	3,764	9,885
100–249	–	26,548	2,431	5,762	18,356
Large companies					
250–499	–	26,185	2,846	5,452	17,887
500–999	–	40,152	5,534	7,144	27,473
1,000–4,999	–	110,612	6,444	17,003	87,164
5,000–9,999	–	55,804	2,167	7,827	45,809
10,000–24,999	–	120,991	7,048	19,990	93,952
25,000 or more	–	266,195	5,547	24,678	235,970

* = amount < \$500,000; 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.

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.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2024.