Table 30. Domestic R&D paid for and performed by the company as a percentage of domestic net sales, by industry and company size: 2024

(Millions of U.S. dollars and percent)

Industry and company size	NAICS code	Domestic R&D (US$millions)		Percentage of domestic sales of R&D performers or funders[a]		Percentage of domestic sales of R&D performers[b]	
All industries	21–23, 31–33, 42–81	679,371		4.5		4.5	
Manufacturing industries	31–33	356,431		4.9		4.9	
Food	311	6,020		0.8		0.8	
Beverage and tobacco products	312	1,459		0.7		0.7	
Textile, apparel, and leather products	313–16	783		1.1		1.1	
Wood products	321	261		0.4		0.4	
Paper	322	1,238		1.2		1.2	
Printing and related support activities	323	253		1.1		1.1	
Petroleum and coal products	324	1,004		0.3		D	
Chemicals	325	131,790		10.5		10.5	
Basic chemicals	3251	2,883		1.6		1.6	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	D		D		D	
Pesticide, fertilizer, and other agricultural chemicals	3253	D		D		D	
Pharmaceuticals and medicines	3254	122,656		16.9		16.9	
Soap, cleaning compound, and toilet preparations	3256	2,684		2.1		2.1	
Paint, coating, adhesive, and other chemicals	3255, 3259	D		D		D	
Plastics and rubber products	326	2,767		1.5		1.5	
Nonmetallic mineral products	327	1,556	i	2.5		2.9	
Primary metals	331	1,129		0.8		0.9	
Fabricated metal products	332	3,137		1.5		1.5	
Machinery	333	19,844		3.9		3.9	
Agricultural implement	33311	D		D		D	
Semiconductor machinery	333242	D		D		D	
Engine, turbine, and power transmission equipment	3336	D		D		D	
Other machinery	other 333	8,060		2.4		2.4	
Computer and electronic products	334	107,038		13.3		13.3	
Communications equipment	3342	12,069		10.5		10.5	
Semiconductor and other electronic components	3344	48,546		18.0		18.0	
Navigational, measuring, electromedical, and control instruments	3345	10,736		7.7		7.7	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,046		15.1		15.1	
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,190		5.7		5.7	
Other measuring and controlling devices	other 3345	4,501		7.1		7.1	
Other computer and electronic products	other 334	35,687		12.6		12.6	
Electrical equipment, appliances, and components	335	6,135		3.8		3.8	
Transportation equipment	336	47,039		2.9		2.9	
Motor vehicles, bodies, trailers, and parts	3361–63	D		D		D	
Aerospace products and parts	3364	15,130		3.9		3.9	
Aircraft, aircraft engine, and aircraft parts	336411–13	D		D		D	
Guided missile, space vehicle, and related parts	336414–15, 336419	D		D		D	
Military armored vehicle, tank, and tank components	336992	23		2.2		2.2	
Other transportation	other 336	D		D		D	
Furniture and related products	337	450		1.2		D	
Miscellaneous	339	24,528		3.8		3.8	
Medical equipment and supplies	3391	21,840		4.2		4.2	
Other miscellaneous manufacturing	3399	2,688		2.3		2.3	
Nonmanufacturing industries	21–23, 42–81	322,940		4.1		4.2	

Table 30. Domestic R&D paid for and performed by the company as a percentage of domestic net sales, by industry and company size: 2024

(Millions of U.S. dollars and percent)

Industry and company size	NAICS code	Domestic R&D (US$millions)		Percentage of domestic sales of R&D performers or funders[a]		Percentage of domestic sales of R&D performers[b]	
Mining, quarrying, oil and gas extraction, and support activities	21	1,224		0.6		0.6	
Utilities	22	D		D		D	
Wholesale trade	42	D		D		D	
Electronic shopping and electronic auctions	454111–12	7,898	i	1.1		1.1	
Transportation and warehousing	48–49	D		D		D	
Information	51	226,853		10.8		10.8	
Publishing	511	63,085		15.7		15.8	
Newspaper, periodical, book, and directory publishers	5111	489	i	6.4		6.5	
Software publishers	5112	62,597		15.9		15.9	
Telecommunications	517	D		D		D	
Data processing, hosting, and related services	518	58,017		8.0		8.0	
Other information	other 51	D		D		D	
Finance and insurance	52	25,362		1.4		1.4	
Real estate and rental and leasing	53	2,750		4.6		4.6	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	23		5.3		5.3	
Other real estate and rental and leasing	other 53	2,727		4.5		4.5	
Professional, scientific, and technical services	54	40,134		5.8		5.9	
Architectural, engineering, and related services	5413	3,240		2.5		2.5	
Computer systems design and related services	5415	22,353		8.6		8.6	
Scientific research and development services	5417	5,705		4.7		4.7	
Research and development in nanotechnology	541713	434		24.2		25.2	
Research and development in biotechnology (except nanobiotechnology)	541714	1,204		4.1		4.1	
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	4,060		4.6		4.6	
Research and development in the social sciences and humanities	541720	8		0.7		0.7	
Other professional, scientific, and technical services	other 54	8,835	i	5.1		5.2	
Health care services	621–23	1,888		1.6		1.6	
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	3,579		0.4		0.4	
All companies (number of domestic employees)	–	679,371		4.5		4.5	
Small companies							
10–19[c]	–	3,734		12.3		13.0	
20–49	–	14,153		14.1		14.9	
Medium companies							
50–99	–	14,998		11.6		11.8	
100–249	–	26,548		8.8		9.0	
Large companies							
250–499	–	26,185		6.6		6.7	
500–999	–	40,152		7.0		7.2	
1,000–4,999	–	110,612		5.1		5.1	
5,000–9,999	–	55,804		3.6		3.8	
10,000–24,999	–	120,991		4.2		4.3	
25,000 or more	–	266,195		3.8		3.8	

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] Statistics used for both the numerator and denominator in the calculation of these percentages are representative of companies located in the United States that performed or funded R&D.
[b] Statistics used for both the numerator and denominator in the calculation of these percentages are representative of companies located in the United States that performed R&D. The calculation of percentages in this column excludes R&D and sales of companies that fund R&D but do not perform R&D.
[c] 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. Unless indicated otherwise, 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.