

TABLE 37. Domestic R&D paid for by others and performed by the company and others as a percent of domestic net sales, by industry and company size: 2013
(Millions of U.S. dollars)

Industry and company size	NAICS code	Domestic R&D	Percent of domestic sales of R&D performers and funders ^a	Percent of domestic sales of R&D performers only ^b
All industries	21-23, 31-33, 42-81	67,553	0.7	0.7
Manufacturing industries	31-33	48,110	0.8	0.8
Food	311	235	*	*
Beverage and tobacco products	312	105 i	0.1	0.1
Textile, apparel, and leather products	313-316	21 i	*	*
Wood products	321	12	*	*
Paper	322	14 i	*	*
Printing and related support activities	323	39 i	0.2	0.2
Petroleum and coal products	324	6	0.0	0.0
Chemicals	325	11,013	0.8	0.8
Basic chemicals	3251	328	0.1	0.1
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	111	0.1	0.1
Pesticide, fertilizer, and other agricultural chemicals	3253	366	0.8	0.8
Pharmaceuticals and medicines	3254	10,148	2.0	2.0
Soap, cleaning compound, and toilet preparation	3256	11 i	*	*
Paint, coating, adhesive, and other chemicals	3255, 3259	50	0.1	0.1
Plastics and rubber products	326	168 i	0.1	0.1
Nonmetallic mineral products	327	30 i	0.1	0.1
Primary metals	331	19	*	*
Fabricated metal products	332	364 i	0.3	0.3
Machinery	333	597	0.2	0.2
Agricultural implement	33311	49	0.1	0.1
Semiconductor machinery	333295	100	0.9	0.9
Engine, turbine, and power transmission equipment	3336	127	0.3	0.3
Other machinery	other 333	321	0.1	0.1
Computer and electronic products	334	10,375	1.6	1.6
Communications equipment	3342	2,059 i	1.2	1.2
Semiconductor and other electronic components	3344	D	D	D
Navigational, measuring, electromedical, and control instruments	3345	5,834	3.3	3.3
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	172	0.6	0.6
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	5,408	6.3	6.3
Other measuring and controlling device	other 3345	254	0.4	0.4
Other computer and electronic products	other 334	D	D	D
Electrical equipment, appliances, and components	335	487 i	0.3	0.3
Transportation equipment	336	24,221 i	2.2	2.3
Automobiles, bodies, trailers, and parts	3361, 3362, 3363	2,819	0.4	0.4
Aerospace products and parts	3364	20,310 i	5.7	5.7
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	2 i	0.5	0.5
Other transportation	other 336	1,090	1.7	1.8
Furniture and related products	337	1 i	0.0	0.0
Miscellaneous manufacturing	339	401	0.1	0.1
Medical equipment and supplies	3391	348	0.1	0.1
Other miscellaneous manufacturing	3399	53 i	0.1	0.1
Nonmanufacturing industries	21-23, 42-81	19,443	0.5	0.5
Mining, extraction, and support activities	21	639	0.1	0.1
Utilities	22	65	*	*
Wholesale trade	42	19 i	0.0	0.0
Electronic shopping and electronic auctions	454111-12	1 i	0.0	0.0
Transportation and warehousing	48-49	D	D	D
Information	51	1,204	0.1	0.1
Publishing	511	1,067	0.3	0.3

TABLE 37. Domestic R&D paid for by others and performed by the company and others as a percent of domestic net sales, by industry and company size: 2013 (Millions of U.S. dollars)

Industry and company size	NAICS code	Domestic R&D	Percent of domestic sales of R&D performers and funders ^a	Percent of domestic sales of R&D performers only ^b
Newspaper, periodical, book, and directory publishers	5111	1 i	0.0	0.0
Software publishers	5112	1,066	0.3	0.3
Telecommunications	517	4 i	0.0	0.0
Data processing, hosting, and related services	518	119	0.2	0.2
Other information	other 51	14	*	*
Finance and insurance	52	10	0.0	0.0
Real estate and rental and leasing	53	* i	0.0	0.0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0.0	0.0
Other real estate and rental and leasing	other 53	* i	0.0	0.0
Professional, scientific, and technical services	54	17,202	4.6	4.6
Architectural, engineering, and related services	5413	2,050	2.2	2.2
Computer systems design and related services	5415	1,272 i	1.1	1.2
Scientific research and development services	5417	12,766	18.1	18.1
Biotechnology research and development	541711	3,262	14.0	14.1
Physical, engineering, and life sciences (except biotechnology) research and development	541712	8,566	18.7	18.6
Social sciences and humanities research and development	541720	938	72.3	72.3
Other professional, scientific, and technical services	other 54	1,114	1.1	1.1
Health care services	621–23	100	0.2	0.2
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	D	D	D
All companies (number of domestic employees)	–	67,553	0.7	0.7
Small companies ^c				
5–499	–	12,569	1.0	1.0
5–99	–	7,238 i	1.3	1.3
5–49	–	5,207 i	1.8	1.8
5–9	–	1,373 i	2.8	2.8
10–24	–	1,829 i	1.7	1.7
25–49	–	2,006	1.5	1.5
50–99	–	2,031	0.8	0.8
100–249	–	3,171	0.9	0.9
250–499	–	2,160	0.6	0.6
Medium and large companies				
500–999	–	1,975	0.6	0.6
1,000–4,999	–	12,281	1.1	1.1
5,000–9,999	–	7,733	0.9	0.9
10,000–24,999	–	7,791	0.4	0.4
25,000 or more	–	25,204 i	0.6	0.6

* = < \$500,000 or < 0.05%; D = data withheld to avoid disclosing operations of individual companies; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

^a Statistics used for the 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 the 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 Upper bound based on U.S. Small Business Administration's definition of a small business; Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total because of rounding. Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D, unless indicated otherwise. Percentages are calculated as domestic R&D paid for by others divided by domestic sales.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2013.