

TABLE 36. Domestic R&D paid for by others and performed by the company and others as a percentage of domestic net sales, by industry and company size: 2014

Industry and company size	NAICS code	Domestic R&D (US\$millions)	Percent of domestic sales of R&D performers or funders ^a	Percent of domestic sales of R&D performers ^b
All industries	21–23, 31–33, 42–81	67,114	0.7	0.7
Manufacturing industries	31–33	47,444 i	0.8	0.8
Food	311	266	*	*
Beverages and tobacco products	312	101	0.1	0.1
Textiles, apparel, and leather products	313–16	15 i	*	*
Wood products	321	13 i	*	*
Paper	322	12	*	*
Printing and related support activities	323	3 i	*	*
Petroleum and coal products	324	6	*	*
Chemicals	325	13,658	1.0	1.0
Basic chemicals	3251	303	0.1	0.1
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	18 i	*	*
Pesticides, fertilizers, and other agricultural chemicals	3253	464	0.9	0.9
Pharmaceuticals and medicines	3254	12,791	3.0	3.0
Soaps, cleaning compounds, and toilet preparations	3256	18	*	*
Paints, coatings, adhesives, and other chemicals	3255, 3259	64	0.1	0.1
Plastics and rubber products	326	162 i	0.1	0.1
Nonmetallic mineral products	327	26	0.1	0.1
Primary metals	331	62	0.1	0.1
Fabricated metal products	332	136 i	0.1	0.1
Machinery	333	751	D	0.2
Agricultural implements	33311	51	0.1	0.1
Semiconductor machinery	333295	121	1.1	1.1
Engines, turbines, and power transmission equipment	3336	73	D	0.1
Other machinery	other 333	506 i	0.2	0.2
Computer and electronic products	334	9,754	1.3	1.3
Communications equipment	3342	1,565 i	0.9	0.9
Semiconductors and other electronic components	3344	2,290	1.1	1.1
Navigational, measuring, electromedical, and control instruments	3345	5,719	3.2	3.2
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	225	0.6	0.6
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	5,181	6.7	6.7
Other measuring and controlling devices	other 3345	313	0.5	0.5
Other computer and electronic products	other 334	180 i	0.1	0.1
Electrical equipment, appliances, and components	335	201 i	0.1	0.1
Transportation equipment	336	21,687 i	1.9	2.0
Automobiles, bodies, trailers, and parts	3361–63	2,647	0.4	0.4
Aerospace products and parts	3364	17,940 i	4.8	4.8
Aircraft, aircraft engines, and aircraft parts	336411–13	D	D	D
Guided missiles, space vehicles, and related parts	336414–15, 336419	D	D	D
Military armored vehicle, tank, and tank component	336992	8	1.1	1.1
Other transportation	other 336	1,092 i	1.8	1.9
Furniture and related products	337	5 i	D	*
Miscellaneous manufacturing	339	585	0.2	0.2
Medical equipment and supplies	3391	516	0.2	0.2
Other miscellaneous manufacturing	3399	69 i	0.1	0.1

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Nonmanufacturing industries	21–23, 42–81	19,670	0.5	0.5
Mining, extraction, and support activities	21	1,015	0.2	0.2
Utilities	22	84	*	*
Wholesale trade	42	20 i	*	*
Electronic shopping and electronic auctions	454111–12	0	0.0	0.0
Transportation and warehousing	48–49	4	*	*
Information	51	1,531	0.1	0.1
Publishing	511	1,318	D	0.4
Newspaper, periodical, book, and directory publishers	5111	0	0.0	0.0
Software publishers	5112	1,318	D	0.4
Telecommunications	517	45	*	*
Data processing, hosting, and related services	518	106	0.1	0.1
Other information	other 51	62	D	0.1
Finance and insurance	52	32	*	*
Real estate and rental and leasing	53	* j	*	*
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0.0	0.0
Other real estate and rental and leasing	other 53	* j	*	*
Professional, scientific, and technical services	54	16,828	3.9	3.9
Architectural, engineering, and related services	5413	2,029	1.9	1.9
Computer systems design and related services	5415	2,431 i	2.0	2.1
Scientific R&D services	5417	11,764	20.9	20.7
Biotechnology R&D	541711	2,834	17.6	17.6
Physical, engineering, and life sciences (except biotechnology) R&D	541712	8,148	20.7	20.6
Social sciences and humanities R&Dt	541720	782	81.7	82.1
Other professional, scientific, and technical services	other 54	604	0.4	0.4
Health care services	621–23	69 i	0.1	0.1
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	85	*	*
All companies (number of domestic employees)	–	67,114	0.7	0.7
Small companies ^c				
5–499	–	13,870 i	1.3	1.3
5–99	–	8,762 i	2.0	2.0
5–49	–	5,505 i	2.1	2.1
5–9	–	1,009 i	3.1	3.2
10–24	–	1,905 i	2.3	2.3
25–49	–	2,591 i	1.8	1.8
50–99	–	3,257 i	1.7	1.7
100–249	–	2,861	0.8	0.8
250–499	–	2,247	0.8	0.8
Medium and large companies				
500–999	–	1,674	0.4	0.4
1,000–4,999	–	11,835	0.9	0.9

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5,000–9,999	–	8,935	1.0	1.0
10,000–24,999	–	8,416	0.4	0.4
25,000 or more	–	22,384 i	0.6	0.6

* = amount < \$500,000, or less than 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 = 2012 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 Upper bound is based on the U.S. Small Business Administration's definition of a small business; the 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 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 R&D, unless indicated otherwise.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2014.