

Appendix table 4-16

Domestic sales, domestic R&D performed and paid for by the company, and R&D intensity, by industry and company size: 2008

Industry and company size	NAICS code	Domestic sales (US\$millions)	Domestic R&D performed and paid for by the company (US\$millions)	R&D intensity (performance/ sales) (%)
All industries	21-23, 31-33, 42-81	7,796,340	232,505	3.0
Manufacturing industries	31-33	4,681,443	164,386	3.5
Food	311	476,888	2,063	0.4
Beverage and tobacco products	312	130,661	777	0.6
Textile, apparel, and leather	313-16	141,481	802	0.6
Wood products	321	40,999	270	0.7
Paper manufacturing	322	92,642	1,156	1.2
Printing and related support activities	323	16,597	312	1.9
Petroleum and coal products	324	271,430	D	D
Chemicals	325	902,410	55,042	6.1
Basic chemicals	3251	173,503	4,012	2.3
Resin, synthetic rubber, fibers, and filament	3252	180,105	726	0.4
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	32,021	941	2.9
Pharmaceuticals and medicines	3254	371,760	45,169	12.2
Soap, cleaning compound, and toilet preparation	3256	82,981	2,099	2.5
Paint, coating, adhesive, and other chemicals manufacturing	3255, 3259	62,041	2,095	3.4
Plastics and rubber products	326	162,697	1,713	1.1
Nonmetallic mineral products	327	78,828	1,509	1.9
Primary metals	331	154,706	654	0.4
Fabricated metal products	332	150,564	2,362	1.6
Machinery	333	278,700	9,846	3.5
Agricultural implement manufacturing	33311	35,818	1,181	3.3
Semiconductor machinery manufacturing	333295	7,328	2,113	28.8
Engine, turbine, and power transmission equipment manufacturing	3336	30,863	1,280	4.1
Other machinery manufacturing	other 333	204,691	5,272	2.6
Computer and electronic products	334	522,717	52,912	10.1
Communications equipment	3342	86,150	11,484	13.3
Semiconductor and other electronic components	3344	106,658	21,588	20.2
Navigational, measuring, electromedical, and control instruments	3345	180,705	10,463	5.8
Electromedical, electrotherapeutic, and irradiation apparatus manufacturing	334510, 334517	60,251	4,896	8.1
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	334511	75,426	2,803	3.7
Other measuring and controlling device manufacturing	other 3345	45,028	2,764	6.1
computer and electronic products	3341, 3343, 3346	149,203	9,377	6.3
Electrical equipment, appliances, and components	335	108,730	2,947	2.7
Transportation equipment	336	888,777	23,039	2.6
Automobiles, bodies, trailers, and parts	3361, 3362, 3363	491,483	12,234	2.5
Aerospace products and parts	3364	372,438	10,371	2.8
Aircraft, aircraft engine, and aircraft parts manufacturing	336411-13	316,664	9,698	3.1
Guided missile, space vehicle, and related parts manufacturing	336414-15, 336419	55,774	673	1.2
Military armored vehicle, tank, and tank component manufacturing	336992	2,412	25	1.0
Other transportation	other 336	22,443	409	1.8
Furniture and related products	337	34,174	477	1.4
Miscellaneous manufacturing	339	228,441	D	D
Medical equipment and supplies manufacturing	3391	151,700	5,179	3.4
Other miscellaneous manufacturing	3399	76,742	D	D

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Nonmanufacturing industries	21–23, 42–81	3,114,898	68,118	2.2
Mining, extraction, and support activities	21	409,659	1,478	0.4
Utilities	22	314,855	190	0.1
Construction	23	45,544	D	D
Wholesale trade	42	247,904 i	1,944 i	0.8
Retail trade	44–45	79,571	1,029	1.3
Electronic shopping and mail-order houses	4541	5,030	674	13.4
Other retail trade	other 44–45	74,541	354	0.5
Transportation and warehousing	48–49	126,726	134	0.1
Information	51	776,062	36,922	4.8
Publishing	511	273,765	27,871	10.2
Newspaper, periodical, book, and directory publishers	5111	12,314	205	1.7
Software publishers	5112	261,451	27,665	10.6
Telecommunications	517	349,363	1,601	0.5
Internet service providers, Web search portals, and data processing services	518	104,885	6,493	6.2
Other information	other 51	48,049	958	2.0
Finance and insurance	52	377,279	1,084	0.3
Real estate and rental and leasing	53	18,328	246	1.3
Professional, scientific, and technical services	54	453,444	20,539	4.5
Architectural, engineering, and related services	5413	41,642	1,378	3.3
Computer systems design and related services	5415	204,868	8,569	4.2
Scientific research and development services	5417	136,105	8,708	6.4
Other professional, scientific, and technical services	other 54	70,829	1,884	2.7
Health care services	621–23	29,382	1,032	3.5
Other nonmanufacturing	55–56, 61, 624, 71–72, 81	236,144	D	D
All companies	21–23, 31–33, 42–81	7,796,340	232,505	3.0
Small companies (number of employees) ^a				
5–499	–	737,892	46,396	6.3
5–99	–	270,007	24,890	9.2
5–49	–	147,593	17,642	12.0
5–24	–	73,151	10,333	14.1
25–49	–	74,442	7,309	9.8
50–99	–	122,414	7,248	5.9
100–249	–	242,803	12,933	5.3
250–499	–	225,081	8,572	3.8
Medium and large companies (number of employees)				
500–999	–	328,990	9,673	2.9
1,000–4,999	–	1,076,460	39,010	3.6
5,000–9,999	–	902,756	20,358	2.3
10,000–24,999	–	1,542,122	43,049	2.8
25,000 or more	–	3,208,120	74,020	2.3

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.

BRDIS = Business R&D and Innovation Survey; NAICS = 2002 North American Industry Classification System

^aUpper bound based on U.S. Small Business Administration's definition of a small business; BRDIS does not include companies with fewer than five domestic employees.

NOTES: Data are representative of companies that had either positive worldwide R&D expense or positive worldwide R&D costs funded by others in 2008. 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.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2008.