

TABLE 53. Worldwide R&D paid for by the company and performed by the company and others, by industry and company size: 2009
(Millions of U.S. dollars)

Industry and company size	NAICS code	Worldwide	Own performance	Paid to others
All industries	21-23, 31-33, 42-81	312,444	276,185	36,259
Manufacturing industries	31-33	227,113	198,105	29,007
Food	311	5,220	4,841	379
Beverage and tobacco products	312	1,074	930	144
Textiles, apparel, and leather products	313-316	524	503	21
Wood products	321	599	498	102
Paper	322	1,543	1,482	61
Printing and related support activities	323	210	200	10
Petroleum and coal products	324	702	D	D
Chemicals	325	77,493	59,339	18,155
Basic chemicals	3251	2,851	2,745	105
Resin, synthetic rubber, fibers, and filaments	3252	1,241	1,145	96
Pesticide, fertilizer, and other agricultural chemical	3253	1,572	D i	D i
Pharmaceuticals and medicines	3254	65,759	48,504	17,255
Soap, cleaning compound, and toilet preparation	3256	3,612	3,249	364
Paint, coating, adhesive, and other chemical	3255, 3259	2,458	D	D
Plastics and rubber products	326	3,139	2,922	217
Nonmetallic mineral products	327	1,405 i	1,203 i	202
Primary metals	331	758	693	65
Fabricated metal products	332	2,118	2,054	64
Machinery	333	11,298	10,659	638
Agricultural implements	33311	1,639	1,346	293
Semiconductor machinery	333295	2,130	2,105	26
Engine, turbine, and power transmission equipment	3336	760	712	48
Other machinery	other 333	6,768	6,496	272
Computer and electronic products	334	64,609	61,963	2,645
Communications equipment	3342	15,861	14,967	894
Semiconductor and other electronic components	3344	25,990	25,411	579
Navigational, measuring, electromedical, and control instruments	3345	12,793	12,207	587
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	5,347	5,037 i	310 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	4,051	3,884	167
Other measuring and controlling instruments	other 3345	3,395	3,286	109
Computer and peripheral equipment and other computer and electronic products	other 334	9,965	9,379	586
Electrical equipment, appliances, and components	335	4,497	4,304	192
Transportation equipment	336	34,636	31,785	2,850
Automobiles, bodies, trailers, and parts	3361-3363	18,613	16,859	1,753
Aerospace products and parts	3364	15,011	13,931	1,079
Aircraft, aircraft engine, and aircraft parts	336411-336413	13,726	D	D
Guided missile, space vehicle, and related parts	336414, 336415, 336419	1,285	D	D
Military armored vehicle, tank, and tank components	336992	32	31	*
Other transportation equipment	other 336	980	963 i	17
Furniture and related products	337	527	431	96
Miscellaneous manufacturing	339	16,761	D	D
Medical equipment and supplies	3391	14,222	11,403	2,819
Other miscellaneous manufacturing	3399	2,540	D	D
Nonmanufacturing industries	21-23, 42-81	85,332	78,080	7,252
Mining, extraction, and support activities	21	2,907	2,720	187
Utilities	22	506	226	281
Construction	23	132	113	18
Wholesale trade	42	1,070 i	910 i	160 i
Retail trade	44, 45	1,026	1,015	11
Electronic shopping and mail-order houses	4541	974	967	8
Other retail trade	other 44, 45	52	49	3
Transportation and warehousing	48, 49	175	153	22
Information	51	42,206	39,874	2,332
Publishing	511	34,150	32,803	1,347
Newspaper, periodical, book, and directory publishers	5111	740	730	9
Software publishers	5112	33,411	32,073	1,338

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Telecommunications	517	2,307	1,500	808 i
Data processing, hosting, and related services	518	3,076	2,956	120
Other information	other 51	2,672	2,615	57
Finance and insurance	52	2,507	2,426	81
Real estate and rental and leasing	53	288	264	24
Professional, scientific, and technical services	54	33,494	29,445	4,050
Architectural, engineering, and related services	5413	1,413	1,340	73
Computer systems design and related services	5415	13,167	12,704	463
Scientific R&D services	5417	11,987	8,664	3,324
Biotechnology R&D	541711	8,393	5,615	2,777
Physical, engineering, and life sciences (except biotechnology) R&D	541712	3,387	2,989	398
Social sciences and humanities R&D	541720	207	59	148
Other professional, scientific, and technical services	other 54	6,927	6,737	190
Health care services	621–623	382	357	25
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	638	577	62
All companies	–	312,444	276,185	36,259
Small companies (number of domestic employees) ^a				
5–499	–	54,856	48,271	6,586
5–99	–	30,941	26,880	4,061
5–49	–	21,267	18,243	3,024
5–24	–	11,837	9,919	1,918
25–49	–	9,429	8,324	1,105
50–99	–	9,674	8,637	1,037
100–249	–	13,511	12,030	1,481
250–499	–	10,404	9,361	1,044
Medium and large companies (number of domestic employees)				
500–999	–	11,475	10,428	1,047
1,000–4,999	–	54,946	48,325	6,621
5,000–9,999	–	23,339	21,577	1,762
10,000–24,999	–	62,869	52,435	10,434
25,000 or more	–	104,958	95,149	9,809

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

NAICS = 2007 North American Industry Classification System.

^a Upper bound based on U.S. Small Business Administration's definition of small business; Business R&D and Innovation Survey (BRDIS) 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 United States that performed or funded R&D.

SOURCE: National Science Foundation/National Center for Science and Engineering Statistics and U.S. Census Bureau, Business R&D and Innovation Survey, 2009.