

TABLE 8. Worldwide R&D paid for by the company and performed by the company and others, by industry and company size: 2013
(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Performed by the company	Performed by others
All industries	21–23, 31–33, 42–81	376,151	332,040	44,111
Manufacturing industries	31–33	270,003	230,644	39,358
Food	311	6,688	6,107	581
Beverage and tobacco products	312	1,565	1,258	307
Textile, apparel, and leather products	313–16	769	739	30
Wood products	321	223	211	11
Paper	322	1,032	1,009	23
Printing and related support activities	323	238	230 i	8
Petroleum and coal products	324	638	282	355
Chemicals	325	95,029	66,769	28,261
Basic chemicals	3251	3,281	3,052	228
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,481	1,408	73
Pesticide, fertilizer, and other agricultural chemicals	3253	D	1,587 i	D
Pharmaceuticals and medicines	3254	83,226	55,762	27,465
Soap, cleaning compound, and toilet preparation	3256	3,790	3,382	408
Paint, coating, adhesive, and other chemicals	3255, 3259	D	1,578	D
Plastics and rubber products	326	4,664	4,423	242
Nonmetallic mineral products	327	1,724	1,551	173 i
Primary metals	331	751	687	64
Fabricated metal products	332	2,094	2,049 i	45 i
Machinery	333	15,572	14,913	659
Agricultural implement	33311	2,554	2,207	347
Semiconductor machinery	333295	3,568	3,547	21
Engine, turbine, and power transmission equipment	3336	1,751	1,677	74
Other machinery	other 333	7,699	7,481	218
Computer and electronic products	334	77,588	75,215	2,373
Communications equipment	3342	19,199	18,354	844
Semiconductor and other electronic components	3344	39,002	38,220	782
Navigational, measuring, electromedical, and control instruments	3345	11,703	11,169	534
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	2,872	2,672	201
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	3,787	3,599	188
Other measuring and controlling device	other 3345	5,044	4,898	146
Other computer and electronic products	other 334	7,684	7,472	212
Electrical equipment, appliances, and components	335	5,396	5,234	162
Transportation equipment	336	38,697	33,515	5,182
Automobiles, bodies, trailers, and parts	3361, 3362, 3363	23,596	20,495	3,101
Aerospace products and parts	3364	13,937	11,894	2,044
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	8	7 i	*
Other transportation	other 336	1,156	1,119	37
Furniture and related products	337	426	401	24
Miscellaneous manufacturing	339	16,909	16,050	860
Medical equipment and supplies	3391	13,793	13,129	664
Other miscellaneous manufacturing	3399	3,116	2,920	196
Nonmanufacturing industries	21–23, 42–81	106,148	101,396	4,752
Mining, extraction, and support activities	21	4,510	D	D
Utilities	22	468	267	201
Wholesale trade	42	D	535 i	D
Electronic shopping and electronic auctions	454111–12	D	1,846	D
Transportation and warehousing	48–49	D	418	D
Information	51	71,515	69,613	1,902
Publishing	511	47,247	45,903	1,344
Newspaper, periodical, book, and directory publishers	5111	365 i	347 i	18 i
Software publishers	5112	46,882	45,556	1,325
Telecommunications	517	3,264	3,100	164
Data processing, hosting, and related services	518	7,200	6,960	240

TABLE 8. Worldwide R&D paid for by the company and performed by the company and others, by industry and company size: 2013
(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Performed by the company	Performed by others
Other information	other 51	13,804	13,650	155
Finance and insurance	52	5,119	5,001	118
Real estate and rental and leasing	53	164	161	3
Lessors of nonfinancial intangible assets (except copyrighted works)	533	D	D	* i
Other real estate and rental and leasing	other 53	D	D	3
Professional, scientific, and technical services	54	18,852	D	D
Architectural, engineering, and related services	5413	1,359	1,296	63
Computer systems design and related services	5415	9,584	9,385 i	200 i
Scientific research and development services	5417	3,467	2,926	541
Biotechnology research and development	541711	1,680	1,383	297
Physical, engineering, and life sciences (except biotechnology) research and development	541712	1,751	1,507	244
Social sciences and humanities research and development	541720	36	36 i	0
Other professional, scientific, and technical services	other 54	4,442	D	D
Health care services	621-23	440	437 i	2 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,224	1,171 i	53 i
All companies (number of domestic employees)	-	376,151	332,040	44,111
Small companies ^a				
5-499	-	51,659	46,007	5,652
5-99	-	25,921	22,300 i	3,621
5-49	-	17,297	14,807 i	2,491
5-9	-	2,570	2,247 i	323 i
10-24	-	7,004	5,920 i	1,084
25-49	-	7,723	6,640 i	1,084
50-99	-	8,623	7,493	1,130
100-249	-	13,383	12,139	1,243
250-499	-	12,355	11,567	788
Medium and large companies				
500-999	-	12,822	11,770	1,051
1,000-4,999	-	65,350	57,770	7,580
5,000-9,999	-	33,908	32,363	1,545
10,000-24,999	-	67,736	53,669	14,067
25,000 or more	-	144,676	130,461	14,215

* = amount < \$500,000; 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 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.

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