

TABLE 97. Worldwide R&D paid for by the company and performed by the company and by others, by industry and company size: 2010
(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	316,201	277,071	39,130
Manufacturing industries	31–33	235,921	202,711	33,210
Food	311	5,162	4,658	504
Beverage and tobacco products	312	1,655	1,486	169
Textiles, apparel, and leather products	313–316	541	515	26
Wood products	321	263	231	32
Paper	322	1,607	1,539	68
Printing and related support activities	323	248	239	9
Petroleum and coal products	324	D	1,243	D
Chemicals	325	90,205	67,431	22,774
Basic chemicals	3251	2,748	2,569	178
Resin, synthetic rubber, fibers, and filaments	3252	1,113	1,036	77
Pesticide, fertilizer, and other agricultural chemical	3253	1,149	D	D
Pharmaceuticals and medicines	3254	77,877	56,124	21,753
Soap, cleaning compound, and toilet preparation	3256	3,695	3,261	434
Paint, coating, adhesive, and other chemical	3255, 3259	3,624	D	D
Plastics and rubber products	326	2,356	2,230	126
Nonmetallic mineral products	327	1,687	1,515	172
Primary metals	331	853	696	156
Fabricated metal products	332	1,612	1,554	58
Machinery	333	12,004	11,460	545
Agricultural implement	33311	1,848	1,574	274
Semiconductor machinery	333295	2,327	2,294	33
Engine, turbine, and power transmission equipment	3336	1,400	1,359	41
Other machinery	other 333	6,429	6,233	196
Computer and electronic products	334	67,571	64,455	3,116
Communications equipment	3342	15,772	14,725	1,048
Semiconductor and other electronic components	3344	28,100	27,527	573
Navigational, measuring, electromedical, and control instruments	3345	12,643	11,746	897
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,364	4,139	225
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	3,378	3,157	220
Other measuring and controlling instruments	other 3345	4,902	4,450	451
Other computer and electronic products	other 334	11,055	10,457	598
Electrical equipment, appliances, and components	335	4,808	4,587	221
Transportation equipment	336	33,397	29,126	4,271
Automobiles, bodies, trailers, and parts	3361–3363	19,225	D	D
Aerospace products and parts	3364	13,090	11,710	1,380
Aircraft, aircraft engine, and aircraft parts	336411–336413	12,194	D	D
Guided missile, space vehicle, and related parts	336414, 336415, 336419	896	D	D
Military armored vehicle, tank, and tank components	336992	35	D	D
Other transportation	other 336	1,047	D	D
Furniture and related products	337	408	403	5
Miscellaneous manufacturing	339	D	9,343	D
Medical equipment and supplies	3391	7,981	7,291	690
Other miscellaneous manufacturing	3399	D	2,052	D
Nonmanufacturing industries	21–23, 42–81	80,281	74,360	5,920
Mining, extraction, and support activities	21	2,705	2,482	223
Utilities	22	682	388	294
Construction	23	1,225	708	517
Wholesale trade	42	1,258	1,095	162
Retail trade	44, 45	D	D	D
Electronic shopping and electronic auctions	454111, 454112	D	D	1
Other retail trade	other 44, 45	D	D	D
Transportation and warehousing	48, 49	127	117	10
Information	51	46,610	44,075	2,535

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Publishing	511	34,578	33,320	1,258
Newspaper, periodical, book, and directory publishers	5111	878	848	30
Software publishers	5112	33,700	32,473	1,227
Telecommunications	517	2,944	1,868	1,076 i
Data processing, hosting, and related services	518	2,762	2,624	138
Other information	other 51	6,327	6,263	64
Finance and insurance	52	2,726	2,590	136
Real estate and rental and leasing	53	375	364	11
Professional, scientific, and technical services	54	20,069	18,312	1,758
Architectural, engineering, and related services	5413	1,620	1,459	162
Computer systems design and related services	5415	12,196	11,650	547
Scientific R&D services	5417	3,992	3,102	890
Biotechnology R&D	541711	2,517	1,780	737
Physical, engineering, and life sciences (except biotechnology) R&D	541712	1,454	1,305	149
Social sciences and humanities R&D	541720	21	18	4
Other professional, scientific, and technical services	other 54	2,261	2,101	160
Health care services	621-623	1,309	D	D
Other nonmanufacturing	55, 56, 624, 71, 72, 81	D	D	D
All companies (number of employees)	-	316,201	277,071	39,130
Small companies (number of employees) ^a				
5-499	-	50,779	44,790	5,989
5-99	-	28,112	24,472	3,640
5-49	-	20,134	17,439	2,695
5-9	-	3,555	3,059	496
10-24	-	8,177	7,154	1,023
25-49	-	8,402	7,226	1,176
50-99	-	7,978	7,033	945
100-249	-	12,119	10,767	1,352
250-499	-	10,549	9,551	998
Medium and large companies (number of employees)				
500-999	-	11,344	10,366	978
1,000-4,999	-	57,144	50,264	6,880
5,000-9,999	-	29,762	26,833	2,929
10,000-24,999	-	53,804	45,234	8,570
25,000 or more	-	113,369	99,585	13,784

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, 2010.