

TABLE 12. R&D paid for by the company and others and performed by the company outside of the United States, by source of funds, industry, and company size: 2008

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Funding source	
			U.S. unit or foreign subsidiary	Foreign parent or other company
All industries	21-23, 31-33, 42-81	61,475	56,899	4,576
Manufacturing industries	31-33	46,572	45,274	1,298
Food	311	596	596	*
Beverage and tobacco products	312	123	123	0
Textiles, apparel, and leather products	313-316	367	367	0
Wood products	321	4	4	0
Paper	322	274	274	0
Printing and related support activities	323	9	9	*
Petroleum and coal products	324	D	D	0
Chemicals	325	13,990	13,549	441
Basic chemicals	3251	1,198	1,194	4
Resin, synthetic rubber, fibers, and filaments	3252	224	224	0
Pesticide, fertilizer, and other agricultural chemical	3253	371	370	1
Pharmaceuticals and medicines	3254	10,862	10,479	383
Soap, cleaning compound, and toilet preparations	3256	965	965	0
Paint, coating, adhesive, and other chemical	3255, 3259	370	317	53
Plastics and rubber products	326	341	339	2
Nonmetallic mineral products	327	106	106	*
Primary metals	331	114	114	*
Fabricated metal products	332	188	188	1
Machinery	333	1,929	1,918	11
Agricultural implements	33311	399	399	0
Semiconductor machinery	333295	366	362	4
Engine, turbine, and power transmission equipment	3336	92	92	0
Other machinery	other 333	1,072	1,065	7
Computer and electronic products	334	15,774	15,419	355
Communications equipment	3342	2,951	2,939	12
Semiconductor and other electronic components	3344	7,075	6,902	173
Navigational, measuring, electromedical, and control instruments	3345	2,308	2,203	105
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	838	834	4
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	334511	D	D	D
Other measuring and controlling instruments	other 3345	D	D	D
Computer and peripheral equipment and other computer and electronic products	3341, 3343, 3346	3,440	3,375	65
Electrical equipment, appliances, and components	335	1,162	1,152	10
Transportation equipment	336	10,267	9,796	471
Automobiles, bodies, trailers, and parts	3361-3363	8,448	8,313	134
Aerospace products and parts	3364	1,816	1,479	337
Aircraft, aircraft engine, and aircraft parts	336411-336413	1,742	D	D
Guided missile, space vehicle, and related parts	336414, 336415, 336419	74	D	D
Military armored vehicle, tank, and tank components	336992	0	0	0
Other transportation equipment	other 336	3	3	0
Furniture and related products	337	27	27	0
Miscellaneous manufacturing	339	D	D	7
Medical equipment and supplies	3391	766	762	5
Other miscellaneous manufacturing	3399	D	D	3
Nonmanufacturing industries	21-23, 42-81	14,903	11,625	3,278
Mining, extraction, and support activities	21	D	198	D
Utilities	22	6	6	*
Construction	23	0	0	0
Wholesale trade	42	509	499	11

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			U.S. unit or foreign subsidiary	Foreign parent or other company
Retail trade	44, 45	D	D	0
Electronic shopping and mail-order houses	4541	D	D	0
Other retail trade	other 44, 45	0	0	0
Transportation and warehousing	48, 49	2	2	0
Information	51	7,657	7,602	55
Publishing	511	6,301	6,255	46
Newspaper, periodical, book, and directory publishers	5111	27	27	0
Software publishers	5112	6,274	6,228	46
Telecommunications	517	175	175	0
Internet service providers, Web search portals, and data processing services	518	1,089 i	1,080	9
Other information	other 51	93	93	0
Finance and insurance	52	74	73	1 i
Real estate and rental and leasing	53	65	65	0
Professional, scientific, and technical services	54	6,150	2,954	3,196
Architectural, engineering, and related services	5413	200	117	83
Computer systems design and related services	5415	2,164	2,077	88
Scientific R&D services	5417	3,544	564	2,980
Other professional, scientific, and technical services	other 54	241	196	45
Health care services	621-623	1	1	0
Other nonmanufacturing	55, 56, 61, 624, 71, 72, 81	D	D	D
All companies	21-23, 31-33, 42-81	61,475	56,899	4,576
Small companies (number of domestic employees) <sup>a</sup>				
5-499	-	4,915	4,526	389
5-99	-	2,002	1,792	210
5-49	-	1,027	836	190
5-24	-	368	238	130
25-49	-	658	598	61
50-99	-	976	956	20
100-249	-	1,735	1,622	113
250-499	-	1,178	1,112	66
Medium and large companies (number of domestic employees)				
500-999	-	1,753	1,680	73
1,000-4,999	-	11,350	10,628	722
5,000-9,999	-	7,000	4,565	2,435
10,000-24,999	-	11,785	11,223	562
25,000 or more	-	24,671	24,277	394

\* = 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 = 2002 North American Industry Classification System.

<sup>a</sup> 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. After 2008 BRDIS sample was selected and surveyed, an error was identified that resulted in excluding 226,884 single-establishment companies with five paid employees from sample frame. Most excluded establishments were classified in industries with low R&D intensities, such as construction, retail trade, and service sectors. Based on available information for these small single-establishment companies, their contribution to 2008 R&D estimates is estimated to be negligible.

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, 2008.