

TABLE 2. Worldwide, domestic, and foreign R&D paid for by the company and others and performed by the company, by industry and company size: 2012  
(Millions of U.S. dollars)

Industry and company size	NAICS code	Worldwide R&D performance			Domestic R&D performance			Foreign R&D performance		
		Total	Paid for by company	Paid for by others	Total	Paid for by company	Paid for by others	Total	Paid for by company	Paid for by others
All industries	21-23, 31-33, 42-81	374,234	314,287	59,947	302,250	247,280	54,970	71,984	67,007	4,977
Manufacturing industries	31-33	261,281	221,767	39,514	208,415	170,197	38,218	52,866	51,570	1,296
Food	311	5,168	4,992	176	4,092	3,921	171	1,076	1,072	4
Beverage and tobacco products	312	D	1,220	D	D	688	D	532	532	0
Textile, apparel, and leather products	313-16	612	589	23	560	537	23	52	52	0
Wood products	321	463 i	454 i	9	461 i	453 i	9	2	2	0
Paper	322	858	849	9	752	743	9	106	106	0
Printing and related support activities	323	291 i	288 i	3 i	256 i	253 i	3 i	35	35	*
Petroleum and coal products	324	D	D	14	894	880	14	D	D	0
Chemicals	325	70,593	64,010	6,582	57,225	50,867	6,359	13,367	13,144	224
Basic chemicals	3251	3,641	3,256	385 i	2,916	2,536	380 i	725	720	5
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	D	1,106	D	946	844	102	D	262	D
Pesticide, fertilizer, and other agricultural chemical	3253	D	1,582	D	D	1,328	D	D	254	D
Pharmaceuticals and medicines	3254	59,139	53,421	5,718	48,146	42,594	5,552	10,993	10,827	166
Soap, cleaning compound, and toilet preparation	3256	3,212	3,209	4 i	2,342	2,339	4 i	870	870	0
Paint, coating, adhesive, and other chemicals	3255, 3259	D	1,437	D	D	1,227	D	210	210	*
Plastics and rubber products	326	4,337	3,979	359 i	3,509	3,171	338 i	828	807	21
Nonmetallic mineral products	327	1,588 i	1,553 i	34	1,327 i	1,293 i	34	261	260	1
Primary metals	331	818	762	56	741	686	55	77	76	1
Fabricated metal products	332	1,956 i	1,842	114 i	1,833 i	1,720 i	114 i	123	122	*
Machinery	333	18,424	17,346	1,077	14,254	13,294	960	4,169	4,052	117
Agricultural implement	33311	2,142	2,089	53	1,546	1,503	43	596	586	10
Semiconductor machinery	333295	2,739	2,664	75	2,151	2,078	73	588	586	2 i
Engine, turbine, and power transmission equipment	3336	D	5,162	D	4,336	3,757	579	D	1,405	D
Other machinery	other 333	D	7,431	D	6,220	5,956	265 i	D	1,476	D
Computer and electronic products	334	85,605	76,893	8,712	65,068	56,677	8,391	20,537	20,216	320
Communications equipment	3342	18,514	17,038	1,476 i	13,989	12,549	1,440 i	4,525	4,490	36
Semiconductor and other electronic components	3344	36,888	35,431	1,457	27,331	25,957	1,375	9,556	9,474	82
Navigational, measuring, electromedical, and control instruments	3345	18,623	13,185	5,437	15,949	10,603	5,345	2,674	2,582	92
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,982	4,749	234	4,396	4,166	230	586	583	3
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	8,312	3,302	5,010	7,737	2,810	4,927	575	493	83
Other measuring and controlling device	other 3345	5,328	5,134	194 i	3,816	3,628	188 i	1,512	1,506	6
Other computer and electronic products	other 334	11,581	11,239	342	7,799	7,568	231	3,781	3,671	111
Electrical equipment, appliances, and components	335	4,150	3,954	197	3,087	2,900	187	1,063	1,053	10
Transportation equipment	336	50,378	28,830	21,548 i	42,305	21,344	20,961 i	8,073	7,486	587 i
Automobiles, bodies, trailers, and parts	3361-63	D	20,118	D	D	13,191	D	D	6,928	D
Aerospace products and parts	3364	D	7,591	D	24,817 i	7,140	17,677 i	D	452	D
Aircraft, aircraft engine, and aircraft parts	336411-13	D	7,141	D	23,397 i	6,695	16,702 i	D	446	D

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Guided missile, space vehicle, and related parts	336414-15, 336419	1,425	450 i	975	1,420	445 i	975	5	5	0
Military armored vehicle, tank, and tank component	336992	D	21	D	D	21	D	0	0	0
Other transportation	other 336	D	1,099	D	D	992	D	D	107	D
Furniture and related products	337	372	371	* i	348	348	* i	23	23	0
Miscellaneous	339	D	D	D	D	10,423	D	D	D	11
Medical equipment and supplies	3391	10,297	9,861	436	8,316	7,885	431	1,981	1,976	5
Other miscellaneous manufacturing	3399	D	D	D	D	2,538	D	D	D	6
Nonmanufacturing industries	21-23, 42-81	112,953	92,520	20,433	93,835	77,083	16,752	19,118	15,437	3,681
Mining, extraction, and support activities	21	D	2,710	D	2,815	2,443	372	D	267	D
Utilities	22	368	266	103	348	245	103	21	21	0
Wholesale trade	42	1,938 i	1,692 i	246 i	1,825 i	1,580 i	245 i	113 i	112 i	* i
Electronic shopping and electronic auctions	454111-12	D	D	6 i	1,353	1,346	6 i	D	D	0
Transportation and warehousing	48-49	186	186	1	178	177	1	8 i	8 i	0
Information	51	56,711	55,718	993	46,805	45,851	954	9,906	9,867	39
Publishing	511	36,858	36,093	765	28,987	28,253	734	7,871	7,840	31
Newspaper, periodical, book, and directory publishers	5111	244 i	243 i	1 i	242 i	241 i	1 i	2 i	2 i	0
Software publishers	5112	36,614	35,850	764	28,745	28,012	733	7,868	7,837	31
Telecommunications	517	2,882 i	2,826 i	57	2,824 i	2,768 i	56	59	58	1
Data processing, hosting, and related services	518	5,574	5,454	119	4,913	4,801	112	661	653	7
Other information	other 51	11,397	11,345	52 i	10,082	10,030	52 i	1,316	1,315	*
Finance and insurance	52	4,147	4,135	12	3,519	3,507	12	628	628	0
Real estate and rental and leasing	53	400	397	4	363	359	4	38	38	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	379	375	4	342	338	4	37	37	0
Other real estate and rental and leasing	other 53	21 i	21 i	0	21 i	21 i	0	* i	* i	0
Professional, scientific, and technical services	54	41,149	23,417	17,732	34,309	20,166	14,143	6,840	3,251 i	3,589
Architectural, engineering, and related services	5413	2,571 i	1,171	1,399 i	2,513 i	1,123	1,390 i	57	48	9
Computer systems design and related services	5415	13,649 i	11,560 i	2,089	11,251 i	9,163 i	2,088	2,399 i	2,397 i	2
Scientific research and development services	5417	20,471	7,161	13,310	16,544	6,788	9,756	3,927	373	3,554
Biotechnology research and development	541711	8,364	4,429	3,936	7,387	4,370	3,017	977	59	918
Physical, engineering, and life sciences (except biotechnology) research and development	541712	11,506	2,711	8,795	8,559	2,398	6,161	2,948	314	2,634
Social sciences and humanities research and development	541720	600	20 i	580	598	20 i	578	2	0	2
Other professional, scientific, and technical services	other 54	4,459	3,525	933	4,001	3,092	909	457	433	24
Health care services	621-23	712 i	432	280 i	675 i	416	259 i	36	15	21
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	D	D	D	1,646	992 i	653	D	D	D
All companies (number of domestic employees)	-	374,234	314,287	59,947	302,250	247,280	54,970	71,984	67,007	4,977
Small companies <sup>a</sup>										
5-499	-	53,611	42,890	10,722 i	49,961	39,388	10,573 i	3,650	3,501	149

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5-99	-	27,355 i	21,009 i	6,346 i	26,217 i	19,958 i	6,259 i	1,138	1,051	87
5-49	-	17,507 i	13,102 i	4,405 i	17,035 i	12,670 i	4,365 i	472 i	433 i	39
5-9	-	3,025 i	2,064 i	961 i	2,926 i	1,966 i	959 i	99 i	97 i	2 i
10-24	-	7,026 i	5,086 i	1,940 i	6,915 i	4,985 i	1,930 i	111	101	10
25-49	-	7,456 i	5,952 i	1,504	7,195 i	5,718 i	1,476	261 i	234 i	28
50-99	-	9,848	7,907	1,941	9,182 i	7,288 i	1,894 i	666	619	47
100-249	-	13,696	11,081	2,615	12,480	9,899	2,581	1,215	1,182	34
250-499	-	12,561	10,800	1,761	11,264	9,531	1,733	1,297	1,268	29
Medium and large companies										
500-999	-	12,921	11,615	1,307	11,484	10,227	1,257	1,438	1,388	50
1,000-4,999	-	63,154	55,086	8,068	50,691	43,025	7,666	12,463	12,061	402
5,000-9,999	-	40,640	30,484	10,157	30,483	23,821	6,662	10,157	6,662	3,495
10,000-24,999	-	59,713	52,955	6,758	49,493	43,119	6,373	10,220	9,836	385 i
25,000 or more	-	144,194	121,257	22,936 i	110,138	87,698	22,440 i	34,056	33,559	496

\* = 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.

<sup>a</sup> The upper bound is based on the U.S. Small Business Administration's definition of a small business; the 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. The industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the 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, 2012.