

TABLE 39. Domestic R&D performance by performer and source of funds, by industry and company size: 2012  
(Millions of U.S. dollars)

Industry and company size	NAICS code	Performed by the company			Performed by others		
		Total	Paid for by the company	Paid for by others	Total	Paid for by the company	Paid for by others
All industries	21-23, 31-33, 42-81	302,250	247,280	54,970	41,926	30,118	11,808 i
Manufacturing industries	31-33	208,415	170,197	38,218	35,153	25,793	9,360 i
Food	311	4,092	3,921	171	404	396	8
Beverage and tobacco products	312	D	688	D	144	144	* i
Textile, apparel, and leather products	313-16	560	537	23	15	14	1
Wood products	321	461 i	453 i	9	16 i	16 i	*
Paper	322	752	743	9	21	20	1
Printing and related support activities	323	256 i	253 i	3 i	5 i	4 i	1 i
Petroleum and coal products	324	894	880	14	D	D	5
Chemicals	325	57,225	50,867	6,359	20,385	17,642	2,743
Basic chemicals	3251	2,916	2,536	380 i	595	589	7
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	946	844	102	23	23	*
Pesticide, fertilizer, and other agricultural chemical	3253	D	1,328	D	D	59 i	D
Pharmaceuticals and medicines	3254	48,146	42,594	5,552	19,365	16,645	2,719
Soap, cleaning compound, and toilet preparation	3256	2,342	2,339	4 i	261	260	1 i
Paint, coating, adhesive, and other chemicals	3255, 3259	D	1,227	D	D	67	D
Plastics and rubber products	326	3,509	3,171	338 i	192	180	13 i
Nonmetallic mineral products	327	1,327 i	1,293 i	34	216	212	4
Primary metals	331	741	686	55	124	119	4
Fabricated metal products	332	1,833 i	1,720 i	114 i	51 i	46 i	5 i
Machinery	333	14,254	13,294	960	1,052	864	189
Agricultural implement	33311	1,546	1,503	43	D	254	D
Semiconductor machinery	333295	2,151	2,078	73	30	29	1
Engine, turbine, and power transmission equipment	3336	4,336	3,757	579	D	447	D
Other machinery	other 333	6,220	5,956	265 i	137	133	4
Computer and electronic products	334	65,068	56,677	8,391	1,991	1,533	457
Communications equipment	3342	13,989	12,549	1,440 i	815	745	69 i
Semiconductor and other electronic components	3344	27,331	25,957	1,375	368	309	59
Navigational, measuring, electromedical, and control instruments	3345	15,949	10,603	5,345	679	354	325
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,396	4,166	230	148	139	8
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	7,737	2,810	4,927	406	91	316
Other measuring and controlling device	other 3345	3,816	3,628	188 i	125	124	1 i
Other computer and electronic products	other 334	7,799	7,568	231	129	125	5
Electrical equipment, appliances, and components	335	3,087	2,900	187	134	129	5
Transportation equipment	336	42,305	21,344	20,961 i	9,446 i	3,553	5,894 i
Automobiles, bodies, trailers, and parts	3361-63	D	13,191	D	D	2,439	D
Aerospace products and parts	3364	24,817 i	7,140	17,677 i	6,810 i	1,079	5,731 i
Aircraft, aircraft engine, and aircraft parts	336411-13	23,397 i	6,695	16,702 i	6,697 i	976	5,721 i

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Guided missile, space vehicle, and related parts	336414-15, 336419	1,420	445 i	975	113 i	103 i	10
Military armored vehicle, tank, and tank component	336992	D	21	D	D	1	D
Other transportation	other 336	D	992	D	D	34	D
Furniture and related products	337	348	348	* i	20	20	0
Miscellaneous manufacturing	339	D	10,423	D	D	D	30
Medical equipment and supplies	3391	8,316	7,885	431	613	589	24
Other miscellaneous manufacturing	3399	D	2,538	D	D	D	6
Nonmanufacturing industries	21-23, 42-81	93,835	77,083	16,752	6,773	4,325	2,448
Mining, extraction, and support activities	21	2,815	2,443	372	D	260	D
Utilities	22	348	245	103	266	239	27
Wholesale trade	42	1,825 i	1,580 i	245 i	142 i	137 i	5 i
Electronic shopping and electronic auctions	454111-12	1,353	1,346	6 i	2 i	2 i	0
Transportation and warehousing	48-49	178	177	1	15 i	15 i	0
Information	51	46,805	45,851	954	1,356	1,345	11
Publishing	511	28,987	28,253	734	829	826	3
Newspaper, periodical, book, and directory publishers	5111	242 i	241 i	1 i	17 i	17 i	* i
Software publishers	5112	28,745	28,012	733	812	808	3
Telecommunications	517	2,824 i	2,768 i	56	194 i	190 i	3
Data processing, hosting, and related services	518	4,913	4,801	112	204	200	4
Other information	other 51	10,082	10,030	52 i	129	129	* i
Finance and insurance	52	3,519	3,507	12	127	127	0
Real estate and rental and leasing	53	363	359	4	19	19	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	342	338	4	17	17	0
Other real estate and rental and leasing	other 53	21 i	21 i	0	1 i	1 i	0
Professional, scientific, and technical services	54	34,309	20,166	14,143	4,243	1,939	2,304
Architectural, engineering, and related services	5413	2,513 i	1,123	1,390 i	369 i	30	340 i
Computer systems design and related services	5415	11,251 i	9,163 i	2,088	261 i	151 i	109
Scientific research and development services	5417	16,544	6,788	9,756	3,498	1,705	1,793
Biotechnology research and development	541711	7,387	4,370	3,017	2,132	1,475	657
Physical, engineering, and life sciences (except biotechnology) research and development	541712	8,559	2,398	6,161	1,233	228	1,005
Social sciences and humanities research and development	541720	598	20 i	578	132	1 i	131
Other professional, scientific, and technical services	other 54	4,001	3,092	909	115	53	62
Health care services	621-23	675 i	416	259 i	46 i	37 i	9 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,646	992 i	653	D	205 i	D
All companies (number of domestic employees)	-	302,250	247,280	54,970	41,926	30,118	11,808 i
Small companies <sup>a</sup>							
5-499	-	49,961	39,388	10,573 i	6,696	5,104	1,593

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5-99	-	26,217 i	19,958 i	6,259 i	3,852	2,897	955 i
5-49	-	17,035 i	12,670 i	4,365 i	2,837	2,193	645 i
5-9	-	2,926 i	1,966 i	959 i	391 i	298 i	94 i
10-24	-	6,915 i	4,985 i	1,930 i	1,069	775	294 i
25-49	-	7,195 i	5,718 i	1,476	1,377	1,120	257
50-99	-	9,182 i	7,288 i	1,894 i	1,015	705	310
100-249	-	12,480	9,899	2,581	1,687	1,256	431
250-499	-	11,264	9,531	1,733	1,157	951	207
Medium and large companies							
500-999	-	11,484	10,227	1,257	829	761	67
1,000-4,999	-	50,691	43,025	7,666	6,569	4,390	2,179
5,000-9,999	-	30,483	23,821	6,662	3,338	2,209	1,129
10,000-24,999	-	49,493	43,119	6,373	9,635	8,922	714
25,000 or more	-	110,138	87,698	22,440 i	14,859	8,732	6,127 i

\* = 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.