

TABLE 42. Domestic R&D performance by performer and source of funds, by industry and company size: 2014

(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	340,728	282,570	58,158	45,975	37,019	8,956
Manufacturing industries	31–33	232,815	192,160	40,655	40,202	33,412	6,790
Food	311	5,292 i	5,071 i	220	555 i	509 i	46
Beverages and tobacco products	312	920	819	101	206	206	* i
Textiles, apparel, and leather products	313–16	631	616	15 i	13	13	* i
Wood products	321	362 i	351 i	12 i	15 i	14 i	1 i
Paper	322	723	711	12	25	25	0
Printing and related support activities	323	234	232	2 i	8	7	1 i
Petroleum and coal products	324	234	229	5	46	45	2 i
Chemicals	325	66,301	56,488	9,813	28,861	25,016	3,845
Basic chemicals	3251	2,849	2,554	295 i	195	187	8
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,152	1,136	15 i	75	73	2
Pesticides, fertilizers, and other agricultural chemicals	3253	1,790 i	1,327 i	464	141 i	141 i	*
Pharmaceuticals and medicines	3254	56,612	47,646	8,966	28,065	24,240	3,825
Soaps, cleaning compounds, and toilet preparations	3256	2,547	2,531	16 i	348	346	2 i
Paints, coatings, adhesives, and other chemicals	3255, 3259	1,350 i	1,294 i	56	37	29	8
Plastics and rubber products	326	3,574	3,416	158 i	167	163	4
Nonmetallic mineral products	327	1,445 i	1,420 i	24	171 i	170 i	2
Primary metals	331	677	615	62	49	49	1 i
Fabricated metal products	332	2,131 i	2,000	130 i	37 i	31 i	5 i
Machinery	333	12,128	11,458	670	670	588	82
Agricultural implements	33311	1,578	1,539	39	278	267	11
Semiconductor machinery	333295	2,941	2,821	120	4	3	1
Engines, turbines, and power transmission equipment	3336	2,347	2,285	62	59	47	12
Other machinery	other 333	5,261	4,813	448 i	328	271	57 i
Computer and electronic products	334	73,891	64,695	9,195	2,064	1,505	559
Communications equipment	3342	18,342	16,808	1,533 i	625	593	32 i
Semiconductors and other electronic components	3344	32,142	30,029	2,112	561	383	178
Navigational, measuring, electromedical, and control instruments	3345	15,963	10,576	5,387	724	392	332
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,917	3,697	220	162	156	5
aeronautical, and nautical systems and instruments	334511	7,861	2,984	4,876	427	123	304
Other measuring and controlling devices	other 3345	4,186	3,895	291	136	114	22 i
Other computer and electronic products	other 334	7,444	7,282	163 i	154	136	17
Electrical equipment, appliances, and components	335	4,365	4,178	187 i	254	239	15 i
Transportation equipment	336	46,746	27,261	19,485 i	6,303	4,101	2,202 i
Automobiles, bodies, trailers, and parts	3361–63	18,404	15,900	2,504	2,720	2,578	143
Aerospace products and parts	3364	26,181 i	10,300	15,881 i	3,563	1,505	2,058 i
Aircraft, aircraft engines, and aircraft parts	336411–13	24,892 i	10,011	14,881 i	D	D	D

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Guided missiles, space vehicles, and related parts	336414–15, 336419	1,290 i	289	1,001 i	D	D	D
Military armored vehicles, tanks, and tank components	336992	18	10	8	*	*	* i
Other transportation	other 336	2,142 i	1,051	1,091 i	20	19	1 i
Furniture and related products	337	373	369	4 i	26	26	* i
Miscellaneous manufacturing	339	12,789	12,230	559	733	707	26
Medical equipment and supplies	3391	10,309	9,809	500	616	599	17
Other miscellaneous manufacturing	3399	2,481	2,421	60 i	117	107	9 i
Nonmanufacturing industries	21–23, 42–81	107,913	90,409	17,504	5,773	3,607	2,166
Mining, extraction, and support activities	21	4,703	3,821	882	485	352	133
Utilities	22	310	258	52	264	232	32
Wholesale trade	42	339 i	329 i	10 i	85 i	75 i	9 i
Electronic shopping and electronic auctions	454111–12	1,388	1,388	0	0	0	0
Transportation and warehousing	48–49	679	675	4	21 i	21 i	*
Information	51	63,773	62,296	1,477	1,816	1,761	55
Publishing	511	36,140	34,869	1,270	1,229	1,181	48
Newspaper, periodical, book, and directory publishers	5111	88 i	88 i	0	10 i	10 i	0
Software publishers	5112	36,052	34,781	1,270	1,220	1,172	48
Telecommunications	517	3,755	3,710	45	274 i	274 i	0
Data processing, hosting, and related services	518	9,029	8,926	103	177	174	4
Other information	other 51	14,849	14,791	59	135	132	3
Finance and insurance	52	4,122	4,090	32	90	90	0
Real estate and rental and leasing	53	262	262	* i	8 i	8 i	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	55	55	0	*	*	0
Other real estate and rental and leasing	other 53	207	207	* i	8 i	8 i	0
Professional, scientific, and technical services	54	30,975 i	16,061 i	14,914	2,871	957	1,914
Architectural, engineering, and related services	5413	3,375	1,503 i	1,871	208	50 i	158
Computer systems design and related services	5415	11,019 i	8,644 i	2,375 i	202 i	146 i	56 i
Scientific R&D services	5417	12,807	2,668	10,139	2,342	717	1,625
Biotechnology R&D	541711	3,459	692	2,767	416	350	66
Physical, engineering, and life sciences (except biotechnology) R&D	541712	8,670	1,950	6,720	1,775	346	1,429
Social sciences and humanities R&D	541720	678	26	651	151	21	130
Other professional, scientific, and technical services	other 54	3,775	3,245 i	529	120	45	75
Health care services	621–23	501 i	439 i	62 i	42 i	35 i	7 i
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	861 i	791 i	70	91	76 i	15
All companies (number of domestic employees)	–	340,728	282,570	58,158	45,975	37,019	8,956
Small companies ^d							
5–499	–	54,773	42,889	11,884 i	7,825	5,839	1,985

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5-99	-	29,078 i	21,695 i	7,383 i	5,077	3,698	1,379 i
5-49	-	18,900 i	14,169 i	4,730 i	3,078	2,303	775
5-9	-	3,295 i	2,426 i	868 i	625 i	485 i	141 i
10-24	-	7,177 i	5,506 i	1,671 i	1,107	873	234
25-49	-	8,428 i	6,237 i	2,191 i	1,346	946	400
50-99	-	10,178 i	7,526	2,652 i	1,999	1,395	604 i
100-249	-	13,492	11,006	2,486	1,671	1,296	375
250-499	-	12,203	10,188	2,015	1,077	845	232
Medium and large companies							
500-999	-	13,262	11,736	1,525	1,258	1,110	148
1,000-4,999	-	57,551	47,807	9,744	8,481	6,390	2,091
5,000-9,999	-	38,202	30,680	7,522	3,814	2,401	1,413
10,000-24,999	-	54,445	46,904	7,542	11,846	10,971	874
25,000 or more	-	122,495	102,555	19,941 i	12,751	10,308	2,443 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 = 2012 North American Industry Classification System.

^a 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

NOTES: 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.

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2014.