

TABLE 43. Domestic R&D performance by source of funds and performer, by industry and company size: 2014

(Millions of U.S. dollars)

Industry and company size	NAICS code	Paid for by the company			Paid for by others					
		Total	R&D performed by others (purchased and collaborative R&D)	R&D performed by the company	Total	R&D performed by others (subcontracted or passed through R&D costs)	R&D performed by the company			Paid for by non-U.S. government sources
							Total	Paid for by the U.S. government		
All industries	21-23, 31-33, 42-81	319,589	37,019	282,570	67,114	8,956	58,158	26,554 i	31,604	
Manufacturing industries	31-33	225,572	33,412	192,160	47,444 i	6,790	40,655	21,303 i	19,351	
Food	311	5,580 i	509 i	5,071 i	266	46	220	*	220	
Beverages and tobacco products	312	1,025	206	819	101	* i	101	* i	101	
Textiles, apparel, and leather products	313-16	629	13	616	15 i	* i	15 i	9 i	7 i	
Wood products	321	364 i	14 i	351 i	13 i	1 i	12 i	2 i	9 i	
Paper	322	735	25	711	12	0	12	0	12	
Printing and related support activities	323	239	7	232	3 i	1 i	2 i	* i	2 i	
Petroleum and coal products	324	274	45	229	6	2 i	5	0	5	
Chemicals	325	81,504	25,016	56,488	13,658	3,845	9,813	404	9,409	
Basic chemicals	3251	2,741	187	2,554	303	8	295 i	79 i	216	
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,209	73	1,136	18 i	2	15 i	10 i	5 i	
Pesticides, fertilizers, and other agricultural chemicals	3253	1,468 i	141 i	1,327 i	464	*	464	4 i	460	
Pharmaceuticals and medicines	3254	71,886	24,240	47,646	12,791	3,825	8,966	272	8,694	
Soaps, cleaning compounds, and toilet preparations	3256	2,877	346	2,531	18	2 i	16 i	6 i	11 i	
Paints, coatings, adhesives, and other chemicals	3255, 3259	1,323	29	1,294 i	64	8	56	33	23 i	
Plastics and rubber products	326	3,579	163	3,416	162 i	4	158 i	1 i	158 i	
Nonmetallic mineral products	327	1,590 i	170 i	1,420 i	26	2	24	4	21	
Primary metals	331	664	49	615	62	1 i	62	22 i	40	
Fabricated metal products	332	2,032	31 i	2,000	136 i	5 i	130 i	34 i	96 i	
Machinery	333	12,047	588	11,458	751	82	670	78	592 i	
Agricultural implements	33311	1,806	267	1,539	51	11	39	2 i	38	
Semiconductor machinery	333295	2,825	3	2,821	121	1	120	1	119 i	
Engines, turbines, and power transmission equipment	3336	2,333	47	2,285	73	12	62	45	17	
Other machinery	other 333	5,083	271	4,813	506 i	57 i	448 i	30 i	418 i	
Computer and electronic products	334	66,201	1,505	64,695	9,754	559	9,195	4,456	4,739	
Communications equipment	3342	17,401	593	16,808	1,565 i	32 i	1,533 i	733 i	801	
Semiconductors and other electronic components	3344	30,413	383	30,029	2,290	178	2,112	41	2,071	
Navigational, measuring, electromedical, and control instruments	3345	10,969	392	10,576	5,719	332	5,387	3,638	1,749	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	3,853	156	3,697	225	5	220	27 i	193	
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	3,107	123	2,984	5,181	304	4,876	3,565	1,311	
Other measuring and controlling devices	other 3345	4,009	114	3,895	313	22 i	291	46	245	

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Other computer and electronic products	other 334	7,418	136	7,282	180 j	17	163 i	44	118 i
Electrical equipment, appliances, and components	335	4,417	239	4,178	201 j	15 i	187 i	48 i	139 i
Transportation equipment	336	31,362	4,101	27,261	21,687 j	2,202 j	19,485 i	16,153 j	3,332
Automobiles, bodies, trailers, and parts	3361-63	18,478	2,578	15,900	2,647	143	2,504	254 j	2,250
Aerospace products and parts	3364	11,805	1,505	10,300	17,940 i	2,058 i	15,881 i	14,826 i	1,056
Aircraft, aircraft engines, and aircraft parts	336411-13	D	D	10,011	D	D	14,881 i	D	D
Guided missiles, space vehicles, and related parts	336414-15, 336419	D	D	289	D	D	1,001 i	D	D
Military armored vehicles, tanks, and tank components	336992	10	*	10	8	* i	8	D	D
Other transportation	other 336	1,070	19	1,051	1,092 j	1 j	1,091 i	D	D
Furniture and related products	337	395	26	369	5 i	* i	4 i	3 j	1 i
Miscellaneous manufacturing	339	12,937	707	12,230	585	26	559	90 j	469
Medical equipment and supplies	3391	10,408	599	9,809	516	17	500	75 i	425
Other miscellaneous manufacturing	3399	2,529	107	2,421	69 i	9 i	60 i	15 i	45 i
Nonmanufacturing industries	21-23, 42-81	94,017	3,607	90,409	19,670	2,166	17,504	5,251	12,253
Mining, extraction, and support activities	21	4,173	352	3,821	1,015	133	882	2	880
Utilities	22	490	232	258	84	32	52	49	4
Wholesale trade	42	404 i	75 i	329 i	20 j	9 j	10 i	0	10 i
Electronic shopping and electronic auctions	454111-12	1,388	0	1,388	0	0	0	0	0
Transportation and warehousing	48-49	696	21 i	675	4	*	4	*	3
Information	51	64,057	1,761	62,296	1,531	55	1,477	162	1,315
Publishing	511	36,051	1,181	34,869	1,318	48	1,270	99	1,171
Newspaper, periodical, book, and directory publishers	5111	98 i	10 i	88 i	0	0	0	0	0
Software publishers	5112	35,953	1,172	34,781	1,318	48	1,270	99	1,171
Telecommunications	517	3,984	274 i	3,710	45	0	45	9	36
Data processing, hosting, and related services	518	9,100	174	8,926	106	4	103	53	49
Other information	other 51	14,923	132	14,791	62	3	59	1 i	58
Finance and insurance	52	4,180	90	4,090	32	0	32	0	32
Real estate and rental and leasing	53	270	8 i	262	* i	0	* i	0	* i
Lessors of nonfinancial intangible assets (except copyrighted works)	533	55	*	55	0	0	0	0	0
Other real estate and rental and leasing	other 53	215	8 i	207	* i	0	* i	0	* i
Professional, scientific, and technical services	54	17,018 i	957	16,061 i	16,828	1,914	14,914	5,016	9,898 i
Architectural, engineering, and related services	5413	1,553 i	50 i	1,503 i	2,029	158	1,871	1,298	573

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Computer systems design and related services	5415	8,790 i	146 i	8,644 i	2,431 i	56 i	2,375 i	471 i	1,904 i
Scientific R&D services	5417	3,385	717	2,668	11,764	1,625	10,139	2,954	7,185
Biotechnology R&D	541711	1,042	350	692	2,834	66	2,767	114	2,653
Physical, engineering, and life sciences (except biotechnology) R&D	541712	2,296	346	1,950	8,148	1,429	6,720	2,270	4,450
Social sciences and humanities R&D	541720	47	21	26	782	130	651	569	82
Other professional, scientific, and technical services	other 54	3,290 i	45	3,245 i	604	75	529	293	236
Health care services	621–23	473 i	35 i	439 i	69 i	7 i	62 i	1 i	61 i
Other nonmanufacturing	23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81	867 i	76 i	791 i	85	15	70	21	49
All companies (number of domestic employees)	–	319,589	37,019	282,570	67,114	8,956	58,158	26,554 i	31,604
Small companies ^a									
5–499	–	48,728	5,839	42,889	13,870 i	1,985	11,884 i	3,399	8,485 i
5–99	–	25,394 i	3,698	21,695 i	8,762 i	1,379 i	7,383 i	1,942 i	5,440 i
5–49	–	16,473 i	2,303	14,169 i	5,505 i	775	4,730 i	1,463 i	3,268 i
5–9	–	2,911 i	485 i	2,426 i	1,009 i	141 i	868 i	318 i	550 i
10–24	–	6,379 i	873	5,506 i	1,905 i	234	1,671 i	617 i	1,054 i
25–49	–	7,183 i	946	6,237 i	2,591 i	400	2,191 i	528	1,663 i
50–99	–	8,921	1,395	7,526	3,257 i	604 i	2,652 i	480	2,173 i
100–249	–	12,303	1,296	11,006	2,861	375	2,486	950	1,536
250–499	–	11,032	845	10,188	2,247	232	2,015	507	1,509
Medium and large companies									
500–999	–	12,846	1,110	11,736	1,674	148	1,525	247	1,279
1,000–4,999	–	54,197	6,390	47,807	11,835	2,091	9,744	1,336	8,408
5,000–9,999	–	33,081	2,401	30,680	8,935	1,413	7,522	992 i	6,531
10,000–24,999	–	57,875	10,971	46,904	8,416	874	7,542	3,724	3,818
25,000 or more	–	112,862	10,308	102,555	22,384 i	2,443 i	19,941 i	16,858 i	3,083

* = 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 employees.

NOTES: Detail may not add to total because of rounding. 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, 2014.