

TABLE 45

Domestic R&D performance by performer and source of funds, by industry and company size: 2015

(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	355,821	296,677	59,144	48,772	38,683	10,089
Manufacturing industries	31-33	236,132	195,792	40,340	42,651	34,576	8,075
Food	311	4,838	4,644	194	156	147	9
Beverages and tobacco products	312	1,002	885	117	217	217	*
Textiles, apparel, and leather products	313-16	748	715	32	26	24	3
Wood products	321	195	188	8	11	10	1
Paper	322	766	763	3	14	13	1
Printing and related support activities	323	196	189	7	9	6	3
Petroleum and coal products	324	214	200	14	32	32	*
Chemicals	325	68,196	58,769	9,427	31,173	26,962	4,211
Basic chemicals	3251	3,042	2,574	467	169	156	13
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	1,201	1,172	29	63	61	2
Pesticides, fertilizers, and other agricultural chemicals	3253	D	2,157	D	D	D	D
Pharmaceuticals and medicines	3254	58,675	50,242	8,432	30,634	26,473	4,161
Soaps, cleaning compounds, and toilet preparations	3256	1,398	1,283	115	157	130	27
Paints, coatings, adhesives, and other chemicals	3255, 3259	D	1,339	D	D	D	D
Plastics and rubber products	326	2,541	2,390	152	49	47	2
Nonmetallic mineral products	327	1,259	1,239	20	143	142	1
Primary metals	331	628	579	49	63	62	1
Fabricated metal products	332	2,261	2,039	223	79	45	34
Machinery	333	13,426	12,544	881	539	477	62
Agricultural implements	33311	1,531	1,516	15	169	169	*
Semiconductor machinery	333242	3,214	2,917	297	48	7	41
Engines, turbines, and power transmission equipment	3336	2,535	2,381	154	26	23	3
Other machinery	other 333	6,146	5,731	416	296	278	18
Computer and electronic products	334	72,110	63,765	8,345	1,927	1,666	261
Communications equipment	3342	19,424	17,999	1,426	895	858	38
Semiconductors and other electronic components	3344	30,451	28,597	1,855	381	351	30
Navigational, measuring, electromedical, and control instruments	3345	14,128	9,218	4,910	481	292	189
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	2,758	2,525	233	56	52	5
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	7,360	2,881	4,480	301	119	182
Other measuring and controlling devices	other 3345	4,011	3,813	197	124	121	3
Other computer and electronic products	other 334	8,106	7,951	154	169	165	4
Electrical equipment, appliances, and components	335	4,335	3,852	483	188	177	11
Transportation equipment	336	49,274	29,224	20,050	7,259	3,810	3,450

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Automobiles, bodies, trailers, and parts	3361-63	19,078	16,636	2,441	2,459	2,331	128
Aerospace products and parts	3364	27,464	11,138	16,326	i 4,755	1,437	3,318 i
Aircraft, aircraft engines, and aircraft parts	336411-13	25,817	10,754	15,063	i 4,646	1,329	3,317 i
Guided missiles, space vehicles, and related parts	336414-15, 336419	1,647	i 385 i	1,263	i 110	108	1
Military armored vehicles, tanks, and tank components	336992	16	5	12	* i	* i	0
Other transportation	other 336	2,716	1,445	1,271	45	41	4
Furniture and related products	337	452	443	9	i 34	33	1 i
Miscellaneous manufacturing	339	13,690	13,365	326	i 730	707	23 i
Medical equipment and supplies	3391	11,382	11,211	171	618	609	10
Other miscellaneous manufacturing	3399	2,309	i 2,154 i	155	i 112	99	13 i
Nonmanufacturing industries	21-23, 42-81	119,690	100,885	18,804	6,122	4,107	2,014
Mining, extraction, and support activities	21	4,012	3,393	619	472	361	111
Utilities	22	480	446	34	274	261	13
Wholesale trade	42	1,768	i 1,684 i	84	i 75 i	73	2 i
Electronic shopping and electronic auctions	454111-12	1,533	i 1,517 i	16	i 3	* i	2
Transportation and warehousing	48-49	403	403	*	i 16	16	0
Information	51	65,513	64,578	935	1,860	1,783	77
Publishing	511	33,346	32,598	747	1,269	1,205	64
Newspaper, periodical, book, and directory publishers	5111	98	i 98 i	*	i 9 i	9	* i
Software publishers	5112	33,248	32,500	747	1,260	1,196	64
Telecommunications	517	3,607	3,537	70	i 181	176	5 i
Data processing, hosting, and related services	518	9,416	9,314	102	217	209	8
Other information	other 51	19,144	19,129	16	193	193	0
Finance and insurance	52	5,366	5,329	38	85	85	* i
Real estate and rental and leasing	53	301	301	1	i 7	7	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	68	68	0	3	3	0
Other real estate and rental and leasing	other 53	233	232	1	i 4	4	0
Professional, scientific, and technical services	54	38,626	21,915	16,710	3,118	1,388	1,730
Architectural, engineering, and related services	5413	4,128	i 2,247 i	1,881	367	i 108	i 260
Computer systems design and related services	5415	14,333	12,418	1,915	i 98	87	12
Scientific research and development services	5417	16,329	3,896	12,433	2,532	1,156	1,376
Biotechnology research and development	541711	5,693	i 1,536 i	4,157	i 707	593	114
Physical, engineering, and life sciences (except biotechnology) research and development	541712	9,931	2,348	7,583	1,681	559	1,122
Social sciences and humanities research and development	541720	705	12	i 693	144	4	i 141
Other professional, scientific, and technical services	other 54	3,835	3,354	481	120	37	83

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Health care services	621-23	758 i	460	298	95 i	25 i	70 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	930	861	69	118 i	108 i	10
All companies (number of domestic employees)	-	355,821	296,677	59,144	48,772	38,683	10,089
Micro companies ^a							
5-9	-	2,988 i	1,972 i	1,016	518 i	403 i	115 i
Small companies							
10-19	-	5,680 i	4,434 i	1,246	1,089	872	216 i
20-49	-	10,249 i	7,933 i	2,316	2,101	1,458	643
Medium companies							
50-99	-	11,509	8,803	2,706	2,214	1,551	663
100-249	-	13,602	11,037	2,566	2,108	1,735	373
Large companies							
250-499	-	13,553	11,368	2,185	1,441	1,156	285
500-999	-	15,217	13,194	2,023	1,128 i	869	259
1,000-4,999	-	58,094	48,264	9,830	7,549	5,594	1,955
5,000-9,999	-	38,838	34,660	4,178	5,797	4,501	1,296
10,000-24,999	-	59,328	48,450	10,878	12,046	11,113	934
25,000 or more	-	126,763	106,562	20,201	12,781	9,430	3,351 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 Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

Note(s)

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(s)

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.