

Appendix table 4-16

## Domestic R&amp;D performed by the company and paid for by others, by source of funds, industry, and company size: 2010

(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Companies in United States	Companies outside United States		U.S. federal government agencies	U.S. state government agencies	Foreign government agencies	All other, in United States	All other, outside United States
				Foreign parent companies	Unaffiliated companies					
All industries	21-23, 31-33, 42-81	57,271	11,013	7,102	3,913	34,199 i	156	37	779	74
Manufacturing industries	31-33	37,133	3,655	4,051	2,432	26,739 i	30	31	166	29
Food	311	D	D	D	D	15	0	0	0	D
Beverage and tobacco products	312	D	D	0	D	* i	0	0	0	0
Textile, apparel, and leather products	313-16	12	D	0	D	5	0	0	0	D
Wood products	321	18	D	7	D	0	1 i	0	0	0
Paper manufacturing	322	28	D	2	D	D	D	0	*	0
Printing and related support activities	323	30	D	2	D	1	2	0	0	0
Petroleum and coal products	324	D	D	D	D	D	0	0	0	0
Chemicals	325	4,483	D	1,882	D	180	D	*	D	D
Basic chemicals	3251	85	D	D	*	40	1	0	1	0
Resin, synthetic rubber, fiber, and filament	3252	21	1	* i	9 i	5	0	0	6	0
Pesticide, fertilizer, and other agricultural chemical manufacturing	3253	D	D	D	0	D	0	0	D	0
Pharmaceuticals and medicines	3254	4,017	D	1,683	D	99	D	*	D	D
Soap, cleaning compound, and toilet preparation	3256	4	D	0	0	*	0	0	D	0
Paint, coating, adhesive, and other chemical manufacturing	3255, 3259	D	D	D	D	D	D	0	D	D
Plastic and rubber products	326	312 i	D	225 i	D	8	D	0	5	D
Nonmetallic mineral products	327	30	D	*	D	23	0	0	* i	0
Primary metals	331	74	D	34	*	29	D	D	4	D
Fabricated metal products	332	239	124	D	D	90	1	0	D	D
Machinery	333	571	176	200	82	98	5	*	6	3
Agricultural implement manufacturing	33311	23	12	D	1 i	3	D	0	D	*
Semiconductor machinery manufacturing transmission equipment manufacturing	333295	127	D	111	D	3	0	0	2	0
Other machinery manufacturing	3336	113	33	10	47	22	0	0	0	0
Other machinery manufacturing	other 333	308	D	D	D	69	D	*	D	2
Computer and electronic products	334	8,652	911	1,039	728	5,935	7	23	7	2
Communication equipment	3342	1,687	179 i	603	D	D	* i	* i	2	* i
Semiconductor and other electronic components	3344	615	161	172	101	177	D	0	D	1
Navigational, measuring, electromedical, and control instruments	3345	5,832	473	219	203	4,906	D	23	D	1 i

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and irradiation apparatus manufacturing	334510, 334517	197	9	D	89	62	0	0	D	0
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing	334511	5,511	446	D	112	4,763	D	D	D	0
Other measuring and controlling device manufacturing	other 3345	124	17	D	2	81	0	D	D	1 i
Other computer and electronic products	other 334	518	97 i	44	D	D	D	0	D	0
Electrical equipment, appliances, and components	335	180	D	54	D	84	1	0	25	0
Transportation equipment	336	21,837 i	1,016	324	217	20,191 i	D	D	76	D
Automobiles, bodies, trailers, and parts	3361, 3362, 3363	D	D	D	D	D	D	0	D	0
Aerospace products and parts	3364	19,702 i	635	D	D	18,921 i	D	D	D	D
Aircraft, aircraft engine, and aircraft part manufacturing	336411–13	15,547 i	D	D	D	D	0	D	D	D
Guided missile, space vehicle, and related part manufacturing	336414–15, 336419	4,155	D	0	D	D	D	D	D	0
Military armored vehicle, tank, and tank component manufacturing	336992	D	D	0	0	0	0	0	0	0
Other transportation	other 336	D	D	D	D	D	D	0	0	0
Furniture and related products	337	3	2	0	0	0	0	0	1	0
Miscellaneous manufacturing	339	D	D	210	D	D	1	1	23	D
Medical equipment and supply manufacturing	3391	D	D	197	D	28	1	0	22	D
Other miscellaneous manufacturing	3399	72	19 i	13	D	D	*	1	1	D
Nonmanufacturing industries	21–23, 42–81	20,138	7,358	3,051	1,481	7,460	126	6	612	44
Mining, extraction, and support activities	21	289	D	0	D	4	0	0	0	0
Utilities	22	54	2	0	0	45	1	0	7	0
Construction	23	375	5 i	2	*	367	0	0	1	0
Wholesale trade	42	233	69	101 i	0	34	D	0	1	D
Retail trade	44–45	*	*	0	0	0	0	0	0	0
Electronic shopping and electronic auctions	454111–12	0	0	0	0	0	0	0	0	0
Other retail trade	other 44–45	*	*	0	0	0	0	0	0	0
Transportation and warehousing	48–49	7 i	2	* i	0	5 i	0	0	0	0
Information	51	768	244	342	D	152	D	1	10	D

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Publishing	511	595	134	305	D	140	D	1	1	D
Newspaper, periodical, book, and directory publishers	5111	*	* i	0	0	* i	*	0	0	0
Software publishers	5112	595	134	305	D	140	D	1	1	D
Telecommunications	517	113	74	30	D	5	*	0	0	D
Data processing, hosting, and related services	518	47	34	0	0	3	*	0	9	0
Other information	other 51	13	2	8 i	0	4	0	0	0	0
Finance and insurance	52	0	0	0	0	0	0	0	0	0
Real estate, rental, and leasing	53	2	2	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	18,252	6,906	2,603	1,198	6,829	D	D	582	D
Architectural, engineering, and related services	5413	2,712	668	83	116	1,534 i	19	*	292	0
Computer system design and related services	5415	1,634	397	236	112	712	D	0	160	D
Scientific research and development services	5417	11,968	5,344	2,229	915	3,279	45	3 i	129	22
Biotechnology research and development	541711	3,890	1,756	1,043	565	465	8	2 i	37	15
Physical, engineering, and life sciences (except biotechnology) research and development	541712	7,547	3,568 i	1,184	351	2,352	23	1	60	7
Social sciences and humanities research and development	541720	530	20	2	0	463	14	0	31	0
Other professional, scientific, and technical services	other 54	1,939	498	54	54	1,303	22	D	2	D
Health care services	621-23	107	D	0	D	22	1	D	12	D
Other nonmanufacturing	55-56, 624, 71-72, 81	52	D	2	D	3	*	0	0	0
All companies (number of employees)	-	57,271	11,013	7,102	3,913	34,199 i	156	37	779	74
Small companies (number of employees) <sup>a</sup>										
5-499	-	11,379	3,610	1,357	647	4,951	94	6	647	67
5-99	-	7,078	1,997	671	341	3,369	84	6	568	43
5-49	-	4,623	1,255	396	133	2,200	73	5 i	540	22
5-9	-	944	253	18	17	577	12	2 i	54	11
10-24	-	2,002	632	170	29	779	46	1	343	3
25-49	-	1,678	370	209	87	844	15	2	143	8

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50–99	–	2,455	742	275	208 i	1,169	11	1	28	22
100–249	–	2,431	756	403	228	962	D	D	54	D
250–499	–	1,870	857	284	78	620	D	D	24	D
Medium and large companies (number of employees)										
500–999	–	1,477	260	490	119	585	D	1	D	* i
1,000–4,999	–	8,760	2,179	2,808	2,036	1,674	26	*	32	4
5,000–9,999	–	5,523	2,997	1,706	181	637	1	0	1	1
10,000–24,999	–	5,147	910	737	616	2,789	D	*	D	0
25,000 or more	–	24,985 i	1,056	3	314	23,563 i	4	30	14	1

\* = < \$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> 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 due to 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, 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 (2010).

*Science and Engineering Indicators 2014*