

TABLE 14. Domestic R&D paid for by the company and paid for by others, by industry and company size: 2011
(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/passed through R&D costs)	R&D performed by the company			
							Total	Paid for by the U.S. government	Paid for by non-U.S. government sources	
All industries	21-23, 31-33, 42-81	268,376	29,608	238,768	66,847	11,520 i	55,324	31,309 i	24,015	
Manufacturing industries	31-33	186,928	23,588	163,340	47,155	9,131 i	38,021	24,698 i	13,323	
Food	311	4,627	423	4,204	206	11	196	17	179	
Beverage and tobacco products	312	848	164	684	D	0	D	D	D	
Textile, apparel, and leather products	313-316	D	D	600	41	7	34	D	D	
Wood products	321	212	10	202	9	*	9	0	9	
Paper	322	1,388	65	1,323	26	3	23	D	D	
Printing and related support activities	323	180	6	174	2	1	1	1	*	
Petroleum and coal products	324	D	D	1,025	D	4	D	D	D	
Chemicals	325	65,723	15,735	49,988	7,801	2,464	5,337	110	5,227	
Basic chemicals	3251	3,960	287	3,674	D	20	D	D	D	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	813	26	787	14	3	12	D	D	
Pesticide, fertilizer, and other agricultural chemical	3253	770	67	703	D	3	D	D	D	
Pharmaceuticals and medicines	3254	56,049	14,938	41,111	7,270	2,432	4,838	52	4,786	
Soap, cleaning compound, and toilet preparation	3256	2,807	336	2,471	6	*	6	*	5	
Paint, coating, adhesive, and other chemicals	3255, 3259	1,324	82	1,242	45	6	40	D	D	
Plastics and rubber products	326	2,045	72	1,973	323 i	14	307 i	8	299	
Nonmetallic mineral products	327	1,352	207	1,145	37	3	33	25	8	
Primary metals	331	710	119	591	71	7	64	D	D	
Fabricated metal products	332	1,792	54	1,738	123	8	115	D	D	
Machinery	333	14,410	833	13,578	1,388	257	1,131	522	609	
Agricultural implement	33311	1,469	213	1,255	28	6	22	*	22	
Semiconductor machinery	333295	2,251	31	2,220	150	11	139	4	135	
Engine, turbine, and power transmission equipment	3336	4,035	436	3,599	D	D	693	D	D	
Other machinery	other 333	6,656	153	6,503	D	D	278	D	D	
Computer and electronic products	334	55,381	1,717	53,664	9,426	386	9,040	5,161	3,879	
Communications equipment	3342	11,485	689	10,796	1,878 i	20	1,858 i	784 i	1,074	
Semiconductor and other electronic components	3344	23,180	325	22,855	1,308	63	1,245	89	1,156	
Navigational, measuring, electromedical, and control instruments	3345	10,981	338	10,643	5,750	299	5,451	4,276	1,175	
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,260	125	4,135	252	9	243	41	202	
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	D	D	2,823	5,394	283	5,111	4,182	929	
Other measuring and controlling device	other 3345	D	D	3,684	104	7	97	52	44	
Other computer and electronic products	other 334	9,735	366	9,370	490	5	485	12	473	
Electrical equipment, appliances, and components	335	3,560	144	3,417	193	15	178	76	102	
Transportation equipment	336	23,408	3,134	20,275	26,531 i	5,926 i	20,605 i	D	D	
Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	D	D	11,737	D	180	D	D	D	
Aerospace products and parts	3364	D	D	7,585	24,212 i	5,743 i	18,469 i	17,806 i	663	

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Aircraft, aircraft engine, and aircraft parts	336411-13	D	D	7,328	D	D	17,480 i	16,820 i	660	
Guided missile, space vehicle, and related parts	336414-15, 336419	348	90	257	D	D	989	987	2	
Military armored vehicle, tank, and tank component	336992	D	D	28	3	*	2	1	1	
Other transportation equipment	other 336	D	D	925	D	3	D	D	D	
Furniture and related products	337	325	8	317	2	*	2	*	2	
Miscellaneous manufacturing	339	D	D	8,442	D	25	D	60	D	
Medical equipment and supplies	3391	6,837	558	6,279	422	16	406	18	388	
Other miscellaneous manufacturing	3399	D	D	2,163	D	9	D	42	D	
Nonmanufacturing industries	21-23, 42-81	81,448	6,019	75,428	19,692	2,389	17,303	6,611	10,692	
Mining, extraction, and support activities	21	2,721	295	2,425	312	5	307	11	296	
Utilities	22	579	277	302	119	35	84	60	24	
Wholesale trade	42	1,713 i	294 i	1,419 i	314	66 i	248	18	231 i	
Electronic shopping and electronic auctions	454111-12	D	D	949 i	1	1	0	0	0	
Transportation and warehousing	48-49	89	9	81	1	*	*	*	*	
Information	51	43,194	2,180 i	41,014	871	20	851	D	D	
Publishing	511	28,753	1,004	27,748	695	9	687	136	551	
Newspaper, periodical, book, and directory publishers	5111	480	12	468	1	0	1	0	1	
Software publishers	5112	28,273	992	27,280	694	9	685	136	549	
Telecommunications	517	3,047 i	1,007 i	2,040	118	*	117	D	D	
Data processing, hosting, and related services	518	D	D	4,257	29	1	28	D	D	
Other information	other 51	D	D	6,969	29	10	19	0	19	
Finance and insurance	52	3,421	111	3,310	146	0	146	0	146	
Real estate and rental and leasing	53	D	D	395	0	0	0	0	0	
Lessors of nonfinancial intangible assets (except copyrighted works)	533	D	D	324	0	0	0	0	0	
Other real estate and rental and leasing	other 53	D	D	71	0	0	0	0	0	
Professional, scientific, and technical services	54	26,066	2,698	23,368	16,994	2,143	14,851	5,848	9,002	
Architectural, engineering, and related services	5413	1,894	86	1,808	D	D	1,966	1,123 i	843	
Computer systems design and related services	5415	11,904	198	11,706	1,746	193	1,553	598	955	
Scientific research and development services	5417	8,358	2,188	6,170	10,595	1,464	9,131	3,226	5,905	
Biotechnology research and development	541711	6,142	1,859	4,283	D	D	1,735	406	1,328	
Physical, engineering, and life sciences (except biotechnology) research and development	541712	2,197	326	1,871	7,655	858	6,797	2,280	4,517	
Social sciences and humanities research and development	541720	19 i	2 i	17 i	D	D	599	540	60	
Other professional, scientific, and technical services	other 54	3,909	226	3,684	D	D	2,202	902	1,300	
Health care services	621-23	583	25	558	D	D	183	5	177	
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	D	D	1,607	D	D	632	D	D	

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All companies (number of domestic employees)	-	268,376	29,608	238,768	66,847	11,520 i	55,324	31,309 i	24,015
Small companies ^a									
5-499	-	51,818	5,308	46,509	12,040	1,757	10,283	3,938	6,346
5-99	-	27,961	3,033	24,928	7,358	976	6,382	2,766	3,616
5-49	-	19,595	2,278 i	17,317	5,274	749	4,525	2,065	2,460
5-9	-	3,298	317	2,981	1,407	186	1,221	533	688
10-24	-	5,820	914 i	4,907	2,228	356	1,872	795	1,077
25-49	-	10,477	1,048	9,429	1,639	207	1,432	738	694
50-99	-	8,366	755	7,611	2,083	226	1,857	701	1,156
100-249	-	11,497	1,064	10,433	2,589	494	2,095	814	1,281
250-499	-	12,360	1,211	11,149	2,093	287	1,806	358	1,448
Medium and large companies									
500-999	-	9,360	621	8,739	1,377	86	1,288	377	911
1,000-4,999	-	47,678	4,772	42,905	9,428	1,849	7,579	1,702	5,877
5,000-9,999	-	19,988	1,329	18,659	7,251	959	6,292	476	5,816
10,000-24,999	-	50,583	7,998	42,585	7,227	597	6,630	3,577	3,053
25,000 or more	-	88,950	9,580	79,370	29,525 i	6,272 i	23,253 i	21,240 i	2,012

* = amount < \$500,000; D = data withheld to avoid disclosing operations of individual companies; i = value > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2007 North American Industry Classification System.

^a Upper bound based on U.S. Small Business Administration's definition of a small business; 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 based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, 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, 2011.