

TABLE 11. Domestic R&D paid for by the company and others and performed by the company, by type of cost, industry, and company size: 2012
(Millions of U.S. dollars)

Industry and company size	NAICS code	Total	Salaries, wages, and fringe benefits	Stock-based compensation	Temporary staffing	Expensed equipment	Materials and supplies	Lease and rental payments	Depreciation	Other purchased services (except R&D)	Other ^a
All industries	21-23, 31-33, 42-81	302,250	175,099	12,211	12,145	3,693	24,086	4,827	12,181	5,853	52,154
Manufacturing industries	31-33	208,415	116,619	6,232	6,988	2,614	20,758	3,295	8,570	4,000	39,339
Food	311	4,092	3,175	58	68	8	193	36	91	84	379
Beverage and tobacco products	312	D	D	10	28	16	38	10	D	9	D
Textile, apparel, and leather products	313-16	560	377 i	0	24 i	4 i	61 i	5 i	11 i	9 i	69
Wood products	321	461 i	310 i	0	18 i	3 i	99 i	5 i	8 i	D	D
Paper	322	752	495 i	* i	37	3 i	82 i	3 i	18 i	18 i	96 i
Printing and related support activities	323	256 i	D	* i	2 i	D	23 i	D	D	D	D
Petroleum and coal products	324	894	500	*	16	D	38	D	29	D	D
Chemicals	325	57,225	28,084	1,479	2,463	288	4,557	1,237	2,741	1,835	14,542
Basic chemicals	3251	2916	1701	9	66	63 i	305	56	149	62	504
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	946	558	1	D	3	D	20	50	D	205
Pesticide, fertilizer, and other agricultural chemical	3253	D	652	9	D	D	125	63	168	D	369
Pharmaceuticals and medicines	3254	48,146	22,895	1,445	2,243	202	3,862	1,057	2,238	1,556	12,648
Soap, cleaning compound, and toilet preparation	3256	2,342	1,422	10	48	D	137	D	91	D	569
Paint, coating, adhesive, and other chemicals	3255, 3259	D	855	5	D	D	D	D	46	D	247
Plastics and rubber products	326	3,509	1,954	55	110	23 i	576	35	148	110	497
Nonmetallic mineral products	327	1,327 i	742 i	13 i	71 i	13 i	190 i	D	D	52 i	157 i
Primary metals	331	741	422	5	12	D	123	D	23	10	D
Fabricated metal products	332	1,833 i	1,313 i	8 i	18 i	19	187 i	6	42 i	23 i	218 i
Machinery	333	14,254	7,966	96 i	896	204	2,242	142	637	295	1,775
Agricultural implement	33311	1,546	760	1	91	7	333	7	48	3	297
Semiconductor machinery	333295	2,151	859 i	76 i	109 i	6 i	336 i	31	200 i	64 i	469 i
Engine, turbine, and power transmission equipment	3336	4,336	2543	3	284	173	542	54	202	187	347
Other machinery	other 333	6,220	3804	17	412	17	1,030	50	187	41	661
Computer and electronic products	334	65,068	38,919	4,273	1,502	938	4,818	1,116	3,601	697	9,204
Communications equipment	3342	13,989	8,096	1,401	229	365	868	469	1028	177	1,356
Semiconductor and other electronic components	3344	27,331	15,911	2,446	516	284	1,884	445	1,684	321	3,840
Navigational, measuring, electromedical, and control instruments	3345	15,949	9,813	188	547	148	1,740	122	486	169	2,736
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,396	2,549	55 i	174	29	294	45	250	47	954 i
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	7,737	4,826	30	277	76	1,127	32	128	105	1,136
Other measuring and controlling device	other 3345	3,816	2,438	103	95	43	319	46 i	108	17	647
Other computer and electronic products	other 334	7,799	5,099	237	211	141	326	80	403	31	1,271
Electrical equipment, appliances, and components	335	3,087	2,115	11	148	56	222	65	107	74	289
Transportation equipment	336	42,305	22,716	12	1,156	884	6,475	523	559	386	9,595
Automobiles, bodies, trailers, and parts	3361-63	D	D	7	1,025	854	2666	461	469	D	D
Aerospace products and parts	3364	24,817 i	12,888 i	4	111	D	3,473 i	D	D	233	7,982
Aircraft, aircraft engine, and aircraft parts	336411-13	23,397 i	12,331 i	4	86	18	2,947 i	39	D	D	7,702

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Guided missile, space vehicle, and related parts	336414-15, 336419	1,420	557	0	26 i	D	527	D	D	D	280
Military armored vehicle, tank, and tank component	336992	D	D	0	1	*	D	1	D	0	D
Other transportation	other 336	D	D	* i	19	D	D	D	D	D	D
Furniture and related products	337	348	D	0	1 i	8	54	1	5	D	D
Miscellaneous	339	D	6,641	212	419	D	779	D	D	D	2,027
Medical equipment and supplies	3391	8,316	5,021	185	363	121	625	72	335	185	1,408
Other miscellaneous manufacturing	3399	D	1,620	27	56	D	153	D	D	D	620
Nonmanufacturing industries	21-23, 42-81	93,835	58,480	5,979	5,157	1,079	3,329	1,533	3,612	1,852	12,815
Mining, extraction, and support activities	21	2,815	1568	41	D	D	291	D	55	76	506
Utilities	22	348	168	4	44	1	13	2	23	1	92
Wholesale trade	42	1,825 i	1,284 i	4 i	114 i	14 i	46 i	31 i	23 i	46 i	263 i
Electronic shopping and electronic auctions	454111-12	1,353	963	7	D	4	4	17	194	71	D
Transportation and warehousing	48-49	178	127	0	43 i	0	5	0	2	0	1
Information	51	46,805	28,747	5,185	2,091	650	753	669	1,988	319	6,404
Publishing	511	28,987	18,756	1,919	1,365	146	611	217	922	204	4,848
Newspaper, periodical, book, and directory publishers	5111	242 i	129 i	0	43 i	2 i	8 i	2 i	2 i	9 i	45 i
Software publishers	5112	28,745	18,627	1,919	1,321	144	603	215	919	194	4803
Telecommunications	517	2,824 i	1,969 i	77 i	65 i	24	14	17 i	379 i	7	270
Data processing, hosting, and related services	518	4,913	3,128	554 i	137	104	58	61	146 i	87	638
Other information	other 51	10,082	4,893	2,635	524	376	69	374	541	21	649
Finance and insurance	52	3,519	1,838	37	1,059	11	10	17	43	267	236
Real estate and rental and leasing	53	363	193	40	19	1	10	1	21	2	76
Lessors of nonfinancial intangible assets (except copyrighted works)	533	342	183	38	18	1	9	1	20	2	69
Other real estate and rental and leasing	other 53	21 i	10 i	2 i	1 i	* i	* i	* i	1 i	* i	7 i
Professional, scientific, and technical services	54	34,309	22,153	635	1,503	350 i	2,108	669	1,208	1,014	4,671
Architectural, engineering, and related services	5413	2,513 i	1,925 i	17	50	48 i	155 i	48 i	11 i	34 i	225
Computer systems design and related services	5415	11,251 i	8,696 i	292 i	537 i	164 i	202 i	184 i	255 i	68 i	852 i
Scientific research and development services	5417	16,544	8,504	297	699	115	1,572	402	858	853	3,245
Biotechnology research and development	541711	7,387	3,575	263	219	42	852	214	511	254	1,456
Physical, engineering, and life sciences (except biotechnology) research and development	541712	8,559	4,491	28	472	67	718	177	342	599 i	1,664
Social sciences and humanities research and development	541720	598	438	6	8	5	2	10	4	*	125
Other professional, scientific, and technical services	other 54	4,001	3,028	29	217	23 i	178	36	83	59	348
Health care services	621-23	675 i	454 i	11	11	9 i	46 i	31 i	34 i	21	58
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,646	985	15	D	D	44	D	20	34 i	D

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All companies (number of domestic employees)	-	302,250	175,099	12,211	12,145	3,693	24,086	4,827	12,181	5,853	52,154
Small companies ^b											
5-499	-	49,961	32,091 i	1,166	2,003	537 i	3,870	1,053	1,456 i	957 i	6,828
5-99	-	26,217 i	16,860 i	455 i	1,103 i	290 i	2,096 i	559	726 i	538 i	3,589 i
5-49	-	17,035 i	10,925 i	272 i	754 i	186 i	1,365 i	370 i	463 i	395 i	2,306 i
5-9	-	2,926 i	1,968 i	44 i	168 i	27 i	186 i	60 i	74 i	52 i	346 i
10-24	-	6,915 i	4,421 i	101 i	239 i	68 i	547 i	147 i	194 i	201 i	998 i
25-49	-	7,195 i	4,536 i	127 i	347 i	91 i	631	163	195 i	142 i	962 i
50-99	-	9,182 i	5,935 i	183 i	350	104 i	732	190	263 i	143 i	1,282
100-249	-	12,480	8,057	344	464	117	993	288	369	237	1,611
250-499	-	11,264	7,174	368	436	130	781	206	360	182	1,628
Medium and large companies											
500-999	-	11,484	6,897	377	422	181	837	177	524	341	1,728
1,000-4,999	-	50,691	28,011	3,174	1,713	761 i	3,323	1,023	2,129	1,147	9,410
5,000-9,999	-	30,483	17,208	1,210	987	377	1,908	529	1,461	1,037	5,767
10,000-24,999	-	49,493	28,742	2,620	1,708	597	4,389	947	2,778	855	6,856
25,000 or more	-	110,138	62,150	3,664	5,311	1,240	9,759	1,098	3,834	1,516	21,565

* = 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 = 2007 North American Industry Classification System.

^a Includes R&D costs allocated to subsidiaries by parent companies.

^b The 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. The 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, 2012.