

TABLE 17. Domestic R&D paid for and performed by the company, by type of cost, industry, and company size: 2011  
(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 <sup>a</sup>
All industries	21-23, 31-33, 42-81	238,768	141,487	9,945	10,145	2,938	15,961	3,677	9,796	5,959	38,860
Manufacturing industries	31-33	163,340	92,735	4,960	6,107	1,899	14,280	2,160	7,191	5,276	28,732
Food	311	4,204	3,249 i	55	54	5	219	D	D	61	D
Beverage and tobacco products	312	684	390	D	D	D	D	D	D	D	D
Textile, apparel, and leather products	313-316	600	384	*	17	D	D	7 i	25 i	D	D
Wood products	321	202	145	*	4	1	33	3 i	3	1	12
Paper	322	1,323	927	26	29	9	59	3	63	33	173
Printing and related support activities	323	174	D	*	4	1 i	8 i	3 i	6 i	2 i	D
Petroleum and coal products	324	1,025	566	*	D	2	D	D	28	D	D
Chemicals	325	49,988	25,617	1,125	2,715	259	4,193	954	2,626	2,626	9,872
Basic chemicals	3251	3,674	2,268	D	118	37	305	57	221	101	D
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	787	507	*	22	3	39	14	D	23	D
Pesticide, fertilizer, and other agricultural chemical	3253	703	D	D	D	D	D	D	D	D	D
Pharmaceuticals and medicines	3254	41,111	D	1,051	2,478	191	3,610	D	2,076	2,286	8,517
Soap, cleaning compound, and toilet preparation	3256	2,471	1,507	12	47	D	128	D	103	30	624
Paint, coating, adhesive, and other chemicals	3255, 3259	1,242	837	D	D	D	D	D	D	D	D
Plastics and rubber products	326	1,973	1,221	17	D	D	219	D	D	D	D
Nonmetallic mineral products	327	1,145	701 i	D	107 i	23 i	80 i	D	68 i	D	D
Primary metals	331	591	342	8	14	2	88	1	23	3	111
Fabricated metal products	332	1,738	1,333	6 i	15	13 i	137 i	7 i	D	23 i	D
Machinery	333	13,578	7,680	115	797	184	1,995	128	609	326	1,744
Agricultural implement	33311	1,255	655	* i	62	11	207	D	86	* i	D
Semiconductor machinery	333295	2,220	944	86	82	5	338	29	162	87	488
Engine, turbine, and power transmission equipment	3336	3,599	2,187	7	242	D	485	D	D	172	D
Other machinery	other 333	6,503	3,894	22 i	411	D	965	D	D	67 i	D
Computer and electronic products	334	53,664	32,030	3,323	1,352	697	3,828	686	2,639	526	8,582
Communications equipment	3342	10,796	6,274	682	190	D	535	80	600	206	D
Semiconductor and other electronic components	3344	22,855	13,243	1,812	428	208	1,682	352	1,328	142	3,661
Navigational, measuring, electromedical, and control instruments	3345	10,643	6,506	160	360	88	959	187 i	340	147	1,897
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	4,135	2,404	D	156	28	277	D	229	D	D
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	2,823	1,819	D	101	14	326	D	32	43	D
Other measuring and controlling device	other 3345	3,684	2,283	D	103	46	356 i	D	79	D	D
Other computer and electronic products	other 334	9,370	6,008	669	374	D	651	67	372	31	D
Electrical equipment, appliances, and components	335	3,417	2,546	15	115	23	157	27	91	77	364
Transportation equipment	336	20,275	10,077	36 i	492	503	2,547	165	458	1,115	4,882

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Motor vehicles, bodies, trailers, and parts	3361, 3362, 3363	11,737	6,720	1 i	409	475	1,497	D	371	D	D
Aerospace products and parts	3364	7,585	2,821	29 i	58	23	893	14	57	141	3,550
Aircraft, aircraft engine, and aircraft parts	336411-13	7,328	2,684	29 i	D	21	853	13	51	D	D
Guided missile, space vehicle, and related parts	336414-15, 336419	257	136	0	D	2	40	1	5	D	D
Military armored vehicle, tank, and tank component	336992	28	D	2	D	1	D	D	1	1	D
Other transportation equipment	other 336	925	D	4 i	D	4	D	D	29	D	D
Furniture and related products	337	317	216	*	6	5 i	45	2 i	4 i	1	37 i
Miscellaneous manufacturing	339	8,442	D	219	315	146	515	95	302	179	D
Medical equipment and supplies	3391	6,279	3,690	185	276	124	442	75	237	153	1,098
Other miscellaneous manufacturing	3399	2,163	D	34 i	40	22 i	73	21	65	26	D
Nonmanufacturing industries	21-23, 42-81	75,428	48,752	4,985	4,038	1,039 i	1,681	1,518 i	2,604	683 i	10,128
Mining, extraction, and support activities	21	2,425	1,322	25	D	112 i	233	D	72	17	D
Utilities	22	302	D	2	30	4	37	D	32	2	D
Wholesale trade	42	1,419 i	967 i	8 i	120 i	24 i	58 i	38 i	34 i	12 i	159 i
Electronic shopping and electronic auctions	454111-12	949 i	D	D	129 i	6 i	1	D	D	D	D
Transportation and warehousing	48-49	81	54	0	16	1	4 i	* i	2	*	4 i
Information	51	41,014	26,998	3,211	1,916	543	399	724	1,391	229	5,603
Publishing	511	27,748	18,080	1,711	1,232	D	345	388 i	758	177	D
Newspaper, periodical, book, and directory publishers	5111	468	271	0	21	D	9 i	1 i	*	3 i	D
Software publishers	5112	27,280	17,809	1,711	1,212	D	336	386 i	758	174	D
Telecommunications	517	2,040	1,410	26 i	102 i	D	D	6 i	61	18 i	D
Data processing, hosting, and related services	518	4,257	3,486	126	164	D	8	53	151	9	D
Other information	other 51	6,969	4,022	1,348	418	D	D	277	420	24	D
Finance and insurance	52	3,310	2,071	52	697	20 i	14	44 i	47 i	4 i	362
Real estate and rental and leasing	53	395	212	35	22	1	11	3	19	D	D
Lessors of nonfinancial intangible assets (except copyrighted works)	533	324	172	35	21	1	10	2	17	D	D
Other real estate and rental and leasing	other 53	71	40	*	1	*	*	2	2	*	25
Professional, scientific, and technical services	54	23,368	14,783	1,540 i	860	311 i	844 i	599 i	879 i	300 i	3,251 i
Architectural, engineering, and related services	5413	1,808	1,256	26 i	93	11 i	121 i	39 i	14 i	6 i	242 i
Computer systems design and related services	5415	11,706	7,348	1,238 i	397	245 i	150 i	309 i	562 i	192 i	1,266 i
Scientific research and development services	5417	6,170	3,086	224	271	32 i	516	185	267	100	1,490
Biotechnology research and development	541711	4,283	1,893	199	175	17	402	140	201	70	1,186
Physical, engineering, and life sciences (except biotechnology) research and development	541712	1,871	1,178	25 i	95	15 i	113 i	45 i	66 i	30 i	304 i
Social sciences and humanities research and development	541720	17 i	16 i	0	1 i	0	* i	0	0	0	0

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Other professional, scientific, and technical services	other 54	3,684	3,093	51 i	99	24 i	57	66 i	38 i	3 i	253 i
Health care services	621-23	558	279	16 i	38	16	58 i	14 i	58	27	52 i
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	1,607	D	D	D	2 i	22 i	D	D	D	D
All companies (number of domestic employees)	-	238,768	141,487	9,945	10,145	2,938	15,961	3,677	9,796	5,959	38,860
Small companies <sup>b</sup>											
5-499	-	46,509	31,009	1,475 i	1,860	607 i	2,421 i	997 i	1,514 i	663 i	5,963 i
5-99	-	24,928	16,456	891 i	1,046	395 i	1,126 i	539 i	848 i	384 i	3,243 i
5-49	-	17,317	11,320	726 i	649	262 i	704 i	398 i	620 i	274 i	2,365 i
5-9	-	2,981	2,072	75 i	113	36 i	125 i	78 i	72 i	35 i	375 i
10-24	-	4,907	3,420	96 i	223	39 i	234 i	78 i	146 i	81 i	590 i
25-49	-	9,429	5,828	555 i	314	188 i	346 i	241 i	401 i	157 i	1,399 i
50-99	-	7,611	5,136	165 i	397	133 i	422 i	141	228 i	110 i	878 i
100-249	-	10,433	6,863	288	431	111	658 i	217	363	112 i	1,390 i
250-499	-	11,149	7,691	296	383	101	637 i	242 i	303	166 i	1,329
Medium and large companies											
500-999	-	8,739	5,420	335	468	101	618	142	335	218	1,102
1,000-4,999	-	42,905	24,649	2,313	1,319	681	2,847	644	1,773	1,103	7,577
5,000-9,999	-	18,659	10,922	941	587	263	1,247	266	844	434	3,155
10,000-24,999	-	42,585	24,773	2,179	1,587	477	2,756	1,013	2,247	1,701	5,852
25,000 or more	-	79,370	44,714	2,703	4,323	809	6,072	616	3,083	1,839	15,210

\* = 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.

<sup>a</sup> Includes R&D costs allocated to subsidiaries by parent companies.

<sup>b</sup> 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.