

TABLE 27. Domestic R&D paid for by 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	54,970	32,120	217	1,161	321	6,233	745	1,165	1,309	11,699
Manufacturing industries	31-33	38,218	21,825 i	125	608	196	4,851	435	651	595	8,933 i
Food	311	171	100	0	2	*	8	5	6	12	38
Beverage and tobacco products	312	D	D	0	5	7	6	3	D	3	D
Textile, apparel, and leather products	313-16	23	20	0	0	1	1	*	0	0	1
Wood products	321	9	5	0	1	0	1	*	*	0	2
Paper	322	9	3 i	0	3 i	0	1	0	0	0	1
Printing and related support activities	323	3 i	D	* i	0	* i	* i	D	D	D	D
Petroleum and coal products	324	14	6	0	0	0	3	D	*	D	D
Chemicals	325	6,359	3,104	95	174	50	365	149	271	210	1,941
Basic chemicals	3251	380 i	162 i	1 i	3	31 i	66 i	8 i	17 i	* i	92 i
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	102	70	0	D	*	D	0	1	D	30
Pesticide, fertilizer, and other agricultural chemical	3253	D	158	0	D	D	24	13	23	D	13
Pharmaceuticals and medicines	3254	5,552	2,680	95	137	17	272	128	229	202	1,792
Soap, cleaning compound, and toilet preparation	3256	4 i	3 i	* i	*	D	* i	D	* i	D	1 i
Paint, coating, adhesive, and other chemicals	3255, 3259	D	31 i	0	D	D	D	D	* i	D	13 i
Plastics and rubber products	326	338 i	95 i	* i	*	11 i	190 i	1 i	1 i	6 i	34 i
Nonmetallic mineral products	327	34	17	0	0	1	6	D	D	1	8
Primary metals	331	55	41	0	*	*	9	D	*	3	D
Fabricated metal products	332	114 i	82 i	* i	*	1 i	12 i	* i	2 i	1 i	15 i
Machinery	333	960	545	*	16	10	139	12	45	14	179
Agricultural implement	33311	43	19	0	0	*	4	*	1	*	19
Semiconductor machinery	333295	73	35	*	2	1	7	7	11	2	9
Engine, turbine, and power transmission equipment	3336	579	341	*	11	9	89	4	23	11	91
Other machinery	other 333	265 i	150 i	0	3 i	1	39 i	2 i	10	1 i	60 i
Computer and electronic products	334	8,391	5,484	26	194	88	1,022	94	211	106	1,166
Communications equipment	3342	1,440 i	1,191 i	* i	8	9 i	30 i	38 i	41 i	12 i	110 i
Semiconductor and other electronic components	3344	1,375	868	9	22	52	73	22	86	4	238
Navigational, measuring, electromedical, and control instruments	3345	5,345	3,257	16	157	24	910	28	81	90	781
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	230	135	2	21	1	18	6	4	1	42
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	4,927	3,004	14	119	23	876	19	75	89	708
Other measuring and controlling device	other 3345	188 i	118 i	* i	17	1 i	16 i	3 i	1 i	*	31 i
Other computer and electronic products	other 334	231	167	1	7	2	9	5	4	*	36
Electrical equipment, appliances, and components	335	187	126	*	4	1	20	15	5	*	15
Transportation equipment	336	20,961 i	11,756 i	1	194	23	3,031 i	149	93	231	5,484 i
Automobiles, bodies, trailers, and parts	3361-63	D	D	* i	148	14	454	108	76	D	D
Aerospace products and parts	3364	17,677 i	10,105 i	1	45 i	D	2,414 i	D	D	151	4,926 i
Aircraft, aircraft engine, and aircraft parts	336411-13	16,702 i	9,797 i	1	31 i	5	1,969 i	22	D	D	4,734 i

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Guided missile, space vehicle, and related parts	336414-15, 336419	975	308	0	14 i	D	445	D	D	D	192
Military armored vehicle, tank, and tank component	336992	D	D	0	*	*	D	*	D	0	D
Other transportation	other 336	D	D	* i	1 i	D	D	D	D	D	D
Furniture and related products	337	* i	D	0	0	* i	* i	* i	* i	* i	D
Miscellaneous	339	D	382	2	14	4	37	D	D	D	37
Medical equipment and supplies	3391	431	338	2	13	4	27	3	7	4	31
Other miscellaneous manufacturing	3399	D	44 i	0	1	*	9 i	D	D	D	6 i
Nonmanufacturing industries	21-23, 42-81	16,752	10,296	91	553	125	1,382	311	514	715 i	2,766
Mining, extraction, and support activities	21	372	192	2	D	D	31	D	4	2	112
Utilities	22	103	26	*	3	*	*	1	0	0	71
Wholesale trade	42	245 i	176 i	0	2 i	1 i	12 i	2 i	2 i	18 i	33 i
Electronic shopping and electronic auctions	454111-12	6 i	6 i	0	*	0	*	0	0	0	0
Transportation and warehousing	48-49	1	* i	0	0	0	*	0	0	0	0
Information	51	954	723	*	17	1	142	12	14	6	40
Publishing	511	734	554	*	12	*	132	5	5	0	25 i
Newspaper, periodical, book, and directory publishers	5111	1 i	1 i	0	0	0	* i	* i	0	0	* i
Software publishers	5112	733	554	*	12	*	132	5	5	0	25 i
Telecommunications	517	56	44	*	*	*	1	1	1	0	8
Data processing, hosting, and related services	518	112	82 i	0	1	*	8 i	3 i	7 i	6	4
Other information	other 51	52 i	42 i	0	3	* i	1 i	2	1 i	*	2 i
Finance and insurance	52	12	12	0	0	0	0	0	0	0	0
Real estate and rental and leasing	53	4	3 i	0	0	0	* i	0	0	0	* i
Lessors of nonfinancial intangible assets (except copyrighted works)	533	4	3 i	0	0	0	* i	0	0	0	* i
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	14,143	8,635	88	512	121	1,182	278	491	688 i	2,148
Architectural, engineering, and related services	5413	1,390 i	1,101 i	0	5	43 i	101 i	21 i	6 i	33 i	80 i
Computer systems design and related services	5415	2,088	1,598	*	130	7	75	35 i	22 i	25	196
Scientific research and development services	5417	9,756	5,368	87	293	68	926	204	452	616 i	1,742
Biotechnology research and development	541711	3,017	1,733	78	88	24	396	68	181	54	394
Physical, engineering, and life sciences (except biotechnology) research and development	541712	6,161	3,213	3	200	39	529	125	267	562 i	1,223
Social sciences and humanities research and development	541720	578	422	6	5	5	*	10	4	*	125
Other professional, scientific, and technical services	other 54	909	568	*	84	4	81	18	10	15	129
Health care services	621-23	259 i	228 i	0	*	* i	4	4 i	0	0	22
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	653	295	2	D	D	10	D	3	*	339

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All companies (number of domestic employees)	-	54,970	32,120	217	1,161	321	6,233	745	1,165	1,309	11,699
Small companies ^b											
5-499	-	10,573 i	6,815 i	44	231	110 i	998	255	258 i	337 i	1,525
5-99	-	6,259 i	4,088 i	22 i	111	62 i	560 i	141 i	144 i	180 i	951 i
5-49	-	4,365 i	2,842 i	13 i	74	38 i	382 i	94 i	103 i	135 i	685 i
5-9	-	959 i	689 i	2 i	15	5 i	71 i	17 i	19 i	23 i	118 i
10-24	-	1,930 i	1,228 i	5 i	18	18 i	176 i	48 i	57 i	81 i	300 i
25-49	-	1,476	925	6	41	14 i	135	29	27 i	31 i	267
50-99	-	1,894 i	1,246 i	8	37	25 i	178 i	47	41 i	45 i	267
100-249	-	2,581	1,703	13	48	25 i	257	65	54	100	317
250-499	-	1,733	1,024	9	72	23	181	49	61	58	256
Medium and large companies											
500-999	-	1,257	742	9	23	11	99	18	95	90 i	170
1,000-4,999	-	7,666	4,367	119	239	96	735	226	315	149	1,421
5,000-9,999	-	6,662	3,401	33	309	41	430	104	293	408	1,641
10,000-24,999	-	6,373	3,734	10 i	67	20 i	1,177	79	85 i	197	1,005
25,000 or more	-	22,440 i	13,061 i	2	291	44	2,792 i	64 i	120	128	5,937 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 = 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.