

TABLE 32

Domestic R&D paid for by others and performed by the company, by type of cost, industry, and company size: 2015

(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
All industries	21-23, 31-33, 42-81	59,144	32,454	520	1,751	351	5,808	879	1,084	2,181	14,116
Manufacturing industries	31-33	40,340	21,820	451	1,049	275	4,660	550	811	716	10,008 i
Food	311	194	131	1	3	1	10	6	6	8	28
Beverages and tobacco products	312	117	73	0	3	5	10	4	9	9	5
Textiles, apparel, and leather products	313-16	32	9	0	*	8	7	0	*	*	8
Wood products	321	8 i	4 i	* i	* i	* i	1	* i	* i	* i	2 i
Paper	322	3 i	1 i	* i	* i	* i	* i	* i	* i	* i	1 i
Printing and related support activities	323	7 i	3 i	* i	* i	* i	* i	* i	* i	* i	2 i
Petroleum and coal products	324	14	10	*	*	*	1	2	1	*	*
Chemicals	325	9,427	4,341	426	399	58	551	266	376	389	2,622
Basic chemicals	3251	467	277 i	1 i	22 i	20 i	55 i	9 i	46 i	8 i	31 i
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	29 i	19 i	0	2 i	0	5 i	1 i	* i	1 i	2 i
Pesticides, fertilizers, and other agricultural chemicals	3253	D	D	0	D	*	D	D	D	0	D
Pharmaceuticals and medicines	3254	8,432	3,791	425	254	37	467	214	296	377	2,570
Soaps, cleaning compounds, and toilet preparations	3256	115	75	0	D	0	5	D	D	3	D
Paints, coatings, adhesives, and other chemicals	3255, 3259	D	D	0	D	*	D	D	*	0	D
Plastics and rubber products	326	152 i	13 i	0	1	73 i	61 i	*	*	*	2 i
Nonmetallic mineral products	327	20	10	0	*	3	3	*	1	*	3
Primary metals	331	49	20	0	*	*	14	*	0	3	11
Fabricated metal products	332	223 i	85 i	* i	* i	* i	26 i	3 i	1 i	* i	106 i
Machinery	333	881 i	569 i	1 i	21 i	5 i	101 i	12 i	18 i	8	147 i
Agricultural implements	33311	15 i	10 i	* i	* i	* i	2 i	* i	1	* i	2 i
Semiconductor machinery	333242	297 i	199 i	1 i	1 i	1 i	5 i	8 i	12 i	* i	70 i
Engines, turbines, and power transmission equipment	3336	154	82	0	2	1 i	21	*	2	3	41
Other machinery	other 333	416	279 i	0	18 i	2 i	73 i	3	2 i	4	34
Computer and electronic products	334	8,345	5,514	23	400	70	844	100	239	110	1,045
Communications equipment	3342	1,426 i	985 i	1 i	136 i	10 i	67 i	38 i	38 i	28 i	122 i
Semiconductors and other electronic components	3344	1,855	1,288	11	43	31	91	37	113	19	221
Navigational, measuring, electromedical, and control instruments	3345	4,910	3,140	11	200	27	681	22	83	59	689
Electromedical, electrotherapeutic, and irradiation apparatuses	334510, 334517	233	131	0	16	3	40	3	3	22	14
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	4,480	2,891	10	178	D	624	17	74	22	D
Other measuring and controlling devices	other 3345	197	117	1	6	D	17	2	5	14	D
Other computer and electronic products	other 334	154	102	* i	20	2	6	3	4	4	13
Electrical equipment, appliances, and components	335	483 i	344 i	0	3 i	2 i	82 i	9 i	9 i	5 i	29 i
Transportation equipment	336	20,050 i	10,514 i	0	193	45	2,913	145	145	176 i	5,919 i
Automobiles, bodies, trailers, and parts	3361-63	2,441	1,189	0	135	37	621	108	83	32	238

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Aerospace products and parts	3364	16,326	8,699	0	38	3	2,044	D	44	136	D
Aircraft, aircraft engines, and aircraft parts	336411-13	15,063	8,136	0	20	2	1,499	D	44	136	D
Guided missiles, space vehicles, and related parts	336414-15, 336419	1,263	563	0	18	1	546	D	*	*	D
Military armored vehicles, tanks, and tank components	336992	12	6	0	*	0	2	1	*	*	2
Other transportation	other 336	1,271	619	0	20	5	247	D	19	7	D
Furniture and related products	337	9	5	*	*	*	2	*	*	*	2
Miscellaneous	339	326	173	0	24	4	32	3	6	8	75
Medical equipment and supplies	3391	171	94	0	14	3	22	2	1	8	26
Other miscellaneous manufacturing	3399	155	79	0	10	1	10	*	5	*	49
Nonmanufacturing industries	21-23, 42-81	18,804	10,635	69	701	76	1,148	330	273	1,465	4,108
Mining, extraction, and support activities	21	619	288	2	30	*	34	19	6	23	216
Utilities	22	34	15	1	3	3	7	*	0	0	5
Wholesale trade	42	84	77	0	1	*	2	*	*	0	3
Electronic shopping and electronic auctions	454111-12	16	16	0	0	0	0	0	0	0	0
Transportation and warehousing	48-49	*	*	0	0	0	0	0	0	0	0
Information	51	935	834	16	20	4	13	12	8	3	23
Publishing	511	747	673	14	16	4	9	9	4	0	19
Newspaper, periodical, book, and directory publishers	5111	*	*	0	0	0	0	0	0	0	*
Software publishers	5112	747	673	14	16	4	9	9	4	0	19
Telecommunications	517	70	60	1	1	*	1	2	1	*	2
Data processing, hosting, and related services	518	102	89	2	2	*	3	*	2	3	1
Other information	other 51	16	12	0	1	*	*	*	*	0	1
Finance and insurance	52	38	37	*	*	*	0	*	*	*	*
Real estate and rental and leasing	53	1	1	0	0	0	0	0	0	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	0	0	0	0	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	1	1	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	16,710	9,109	49	641	68	1,060	297	255	1,435	3,797
Architectural, engineering, and related services	5413	1,881	992	1	54	2	65	13	5	14	736
Computer systems design and related services	5415	1,915	1,080	*	44	6	74	21	3	18	669
Scientific research and development services	5417	12,433	6,702	48	529	49	902	243	241	1,386	2,334
Biotechnology research and development	541711	4,157	2,213	*	270	13	385	111	41	660	463
Physical, engineering, and life sciences (except biotechnology) research and development	541712	7,583	3,995	42	240	30	516	114	191	721	1,733
Social sciences and humanities research and development	541720	693	493	6	19	6	1	18	8	5	137
Other professional, scientific, and technical services	other 54	481	336	0	15	9	20	20	7	17	59
Health care services	621-23	298	209	0	5	*	24	1	2	4	52
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	69	48	*	1	*	7	1	1	*	11

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All companies (number of domestic employees)		- 59,144	32,454	520	1,751	351	5,808	879	1,084	2,181	14,116
Micro companies ^a											
5-9		- 1,016 i	625 i	5	36 i	19	75 i	28	8 i	29 i	192 i
Small companies											
10-19		- 1,246 i	721 i	7 i	40 i	7 i	99 i	41	21 i	43 i	269 i
20-49		- 2,316 i	1,350 i	21 i	113	27 i	233 i	45	33 i	112 i	382 i
Medium companies											
50-99		- 2,706	1,460	12 i	95	22	198	84	52	42 i	741
100-249		- 2,566	1,520	14	75	20	211	50	35	98 i	544
Large companies											
250-499		- 2,185	1,207	91 i	89 i	41 i	254 i	58	122 i	69	253
500-999		- 2,023 i	1,048 i	31 i	82 i	56	218	47 i	52	193	297 i
1,000-4,999		- 9,830	5,120	282	446	78	1,138	274	309	653	1,530
5,000-9,999		- 4,178	2,348	27	160	21	156	36	55	162	1,211
10,000-24,999		- 10,878	5,606	27 i	356	26	1,701	151 i	283	744	1,985
25,000 or more		- 20,201	11,449 i	2	259	35	1,527 i	67 i	114	35	6,712 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 = 2012 North American Industry Classification System.

^a Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.**Note(s)**

Detail may not add to total because of 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, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded R&D.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2015.