

TABLE 25

Domestic R&D paid for and performed by the company, by type of cost, industry, and company size: 2016

(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	Royalties and licensing fees	Other purchased services (except R&D)	Other
All industries	21-23, 31-33, 42-81	317,731	180,885	21,068	14,836	5,160	21,595	5,107	12,520	1,872	7,285	47,402
Manufacturing industries	31-33	211,660	113,845	9,293	8,745	3,510	19,021	2,935	9,337	1,617	5,314	38,042
Food	311	4,611	2,809	93	123	30	389	51	218	166	245	486
Beverages and tobacco products	312	987	502	16	45	3	72	7	46	0	6	291
Textiles, apparel, and leather products	313-16	1,156	766	29	53	2	117	3	23	1	55	106
Wood products	321	181	132	*	11	2	23	1	2	0	1	8
Paper	322	851	393	0	10	35	346	3	7	1	1	54
Printing and related support activities	323	219	149	5	8	10	13	10	10	*	*	13
Petroleum and coal products	324	367	242	*	8	1	13	2	34	1	10	57
Chemicals	325	64,165	28,511	3,098	4,166	383	5,878	897	3,371	806	1,236	15,818
Basic chemicals	3251	2,284	1,402	5	54	35	209	32	133	1	100	311
Resins, synthetic rubber, and artificial synthetic fibers and filaments	3252	693	422	D	42	4	45	15	35	1	D	D
Pesticides, fertilizers, and other agricultural chemicals	3253	1,061	469	D	51	3	85	39	134	8	D	D
Pharmaceuticals and medicines	3254	55,983	23,686	3,064	3,885	320	5,303	751	2,927	795	1,015	14,239
Soaps, cleaning compounds, and toilet preparations	3256	2,660	1,533	14	115	6	153	14	91	*	11	723
Paints, coatings, adhesives, and other chemicals	3255, 3259	1,484	999	4	19	16	83	46	51	1	15	249
Plastics and rubber products	326	3,584	2,086	54	85	61	485	40	189	1	190	393
Nonmetallic mineral products	327	1,274	791	1	46	6	89	9	76	1	13	242
Primary metals	331	583	333	3	8	1	111	3	19	5	8	91
Fabricated metal products	332	2,127	1,366	20	39	31	277	18	38	10	30	299
Machinery	333	11,699	6,793	137	692	105	1,480	72	506	21	201	1,693
Agricultural implements	33311	1,552	865	*	116	15	252	6	45	2	7	243
Semiconductor machinery	333242	3,028	1,347	80	107	11	425	3	227	3	82	743
Engines, turbines, and power transmission equipment	3336	1,901	1,159	1	295	*	204	1	91	6	9	135
Other machinery	other 333	5,218	3,422	56	174	78	598	62	143	9	105	571
Computer and electronic products	334	68,515	41,261	5,464	1,476	1,363	3,899	1,425	3,507	406	2,525	7,188
Communications equipment	3342	11,293	6,589	775	332	150	288	925	522	13	576	1,122
Semiconductors and other electronic components	3344	29,176	18,752	2,253	550	321	1,492	272	1,605	108	908	2,915
Navigational, measuring, electromedical, and control instruments	3345	10,131	6,501	197	395	173	833	140	262	6	295	1,330
Electromedical, electrotherapeutic, and radiation apparatuses	334510, 334517	2,466	1,445	72	81	15	204	27	78	3	97	445
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments	334511	3,121	2,170	21	124	16	273	11	70	D	87	D
Other measuring and controlling devices	other 3345	4,544	2,885	104	190	142	356	101	114	D	111	D
Other computer and electronic products	other 334	17,914	9,420	2,238	199	719	1,287	88	1,118	279	747	1,820
Electrical equipment, appliances, and components	335	4,302	2,839	32	187	37	278	56	114	4	78	677

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Transportation equipment	336	32,905	16,205	7	1,257	1,228	4,503	227	702	148	356	8,273
Automobiles, bodies, trailers, and parts	3361-63	19,293	11,115	7	1,059	1,087	2,971	192	525	122	203	2,011
Aerospace products and parts	3364	12,272	4,260	*	162	126	1,231	23	151	D	138	D
Aircraft, aircraft engines, and aircraft parts	336411-13	11,930	4,084	*	155	124	1,163	21	150	D	138	D
Guided missiles, space vehicles, and related parts	336414-15, 336419	342	175	0	7	2	68	2	1	*	*	86
Military armored vehicles, tanks, and tank components	336992	3	1	0	0	0	2	*	0	0	0	0
Other transportation	other 336	1,337	829	0	36	15	298	12	26	D	15	D
Furniture and related products	337	366	268	0	9	1	38	1	3	1	4	41
Miscellaneous	339	13,768	8,398	335	522	211	1,010	111	471	47	352	2,312
Medical equipment and supplies	3391	11,474	6,786	332	487	203	877	97	434	46	335	1,876
Other miscellaneous manufacturing	3399	2,294	1,612	3	35	9	132	14	36	1	16	436
Nonmanufacturing industries	21-23, 42-81	106,071	67,041	11,775	6,091	1,650	2,574	2,172	3,183	255	1,971	9,360
Mining, extraction, and support activities	21	2,897	1,747	34	122	3	137	47	97	*	348	362
Utilities	22	325	108	D	31	*	21	1	68	4	82	D
Wholesale trade	42	442	320	0	7	*	48	3	4	8	9	43
Electronic shopping and electronic auctions	454111-12	1,569	1,106	D	1	*	1	*	182	0	0	D
Transportation and warehousing	48-49	486	388	0	84	0	6	1	0	0	*	6
Information	51	70,075	42,705	10,843	3,322	1,350	1,318	1,831	1,967	208	943	5,589
Publishing	511	33,174	22,533	2,773	1,292	184	433	582	611	104	783	3,880
Newspaper, periodical, book, and directory publishers	5111	77	53	0	1	2	3	*	7	0	10	1
Software publishers	5112	33,098	22,480	2,773	1,291	183	430	582	603	104	773	3,880
Telecommunications	517	3,530	2,135	187	172	D	745	186	26	1	2	D
Data processing, hosting, and related services	518	11,776	8,307	1,098	382	232	65	176	279	103	129	1,005
Other information	other 51	21,594	9,730	6,785	1,476	D	75	887	1,051	*	29	D
Finance and insurance	52	7,237	4,505	29	1,576	46	9	50	94	0	434	494
Real estate and rental and leasing	53	475	416	D	9	*	2	6	9	5	4	D
Lessors of nonfinancial intangible assets (except copyrighted works)	533	27	22	0	*	0	*	*	0	*	4	*
Other real estate and rental and leasing	other 53	449	394	D	9	*	2	6	9	5	*	D
Professional, scientific, and technical services	54	20,845	14,570	673	884	226	900	198	721	27	128	2,516
Architectural, engineering, and related services	5413	1,816	1,528	7	76	12	75	16	19	*	29	54
Computer systems design and related services	5415	13,255	9,037	520	558	140	472	80	570	4	34	1,840
Scientific R&D services	5417	2,811	1,579	86	141	31	312	83	84	21	57	417
Biotechnology R&D	541711	750	381	39	23	9	93	29	24	5	13	134
Physical, engineering, and life sciences (except biotechnology) R&D	541712	2,029	1,172	48	118	22	220	53	58	15	43	280

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Social sciences and humanities R&D	541720	32	26	0	0	*	*	*	3	i	0	2
Other professional, scientific, and technical services	other 54	2,962	2,427	i	60	i	109	i	44	i	41	205
Health care services	621-23	782	429		56		25	i	9		88	96
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	939	747	i	23		29		15	i	45	58
All companies (number of domestic employees)	-	317,731	180,885		21,068		14,836		5,160		21,595	47,402
Micro companies ^a												
5 - 9	-	1,044	597	i	42	i	57	i	15	i	86	156
Small companies												
10 - 19	-	3,887	2,211	i	99	i	512		53	i	296	470
20 - 49	-	7,473	4,724	i	276		380		82	i	600	914
Medium companies												
50 - 99	-	7,728	4,734		293		332		68	i	642	1,037
100 - 249	-	11,722	7,279		561		472		137		1,020	1,369
Large companies												
250 - 499	-	11,438	6,921		650		422		277		729	1,537
500 - 999	-	13,525	8,344		749		521		209		901	1,637
1,000 - 4,999	-	53,305	31,052		4,070		1,626		766		3,013	8,732
5,000 - 9,999	-	35,887	19,670		4,352	i	1,773		388		2,020	5,272
10,000 - 24,999	-	53,384	30,855		1,537		2,420		532		4,700	7,977
25,000 or more	-	118,339	64,498		8,438		6,321		2,634		7,588	18,301

* = 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, 2016.