

TABLE 15. Domestic R&D paid for by the company and others and performed by the company, by business activity: 2014
(Millions of U.S. dollars)

Business activity ^a	Business code ^b	Total	Paid for by the company	Paid for by others
All business activities	21100-81000	340,728	282,570	58,158
Oil and gas extraction	21100	1,108	904	204 i
Mining	21200	54	50	4
Support activities for mining, including oil and gas	21300	2,419	1,840	579
Utilities	22100	340	287	53
Construction	23000	204 i	201 i	3 i
Food manufacturing	31100	5,297 i	5,103 i	194
Beverage manufacturing	31210	D	529	D
Tobacco manufacturing	31220	D	162	D
Textile, apparel, and leather products manufacturing	31990	662 i	647 i	15 i
Wood products manufacturing	32100	348 i	338 i	11 i
Paper manufacturing	32200	1,028	1,015	13
Printing and related support activities	32300	363	361	2 i
Petroleum refineries	32401	D	528	D
Asphalt paving, roofing, and saturated materials manufacturing	32402	66	66	* i
Other petroleum and coal products manufacturing, including motor oil, hydraulic fluid, and charcoal	32403	279 i	272 i	8
Basic chemicals manufacturing	32510	3,145	2,847	298
Resin, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	32520	1,052	1,027	25
Pesticide, fertilizer, and other agricultural chemical manufacturing	32530	2,116 i	1,718 i	397
Pharmaceutical, medicinal, botanical, and biological products (except diagnostic) manufacturing	32541	43,553	36,633	6,920
In vitro diagnostic substances manufacturing	32542	799	733	66
Biotechnology-based pharmaceutical and biological products (except diagnostics)	32543	10,242	8,684	1,558
Soap, cleaning compound, and toilet preparations manufacturing	32591	2,364	2,326	38
Paint, adhesive, and other chemical manufacturing	32592	1,554 i	1,518 i	36 i
Plastics and rubber products manufacturing	32600	3,039 i	2,878 i	161 i
Clay and glass products manufacturing	32710	1,003 i	992 i	11 i
Cement, concrete, lime, gypsum, and other nonmetallic mineral products manufacturing	32790	564 i	548 i	16
Primary metal manufacturing	33100	703	664	39 i
Fabricated metal products manufacturing	33200	2,287	2,168	119 i
Agricultural machinery and equipment manufacturing	33311	1,230	1,194	35
Construction machinery manufacturing	33312	1,306	1,296	10
Mining, oil, and gas field machinery and equipment manufacturing	33319	1,076	984	92
Semiconductor machinery manufacturing	33321	2,979	2,859	121
Industrial machinery manufacturing (except semiconductor machinery)	33322	1,213	1,062	150 i
Photographic and photocopying equipment manufacturing	33331	79	24 i	55
Commercial, service industry, temperature control, and air-flow control machinery manufacturing	33332	1,448	1,410	38 i
Digital cameras manufacturing	33333	25	25	0
Engine, turbine, and power transmission equipment manufacturing	33360	1,840	1,710	130
Metalworking and other general purpose machinery manufacturing	33390	2,143	1,997	146 i
Computers and peripheral equipment manufacturing and magnetic and optical media ^c	33412	9,753	9,632	121
Telephone apparatus manufacturing, including routers, modems, and gateways	33421	7,734	7,718	16
Radio, television, and wireless communication equipment manufacturing	33422	6,321 i	4,826 i	1,495 i
Other communication equipment manufacturing (except radio, television, and wireless communication equipment)	33429	1,687	1,610	77

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Audio and video equipment manufacturing	33430	1,018	997	21 i
Semiconductor and other electronic components manufacturing	33440	32,454	30,466	1,988 i
Electromedical, electrotherapeutic, and irradiation apparatus manufacturing	33451	3,613	3,378	235
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments manufacturing	33452	6,231	2,109	4,121
Measuring and control instruments manufacturing (not listed elsewhere)	33459	4,201	3,932	268
Electrical equipment, appliances, and components manufacturing	33500	4,492	4,245	247 i
Motor vehicles manufacturing	33610	12,134	10,700	1,434
Motor vehicle body and trailer manufacturing	33620	96	95	1 i
Motor vehicle parts manufacturing	33630	5,908	4,929	979 i
Aircraft manufacturing	33641	15,566 i	4,001	11,565 i
Aircraft engine and engine parts manufacturing	33642	2,284 i	1,772 i	512
Other aircraft parts and auxiliary equipment manufacturing	33643	4,423	2,410	2,013
Guided missiles, space vehicles, and related parts manufacturing	33644	2,823 i	781	2,043 i
Railroad rolling stock manufacturing	33651	294	292	2 i
Ship and boat building	33660	1,568 i	437 i	1,131 i
Motorcycle, bicycle, and parts manufacturing	33691	251	245	7 i
Military armored vehicle, tank, and tank components manufacturing	33692	357	139 i	218
All other transportation equipment manufacturing	33699	421	324	97
Furniture and related products manufacturing	33700	385	379	6 i
Medical equipment and supplies manufacturing	33910	10,988	10,468	520
Miscellaneous manufacturing not listed elsewhere (games, office supplies, slot machines, etc.)	33990	2,419	2,357	61 i
Merchant wholesalers, durable goods	42300	410 i	392 i	18
Merchant wholesalers, nondurable goods	42400	D	151 i	D
Wholesale electronic markets and agents and brokers (business to business)	42500	139	19 i	120
Retail trade (except electronic shopping and electronic auctions)	44000	63 i	62 i	1 i
Electronic shopping and electronic auctions	45411	1,051	1,051	0
Transportation	48000	388	380	8
Couriers, messengers, and express delivery services	49200	344	344	0
Warehousing and storage	49300	3	3	0
Newspaper, periodical, book, and directory publishers (except Internet)	51110	89 i	89 i	0
Software publishers (except Internet)	51120	30,886	30,355	531
Motion picture and sound recording (except Internet)	51200	71 i	66 i	5 i
Broadcasting (except Internet)	51500	70 i	70 i	0
Wired telecommunications carriers	51710	933 i	931 i	2 i
Wireless telecommunications carriers (except satellite)	51720	2,479	2,471	8 i
Satellite telecommunications	51740	107	105	2
Other telecommunications (not listed elsewhere)	51790	255	222	33
Data processing, hosting, and related services	51800	4,746	4,699	46
Cloud computing applications and Internet-based software services	51801	5,691	5,650	41 i
Other information services, including Internet publishing, broadcasting, and Web search portals	51910	15,330	15,250	80 i
Finance: banking and credit intermediation	52200	2,451	2,418	32
Securities, commodity contracts, and other financial investments and related activities, including funds and trusts	52310	937	937	0
Insurance carriers and related activities	52400	887	887	0
Real estate	53100	193	193	0
Rental and leasing services	53200	59	57	1

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Lessors of nonfinancial intangible assets, including patent licensing	53300	78	78	*
Legal, accounting, tax preparation, bookkeeping, and payroll services	54111	826 i	826 i	1 i
Architectural, engineering, and related services	54130	3,458 i	1,570 i	1,887
Specialized design services	54140	97	27 i	70
Computer systems design and related services	54150	13,182 i	10,298 i	2,884 i
Management, scientific, and technical consulting services	54160	1,958	1,568	390
R&D services in social sciences and humanities	54172	745	26	719
R&D services in biotechnology	54173	3,289 i	857	2,431 i
R&D services in physical, engineering, and life sciences (except biotechnology)	54174	8,763	2,099	6,663
Advertising and related services	54180	435	405	29
Professional, scientific, and technical services (not listed elsewhere)	54190	1,017	727	290
Management of companies and enterprises	55100	25 i	21 i	3
Administrative and support services	56100	401 i	336 i	65
Waste management and remediation services	56200	31	16	15
Offices of physicians	62110	88 i	39 i	49 i
Medical and diagnostic laboratories	62150	965	376 i	588
Other ambulatory health care services (ambulance, dental, home health care)	62199	35 i	34 i	2 i
Hospitals and nursing care facilities	62200	7 i	2 i	5 i
Social assistance services	62400	16	16	0
Arts, entertainment, and recreation	71000	91 i	91 i	0
Accommodation and food services	72000	57	57	0
Other services (not listed elsewhere)	81000	575	399	176
Undistributed	-	63	53	10

* = 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 Data tabulated independent of the industry classification of the company. Companies were asked to report their sales and R&D activity in one or more business activity codes.

^b Business codes and descriptions based on NAICS industry definitions.

^c Estimates for this business code may not be comparable to those from prior years due to the introduction of a related business code for survey year 2014: 33333, Digital cameras manufacturing.

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

SOURCE: National Science Foundation, National Center for Science and Engineering Statistics, and U.S. Census Bureau, Business R&D and Innovation Survey, 2014.