

TABLE 42

Domestic R&D paid for by other companies and performed by the company, by funders' business activity: 2016

(Millions of U.S. dollars)

Funders' business activity ^a	Business code ^b	Amount
All business activities	21100–81000	31,932
Oil and gas extraction	21100	9
Mining	21200	*
Support activities for mining, including oil and gas	21300	395
Utilities	22100	3
Construction	23000	* i
Food manufacturing	31100	189
Beverages manufacturing	31210	113 i
Tobacco manufacturing	31220	1
Textiles, apparel, and leather products manufacturing	31990	* i
Wood products manufacturing	32100	7 i
Paper manufacturing	32200	0
Printing and related support activities	32300	* i
Petroleum refineries	32401	12
Asphalt paving, roofing, and saturated materials manufacturing	32402	*
Other petroleum and coal products manufacturing, including motor oil, hydraulic fluid, and charcoal	32403	11
Basic chemicals manufacturing	32510	95
Resins, synthetic rubber, and artificial synthetic fibers and filaments manufacturing	32520	8
Pesticides, fertilizers, and other agricultural chemicals manufacturing	32530	D
Pharmaceutical, medicinal, botanical, and biological products (except diagnostic substances) manufacturing	32541	12,196
In vitro diagnostic substances manufacturing	32542	D
Biotechnology-based pharmaceutical and biological products (except diagnostic substances) manufacturing	32543	3,924
Soaps, cleaning compounds, and toilet preparations manufacturing	32591	192
Paints, adhesives, and other chemical manufacturing	32592	23
Plastics and rubber products manufacturing	32600	67 i
Clay and glass products manufacturing	32710	2
Cement, concrete, lime, gypsum, and other nonmetallic mineral products manufacturing	32790	13
Primary metal manufacturing	33100	0
Fabricated metal products manufacturing	33200	22
Agricultural machinery and equipment manufacturing	33311	13
Construction machinery manufacturing	33312	7
Mining, oil, and gas field machinery and equipment manufacturing	33319	48 i
Semiconductor machinery manufacturing	33321	D
Industrial machinery manufacturing (except semiconductor machinery)	33322	53
Photographic and photocopying equipment manufacturing	33331	3
Commercial, service industry, temperature control, and air-flow control machinery manufacturing	33332	279 i
Digital cameras manufacturing	33333	0
Engine, turbine, and power transmission equipment manufacturing	33360	165
Metalworking and other general purpose machinery manufacturing	33390	102 i
Computers and peripheral equipment manufacturing and magnetic and optical media	33412	42
Telephone apparatus manufacturing, including routers, modems, and gateways	33421	8
Radio, television, and wireless communication equipment manufacturing	33422	823 i
Other communication equipment manufacturing (except radio, television, and wireless communication equipment)	33429	172
Audio and video equipment manufacturing	33430	3
Semiconductor and other electronic components manufacturing	33440	2,010
Electromedical, electrotherapeutic, and irradiation apparatus manufacturing	33451	124
Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments manufacturing	33452	716
Measuring and control instruments manufacturing (not listed elsewhere)	33459	43
Electrical equipment, appliances, and components manufacturing	33500	771
Motor vehicles manufacturing	33610	1,984
Motor vehicle body and trailer manufacturing	33620	*

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Motor vehicle parts manufacturing	33630	325
Aircraft manufacturing	33641	D
Aircraft engine and engine parts manufacturing	33642	189
Other aircraft parts and auxiliary equipment manufacturing	33643	374
Guided missiles, space vehicles, and related parts manufacturing	33644	D
Railroad rolling stock manufacturing	33651	1 i
Ship and boat building	33660	1
Motorcycle, bicycle, and parts manufacturing	33691	D
Military armored vehicles, tanks, and tank components manufacturing	33692	1
All other transportation equipment manufacturing	33699	20
Furniture and related products manufacturing	33700	*
Medical equipment and supplies manufacturing	33910	323
Miscellaneous manufacturing not listed elsewhere (games, office supplies, slot machines, etc.)	33990	20
Merchant wholesalers, durable goods	42300	40
Merchant wholesalers, nondurable goods	42400	4
Wholesale electronic markets and agents and brokers (business to business)	42500	0
Retail trade (except electronic shopping and electronic auctions)	44000	1
Electronic shopping and electronic auctions	45411	0
Transportation	48000	*
Couriers, messengers, and express delivery services	49200	3
Warehousing and storage	49300	*
Newspaper, periodical, book, and directory publishers (except Internet)	51110	0
Software publishers (except Internet)	51120	155
Motion picture and sound recording (except Internet)	51200	0
Broadcasting (except Internet)	51500	0
Wired telecommunications carriers	51710	8 i
Wireless telecommunications carriers (except satellite)	51720	26
Satellite telecommunications	51740	*
Other telecommunications (not listed elsewhere)	51790	21
Data processing, hosting, and related services	51800	14
Cloud computing applications and Internet-based software services	51801	31
Other information services, including Internet publishing, broadcasting, and Web search portals	51910	D
Finance: banking and credit intermediation	52200	9 i
Securities, commodity contracts, and other financial investments and related activities, including funds and trusts	52310	3
Insurance carriers and related activities	52400	4
Real estate	53100	12
Rental and leasing services	53200	0
Lessors of nonfinancial intangible assets, including patent licensing	53300	*
Legal, accounting, tax preparation, bookkeeping, and payroll services	54111	4
Architectural, engineering, and related services	54130	284 i
Specialized design services	54140	41
Computer systems design and related services	54150	1,937
Management, scientific, and technical consulting services	54160	100 i
Research and development services in social sciences and humanities	54172	24 i
Research and development services in biotechnology	54173	880
Research and development services in physical, engineering, and life sciences (except biotechnology)	54174	496
Advertising and related services	54180	0
Professional, scientific, and technical services (not listed elsewhere)	54190	185
Management of companies and enterprises	55100	9
Administrative and support services	56100	*
Waste management and remediation services	56200	0

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Offices of physicians	62110	12	i
Medical and diagnostic laboratories	62150	6	i
Other ambulatory health care services (ambulance, dental, home health care)	62199	*	
Hospitals and nursing care facilities	62200	*	
Social assistance services	62400	*	
Arts, entertainment, and recreation	71000	8	
Accommodation and food services	72000	1	
Other services (not listed elsewhere)	81000	97	
Undistributed	-	584	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 Data are tabulated independent of the industry classification and business activities of the company that performs R&D.

^b Business codes and descriptions are based on 2012 NAICS industry definitions.

Note(s)

Detail may not add to total because of rounding. For an R&D performer that did not report the R&D funders' business activities, no systematic imputation of these business activities was conducted. The business activities of the R&D funders may not be assumed to be the same as those of the R&D performer. 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.