

TABLE 98. Worldwide R&D paid for by the company and performed by the company and others and domestic R&D paid for and performed by the company, by business activity: 2010

(Millions of U.S. dollars)

Business activity ^a	Business code ^b	Worldwide R&D	Domestic R&D performance
All business activities	21100-81000	316,201	221,706
Oil and gas extraction	21100	1,270	889
Mining	21200	75	66
Support activities for mining, including oil and gas	21300	1,635	1,254
Utilities	22100	898	524
Construction	23000	1,004	466
Food	31100	4,474	3,358
Beverage	31210	911	D
Tobacco	31220	811	D
Textiles, apparel, and leather products	31990	663	D
Wood products	32100	233	199
Paper	32200	1,214	850
Printing and related support activities	32300	243	195
Petroleum refineries	32401	707	546
Asphalt paving, roofing, and saturated materials	32402	34	33
Other petroleum and coal products, including motor oil, hydraulic fluid, and charcoal	32403	407	244
Basic chemicals	32510	3,136	2,276
Resin, synthetic rubber, and artificial synthetic fibers and filaments	32520	1,420	929
Pesticide, fertilizer, and other agricultural chemical	32530	1,657	1,016 i
Pharmaceutical, medicinal, botanical, and biological products (except diagnostic)	32541	71,521	41,529
In-vitro diagnostic substances	32542	1,207	829
Soap, cleaning compound, and toilet preparation	32591	3,135	2,071
Paint, adhesive, and other chemical	32592	2,241	1,730
Plastics and rubber products	32600	3,173	2,325
Clay and glass products	32710	1,024 i	872 i
Cement, concrete, lime, gypsum, and other nonmetallic mineral product	32790	500	280
Primary metal	33100	889	603
Fabricated metal products	33200	1,969	1,567
Agricultural machinery and equipment	33311	1,309	939
Construction machinery	33312	691	509
Mining, oil, and gas field machinery and equipment	33319	1,763	1,320
Semiconductor machinery	33321	2,278	1,965
Industrial machinery, except semiconductor machinery	33322	814	656
Photographic and photocopying equipment	33331	270	182
Commercial, service industry, temperature control, and air-flow control machinery	33332	1,260	850
Engine, turbine, and power transmission equipment	33360	3,496	2,712
Metalworking and other general purpose machinery	33390	1,997	1,457
Computers and peripheral equipment and magnetic and optical media	33412	12,465	9,421
Telephone apparatus, including routers, modems, and gateways	33421	8,593	6,466
Radio, television, and wireless communication equipment	33422	5,556	4,042
Other communication equipment, except radio, television, and wireless communication equipment	33429	703	585
Audio and video equipment	33430	1,190	756
Semiconductor and other electronic components	33440	29,176	22,192
Electromedical, electrotherapeutic, and irradiation apparatus	33451	2,904	2,390
Search, detection, navigation, guidance, aeronautical, and nautical system and instruments	33452	2,413	2,056
Measuring and control instruments (not listed elsewhere)	33459	4,575	2,993
Electrical equipment, appliances, and components	33500	4,482	2,990
Motor vehicles	33610	14,527	7,146
Motor vehicle body and trailer	33620	186	129
Motor vehicle parts	33630	4,301	2,532

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Aircraft	33641	4,469	4,273
Aircraft engine and engine parts	33642	1,976	1,013
Other aircraft parts and auxiliary equipment	33643	1,818	1,417
Guided missile, space vehicle, and related parts	33644	1,126	925
Railroad rolling stock	33651	159	145
Ship and boat building	33660	608 i	419 i
Motorcycle, bicycle, and parts	33691	186	174
Military armored vehicle, tank, and tank components	33692	183	159
All other transportation equipment	33699	227	198
Furniture and related products	33700	402	371
Medical equipment and supplies	33910	13,367	9,681
Miscellaneous manufacturing not listed elsewhere (games, office supplies, slot machines, etc.)	33990	2,349	1,973
Merchant wholesalers, durable goods	42300	757	645
Merchant wholesalers, nondurable goods	42400	388	285
Wholesale electronic markets and agents and brokers (business to business)	42500	20 i	19 i
Retail trade, except electronic shopping and electronic auctions	44000	179	165
Electronic shopping and electronic auctions	45411	753	428
Transportation	48000	210	184
Couriers, messengers, and express delivery services	49200	6	5
Warehousing and storage	49300	19	15
Newspaper, periodical, book, and directory publishers (except Internet)	51110	875	790
Software publishers (except Internet)	51120	28,500	21,552
Motion picture and sound recording (except Internet)	51200	93	71
Broadcasting (except Internet)	51500	100	79
Wired telecommunications carriers	51710	910	703
Wireless telecommunications carriers (except satellite)	51720	114	104
Satellite telecommunications	51740	224	201
Other telecommunications (not listed elsewhere)	51790	339	277
Data processing, hosting, and related services	51800	2,896	2,543
Other information services including Internet publishing, broadcasting, and Web search portals	51910	7,239	6,180
Finance: banking and credit intermediation	52200	1,234	897
Securities, commodity contracts, and other financial investments and related activities (including funds and trusts)	52310	903	727
Insurance carriers and related activities	52400	610	488
Real estate	53100	3	2
Rental and leasing services	53200	145	109
Lessors of nonfinancial intangible assets (including patent licensing)	53300	270	242
Legal, accounting, tax preparation, bookkeeping, and payroll services	54111	505	390 i
Architectural, engineering, and related services	54130	1,365	1,142
Specialized design services	54140	69	65
Computer systems design and related services	54150	12,420	10,036
Management, scientific, and technical consulting services	54160	1,410	1,087
R&D services in social sciences and humanities	54172	8	7
R&D services in biotechnology	54173	2,602	1,806
R&D services in physical, engineering, and life sciences (except biotechnology)	54174	1,541	1,198
Advertising and related services	54180	368	310
Professional, scientific, and technical services (not listed elsewhere)	54190	557	439
Management of companies and enterprises	55100	22	18 i
Administrative and support services	56100	622	582
Waste management and remediation services	56200	683	671
Offices of physicians	62110	371	365

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Medical and diagnostic laboratories	62150	400	332
Other ambulatory health care services (ambulance, dental, home health care)	62199	329	327
Hospitals and nursing care facilities	62200	69	66
Social assistance services	62400	14	13
Arts, entertainment, and recreation	71000	237	192
Accommodation and food services	72000	119	98
Other services (not listed elsewhere)	81000	501	454
Undistributed	–	6,932 i	4,412 i

D = data withheld to avoid disclosing operations of individual companies; i = value > 50% of estimate is a combination of imputation and reweighting to account for nonresponse.

^a Data tabulated independent of industry classification of company. Companies were asked to report their sales and R&D into one or more business codes.

^b Business codes and descriptions based on 2007 North American Industry Classification System industry definitions.

NOTES: Detail may not add to total because of rounding. Statistics are representative of companies located in 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, 2010.