

Appendix table 4-19

Domestic R&D paid for by sources located outside the United States and performed by the company, by source of funds, industry, and company size: 2011

(Millions of U.S. dollars)

| Industry and company size | NAICS code | Total | Companies outside United States | | | | Foreign governments | All other |
|---|---------------------|--------|---------------------------------|--------------------------|------------------------|----|---------------------|-----------|
| | | | Subsidiaries ^a | Foreign parent companies | Unaffiliated companies | | | |
| All industries | 21-23, 31-33, 42-81 | 15,543 | 3,342 | 7,438 | 4,569 | 63 | 129 | |
| Manufacturing industries | 31-33 | 11,497 | 2,527 | 5,871 | 2,999 | 46 | 54 | |
| Food | 311 | 158 i | D | D | D | 0 | 0 | |
| Beverage and tobacco products | 312 | D | D | D | D | 0 | 0 | |
| Textile, apparel, and leather products | 313-16 | D | 0 | D | * | 0 | 0 | |
| Wood products | 321 | D | 0 | 3 | D | 0 | 0 | |
| Paper manufacturing | 322 | D | 0 | D | D | 0 | 0 | |
| Printing and related support activities | 323 | D | D | 0 | * | 0 | 0 | |
| Petroleum and coal products | 324 | D | D | 0 | 0 | 0 | 0 | |
| Chemicals | 325 | 5,229 | 1,354 | 2,209 | 1,658 | 0 | 8 | |
| Basic chemicals | 3251 | 143 | D | D | 26 | 0 | 0 | |
| Resin, synthetic rubber, fiber, and filament | 3252 | D | D | D | 6 | 0 | 0 | |
| Pesticide, fertilizer, and other agricultural chemical manufacturing | 3253 | D | D | D | 0 | 0 | 0 | |
| Pharmaceuticals and medicines | 3254 | 4,717 | 1,235 | 1,848 | 1,626 | 0 | 8 | |
| Soap, cleaning compound, and toilet preparation | 3256 | D | D | D | D | 0 | 0 | |
| Paint, coating, adhesive, and other chemical manufacturing | 3255, 3259 | D | D | D | D | 0 | 0 | |
| Plastic and rubber products | 326 | 266 | 0 | 265 i | 1 | 0 | * | |
| Nonmetallic mineral products | 327 | D | D | * | 1 | 0 | D | |
| Primary metals | 331 | D | 0 | 43 | D | 0 | 0 | |
| Fabricated metal products | 332 | D | 0 | D | D | 0 | 0 | |
| Machinery | 333 | 254 | D | D | D | D | 1 | |
| Agricultural implement manufacturing | 33311 | 19 | 3 | 15 | 0 | 0 | 0 | |
| Semiconductor machinery manufacturing | 333295 | 158 | D | D | D | 0 | 0 | |
| Engine, turbine, and power transmission equipment manufacturing | 3336 | D | * | D | D | 0 | 0 | |
| Other machinery manufacturing | other 333 | D | D | D | D | D | 1 | |
| Computer and electronic products | 334 | 3,291 | 521 | 1,735 | 991 | D | D | |
| Communication equipment | 3342 | 1,000 | 97 | 619 | 283 | 1 | 0 | |
| Semiconductor and other electronic components | 3344 | 1,299 | D | 802 | D | 0 | 0 | |
| Navigational, measuring, electromedical, and control instruments | 3345 | 573 | D | D | D | D | D | |
| Electromedical, electrotherapeutic, and irradiation apparatus manufacturing | 334510, 334517 | 198 | D | D | D | 0 | 0 | |

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| | | | Subsidiaries ^a | Foreign parent companies | Unaffiliated companies | | | |
| Search, detection, navigation, guidance, aeronautical, and nautical system and instrument manufacturing | 334511 | 363 | D | D | D | D | 0 | |
| Other measuring and controlling device manufacturing | other 3345 | 12 | 0 | D | D | 0 | D | |
| Other computer and electronic products | other 334 | 419 | D | D | D | 0 | D | |
| Electrical equipment, appliances, and components | 335 | 75 | 0 | 73 | 1 | 0 | 0 | |
| Transportation equipment | 336 | 857 | D | D | D | D | 7 | |
| Automobiles, bodies, trailers, and parts | 3361, 3362, 3363 | 787 | D | D | D | 0 | 1 | |
| Aerospace products and parts | 3364 | 66 | D | D | D | D | 6 | |
| Aircraft, aircraft engine, and aircraft part manufacturing | 336411-13 | 66 | D | D | D | D | 6 | |
| Guided missile, space vehicle, and related part manufacturing | 336414-15, 336419 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Military armored vehicle, tank, and tank component manufacturing | 336992 | D | D | 0 | 0 | 0 | 0 | |
| Other transportation | other 336 | D | 0 | D | D | 0 | 0 | |
| Furniture and related products | 337 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Miscellaneous | 339 | 706 | D | D | D | 0 | D | |
| Medical equipment and supply manufacturing | 3391 | 373 | D | 280 | D | 0 | D | |
| Other miscellaneous manufacturing | 3399 | 333 | D | D | D | 0 | 0 | |
| Nonmanufacturing industries | 21-23, 42-81 | 4,046 | 815 | 1,568 | 1,570 | 17 | 76 | |
| Mining, extraction, and support activities | 21 | D | D | 0 | D | 0 | 0 | |
| Utilities | 22 | D | 0 | 0 | D | 0 | 0 | |
| Wholesale trade | 42 | 209 i | 0 | 100 | 92 i | 0 | 18 i | |
| Electronic shopping and electronic auctions | 454111-12 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Transportation and warehousing | 48-49 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Information | 51 | 565 i | D | D | D | D | * | |
| Publishing | 511 | 394 | D | 334 | D | D | * | |
| Newspaper, periodical, book, and directory publishers | 5111 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Software publishers | 5112 | 394 | D | 334 | D | D | * | |
| Telecommunications | 517 | 34 | D | D | D | 0 | 0 | |
| Data processing, hosting, and related services | 518 | D | D | 0 | D | 0 | 0 | |
| Other information | other 51 | D | D | D | 0 | 0 | 0 | |

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| | | | Subsidiaries ^a | Foreign parent companies | Unaffiliated companies | Foreign governments | |
| Finance and insurance | 52 | 1 | 0 | 0 | 1 | 0 | 0 |
| Real estate, rental, and leasing | 53 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lessors of nonfinancial intangible assets (except copyrighted works) | 533 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other real estate, rental, and leasing | other 53 | 0 | 0 | 0 | 0 | 0 | 0 |
| Professional, scientific, and technical services | 54 | 2,489 | 201 | 1,038 | 1,175 | 17 | 58 |
| Architectural, engineering, and related services | 5413 | 110 | * | 18 | 78 | 14 | 0 |
| Computer system design and related services | 5415 | 440 | 201 | 156 | 53 | 0 | 31 |
| Scientific research and development services | 5417 | 1,862 | 0 | 809 | 1,024 | 2 | 27 |
| Biotechnology research and development | 541711 | 788 | 0 | 212 | 572 | * | 3 |
| Physical, engineering, and life sciences (except biotechnology) research and development | 541712 | 1,075 | 0 | 597 | 451 | 2 | 24 |
| Social sciences and humanities research and development | 541720 | * i | 0 | * | * i | 0 | 0 |
| Other professional, scientific, and technical services | other 54 | 77 | 1 | 55 | 20 | 1 | 0 |
| Health care services | 621–23 | D | 0 | D | D | D | * i |
| Other nonmanufacturing | 23, 44–45 (excluding 454111–12), 55–56, 624, 71–72, 81 | D | 0 | D | D | 0 | 0 |
| All companies | – | 15,543 | 3,342 | 7,438 | 4,569 | 63 | 129 |
| Small companies (number of domestic employees) ^b | | | | | | | |
| 5–499 | – | 2,655 | 124 | 1,916 | 480 | 17 | 118 |
| 5–99 | – | 1,220 | D | 883 | 265 | D | D |
| 5–49 | – | 606 | D | 352 | 200 | D | D |
| 5–9 | – | 105 i | 0 | 41 | 61 i | 0 | 3 |
| 10–24 | – | 229 | D | 124 | 62 | D | D |
| 25–49 | – | 271 | 0 | 186 | 77 | 3 | 6 i |
| 50–99 | – | 614 | D | 531 | 65 | D | D |
| 100–249 | – | 549 | D | 322 | 133 | D | D |
| 250–499 | – | 886 | 85 | 712 | 82 | * | 8 |
| Medium and large companies (number of domestic employees) | | | | | | | |

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|---------------------------|------------|-------|---------------------------------|--------------------------|------------------------|---------------------|-----------|
| | | | Subsidiaries ^a | Foreign parent companies | Unaffiliated companies | Foreign governments | |
| 500–999 | – | 615 | 102 | D | D | D | D |
| 1,000–4,999 | – | 5,421 | 771 | 1,760 | 2,884 | 1 | 5 |
| 5,000–9,999 | – | 2,369 | 81 | 1,866 | 419 | 0 | 4 |
| 10,000–24,999 | – | 2,289 | 566 | 1,170 | D | D | D |
| 25,000 or more | – | 2,192 | 1,699 | D | 189 | D | D |

* = < \$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 = 2007 North American Industry Classification System.

^a Subsidiaries are company-owned units outside the United States. Although all estimates include an adjustment to the weight to account for unit nonresponse, the estimates for domestic R&D paid for by foreign subsidiaries do not include item imputation. Caution should be used when comparing the subsidiaries estimates to other estimates presented in the table.

^b Upper bound is based on the U.S. Small Business Administration's definition of a small business; the Business R&D and Innovation Survey does not include companies with fewer than five domestic employees.

NOTES: Detail may not add to total due to 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, classification used for sampling was assigned. Statistics pertain to companies located in the 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 (2011).

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