

TABLE 39. Importance of utility patents for companies with and without R&D activity, by industry and company size: 2011
(Percent)

| Industry and company size | NAICS code | All companies | | | With R&D activity ^a | | | Without R&D activity | | |
|---------------------------------------------------------------------------------------------|---------------------|----------------|--------------------|---------------|--------------------------------|--------------------|---------------|----------------------|--------------------|---------------|
| | | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important |
| All industries | 21–23, 31–33, 42–81 | 1.9 | 2.6 | 95.6 | 20.5 | 13.4 | 66.1 | 1.0 | 2.0 | 97.0 |
| Manufacturing industries | 31–33 | 7.6 | 7.3 | 85.1 | 25.9 | 18.2 | 55.9 | 2.2 | 4.2 | 93.6 |
| Food | 311 | 4.6 | 3.2 | 92.2 | 9.5 | 4.7 | 85.8 | 3.4 | 2.8 | 93.8 |
| Beverage and tobacco products | 312 | 0.9 | 2.3 | 96.8 | 7.0 | 5.2 | 87.7 | D | D | 98.0 |
| Textile, apparel, and leather products | 313–316 | 5.9 | 5.8 | 88.3 | 17.9 | 7.5 | 74.6 | 3.5 | 5.5 | 91.0 |
| Wood products | 321 | 2.4 | 1.3 | 96.2 | 27.9 | 6.5 | 65.6 | 0.7 | 1.0 | 98.4 |
| Paper | 322 | 5.1 | 11.6 | 83.2 | 16.2 | 17.2 | 66.5 | 2.2 | 10.2 | 87.6 |
| Printing and related support activities | 323 | 1.8 | 3.5 | 94.7 | 12.5 | 12.6 | 74.9 | 1.3 | 3.0 | 95.7 |
| Petroleum and coal products | 324 | 4.1 | 31.8 | 64.1 | 6.9 | 59.8 | 33.3 | D | D | 92.7 |
| Chemicals | 325 | 19.8 | 12.2 | 68.1 | 32.4 | 18.5 | 49.2 | S | 4.4 | 91.2 |
| Basic chemicals | 3251 | 27.8 | 17.4 | 54.8 | 45.2 | 23.8 | 31.0 | 3.7 | 8.6 | 87.6 |
| Resin, synthetic rubber, and artificial synthetic fibers and filaments | 3252 | S | S | S | 34.3 | 23.4 | 42.3 | S | S | S |
| Pesticide, fertilizer, and other agricultural chemical | 3253 | 7.6 | 33.9 | 58.5 | 14.0 | 66.7 | 19.3 | 1.9 | 4.4 | 93.7 |
| Pharmaceuticals and medicines | 3254 | 31.9 | 12.3 | 55.8 | 47.0 | 14.5 | 38.4 | 1.4 | 7.9 | 90.7 |
| Soap, cleaning compound, and toilet preparation | 3256 | 21.5 | 3.8 | 74.7 | 28.2 | 5.8 | 66.1 | 8.6 | 0.0 | 91.4 |
| Paint, coating, adhesive, and other chemicals | 3255, 3259 | 8.3 | 7.2 | 84.5 | 15.3 | 13.6 | 71.1 | 2.6 | 2.0 | 95.4 |
| Plastics and rubber products | 326 | 8.1 | 9.9 | 82.0 | 19.2 | 22.3 | 58.5 | 3.2 | 4.5 | 92.4 |
| Nonmetallic mineral products | 327 | 2.7 | 4.4 | 92.9 | 18.4 | 8.6 | 73.1 | 1.1 | 3.9 | 94.9 |
| Primary metals | 331 | 5.8 | 8.7 | 85.5 | 19.9 | 17.9 | 62.2 | 2.6 | 6.5 | 90.9 |
| Fabricated metal products | 332 | 3.6 | 5.9 | 90.5 | 20.5 | 10.9 | 68.6 | 1.5 | 5.3 | 93.2 |
| Machinery | 333 | 12.3 | 12.3 | 75.4 | 28.6 | 25.3 | 46.1 | 3.3 | 5.2 | 91.5 |
| Agricultural implement | 33311 | 19.3 | 19.0 | 61.7 | 30.8 | 23.9 | 45.4 | 9.0 | 14.7 | 76.3 |
| Semiconductor machinery | 333295 | 24.9 | 5.2 | 69.9 | 60.5 | 13.5 | 26.0 | D | 0.0 | D |
| Engine, turbine, and power transmission equipment | 3336 | 18.6 | 20.0 | 61.4 | 28.0 | 35.1 | 36.8 | 8.5 | 3.8 | 87.7 |
| Other machinery | other 333 | 11.5 | 11.8 | 76.6 | 27.9 | 25.0 | 47.1 | 3.0 | 5.0 | 92.1 |
| Computer and electronic products | 334 | 20.8 | 13.2 | 66.0 | 32.8 | 20.1 | 47.1 | 5.3 | 4.2 | 90.5 |
| Communications equipment | 3342 | 17.7 | 27.2 | 55.0 | 24.9 | 39.8 | 35.2 | D | D | S |
| Semiconductor and other electronic components | 3344 | 23.5 | 7.5 | 69.0 | 43.1 | 9.5 | 47.4 | 6.5 | 5.7 | 87.7 |
| Navigational, measuring, electromedical, and control instruments | 3345 | 20.1 | 14.0 | 65.8 | 29.7 | 21.1 | 49.2 | 6.2 | 3.9 | 89.9 |
| Electromedical, electrotherapeutic, and irradiation apparatus | 334510, 334517 | 38.3 | 10.9 | 50.8 | 63.6 | 18.1 | 18.3 | 0.0 | 0.0 | 100.0 |
| Search, detection, navigation, guidance, aeronautical, and nautical systems and instruments | 334511 | 16.0 | 23.4 | 60.6 | 20.6 | 30.0 | 49.4 | 0.0 | 0.0 | 100.0 |
| Other measuring and controlling device | other 3345 | 17.9 | 13.3 | 68.8 | 25.9 | 20.0 | 54.1 | 7.5 | 4.6 | 87.9 |
| Other computer and electronic products | other 334 | 19.3 | 11.8 | 68.9 | 30.3 | 17.4 | 52.3 | D | D | D |
| Electrical equipment, appliances, and components | 335 | 15.6 | 19.1 | 65.3 | 26.0 | 34.0 | 40.0 | 4.2 | 2.6 | 93.2 |
| Transportation equipment | 336 | 8.4 | 9.8 | 81.8 | 18.5 | 19.2 | 62.3 | 3.6 | 5.4 | 91.0 |
| Motor vehicles, bodies, trailers, and parts | 3361, 3362, 3363 | 8.0 | 6.7 | 85.3 | 17.3 | 17.7 | 65.0 | 4.3 | 2.3 | 93.3 |

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| | | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important |
| Aerospace products and parts | 3364 | 10.8 | 11.1 | 78.1 | 19.9 | 25.2 | 54.8 | 3.7 | 0.0 | 96.3 |
| Aircraft, aircraft engine, and aircraft parts | 336411-13 | 10.0 | 11.0 | 79.1 | 18.1 | 25.3 | 56.6 | 3.8 | 0.0 | 96.2 |
| Guided missile, space vehicle, and related parts | 336414-15, 336419 | 34.5 | 13.8 | S | 58.8 | 23.5 | 17.6 | S | S | S |
| Military armored vehicle, tank, and tank component | 336992 | D | D | D | D | D | D | 0.0 | D | D |
| Other transportation equipment | other 336 | 8.2 | 17.2 | 74.7 | 20.1 | 18.3 | 61.6 | 1.7 | 16.6 | 81.7 |
| Furniture and related products | 337 | 2.2 | 3.4 | 94.4 | 21.5 | 9.9 | 68.5 | 0.5 | 2.8 | 96.7 |
| Miscellaneous manufacturing | 339 | 14.6 | 8.2 | 77.2 | 42.5 | 18.3 | 39.2 | 3.0 | 4.0 | 93.1 |
| Medical equipment and supplies | 3391 | 19.0 | 11.5 | 69.5 | 49.7 | 21.2 | 29.1 | 3.1 | 6.5 | 90.4 |
| Other miscellaneous manufacturing | 3399 | 11.9 | 6.1 | 82.0 | 36.7 | 16.0 | 47.3 | 2.9 | 2.5 | 94.6 |
| Nonmanufacturing industries | 21-23, 42-81 | 1.4 | 2.1 | 96.5 | 16.8 | 10.1 | 73.1 | 0.9 | 1.9 | 97.2 |
| Mining, extraction, and support activities | 21 | 2.9 | 1.8 | 95.3 | 31.1 | 14.5 | 54.5 | 1.6 | 1.2 | 97.1 |
| Utilities | 22 | 8.5 | 2.8 | 88.8 | 67.4 | 14.3 | 18.4 | D | D | 98.7 |
| Wholesale trade | 42 | 4.2 | 4.7 | 91.1 | 17.6 | 13.9 | 68.5 | 3.3 | 4.0 | 92.6 |
| Electronic shopping and electronic auctions | 454111-12 | 2.7 | 3.5 | 93.8 | 7.6 | 21.2 | 71.2 | 2.1 | 1.2 | 96.7 |
| Transportation and warehousing | 48-49 | 0.0 | 1.0 | 99.0 | 6.5 | 9.2 | 84.3 | 0.0 | 1.0 | 99.0 |
| Information | 51 | 6.2 | 5.2 | 88.6 | 18.1 | 11.9 | 70.1 | 2.3 | 3.0 | 94.7 |
| Publishing | 511 | 7.4 | 4.1 | 88.5 | 18.9 | 11.0 | 70.1 | 2.5 | 1.2 | 96.4 |
| Newspaper, periodical, book, and directory publishers | 5111 | D | D | 98.4 | 0.0 | 4.4 | 95.6 | D | D | 98.6 |
| Software publishers | 5112 | 22.8 | 10.1 | 67.1 | 22.6 | 12.3 | 65.1 | 23.5 | D | D |
| Telecommunications | 517 | 2.3 | 6.0 | 91.6 | 14.2 | 15.0 | 70.8 | 0.7 | 4.8 | 94.5 |
| Data processing, hosting, and related services | 518 | 16.2 | 8.0 | 75.8 | 27.8 | 9.4 | 62.7 | 6.8 | 6.7 | 86.5 |
| Other information | other 51 | 2.1 | 5.1 | 92.8 | 5.4 | 15.9 | 78.7 | 1.5 | 3.2 | 95.3 |
| Finance and insurance | 52 | 0.1 | 0.9 | 99.0 | 1.2 | 14.1 | 84.7 | 0.0 | 0.2 | 99.8 |
| Real estate and rental and leasing | 53 | 0.0 | 0.9 | 99.0 | 3.8 | 1.3 | 94.9 | 0.0 | 0.9 | 99.1 |
| Lessors of nonfinancial intangible assets (except copyrighted works) | 533 | 2.2 | D | D | 39.1 | D | D | D | 0.0 | D |
| Other real estate and rental and leasing | other 53 | 0.0 | 0.9 | 99.0 | 1.4 | 1.1 | 97.5 | 0.0 | 0.9 | 99.1 |
| Professional, scientific, and technical services | 54 | 4.5 | 3.3 | 92.2 | 23.7 | 11.9 | 64.4 | 2.2 | 2.3 | 95.5 |
| Architectural, engineering, and related services | 5413 | 6.2 | 2.3 | 91.6 | 35.0 | 6.7 | 58.3 | 2.2 | 1.7 | 96.1 |
| Computer systems design and related services | 5415 | 7.3 | 8.0 | 84.8 | 13.0 | 12.5 | 74.5 | 3.9 | 5.3 | 90.8 |
| Scientific research and development services | 5417 | 42.3 | 14.3 | 43.5 | 49.6 | 14.5 | 36.0 | S | 13.6 | 74.5 |
| Biotechnology research and development | 541711 | 60.6 | 8.4 | 31.0 | 64.1 | 8.3 | 27.6 | S | S | S |
| Physical, engineering, and life sciences (except biotechnology) research and development | 541712 | 37.5 | 18.2 | 44.3 | 44.0 | 17.9 | 38.1 | 7.6 | 19.8 | 72.6 |
| Social sciences and humanities research and development | 541720 | 3.3 | 2.0 | 94.7 | 6.1 | D | D | D | D | D |
| Other professional, scientific, and technical services | other 54 | 2.4 | 2.3 | 95.3 | 16.0 | 13.3 | 70.7 | 2.0 | 2.0 | 96.1 |
| Health care services | 621-23 | 0.2 | 0.9 | 98.9 | 2.8 | 0.5 | 96.8 | D | D | 98.9 |
| Other nonmanufacturing | 23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81 | 0.7 | 2.0 | 97.3 | 8.2 | 1.8 | 90.0 | 0.7 | 2.0 | 97.4 |

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|----------------------------------------------|------------|----------------|--------------------|---------------|--------------------------------|--------------------|---------------|----------------------|--------------------|---------------|
| | | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important | Very important | Somewhat important | Not important |
| All companies (number of domestic employees) | - | 1.9 | 2.6 | 95.6 | 20.5 | 13.4 | 66.1 | 1.0 | 2.0 | 97.0 |
| Small companies ^b | | | | | | | | | | |
| 5-499 | - | 1.8 | 2.5 | 95.7 | 19.4 | 13.2 | 67.3 | 1.0 | 2.1 | 97.0 |
| 5-99 | - | 1.7 | 2.4 | 96.0 | 18.9 | 12.6 | 68.5 | 1.0 | 1.9 | 97.1 |
| 5-49 | - | 1.6 | 2.3 | 96.0 | 18.7 | 12.1 | 69.2 | 1.0 | 2.0 | 97.0 |
| 5-9 | - | 1.6 | 2.1 | 96.3 | 19.3 | 8.8 | 71.8 | 1.0 | 1.9 | 97.1 |
| 10-24 | - | 1.5 | 2.3 | 96.1 | 17.0 | 13.9 | 69.1 | 1.0 | 1.9 | 97.1 |
| 25-49 | - | 2.1 | 2.9 | 94.9 | 20.3 | 14.1 | 65.6 | 1.0 | 2.3 | 96.8 |
| 50-99 | - | 2.2 | 2.6 | 95.2 | 20.5 | 15.6 | 63.8 | 0.9 | 1.7 | 97.4 |
| 100-249 | - | 3.2 | 5.5 | 91.4 | 23.2 | 15.0 | 61.8 | 0.6 | 4.2 | 95.2 |
| 250-499 | - | 5.2 | 9.4 | 85.4 | 21.6 | 22.6 | 55.8 | 1.1 | 6.1 | 92.8 |
| Medium and large companies | | | | | | | | | | |
| 500-999 | - | 8.4 | 4.5 | 87.1 | 36.5 | 17.6 | 46.0 | 0.8 | 1.0 | 98.1 |
| 1,000-4,999 | - | 15.8 | 6.2 | 78.1 | 49.4 | 17.9 | 32.7 | 3.3 | 1.8 | 94.9 |
| 5,000-9,999 | - | 18.0 | 5.8 | 76.2 | 47.3 | 11.4 | 41.4 | 2.6 | 2.8 | 94.5 |
| 10,000-24,999 | - | 26.2 | 9.6 | 64.3 | 70.7 | 19.1 | 10.2 | 4.4 | 4.9 | 90.7 |
| 25,000 or more | - | 41.1 | 17.1 | 41.8 | 68.6 | 16.3 | 15.1 | 9.1 | 17.9 | 73.0 |

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

NAICS = 2007 North American Industry Classification System.

^a Statistics are representative of companies located in the United States that performed or funded R&D.

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

NOTES: Industry classification based on dominant business code for domestic R&D performance where available. For companies that did not report business codes, 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, 2011.