

TABLE 31
Companies with domestic R&D paid for and performed by the company in health or medical, defense, and agricultural application areas, by industry and company size: 2018

(Millions of U.S. dollars)

| Industry and company size | NAICS code | Domestic R&D | | Health or medical | | Defense | | Agriculture | |
|---|--------------------------|------------------------------------|---------|------------------------------------|----------|------------------------------------|----------|------------------------------------|---------|
| | | Companies ^a (number) | Amount | Companies ^b (number) | Amount | Companies ^b (number) | Amount | Companies ^b (number) | Amount |
| All industries | 21-23, 31-33, 42-81 | 24,698 | 377,806 | 5,721 | i 89,550 | 2,220 | i 12,721 | 1,743 | i 7,273 |
| Manufacturing industries | 31-33 | 14,727 | 234,682 | 4,045 | i 82,612 | 1,641 | i 10,628 | 1,482 | i 6,359 |
| Food | 311 | 802 | 4,412 | 164 | i 309 | 0 | 0 | 194 | i 1,765 |
| Chemicals | 325 | 2,631 | 73,584 | 1,446 | i 62,279 | 104 | i 151 | 307 | i 2,640 |
| Basic chemicals | 3251 | 321 | 2,251 | 85 | i 139 | 12 | 22 | 114 | i 93 |
| Pharmaceuticals and medicines | 3254 | 1,285 | 64,800 | 1,139 | i 61,864 | 19 | 103 | 31 | 980 |
| Other chemicals | other 325 | 1,026 | 6,533 | 222 | i 276 | 73 | i 26 | 162 | i 1,566 |
| Plastics and rubber products | 326 | 899 | 2,667 | 247 | i 542 | 87 | i 74 | 163 | i 70 |
| Nonmetallic mineral products | 327 | 227 | 1,361 | 50 | i 237 | 31 | i 23 | 0 | 0 |
| Fabricated metal products | 332 | 1,427 | 2,222 | 178 | i 101 | 208 | i 187 | 88 | i 38 |
| Machinery | 333 | 2,020 | 13,765 | 331 | i 237 | 146 | i 150 | 324 | i 1,319 |
| Agricultural implement | 33311 | 237 | 1,862 | D | * i | 4 | 1 | 218 | i 1,263 |
| Semiconductor machinery | 333242 | 44 | 3,623 | 0 | 0 | D | 2 | 0 | 0 |
| Engine, turbine, and power transmission equipment | 3336 | 70 | 2,310 | 10 | 53 | i 19 | i 44 | 6 | 14 |
| Other machinery | other 333 | 1,672 | 5,970 | D | 184 | i D | 103 | 100 | i 42 |
| Computer and electronic products | 334 | 2,218 | 73,922 | 658 | i 6,363 | 625 | i 4,039 | 157 | i 283 |
| Semiconductor and other electronic components | 3344 | 595 | 28,642 | 176 | i 967 | 280 | i 1,848 | 12 | 24 |
| Other electronic products | other 334 | 1,623 | 45,280 | 482 | i 5,396 | 344 | i 2,190 | 144 | i 259 |
| Electrical equipment, appliances, and components | 335 | 750 | 4,222 | 138 | i 118 | 154 | i 72 | 100 | i 36 |
| Transportation equipment | 336 | 1,065 | 35,894 | 38 | i 565 | 163 | i 5,823 | 47 | i 90 |
| Motor vehicles, bodies, trailers, and parts | 3361-63 | 636 | 23,080 | 21 | i 427 | 30 | 23 | 32 | i 45 |
| Other transportation | other 336 | 430 | 12,814 | 17 | i 138 | 132 | i 5,800 | 15 | 45 |
| Miscellaneous | 339 | 1,220 | 16,807 | 642 | i 11,757 | 39 | 53 | 8 | 16 |
| Other manufacturing | 312-16, 321-24, 331, 337 | 1,487 | 5,826 | 153 | i 102 | 84 | i 57 | 94 | i 102 |
| Nonmanufacturing industries | 21-23, 42-81 | 9,978 | 143,123 | 1,676 | i 6,938 | 579 | i 2,094 | 261 | i 914 |
| Mining, quarrying, oil and gas extraction, and support activities | 21 | 149 | 1,775 | D | * | D | 1 | 6 | 2 |
| Utilities | 22 | 61 | 224 | 0 | 0 | 0 | 0 | D | 7 |
| Wholesale trade | 42 | 768 | 881 | i 79 | i 30 | D | 1 | 24 | i 25 |
| Information | 51 | 2,626 | 93,487 | 381 | 2,019 | 97 | 836 | 41 | 665 |
| Publishing | 511 | 975 | 32,281 | 172 | i 1,243 | 71 | i 752 | 20 | 607 |
| Telecommunications | 517 | 177 | 3,631 | 7 | 5 | 7 | 20 | D | 5 |
| Data processing, hosting, and related services | 518 | 1,192 | 23,115 | 197 | 741 | 14 | 56 | 9 | 44 |
| Other information | other 51 | 284 | 34,459 | 6 | 30 | 5 | 7 | D | 10 |

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|--|--|------------------------------------|---------|------------------------------------|----------|------------------------------------|----------|------------------------------------|---------|
| | | Companies ^a (number) | Amount | Companies ^b (number) | Amount | Companies ^b (number) | Amount | Companies ^b (number) | Amount |
| Professional, scientific, and technical services | 54 | 5,204 | 22,374 | 1,022 | i 3,102 | 466 | i 1,240 | 166 | i 178 |
| Architectural, engineering, and related services | 5413 | 1,150 | 2,277 | 83 | i 76 | 110 | i 125 | 61 | i 54 |
| Scientific research and development services | 5417 | 785 | 2,424 | 545 | i 1,294 | 132 | i 86 | 86 | i 117 |
| Research and development in biotechnology | 541711 | 202 | 820 | 156 | i 595 | D | 1 | 24 | i 66 |
| Other scientific research and development | other 5417 | 583 | 1,603 | 389 | i 699 | D | 85 | 62 | i 51 |
| Other professional, scientific, and technical services | other 54 | 3,269 | 17,673 | 394 | i 1,731 | 225 | i 1,030 | 19 | 8 |
| Health care services | 621-23 | 178 | 1,401 | 109 | i 1,285 | D | 1 | 0 | 0 |
| Other nonmanufacturing | 23, 44-45, 48-49, 52-53, 55-56, 624, 71-72, 81 | 998 | 22,982 | i D | 503 | 9 | 14 | D | 38 |
| All companies (number of domestic employees) | - | 24,698 | 377,806 | 5,721 | i 89,550 | 2,220 | i 12,721 | 1,743 | i 7,273 |
| Small companies | | | | | | | | | |
| 10-19 ^c | - | 3,948 | 3,340 | 1,087 | i 1,057 | 319 | i 106 | 226 | i 65 |
| 20-49 | - | 6,950 | 9,556 | 1,665 | i 3,360 | 655 | i 632 | 496 | i 211 |
| Medium companies | | | | | | | | | |
| 50-99 | - | 4,406 | 10,446 | 887 | i 3,840 | 360 | i 343 | 231 | i 174 |
| 100-249 | - | 4,562 | 14,626 | 1,064 | i 4,719 | 405 | i 456 | 337 | i 257 |
| Large companies | | | | | | | | | |
| 250-499 | - | 1,967 | 16,604 | 404 | 5,894 | 213 | 330 | 169 | 262 |
| 500-999 | - | 1,098 | 15,561 | 200 | 4,105 | 81 | 386 | 83 | 182 |
| 1,000-4,999 | - | 1,221 | 58,509 | 280 | 11,670 | 110 | 1,653 | 136 | 728 |
| 5,000-9,999 | - | 231 | 36,274 | 53 | 9,480 | 34 | 808 | 34 | 387 |
| 10,000-24,999 | - | 201 | 74,423 | 52 | 28,103 | 28 | 1,329 | 20 | 3,071 |
| 25,000 or more | - | 114 | 138,465 | 28 | 17,322 | 16 | 6,679 | 11 | 1,936 |

* = 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 Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^b Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. These company count estimates reflect an imputation process implemented for survey year 2014. This change has affected the comparability of these company count estimates with estimates published for years prior to 2014. A company having multiple reporting parts for data collection may contribute to the statistics for multiple industries, so the detail may not add to the total for the number of companies.

^c Business Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s):

Detail may not add to total because of 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, the classification used for sampling was assigned. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. Companies could report R&D in one, more than one, or no application area.

Source(s):

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2018.