TABLE 62
U.S. patent applications and patents issued to companies located in the United States that performed or funded R&D, by industry and company size: 2018
(Number)

<table>
<thead>
<tr>
<th>Industry and company size</th>
<th>NAICS code 21–23, 31–33, 42–81</th>
<th>Applications Nonprovisional utility patents</th>
<th>Patents issued&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>To foreign jurisdictions&lt;sup&gt;a&lt;/sup&gt;</td>
<td>From within organized R&amp;D activity&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>All industries</td>
<td>163,866</td>
<td>53,969</td>
<td>86,635</td>
</tr>
<tr>
<td>Manufacturing industries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>115,551</td>
<td>42,077</td>
<td>60,820</td>
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<tr>
<td>Food</td>
<td>2,330</td>
<td>1,231</td>
<td>257</td>
</tr>
<tr>
<td>Beverage and tobacco products</td>
<td>485</td>
<td>356</td>
<td>290</td>
</tr>
<tr>
<td>Textile, apparel, and leather products</td>
<td>971</td>
<td>669</td>
<td>355</td>
</tr>
<tr>
<td>Wood products</td>
<td>86</td>
<td>47</td>
<td>14</td>
</tr>
<tr>
<td>Paper</td>
<td>572</td>
<td>450</td>
<td>155</td>
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<tr>
<td>Printing and related support activities</td>
<td>363</td>
<td>191</td>
<td>69</td>
</tr>
<tr>
<td>Petroleum and coal products</td>
<td>707</td>
<td>622</td>
<td>441</td>
</tr>
<tr>
<td>Chemicals</td>
<td>20,067</td>
<td>8,484</td>
<td>10,439</td>
</tr>
<tr>
<td>Basic chemicals</td>
<td>1,745</td>
<td>1,070</td>
<td>958</td>
</tr>
<tr>
<td>Resin, synthetic rubber, and artificial synthetic fibers and filaments</td>
<td>2,568</td>
<td>1,394</td>
<td>1,632 - 1,731</td>
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<tr>
<td>Pesticide, fertilizer, and other agricultural chemicals</td>
<td>494</td>
<td>163</td>
<td>366</td>
</tr>
<tr>
<td>Pharmaceuticals and medicines</td>
<td>12,080</td>
<td>4,854</td>
<td>5,749</td>
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<tr>
<td>Soap, cleaning compound, and toilet preparation</td>
<td>1,935</td>
<td>725</td>
<td>888</td>
</tr>
<tr>
<td>Paint, coating, adhesive, and other chemicals</td>
<td>1,245</td>
<td>578</td>
<td>745 - 844</td>
</tr>
<tr>
<td>Plastics and rubber products</td>
<td>2,006</td>
<td>748</td>
<td>1,161</td>
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<tr>
<td>Nonmetallic mineral products</td>
<td>1,788</td>
<td>1,130</td>
<td>1,521</td>
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<tr>
<td>Primary metals</td>
<td>538</td>
<td>176</td>
<td>237</td>
</tr>
<tr>
<td>Fabricated metal products</td>
<td>899</td>
<td>387</td>
<td>785</td>
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<tr>
<td>Machinery</td>
<td>9,890</td>
<td>3,716</td>
<td>5,185</td>
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<tr>
<td>Agricultural implement</td>
<td>1,170</td>
<td>449</td>
<td>635</td>
</tr>
<tr>
<td>Semiconductor machinery</td>
<td>2,210</td>
<td>860</td>
<td>1,070</td>
</tr>
<tr>
<td>Engine, turbine, and power transmission equipment</td>
<td>958</td>
<td>438</td>
<td>650</td>
</tr>
<tr>
<td>Other machinery</td>
<td>5,551</td>
<td>1,970</td>
<td>2,830</td>
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<tr>
<td>Computer and electronic products</td>
<td>45,007</td>
<td>21,030</td>
<td>21,030</td>
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<td>Communications equipment</td>
<td>4,530</td>
<td>1,270</td>
<td>2,845</td>
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<tr>
<td>Semiconductor and other electronic components</td>
<td>19,178</td>
<td>6,462</td>
<td>10,024</td>
</tr>
<tr>
<td>Navigational, measuring, electromedical, and control instruments</td>
<td>6,132</td>
<td>2,808</td>
<td>3,631</td>
</tr>
<tr>
<td>Electromedical, electrotherapeutic, and irradiation apparatus</td>
<td>1,379</td>
<td>481</td>
<td>687</td>
</tr>
<tr>
<td>Search, detection, navigation, guidance, aeronautical, and nautical system and instrument</td>
<td>1,290</td>
<td>1,146</td>
<td>1,727</td>
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<tr>
<td>Other measuring and controlling device</td>
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<td>1,180</td>
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<tr>
<td>Other computer and electronic products</td>
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<td>2,253</td>
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<tr>
<td>Electrical equipment, appliances, and components</td>
<td>5,086</td>
<td>2,087</td>
<td>3,272</td>
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<tr>
<td>Transportation equipment</td>
<td>15,826</td>
<td>5,725</td>
<td>4,961</td>
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<tr>
<td>Motor vehicles, bodies, trailers, and parts</td>
<td>11,508</td>
<td>4,127</td>
<td>2,891</td>
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<tr>
<td>Aerospace products and parts</td>
<td>3,706</td>
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<td>1,685</td>
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<tr>
<td>Aircraft, aircraft engine, and aircraft parts</td>
<td>3,567</td>
<td>1,252</td>
<td>1,605</td>
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<tr>
<td>Guided missile, space vehicle, and related parts</td>
<td>139</td>
<td>47</td>
<td>81</td>
</tr>
<tr>
<td>Military armored vehicle, tank, and tank component</td>
<td>0 - 217</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
TABLE 62
U.S. patent applications and patents issued to companies located in the United States that performed or funded R&D, by industry and company size: 2018
(Number)

<table>
<thead>
<tr>
<th>Industry and company size</th>
<th>NAICS code</th>
<th>Applications</th>
<th>Nonprovisional utility patents</th>
<th>Patents issued</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>To foreign jurisdictions</td>
<td>From within organized R&amp;D activity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>c</td>
<td>activity</td>
</tr>
<tr>
<td>Other transportation</td>
<td>other 336</td>
<td>396 - 614</td>
<td>397</td>
<td>299</td>
</tr>
<tr>
<td>Furniture and related products</td>
<td>337</td>
<td>492</td>
<td>279</td>
<td>147</td>
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<tr>
<td>Miscellaneous</td>
<td>339</td>
<td>12,109</td>
<td>6,845</td>
<td>5,103</td>
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<tr>
<td>Medical equipment and supplies</td>
<td>3391</td>
<td>9,430</td>
<td>5,448</td>
<td>4,346</td>
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<tr>
<td>Other miscellaneous manufacturing</td>
<td>3399</td>
<td>2,680</td>
<td>1,397</td>
<td>757</td>
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<tr>
<td>Nonmanufacturing industries</td>
<td>21–23, 42–81</td>
<td>48,315</td>
<td>38,433</td>
<td>11,892</td>
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<td>Mining, quarrying, oil and gas extraction, and support activities</td>
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<td>1,957</td>
<td>1,397</td>
<td>1,149</td>
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<td>Utilities</td>
<td>22</td>
<td>75</td>
<td>32</td>
<td>14</td>
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<tr>
<td>Wholesale trade</td>
<td>42</td>
<td>1,107</td>
<td>525</td>
<td>227</td>
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<tr>
<td>Electronic shopping and electronic auctions</td>
<td>454111–12</td>
<td>0 - 2,679</td>
<td>0 - 1,788</td>
<td>0 - 381</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>48–49</td>
<td>140</td>
<td>82</td>
<td>27</td>
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<tr>
<td>Information</td>
<td>51</td>
<td>21,376</td>
<td>16,920</td>
<td>6,031</td>
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<tr>
<td>Publishing</td>
<td>511</td>
<td>9,501</td>
<td>8,050</td>
<td>4,019</td>
</tr>
<tr>
<td>Newspaper, periodical, book, and directory publishers</td>
<td>5111</td>
<td>3</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Software publishers</td>
<td>5112</td>
<td>9,497</td>
<td>8,048</td>
<td>4,019</td>
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<td>Telecommunications</td>
<td>517</td>
<td>2,922</td>
<td>1,870</td>
<td>260</td>
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<td>Data processing, hosting, and related services</td>
<td>518</td>
<td>3,825</td>
<td>3,086</td>
<td>473</td>
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<tr>
<td>Other information</td>
<td>other 51</td>
<td>5,128</td>
<td>3,914</td>
<td>1,279</td>
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<tr>
<td>Finance and insurance</td>
<td>52</td>
<td>3,025</td>
<td>2,101</td>
<td>259</td>
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<tr>
<td>Real estate and rental and leasing</td>
<td>53</td>
<td>309</td>
<td>180</td>
<td>0 - 181</td>
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<tr>
<td>Lessor of nonfinancial intangible assets (except copyrighted works)</td>
<td>533</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other real estate and rental and leasing</td>
<td>other 53</td>
<td>308</td>
<td>180</td>
<td>0 - 181</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>54</td>
<td>17,203</td>
<td>15,124</td>
<td>3,670</td>
</tr>
<tr>
<td>Architectural, engineering, and related services</td>
<td>5413</td>
<td>599</td>
<td>269</td>
<td>119</td>
</tr>
<tr>
<td>Computer systems design and related services</td>
<td>5415</td>
<td>13,402</td>
<td>12,879</td>
<td>2,670</td>
</tr>
<tr>
<td>Scientific research and development services</td>
<td>5417</td>
<td>2,766</td>
<td>1,680</td>
<td>777</td>
</tr>
<tr>
<td>Research and development in biotechnology</td>
<td>541711</td>
<td>334 - 739</td>
<td>334 - 397</td>
<td>292</td>
</tr>
<tr>
<td>Research and development in the physical, engineering, and life sciences (except biotechnology)</td>
<td>541712</td>
<td>2,028</td>
<td>1,284</td>
<td>485</td>
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<tr>
<td>Research and development in the social sciences and humanities</td>
<td>541720</td>
<td>0 - 405</td>
<td>0 - 63</td>
<td>0</td>
</tr>
<tr>
<td>Other professional, scientific, and technical services</td>
<td>other 54</td>
<td>436</td>
<td>296</td>
<td>105</td>
</tr>
<tr>
<td>Health care services</td>
<td>621–23</td>
<td>449</td>
<td>279</td>
<td>139</td>
</tr>
<tr>
<td>Other nonmanufacturing</td>
<td>23, 44–45 (excluding 454111–12, 55–56, 624, 71–72, 81)</td>
<td>0 - 2,679</td>
<td>0 - 1,798</td>
<td>0 - 381</td>
</tr>
<tr>
<td>All companies (number of domestic employees)</td>
<td>–</td>
<td>163,866</td>
<td>117,393</td>
<td>53,969</td>
</tr>
<tr>
<td>Small companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 62
U.S. patent applications and patents issued to companies located in the United States that performed or funded R&D, by industry and company size: 2018
(Number)

| Industry and company size | NAICS code | Applications | | | | Patents issued |
|---------------------------|------------|-------------|-------------|-------------|-------------|
|                           |            | Total       | Total       | To foreign jurisdictions | From within organized R&D activity | |
| 10–19d                    | –          | 2,756       | 1,680       | 670          | 1,491       | 991        |
| 20–49                     | –          | 5,647       | 3,143       | 1,780        | 2,860       | 1,943      |
| Medium companies          |            |             |             |             |             |            |
| 50–99                     | –          | 6,092       | 3,923       | 1,679        | 3,284       | 2,650      |
| 100–249                   | –          | 7,396       | 4,455       | 2,390        | 3,737       | 3,535      |
| Large companies           |            |             |             |             |             |            |
| 250–499                   | –          | 7,692       | 4,799       | 2,389        | 4,110       | 3,718      |
| 500–999                   | –          | 6,780       | 4,191       | 2,171        | 3,807       | 3,897      |
| 1,000–4,999               | –          | 21,860      | 14,712      | 7,960        | 12,828      | 13,316     |
| 5,000–9,999               | –          | 17,159      | 13,088      | 7,208        | 9,051       | 11,441     |
| 10,000–24,999             | –          | 36,970      | 27,140      | 13,968       | 20,659      | 19,077     |
| 25,000 or more            | –          | 51,514      | 40,260      | 13,754       | 24,806      | 45,287     |

i = > 50% of the estimate is imputation to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

a Also includes patent applications that company planned to apply for in foreign jurisdictions.
b Includes patent applications in which the named inventor(s) were R&D employees.
c For a small number of companies issued more than 100 patents by the U.S. Patent and Trademark Office (USPTO), counts from USPTO.gov were used to supplement survey data.
d 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. Statistics are based on companies in the United States that reported to the survey. No systematic item imputation was applied. Beginning in survey year 2018, these statistics include an adjustment to the weight to account for unit nonresponse. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):