According to the latest data released by the National Science Board in its 2020 Science and Engineering Indicators report, the United States leads in a number of science and engineering (S&E) measures. For example, the U.S. invests the most in research and development, attracts the most venture capital, awards the most doctoral degrees, and provides the most business, financial, and information services.

A state’s S&E performance helps fuel its and the nation’s economy. Four benchmarks of the District of Columbia’s S&E performance are highlighted here: the cost of public higher education, the size of the STEM workforce, investment in research and development, and venture capital funding.

**Rising Cost of a Bachelor’s Degree**

A bachelor’s degree is one of several entry points to higher paying jobs associated with science, engineering, and many technical occupations. Nationally, 34% of the total U.S. workforce has a bachelor’s degree or higher. In contrast, 76% of workers in S&E occupations have a bachelor’s degree or higher.

**Average annual in-state cost of a public 4-year institution**

(Adjusted for inflation to 2018 dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
<th>District of Columbia</th>
<th>U.S.</th>
<th>Virginia*</th>
<th>Maryland*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
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<tr>
<td>2005</td>
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<tr>
<td>2010</td>
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<tr>
<td>2015</td>
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<tr>
<td>2018</td>
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</tbody>
</table>

Source: National Center for Education Statistics, Digest of Education Statistics

*Data for the District of Columbia not available

**STEM Workforce: People Working in STEM Occupations**

Nationally, about 1 in 16 workers (6.2% or 9 million) have occupations as scientists or engineers (4.9%), or technical workers (1.3%). The STEM workforce is larger still when defined as either those who hold a bachelor’s degree or higher in S&E (24.5 million) or those who use S&E technical expertise in their jobs (23.8 million), regardless of level of degree.

**Jobs in S&E as a percent of all jobs in 2018**

<table>
<thead>
<tr>
<th>District of Columbia</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.4%</td>
<td>4.9%</td>
</tr>
<tr>
<td>1.5%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

Research and development (R&D) spending is a driver of innovation. Investing in science and technology today has ripple-effect benefits throughout the economy over the long term.

Annual state performance in R&D varies considerably, from $289 million (SD) to $135.1 billion (CA). The District of Columbia is one of 14 states that performs between $1 to $5 billion per year in R&D. In this figure, the District of Columbia’s percent change in R&D spending is compared to the two highest and the lowest states within this group.

**Total 2016 Research and Development Performed**
- **D.C.** $3.5B
- **U.S.** $515.3B

Source: NSF, National Center for Science and Engineering Statistics, National Patterns of R&D Resources

Venture capital investment supports U.S. businesses that take on the risk of developing and commercializing cutting-edge, emerging technologies. States with high values are successful at attracting venture capital to fuel new kinds of business, and ultimately, expand economic growth.

**Total 2017 Venture Capital Investment**
- **D.C.** $590M
- **U.S.** $80.6B

Source: Pitchbook Venture Capital and Private Equity Database

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**Percent change in R&D spending: 2000 to 2016**
*(Adjusted for inflation to 2016 dollars)*

- **167.2%** IA
- **119.1%** UT
- **38%** U.S.
- **9.9%** District of Columbia
- **167.2%** IA
- **119.1%** UT
- **38%** U.S.
- **9.9%** District of Columbia

**Year 2000 R&D Spending Level**

**Total 2016 Research and Development Performed**

- **Year 2000 R&D Spending Level**
  - **-21.6%** RI

**Total annual venture capital investment: 2000 to 2017**
*(Adjusted for inflation to 2017 dollars)*

- **District of Columbia**
- **50 States & D.C.**

Source: National Science Foundation ncses.nsf.gov/indicators

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**National Science Board** NationalScienceBrd@nsf.gov | 703.292.7000
NSB Indicators Resource Page | nsf.gov/nsb/sei

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