There’s bipartisan consensus:

“Keeping America Great” means protecting America’s World Leadership in Science, Engineering & Technology. And that requires maintaining federal funding for science and engineering R&D as a top budget priority.

Expanding the innovation capacity of the U.S. is the only way to address an increasingly difficult struggle to maintain our U.S. standard of living, national security and global economic competitiveness.

Through sustained federal, state and private funding, we must also invest more in research programs and science & engineering infrastructure. The U.S. must significantly improve the capabilities of our science, technology, engineering, and math (STEM) workforce.

A National Science Foundation (NSF) study found that 73% of the scientific papers cited in commercial patents were funded by taxpayers through the federal government, especially through university research operations.¹

For More Information: STEM in Your State

- The Science-Engineering-Technology Working Group (SETWG) has sponsored the annual STEM on the Hill™ Congressional Visits Day Program since 1995. See www.setcvd.org

- Science & Engineering Indicators 2018, published by the National Science Board, provides a broad base of quantitative information on the U.S. and global science and engineering enterprise. It is created biennially by the National Science Foundation’s Division of Science Resources Statistics (SRS). See www.nsf.gov/statistics/2018/nsb20181/

- The Congressional Research Service has produced extensive and authoritative analyses of many Science & Technology Policy issues. See www.everycrsreport.com for free access to this important data base.

- ASTRA’s Web Sites include www.usinnovation.org. See also store.usinnovation.org for free downloads of all ASTRA State STEM Report Cards 2019 and the ASTRA EdTech Revolution in Education. Get a daily, free download of US Innovation Today, our daily innovation newsletter at https://vr2.verticalresponse.com/s/usinnovationtodaynewsletter

As of 2018 the region’s population increased by 1.9% since 2013, growing by 122,904. Population is expected to increase by 1.5% between 2018 and 2023, adding 100,982.

From 2013 to 2018, jobs increased by 6.2% in Indiana from 3,148,358 to 3,342,452. This change fell short of the national growth rate of 7.8% by 1.6%. As the number of jobs increased, the labor force participation rate increased from 60.9% to 63.2% between 2013 and 2018.

Concerning educational attainment, 15.6% of Indiana residents possess a Bachelor’s Degree (3.0% below the national average), and 8.1% hold an Associate’s Degree (0.1% above the national average).

The top three industries in 2018 are Restaurants and Other Eating Places, Education and Hospitals (Local Government), and General Medical and Surgical Hospitals.
**Location quotient (LQ)** is a valuable way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region “unique” in comparison to the national average, which is defined as 1.0. In more exact terms, location quotient is a ratio that compares a region to a larger reference region according to some characteristic or asset. Industry LQ is a way of quantifying how “concentrated” an industry is in a region compared to a larger geographic area, such as the state or nation. The basic uses of industry LQs (and, by extension, for clusters and occupations as well) include these:

- To determine which industries make the regional economy unique.
- To identify the “export orientation” of an industry and identify the most export-oriented industries in the region.
- To identify emerging export industries beginning to bring money into the region.
- To identify endangered export industries that could erode the region’s economic base.  

**Rank** How Indiana Ranks Nationally in Key Innovation Metrics (latest) | **Indiana** | **Total U.S.**
--- | --- | ---
9 | High-Tech Manufacturing Exports ($Millions) | $10,580 | $389 Billion
22 | High-Tech Share of All Manufacturing Exports (%) | 30.2% | 28.6%
33 | IT Services Exports ($Millions) | $80 | $36 Billion
44 | IT Share of All Services Exports (%) | 0.9% | 5.2%
10 | Royalty and License Services Exports ($Millions) | $2,946 | $131 Billion
3 | Royalty and License Share of All Exports (%) | 33.2% | 19.1%
24 | Patent Filers Per 1,000 Workers | 6.7 | 10.0
25 | Patents Filed Per 1,000 Workers | 2.5 | 3.7
48 | Public R&D Funding Per Worker ($) | $437 | $1,059

Sources: 5. EMSI; 6. U.S. Patent & Trademark Office, USASpending.gov, U.S. Census Bureau

## Indiana’s Future Workforce: Top 40 STEM Jobs 2018 - 2028

<table>
<thead>
<tr>
<th>2028 Rank</th>
<th>SOC</th>
<th>Description</th>
<th>Indiana STEM Jobs</th>
<th>2018 Jobs</th>
<th>2028 Jobs</th>
<th>2018 - 2028 Change</th>
<th>2018 - 2028 % Change</th>
<th>+ / - National Average (LQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29-1141</td>
<td>Registered Nurses</td>
<td>69,010</td>
<td>79,615</td>
<td>10,605</td>
<td>15%</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>29-2061</td>
<td>Licensed Practical and Licensed Vocational Nurses</td>
<td>15,886</td>
<td>17,630</td>
<td>1,744</td>
<td>11%</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>15-1151</td>
<td>Computer User Support Specialists</td>
<td>12,175</td>
<td>13,722</td>
<td>1,547</td>
<td>13%</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>17-2112</td>
<td>Industrial Engineers</td>
<td>10,171</td>
<td>11,302</td>
<td>1,131</td>
<td>11%</td>
<td>1.84</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
<td>9,985</td>
<td>10,524</td>
<td>539</td>
<td>5%</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>29-1069</td>
<td>Physicians and Surgeons, All Other</td>
<td>9,874</td>
<td>11,170</td>
<td>1,296</td>
<td>13%</td>
<td>1.25</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>15-1132</td>
<td>Software Developers, Applications</td>
<td>9,509</td>
<td>12,354</td>
<td>2,845</td>
<td>30%</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>15-1121</td>
<td>Computer Systems Analysts</td>
<td>9,356</td>
<td>10,345</td>
<td>989</td>
<td>11%</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>17-2141</td>
<td>Mechanical Engineers</td>
<td>8,148</td>
<td>8,922</td>
<td>774</td>
<td>9%</td>
<td>1.33</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11-9111</td>
<td>Medical and Health Services Managers</td>
<td>7,911</td>
<td>9,383</td>
<td>1,472</td>
<td>19%</td>
<td>1.05</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>41-4011</td>
<td>Sales Reps., Whsl. &amp; Mfg. Technical &amp; Scientific Products</td>
<td>7,531</td>
<td>8,213</td>
<td>682</td>
<td>9%</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>15-1142</td>
<td>Network and Computer Systems Administrators</td>
<td>7,318</td>
<td>7,831</td>
<td>513</td>
<td>7%</td>
<td>0.91</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>29-2018</td>
<td>Clinical Laboratory Technologists and Technicians</td>
<td>6,513</td>
<td>7,558</td>
<td>1,045</td>
<td>16%</td>
<td>0.99</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>29-1051</td>
<td>Pharmacists</td>
<td>6,151</td>
<td>6,367</td>
<td>216</td>
<td>4%</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>29-2041</td>
<td>Emergency Medical Technicians and Paramedics</td>
<td>6,017</td>
<td>6,684</td>
<td>667</td>
<td>11%</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>11-3021</td>
<td>Computer and Information Systems Managers</td>
<td>5,206</td>
<td>5,900</td>
<td>694</td>
<td>13%</td>
<td>0.66</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>29-1123</td>
<td>Physical Therapists</td>
<td>5,156</td>
<td>6,742</td>
<td>1,586</td>
<td>31%</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>29-2021</td>
<td>Dental Hygienists</td>
<td>4,878</td>
<td>5,688</td>
<td>810</td>
<td>17%</td>
<td>1.09</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>15-1131</td>
<td>Computer Programmers</td>
<td>4,634</td>
<td>4,995</td>
<td>(139)</td>
<td>3%</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>29-2034</td>
<td>Radiologic Technologists</td>
<td>4,400</td>
<td>4,502</td>
<td>620</td>
<td>14%</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>29-1126</td>
<td>Respiratory Therapists</td>
<td>4,371</td>
<td>5,303</td>
<td>932</td>
<td>21%</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>29-1171</td>
<td>Nurse Practitioners</td>
<td>4,281</td>
<td>5,553</td>
<td>1,272</td>
<td>30%</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>29-2071</td>
<td>Medical Records and Health Information Technicians</td>
<td>4,227</td>
<td>4,879</td>
<td>652</td>
<td>15%</td>
<td>0.98</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>11-9041</td>
<td>Architectural and Engineering Managers</td>
<td>4,099</td>
<td>4,373</td>
<td>274</td>
<td>7%</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>15-1133</td>
<td>Software Developers, Systems Software</td>
<td>3,952</td>
<td>4,574</td>
<td>622</td>
<td>16%</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>17-2051</td>
<td>Civil Engineers</td>
<td>3,783</td>
<td>4,270</td>
<td>487</td>
<td>13%</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>15-1199</td>
<td>Computer Occupations, All Other</td>
<td>3,480</td>
<td>4,047</td>
<td>567</td>
<td>16%</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>17-2071</td>
<td>Electrical Engineers</td>
<td>3,296</td>
<td>3,559</td>
<td>263</td>
<td>8%</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>29-2055</td>
<td>Surgical Technologists</td>
<td>3,238</td>
<td>3,612</td>
<td>374</td>
<td>12%</td>
<td>1.44</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>15-1143</td>
<td>Computer Network Architects</td>
<td>3,211</td>
<td>3,450</td>
<td>239</td>
<td>7%</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>29-1122</td>
<td>Occupational Therapists</td>
<td>3,021</td>
<td>3,777</td>
<td>756</td>
<td>25%</td>
<td>1.15</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>17-3026</td>
<td>Industrial Engineering Technicians</td>
<td>2,958</td>
<td>3,019</td>
<td>61</td>
<td>2%</td>
<td>2.03</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>29-1127</td>
<td>Speech-Language Pathologists</td>
<td>2,618</td>
<td>3,226</td>
<td>608</td>
<td>23%</td>
<td>0.89</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>19-2031</td>
<td>Chemists</td>
<td>2,557</td>
<td>2,661</td>
<td>104</td>
<td>4%</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>29-9011</td>
<td>Occupational Health and Safety Specialists</td>
<td>2,516</td>
<td>2,630</td>
<td>114</td>
<td>5%</td>
<td>1.29</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>17-2199</td>
<td>Engineers, All Other</td>
<td>2,468</td>
<td>2,670</td>
<td>202</td>
<td>8%</td>
<td>0.78</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>17-3023</td>
<td>Electrical and Electronics Engineering Technicians</td>
<td>2,448</td>
<td>2,564</td>
<td>116</td>
<td>5%</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>15-1152</td>
<td>Computer Network Support Specialists</td>
<td>2,437</td>
<td>2,766</td>
<td>329</td>
<td>14%</td>
<td>0.59</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>17-2072</td>
<td>Electronics Engineers, Except Computer</td>
<td>2,393</td>
<td>2,507</td>
<td>114</td>
<td>5%</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>29-1021</td>
<td>Dentists, General</td>
<td>2,385</td>
<td>2,764</td>
<td>379</td>
<td>16%</td>
<td>0.86</td>
<td></td>
</tr>
</tbody>
</table>

Source: ASTRA’s Global STEM & Innovation Data Project and EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns 2/15/19.
### Indiana’s Innovation X-RAY:

Indiana’s Key Economic Characteristics 2019

#### Educational Pipeline

In 2017, there were 105,476 graduates in Indiana. This pipeline has grown by 3% over the last 5 years. The highest share of these graduates come from "Registered Nursing/Registered Nurse", "Business/Commerce, General", and "Business Administration and Management, General".

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Ivy Tech Community College</td>
<td>21,046</td>
<td></td>
</tr>
<tr>
<td>Indiana University-Bloomington</td>
<td>11,380</td>
<td></td>
</tr>
<tr>
<td>Purdue University-Main Campus</td>
<td>10,993</td>
<td></td>
</tr>
<tr>
<td>Indiana University-Purdue University-Indianapolis</td>
<td>7,506</td>
<td></td>
</tr>
<tr>
<td>Ball State University</td>
<td>3,546</td>
<td></td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>4,254</td>
<td></td>
</tr>
<tr>
<td>Indiana Wesleyan University-National and Global</td>
<td>4,135</td>
<td></td>
</tr>
<tr>
<td>Vincennes University</td>
<td>3,329</td>
<td></td>
</tr>
<tr>
<td>Indiana State University</td>
<td>2,777</td>
<td></td>
</tr>
<tr>
<td>Purdue University Northwest</td>
<td>2,430</td>
<td></td>
</tr>
</tbody>
</table>

- **Certificate**
- **Associate’s**
- **Bachelor’s**
- **Master’s or Higher**

#### Industry Characteristics

**Largest Industries**

- **Manufacturing**
- **Government**
- **Health Care and Social Assistance**
- **Retail Trade**
- **Accommodation and Food Services**
- **Administrative and Support and Waste Management and Remediation Services**
- **Construction**
- **Other Services (except Public Administration)**
- **Transportation and Warehousing**
- **Professional, Scientific, and Technical Services**
- **Wholesale Trade**
- **Finance and Insurance**
- **Educational Services**
- **Arts, Entertainment, and Recreation**
- **REAL ESTATE AND RENTAL AND LEASING**
- **Business Services**
- **Agriculture, Forestry, Fishing and Hunting**
- **Utilities**
- **Mining, Quarrying, and Oil and Gas Extraction**

#### Business Characteristics

263,319 Companies Employ Your Workers

Online profiles for your workers mention 263,319 companies as employers, with the top 10 appearing below. In the last 12 months, 39,872 companies in Indiana posted job postings, with the top 10 appearing below.

<table>
<thead>
<tr>
<th>Top Companies</th>
<th>Profiles</th>
<th>Top Companies Posting</th>
<th>Unique Postings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purdue University</td>
<td>13,898</td>
<td>CRST International, Inc.</td>
<td>40,528</td>
</tr>
<tr>
<td>Eli Lilly and Company</td>
<td>9,675</td>
<td>Anthem, Inc.</td>
<td>21,038</td>
</tr>
<tr>
<td>Indiana State University</td>
<td>9,244</td>
<td>USA Truck, Inc.</td>
<td>16,325</td>
</tr>
<tr>
<td>Indiana University</td>
<td>8,055</td>
<td>Koch Trucking, Inc.</td>
<td>12,236</td>
</tr>
<tr>
<td>Indiana University Health</td>
<td>6,570</td>
<td>C.R. England, Inc.</td>
<td>11,473</td>
</tr>
<tr>
<td>Wal-Mart Stores, Inc.</td>
<td>5,920</td>
<td>J.B. Hunt Transport Services, Inc.</td>
<td>10,328</td>
</tr>
<tr>
<td>Cummins Inc.</td>
<td>5,615</td>
<td>Indiana University</td>
<td>9,518</td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>3,923</td>
<td>Hogan Transports Inc</td>
<td>8,584</td>
</tr>
<tr>
<td>Amazon.com, Inc.</td>
<td>3,610</td>
<td>U. S. Express, Inc.</td>
<td>8,155</td>
</tr>
<tr>
<td>IU Health, Inc.</td>
<td>3,561</td>
<td>Tuomey, Inc.</td>
<td>7,801</td>
</tr>
</tbody>
</table>

#### Population Characteristics

- **Millennials**: 1.34M
- **Retiring Soon**: 1.90M
- **Racial Diversity**: 1.39M
- **Veterans**: 397,715
- **Violent Crime**: 3.5/1,000
- **Property Crime**: 22.99/1,000

Indiana has 1,342,404 millennials (ages 20-34). The national average for an area this size is 1,380,797.

Indiana has 397,715 veterans. The national average for an area this size is 387,648.

Indiana has 3.5 violent crimes per 1,000 people. The national rate is 3.75 per 1,000 people.

Indiana has 22.99 property crimes per 1,000 people. The national rate is 24.21 per 1,000 people.

Indiana has 1,343,404 millennials. The national average for an area this size is 1,380,797.

Indiana has 3.5 violent crimes per 1,000 people. The national rate is 3.75 per 1,000 people.

Indiana has 22.99 property crimes per 1,000 people. The national rate is 24.21 per 1,000 people.

Racial diversity is low in Indiana.

In 2017, there were 105,476 graduates in Indiana. This pipeline has grown by 3% over the last 5 years. The highest share of these graduates come from Registered Nursing/Registered Nurse, Business/Commerce, General, and Business Administration and Management, General.

**Educational Pipeline**

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<td>10,993</td>
<td></td>
</tr>
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<td>7,506</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>University of Notre Dame</td>
<td>4,254</td>
<td></td>
</tr>
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</tr>
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- **Business Services**
- **Agriculture, Forestry, Fishing and Hunting**
- **Utilities**
- **Mining, Quarrying, and Oil and Gas Extraction**

**Sources**: EMSI / ASTRA Data Analyses 2/15/19
A Remarkable Return on Taxpayers' Investment

How the SBIR / STTR Program Keeps America Secure and Growing

SBIR / STTR Funds High-Tech Small Business Innovations — that Private Funding Doesn’t

Overview by the Small Business Technology Council

The Small Business Innovation Research Program (SBIR) and Small Business Technology Transfer Program (STTR) form the backbone of high-tech small business funding. America’s high-tech small businesses depend on SBIR/STTR to fund the next generation of high-tech innovations because, for the vast majority of small businesses, private funding simply isn’t available.

On the surface, it appears that private venture capital (VC) seed stage funding is keeping pace with SBIR/STTR funding, with SBIR/STTR awarding a total of $10.8 billion vs. VC Seed Stage deals totaling $9.5 billion over 2012-2016.

But the truth is that VC funding is heavily concentrated by sector and state, with 56% of all VC funding going to companies in California and Massachusetts. Those companies outside that narrow geographical sector cross section end up competing for a relatively small slice of the VC Seed Stage Funding pie. For example, if you exclude all deals in Massachusetts and California AND all Software, Internet, or Telecommunications deals, the remainder adds up to only 10% of VC Seed Stage funding, equal in total on average to about 180 deals and $175 million a year.

While SBIR/STTR also skews in favor of states like California and Massachusetts, the divide is much less severe. States that receive literally no VC funding, like Wyoming and South Dakota, at least receive some SBIR/STTR awards.

And SBIR/STTR also funds technology in sectors that VC has no interest in, such as agriculture and biotech.

Recent data has also shown that mergers and acquisitions by large businesses in North America are also slowing down, reducing from a peak of around 14,000 in 2015 to approximately 10,500 in 2017. This reduction in mergers and acquisitions comes in spite of strong economic numbers nationwide over the past 2 years.

For more information, contact the Small Business Technology Council by linking to:

Addressing Geographic Imbalance

EPSCoR / IDeA
Spreads Federal R&D Funding & Benefits to More Citizens and Regions

EPSCoR & IDeA: A Necessary and Sound Investment in our Nation’s Future

The National Science Foundation (NSF) established EPSCoR in 1979 because Congress was troubled by the uneven distribution of federal research and development grants. After World War II, federally funded academic research grew dramatically, but national science policy at the time tended to funnel resources to a small number of centers of excellence. Grants gravitated toward the few states and institutions that had historically benefited. This status quo ignored the dramatic growth in regional educational and research institutions, and therefore, the nation wasn’t profiting fully from the wealth of ingenuity and skill embedded across the country.

EPSCoR, which stands for “Experimental Program to Stimulate Competitive Research,” was the answer.

Today, four other federal agencies have followed the National Science Foundation in creating EPSCoR or EPSCoR-like programs: the National Institutes of Health, the National Aeronautics and Space Administration, and the Departments of Energy and Agriculture. The National Institute of Health’s Institutional Development Award (IDeA) program is the largest of the EPSCoR or EPSCoR-like programs.

EPSCoR/IDeA helps researchers and institutions improve their research capabilities and quality in order to compete more effectively for “mainstream” competitive research funds. EPSCoR/IDeA expands and improves the research capability of scientists and institutions in eligible states, allows them to compete more effectively for “mainstream” federal academic research and development money, builds eligible states’ technical workforces in order to foster innovation and to contribute to the state’s and the nation’s economy.

EPSCoR/IDeA Building Research Excellence

By increasing the quality of research within the EPSCoR/IDeA jurisdictions, the federal program:

- Facilitates U.S. world leadership in science and technology by strengthening the nation’s research capability,
- Encourages all parts of the country to participate in and benefit from a strong scientific and technological enterprise,
- Builds local, state, and national support for stronger science and technology research and education,
- Expands economic opportunity and creates jobs through improved education and technology transfer, and
- Prepares a diverse and highly-competent technical workforce.

EPSCoR/IDeA projects undergo merit reviews at the state level to align projects with state and institutional needs and priorities. At the federal level, they undergo rigorous external merit review to make sure they meet national standards of quality. EPSCoR/IDeA funds only high-quality research that “adds significant value” to the existing science and technology enterprise.

Through EPSCoR/IDeA, 24 states as well as Guam, the Virgin Islands and Puerto Rico receive about ten percent of federal academic research dollars. Put another way, the research institutions in more than half the states still do not fully participate in the $36.8 billion federal R&D investments in academia. Yet scientific and technological research cannot be limited to a few states if the nation is to maintain world leadership and reach its full potential.

Researchers in EPSCoR/IDeA states are needed for the nation to meet its most pressing priorities in health, cyberinfrastructure, and homeland security. A broad science and technology base is especially important in an era of technological enterprise. And strong academic research centers are important to every state in order to provide sound education and research opportunities for its students (most students attend college within 50 miles of home), a trained workforce, and support for both existing and emerging businesses, especially in the high technology area.

Studies show that high technology businesses tend to cluster where they have a trained workforce and strong research capability and support. Through EPSCoR/IDeA, participating states and territories are building a high-quality, university-based research infrastructure, a backbone to their scientific and technological enterprises, and a strong and stable economic base into the next century.

Source: http://www.epscorideafoundation.org/about/overview

How Congress Provides Science/STEM Funding for the States

**Every Student Succeeds Act (ESSA)**

Title IV-A, Student Support and Academic Enrichment Grants and Science/STEM Education

**STATES**

$1.1 Billion

Congress provided $1.1 Billion for the Title IV-A grant for FY18. Each state will receive an allocation based on their Title I funding formula. Using the same Title I formula, each state must allocate funds to school districts.

Schools or districts that receive an allocation **above** $30,000 based on their Title I status must do a needs assessment and spend:

- **20%** Well rounded education
- **60%** Technology
  - Materials/Prof Dev
  - Equipment/Devices
  - Digital Content
  - Some funding must go towards tech, with a 15% cap on infrastructure

Schools or districts that receive an allocation **below** $30,000 must spend money on activities in at least one of the three categories:

- **20%** Safe schools
  - Healthy students
  - Violence prevention
  - School counselors
  - Mental health

- **20%** STEM
  - Expansion of high-quality STEM courses
  - Support for student participation in STEM nonprofit competitions
  - Increased access to STEM for underserved and at-risk student populations
  - Providing hands-on learning opportunities in STEM

- **60%** Well rounded education
  - Art
  - Music
  - Physical Education
  - Safe schools
  - Technology

The remaining 60% of funds can be spent on all 3 priorities, including technology.

**WINTER/SPRING 2018**

- Districts prepare to apply for FY18 ESSA funds, develop ESSA plans based on stakeholder input, district needs assessments, and priorities

**SPRING/SUMMER 2018**

- Districts submit ESSA plans, submit application for FY18 ESSA funds (Titles I-IV) and any competitive ESSA funds (e.g. 21st Century Community Learning Centers, School Leader Recruitment and Support Fund, Education Innovation and Research grants).

**SUMMER/FALL 2018**

- FY18 ESSA Title funds are awarded to districts from their State Department of Education

**STEM**

Funding can be used to support the wide range of activities that are specifically allowed in the statute to improve STEM teaching and learning:

- Expansion of high-quality STEM courses
- Increased access to STEM for underserved and at-risk student populations
- Support for student participation in STEM nonprofit competitions
- Providing hands-on learning opportunities in STEM
- Integration of other academic subjects, including the arts, into STEM subject programs
- Creation or enhancement of STEM specialty schools
- Integration of classroom based, after-school, and informal STEM instruction
- Expansion of environmental education

Contact your district’s central office to learn more about ESSA Title IV-A funding.