**Economic Impact**

**EMPLOYEES**
- **725,265**
  - Total employees at AAU universities in 2016

**SALARIES**
- **$77 Billion**
  - Total salaries paid by AAU universities in 2016

**EMPLOYMENT**
- **35 in Top 20**
  - 35 AAU universities were among the top 20 employers in their state as of 2016

**ENTREPRENEURS**
- **38 in Top 50**
  - 38 AAU universities were in the top 50 for producing venture capital-backed entrepreneurs as of 2016

**ECONOMIC IMPACT OVER TIME (2006–16)**

- **2006**
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
  - 4,407 patents issued in 2016
- **2007**
  - 3,611 start-up companies created in home state in 2016
  - 4,407 patents issued in 2016
- **2008**
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
  - 4,407 patents issued in 2016
- **2009**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2010**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2011**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2012**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2013**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2014**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2015**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016
- **2016**
  - 4,407 patents issued in 2016
  - 3,096 cumulative operational start-up companies formed in 2016
  - 635 technology license agreements in 2016

**PATENTS**
- **4,407**
  - Patents issued in 2016

**LICENSES**
- **3,611**
  - Technology license agreements in 2016

**TOTAL START-UPS**
- **3,096**
  - Cumulative operational start-up companies formed in 2016

**START-UPS IN 2016**
- **635**
  - Start-up companies formed in 2016

**HOME STATE COs.**
- **443**
  - Start-up companies created in home state in 2016
### FEDERALLY-FUNDED RESEARCH (2016)*

<table>
<thead>
<tr>
<th>Department</th>
<th>Amount</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Agriculture</td>
<td>$25B</td>
<td>60%</td>
</tr>
<tr>
<td>Department of Defense</td>
<td>$20B</td>
<td>46%</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>$15B</td>
<td>46%</td>
</tr>
<tr>
<td>Department of Health and Human Services (including NIH)</td>
<td>$10B</td>
<td>60%</td>
</tr>
<tr>
<td>National Aeronautics and Space Administration</td>
<td>$5B</td>
<td>60%</td>
</tr>
<tr>
<td>Other Federal Departments and Agencies</td>
<td>$5B</td>
<td>60%</td>
</tr>
<tr>
<td>Total Federal R&amp;D at AAU universities</td>
<td>$23.3 Billion</td>
<td>100%</td>
</tr>
</tbody>
</table>

*% of total amount awarded to AAU universities / total dollar amount received by AAU universities

### HONORS & AWARDS

- **52%** of all National Academy Members
  - 3,595 Members of the National Academies at AAU universities

- **70%** of all American Academy Fellows
  - 3,423 Elected American Academy Fellows affiliated with AAU universities

### SCHOLARLY OUTPUT

- **19.2 Million** Citations (2011-2016)*
- **2.3 Million** Publications (2011-2016)*
- **56,201** Books in 2016**

*Thomson-Reuters InCites **2016 Academic Analytics

### RESOURCES

- **24** research parks
- **62** (all) have start-up and research investment programs
- **67** university accelerator programs
- **$9.3B** in institutional contributions to research and development
## Value

### Institutional Grant Aid in 2016

Institutional grant aid exceeded federal aid by 42% (aid to first-time, full-time undergraduates)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Grants</td>
<td>$1.24 Billion</td>
<td>$1.34 Billion</td>
<td>$1.46 Billion</td>
<td>$1.54 Billion</td>
<td>$1.62 Billion</td>
<td>$1.71 Billion</td>
</tr>
<tr>
<td>Federal Loans</td>
<td>$500.59</td>
<td>$508.22</td>
<td>$495.82</td>
<td>$486.68</td>
<td>$482.71</td>
<td>$459.62</td>
</tr>
<tr>
<td>Federal Grants</td>
<td>$282.87</td>
<td>$247.28</td>
<td>$248.00</td>
<td>$254.31</td>
<td>$257.16</td>
<td>$257.66</td>
</tr>
</tbody>
</table>

**Private Universities in 2016**

- 41% of full tuition
- Students at private AAU universities only paid 41% of the sticker price and low-income students only paid 15%

**Public Universities in 2016**

- 58% of full tuition
- Students at public AAU universities only paid 58% of the sticker price and low-income students only paid 35%

### 2016 AAU Graduation Rate

<table>
<thead>
<tr>
<th></th>
<th>4 Years</th>
<th>5 Years</th>
<th>6 Years for Pell Grant Recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAU Graduates</td>
<td>64%</td>
<td>80%</td>
<td>83%</td>
</tr>
<tr>
<td>Non-AAU Graduates</td>
<td>7%</td>
<td>10%</td>
<td>5%</td>
</tr>
</tbody>
</table>

### 2016 National Graduation Rate

<table>
<thead>
<tr>
<th></th>
<th>4 Years</th>
<th>5 Years</th>
<th>6 Years for Pell Grant Recipients</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAU Graduates</td>
<td>41%</td>
<td>57%</td>
<td>61%</td>
</tr>
<tr>
<td>Non-AAU Graduates</td>
<td>2.8%</td>
<td>7.4%</td>
<td>14.6%</td>
</tr>
</tbody>
</table>

### Student Debt

- In 2015, 7 out of 10 graduating seniors from non-AAU universities had debt, while only 5 out of 10 graduating seniors from AAU universities had debt.