Endowment, $ Billion

FYE14 Endowments
All Tenure-Track Faculty

AY15 Faculty

Non-Medical Tenure-Track Faculty

AY15 Non-Med Faculty
Degrees Awarded in 2014

AY14 Degrees Conferred

Endowment per Faculty, Degree, Student
US News Peer Assessment vs Faculty Size

US News Score vs Faculty Size
Per Capita Research Expenditures

Normalized Per Capita Research Expenditures

Source: NSF Higher Education Research Data; AAMC, IPEDS
Productivity in Physical and Mathematical Sciences

Productivity in Biomedical and Biological Sciences
Productivity in Humanities

Productivity in Social and Behavioral Sciences
Productivity in Engineering

Productivity in Health Professions
FSPI Z-Scores for AAU Private Institutions

School Profiles: Tenure Track Faculty + Students (excl. PhD)

<table>
<thead>
<tr>
<th></th>
<th>MED</th>
<th>NUR</th>
<th>A&amp;S</th>
<th>ENG</th>
<th>ED</th>
<th>BUS</th>
<th>MUS</th>
<th>Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester</td>
<td>787</td>
<td>13</td>
<td>262</td>
<td>86</td>
<td>20</td>
<td>39</td>
<td>88</td>
<td></td>
</tr>
<tr>
<td>Vanderbilt</td>
<td>555</td>
<td>15</td>
<td>374</td>
<td>84</td>
<td>80</td>
<td>38</td>
<td>23</td>
<td>36</td>
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</table>
Endowment Availability

<table>
<thead>
<tr>
<th></th>
<th>$ per Faculty</th>
<th>$ per Degree</th>
<th>$ per UG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rochester</td>
<td>$1,527,886 [$76,000/year]</td>
<td>$607,745 [$30,000/year]</td>
<td>$321,622 [$16,000/year]</td>
</tr>
<tr>
<td>Vanderbilt</td>
<td>$3,208,762 [$160,000/year]</td>
<td>$1,079,000 [$54,000/year]</td>
<td>$590,607 [$30,000/year]</td>
</tr>
</tbody>
</table>

Change in Tuition Dependence: FY 07 vs FY 16

[Bar chart showing the change in revenue by school for various categories: Gifts & Other, Indirect Cost Recovery, Endowment, Net Tuition.]
Getting Ahead: Research

- Maintain low barriers to collaboration
- Push co-ordinated, University-wide initiatives
- Identify and support peaks (and potential peaks) of excellence
- Promote international collaborations

Projected Spending on R&D

![Graph showing projected spending on R&D from 2012 to 2024 for the U.S., China, and EU30.]

Source: Batelle 2014 Global R&D Funding Forecast
Researchers in different fields have different tendencies to collaborate internationally. Astronomy is the most international field, with over half of its articles internationally coauthored (56%) (figure 5-22). Geosciences, computer sciences, social sciences, and other life sciences have led to similar collaboration.

Rates of international collaboration by country/realm have risen in response to EU policies active in recent years, coauthorships during the same period (from 36% to 44%) slightly larger increase than the increase in purely domestic articles, rising from 16% in 1997 to 25% in 2012. This is a result in cost sharing and collaboration among countries, the infrastructure (e.g., atomic colliders and telescopes) that requires international collaboration has risen across all scientific fields over the last 15 years. The two fields with the highest shares in the range of 27%–34%.

Fields with low rates of collaboration (17%–21%) include psychology, chemistry, and other life sciences. The shares of larger countries are generally higher than those of smaller countries, ranging from 25% to 80%, with countries like Saudi Arabia (80%) having the highest proportion of internationally coauthored articles. The difference is likely because the bigger and more diversified scientific establishments in larger countries allow for individual fields to have strong gains yet remain among the four fields with the least amount of international collaboration.

Rates of international collaboration—astronomy and geosciences—had increases of 17 and 14 percentage points, respectively, in their shares between 1997 and 2012. Physics—had increases of 17 and 14 percentage points, respectively, in their shares between 1997 and 2012. Physics and chemistry had far lower gains of just 5 and 7 percentage points, respectively, in their shares between 1997 and 2012. Psychology and other life sciences had strong gains yet remain among the four fields with the least amount of international collaboration. Science and Engineering Indicators 2014,

Share of All S&E Articles Resulting from Intl. Collaboration

Source: NSF Science & Engineering Indicators 2014

Getting Ahead: Education

- Capitalize on our talent for curricular innovation
- Increased focus on value-for-money
  - Novel trajectories (e.g., accelerated bachelor’s/master’s)
- International engagement
  - International enrollments
  - Education of global citizens
Two Threads…

• Global Engagement
  • Access to talent (faculty, students)
  • Access to research resources
  • Engagement with significant problems
  • Doing more for our students

• University Organization
  • Suboptimal for major research initiatives?
  • Imposes higher costs?