Development of an IPEDS Academic Programs Dashboard: Leveraging Public Higher Education Data for Strategic Insight

Clair Johnson, PhD
University of Pennsylvania Libraries (formerly)
Background
The Landscape of the Higher Education Library

- Increasing remote learning and evolving role of the academic library
- Emphasis on organizational learning and collective intelligence
- Diversification of librarian expertise
- Democratization of data and open access to scholarship
Emergence of Research Questions

- What academic trends do university libraries need to be prepared to address?
- What skills are students seeking that they may not develop through coursework?
- What kind of support will teaching faculty need in the next five to ten years?
Data & Technology
IPEDS & Power BI

- Integrated Postsecondary Education Data System
  - System of interrelated surveys collected annually by the National Center for Education Statistics
  - All institutions that receive federal aid required to participate
  - Publicly accessible
  - Includes data on enrollment, outcomes, staffing, finances, and libraries

- Microsoft Power BI
  - Low-cost data visualization program
  - Ability to control level of access to reports
  - Ability to “slice and dice” the data
The Dashboards
Emerging Insights
# Academic Programs over Time

<table>
<thead>
<tr>
<th>Year</th>
<th>54.0601 - General Economics</th>
<th>45.0603 - Econometrics</th>
<th>30.7001 - Data Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>335</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>334</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>334</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>328</td>
<td>57</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>320</td>
<td>101</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>310</td>
<td>156</td>
<td>0</td>
</tr>
<tr>
<td>2020</td>
<td>302</td>
<td>206</td>
<td>11</td>
</tr>
</tbody>
</table>
Please select which filters should be applied to the base (denominator) of the percentage calculations. For example, to calculate percentages within the institution(s) selected, choose "Include" for Institution. To calculate across all institutions, choose "Exclude" for Institution.
Strategic Significance
Strategic Significance

- **Resource conservation**: Taking advantage of publicly accessible data resources
- **Collective intelligence**: Leveraging crowdsourced insights in the era of big data
- **Global perspective**: Implementing an external lens in library assessment