Correlating use of library services with student success, and what we learned along the way

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University of Central Florida Libraries
Rationale

*Why we did what we did*
Environmental pressures
Library assessment trends

- Profession
  - Input measures
  - Output measures
  - Outcomes-based
state

Performance based funding models
# Performance Funding Model 2016-17

**University of Central Florida**

<table>
<thead>
<tr>
<th>Key Metrics Common to All Universities Plus 2 Institution Specific Metrics</th>
<th>Excellence</th>
<th>Improvement</th>
<th>Final Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Bachelor's Graduates Employed and/or Continuing their Education (1 Yr after Graduation)</td>
<td>74.8%</td>
<td>0.0%</td>
<td>7</td>
</tr>
<tr>
<td>Median Wages of Bachelor's Graduates Employed Full-Time in Florida (1 Yr after Graduation)</td>
<td>$36,200</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Average Cost per Bachelor's Degree</td>
<td>$24,190</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Six Year Graduation Rate - Full-time and Part-time FTIC</td>
<td>70.1%</td>
<td>0.9%</td>
<td>10</td>
</tr>
<tr>
<td>Academic Progress Rate - 2nd Year Retention with GPA Above 2.0</td>
<td>86.6%</td>
<td>1.7%</td>
<td>3</td>
</tr>
<tr>
<td>Bachelor's Degrees Awarded in Areas of Strategic Emphasis</td>
<td>49.7%</td>
<td>0.8%</td>
<td>9</td>
</tr>
<tr>
<td>University Access Rate - Percent of Undergraduates with a Pell-grant</td>
<td>39.0%</td>
<td>0.6%</td>
<td>10</td>
</tr>
<tr>
<td>Graduate Degrees Awarded in Areas of Strategic Emphasis</td>
<td>61.7%</td>
<td>4.3%</td>
<td>8</td>
</tr>
<tr>
<td>Institution-Specific Metrics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Bachelor's Degrees Awarded without Excess Hours</td>
<td>69.2%</td>
<td>2.3%</td>
<td>5</td>
</tr>
<tr>
<td>Number of Bachelor's Degrees Awarded Annually</td>
<td>12,629</td>
<td>2.1%</td>
<td>10</td>
</tr>
</tbody>
</table>

university

Student success initiatives
Graphic from Re-Imagining the First Year of College, Key Stakeholders Meeting powerpoint presentation. May 25, 2016
Provost’s Challenge

Information Literacy Modules

Usage stats are great, but...
Methods

*How we selected service points and collected data*
# Service Points Considered

<table>
<thead>
<tr>
<th>Ask Us</th>
<th>Interlibrary Loan</th>
<th>Reference Desk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circulation</td>
<td>Library Research Strategies Webcourse</td>
<td>Research Consultations</td>
</tr>
<tr>
<td>Course Reserves</td>
<td>Information Literacy Modules</td>
<td>Study Room Reservations</td>
</tr>
<tr>
<td>Face to Face Instruction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Five Service Points

- Information Literacy Modules
- Library Research Strategies Webcourse
- Study Room Reservations
- Face to Face Instruction
- Research Consultations
Data Collection Successes

Authenticated Systems

- Canvas (Webcourse)  
  Download monthly from gradebook

- Obojobo (Info Lit Modules)  
  Request from CDL staff each semester

- LibCal (Study Room Reservations)  
  Download monthly
Data Collection Challenges

Manual collection

- Library Instruction
  - Paper and online forms
  - Card scanners
  - RDS

- Research Consultation
  - Manual collection
  - Form
Data Management

FERPA training

Excel files

Secure network drive
The Players

Libraries
- Assoc. Director
- Librarians
- Office Manager

Statistics
- Professor
- Grad student

Institutional Knowledge Management
Along the way

Insights into instruction
Things we learned

Deeper Usage Statistics

Comparison across formats/modalities

Grade discrepancies - Fall and Spring

Results

Fall 2014
Fall 2014-2015
Student success analyses
Fall 2014: % of students using library services

- Library users: 81.86%
- Library non-users: 18.14%
## Fall 2014: Library users compared to enrollments

<table>
<thead>
<tr>
<th>Library users</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>11.93%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>11.71%</td>
</tr>
<tr>
<td>Junior</td>
<td>25.43%</td>
</tr>
<tr>
<td>Senior</td>
<td>39.30%</td>
</tr>
<tr>
<td>Graduate</td>
<td>9.12%</td>
</tr>
</tbody>
</table>

*Does not include non-degree seeking, Medical, or professional certification*
Fall 2014: Library users compared to enrollments

<table>
<thead>
<tr>
<th></th>
<th>Library users</th>
<th>UCF Enrollments</th>
<th>% of pop using library services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>11.93%</td>
<td>8.85%</td>
<td>24.97%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>11.71%</td>
<td>11.14%</td>
<td>19.46%</td>
</tr>
<tr>
<td>Junior</td>
<td>25.43%</td>
<td>26.41%</td>
<td>17.84%</td>
</tr>
<tr>
<td>Senior</td>
<td>39.30%</td>
<td>41.42%</td>
<td>17.59%</td>
</tr>
<tr>
<td>Graduate</td>
<td>9.12%</td>
<td>12.18%</td>
<td>14.24%</td>
</tr>
</tbody>
</table>

*Does not include non-degree seeking, Medical, or professional certification*
## Fall 2014: Library users by UG FTIC and transfer status

<table>
<thead>
<tr>
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<th>Library users</th>
<th>UCF Enrollments</th>
<th>% of pop using library services</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTIC</td>
<td>47.40%</td>
<td>41.18%</td>
<td>21.19%</td>
</tr>
<tr>
<td>Transfer</td>
<td>41.76%</td>
<td>44.06%</td>
<td>17.44%</td>
</tr>
</tbody>
</table>

*does not include post-bac or early admit students
**does not include unclassified or 2nd degree students
Fall 2014-Fall 2015: Student use of five library services

25,336 students
About 40% of student enrollments

66,860 interactions
Across five library service points

Average 2.64 times
Services used 1 to 70 times by student
Fall 2014 compared to Fall 2014-Fall 2015: % of students using library services

- Fall 2014: 18.14% library users, 81.86% library non-users
- Fall 2015: 40.00% library users, 60.00% library non-users
## Fall 2014-Fall 2015: Service point use, by unique user

<table>
<thead>
<tr>
<th>Service points</th>
<th>N</th>
<th>% of users</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21,165</td>
<td>83.54%</td>
</tr>
<tr>
<td>2</td>
<td>3,665</td>
<td>14.47%</td>
</tr>
<tr>
<td>3</td>
<td>481</td>
<td>1.90%</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>.09%</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Fall 2014-Fall 2015: Service point use, by unique user
~12,000,000

Cells of data to analyze
## Campus partners and big data

<table>
<thead>
<tr>
<th>Cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library interaction data</td>
</tr>
<tr>
<td>Student academic information</td>
</tr>
<tr>
<td>Student demographic information</td>
</tr>
</tbody>
</table>
Student success analysis; end of semester GPA

Library users enjoyed an average end-of-semester GPA of 3.20 (N=273,137, SD=0.95) compared to library non-users, who averaged 3.05 (N=376,713, SD=1.05).
Student success analysis; semester grade distribution

48.18% of library users received A grades compared to 42.61% of library non-users, plus non-users received more B, C, D, and F grades.
The same trend was found regardless of modality; students who used one or more library services were more likely to receive A grades than those who did not.
Discussion

Dissemination
On the horizon
Dissemination

- Relation to existing studies
- UCF President -> report to the BOG
- Vice Pres for IT&R, Gates Foundation
- VP for IKM and Strategic Initiatives
- VP for Center for Distributed Learning
- Assoc Dean for College of Undergraduate Studies and Faculty Center
- VP for Student Development and Enrollment Services
- Office of Student Success, EAB SSC
- Foundations of Excellence
- FCTL, IT&R and library newsletters
On the horizon

- Analysis by other high profile student groups: first year, “murky middle,” STEM, graduate student, and international student performance
- Analysis by other student success metrics, like persistence
- Analysis by service point, resource allocation
- Institutional effectiveness metric
- Inform student success initiatives
- On-going and expansion of data points
- Continued collaboration and dissemination
Acknowledgements

◈ Barry Baker, Director of UCF Libraries [PDRA]
◈ Meghal Parikh, Analyst, UCF Inst’l Knowledge Mgt
◈ Kanak Choudhury, Graduate Student, Dept of Statistics
◈ Morgan Wang, Professor, Dept of Statistics
◈ Subject Librarians & Staff who collected data

Slide template
◈ Presentation template by SlidesCarnival
◈ Backgrounds by SubtlePatterns
Dog and ponies show...
Any questions?

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Pbeile@ucf.edu

Slides available at https://ucf.academia.edu/PennyBeile/Conference-Presentations
Read more in the conference proceedings!