Emerging from the Project!
Evolving Views of Emory's Library Use System

Susan Bailey and Megan Slemons
November 17, 2015
Southeastern Library Assessment Conference
What we used to know

<table>
<thead>
<tr>
<th>Date</th>
<th>Allied Health</th>
<th>Business</th>
<th>College</th>
<th>Graduate</th>
<th>Law</th>
<th>Medical</th>
<th>Nursing</th>
<th>Oxford</th>
<th>Public Health</th>
<th>Theology</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 12</td>
<td>22</td>
<td>711</td>
<td>5617</td>
<td>3446</td>
<td>398</td>
<td>272</td>
<td>61</td>
<td>719</td>
<td>244</td>
<td>390</td>
<td>11870</td>
</tr>
<tr>
<td>Aug 12</td>
<td>13</td>
<td>1034</td>
<td>8242</td>
<td>3890</td>
<td>321</td>
<td>266</td>
<td>43</td>
<td>140</td>
<td>236</td>
<td>466</td>
<td>14541</td>
</tr>
<tr>
<td>Sep 12</td>
<td>17</td>
<td>11200</td>
<td>64122</td>
<td>75798</td>
<td>654</td>
<td>470</td>
<td>251</td>
<td>499</td>
<td>603</td>
<td>1442</td>
<td>86060</td>
</tr>
<tr>
<td>Oct 12</td>
<td>16</td>
<td>13912</td>
<td>71482</td>
<td>75948</td>
<td>766</td>
<td>634</td>
<td>374</td>
<td>362</td>
<td>638</td>
<td>1408</td>
<td>90014</td>
</tr>
<tr>
<td>Nov 12</td>
<td>8</td>
<td>13055</td>
<td>80791</td>
<td>6722</td>
<td>123</td>
<td>520</td>
<td>162</td>
<td>505</td>
<td>534</td>
<td>1153</td>
<td>83375</td>
</tr>
<tr>
<td>Dec 12</td>
<td>18</td>
<td>93668</td>
<td>57256</td>
<td>45205</td>
<td>1149</td>
<td>589</td>
<td>231</td>
<td>1092</td>
<td>427</td>
<td>1277</td>
<td>76422</td>
</tr>
<tr>
<td>Jan 13</td>
<td>12</td>
<td>3601</td>
<td>17251</td>
<td>3694</td>
<td>361</td>
<td>354</td>
<td>43</td>
<td>259</td>
<td>243</td>
<td>529</td>
<td>26344</td>
</tr>
<tr>
<td>Feb 13</td>
<td>1</td>
<td>13862</td>
<td>80385</td>
<td>6655</td>
<td>942</td>
<td>362</td>
<td>115</td>
<td>649</td>
<td>404</td>
<td>1040</td>
<td>84273</td>
</tr>
<tr>
<td>Mar 13</td>
<td>5</td>
<td>11031</td>
<td>48521</td>
<td>15222</td>
<td>943</td>
<td>445</td>
<td>85</td>
<td>540</td>
<td>482</td>
<td>1041</td>
<td>68815</td>
</tr>
<tr>
<td>Apr 13</td>
<td>21</td>
<td>17765</td>
<td>71378</td>
<td>74976</td>
<td>2269</td>
<td>469</td>
<td>173</td>
<td>730</td>
<td>857</td>
<td>1380</td>
<td>102526</td>
</tr>
<tr>
<td>May 13</td>
<td>16</td>
<td>4516</td>
<td>28056</td>
<td>3802</td>
<td>478</td>
<td>291</td>
<td>61</td>
<td>844</td>
<td>227</td>
<td>646</td>
<td>37078</td>
</tr>
<tr>
<td>Jun 13</td>
<td>1</td>
<td>1432</td>
<td>5863</td>
<td>3357</td>
<td>472</td>
<td>362</td>
<td>36</td>
<td>1460</td>
<td>160</td>
<td>274</td>
<td>13307</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>101387</td>
<td>499152</td>
<td>64841</td>
<td>5882</td>
<td>5696</td>
<td>1532</td>
<td>7709</td>
<td>5126</td>
<td>11016</td>
<td>706210</td>
</tr>
</tbody>
</table>

Our original goals

More granular entry times (rather than monthly totals)
Greater demographic detail about library users
Aggregated, anonymized data
A process that is not labor-intensive
Getting Started, and Evolving Goals

What we had: basic spreadsheet data

What we wanted: better spreadsheet data

What we didn’t even know we needed: better data in an interactive dashboard!

Building the Dashboard
Challenges

Merging data from two campus entities
Choosing a single role for people with multiple affiliations
Anonymizing the visits

Defining and constructing our queries
Extensive up-front data cleaning and building time before we could evaluate usefulness

Big Ideas

A LOT of upfront time is required to get meaningful, clean data and create useful visualizations

A major limitation is how the data is formatted university-wide

Easy and regular communication between project members is key
Finished Product – How Did We Do?
We met our original goals

- More granular entry times
- Greater demographic detail about library users
- Aggregated, anonymized data
- A process that is not labor-intensive
<table>
<thead>
<tr>
<th>Challenges</th>
<th>Big Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing staff halted the project’s momentum</td>
<td>Consistent staffing is key to success on a large, complicated project</td>
</tr>
<tr>
<td>Getting developer time is complicated</td>
<td></td>
</tr>
<tr>
<td>It's not clear who sustains the finished product</td>
<td></td>
</tr>
</tbody>
</table>

**Obstacles to Greater Use**
<table>
<thead>
<tr>
<th>Challenge</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Training users</strong></td>
<td><strong>Dashboard response time is slow</strong></td>
</tr>
<tr>
<td>• Who needs access to the dashboard?</td>
<td>Mostly for viewing one thing at a time – hard to compare data</td>
</tr>
<tr>
<td>• How useful is training without regular use of the tool?</td>
<td>Visualization types are set (mostly pie charts)</td>
</tr>
<tr>
<td>• Does anyone have time to write documentation?</td>
<td></td>
</tr>
</tbody>
</table>

### Big Idea

Was all of the time and resources put into developing the dashboard worth it for the level of use and what we get out of it?
The Future of Library Use Reporting at Emory

Library Use Reporting—Should We Add Additional Data Sources?

- Visitor sign-in data
- Additional demographic traits (e.g. GPA)
- University calendar and class schedule
- Learning Commons Workstation usage
Library Use Reporting – Current Development & Other Resource Efforts

• No current active programmer development
• Status: all campus libraries are included with the recent addition of Theology
• Level of effort to include other data sources has not been estimated
• Can Library Use Data be utilized with other sources of data in Tableau?

What Advantages Could Tableau Offer?

• Working with a data extract, system performance processing time is not an issue
• Greater opportunity for exploring data for unexpected insights in Tableau
• Multiple data sources could be added and explored without development effort
• Comparisons, such as by period or by Library, can be accomplished with data exports
• Tableau provides multiple chart types for visualizing the data
I have a question!

How many Neuroscience and Behavioral Biology students used the library buildings during September, and what do we know about them?
What we know now!

Total Visitors by Academic Plans in Health
Between 9/1/2015 and 9/30/2015, we had 10179 visitors for Health; the most coming from the Biology Academic Plan with 1342 visitors.

Health Visitors per Academic Plan (Total: 10179)

- Biology: 13.2%
- Doctor of Medicine: 11.8%
- Other: 18.3%
- Nursing: 7.0%
- Neurosciences & Behavioral Biology: 7.5%
- Undeclared - Arts & Sciences: 10.6%
- Other: 10.2%
- Behavioral Sciences/Health Ed.: 2.2%
- Global Health: 1.3%
- Public Health: 5.3%
- Physician Assistant: 5.5%
- Biological and Biomedical Sci.: 8.2%
- Psychology: 1.1%
- Chemistry: 1.1%
- Business Administration: 1.9%
- Biostatistics: 1.7%
- Health Policy and Management: 2.1%
- Total: 100%

Filter by Academic Plans

<table>
<thead>
<tr>
<th>Academic Plans</th>
<th>Top Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>1342</td>
</tr>
<tr>
<td>Doctor of Medicine</td>
<td>179</td>
</tr>
<tr>
<td>Undeclared - Arts &amp; Sciences</td>
<td>1066</td>
</tr>
<tr>
<td>Biological and Biomedical Sci.</td>
<td>837</td>
</tr>
<tr>
<td>Neuroscience &amp; Behav Biology</td>
<td>764</td>
</tr>
<tr>
<td>Nursing</td>
<td>760</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>537</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>542</td>
</tr>
<tr>
<td>Physical Therapy</td>
<td>519</td>
</tr>
<tr>
<td>Global Health</td>
<td>311</td>
</tr>
</tbody>
</table>
What Disadvantages Are There With Using Tableau?

• Someone has to structure or reshape the files for best use with Tableau—just the plain Excel export file doesn’t produce best results
• Much of the data, especially university data, isn’t ideally structured for quick analysis with the Library Use Data
• Responsibility is distributed
• Decisions have to be made! Best visual?

Best Results? Use of Both!

Library Use
• Best for current view of activity

Tableau
• Best for looking at data in-depth, adding in additional data sources
Our Experience at Two Years In

Just like any kind of construction project, building the Library Use System took longer and encountered more obstacles than expected.

In spite of the challenges, the advances we’ve made and the potential for understanding use even more make it worth continued effort!

Thank You!

Susan Bailey, Library Assessment Coordinator, libsbb@emory.edu

Megan Slemons, GIS Librarian, megan.slemons@emory.edu