Where are our Books?
2018 Sample Inventory of CUL Stacks

Wendy Wilcox, Access Services Librarian
Adam Chandler, Director, LTS Automation, Assessment and Post-Cataloging
Acknowledgements

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Background

• In 2017, a taskforce was charged with investigating ramifications of discontinuing inserting security strips (tattle-tape) to new open stack acquisitions.

• Motivation was to save money, but added benefit in reducing repetitive motion strain for staff who apply the strips and improved patron experience.

• Group investigated CUL current and historical practices, CUL stakeholders perceptions, and peer libraries security stripping practices.
Taskforce Findings

• Tattle-taping is intrinsically linked to security gates and theft of library materials.

• Security gate enforcement was inconsistent across units. Smaller units monitored more; larger units not at all.

• Significant resistance to proposal from library selectors; almost every selector we spoke with had an anecdote about the theft of a valuable, irreplaceable item.

• Limited data regarding the effectiveness of tattle-taping in the library.
Missing and Lost by Location, July 2015 - October 2017
Cornell University Library

Total missing and lost = 2058

Source: Voyager
Security Theatre

A grand show depicting the protection of library materials when, in reality, they aren’t protected at all.
Research Questions

• When a patron walks into the open stacks searching for a book, what are the odds that they will find it?
• Are there differences in the quality of the stacks experience across campus unit libraries?
• What percentage of our collection is accounted for (on the correct shelf location or checked out to a patron)?
• What is our return on investment when we tattle-tape our open stack collection?
• Are we in a position to enter into retention agreements?
6006 volumes are on your list, 6006 of which have been checked.

Accounted for: 5791
At the current rate you will find 96.4% on shelf.
(afr: 93.0% asia: 100% ech: 96.1% hote: 100% ir: 91.0% jgsm: 92.7% jw:
 95.1% man: 92.9% math: 94.8% mus: 99.0% olin: 97.4% sasa: 94.6%
 urs: 94.8% vet: 95.5% was: 96.7%)

96.8% of the accounted for items are physically present on the shelf.

Items remaining to be checked, by location:

  afr  COMPLETED
  asia COMPLETED
How does Cornell compare to the 52 EAST Partnership libraries?

<table>
<thead>
<tr>
<th>org</th>
<th>mean</th>
<th>se</th>
<th>moe</th>
<th>low_ci</th>
<th>hi_ci</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST</td>
<td>0.972</td>
<td>0.003</td>
<td>0.006</td>
<td>0.967</td>
<td>0.978</td>
</tr>
<tr>
<td>CUL</td>
<td>0.964</td>
<td>0.002</td>
<td>0.005</td>
<td>0.959</td>
<td>0.969</td>
</tr>
</tbody>
</table>
Figure 1: EAST libraries compared to CUL sample

accounted for estimates with 95% confidence intervals

CUL

EAST
What is the picture across Cornell?
<table>
<thead>
<tr>
<th>location_group</th>
<th>mean</th>
<th>se</th>
<th>total</th>
<th>num_missing</th>
<th>low_ci</th>
<th>hi_ci</th>
</tr>
</thead>
<tbody>
<tr>
<td>mus</td>
<td>0.990</td>
<td>0.010</td>
<td>102</td>
<td>1</td>
<td>0.970</td>
<td>1.000</td>
</tr>
<tr>
<td>afr</td>
<td>0.979</td>
<td>0.021</td>
<td>49</td>
<td>1</td>
<td>0.937</td>
<td>1.000</td>
</tr>
<tr>
<td>olin</td>
<td>0.974</td>
<td>0.003</td>
<td>3221</td>
<td>84</td>
<td>0.968</td>
<td>0.979</td>
</tr>
<tr>
<td>asia</td>
<td>0.961</td>
<td>0.005</td>
<td>1282</td>
<td>50</td>
<td>0.951</td>
<td>0.972</td>
</tr>
<tr>
<td>law</td>
<td>0.950</td>
<td>0.011</td>
<td>400</td>
<td>20</td>
<td>0.928</td>
<td>0.971</td>
</tr>
<tr>
<td>math</td>
<td>0.948</td>
<td>0.021</td>
<td>116</td>
<td>6</td>
<td>0.907</td>
<td>0.990</td>
</tr>
<tr>
<td>uris</td>
<td>0.948</td>
<td>0.013</td>
<td>270</td>
<td>14</td>
<td>0.922</td>
<td>0.975</td>
</tr>
<tr>
<td>mann</td>
<td>0.928</td>
<td>0.015</td>
<td>280</td>
<td>20</td>
<td>0.897</td>
<td>0.958</td>
</tr>
<tr>
<td>him</td>
<td>0.924</td>
<td>0.018</td>
<td>210</td>
<td>16</td>
<td>0.888</td>
<td>0.959</td>
</tr>
</tbody>
</table>

Table 1: CUL monograph accounted for results, by location. The table 1 shows the data underlying Figure 3. For Olin (3221 items sampled), we are 95% confident that the accounted for rate is 96.8% - 97.9%. Whereas our estimate for Math (116 items sampled) ranges from 90.7% - 99%.
Figure 3: CUL monograph accounted for results, by location

accounted for estimates with 95% confidence intervals

location

mus  afr  olin  asia  law  math  uris  mann  hlm
Figure 2. CUL monograph unaccounted percentage, by location. Figure 2 shows clear differences in the “unaccounted for” rates across locations. Unaccounted is simply the inverse of accounted for.
What about the 3.6% unaccounted for items?

CUL Stacks Management has actually been working on this problem!
Shelf Reading unearthed important numbers

• To date, students in the Asia Collections have verified 246,000 items in the open stacks (790,000 items in Asia open stacks)
• 2560 items (1.04%) were found misshelved
• An additional 3888 (1.58%) items required attention including incorrect or missing call-number labels, missing barcodes, and holding and location discrepancies in the catalog.

Of the 3.6% materials unaccounted for in the CUL open stacks, we can estimate that between 1% to 2.6% are materials that are misplaced within our own collection.
EAST Security Practices Experiment
<table>
<thead>
<tr>
<th>tattletape_yes_no</th>
<th>min</th>
<th>mean</th>
<th>max</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0.948</td>
<td>0.972</td>
<td>0.990</td>
<td>10</td>
</tr>
<tr>
<td>Yes</td>
<td>0.916</td>
<td>0.974</td>
<td>0.997</td>
<td>22</td>
</tr>
</tbody>
</table>

Table 2. **EAST Libraries security stripping response summary.** Table 2 summarizes the differences between the EAST libraries with and without security stripping. Note, the min and max values you see in Table 2 are not the same as the upper and lower confidence intervals in Figure 4. Confidence intervals are the best estimate of the range of possible estimates for the mean value for each group. The min and max values in this table are simply the lowest and highest in the sample groups.
CUL Recommendations

1. Set aside system-wide funds for replacement costs.
2. Shift our attention and resources away from optimizing for a single variable, theft, to a comprehensive user experience approach to stacks management emphasizing findability and student experience.
3. Phase out tattle-taping.
4. Begin process of removing security gates.
Further study opportunities

1. To improve our estimates, starting where confidence intervals are widest (Africana, HLM, Math) draw a larger sample and conduct shelf validation check.

2. Develop a predictive statistical model to help CUL focus staff resources identifying items most likely to be unaccounted for, and in most demand by patrons.
   1. Specific call numbers???
   2. Highest circulating materials???
   3. Integrated stacks???
Questions?

Adam Chandler, alc28@cornell.edu
Wendy Wilcox, ww83@cornell.edu