Investment in the Library: What’s the Return?

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Objectives

For every $/€/¥ spent on the library, the university received ‘X’ $/€/¥ in return.

Articulate value in terms of institutional objectives

- Measurable effects
- Replicable
- Meaningful & compelling
Study in 3 Phases

- **Phase 1**: ROI in grants, case study at University of Illinois, Urbana-Champaign (completed 2008)
  
  http://libraryconnect.elsevier.com/whitepapers/0108/lcwp010801.html

- **Phase 2**: ROI in grants, expanded to 8 countries (in progress now)

- **Phase 3**: ROI for grants/research, teaching, student engagement (proposal pending)
Phases expand

- Phase 2
- Phase 3
- Phase 1

Focus of research

Number of institutions
Administration Values are similar at all research universities

- Focus on new intellectual directions
- Strengthen interdisciplinary work

“Funding does not regenerate funding. But reputation does.”
– Charles Zukoski, Vice Chancellor for Research

- Find resources
- Connect with community, state, nation, globally
- Efficiency in all we do
- Increase impact of university’s research
- Attract & retain outstanding faculty

Faculty = Funding
Quantifying for the University

ROI:
Income as a proportion of the amount invested in an asset.

Faculty generate income for the institution. Faculty use the library and its collections. What role do information resources serve in the income generation process?

% of grant $ using library resources \\
Library budget $ = “X”
Faculty Grant Research Cycle

Conduct Research

Write Articles

Obtain Grants

Write Reports & Proposals

LIBRARY
Goal: to demonstrate that library collections contribute to income-generating activities

- Quantify a return on university’s investments in its library
- Focus on library’s role in externally funded research process
- Not trying to claim an allocation back to library
- Not a budget argument
- Not a cost/time savings exercise
- Not creating a predictive model
ROIs for Public Libraries

- Reports
  - *Worth Their Weight* – Americans for Libraries Council

- Examples
  - Southwestern Ohio: $1 = ROI $3.81
  - Florida: $1 = ROI $6.54
  - ROI Calculator:
ROI for Corporate Libraries

- *Demonstrating Value and Return on Investment: The Ongoing Imperative*
- Quantitative metrics
  - Time saved by library users
    - Value derived if salaries of users are known
  - Money users save by using library
  - Revenue generated with assistance of the library

## Types of Data: Reliable, Accessible, Clearly Defined

<table>
<thead>
<tr>
<th>Data types</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Faculty</td>
<td>Survey; quantitative and qualitative</td>
</tr>
<tr>
<td>Grant Proposals</td>
<td>Univ research data; plus survey</td>
</tr>
<tr>
<td>Grant Income</td>
<td>Univ research office data</td>
</tr>
<tr>
<td>Library</td>
<td>Total budget</td>
</tr>
<tr>
<td>Administrators’ priorities</td>
<td>Interviews</td>
</tr>
</tbody>
</table>
References Are Vital in Grants

- 75.3% Essential
- 12.3% Very important
- 7.3% Important
- 4.0% Somewhat important
- 1.0% Not important

328 responses (16% response rate)
Library Supplied Content

- 94% use library resources in proposals and obtain proposal citations via campus network/Library Gateway
- 75% of references from library
- For every reference cited, faculty estimate they read 4-5 more articles or books and many more abstracts are scanned
“In physical and life sciences, it would be unthinkable to have a grant application without literature references.”

“A sure way to kill a proposal is not to give proper credit or to not update new developments.”

“ABSOLUTELY ESSENTIAL!”

“Without … references the grant proposal would likely not be reviewed.”
Comments About e-Productivity

“I could not submit as many grants. With grant funding levels at 4-6% of submitted proposals I would not have achieved my current funding level.”

“My productivity would drop at least four fold if I had to go to the library for all my needs.”

“Completely changed the way I work by increasing my productivity. I…spend more time reading [articles].”

“It has increased the strength of my grant proposals … by allowing for …thorough evaluation of the literature on any particular topic.”

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“It would be impossible to be competitive internationally without electronic access to publications.”

“Finding’ and ‘Accessing’ is synonymous with ‘reading’ when access is via the online gateway.”

“Our success at UIUC in attracting external research funds has and will become ever more competitive. Thus, our access to electronic information will become all the more necessary.”

“I would leave this university in a microsecond if the library deteriorated to the point of making me uncompetitive for research and funding.”
ROI Model for UIUC

78.14% faculty w/ grants using citations  
X  
50.79% grant award success rate using citations from library  
X  
$63,923 avg. grant income  
=  
$25,369 avg. grant income generated using citations from library  
X  
6232 grants expended  
÷  
$36,102,613 library budget  
=  
$4.38 grant income for each $1.00 invested in library (ROI Value)
Administration Values: Measuring Up

- Libraries attract & retain outstanding faculty
- Collections increase impact
  - Faculty with more publications and citations have higher propensity of obtaining more grants.*
  - Faculty who publish more, read more (Tenopir & King)
  - Faculty who receive awards read more (Tenopir & King)

*I would leave this university in a microsecond if the library deteriorated …”

* Ali & Bhattacharyya, “Research Grant and Faculty Productivity Nexus: Heterogeneity among Dissimilar Institutions.” Academic Analytics
E-Productivity

- +7.7% # grant proposals
- +66% $ grant expenditures
- +14.8% # grants per faculty
- 95% of faculty cite references are important to grant proposals

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Phase 2: Narrow focus, but broad range of institutions

- Keeps the focus on ROI for grants
- Extends the phase 1 model
  - 10 years of data
  - To 8 more institutions in 8 countries
Phase 2: Institutions
Some issues

- Differences in terminology (academic ranks, expenditures or income)
- Fiscal year, academic year, calendar year and differences in hemisphere
- Languages
- Variations in data that universities keep and who keeps it over 10 years
Faculty Survey Questions

• How many proposals did you submit last year?
• How many grants funded?
• Total monetary value of your grants?
• Importance of citations in proposals and reports?
• How many citations in proposals, reports, articles?
• What % of citations from the library e-collection?
• For each cited, how many others do you read?
Phase 2: Preliminary Survey
Results Show Some Differences

- References are essential, very important, or important to grants: Range of 71%-98% of faculty at different institutions
- Average # of citations in proposals: Range of 20-46
- % of citations from library: mode is most often 50-74% (but at some institutions 75-99% or 25-49%)
Phase 2: % respondents who reported 75-99% of cited items were accessed from the library’s online system

Subject Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>LifeSci</td>
<td>57.5%</td>
</tr>
<tr>
<td>PhysSci</td>
<td>51.1%</td>
</tr>
<tr>
<td>SocSci</td>
<td>52.6%</td>
</tr>
<tr>
<td>Health</td>
<td>60.0%</td>
</tr>
<tr>
<td>Hum</td>
<td>16.3%</td>
</tr>
</tbody>
</table>
Phase 2: Some Comments from Faculty About E-Resources

- Information is available at your fingertips, from around the world. Much of my research is international and it is nice to access articles from my research sites in Asia, without many barriers. This is very powerful.

- The availability of e-resources has greatly enhanced the way I work. These resources also inform my job satisfaction, and they help to keep me here at the University of …
Phase 3: Broaden focus
Library Functional Areas and Measurement Within the University Mission

University Mission and Goals
Teaching / Learning
Research
Social / Professional

ROI
Investments
Outcomes

Library

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And anticipate change..

New Scholarly Endeavors
That Cut Across the Library’s Functional Areas

Scholarly Endeavors

Teaching / Learning
Research
Social / Professional

Functional Areas

e-science
Collaborative Scholarship
Institutional Repositories

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Examples of Measures
From Inputs to Outputs to Outcomes to ROI

<table>
<thead>
<tr>
<th>Teaching / Learning</th>
<th>Research</th>
<th>Social / Professional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Literacy</td>
<td>Collections</td>
<td>Events</td>
</tr>
<tr>
<td>Instruction</td>
<td>Publications</td>
<td>Gatecounts</td>
</tr>
<tr>
<td>Collections</td>
<td>Citations</td>
<td>Services</td>
</tr>
<tr>
<td>Classroom success</td>
<td>Usage</td>
<td>Professional</td>
</tr>
<tr>
<td>Graduation rates</td>
<td>Grants</td>
<td>Memberships</td>
</tr>
<tr>
<td>Careers</td>
<td>Prestige</td>
<td>Perceptions</td>
</tr>
<tr>
<td></td>
<td>Faculty Retention</td>
<td>Donations</td>
</tr>
</tbody>
</table>
Examples of Downstream Measures
by Library Functional Area (for students and faculty)
What we can show so far…

- Academic library collections help faculty be productive and successful
- Libraries help generate grants income
- E-collections are valued by faculty and bring return on investment to the university
What we hope to show...

The library’s products and services...

- Help faculty be successful
- Help students be successful
- Generate both immediate and downstream income
- Provide good return for the investment
For further information:
ctenopir@utk.edu
Further Reading: Academic Libraries

Further reading: Public Libraries

  dlis.dos.state.fl.us/bid/roi/pdfs/ROISummaryReport.pdf

- Value for money: Southwestern Ohio’s return from investment in public libraries. 2006.  
  http://9libraries.info/docs/EconomicBenefitsStudy.pdf

  www.lrs.org/public/roi/

  www.urbanlibraries.org/files/making_cities_stronger.pdf
Further Reading: Special Libraries

- Griffiths & King, 1993. Special Libraries: Increasing the information edge. SLA.