




Metrics and Measurement: Moving from Outputs to Performance

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- 
- ✦ Putting measurement in a context
 - ✦ Standards that inform survey design and measurement
 - ✦ Integrating performance measures, outcomes, “Balanced Scorecard” or other assessment tools (du jour)
 - ✦ Depository Survey uses and improvements



Highlight issues and performance initiatives

- Measurement for a reason
- Examples of metrics, traditional and electronic (E-metrics)
- Examples of tools and resources to expand DLP survey value
- Summary and Q&A



Why do we measure?

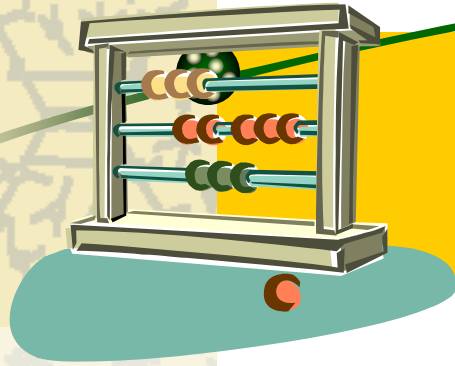
...because they told me to...

- ✦ To understand what we do in a context of other activities, services, etc.
- ✦ Set baseline measures for library collections and services to measure improvement over time.
- ✦ Identify gaps in services, collections, etc.
- ✦ To compare our libraries with other libraries (peers)

How do we measure?



- ✦ Daily, weekly, monthly, per typical week
- ✦ Tick sheet (numeric or normative)
- ✦ Observation (textual and numeric)
- ✦ Automated (numeric)
 - Weblogs, OPAC reports, vendor reports, etc.
- ✦ User reported (numeric or textual)



Long term versus short term

- ✦ Is the survey baseline, or a snapshot in time (asking questions that will not be asked again)?
- ✦ Is the survey capturing change over time (longitudinal)?
- ✦ Is the survey measuring benchmarks (e.g. data collection and observation to determine and evaluate work processes, etc.)?



What do we measure?

Staff

Services (internal and remote)

Collections (tangible and virtual)

Users (seen and unseen)

Buildings

Money



Measures in a context of time

- ✿ Indicate a date that measures are representing (calendar year, fiscal year, as of XXX date).
- ✿ “In the last year,



Meaningful measures.....

are important to derive meaningful performance measures.
Q14 on the current DL survey could be improved:

Is the majority of the print depository collection arranged using the SuDocs classification? Yes/No

vs

What percentage of the print depository collection is arranged using the SuDocs classification? 20% 40% 60% 80% 100%



✿ It is difficult to compare improvement of a perceived measure “majority.”

✿ You *can* measure a percentage change, thereby recording growth or decline.

- Decline could indicate weeding of cataloged materials.
- Increase could indicate weeding of uncataloged materials.



Staffing change

The current survey doesn't capture staffing changes, nor does it isolate staffing figures to a specific time period.

Q 15 could be improved in several ways:

1. Number of FTE as of a particular date.
2. Match staffing questions (labels) with other surveys to increase the cross-utilization of data (e.g., NCES Academic Library Survey, Public Library survey (FSCS), ARL)
3. Training appears in multiple sections of the survey – ask why.



Performance Measures

Library Statistics & Performance Measures. Compiled by: Joe Ryan
jryan@mailbox.syr.edu

<http://web.syr.edu/~jryan/infopro/statopic.html#Balance>

The list includes:

- [Balanced Scorecard] [Benchmarking]
- [Community Information Service Evaluation]
- [Community Analysis] [Digital Reference Service Statistics]
- [E-Metrics Project] [Economic Value of Libraries]
- [Government & Performance Measures]
- [Government Web Site Evaluation]



...and continues....

[Higher Education Outcomes (HEO) Research Review]

[Impact Measures & Studies]

[LibQUAL [Library Surveys & Questionnaires]

[Licensed Databases, OPACS, and Statistics]

[Management & Technology Planning Measurement]

[Outcome Measurement]

[Output Manuals and Studies]

[Quality Measurement]

[Presentation of Library Data]

[Software for Statistics Collection & Analysis]

[Usability]

[Wisconsin-Ohio Reference Evaluation Program (WOREP)]

E-Metrics

- ✦ NISO Z39.7 www.niso.org/emetrics
- ✦ Bertot and McClure work www.ii.fsu.edu/emis
- ✦ Association of Research Libraries (ARL)
<http://www.arl.org/stats/newmeas/emetrics/>
- ✦ Project Counter
<http://www.projectcounter.org/>

NISO Z39.7 E-Metrics

4.5 Current Serials Received

4.5.1 Current Subscriptions

4.5.2 Current Serial Titles

4.10 Other Materials--Electronic

4.10.1 Compact Disc Read-Only Memory (CD-ROM)

4.10.2 Computer Files

4.10.3 Databases

4.10.4 Digital Documents

4.10.5 E-books

4.10.6 Electronic Serials

4.10.7 Free Internet Resources

4.10.8 Other Digital Documents

5.6 Workstations

5.6.1 Available Workstations

5.6.2 Available Internet Workstations

6.2 Operating Expenditures by Type of Expenditure

6.2.2 Bibliographic Utilities, Networks and Consortia Expenditures

6.2.5 Computer Hardware, Software, Supplies and Maintenance Expenditures

6.2.6 Current Serial Expenditures

6.2.7 Document Delivery/Interlibrary Loan Expenditures

6.2.8 Electronic Access Expenditures

6.2.9 Electronic Materials Expenditures

6.2.11 Furnishing and Equipment Expenditures

6.2.14 Preservation Expenditures



7.3 Information Requests

7.3.1 Virtual Reference Transactions

7.6 Loans and Document Delivery

7.6.2 Electronic Document Delivery

7.6.3 External Document Supply

7.7 Use

7.7.1 *Electronic Collection*

7.7.3 *Internet Access*

7.7.4 *Number of Public Access Workstation Users*

7.8 *User Orientation and Training*

7.8.1 *Attendance at User Training*

7.8.2 *Formal User Information Technology Training*

7.8.4 *Point-of-Use Information Technology Training*

There are a variety of navigation options within Z39.7, including

- 🔍 **Keyword** searching within the full data dictionary
- 🔍 **Linking** to specific categories, sections and subsections within the full data dictionary via the **Table of Contents**
- 🔍 **Browsing** alphabetically in the **Index to the Current Document**

Outcome Measurement

- ✿ Bond, Sally L., Boyd, Sally E., and Rapp, Kathleen A. (1997). *Taking stock: A practical guide to evaluating your own programs.* Chapel Hill, N.C.: Horizon Research, Inc.
- ✿ Institute for Museum and Library Services (IMLS). *Outcome Based Evaluation*. <http://www.imls.gov/applicants/overview.shtm>
- ✿ Smith, Ken R. *Higher Education Outcomes (HEO) Research Review*. Sponsored by Association of Research Libraries (ARL). <http://www.arl.org/stats/newmeas/heo.html>



Impact Measures and Studies

- ✦ Childers, Thomas & Van House, Nancy A. (1993). *What's good? Describing your public library's effectiveness*. Chicago: American Library Association. 93 p. ISBN 0838906176.
- ✦ Powell, Ronald R. (1992, July-September). Impact assessment of university libraries: A Consideration of issues and research methodologies. *Library and Information Science Research*, 14 (3), 245-257.
- ✦ Listing of Research Related to Library Value (Return on Investment). Compiled by Denise M. Davis <http://www.ala.org/ala/ors/reports/roi.htm>

Quality Measurement

✦ ARL LibQUAL+

- ✦ Cotta-Schønberg, Michael. (1995). *Performance measurement in the context of quality management*. 1st Northumbria Conference on Performance Measurement. Also available via ERIC: ED405866
- ✦ Hernon, Peter and Whitman, John R. (2000). *Delivering satisfaction and service quality: A Customer-based approach for libraries*. Chicago: American Library Association.

ISO 11620

Library Performance Indicators

- ✦ **3.22 indicator:** Expression (which may be numeric, symbolic or verbal) used to characterize activities (events, objects, persons) both in quantitative and qualitative terms in order to assess the value of the activities characterized, and the associated method.
- ✦ **3.28 performance:** Effectiveness of the provision of services by the library and the efficiency of the allocation and use of resources in providing services.
- ✦ **3.29 performance indicator:** Numerical, symbolic or verbal expression, derived from library statistics and data used to characterize the performance of a library.



B.1 Resources, Access, and Infrastructure

Performance Indicator	PI Number
B.1.1 Collection	
Required titles availability	B.1.1.1
Percentage of required titles in the collection	B.1.1.2
Subject catalogue search success rate	B.1.1.3
Percentage of rejected sessions	B.1.1.4



B.2 Use	
Performance Indicator	PI Number
B.2.1 Collection	
Collection turnover	B.2.1.1
Loans per capita	B.2.1.2
Percentage of stock not used	B.2.1.3
Number of content units downloaded per capita	B.2.1.4
In-library use per capita	B.2.1.5



B.3 Efficiency

Performance Indicator

PI Number

B.3.1 Collection

Cost per loan

B.3.1.1

Cost per database session

B.3.1.2

Cost per content unit downloaded

B.3.1.3

Cost per library visit

B.3.1.4



B.4 Potentials & Development

Performance Indicator

PI Number

B.4.1 Collection

Percentage of expenditures on information provision spent on the electronic collection

B.4.1.1



NISO Z39.7 - Government Documents

4.6 Government Documents

Publications in book, serial, or other form of library material that are published by a government agency, e.g., the publications of federal, state, local, and foreign governments and of intergovernmental organizations to which governments belong and appoint representatives, such as the United Nations, Organization of American States, and the Erie Basin Commission graphic materials.

Source: library

Applicability: international, local, national, state

Library Type: academic, public, school, special, state

Aggregate: yes

ARL Statistics Questionnaire

State Library Agency Survey




So, what next?

Consider

- » *What*
- » *How*
- » *Why*

of measurement before revisiting the DLP survey

- 
- ✚ Maintain longitudinal questions
 - ✚ Consider adding detail to existing instrument
 - ✚ Consider cutting some questions (the survey has 68+ questions)
 - ✚ Consider alternate response options
 - ✚ Isolate questions into additional or different sections
 - Public Service (why OPAC questions there?)
 - Technology (other than OPAC)
 - Library “demographics” (e.g., operational)
 - GPO resources use