From Faith to Evidence: Demonstrating the Value of Libraries

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Congreso de Bibliotecas Universitarias Y Especializadas
Santiago de Chile
28 de mayo, 2014

Overview

- ARL (Association of Research Libraries)
- Demonstrating value
- Assessment librarians
- StatsQUAL – LibQUAL+
- LIBValue (emphasis on Commons)
- Testing New Methods
- Value Scorecard (Town & Kyrillidou, 2013)
- Strategy and Metrics

ARL Member Institutions

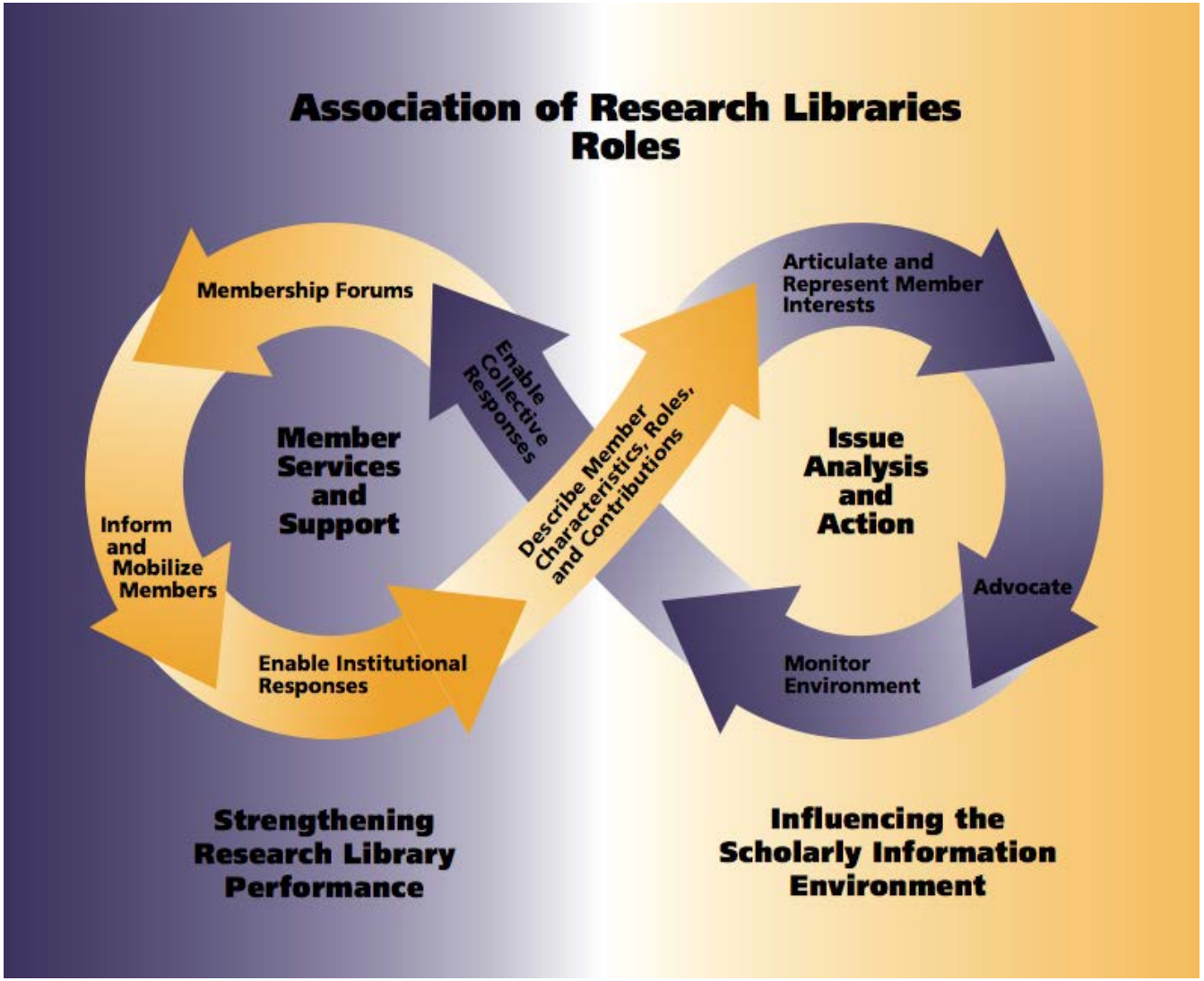
- 115 ARL university libraries
  - 73 medical libraries
  - 77 law libraries
- 10,000+ professional staff members
  - About 1,000 staff members at medical libraries
  - A little more than 700 staff members in law libraries
- 10 nonuniversity ARL members
  - About 4,000 professional staff members

- Full List of Member Institutions: http://www.arl.org/

Map of ARL Member Institutions

Map data ©2011 AvanteLogic, CLiK Productions, Google – Map by MultiPlottr

ARL Roles


Association of Research Libraries Roles
Membership Forums
Enable Collective Responses
Member Services and Support
Inform and Mobilize Members
Enable Institutional Responses
Describe Member Characteristics, Roles, and Contributions
Articulate and Represent Member Interests
Issue Analysis and Action
Advocate
Monitor Environment
Strengthening Research Library Performance
Influencing the Scholarly Information Environment

ARL Statistics and Assessment

…To describe and measure the performance of research libraries and their contribution to teaching, research, scholarship and community service …

ARL Statistics and Assessment

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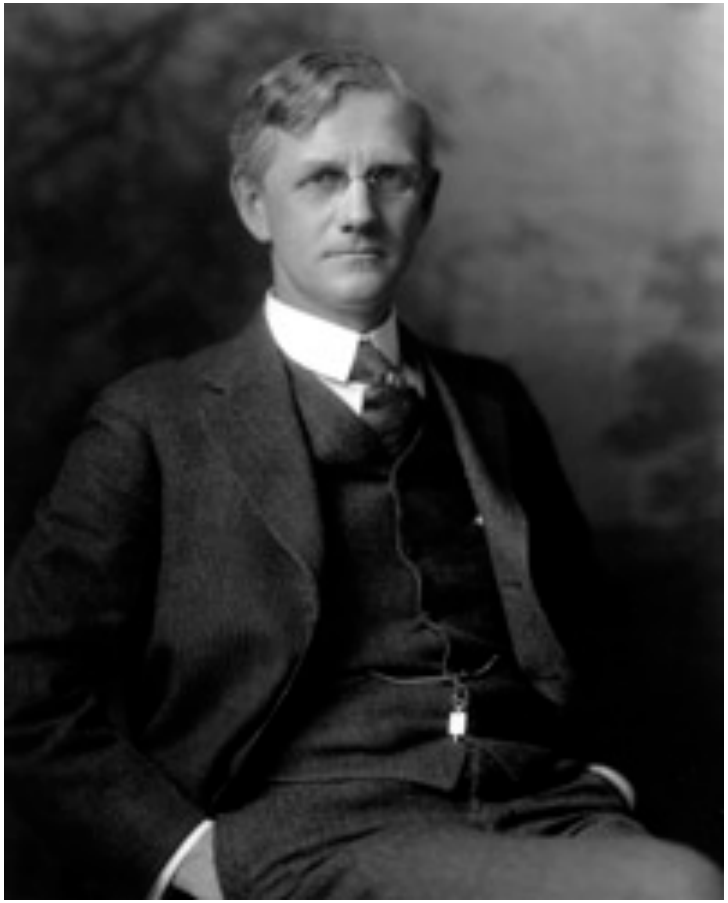
James Thayer Gerould (1906-1920)

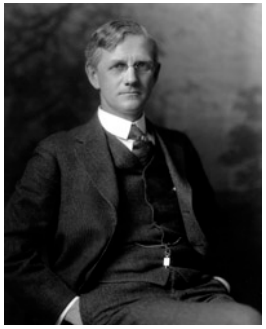


- What would you like to know about research libraries if you were the library director at the U of Minessota in 1906?

Wendy Pradt Lougee (2002-present)

- What would you like to know about research libraries if you were the library director at the U of Minessota in 2014?

In the beginning … ARL Statistics



- www.arlstatistics.org

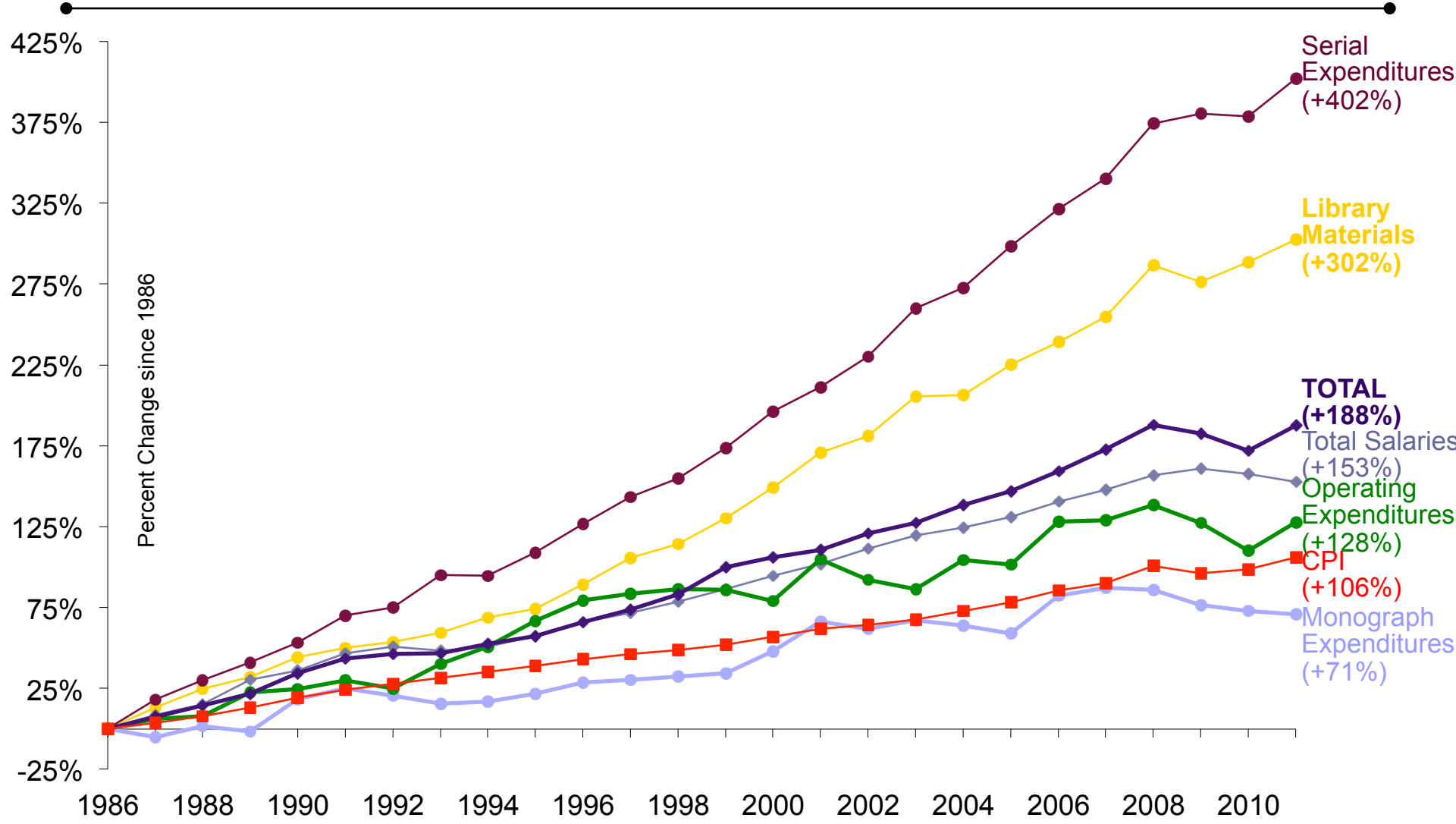
PDF

Or print

ARL Statistics®
1906 – present

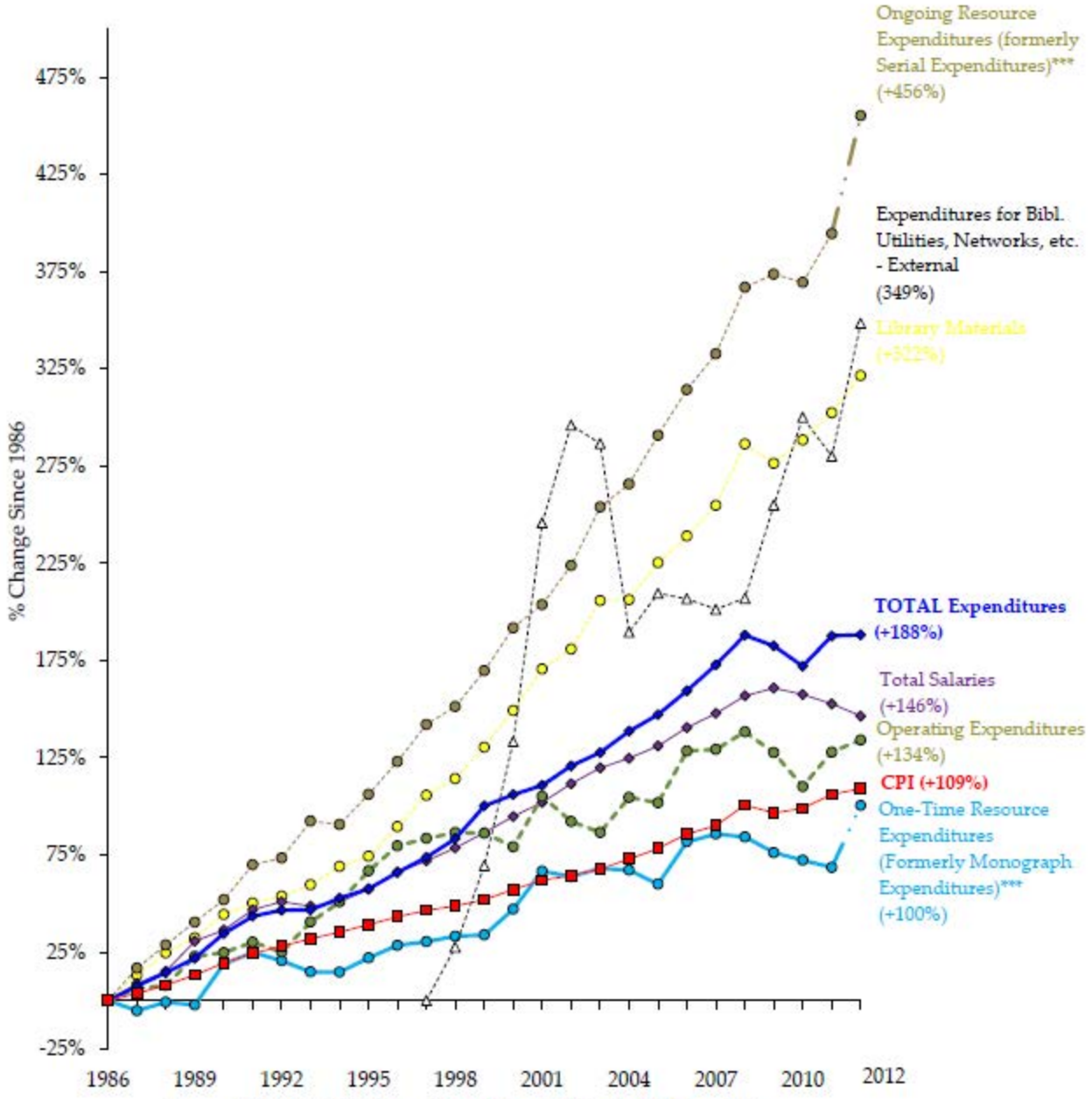
Interactive analytics

Expenditure Trends in ARL Libraries, 1986-2011



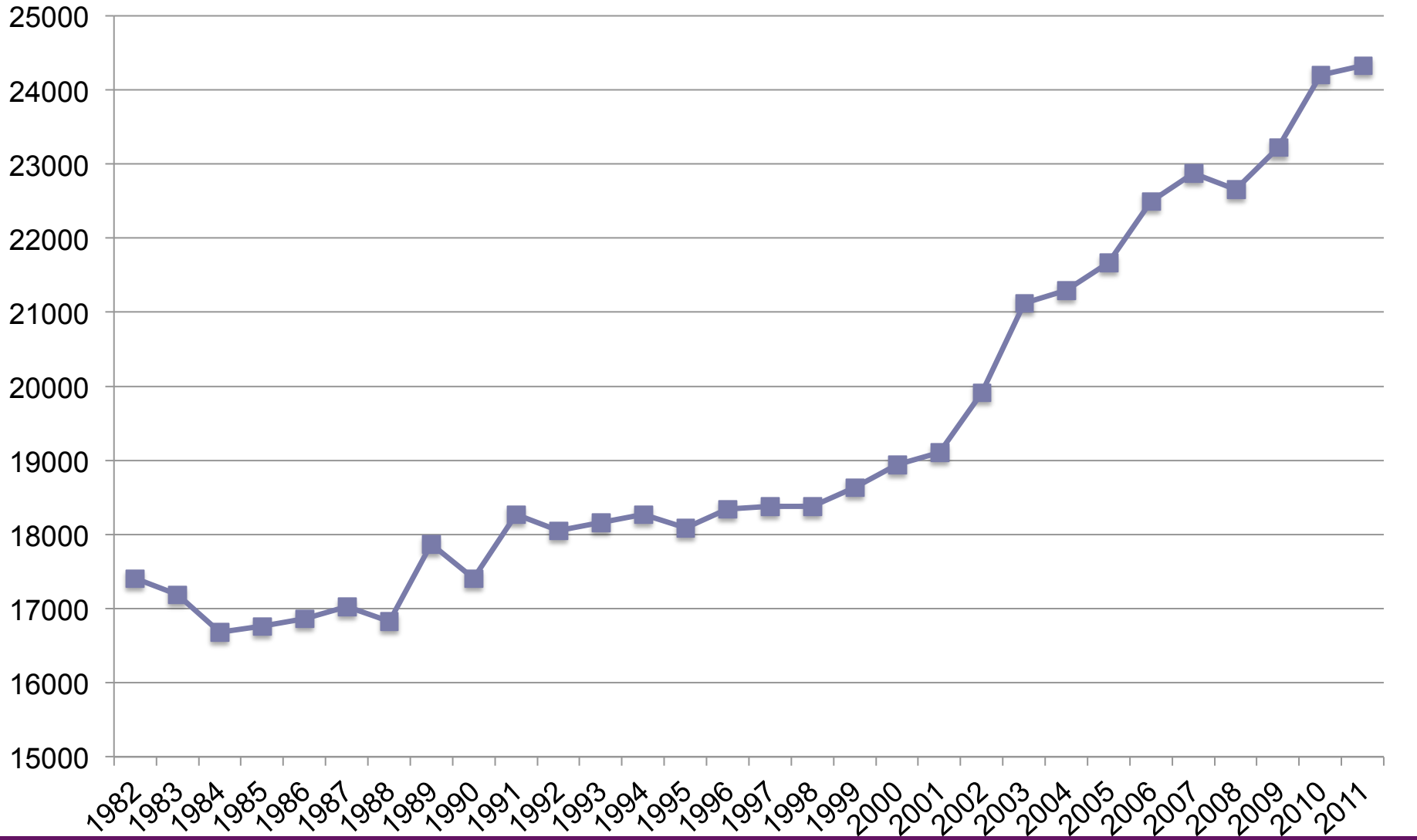
Source: ARL Statistics 2010-11, Copyright, Association of Research Libraries, 2011

Expenditure Trends in ARL Libraries, 1986-2012



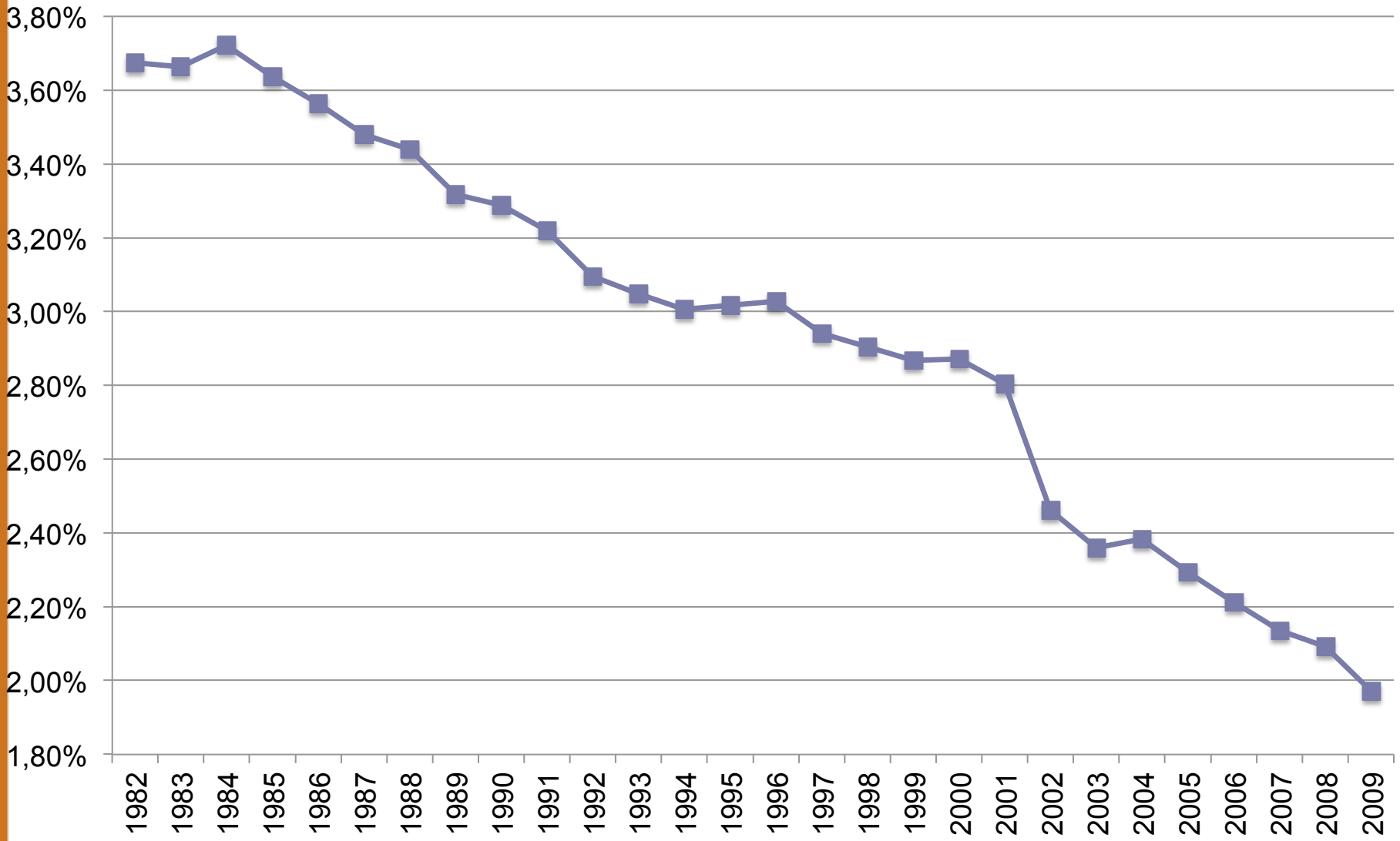
Source: *ARL Statistics 2011-12* Association of Research Libraries, Washington, D.C.

Total Student Enrollment in ARL Libraries 1982-2011



Source: ARL Statistics 2010-11, Copyright, Association of Research Libraries, 2011

Library Expenditures as a Percent of University Expenditures in 40 ARL Libraries 1982-2009



Copyright, Association of Research Libraries, 2009

The data and the models

- I hesitate to hang the future of libraries on a demonstrable effect size for the equation,

  L = $$$

  – Rachel Applegate , Indiana University SLIS

Why study value

- Faced with difficult economic times and university budget cuts, the value of the library to the wider goals of the university is increasingly questioned.

  – Introduction to the Lib-Value Project

  » www.libvalue.org

What's the effect?

- **Bangor University considers removing librarians** posted by Blake on Thursday January 27, @07:30AM -753 hits

  Ms Information writes *"News from the University of Wales Bangor in the UK. senior management no longer feel that subject librarians / academic liaison librarians are needed in the modern academic library. They have made restructuring proposals which include removing all but one of the subject librarians and a tier of the library management, including the Head of Bibliographic Services. The university management thinks that technology has 'deskilled' literature searching. As far as I know, this proposal is unprecedented in the United Kingdom. In essence, there will remain 4 professional librarians serving a 'research-led' university of 8,000 plus FTEs and with 8 library sites. These will be the university librarian, cataloguing librarian, acquisitions librarian and Law librarian.*

- *Has anything like this happened anywhere that you know of? If so, what have been the effects?*

Assessment Librarian

Assessment is…

"…a structured process to **learn** about communities and **evaluate** how well the library supports them."

- *Steve Hiller, Director of Assessment & Planning*
University of Washington Libraries

Assessment can…

- Support decision making
- Establish accountability
- Strengthen organizational mission, goals, and objectives
- Realign library goals and mission statements with the needs of users
- Identify trends in user behaviors and technology
- Measure learning outcomes and impact
- Improve programs and services

Good Analytical Skills needed

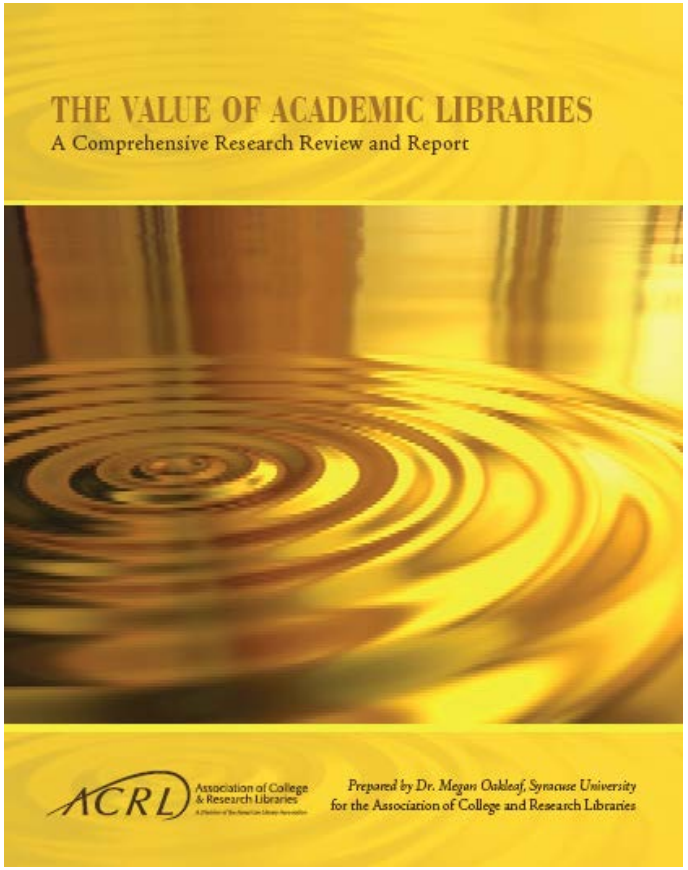
- Quantitative Analysis: IBM SPSS, SAS BI
- Qualitative Analysis: Atlas.ti, NVivo
- Data collection: Qualtrics, Survey Monkey, FormStack
- Data storage: SQL Server, Access, Excel
- Reporting: Crystal Reports, SPSS, SQL, Excel,
- Web delivery: interactive charts, analytics, Tableau, etc.
- Web development, usability, user experience?

arl-assess@arl.org

- Anyone with an interest in library assessment
- Assessment librarians
- User Experience and Planning
- Anthropologists
- Space planners
- Functional area leaders involved in assessment (teaching and learning, special collections, spaces)

Join the arl-assess google group

The Value of Academic Libraries



http://www.acrl.ala.org/value/

http://www.rin.ac.uk/our-work/using-and-accessing-information-resources/value-libraries-research-and-researchers

ARL Profiles: Research Libraries 2010

- Serve the public good
- Expand globally
- Set standards
- Explore best practices
- Establish national and international visibility

http://www.arl.org/stats/index/profiles/index.shtml

Ethnography

The art and science of describing a group, culture, or social process.

For more information:

Website: www.erialproject.org
& www.andrewasher.net
Toolkit: www.erialproject.org/publications/toolkit/
E-mail: asherand@indiana.edu
Twitter: @aasher
Book: *College Libraries and Student Culture* (ALA Editions, 2012)

StatsQUAL®

A gateway to library assessment tools that describe the role, character, and impact of physical and digital libraries.

ARL Statistics®

ARL Statistics™ is a series of annual publications that describe the collections, expenditures, staffing, and service activities for Association of Research Libraries (ARL) member libraries.

LibQUAL+®

LibQUAL+® is a rigorously tested Web-based survey that libraries use to solicit, track, understand, and act upon users‘ opinions of service quality.

ClimateQUAL®

ClimateQUAL®: Organizational Climate and Diversity Assessment is an online survey that measures staff perceptions about: (a) the library's commitment to the principles of diversity, (b) organizational policies and procedures, and (c) staff attitudes.

MINES for Libraries®

Measuring the Impact of Networked Electronic Resources (MINES) is an online transaction- based survey that collects data on the purpose of use of electronic resources and the demographics of users.

LibValue

LibValue is a series of tested methods that capture Return on Investment and Value of library services.

What is LibQUAL+®?

LibQUAL+® is a suite of services that libraries use to solicit, track, understand, and act upon users' opinions of service quality. These services are offered to the library community by the Association of Research Libraries (ARL). The program's centerpiece is a rigorously tested Web-based survey bundled with training that helps libraries assess and improve library services ....more

THE BIRTH OF LibQUAL+®?

In 1999, Fred Heath and Colleen Cook, both then at Texas A & M University, realized that use of "input" variables, such as collection or serials counts, were limited as measures of library service quality....more

THE LibQUAL+® SURVEY?

Since 2000, more than 1,000 libraries have participated in LibQUAL+® domestically and internationally, with participating institutions in Africa, Australia, Asia, and Europe.... more

VIEW A SAMPLE SURVEY?

The LibQUAL+® survey is a two-page, web-based instrument. For more information about the survey instrument, click here...

Register for LibQUAL+®

Sign up and register here to start a LibQUAL+® survey.

+ REGISTER NO

NEWS

+ **12/15/2009:** Launching New Website
+ **9/22/2009:** Register for the 2010 LibQUAL+® survey!
+ **2/20/2009:** LibQUAL+® Share Fair, Chicago, July 13, 2009: Call for Entries

+ MORE NEW

EVENTS

+ **5/24/2010:** 2010 LibQUAL+® and Beyond - Glasgow, Scotland
+ **2/5/2010:** 2010 Introduction to LibQUAL+® - London, England
+ **1/18/2010:** LibQUAL+® Training Sessions - Boston, MA

+ MORE EVENT

PUBLICATIONS

+ **Describing the Research Library of the 21st Century: The ARL Profiles**
+ **Library Assessment Conference 2008, Seattle, Washington Augus 4-7: Recap & Evaluation**
+ **Library Quality Assessment through LibQUAL+®**

+ MORE RESOURC

How will LibQUAL+® benefit your library users?

Library administrators have successfully used LibQUAL+® survey data to identify best practices, analyze deficits, and effectively allocate resources. LibQUAL+® gives your library users a chance to tell you where your services need improvement so you can respond to and better manage their expectations. Institutional data and reports enable you to assess whether your library services are meeting user expectations—and develop services that better meet these expectations.

LibQUAL+® Top 10 Resources

A Google™ search on "LibQUAL+" yields approximately 100,000 hits, and more than 50 refereed journal articles have been published on the protocol. To use to learn about LibQUAL+®...

The Challenge

"The difficulty lies in trying to find a single model or set of simple indicators that can be used by different institutions, and that will compare something across large groups that is by definition only locally applicable—i.e., how well a library meets the needs of its institution. Librarians have either made do with oversimplified national data or have undertaken customized local evaluations of effectiveness, but there has not been devised an effective way to link the two"

Sarah Pritchard, Dean of Libraries, Northwestern University

The LibQUAL+® Premise

PERCEPTIONS ⟷ **SERVICE**

"….only customers judge quality; all other judgments are essentially irrelevant"

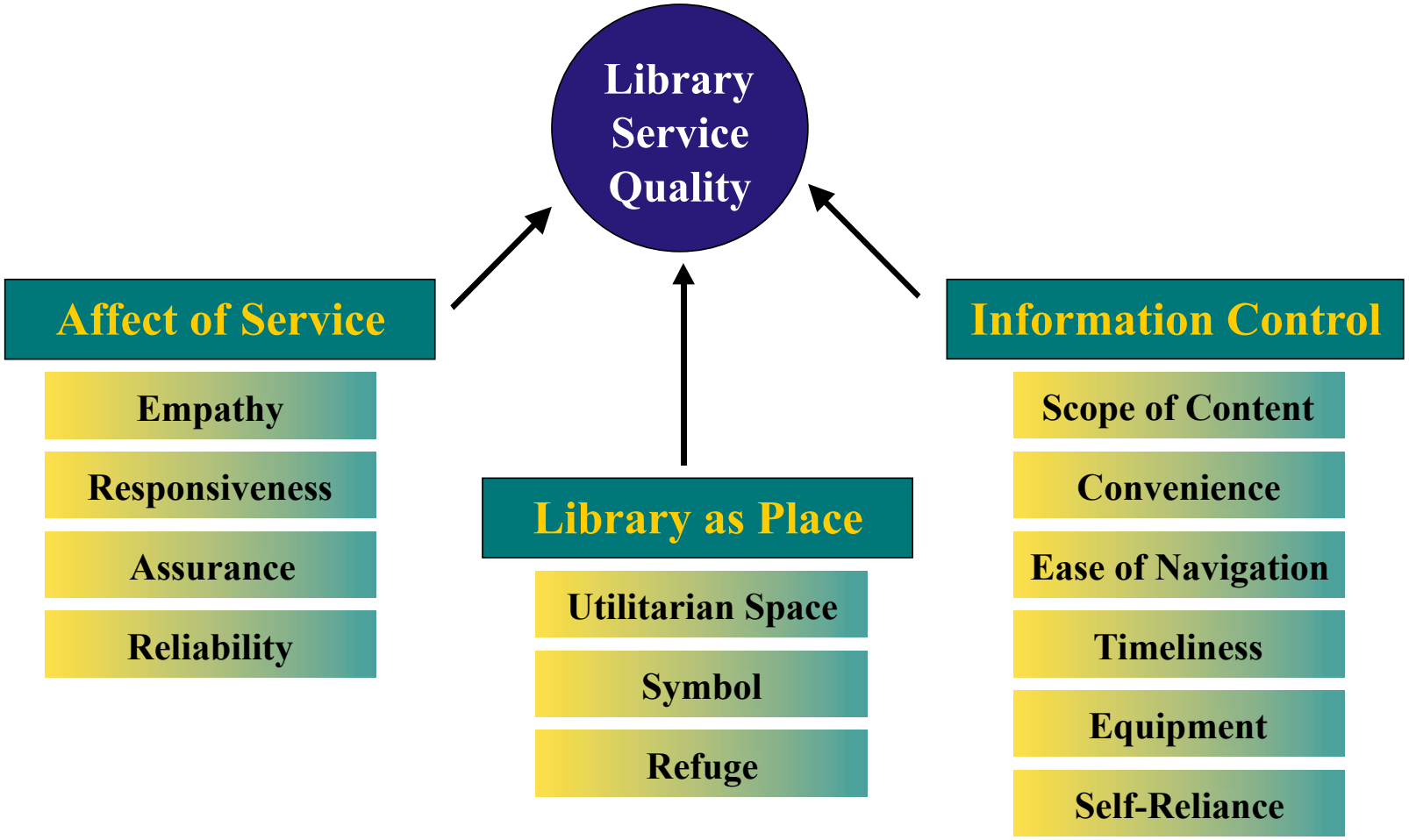
Note. Zeithaml, Parasuraman, Berry. (1999). Delivering quality service. NY: The Free Press.

…a revolution in the making

Il est plus nécessaire d'étudier les hommes que les livres

—FRANÇOIS DE LA ROCHEFOUCAULD (1613–1680)

Dimensions of Library Service Quality



Survey Structure (Detail View)

Preview: ARL Sample 4-Year Institution

Library Service Quality Survey

Please rate the following statements (1 is lowest, 9 is highest) by indicating:

Minimum -- the number that represents the *minimum* level of service that you would find acceptable

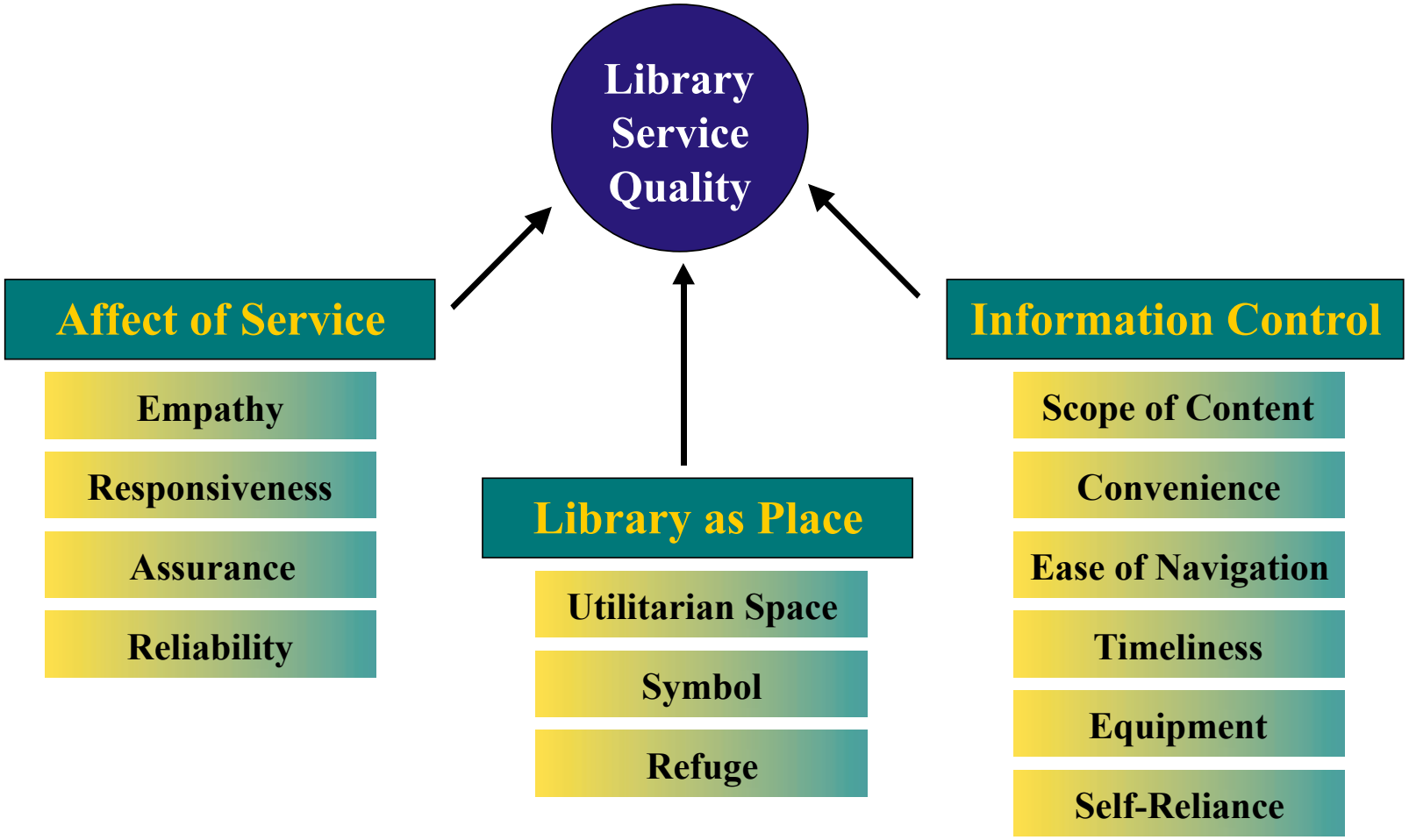
Desired -- the number that represents the level of service that *you personally want*

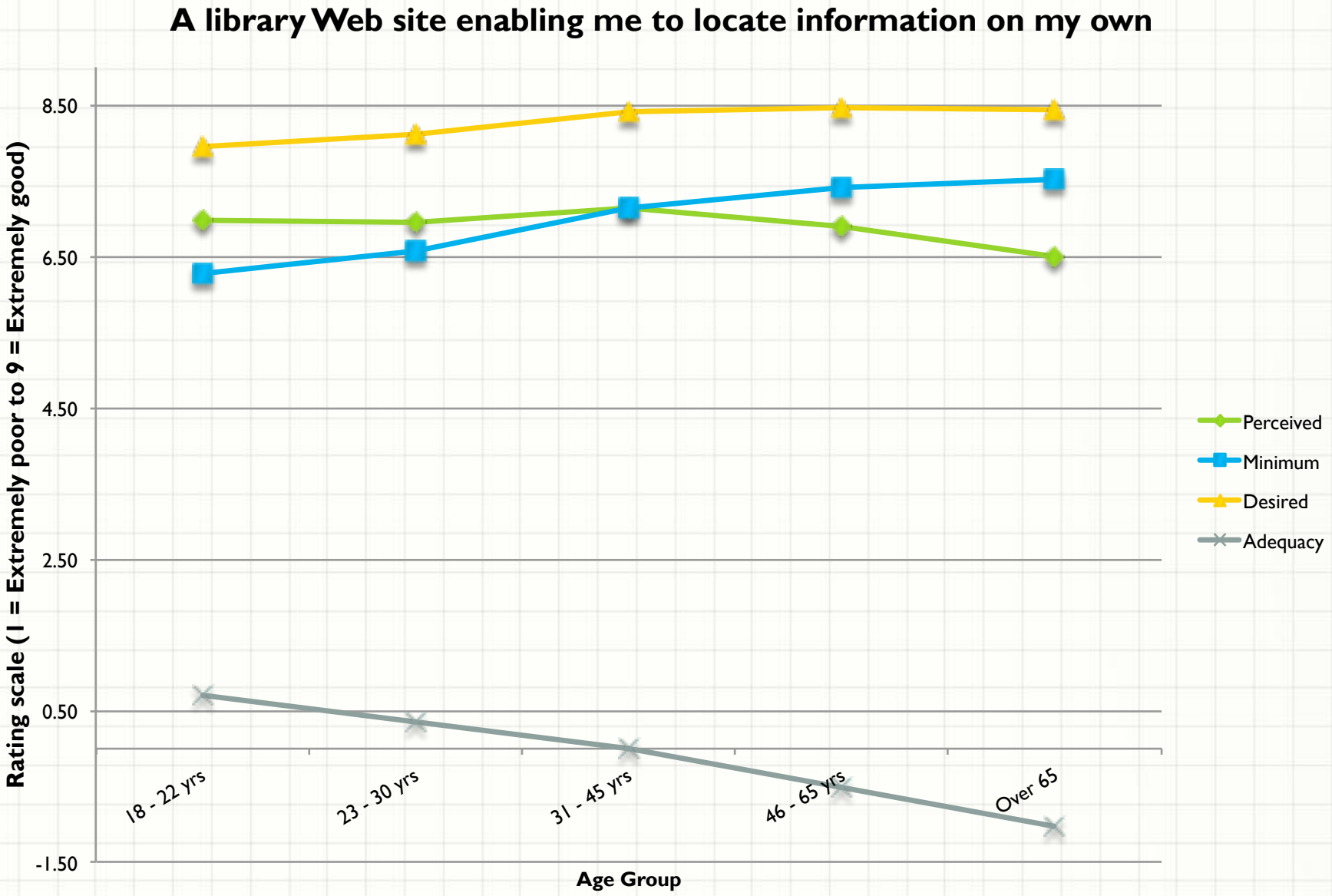
Perceived -- the number that represents the level of service that *you believe* our library currently provides

For each item, you must EITHER rate the item in all three columns OR identify the item as "N/A" (not applicable). Selecting "N/A" will override all other answers for that item.

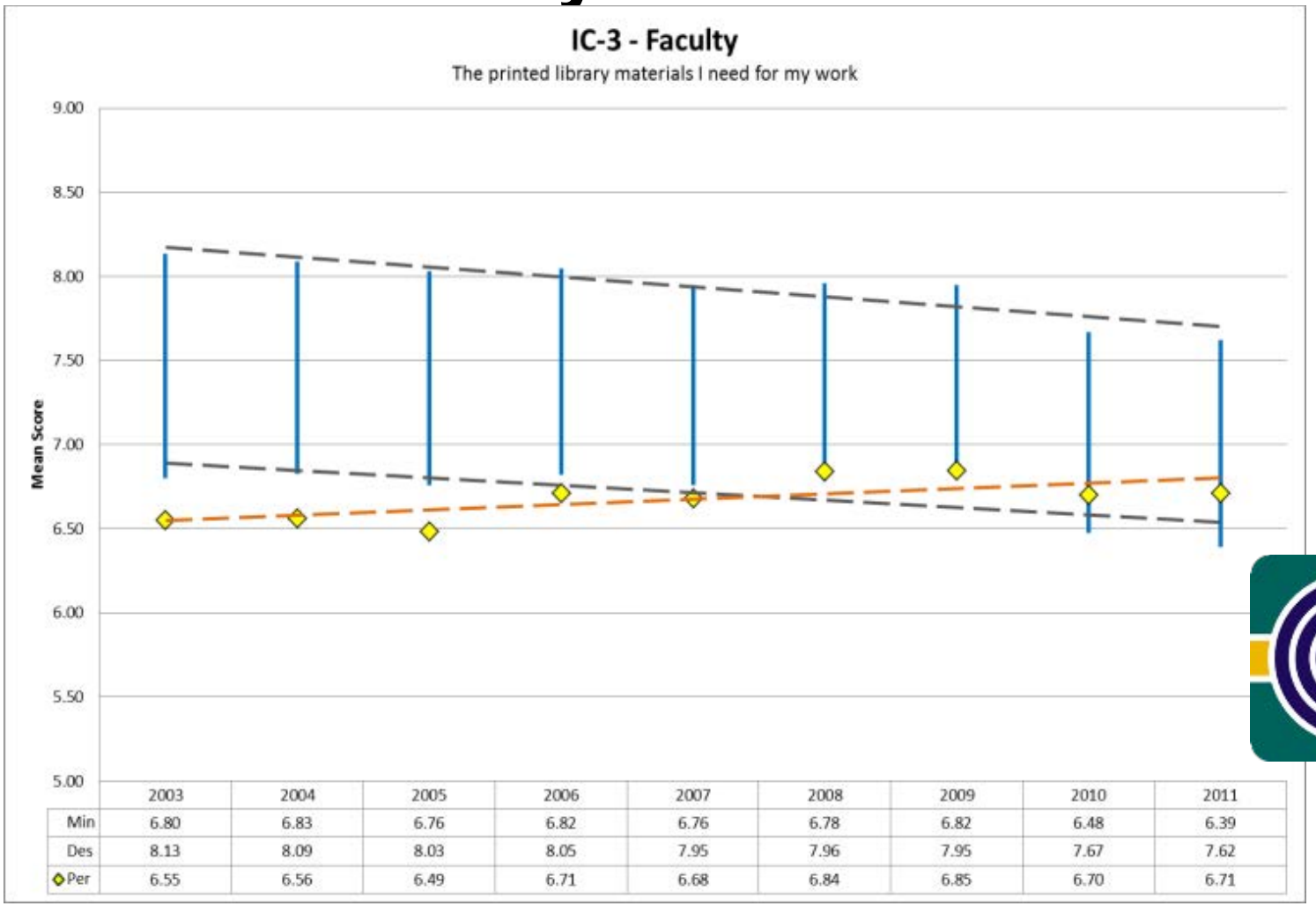
When it comes to...	My Minimum Service Level Is	My Desired Service Level Is	Perceived Service Performance Is	
	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	N/A
1) Employees who instill confidence in users	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
2) Easy-to-use access tools that allow me to find things on my own	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
3) Print and/or electronic journal collections I require for my work	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
4) Readiness to respond to users' questions	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
5) Quiet space for individual activities	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
When it comes to...	**My Minimum Service Level Is**	**My Desired Service Level Is**	**Perceived Service Performance Is**	
	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	Low 1 2 3 4 5 6 7 8 9 High	N/A
6) Convenient access to library collections	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A
7) Willingness to help users	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○ ○ ○ ○	☐ N/A

Dimensions of Library Service Quality




A library Web site enabling me to locate information on my own
Rating scale (1 = Extremely poor to 9 = Extremely good)
8.50
6.50
4.50
2.50
0.50
-1.50
18 - 22 yrs
23 - 30 yrs
31 - 45 yrs
46 - 65 yrs
Over 65
Age Group
Perceived
Minimum
Desired
Adequacy

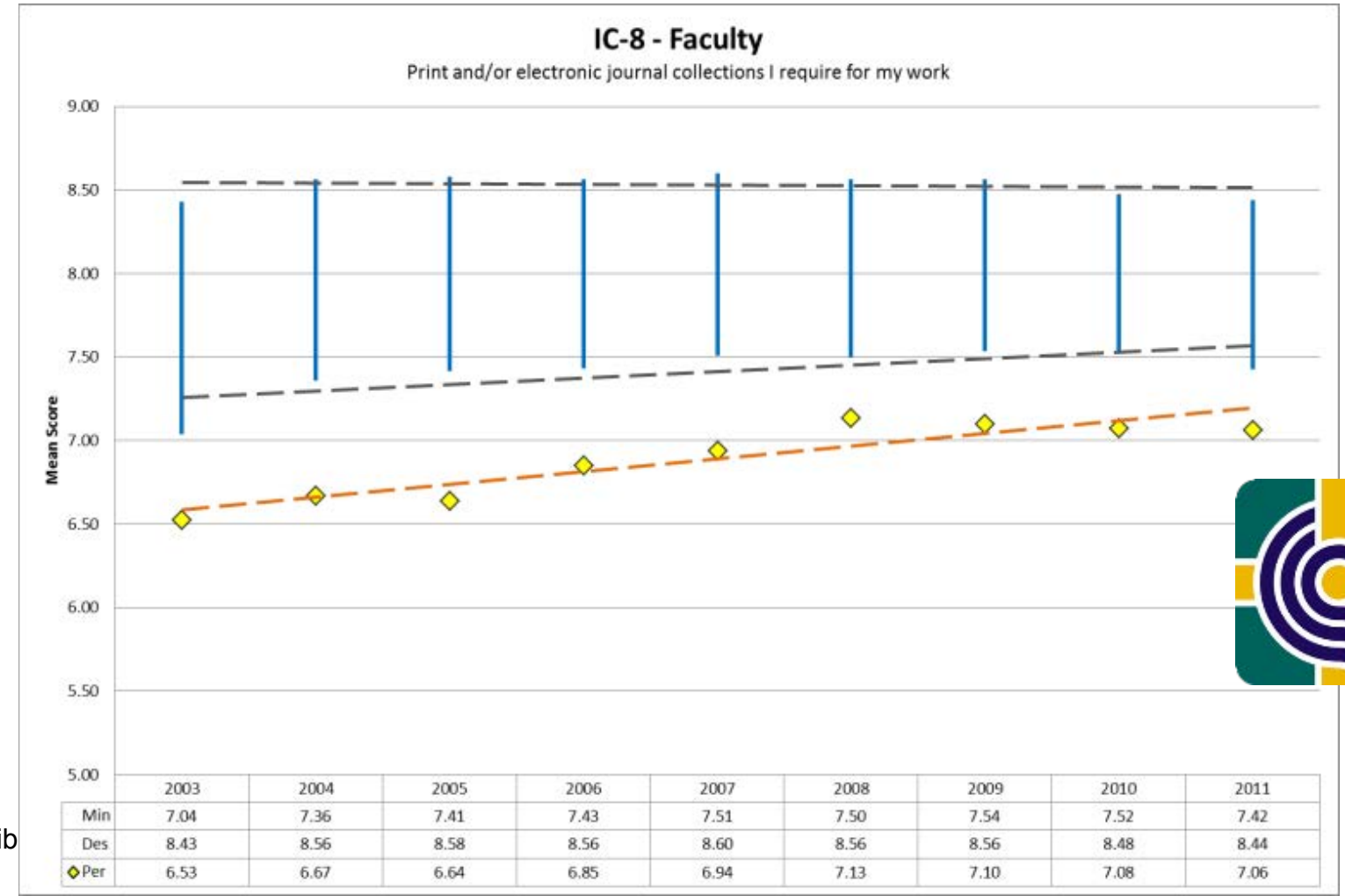
The Printed Library Materials I Need for My Work



	2003	2004	2005	2006	2007	2008	2009	2010	2011
Min	6.80	6.83	6.76	6.82	6.76	6.78	6.82	6.48	6.39
Des	8.13	8.09	8.03	8.05	7.95	7.96	7.95	7.67	7.62
◇Per	6.55	6.56	6.49	6.71	6.68	6.84	6.85	6.70	6.71

ARL Association of Research Libraries

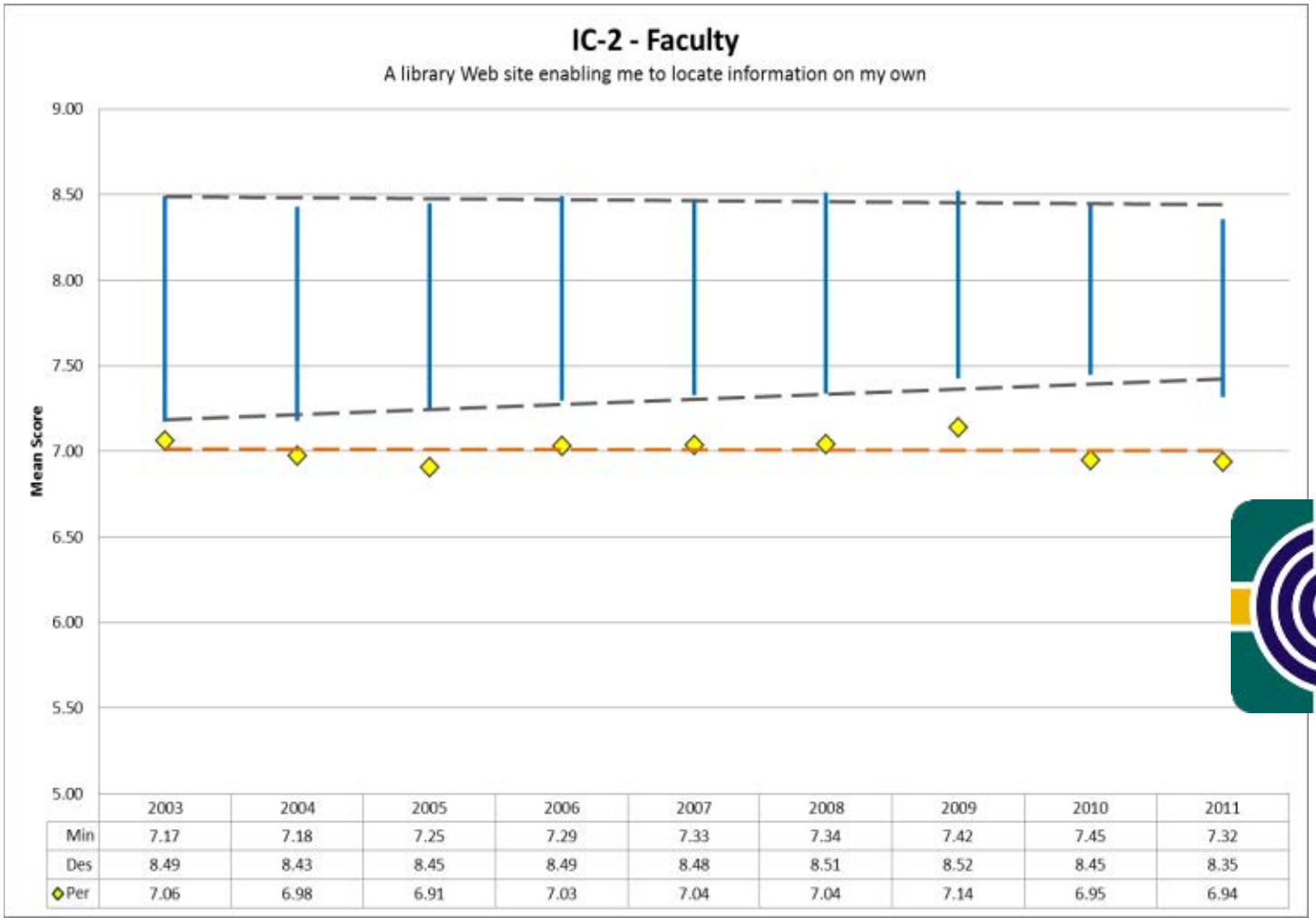
Print and/or Electronic Journal Collections I Require for My Work



	2003	2004	2005	2006	2007	2008	2009	2010	2011
Min	7.04	7.36	7.41	7.43	7.51	7.50	7.54	7.52	7.42
Des	8.43	8.56	8.58	8.56	8.60	8.56	8.56	8.48	8.44
Per	6.53	6.67	6.64	6.85	6.94	7.13	7.10	7.08	7.06

ARL Association of Research Libraries

A Library Website Enabling Me to Locate Information on My Own



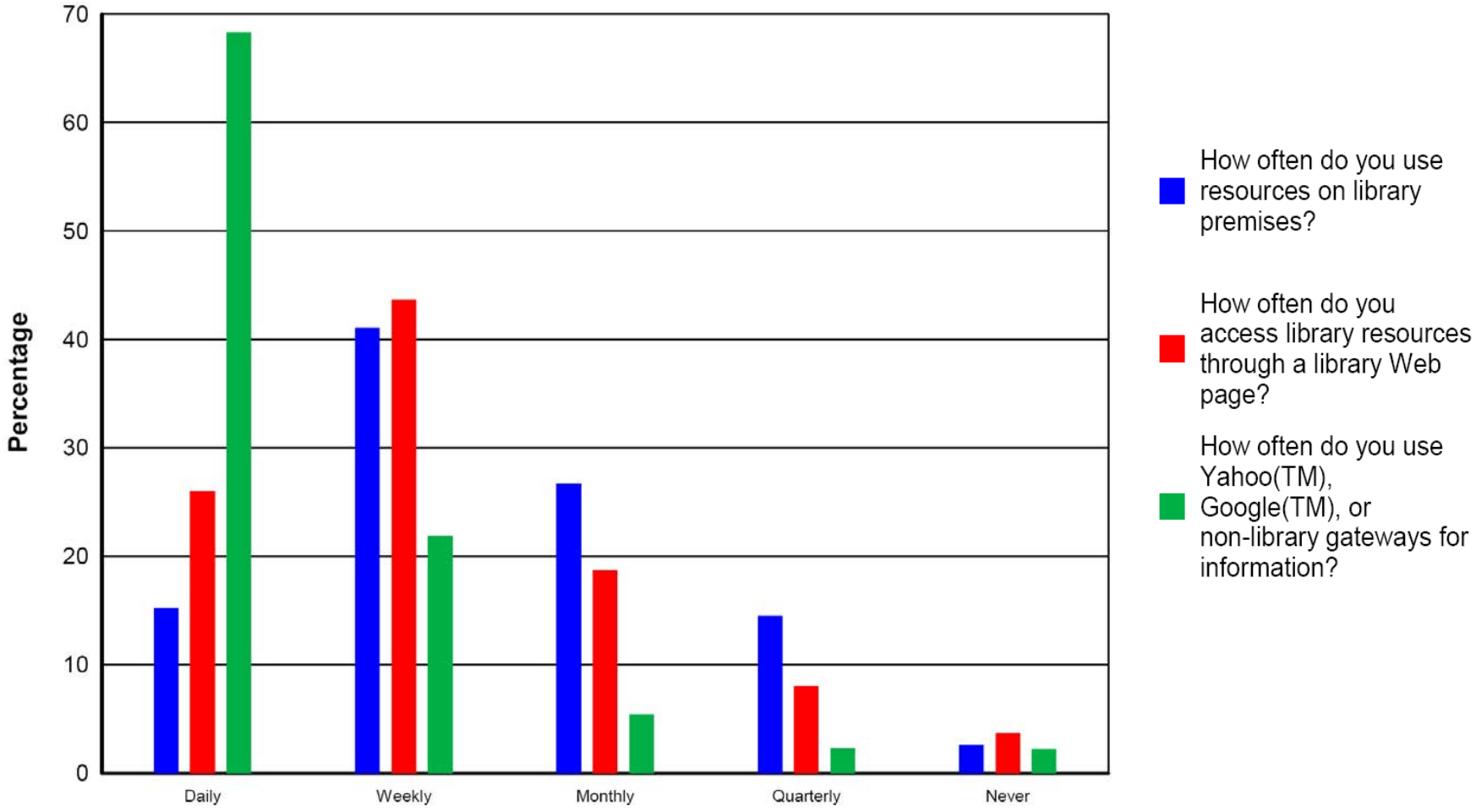
	2003	2004	2005	2006	2007	2008	2009	2010	2011
Min	7.17	7.18	7.25	7.29	7.33	7.34	7.42	7.45	7.32
Des	8.49	8.43	8.45	8.49	8.48	8.51	8.52	8.45	8.35
◇Per	7.06	6.98	6.91	7.03	7.04	7.04	7.14	6.95	6.94

Library Service Quality on a global scale

Contributions

- LibQUAL+® methodology focuses on success from the user's point of view (outcomes)
- Demonstrates that a Web-based survey can handle large numbers; users are willing to fill it out; and survey can be executed quickly with minimal expense
- LibQUAL+® requires limited local survey expertise and resources
- Analysis available at local and inter-institutional levels
- Many opportunities for using demographics to discern user behaviors

Use is not Value?



LibValue

Multiple institutions using multiple methods to measure multiple values for multiple stakeholders

INSTITUTE of Museum and Library SERVICES

ARL

JISC collections
delivering resources online

Return on investment in a strict sense…

…is a quantitative measure expressed as a ratio of the value returned to the institution for each monetary unit invested in the library.

Return on investment is also…

…values of all types that come to stakeholders and the institution from the library's collections, services, and contribution to its communities.

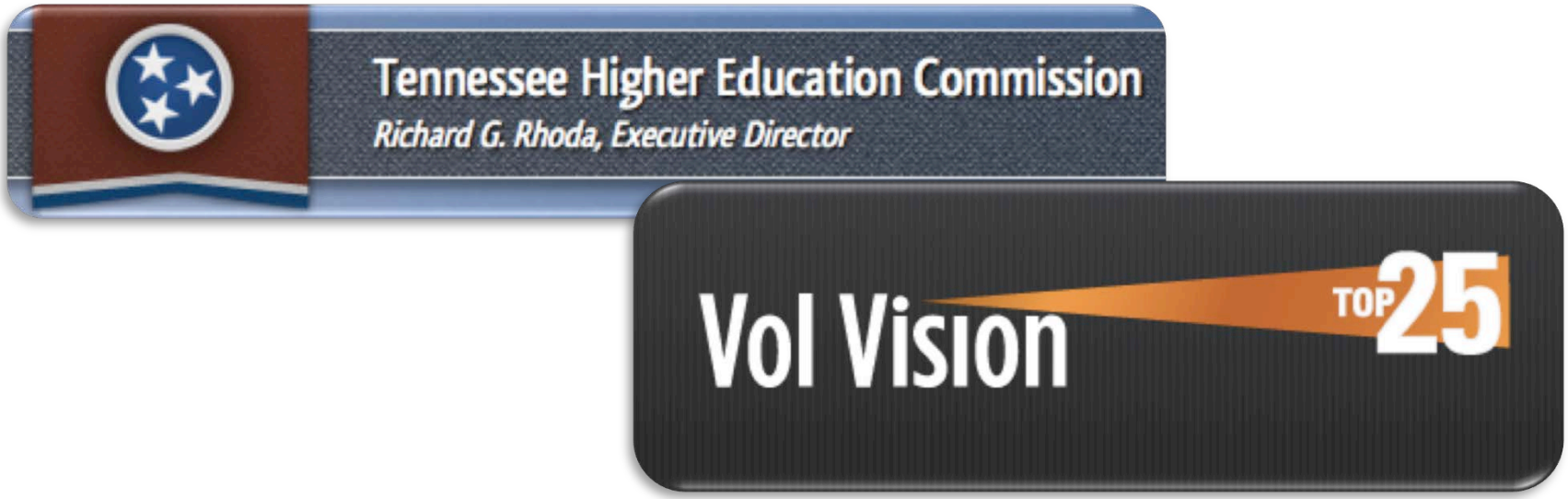
LIBValue Webcasts

- Scholarly Reading
- Teaching and Learning
- eBooks
- Special Collections
- Commons
- Comprehensive value
- Coming: LibValue Toolkit: www.libvalue.org

» ARL YouTube Channel

Changing Higher Education Landscape

- Outcomes-based budget
- Complete College Act, 2010
- A Top 25 Mandate, 2009

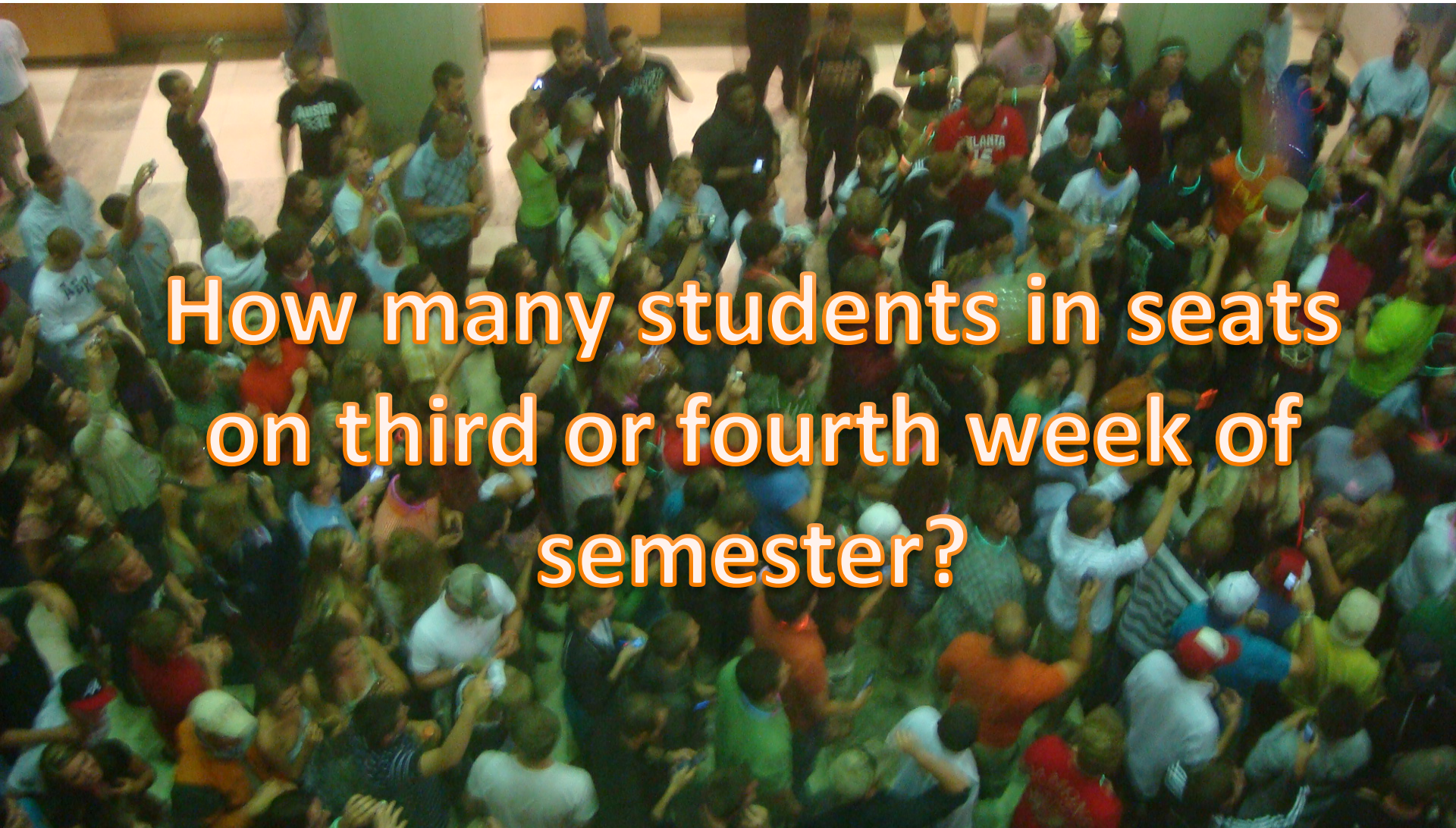


New University Strategic Plan

The Five Top 25 Strategic Priorities

- Undergraduate Education
- Graduate Education
- Research and Creative Activity
- Faculty and Staff
- Infrastructure and resources

Instead of . . . .


How many students in seats on third or fourth week of semester?

UT Libraries' Strategic Plan

UNIVERSITY LIBRARIES
3- TO 5-YEAR STRATEGIC PLAN

MISSION STATEMENT
WE EMPOWER BIG IDEAS

VISION STATEMENT
WE ARE THE CAMPUS MAIN STREET AND THE CROSSROADS FOR INNOVATION, SCHOLARSHIP, LEARNING, AND CIVILITY.

CORE ATTRIBUTES / VALUES
- WE HAVE HEART, SMARTS, AND NERVE.
- WE ARE RESPONSIBLE, HONEST, AND OPEN.
- WE LISTEN, SERVE, AND ENGAGE.

FIVE AREAS OF STRATEGIC EMPHASIS

Teaching and Learning
(Vol Vision Imperatives 1, 2, & 5)
- Engage in transformative partnerships in instruction
- Develop and maintain robust facilities in support of teaching and learning

Research Support, Discover, and Access
(Vol Vision Imperatives 4, 5, & 3)
- Develop robust, user-driven, and user-centered
- Maintain campus leadership in open access, intellectual property, and rights policy

The 24-Hour Intellectual and Social Hub
(Vol Vision Imperatives 1 & 5)
- Provide services, activities, and resources to welcome and acclimate students to the university community and to enhance the college experience
- Provide safe, secure, and inspiring spaces
- Maximize and diversify user space to more fully support the widest range of user needs

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FIVE AREAS OF STRATEGIC EMPHASIS (all guided by evidence-based, data-supported assessment)

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(Vol Vision Imperatives 1, 2, & 5)
- Engage in transformative partnerships in instruction
- Develop and maintain robust facilities in support of teaching and learning

Research Support, Discover, and Access
(Vol Vision Imperatives 4, 5, & 3)
- Develop robust, user-driven, and user-centered
- Maintain campus leadership in open access, intellectual property, and rights polic

Digital Initiatives, Scholarly Communication, and Technology Innovation
(Vol Vision Imperatives 3, 4, & 5)
- Lead new initiatives in data curation

The 24-Hour Intellectual and Social Hub
(Vol Vision Imperatives 1 & 5)
- Provide services, activities, and resources to welcome…

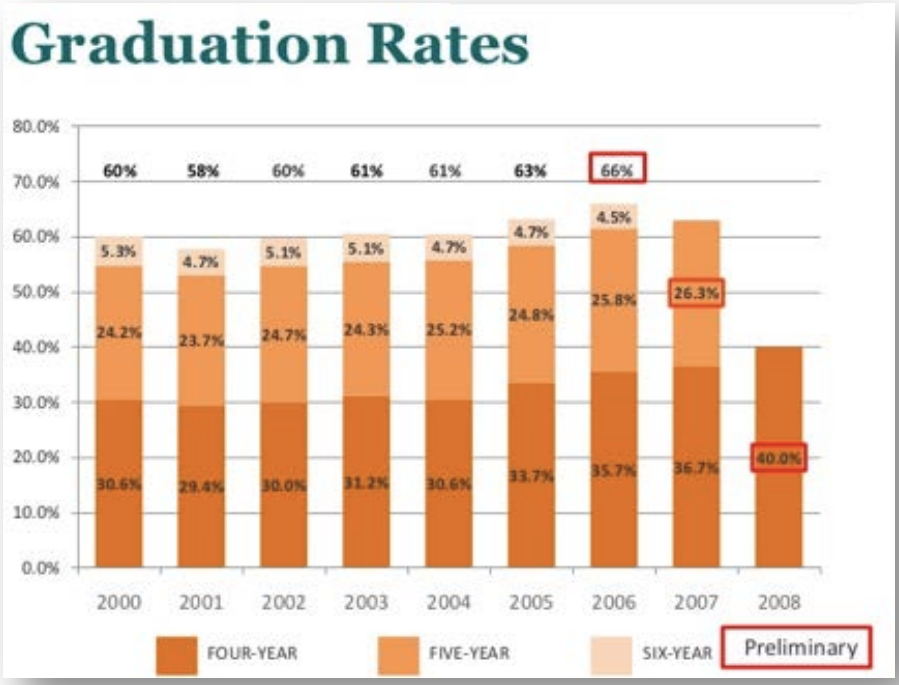
Outreach and Marketing
(Vol Vision Imperatives 1-5)

The old paradigm

- Comparables
  - "X is like us, so we should have their budget."
- Stoke Rivalries
  - "We must be better than X."
- Inflation factor
  - "Let's scare 'em with scary inflation numbers."

The New Paradigm: Student success outcomes (mostly)

- Recruitment
- Diversity
- Retention
- Graduation Rates (4 & 6 year)
- Out placement



LibValue and ROI

Not a moment too soon!

Commons Spaces

- Learning Commons
  - Collection of resources and services
    - Different styles of learning and studying
    - Technology
    - Groupwork
    - Interrelationship of services for students

Commons Spaces & Student Success

Assess the value of library resources and services in the Commons in support of the instructional mission of the University

① Define "success"

② Aggregate available data

③ Gather new information

④ Make meaningful connections

Aggregate Existing Data

①Existing Data

- Automatically collected usage data
- Data collected in person by service providers
- Demographic data on retention, success, and years to graduation
- Student exit surveys
- LibQual
- NSSE survey data
- UT Fact Book

Gather New Data

① Existing Data

- Automatically collected usage data
- Data collected in person by service providers
- Demographic data on retention, success, and years to graduation
- Student exit surveys
- LibQUAL+
- NSSE survey data
- UT Fact Book

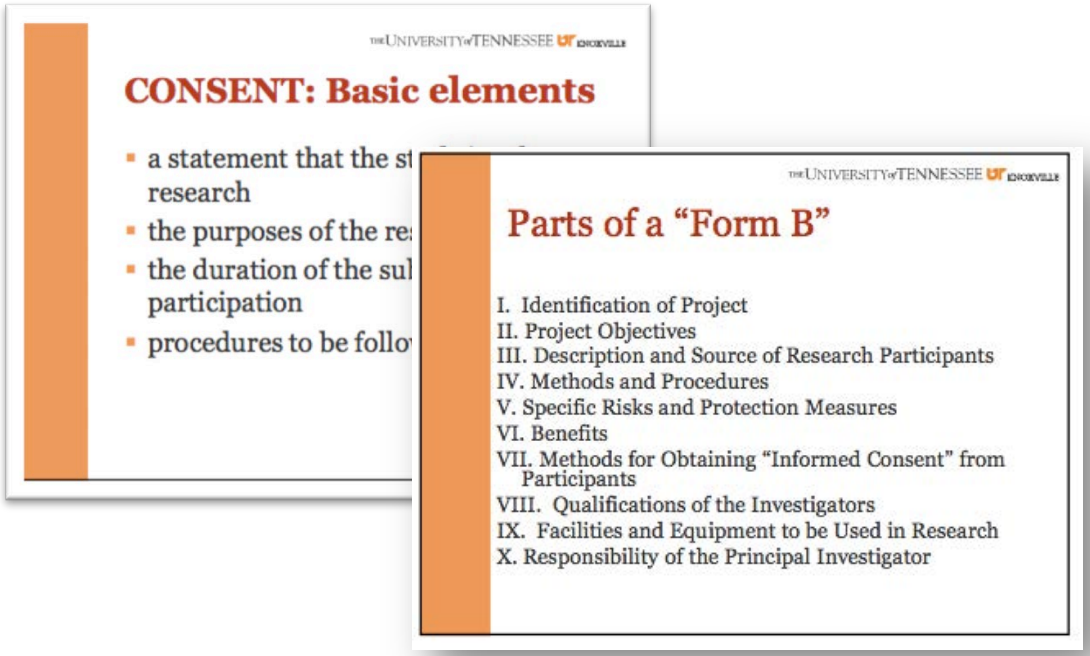
② Needed Data

- Student-reported use of Commons spaces and services
- Student-reported value of Commons spaces and services
- Augmented university data set including the ability to track individual progress toward degree data
- Admissions data

Linking Survey Responses to Student Data

Human Subjects

- Family Educational Rights & Privacy Act
- Compliance with state and federal regulations



Protecting Subjects

- You must be 18 or older to participate.
- Within the survey we ask for your UT NetID to use to retrieve and link admissions and progress-towards-degree data about you to the survey results. Your NetID will be removed from the survey data before the data is retrieved. The Office of Institutional Research and Assessment will oversee the data retrieval.
- Data on a protected server.
- Confidentiality of data. Data reported anonymously.

Gym Bags and Mortarboards

- Student success measures
  - First Year Retention and 5 year graduation
- 5211 students in sample (2001)
- Found that if a student used CRF 25 times over the semester, increased a student's predicted probability of first year retention by 1% and predicted probability of 5 year graduation by 2% (pg. 59)

Layers of Data

Office of Institutional Research Performance Data
Term and Cum GPA, Retention

Office of Institutional Research Demographics Data
College, Level, Major, Gender, Ethnicity, Age

Libraries Data (13 Access Points)
Circulation, Digital, Instruction, Reference, and Workstation

ARL Association of Research Libraries

Library Cube
University of Wollongong

http://www.youtube.com/watch?v=Z9UNtiO_KMQ

ARL Strategic Thinking and Design

Competency Trap exemplified by Thomas W. Lawson

Value and strategy

- How can you use LibValue results

strategically?

Each strategy has driver and outcome measures

Outcomes

Results-oriented measures. It is difficult to have an impact on these measures directly.

Drivers

Input-oriented measures. Progress against these measures should have an impact on the outcome measures.

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CASE WESTERN RESERVE UNIVERSITY est. 1826

Kelvin Smith Library

Strategy Map: TEAM responsibilities

Mission: KSL is the knowledge and creativity commons of CWRU

Customer Perspective

- **I.2.** Expand availability of and access to scholarly content
- **I.3.** Define and deploy a digital learning and research strategy
- **I.5.** Become the campus destination for intellectual pursuits

Financial Perspective

- **T.2.** Grow services through an expanded development program
- **I.2.** Create a new library materials allocation formula
- Create financially sustainable services

Services and

Collection

- **I.2.** Expand the scope of special collections and explore opportunities to grow the use of archival materials
- **C.1.** Strengthen external content partnerships

Connection

- **C.2.** Create a strategic alumni and community engagement plan
- **I.4.** Increase student fluency in knowledge discovery and processing

Creation and Curation

- **I.1.** Transform the design and delivery of services by engaging in research to understand needs of CWRU community
- **D.1. & D.2.** Create and implement global resources and diversity plan

Learning And Growth

- Effectively implement reorganization and strategic plan implementation
- **T.1.** Implement service assessment and accountability to the CWRU community

Vision: KSL will be the information laboratory for knowledge collection, connection, creation and curation

Teams Color KEY:

Research Services | Acquisition & Metadata Services | Access & Delivery Services | Digital Learning & Scholarship | Scholarly Resources & Special Collections | Planning, Budgets & Assessment | Human Resources | Development

UNIVERSITY OF CALGARY
LIBRARIES AND CULTURAL RESOURCES

Libraries and Cultural Resources inspires its communities to discover, explore, and create knowledge through innovative collections, technologically advanced facilities, and engaged expertise. [15 May 2012]

"We want our communities to say that Libraries and Cultural Resources … "

- Enables innovation in research, scholarship and creative works
- Engages communities with programs and services welcoming to all
- Is a factor in recruitment and retention
- Fosters interdisciplinary discovery [i.e. puts the Universe in University]

"Financially we need to… "

- Develop a sustainable business plan
- Focus on resources and services with a high ratio of value to cost
- Implement a targeted community partnerships and development program

"Internally we will focus on…"

Communications by …

- Developing a proactive and responsive marketing strategy
- Improving formal and informal communications

Program Management by …

- Maximizing opportunities for discovery
- Enhancing the user experience
- Coordinating programs and services across Libraries and Cultural Resources
- Promoting active outreach

Operations Management by …

- Employing innovative means, models and technological solutions in the selection and delivery of programs and services

"To be ready for the future we must…."

- Foster strategic staff development
- Support a culture of "Yes we can"
- Promote a culture of collegiality, respect and recognition

Town and Kyrillidou (2013)

- The value which stakeholders seek from libraries is transcendent, in the sense that the impact demonstrated must be beyond the library and immediate satisfaction or fulfillment. Library assessment effort to date has been (mainly) about quality rather than value.

A Value Scorecard

- Relationship & reputation capital
- Organisational capital
  - Tangible assets and resources
  - Intangible and meta-assets
- Library virtue
  - Impact and social capital
- Library momentum

ARL Association of Research Libraries

What is Important to Your President?

(Hint: It's not the number of books you check out.)

Extraordinary Achievements*

	Freshman ACT score (avg.)	21.4	23.2	25.2	N/A
	6-year graduation rate	30.1%	33.0%	52.1%	60.5%
	Baccalaureate degrees awarded	1,734	1,849	2,731	3,197
	Number of students living on campus	1,725	2,363	4,725	N/A
	Doctoral degrees awarded	76	90	140	272
	Research expenditures	$39.1M	$80.9M	$186.2M	$310.3M
	Endowed chairs & professorships	35	87	153	N/A

UNIVERSITY OF LOUISVILLE.

1998 reporting year | 2002 reportingyear | 2013 reporting year* | 2020 reporting year*

*2013 data are considered preliminary pending final audit and reconciliation.

* September 15, 2013 is the official census date for university housing

Clear targets: Questions behind Decisions

	Past	Present	Future
Information	**What happened?** (Reporting)	**What is happening now?** (Alerts)	**What will happen?** (Extrapolation)
Insight	**How and why did it happen?** (Modeling, Experimental Design)	**What's the next best action?** (Recommendation)	**What's the best /worst that can happen?** (Prediction, Optimization, Simulation)

Robert Morison, Analytics at Work

Final Blessings

- Indulge your curiosity
- Influence your friends
- Enable your organization.

  – May your analytics always be good – and your judgment even better.

  » ***Robert Morison, Analytics at Work***

Some current issues

- Importance of internal relationships and external partnerships
- Extension of traditional role
  - Research publication and research data
- Sustaining our academic role in planning
- Digital media, services and curation
- Capability, capacity and critical mass
- Library as reputational enhancer …

Image of Suzzallo Library © Christopher Dube, www.flickr.com/photos/chrusdube

Thank you