

# **Performance Measurement in Libraries**

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# Workshop Outline

- Introduction to performance measurement and user-centered library assessment
- Association of Research Libraries programs and activities in assessment and performance measurement
- User needs assessment: some examples
- Performance measures and indicators
- The Balanced Scorecard
- Using data and results
- Assessment as a PR Tool

# Your Role

- Be engaged
- Ask questions
- Participate in discussions
- Be skeptical!
- Stop us if we're not clear
  
- Take a customer-centered approach

# What Makes a Good Library?

- Library “Goodness” **traditionally** defined and measured:
  - Quality (Bigger was better!)
  - Access and availability
  - Effectiveness
  - Efficiency
  - Economy
  - Equity
- **Now focus on : How much good does this library do?**
  - Positive impact and outcomes for customers
  - Value to customers and stakeholders

# Common Library Measures/Statistics

- Revenues and expenditures
- Community size/registered borrowers
- Staff size and salaries
- Collections/holdings
- Circulation and other collections usage
- Interlibrary borrowing/lending
- Instruction sessions/participants
- Library service measures (hours, patrons, ref stats)
- Computer use detail
- Web site usage

**However, these don't tell us the value to the user**

# The Challenge for Libraries

- Traditional statistics don't define the 21<sup>st</sup> Century Library
  - Emphasize inputs, expenditures, acquisitions, holdings – how big and how much
  - Can no longer tell the library's story
  - May not be aligned with library/organizational goals and plans
  - Don't define and measure service quality
- Need metrics describing outcomes: success and value from the user's perspective
- Provide the organizational culture, structure, tools, & skill sets needed for libraries to acquire & use this information

**What difference do we make to our communities?**

# What's Driving the Agenda

- **Environmental Changes**
  - Exploding growth in use and applications of technology
  - Increased customer expectations for services, including quality and responsiveness
  - “Competition” from other sources
- **Budgetary Constraints**
  - Justification for spending \$\$\$ on libraries
  - Increasing competition for resources
  - Cost savings and/or reallocation
- **Justifying our Existence**
  - Fighting to remain relevant

# Library Assessment

Library assessment provides a structured process to learn about our communities, their work and the libraries connection to what they do

The information acquired through library assessment is used in an iterative manner to improve library programs and services and make our libraries responsive to the needs of our communities.

Libraries do not exist in a vacuum but are part of a larger organization. Assessment within the organization may take place in individual areas as well as at the broader organizational level.

# Assessment Process

- Focuses on customer needs, defining measurable “outputs” and offering services that meet those needs
- Collects, analyzes and uses data for management, program development, and decision-making
- Emphasizes ongoing communication with customers, opportunities for collaboration, qualitative measures and circular process of continuous improvement

# The Value of Assessment

- Accountability and justification
- Measure progress/achievement
- Improvement of services
- Comparison with others
- Identify changing use and needs patterns
  - Remote/In-person
  - Relevancy of current services and resources
  - New services
- Marketing and promotion
- Decisions based on data, not assumptions
  - **Assumicide!**

# Measuring Outcomes and Performance

- Outcomes are the effect of the library on the environment or target population
- Performance is the degree to which a library is achieving its objectives, particularly in term of users' needs
- Performance indicators (measures) are quantified statements used to evaluate the performance of the library in achieving its objectives

# Libraries Respond

- Northumbria International Conference on Performance Measurement in Libraries and Information Services held every 2 years since 1995. Recent conferences have emphasized:
  - User as focus point
  - Assessment of stakeholder views
  - Qualitative measures
  - Impact and outcome measures
- Library Assessment Conference first held in 2006 with more than 200 participants. Emphasis on assessment by and for practitioners. Next conference in Seattle, August 4-7 with 300-350 expected.

# Thinking Strategically About Library Futures

- What is the central work of the library and how can we do more, differently, and at less cost?
- What important services does the library provide that others can't?
- What advantages does the library possess?
- How is customer behavior changing?
- How do we add value to our customers work?
- What are the essential factors responsible for library success now and in the future?

# What Will We Measure?

“What is easy to measure is not necessarily what is desirable to measure. It is always tempting to set goals based on the data that are gathered, rather than developing a data-gathering system linked to assessing progress towards meeting established goals.”

M. Kyrillidou, “An overview of performance measures in higher education and libraries”, 1998

# The Changing Business Model

## Traditional Library Core Business

- **Physical Collections**
  - Print (primarily)
  - Microforms
  - Other
- **Facilities**
  - House collections
  - Customer service & work space
  - Staff work space
- **Services**
  - Reference
  - Instruction
  - Access

## University of Washington Libraries Usage Data

### Items Used In-Library

2.12 million in 1995-96

0.36 million in 2006-07

### Gate Counts

4.64 million in 2002-03

4.33 million in 2006-07

### In-Person Reference Questions

142,000 in 2002-03

94,000 in 2006-07

# The New Business Model

## ***Customer-Centered Library***

- All services & activities viewed through the eyes of customers
- Customers determine quality
- Library services and resources add value to the customer

## ***Assess/Measure the Value the Library Provides the Community through:***

- *Online resources and services*
- *In-library resources and services*
- *In person services outside the library*
- *Contribution to learning, research and life*

# Life in the Networked World (Adapted from Peter Brophy)

- Personal search replaces ‘ask a librarian’
- Global search of the global library
  - Google, flickr, del.icio.us; PubMed; Google Scholar
  - If there’s no response in 3 seconds, try elsewhere
    - *Then: Resources scarce, attention abundant*
    - *Now: Attention scarce, resources abundant*
- Social networking/communication - wikis, blogs
- Content please! Discovery to Delivery is one action.
- Satisficing
  - *Then: what is the best source of authoritative information?*
  - *Now: which is the most readily accessible source of adequate information?*
- Network tools used are **embedded** in workflow

# So Understanding Communities is Critical

- Your communities need library services which are embedded in their:
  - Workflows
  - Learnflows
  - Leisureflows
  - Lifeflows
- Engage with their languages and their processes of learning, research, leisure and ... life
- Learn what's important to them
- Because they may not come to you

**Support learning, research and life where they occur  
and surface that support within their lifeflows**

# **What Do We Need to Know About Our Customers?**

- Who are our customers (and potential customers)?
- What are their teaching, learning, and research interests?
- How do they work? What's important to them?
- How do they find information needed for their work?
- How do they use library services? What would they change?
- How do they differ from each other in library use/needs?

**How does the library add value to their work?**

**How does the library contribute to their success?**

# The Value of Community Assessment

- Know actual and potential customers
- Understand needs and use preferences
- Use funding and staff effectively
- Understand and address “competition”
- Foster community involvement and “ownership”
- Aid marketing, market penetration and outreach
- Measure, demonstrate, present the value of the library to the community

# Choosing the Right Method

- Define the question and need before you start
- Is there existing information you can use?
- Is the method appropriate?
- Is it timely?
- Is it cost effective?
- What expertise is needed to conduct and analyze?
- How will the results be used?

**Are you assessing what's important?**

**Are you assessing what's important to your community?**

# Traditional Methods & Measures

## Quantitative (numerically) based

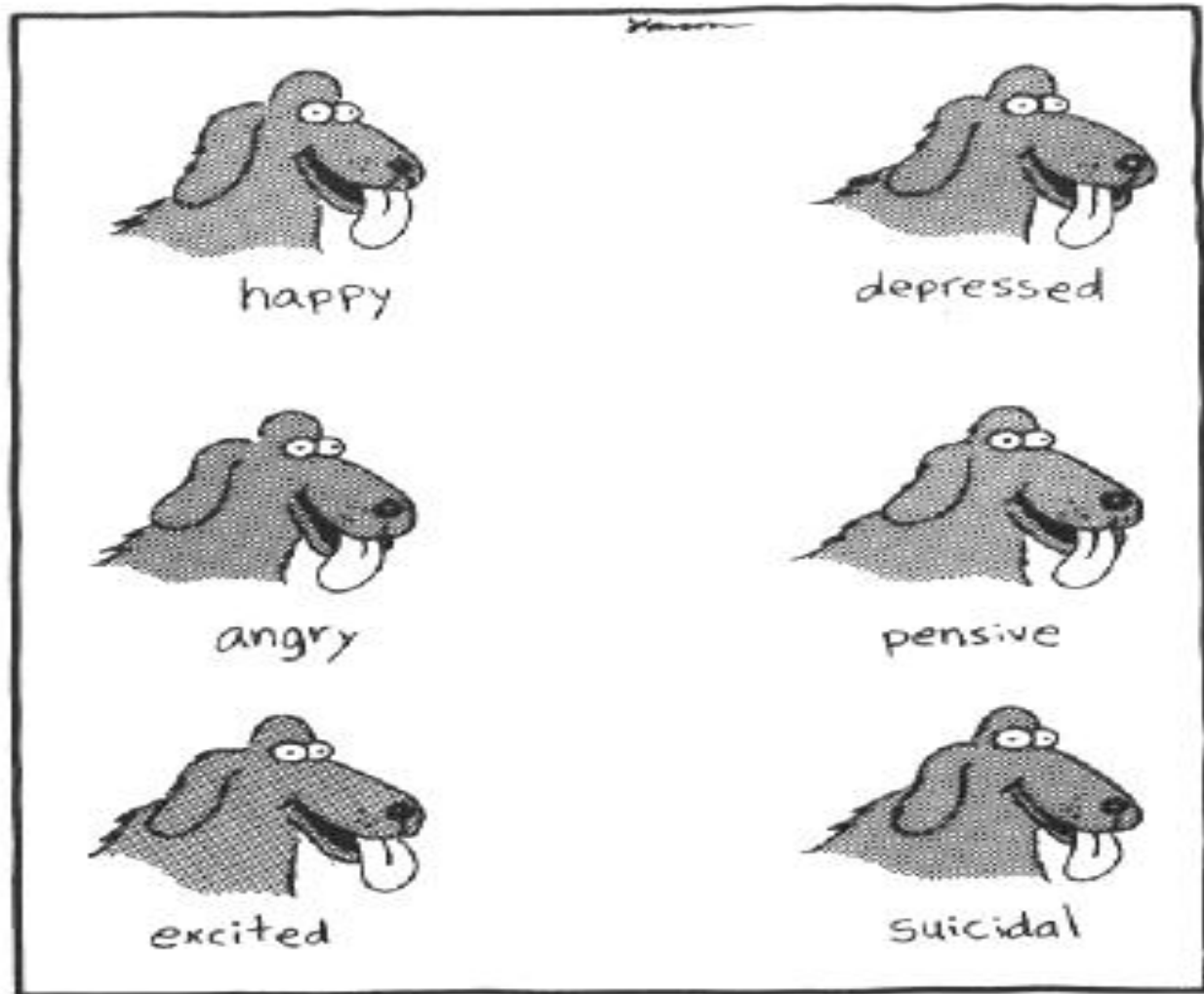
- Counts
- Time efficiency
- Comparisons and trends
- Benchmarks
- Surveys

These comprise maintained statistics but may do not show value to community

# Common Information Sources

- Community/institutional data sources
- Previous assessment efforts (library/organization)
- Library use data (including e-metrics)
- Acquisition requests and interlibrary loan data
- Computer/Web log data
- Comparative or trend data from other sources
- Local satisfaction surveys

# Sometimes The Data Isn't Revealing



How to recognize the moods of an Irish setter

# Alternatives to Survey/Quantitative Data

- Observations
- Interviews
- Focus groups
- Usability
- Comments (solicited/unsolicited)
- Customer “panels”
- Social networking info
- Logged activities

# The Qualitative Provides Insight

- Increasing use of such qualitative methods as, comments interviews, focus groups, usability, observation
- Statistics/quantitative data often can't tell us
  - Who, how, why
  - Value, impact, outcomes
- Qualitative provides information directly from users
  - Their language
  - Their issues
  - Their work
- Qualitative provides understanding

# Qualitative Provides the “Aha” Moment

*“[Access to online resources] has changed the way I do library research. It used to be a stage process: Initial trip, follow-up trip, fine-tuning trip. Now it’s a continuous interactive thing. I can follow-up anything at any time. While I’m writing I can keep going back and looking up items or verifying information.”*

*Graduate Student, Psychology (2002 UW Libraries focus group)*

# “Sacred Cows”

All library cultures have certain givens that everyone understands are sacred....policies, practices, ways of doing things are so ingrained into the culture that people seldom dare to think that things could be done differently. ‘Sacred cows’ is an expression used in English that denotes those sacred, holy and unquestionable beliefs we may hold.

It’s important to learn how to question these given beliefs when brainstorming ideas, to encourage exploration of different ways of thinking. Participants will be asked to identify the “sacred cows” in their libraries in order to think about them critically and dispassionately. Why don’t we allow eating in libraries? Why do we have to check out books? Do undergraduates need a loan period shorter than faculty members? Isn’t library quality determined by organizational policies and procedures rather than ‘customers’?

Source: Colleen Cook, Dean of Libraries, Texas A&M

# The Association of Research Libraries

- About the Association of Research Libraries (ARL)
- ARL and library statistics
- ARL sponsors “new measures” of describing and evaluating library services, resources and contributions



**Mission:**

Shaping the future of research libraries in the changing environment of public policy and scholarly communication.

**Members:**

123 major research libraries in North America.

**Ratios:**

4 percent of the higher education institutions providing 40 percent of the information resources.

**Users:**

Three million students and faculty served.

**Expenditures:**

40 percent is invested in access to electronic resources.

# ARL Tools for Library Assessment

In the beginning...



**ARL Statistics™**

**ARL Statistics** is a series of annual publications that describe the collections, expenditures, staffing, and service activities for ARL member libraries. These data have been collected since 1907-08, initially by James Gerould. Since 1961-62 ARL has collected and published these data annually. The whole data series represents the oldest and most comprehensive continuing library statistical series in North America.

**The series includes:**

- ARL Statistics
- Academic Health Sciences Library Statistics
- Academic Law Library Statistics
- ARL Preservation Statistics
- ARL Supplementary Statistics
- Annual Salary Survey

# What Makes a Research Library?

- Breadth and quality of collections and services
- Sustained institutional commitment to the library
- Distinctive resources in a variety of media
- Services to the scholarly community
- Preservation of research resources
- Contributions of staff to the profession
- Effective and innovative use of technology
- Engagement of the library in academic planning

*Association of Research Libraries 'Principles of Membership'*

# What Are We Measuring?

## Reviewing the ARL Statistics

October 2005, ARL Board approved a study to:

- Determine if there are new ways of describing research library collections.
  - What is it we are currently measuring
  - Are they the right data
  - Develop alternative models
- Develop a profile of the characteristics of a contemporary research library
- Determine/develop new meaningful measures to augment current ones to support this profile

# Updating the Traditional ARL Statistics – StatsQUAL™



- E-Metrics = ARL Supplementary Statistics
  - On going efforts to update and refine core data.
  - Exploring feasibility of collecting e-metrics.
- ARL Task Force on New Ways of Measuring Collections :
  - Growing concern with utility of membership index.
  - Study ARL statistics to determine relevance.
  - Develop Profile of Emerging Research Libraries.

# Qualitative Profile

## Developing New Metrics (per Yvonna Lincoln)

- Uniqueness of collections
- Defining the value of consortia
- Administrative and budgetary efficiencies
- Student outcomes/student learning/graduate success
- Contributions to faculty productivity
- Social frameworks/intellectual networks
- Generating new knowledge
- Creating the collective good with reusable assets

# Quantitative Stats

(Per Bruce Thompson)

- Expenditure Focused Index (EFI)
- Current ARL stats that could be used for benchmarking
  - Collections
  - User interactions
    - # Participants in group presentations
    - # Presentations to library groups
    - # Reference transactions
  - Collaborative Activities - Interlibrary loan activities
    - Borrowed total items
    - Loaned total items
- Set of statistics related to the digital library (from ARL supplementary statistics)

# Library Assessment and its Global Dimensions

- Markets and people exposed to economic and social frameworks unheard of before
- Competing internationally
- Library users exposed to global forces
- Libraries facing similar challenges
- Libraries as the Internet
- Libraries as Google
- Libraries as Collaborative Spaces

# Assessment at ARL

- A gateway to assessment tools: StatsQUAL<sup>®</sup>:



ARL Statistics -- E-Metrics



LibQUAL+<sup>®</sup>



DigiQUAL<sup>®</sup>



MINES for Libraries<sup>®</sup>



ClimateQUAL<sup>™</sup>

- Library Assessment Conferences
- Service Quality Evaluation Academy
- Library Assessment Blog
- Library Assessment Consulting Service
  - Making Library Assessment Work
  - **E**ffective, **S**ustainable, **P**ractical Library Assessment

# ARL Tools for Library Assessment

As a result of the work of the New Measures and Assessment Initiative (1999)...



**ARL Statistics™**

*Since 1907-08*



**LibQUAL+®**

*Since 2000*



**MINES for  
Libraries™**

*Since 2003*



**DigiQUAL®**

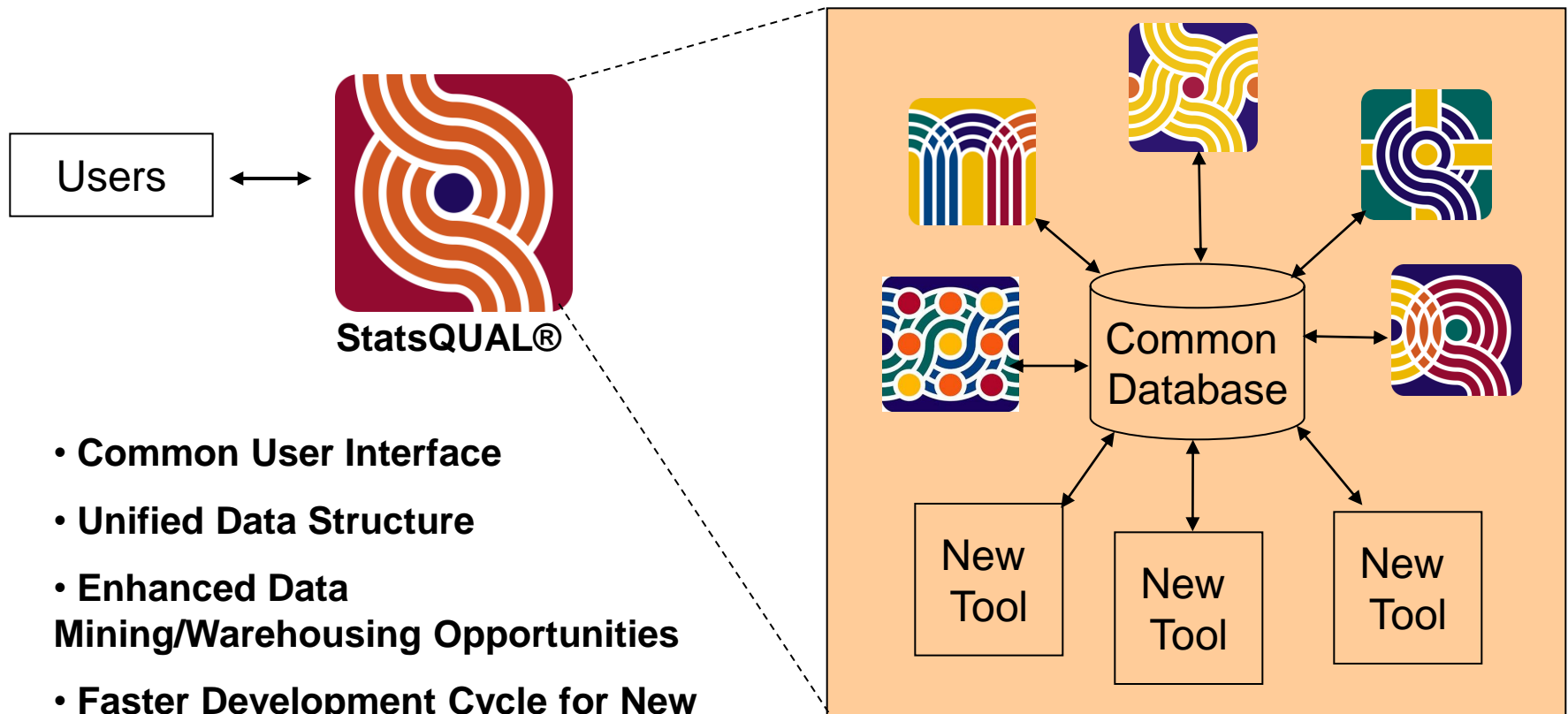
*Since 2003*



**ClimateQUAL™**

*Since 2007*

# ARL Tools for Library Assessment



- **Common User Interface**
- **Unified Data Structure**
- **Enhanced Data Mining/Warehousing Opportunities**
- **Faster Development Cycle for New Tools**
- **Common Workflow**

# Library Assessment in an Electronic Era

**Where are the most critical needs and opportunities?**

**What are the lessons learned?**



# Defining Success in a Digital Environment

- Crafting new measures of success.
- Moving from measuring inputs to outputs and outcomes
- Understanding impact of library roles and services.
- Agreeing on qualitative measures of success: user perceptions, user success, creating value, advancing higher education goals.
- Reallocating and managing capabilities to focus on new definitions of success.

# The LibQUAL+<sup>®</sup> Update



- The LibQUAL+<sup>®</sup> premise, dimensions, and methodology
- LibQUAL+<sup>®</sup> Results
- LibQUAL+<sup>®</sup> in Action

# The Need for LibQUAL+®



- Underlying need to demonstrate our worth
- The reallocation of resources from traditional services and functions
- Rapid shifts in information-seeking behavior
  - Need to keep abreast of customer demands
- Increasing user demands

# Why Use LibQUAL+<sup>®</sup>?

## Feedback from LibQUAL+<sup>®</sup> Users



“Why did you choose to use LibQUAL+<sup>®</sup>?”

- LibQUAL+<sup>®</sup> was recommended to us as offering a well designed, thoroughly Library-focused set of survey tools
- Opportunity to benchmark
- Cost-effectiveness
- Automated processing & fast delivery of results
- Respectability and comparability (with others and historically)

# The LibQUAL+® Premise



**PERCEPTIONS** ↔ **SERVICE**

“....**only** customers judge quality; all other judgments are essentially irrelevant”

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

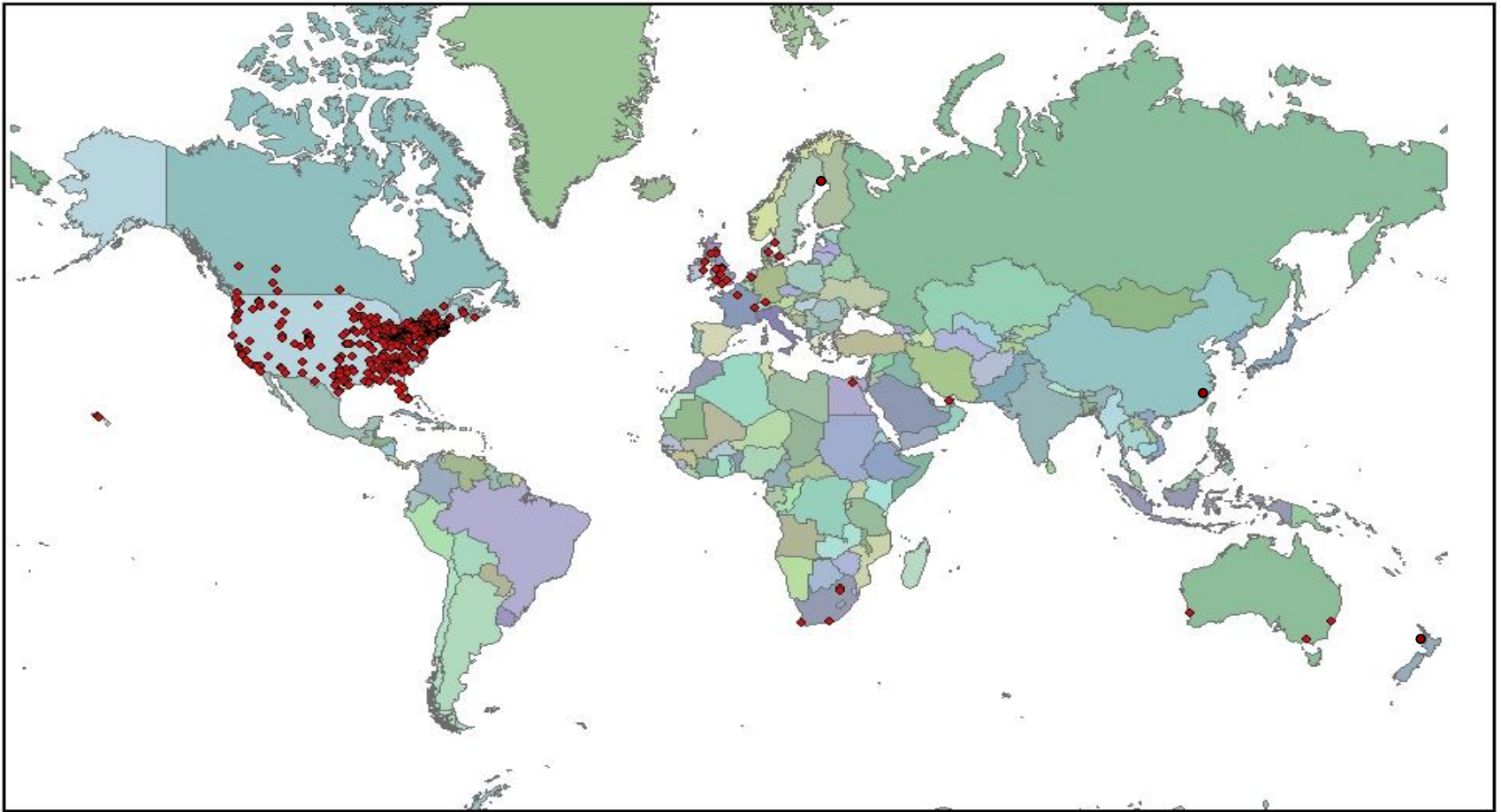
# Multiple Methods for Listening to Customers



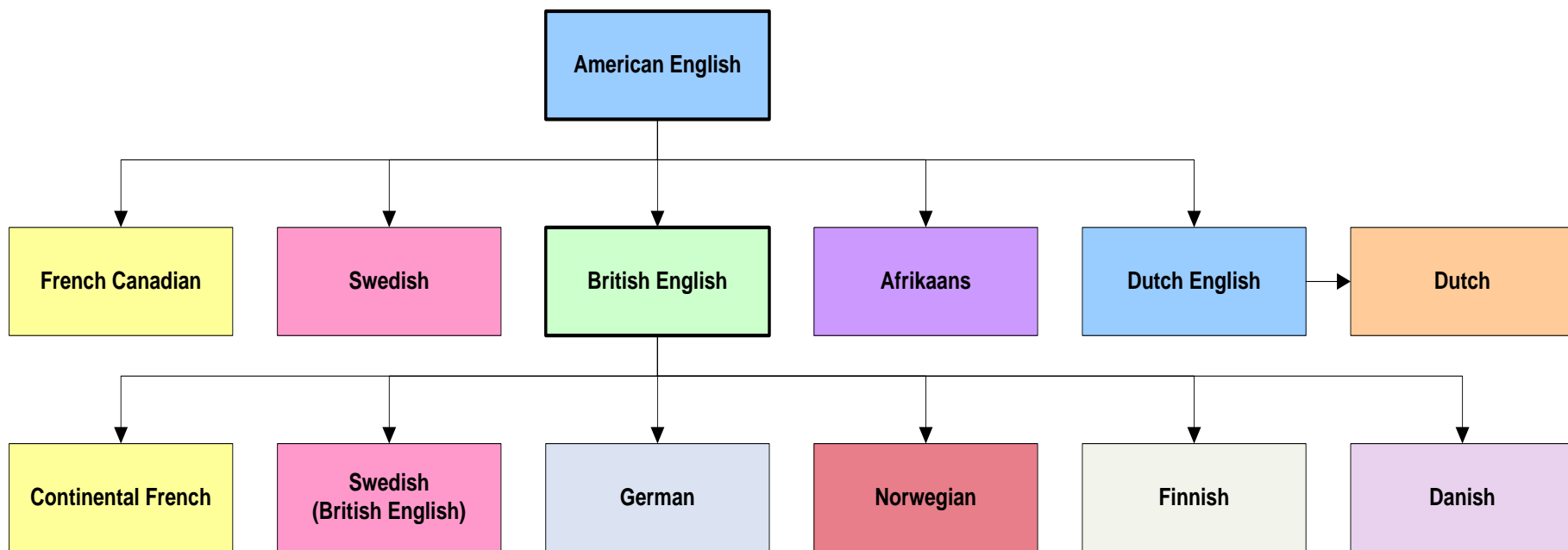
- Transactional surveys\*
- Mystery shopping
- New, declining, and lost-customer surveys
- Focus group interviews
- Customer advisory panels
- Service reviews
- Customer complaint, comment, and inquiry capture
- **Total market surveys\***
- Employee field reporting
- Employee surveys
- Service operating data capture

*\*A SERVQUAL-type instrument is most suitable for these methods*

# LibQUAL+®



# LibQUAL+® Languages



**Over 1,000 institutions**  
**1,000,000 respondents**

# Survey – “22 items...



## Cranfield University 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									N/A
	Low								High	Low								High	Low								High	
1) Library staff who instill confidence in users	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
2) Easy-to-use access tools that allow me to find things on my own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
3) Print and/or electronic journal collections I require for my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
4) Readiness to respond to users' enquiries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A
5) Quiet space for individual work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	N/A

# and A Box.”



- Why the Box is so Important:
  - About 40% of participants provide open-ended comments, and these are linked to demographics and quantitative data
  - Users elaborate the details of their concerns
  - Users feel the need to be constructive in their criticisms, and offer specific suggestions for action

# Understanding LibQUAL+® Results



- For the 22 items LibQUAL+ asks users' to rate their:
  - Minimum service level
  - Desired service level
  - Perceived service performance
- This gives us a 'Zone of Tolerance' for each question; the distance between minimally acceptable and desired service ratings
- Perception ratings ideally fall within the Zone of Tolerance

# General Findings



- Highly desired
  - Making electronic resources accessible from my home or office
  - Print and/or electronic journals I require for my work
  - A haven for study, learning or research
- Lowest
  - Library staff who instil confidence in users
  - Giving users individual attention
  - Space for group learning and group study

# Using LibQUAL+® Results



- Strategic Service Developments
  - Data to support service development
  - Ability to identify where not meeting expectations
  - Measure if change has met need
- Budget Discussions
  - Data to support bid for increased funding
  - Data to support case for change in emphasis (towards e-provision)
- Marketing Position
  - Status of the library within the University
  - Importance of national & international benchmarking

# In Closing, LibQUAL+<sup>®</sup>:



- Focuses on the users' point of view (outcomes)
- Requires limited local survey expertise and resources
- Analysis available at local, national and inter-institutional levels
- Offers opportunities for highlighting and improving your status within the institution
- Can help in securing funding for the Library



***"Each organization must create and communicate performance measures that reflect its unique strategy."***

Dr. Robert S. Kaplan, Harvard Business School



**DigiQUAL™**

# **Developing the DigiQUAL™ Protocol for Digital Library Evaluation**

- Building on the LibQUAL+® experience
- Secures feedback on user's perceptions of library's web site
- Five questions on services, functionality, and content
- Goal is to determine utility, reliability, and trustworthiness

# DigiQUAL™ Dimensions



Accessibility

Navigability

Interoperability

Collection building

Resource Use

Evaluating collections

DL as community: users, developers, reviewers

Copyright

Role of Federations

DL Sustainability

# Outstanding Issues and Challenges



- Unique DLs: niche market, critical mass, both?
- Balance:
  - custom vs. generic content → results
  - flexible vs. standard implementation → scaling
- Mixed methods
  - Preserving user privacy
  - Collecting truly useful data
- Moving target: digital libraries as... it depends.

# Assessing the Value of Networked Electronic Services



## The MINES Survey



*Measuring the Impact of Networked Electronic Services (MINES) - MINES for Libraries™*

# What is MINES for Libraries™?



- A research methodology consisting of a web-based survey form and a sampling plan.
- Measures who is using electronic resources, where users are located at the time of use, and their purpose of use.
- Adopted by the Association of Research Libraries (ARL) as a part of the “New Measures” toolkit May, 2003.
- Different from other electronic resource usage measures that quantify total usage or measure how well a library makes electronic resources available.



# Questions Addressed

- How extensively do sponsored research the new digital information environmen
- Are there differences in usage of electronic information based on the user's location (e.g., in the library; on-campus, but not in the library; or off-campus)?
- What is a statistically valid methodology for capturing electronic services usage both in the library and remotely through web surveys?
- Are particular network configurations more conducive to studies of digital libraries patron use?

# Library User Survey



## UConn Library Electronic Services Web Survey

This survey is being conducted during a **two-hour** time period by the University of Connecticut to assess the usage of the Library's electronic services. **All responses are anonymous.** The data is critical for obtaining continued funding.

After completing the survey, you will be connected to the service you selected.

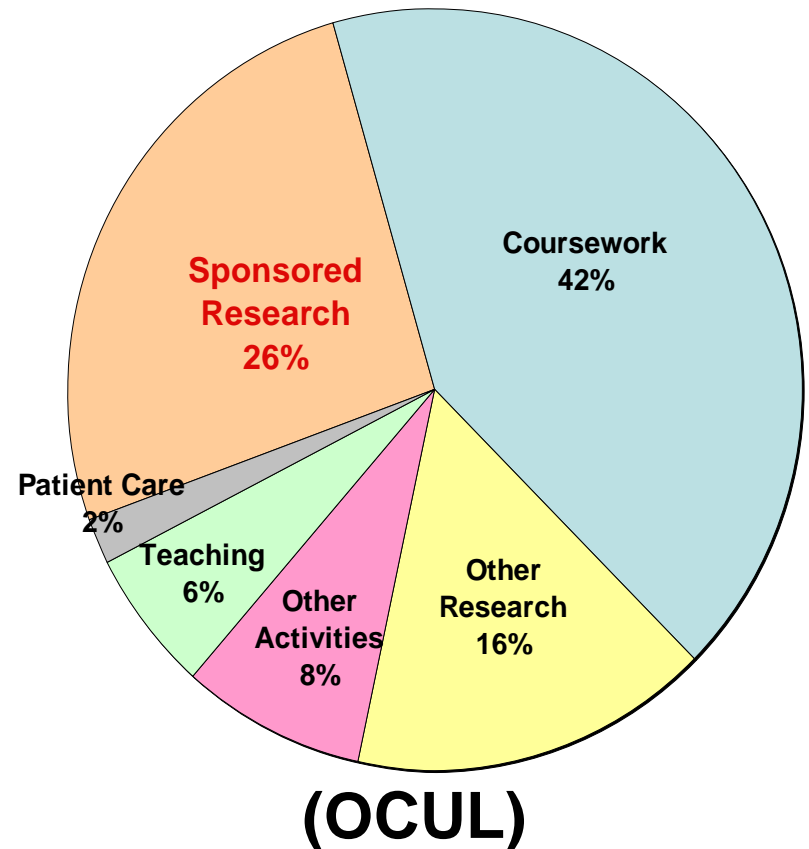
Thank you for your help.

<b>Patron Status</b>	Select Patron Status
<b>Affiliation</b>	Select Affiliation
<b>Location</b>	Select Location
<b>Purpose for Using this Electronic Resource:</b>	<input type="radio"/> Sponsored (Funded) Research <a href="#">Definition</a>
	<input type="radio"/> Instruction/Education/Departmental (Non-Funded) Research <a href="#">Definition</a>
	<input type="radio"/> Other Activities <a href="#">Definition</a>
	<input type="button" value="Submit Survey"/>

# Library Connection to Research: MINES for Libraries™

A web-based transactional survey that collects data on users' demographics and their purpose of use. Traditionally used to document library use for sponsored research.

Administered at 40 North American universities in the last four years. Offered by Association of Research Libraries.



# Discussion

- How do we allocate expenditures for electronic resources?
- How do we allocate indirect costs for electronic resources?
- What is the appropriate balance between electronic and print?
- What is the appropriate balance between centralized and distributed purchasing?
- How are electronic resources affecting learning and research outcomes?

# What are the most critical assessment needs and opportunities?

- Complementing LibQUAL+® with additional measures.
- Developing impact studies on user success, economic value, and community return on investment.
- Moving target: what is a digital library?
- E-Resources: understanding usage.
- Gaining acceptance and use of standard measures for e-resources.
- Building a climate of assessment throughout library.

# What is the lesson learned?

- Building standardized assessment methods and tools are a key component of understanding users, performance measurement, and improvement of services.

# Building Assessment Capability in Libraries through Consultation Services

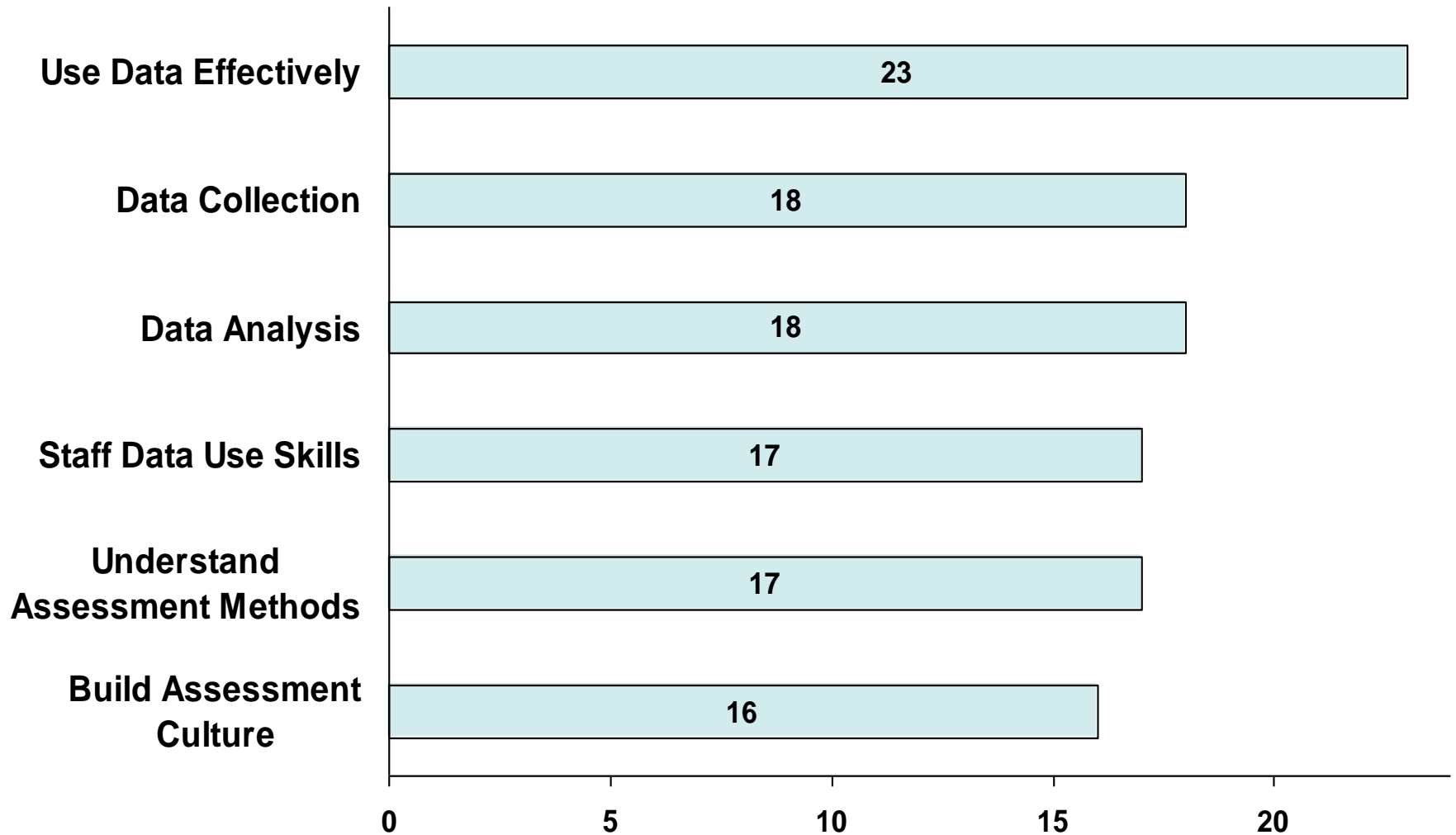
- ARL project “Making Library Assessment Work” approved in 2004
- Funded by participating libraries
- Conducted by Steve Hiller and Jim Self – 1.5 day site visit
  - Presentation and best practices
  - Interviews and meetings
  - Report to the library with recommendations
- 24 libraries in U.S. and Canada visited in 2005-06
- Succeeded by Effective, Sustainable and Practical Library Assessment in 2007 (open to all libraries)
  - 15 libraries participating in 2007-08
  - Including 4 outside North America

# Organizational Factors That Impede Effective and Sustainable Assessment

- Lack of an “institutional” research infrastructure
- Emphasis is on management and service responsibilities not research
- No assessment advocate within organization
- Poor coordination or awareness of internal efforts
- Library staff lack research methodology skills
- Library “culture” is skeptical of data
- Librarians have multiple time-consuming responsibilities
- Leadership does not view as priority
- Library organizational structure is often “silo-based”

# Commonly Identified Assessment Needs

(24 Libraries)



# Organizational Indicators of Effective Assessment

- Library leadership/management want to use data
- Customer focus is a shared library value
- Organizational culture receptive to change and improvement
- Assessment responsibility recognized and supported
- Library has a process for strategic planning/priorities
- Evidence/Data used to improve services/programs
  - Web sites (usability)
  - Facilities (qualitative methods)
  - Serial subscriptions (emetrics)
  - LibQUAL+™ results are followed-up

# In Closing

- As higher education is challenged on accountability and effectiveness issues so will libraries.
- A growing appreciation of need for fresh assessment measures, techniques, and processes - old arguments don't work.
- Basic questions of role, vision, and impact must be answered by library community.

# **User Needs Assessment**

## **Some Examples**

# Understanding How Researchers Work

## 3 Separate Studies Using Mixed Methods (2005-06)

Focus first on work of faculty/grad students and then on connection to library

- **University of Minnesota**
  - Humanities/Social Science research followed by Sciences
- **New York University**
  - 21<sup>st</sup> Century Library Study
- **University of Washington**
  - Biosciences Review

# Researchers and Libraries: Results Summary

- **University of Minnesota**
  - Extremely comfortable with electronic sources
  - Interdisciplinary critical in sciences
  - Inadequate methods for organizing research materials
- **New York University**
  - Researchers (all disciplines) no longer tied to physical library
  - Physical library can play a “community” role
  - Expectations for info shaped by Web and commercial sector
- **University of Washington**
  - Start info search outside library space (virtual and physical)
  - All digital all the time
  - Could not come up with “new library services” unprompted

# UW Interview Focus Group Themes

- **Content is primary link to the library**
  - Identify library with ejournals; want more titles & backfiles
- **Provide library-related services and resources in our space not yours**
  - Discovery begins primarily outside of library space with Google and Pub Med; Web of Science also important
  - Library services/tools seen as overly complex and fragmented
- **Print is dead, really dead**
  - If not online want digital delivery/too many libraries
  - Go to physical library only as last resort
- **Could not come up with new services unprompted**

# University of Washington

(Site of the 2008 Library Assessment Conference!)



- **Located in beautiful Seattle metro population 3.2 million**
- **Comprehensive public research university**
  - 27,000 undergraduate students
  - 12,000 graduate and professional students (80 doctoral programs)
  - 4,000 research and teaching faculty
- ***\$800 million annually in federal research funds (2<sup>nd</sup> in U.S.)***
- **Large research library system**
  - \$40 million annual budget
  - 150 librarians on 3 campuses

# **UW Libraries Assessment Priorities**

## **Customer Needs, Use and Success**

- Information seeking behavior and use
- Patterns of library use
- Value of library
- User needs
- Library contribution to customer success
- User satisfaction with services, collections, overall
- Data to make informed and wise decisions that lead to resources and services that contribute to user success

# University of Washington Libraries

## Assessment Methods Used

- Large scale user surveys every 3 years (“triennial survey”): 1992, 1995, 1998, 2001, 2004, 2007
  - All faculty
  - Samples of undergraduate and graduate students
  - Research scientists, Health Sciences fellow/residents 2004-
- In-library use surveys every 3 years beginning 1993
- LibQUAL+™ from 2000-2003
- Focus groups/Interviews (annually since 1998)
- Observation (guided and non-obtrusive)
- Usability
- Use statistics/data mining
- Information about assessment program available at:  
<http://www.lib.washington.edu/assessment/>

# Qualitative Assessment

## Some Examples from UW

- **Usability**
  - Library Web site design, OCLC World Cat local, Wayfinding
- **Observation**
  - Unobtrusive observation of public access computer use
  - Faculty and grad searching of bibliographic databases
  - Use of main library space and service hours
- **Focus groups**
  - Interlibrary loan, instruction, info seeking behavior, scholarly communication, bioscientists
- **Interviews**
  - Electronic journals, scholarly publishing, finding information, data management, bioscientists

# UW Triennial Library Survey

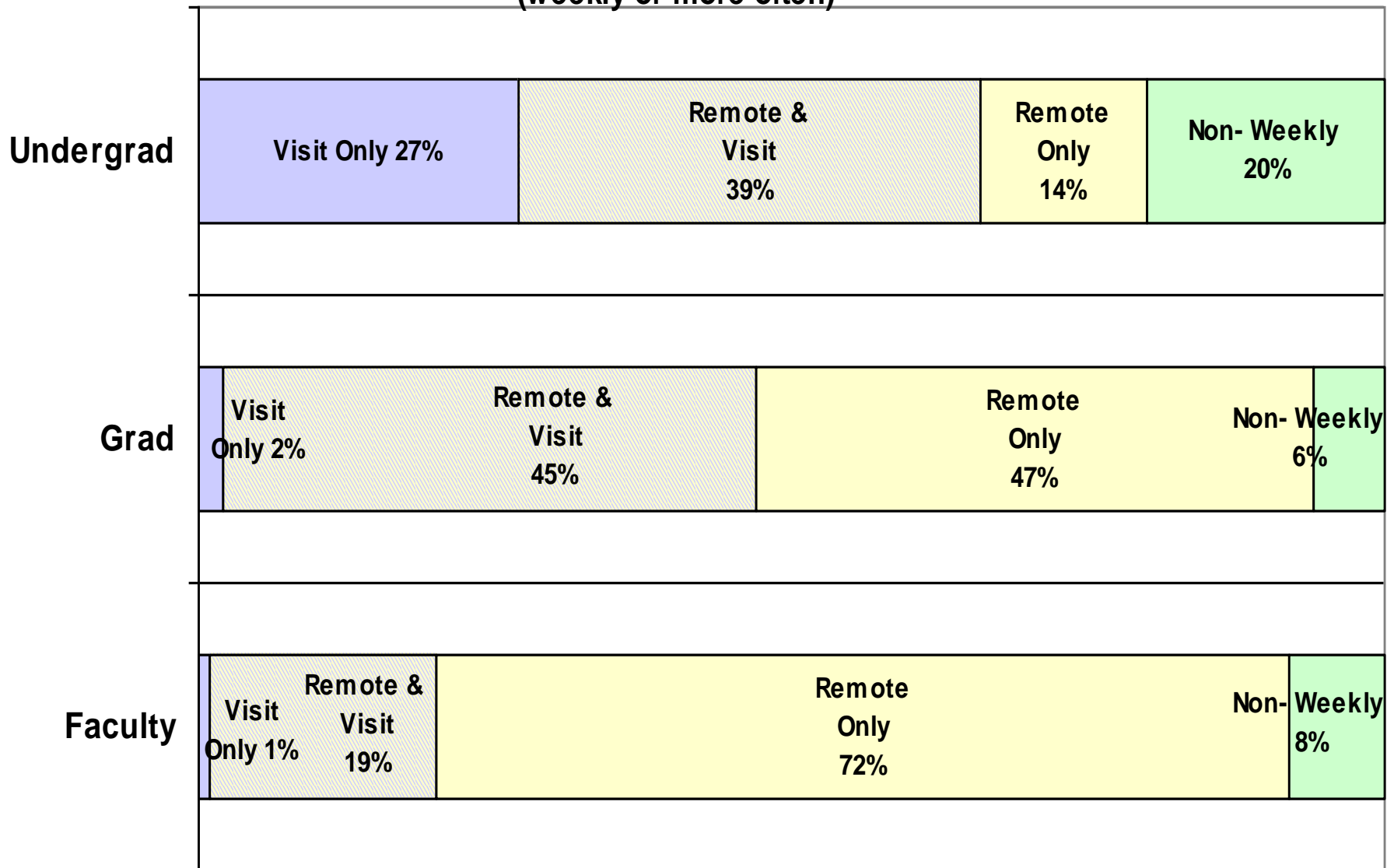
## Number of Respondents and Response Rate 1992-2007

Large number of respondents allows for analysis within groups

	2007	2004	2001	1998	1995	1992
<b>Faculty</b>	<b>1455</b> <b>36%</b>	<b>1560</b> <b>40%</b>	<b>1345</b> <b>36%</b>	<b>1503</b> <b>40%</b>	<b>1359</b> <b>31%</b>	<b>1108</b> <b>28%</b>
<b>Grad/Prof Students</b>	<b>580</b> <b>33%</b>	<b>627</b> <b>40%</b>	<b>597</b> <b>40%</b>	<b>457</b> <b>46%</b>	<b>409</b> <b>41%</b>	<b>560</b> <b>56%</b>
<b>Undergrads</b>	<b>467</b> <b>20%</b>	<b>502</b> <b>25%</b>	<b>497</b> <b>25%</b>	<b>787</b> <b>39%</b>	<b>463</b> <b>23%</b>	<b>407</b> <b>41%</b>

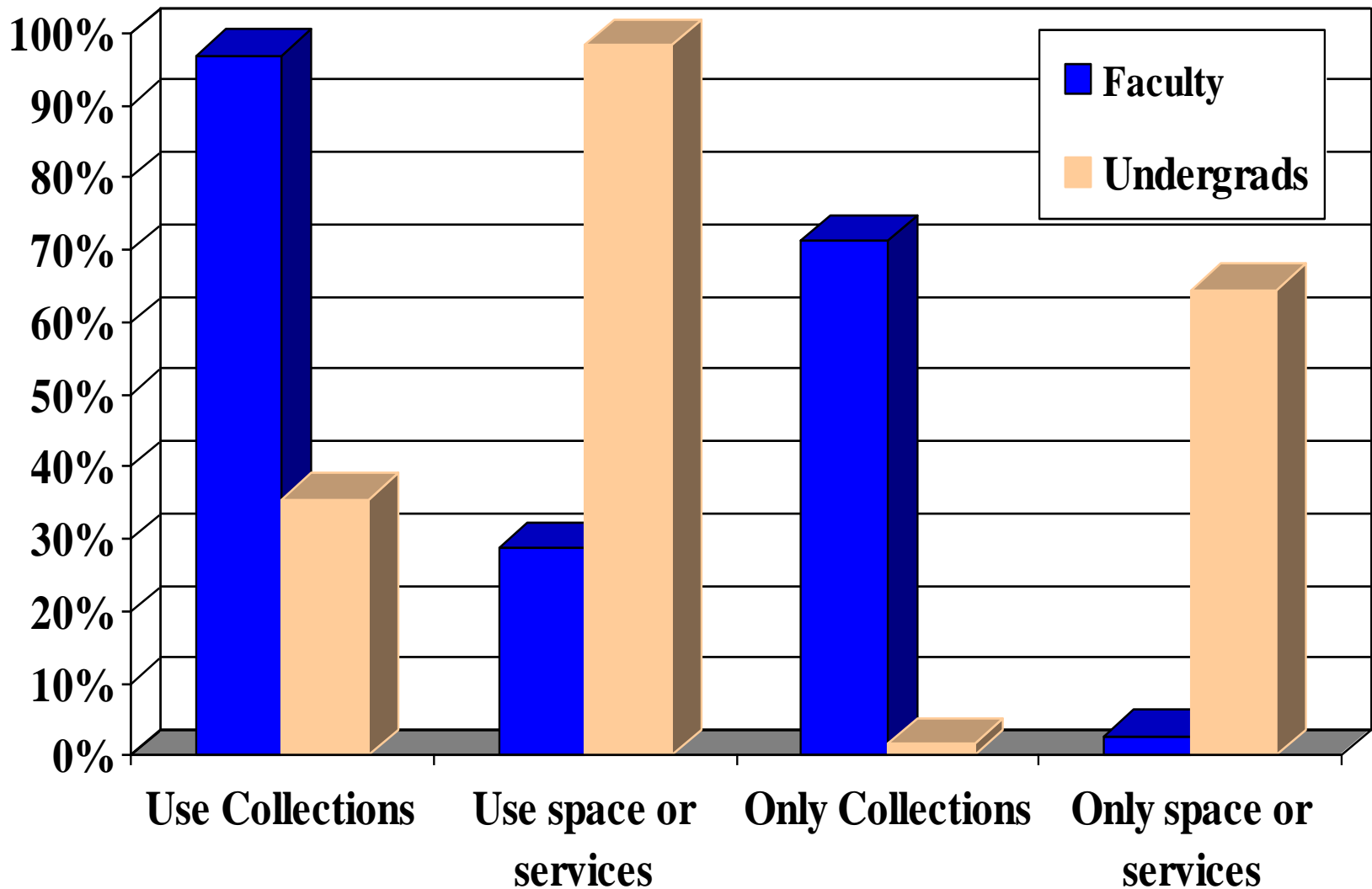
# Mode of Library Use by Group 2007

(weekly or more often)



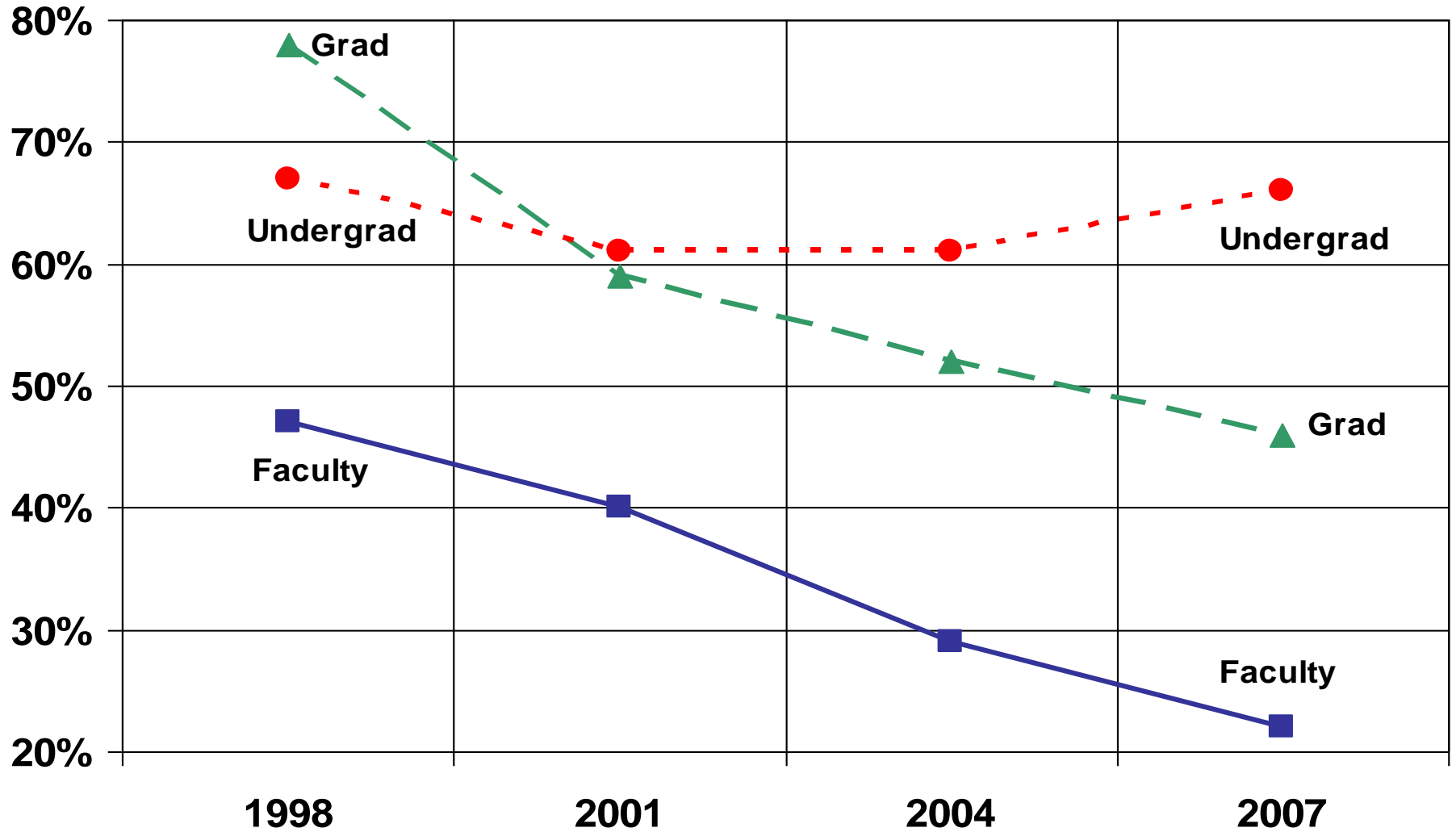
# Reasons for In-Person Library Visits 2001

Faculty and Undergrads Visiting Weekly or More Often



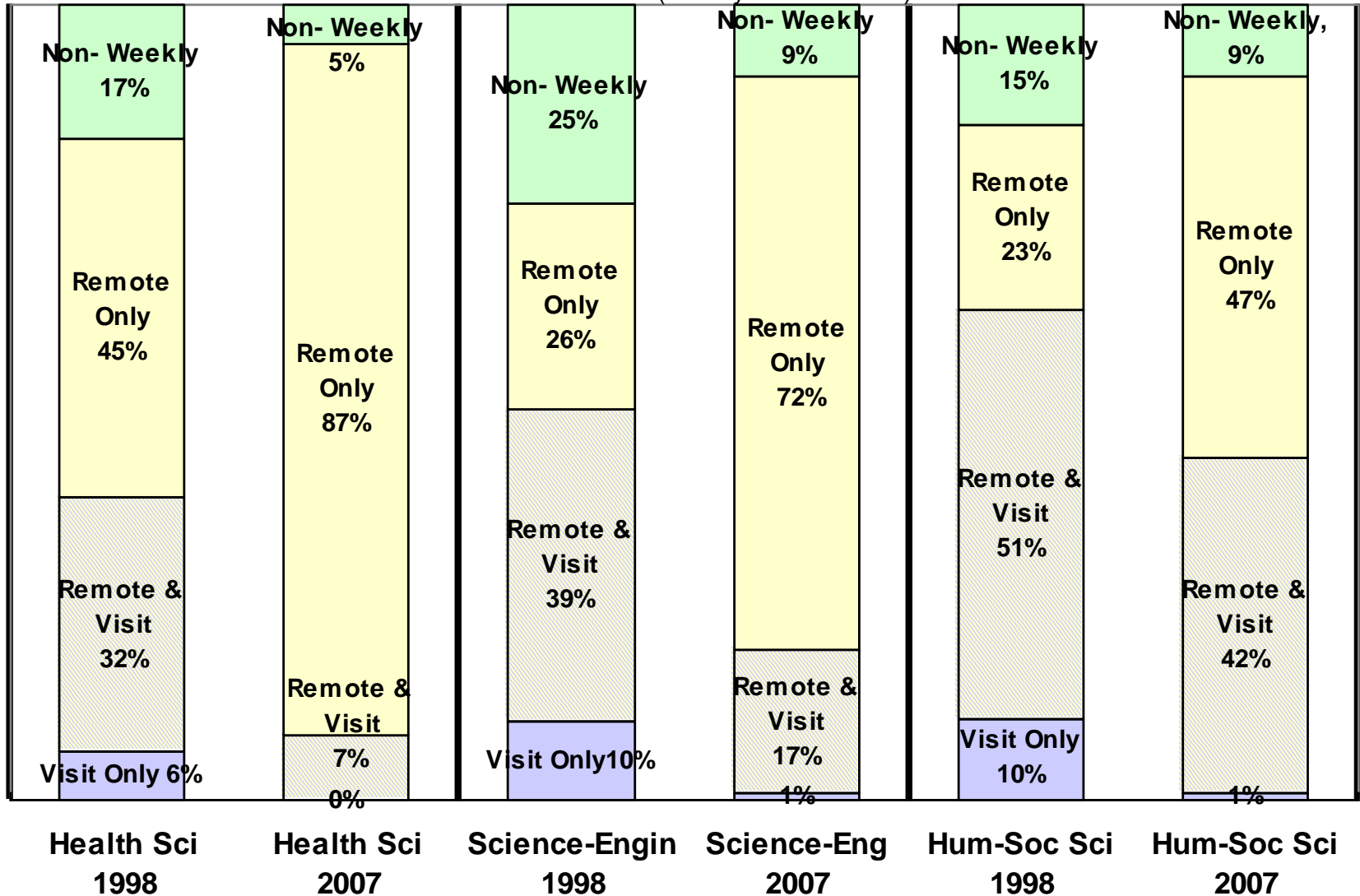
# Library as Place

Change In Frequency of In-Person Visits 1998-2007 (weekly+)



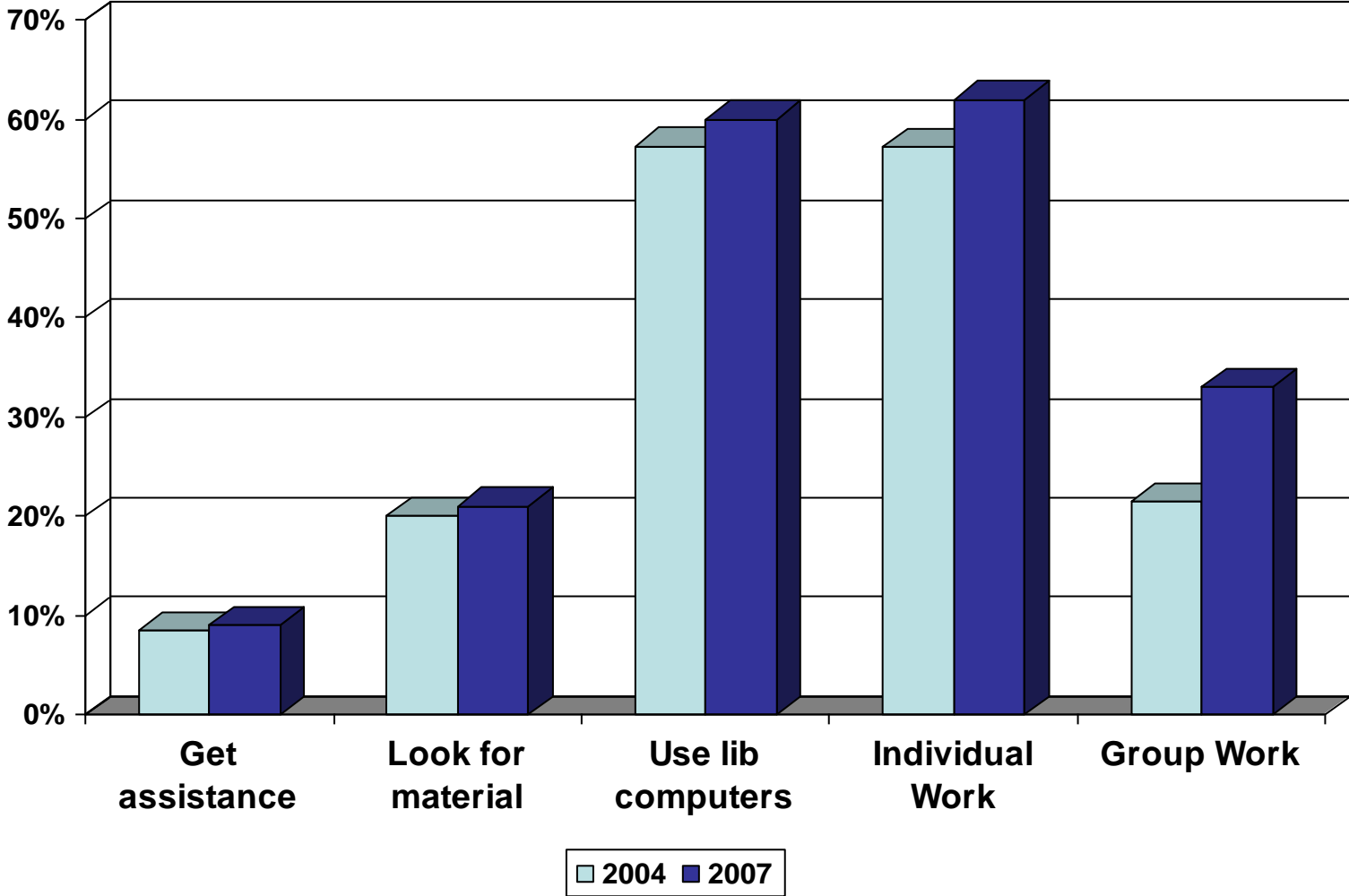
# UW Faculty Mode of Use by Academic Area

1998/2007 (weekly or more often)



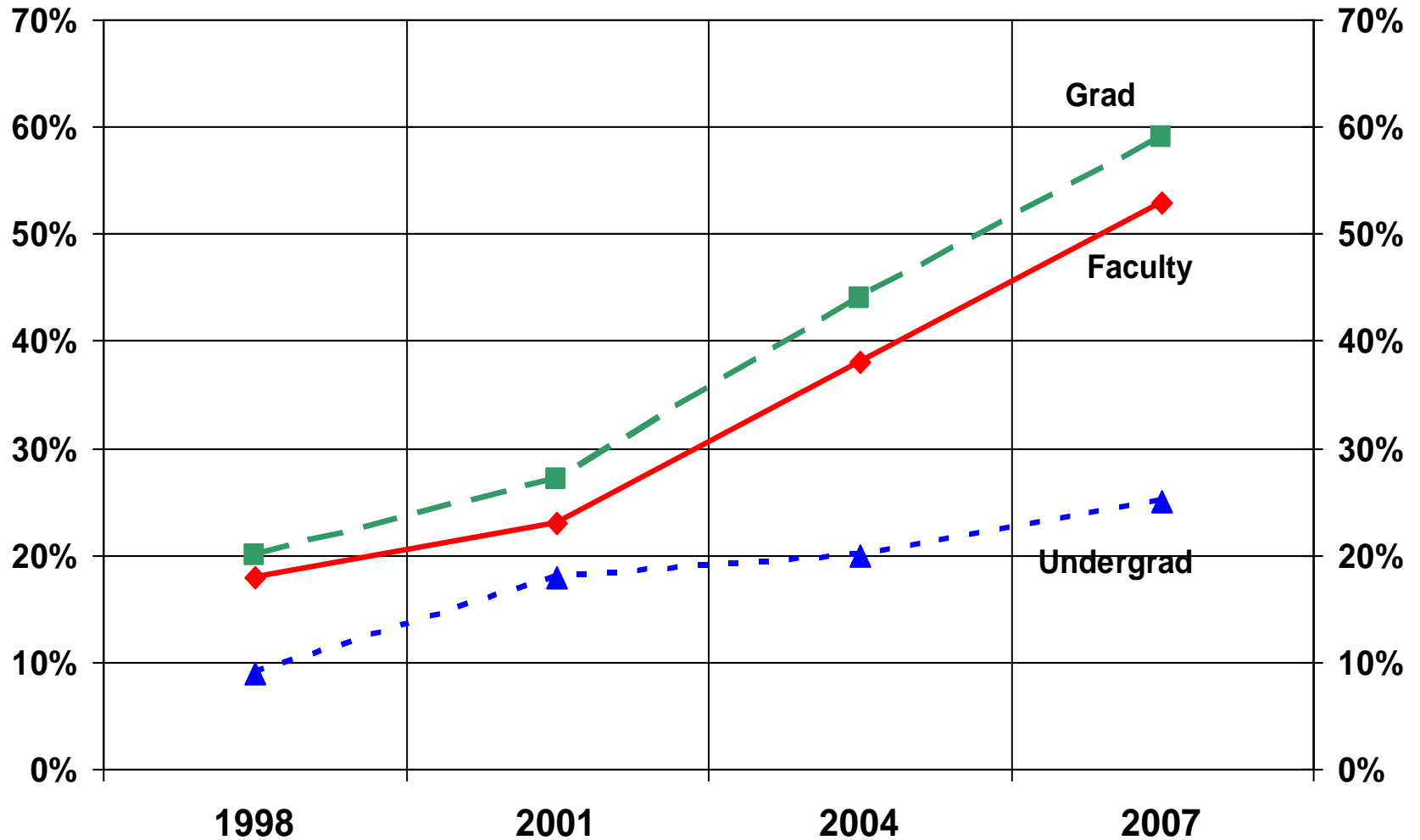
# Undergrad Activities During Library Visits

(% using at least weekly in 2004/2007)

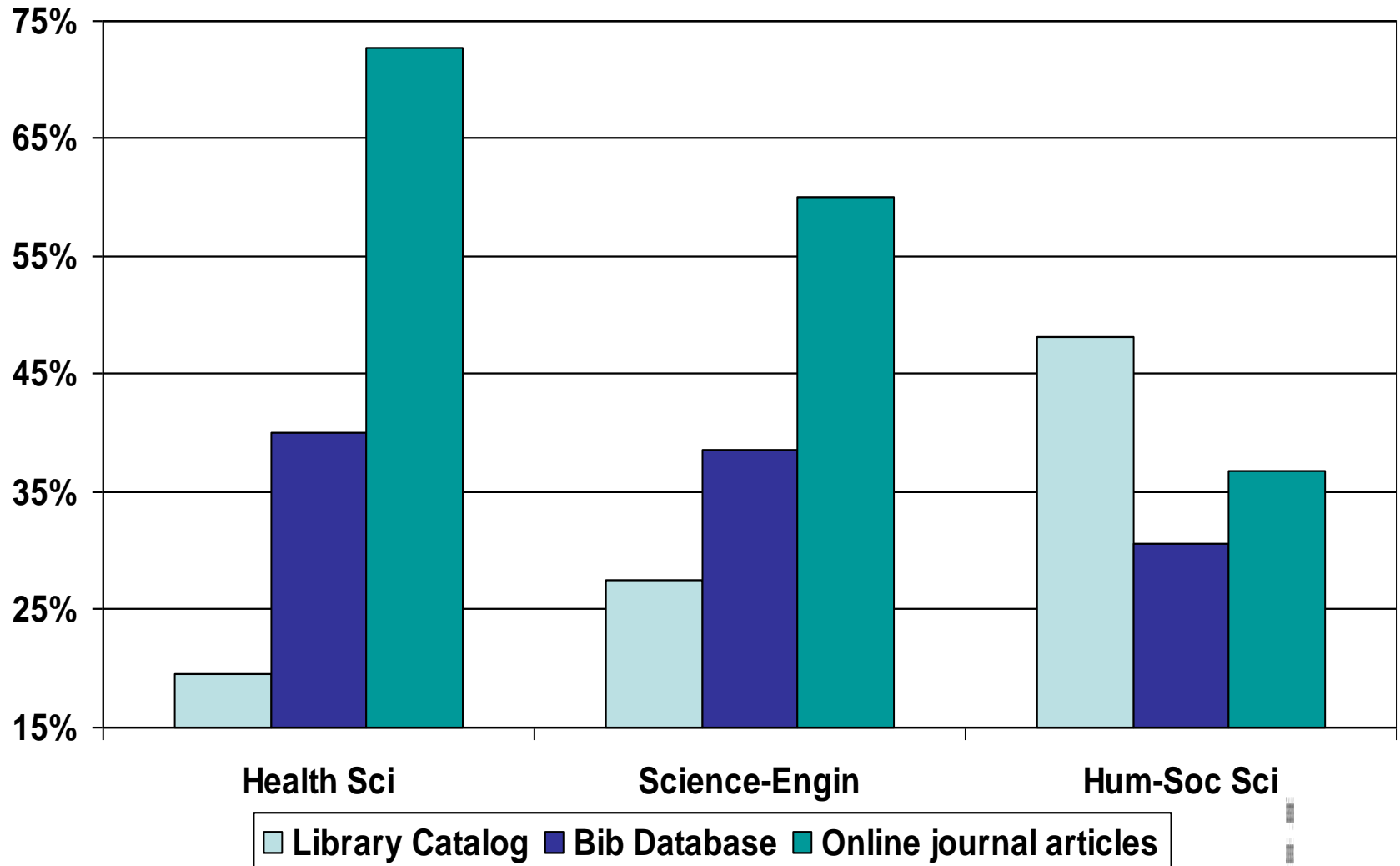


# Frequency of Off-Campus Remote Use

(% connecting at least 2x week)

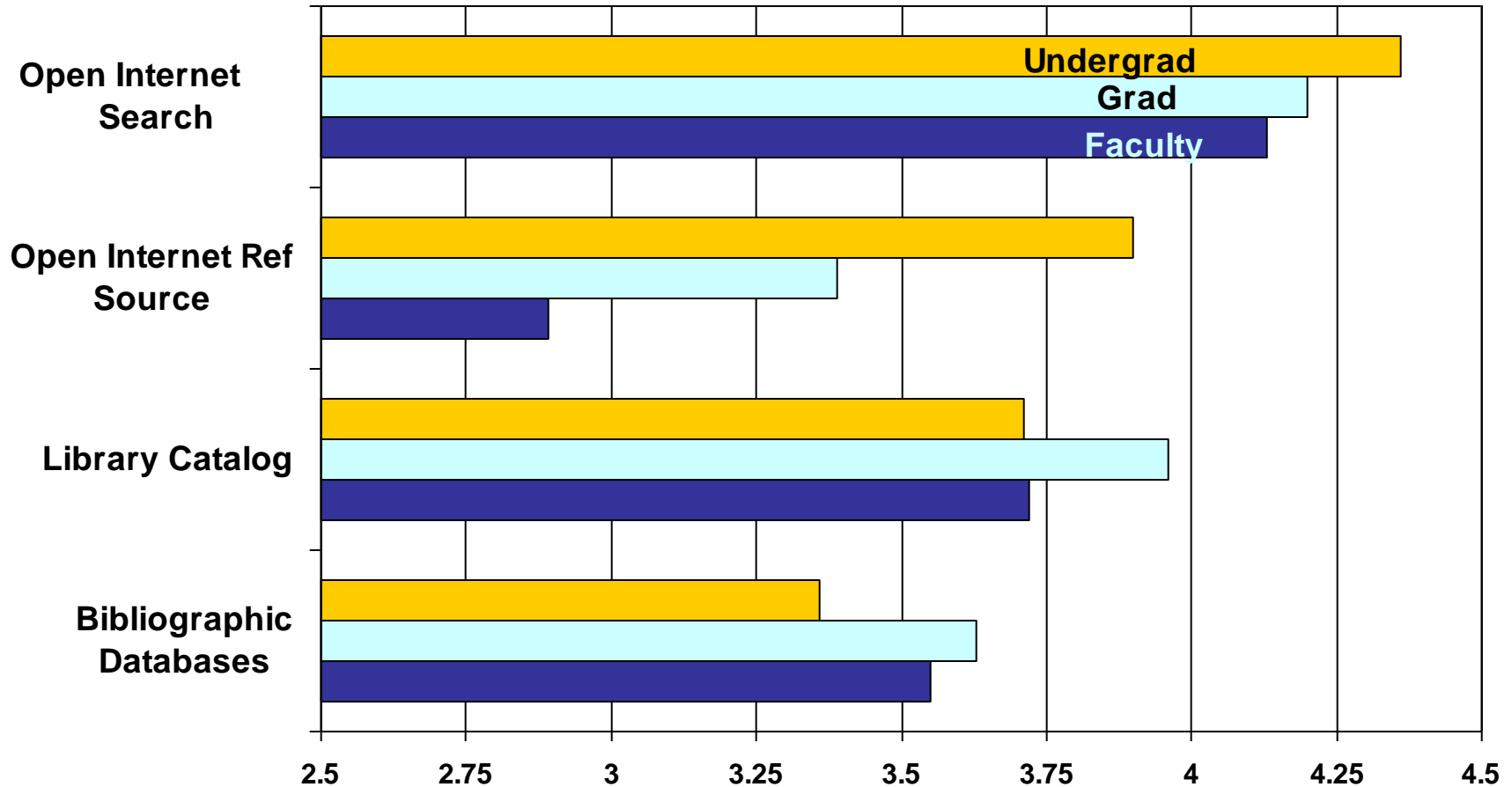


# Primary Reasons for Faculty Use of Libraries Web Sites (at least 2x per week)

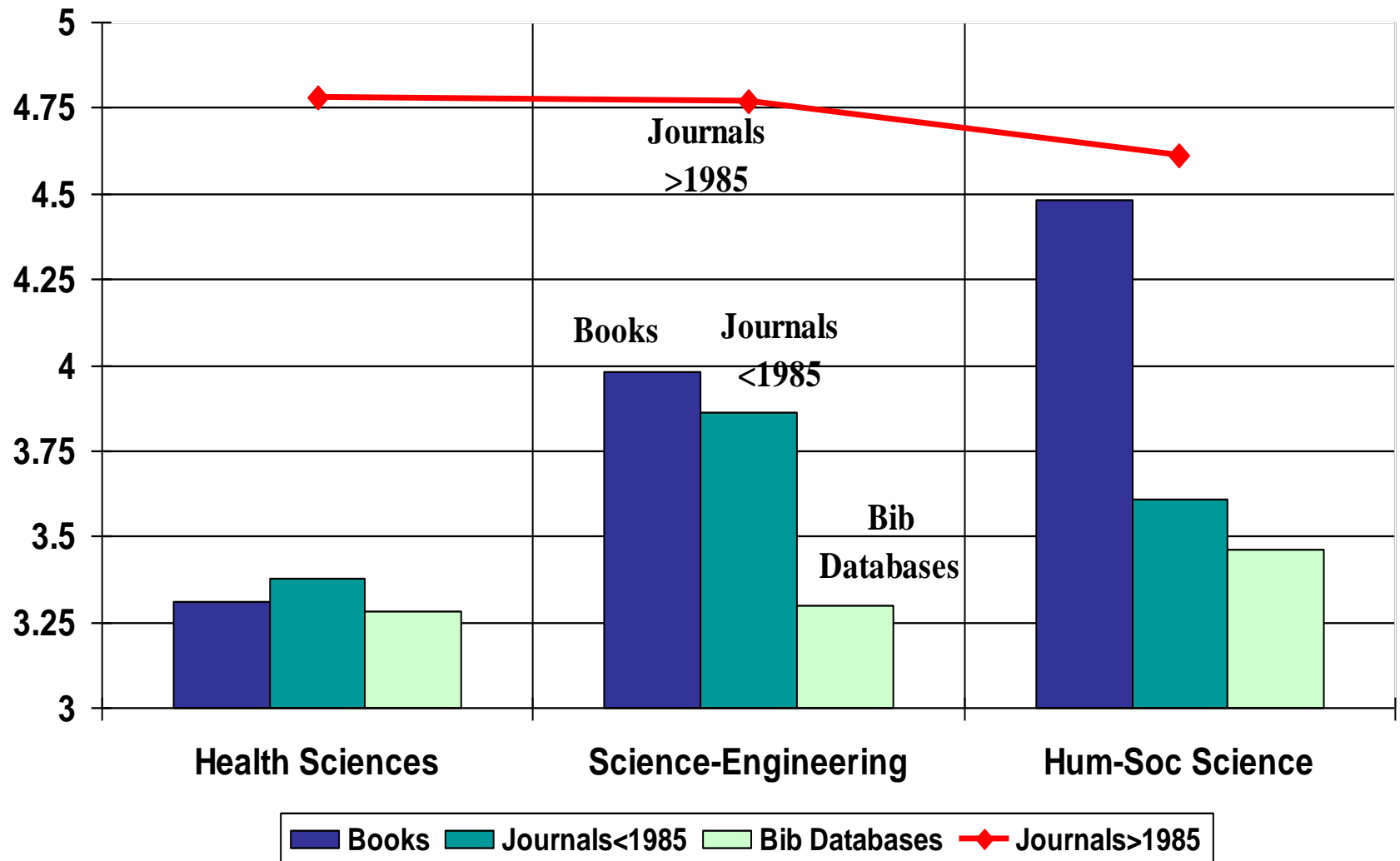


# Sources Consulted for Information on Research Topics

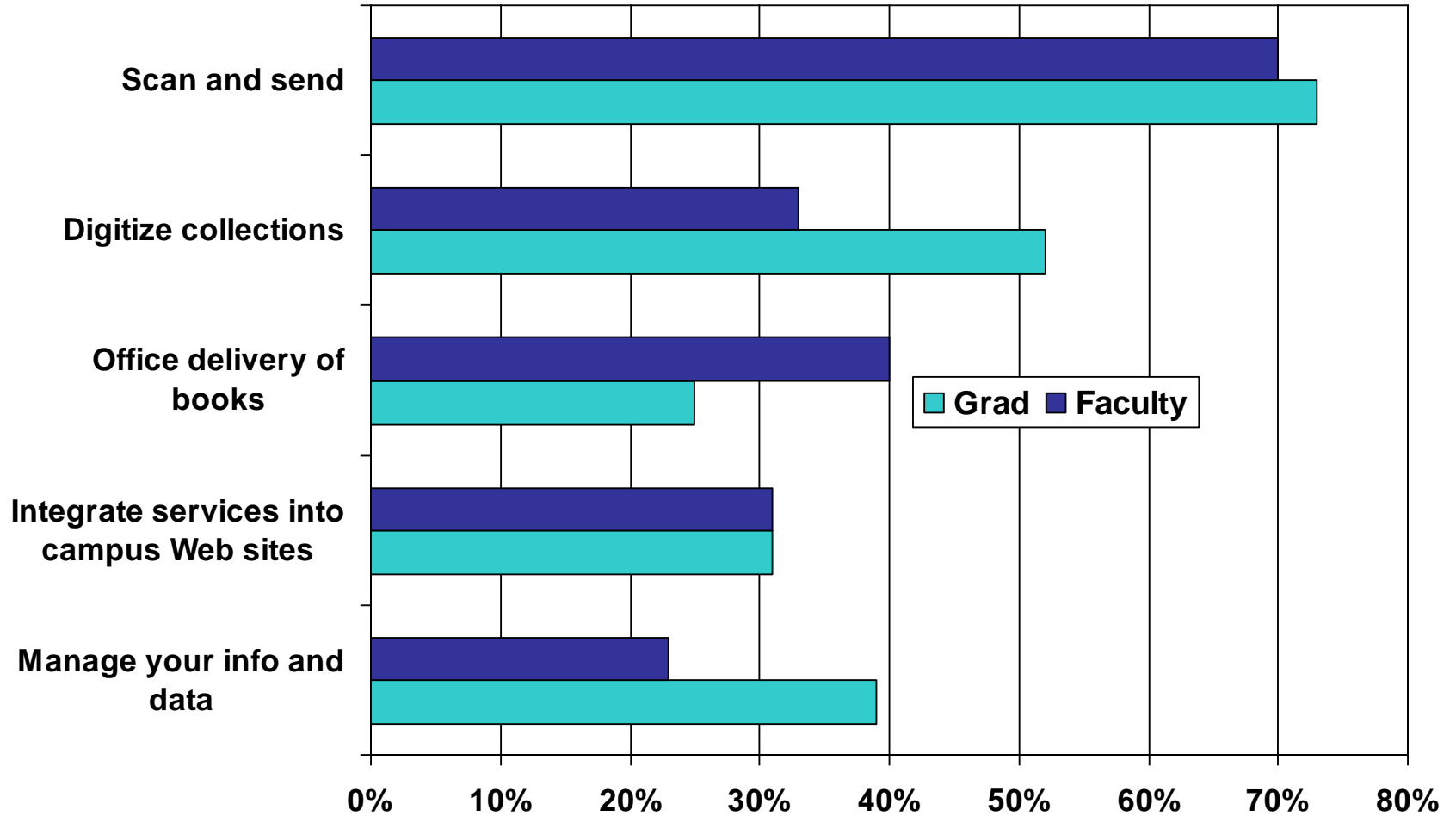
(Scale of 1 “Not at All” to 5 “Usually”)



# Importance of Books, Journals, Databases by Faculty Academic Area

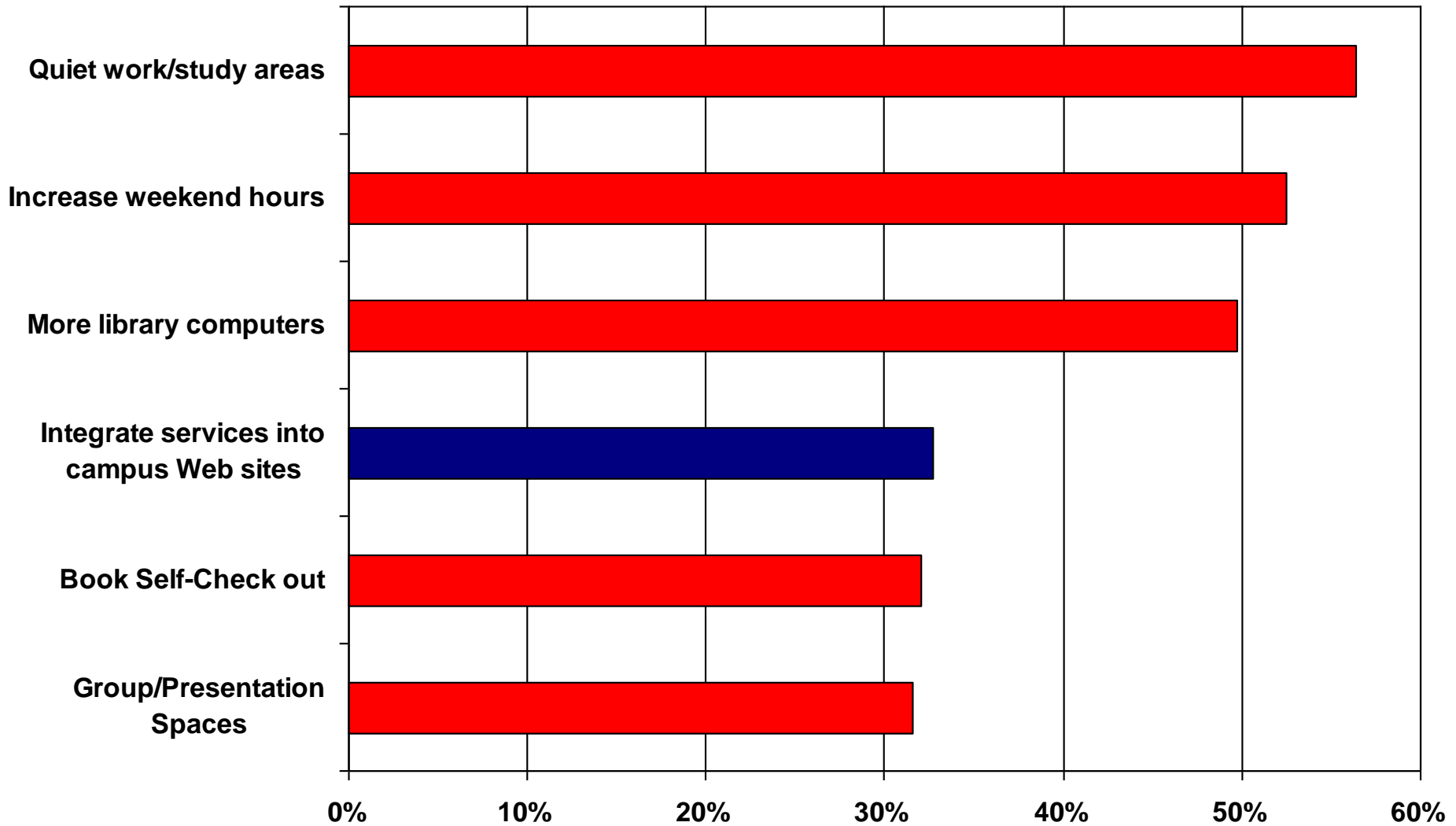


# Usefulness of New/Expanded Services Faculty and Grad



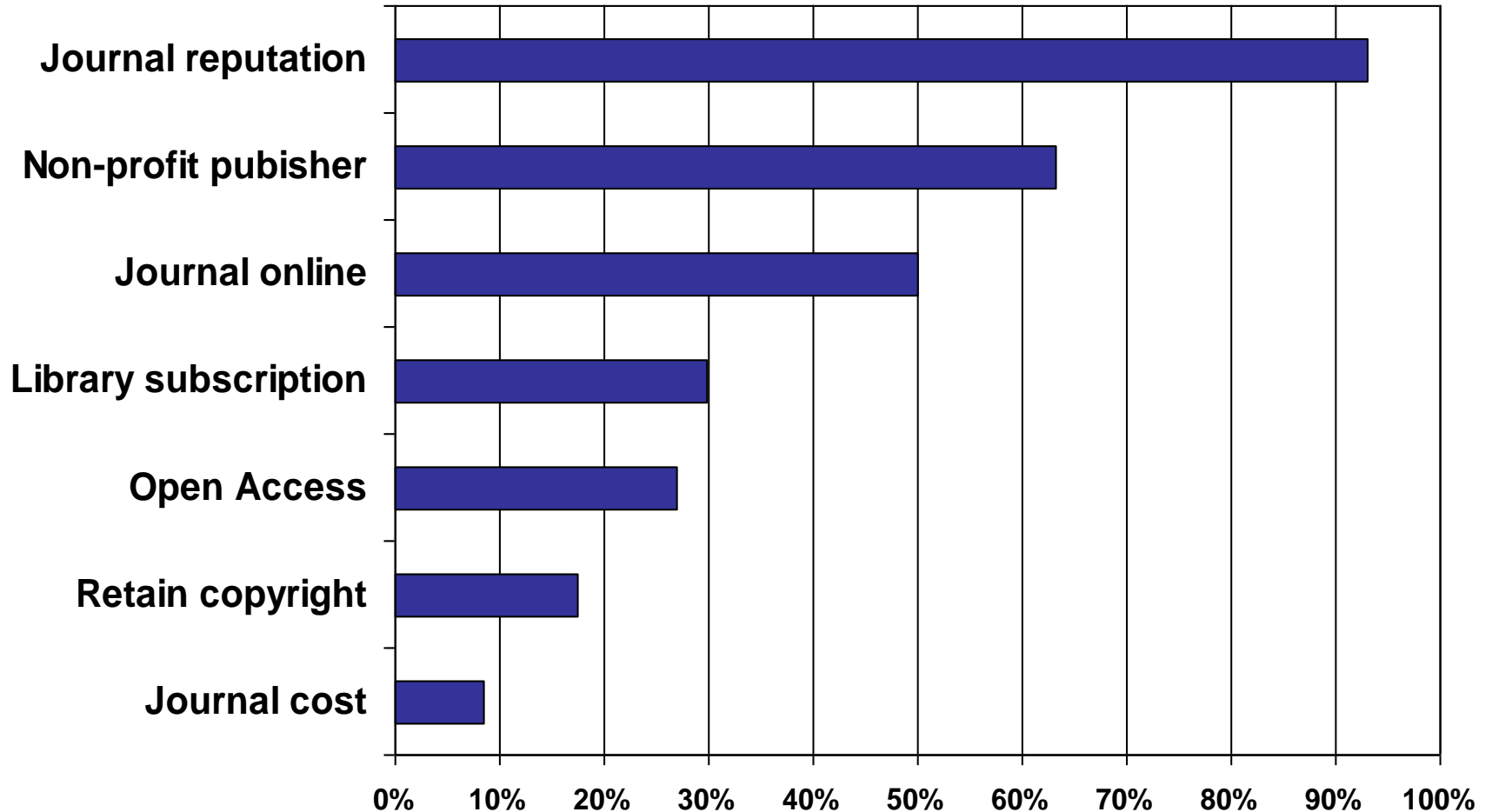
# Usefulness of New/Expanded Services

## Undergraduates (Physical Library Services in Red)



# Scholarly Communications: Important Factors in Where Faculty Publish Journal Articles

(% Faculty marking "Very important")



# What We've Learned about the UW Community

- Libraries are still important source of information used for teaching, learning and research but lessening in value
- Library needs/use patterns vary by and within academic areas and groups
- Remote access is preferred method and has changed the way faculty and students work and use libraries
- Library as place important to students
- Library/information environment is perceived as too complex; users find simpler ways (Google) to get info
- Customers cannot predict the future of libraries

# Performance Measurement

“Measuring performance is an exercise in measuring the past. It is the use of that data to plan an improved future that is all important.”

“Performance measures are no more than an aid to planning and service delivery, not the driving force behind it.”

Peter Brophy

# Measuring Outcomes and Performance

- Outcomes are the effect of the library on the environment or target population
- Performance is the degree to which a library is achieving its objectives, particularly in term of users' needs
- Performance indicators (measures) are quantified statements used to evaluate the performance of the library in achieving its objectives

# Performance Measurement and Standards

## International Perspectives

- Convergence where higher education and public libraries are funded on a national or regional level
- Divergence where higher education and public libraries are funded locally, have different missions, stakeholders.
- Measures and standards have been most successful in working with automated systems and quantitative data
- Measures and standards traditionally have not captured qualitative information well

# Criteria for Performance Indicators

## ISO 11620

- Informative
- Reliable
- Valid
- Appropriate
- Practical
- Comparable

Performance indicators should relate to institutional and library mission, goals and outcomes

# *Measuring Quality*

## *Performance Measurement in Libraries*

### **FOUR KEY AREAS with 40 Indicators Using the Balanced Scorecard as the Framework**

- **Resources, infrastructure**
  - What services does the library offer?
- **Use**
  - How are the services accepted?
- **Efficiency**
  - Are the services offered cost effectively?
- **Potentials and Development**
  - Are there sufficient potentials for further development?

# *Measuring Quality*

## **Performance Indicators Selected**

- Cover full range of resources/services found in academic and public libraries
- Traditional and electronic services
- Indicators that have been documented and tested
- Cover aspects of service quality that are part of the balanced scorecard

# *Measuring Quality*

## **Performance Measurement in Libraries**

- **Resources, infrastructure**
  - Per capita: user area, seats, expenditures, staff
- **Use**
  - User satisfaction; collection use; reference questions
- **Efficiency**
  - Cost per user, visit, use, download ; processing speed
- **Potentials and Development**
  - % of acq. budget spent electronically, library staff providing and developing electronic services

# *Measuring Quality*

## **Use Indicators**

- Market penetration
- User satisfaction
- Library visits per capita
- Seat occupancy rate
- Number content units downloaded per capita
- Collection use (turnover)
- % stock not used
- Loans per capita
- % loans to external users
- Attendance at training sessions per capita

# **Specific Use Indicator:**

## **Number Content Units Downloaded per Capita**

- **Background**
  - Most expressive measure for use of electronic collections
- **Definition**
  - Content unit, population
- **Aims**
  - Relevance of collection to users
- **Method**
  - Number of content units downloaded per year divided by population
- **Interpretation and use of results**
  - High score is good; low score shows inadequacy

# Specific Resources/Infrastructure Indicator: Seats per Capita

- **Background**
  - Library as physical place to work is still important
- **Definition**
  - Number of seats provided divided by population served
- **Aims**
  - Adequacy of number of seats to population
- **Method**
  - Count number of seats; population is persons not FTE
- **Interpretation and Use of Results**
  - Higher score (more seats per person) is better

# Questions about Performance Measures

- Measuring what is most important or measuring what can be measured?
- How is qualitative information quantified?
- Are all measures or indicators equal?
- How do measures or indicators relate to outcomes?
- How much time and resources should go into devising measures, methods and analysis?
- How do we incorporate customer perspectives?
- What is the balance between national/international and local measures?

# Benchmarking

- Benchmarking is a systematic and structured approach to finding, implementing, and comparing best practices within and/or between organizations
- Benchmarking may use existing statistics, performance measures or standards
- Comparability both in data definition/acquisition and type of organization is critical for benchmarking to be effective

# The Balanced Scorecard

Examples from the University of Virginia  
Library courtesy of Jim Self, Director,  
Management Information Services

[www.lib.virginia.edu/bsc](http://www.lib.virginia.edu/bsc)

# The Balanced Scorecard

- A layered and categorized instrument developed in the 1990's by Kaplan and Norton that:
  - Identifies the important statistics
  - Ensures a proper balance
  - Organizes multiple statistics into an intelligible framework

# The Balanced Scorecard

- Reflects the organization's vision
- Clarifies and communicates the vision
- Provides a quick, but comprehensive, picture of the organization's health

# Scorecard Measures are “Balanced” into Four Dimensions

- The user perspective
- The finance perspective
- The internal process perspective
- The learning and growth perspective

# The Balanced Scorecard at the University of Virginia Library

- Implemented in 2001
- Reports for FY02 to FY07
- Metrics and targets recalibrated on a regular cycle
- A library staff group is responsible for choosing and selecting metrics and targets and sending recommendations to library administration
- A work in progress

# The Balanced Scorecard

- Provides performance measurement indicators (measures), based on library objectives
- Reflects the organization's mission and strategies
- Evaluates current performance and potential for the future

# Constructing a Balanced Scorecard

- Four dimensions:
  - User perspective
  - Internal processes perspective
  - Finance perspective
  - Future/growth/learning perspective
- Select a limited number of meaningful and measurable indicators for each dimension
- Select targets for each indicator

# Core Questions

- **User Perspective**
  - How well is the library meeting user needs?
- **Internal Processes**
  - Do the library's processes function efficiently?
- **Finance**
  - How well are the library's finances managed?
- **Learning and Growth**
  - Is the library well positioned for the future?

# Choosing the Metrics

- Reflecting Values
  - What is important?
  - What are we trying to accomplish?
- Diversity and Balance
  - Innovations and operations
  - Variety of measurements
- Ensuring validity
  - Does the measurement accurately reflect the reality?
- Being Practical
  - Use existing measures when possible
  - Use sampling
  - Collect data centrally
  - Minimize work by front line

# What University of Virginia Measures

- Customer survey ratings
- Staff survey ratings
- Timeliness and cost of service
- Usability testing of web resources
- Success in fund raising
- Comparisons with peers

# Metrics and Targets

- Specific targets indicating full success, partial success, and failure
- At the end of the year we know if we have met our target for each metric
- The metric may be a complex measure encompassing several elements

# Importance of Targets

- Measure quantitatively
- Set challenging, but achievable targets
- Consider two sets of targets:
  - Complete success
  - Partial success
- Aggregate regularly to provide feedback
- Address problems that are revealed

# User Perspective

- How can we fulfill user expectations?
- Customer ratings in our periodic surveys
- Use of materials
- Turnaround time for patron requests

# Finance Perspective

- How can we secure and use resources in an effective way?
- Cost per use of purchased materials
- Revenue from state and private sources
- Library expenditures as a proportion of University expenditures

# Internal Processes Perspective

- How should we organize internal processes to meet user needs and expectations?
- Throughput times for making materials available
- Satisfaction ratings from internal surveys
- Quality of physical infrastructure

# Learning/Growth Perspective

- How can we secure the future capability of our services?
- Staff training outcomes
- Measure of job satisfaction and salary competitiveness
- Progress in staff diversity
- Indicators of growth in our digital environment

# Balanced Scorecard Examples

## User Perspective

- **Overall rating in student and faculty surveys**
  - *Target1*: An average score of at least 4.25 (out of 5.00) from each of the major constituencies
  - *Target2*: A score of at least 4.00

## Internal Processes

- **Processing time for routine acquisitions**
  - *Target1*: Process 90% of in-print books from North America within one month.
  - *Target2*: Process 80% of in-print books from North America within one month

# Balanced Scorecard Examples

## Finance

- **Unit Cost (cost per download) of Electronic Serial Use**
  - *Target1*: There should be no increase in unit cost each year.
  - *Target2*: Less than 5% annual increase in unit cost.

## Learning

- **Comparing librarian salaries to peer groups**
  - *Target1*: Average librarian salaries should rank in the top 40% of average salaries at ARL libraries.
  - *Target2*: Rank in top 50%.

# Metric U.3 Circulation of New Monographs

- *Target1*: 60% of newly cataloged monographs should circulate within two years.
- *Target2*: 50% of new monographs should circulate within two years.
- *Method*:
  - Data from the SIRSI records documenting circulation of print monographs over a two-year cycle. Only items circulated to users (not binding, etc.) are counted.
- *Result FY07*: Target 1 Met.
  - 62.9% circulated (16,363 out of 26,032)

# Metric I.2.: Internal Communications

- *Target1*: Positive scores (4 or 5) on internal communications statements from 80% of respondents in the biennial work-life survey.
- *Target2*: Positive scores from 60%.
- Method:
  - In the biennial staff work-life quality survey staff rates their agreement with statements on aspects of internal communication on a 1 to 5 scale. The responses from the communications section will be tallied in aggregate.
- Result FY07: Target not met.
  - 48% gave positive scores.

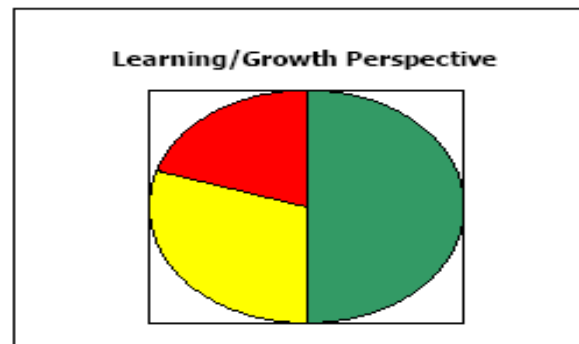
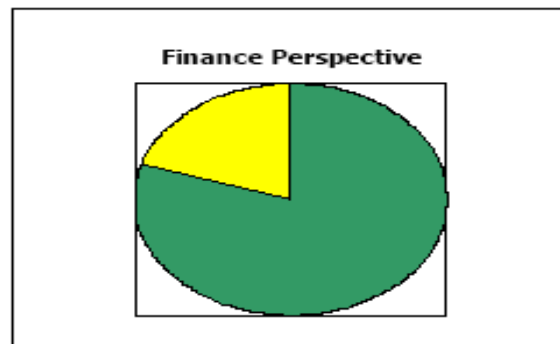
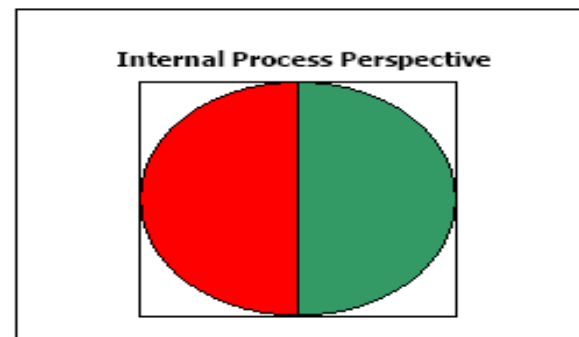
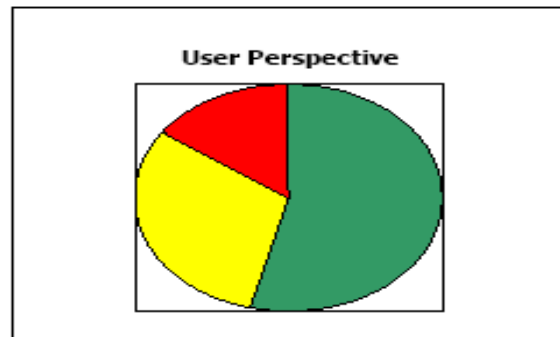
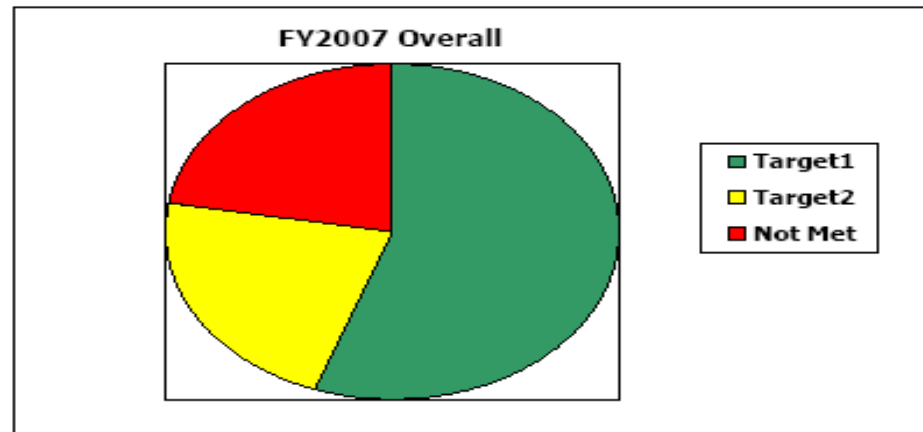
# Metric L.3 Expenditures for Digital Materials

- *Target1*: Rank in the top 25% of ARL libraries in percentage of collections dollars spent on digital materials.
- *Target2*: Rank in top 33%.
- *Method*
  - Use ARL statistics
- *Result FY07*: Target not met.
  - Ranked 60 of 118 (53.4%)

# Metric F.1 Library Expenditures as a Proportion of University Expenditures

- *Target1:* The University Library will account for at least 2.50% of the total expenditures of the academic division of the University.  
*Target2:* The University Library will account for at least 2.25%.
- *Method:*
  - Total expenditures of the academic division of the University will be obtained from Institutional Assessment and Studies (IAAS); University Library expenditures will be obtained from Oracle
- *Result FY07:* Target met
  - \$26.159 million out of 963.687 million (2.71%)

Balanced Scorecard  
University of Virginia Library  
FY2007 Results



# To summarize...

## **The Balanced Scorecard**

- Reflects the organization's vision
- Clarifies and communicates the vision
- Provides a quick, but comprehensive, picture of the organization's health

# Determining Importance

- What are the five most important activities to measure or evaluate in your library? Why?
- How would you go about establishing measures and/or indicators?

# Using Data and Results

# Use Data Wisely

- Understand your data
- Know the limitations of your data
- Use appropriate analysis methods and tools
- Comparative data provide context and understanding
- Seek internal or external validation
- Identify what is important and why

# Making Data Meaningful

- Summarize
- Compare
- Analyze
- Present
- Go below the surface to examine results by:
  - Demographic group
  - Users and non-users
  - Stakeholders vs non-stakeholders
- Compare current data with information from the past
- How can we use the data for action?

# Analyzing Qualitative Data

- Identify key themes
- Categorize them
- Review for:
  - Frequency
  - Extensiveness
  - Intensity
  - Body language
  - Specificity
  - Consistency
  - Language

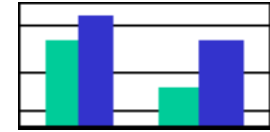
Specialized (e.g. Atlas T.I.) or standard applications (e.g. MS Access) can be used to help analyze

# Presenting Data and Results

- Make sure data/results are:
  - Timely
  - Understandable
  - Usable
- Identify **important** findings/**key** results
  - What's important to know
  - What's actionable
- Present **key/important** results to:
  - Library administration/institutional administration
  - Library staff
  - Other libraries/interested parties/stakeholders



# Be Graphic!!!



“Often the most effective way to describe, explore and summarize a set of numbers – even a very large set – is to look at pictures of those numbers.

Furthermore, of all methods for analyzing and communicating statistical information, well designed data graphics are usually the simplest and at the same time the most powerful.”

*Edward Tufte*

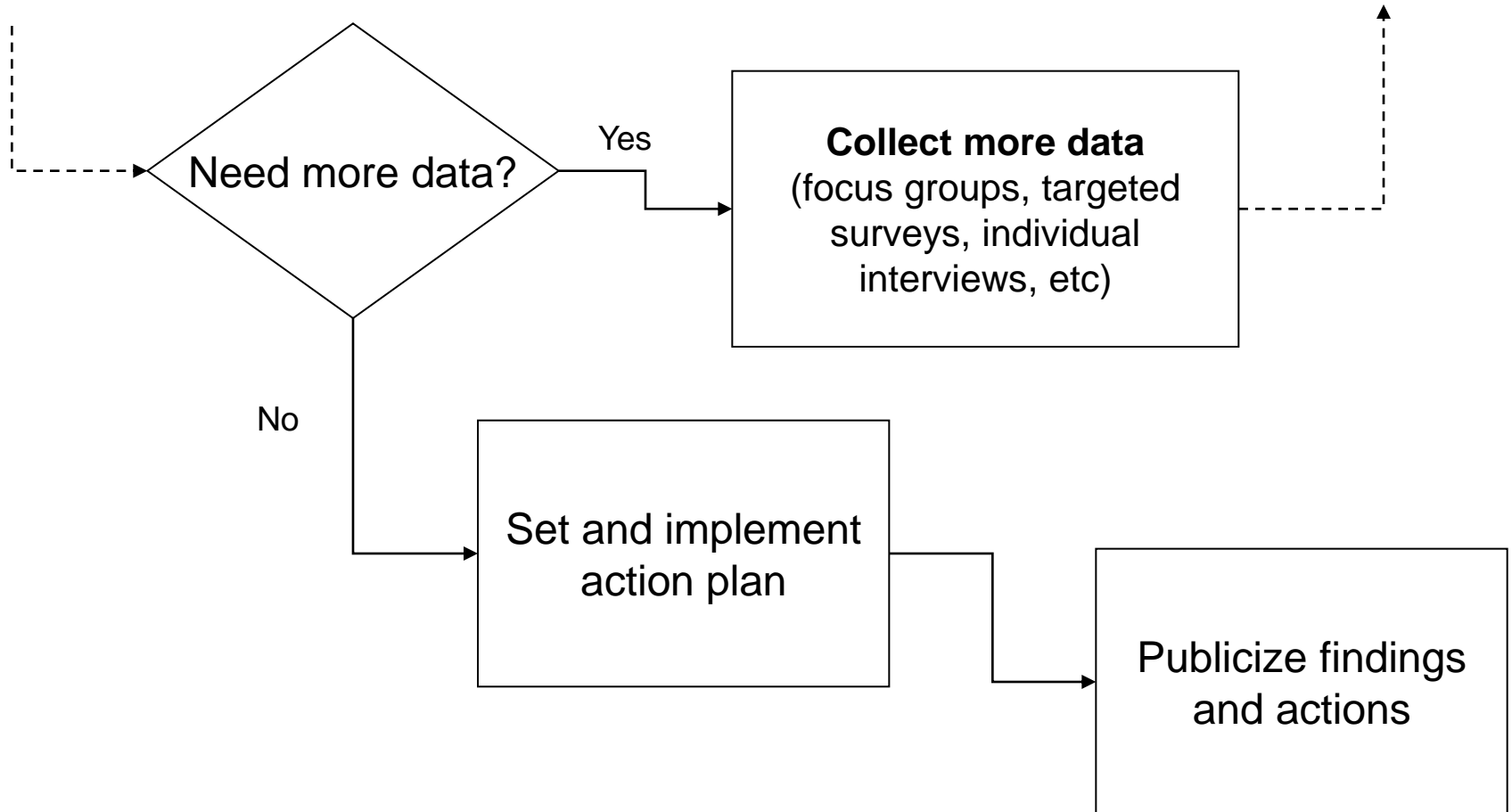
*The Visual Display of Quantitative Information*

"The Leonardo da Vinci of data." THE NEW YORK TIMES

# Presenting Results: What's Important

- What's the message?
  - Fewer “messages” means greater impact
- Who's the audience
  - Multiple audiences may need different presentations
- How is it presented?
  - Quantitative data
    - Tables, charts, text, “data”
  - Qualitative data
    - Be selective, use direct quotes from users
- How is the presentation structured?

# The data is analyzed...now what?



# Publicize findings and actions...

## Public Relations 101

- Who? → Who are your audiences?
- What? → What are your messages?
- Where? → What location do you choose to deliver your message?
- When? → Who do you communicate with first?  
Second? Third?
- How? → What mode of communication do you use...in-person event, e-mail, staff meeting, etc?

# Delivering a quantitative message...

**Cleveland, William S.** 1994. *The Elements of Graphing Data*, rev. ed. Hobart Press, Summit, NJ

**Few, Stephen.** 2004. *Common Mistakes in Data Presentation*. Retrieved February 10, 2008 from

<http://www.intelligententerprise.com/showArticle.jhtml?articleID=26100530&pgno=1>

**Few, Stephen.** 2004. *Eenie, Minie, Minie, Moe: Selecting the Right Graph for Your Message*. Retrieved February 10, 2008 from

<http://www.intelligententerprise.com/showArticle.jhtml;jsessionid=RYGRFUJY5PETWQSNDLPSKH0CJUNN2JVN?articleID=46800517>

**Robbins, Naomi B.** 2005. *Creating More Effective Graphs*. John Wiley and Sons Inc., Hoboken, NJ

**Tufte, Edward R.** 2001. *The Visual Display of Quantitative Information*, 2nd ed. Graphics Press, Cheshire, CT

# Communicate, Market, Share

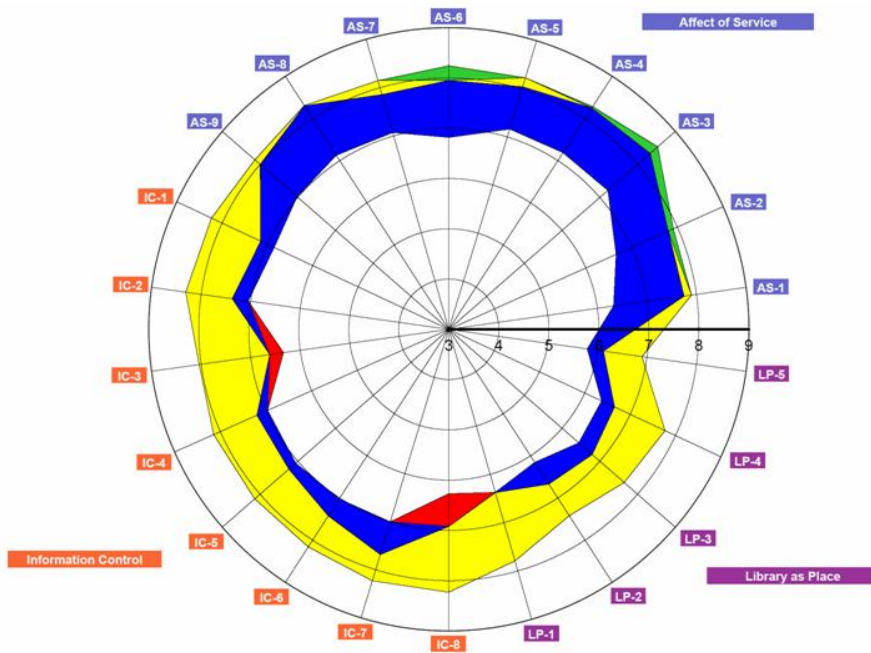
- Marketing is part of overall communication strategy
- Visual representations of data using charts or graphs
- In person events: e.g., Library Summit, focus groups
- Permanent library Web site with data, analysis, and follow-up

# Library Summit

- Gather stakeholders
- Opportunity to share survey results
- Facilitated small group discussions on:
  - issues raised by survey results
  - solutions/suggestions for improvement
- Major visibility for library
- Chance to market library resources & services
- Catalyst for constructive dialog and institution-wide collaboration

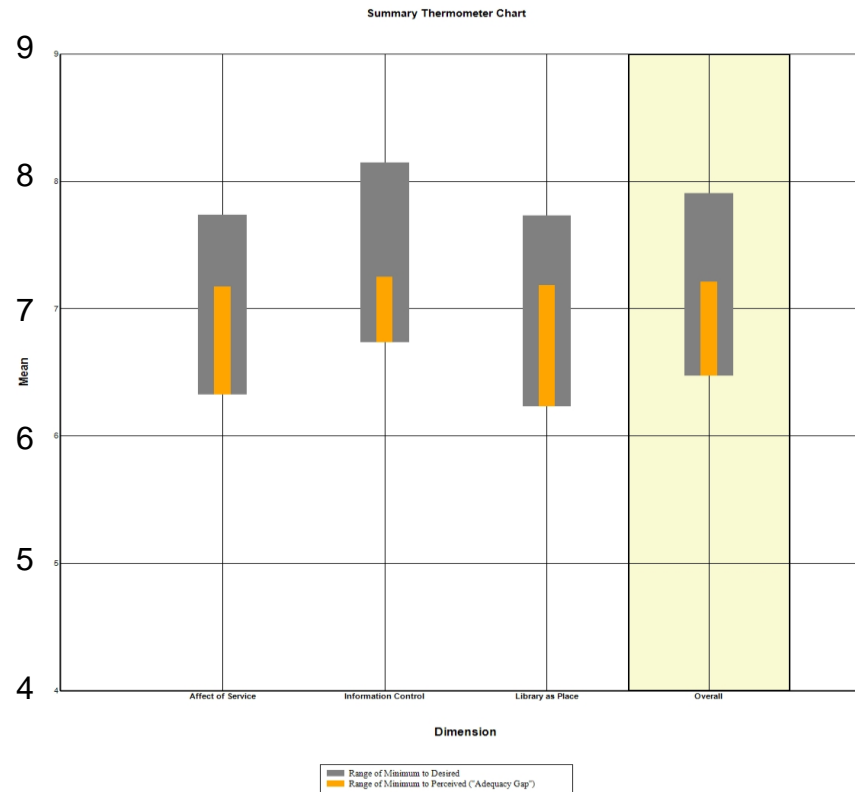
# Assessment as a PR Tool

# Visual Representation of Data



ID	Question Text	Minimum Mean	Minimum SD	Derived Mean	Derived SD	Perceived Mean	Perceived SD	Adequacy Mean	Adequacy SD	Superiority Mean	Superiority SD	n
<b>Affect of Service</b>												
AS-1	Employees who instill confidence in users	5.63	1.89	7.43	1.61	6.66	1.63	1.03	1.88	-0.78	1.72	749
AS-2	Giving users individual attention	5.68	1.96	7.18	1.72	6.68	1.73	1.00	1.87	-0.50	1.70	756
AS-3	Employees who are consistently courteous	6.69	1.78	7.98	1.31	7.53	1.52	0.84	1.89	-0.45	1.62	781
AS-4	Readiness to respond to users' questions	6.59	1.68	7.90	1.28	7.44	1.35	0.86	1.62	-0.45	1.40	757
AS-5	Employees who have the knowledge to answer user questions	6.59	1.70	7.91	1.37	7.24	1.45	0.64	1.81	-0.67	1.66	756
AS-6	Employees who deal with users in a caring fashion	6.37	1.87	7.76	1.43	7.28	1.48	0.91	1.78	-0.48	1.51	745
AS-7	Employees who understand the needs of their users	6.43	1.75	7.78	1.35	7.25	1.36	0.82	1.72	-0.53	1.47	746
AS-8	Willingness to help users	6.47	1.77	7.85	1.34	7.40	1.37	0.92	1.78	-0.45	1.46	756
AS-9	Dependability in handling users' service problems	6.69	1.70	7.95	1.31	7.19	1.44	0.51	1.75	-0.76	1.51	689
<b>Information Control</b>												
IC-1	Making electronic resources accessible from my home or office	6.66	1.78	8.32	1.11	7.28	1.61	0.63	1.98	-1.04	1.72	784
IC-2	A library/Web site enabling me to locate information on my own	6.75	1.73	8.22	1.20	7.12	1.61	0.37	1.97	-1.10	1.71	787
IC-3	The printed library materials I need for my work	6.50	1.78	7.79	1.53	7.04	1.58	0.54	1.93	-0.75	1.75	717
IC-4	The electronic information resources I need	6.72	1.69	8.15	1.19	7.29	1.34	0.57	1.76	-0.86	1.48	778
IC-5	Modern equipment that lets me easily access needed information	6.89	1.63	8.20	1.15	7.49	1.32	0.61	1.68	-0.70	1.35	769
IC-6	Easy-to-use access tools that allow me to find things on my own	6.77	1.72	8.17	1.20	7.22	1.42	0.45	1.92	-0.95	1.60	779
IC-7	Making information easily accessible for independent use	6.74	1.68	8.11	1.19	7.33	1.36	0.59	1.82	-0.78	1.48	780
IC-8	Print and/or electronic journal collections I require for my work	6.86	1.79	8.20	1.27	7.21	1.54	0.35	1.99	-0.99	1.66	740
<b>Library as Place</b>												
LP-1	Library space that inspires study and learning	6.25	1.86	7.83	1.55	7.09	1.69	0.85	2.08	-0.74	1.89	748
LP-2	Quiet space for individual activities	6.43	1.93	7.78	1.63	7.20	1.64	0.78	2.08	-0.58	1.83	736
LP-3	A comfortable and inviting location	6.29	1.76	7.85	1.39	7.26	1.51	0.97	1.91	-0.59	1.70	773
LP-4	A getaway for study, learning, or research	6.34	1.91	7.87	1.52	7.26	1.46	0.92	1.93	-0.61	1.69	743
LP-5	Community space for group learning and group study	5.77	2.17	7.28	1.90	7.06	1.66	1.29	2.20	-0.22	2.09	665
<b>Overall:</b>		<b>6.47</b>	<b>1.41</b>	<b>7.90</b>	<b>0.95</b>	<b>7.21</b>	<b>1.06</b>	<b>0.74</b>	<b>1.38</b>	<b>-0.69</b>	<b>1.11</b>	<b>798</b>

# Visual Representation of Data



Dimension	Minimum Mean	Minimum SD	Desired Mean	Desired SD	Perceived Mean	Perceived SD	Adequacy Mean	Adequacy SD	Superiority Mean	Superiority SD	n
Affect of Service	6.32	1.54	7.73	1.14	7.17	1.19	0.85	1.42	-0.57	1.20	796
Information Control	6.73	1.44	8.15	0.95	7.25	1.12	0.52	1.48	-0.90	1.19	798
Library as Place	6.23	1.64	7.73	1.31	7.19	1.29	0.96	1.66	-0.54	1.46	787
Overall	6.47	1.41	7.90	0.95	7.21	1.06	0.74	1.38	-0.69	1.11	798

# Visual Representation of Data

		2003	2006	change
<b>Confidence</b>	<b>AS-1</b>	49%	70%	21%
<b>Individual Attention</b>	<b>AS-2</b>	56%	61%	5%
<b>Courteous</b>	<b>AS-3</b>	58%	60%	2%
<b>Readiness</b>	<b>AS-4</b>	50%	77%	27%
<b>Knowledgeable</b>	<b>AS-5</b>	48%	62%	14%
<b>Caring</b>	<b>AS-6</b>	46%	68%	22%
<b>Understand Needs</b>	<b>AS-7</b>	59%	68%	9%
<b>Willing to Help</b>	<b>AS-8</b>	45%	64%	19%
<b>Dependability</b>	<b>AS-9</b>	43%	59%	16%
<b>Service - Overall</b>		50%	66%	16%
<b>Remote Access</b>	<b>IC-1</b>	28%	36%	8%
<b>Web Site</b>	<b>IC-2</b>	33%	52%	19%
<b>Printed Materials</b>	<b>IC-3</b>	32%	55%	23%
<b>E-Resources</b>	<b>IC-4</b>	48%	60%	12%
<b>Modern Equipment</b>	<b>IC-5</b>	54%	60%	6%
<b>Easy Access Tools</b>	<b>IC-6</b>	27%	59%	32%
<b>Independent Use</b>	<b>IC-7</b>	44%	58%	14%
<b>Journals (Print/E)</b>	<b>IC-8</b>	37%	46%	9%
<b>Info Control - Overall</b>		38%	53%	15%
<b>Inspiring Space</b>	<b>LP-1</b>	41%	55%	14%
<b>Quiet Space</b>	<b>LP-2</b>	55%	71%	16%
<b>Comfortable Space</b>	<b>LP-3</b>	47%	58%	11%
<b>A Getaway</b>	<b>LP-4</b>	46%	59%	13%
<b>Group Space</b>	<b>LP-5</b>	57%	79%	22%
<b>Library Place - Overall</b>		49%	64%	15%

Source:  
 Brian Mathews,  
 Georgia Tech, ALA  
 Annual Meeting,  
 Washington, DC,  
 June 25, 2007

# Visual Representation of Data

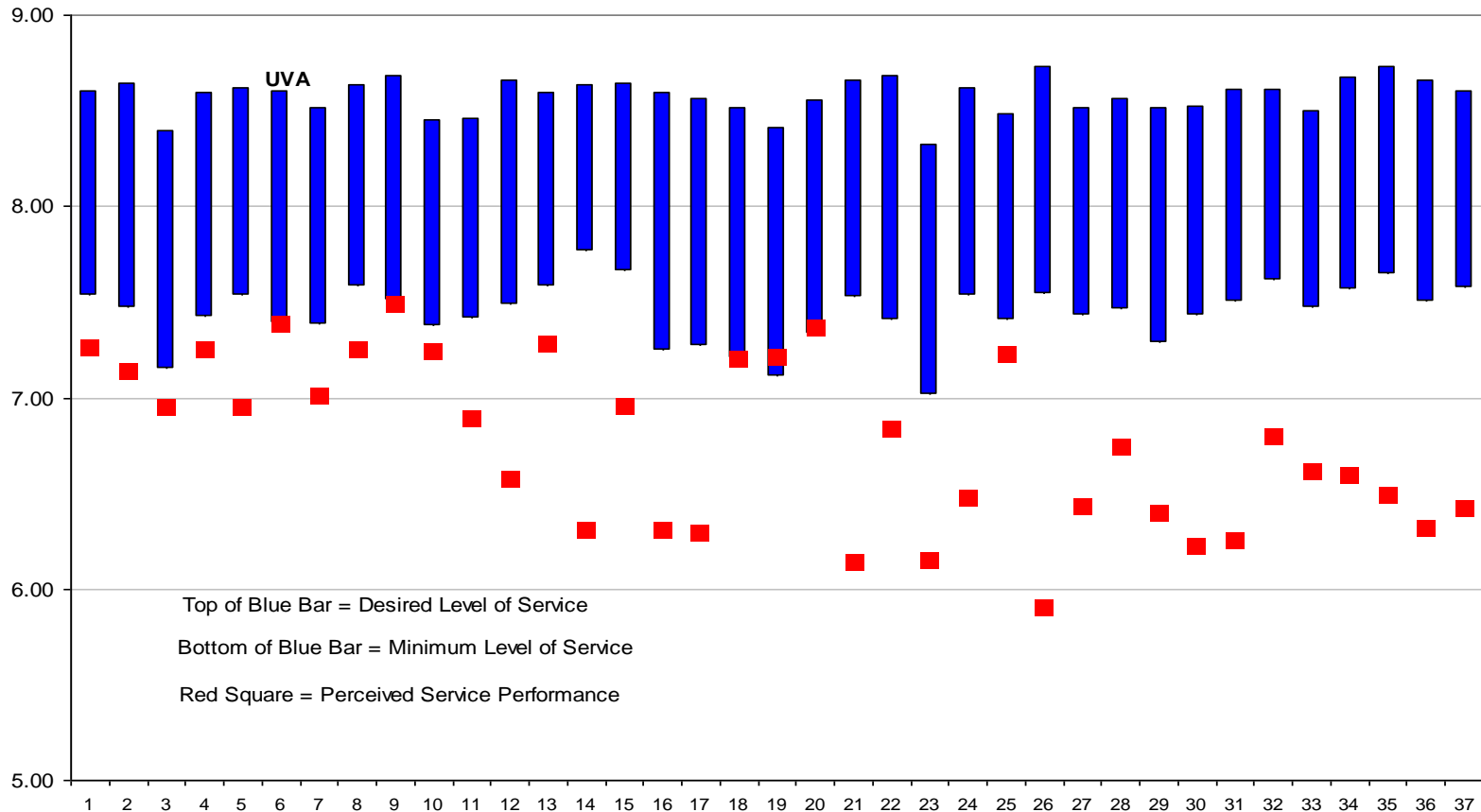
Faculty Use of Electronic Journals: School by Journal Topic [21,634 article views]

	MED	NURS	SAS-Sci	SAS-SSci	ENGNR	VET	SAS-Hum	WHRTN	DENTAL	SOC WRK	EDU	COMMN	Total	Percent
Health Science	11,101	1,736	304	340	55	251	59	45	249	161	42	55	14,398	66.55%
Chemistry	2,193	195	334	61	158	54	6	5	68	9	2	0	3,085	14.26%
Arts & Humanities	323	87	39	124	13	27	228	26	4	68	177	29	1,145	5.29%
Engineering	437	10	49	21	89	7	7	11	8	0	0	0	639	2.95%
Business & Econ	101	50	11	38	20	0	17	249	0	15	12	12	525	2.43%
Agriculture	202	16	131	11	3	69	0	0	4	0	1	0	437	2.02%
Library & Info Sci	288	4	50	12	4	6	0	0	7	0	0	0	371	1.71%
Physics	54	8	14	26	13	0	31	8	0	38	34	12	238	1.10%
Environmental Sci	130	21	34	6	5	10	2	0	4	6	0	2	220	1.02%
Life Science	107	2	38	1	5	3	0	0	4	0	0	0	160	0.74%
Social Sciences	20	5	1	17	3	1	45	13	0	17	19	6	147	0.68%
Info Tech	21	1	23	9	17	1	2	3	0	0	0	0	77	0.36%
Material Science	3	0	25	0	27	0	0	0	0	0	0	0	55	0.25%
Math Science	9	0	10	0	34	0	0	2	0	0	0	0	55	0.25%
Law	6	0	1	5	0	0	20	1	0	9	2	0	44	0.20%
Earth Science	4	0	27	2	4	0	0	1	0	0	0	0	38	0.18%
	14,999	2,135	1,091	673	450	429	417	364	348	323	289	116	21,634	100.00%
	69.33%	9.87%	5.04%	3.11%	2.08%	1.98%	1.93%	1.68%	1.61%	1.49%	1.34%	0.54%	100.00%	

Source: Joe Zucca, University of Pennsylvania, Library Assessment Forum, ALA Midwinter, January 11, 2008

# Peer Comparisons

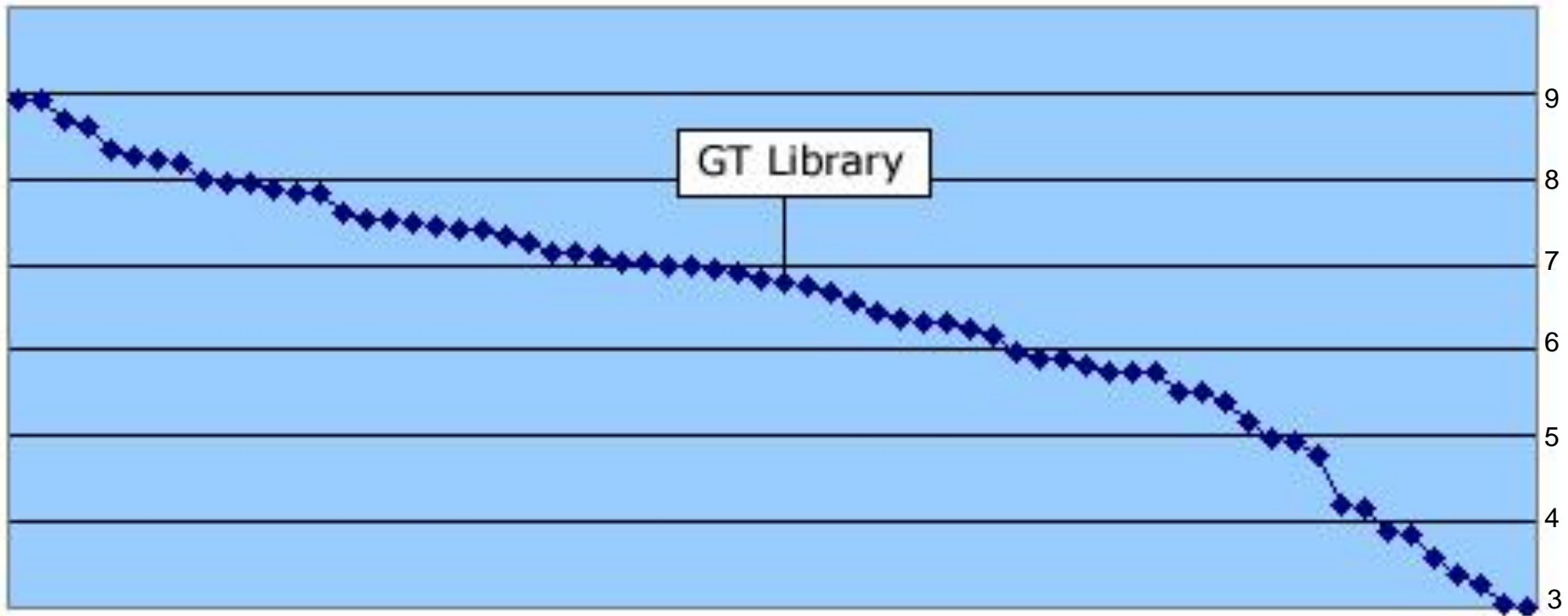
## LibQUAL+ 2006 Faculty Ratings of Journal Collections ARL Libraries



Source: Jim Self, University of Virginia, Presented at [Performance Measurement in Academic Libraries](#) Workshop, EBLIP4, Durham, North Carolina, May 11, 2007

# Peer Comparisons

## Library as Place - Undergrads Benchmark 2003/2004

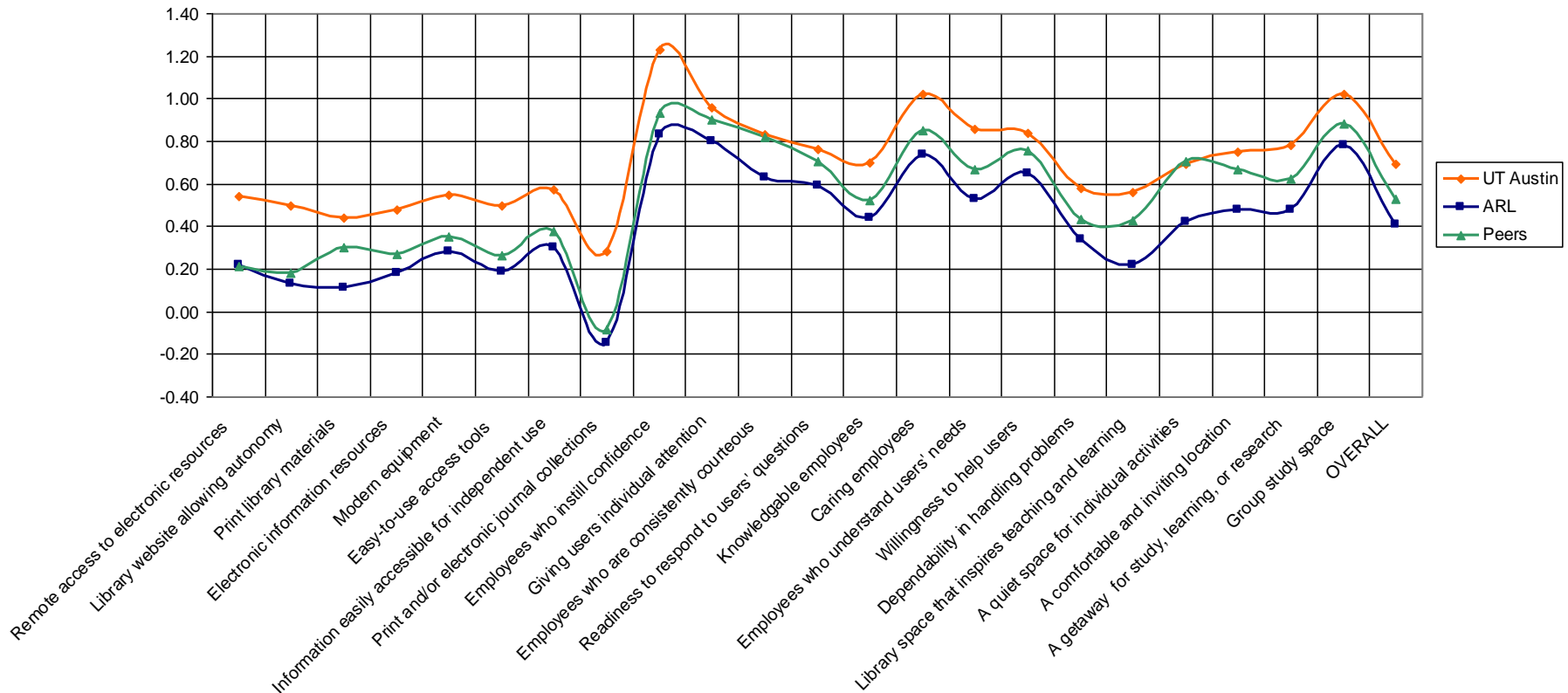


Source: Brian Mathews, Georgia Tech, ALA Annual Meeting, Washington, DC, June 25, 2007

# Peer Comparisons

## Adequacy Gap

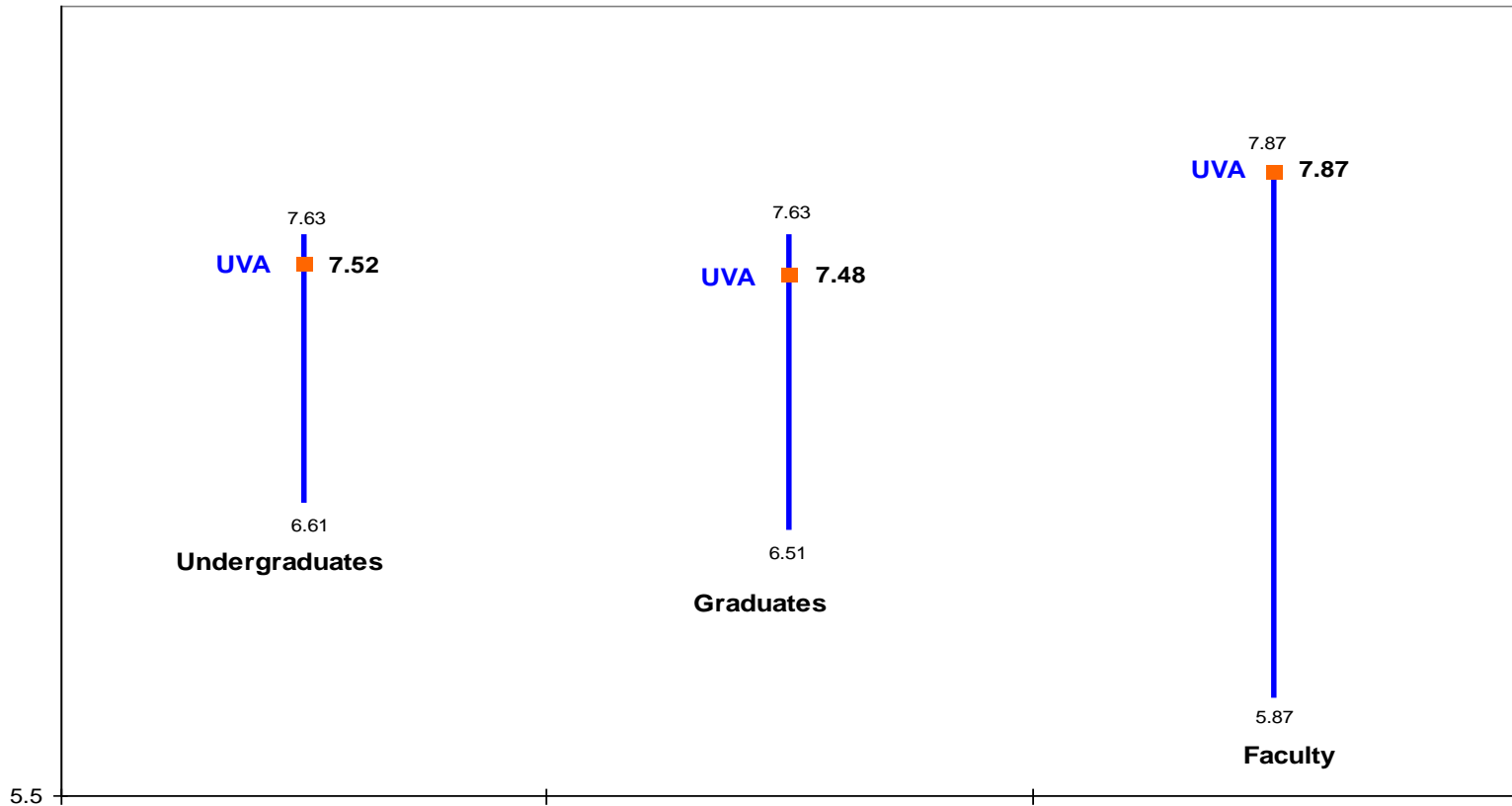
The difference between the minimum and perceived score.



Source: Fred Heath, LibQUAL+® Results Meeting, ALA Annual Conference, Seattle, WA, January 22, 2007

# Peer Comparisons

LibQUAL+ 2006  
Overall Quality of the Service Provided by the Library  
38 ARL Libraries



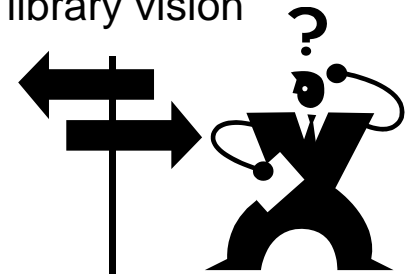
Source: Jim Self, University of Virginia, Presented at [Performance Measurement in Academic Libraries](#) Workshop, EBLIP4, Durham, North Carolina, May 11, 2007

# Progressing from Analysis to Action

- From all of the data, determine what can and should be addressed
- Prioritize some action items
  - Align with mission, vision and goals of parent organization
  - Address users' top priorities, by user group
  - Improve areas of strong user dissatisfaction
  - Build on strengths, if they are truly user needs and priorities
  - Identify work that can be de-emphasized and resources that can be reallocated

# Using S.M.A.R.T. Goals

- **S**            **Specific**
  - the desired outcome or result is clearly defined
- **M**            **Measurable**
  - accomplishment can be charted and/or observed
- **A**            **Attainable**
  - achievable, goal is challenging but realistic
- **R**            **Relevant**
  - results-oriented, in line with institutional goals and library vision
- **T**            **Timely**
  - deadlines are set for accomplishment



# Using SMART Goals -- Examples

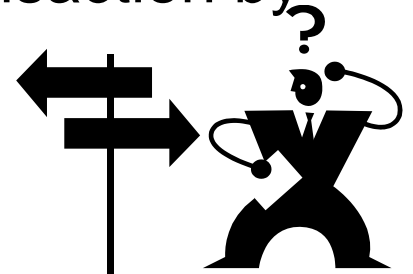
- 75% of materials acquired from other libraries are received by users within 10 days of request by 4/08
- 50% of new books are on shelf within 5 days after library receipt by 6/08
- 60% courses utilizing WebCT include links to library research materials by 9/08
- Lower the unit cost of each service desk transaction by 10% from FY'08 to FY'09

## *Versus general goals:*

Improve ILL turn-around time

Make new materials accessible to users more quickly

Decrease staffing budget



# Source: Rick Garcia, Government Printing Office, 2007

Goal: \_\_\_\_\_

Objective: \_\_\_\_\_

Initiative: \_\_\_\_\_

PM\Target: \_\_\_\_\_

Measure: Green = \_\_\_\_\_

Yellow = \_\_\_\_\_

Red = \_\_\_\_\_

## SMART

• Results-oriented: \_\_\_\_\_

• Specific: \_\_\_\_\_

• Accountable: \_\_\_\_\_

• Measurable: \_\_\_\_\_

• Time-Bound: \_\_\_\_\_

# Organizational Memory - Access to Data



University of Illinois at Urbana-Champaign » University Library » Library Assessment @ UIUC

## **ASSESSMENT @ UIUC LIBRARY**

Welcome to the University of Illinois Library Assessment Website. Assessment is helping our library to be more responsive. The [Services Advisory Committee](#) is overseeing assessment activities and welcomes your suggestions.

### **FACTS @ A GLANCE**

UIUC Library unit annual reports by fiscal year and University of Illinois quick facts

### **ARL COMPARISON STATISTICS**

ARL resources including statistical annual reports, publications and comparative graphs and tables

### **LIBRARY SURVEYS**

Library surveys including introductory documents, recent student and faculty surveys, LibQUAL+ and user surveys

### **DEPARTMENTAL LIBRARIES**

Check out statistical information being collected by departmental libraries

### **WEB RESOURCES & TOOLS**

Online tools to assist in the research process of compiling statistics and forming surveys, includes survey builder tools

### **BIBLIOGRAPHY**

Readings on assessment, books on survey research methods and related Library faculty publications

<http://library.uiuc.edu/assessment/>

# Organizational Memory - Access to Data

[About the Data Farm](#) | [Shared File Depository](#) | [Vendor Statistics](#) | [Related Sites](#) | [Staff Web](#)

## Data Farm

University of Pennsylvania Library



[Penn Library Facts 2006](#)

### Tools and Data

[E-resource Tracking](#) (use measures for e-journals, databases, and other electronic resources)

[Selected Counter Data](#) (the interface loads slowly)  
[Vendors and coverage dates](#)

[Gate Counts](#)

[Photocopier & Printer Use](#)

[Image Collection Use](#) (maintenance in progress)

[E-resource Benchmark](#) (new entry page monitor)

[BorrowDirect Data Repository](#)

[EZBorrow Data Repository](#)

[Public Web Log Analytics](#)

[Research & Instructional Services](#)

[Annual Data Collection](#)

[2004 Library Quality/Impact Survey](#)

[2002 Library Quality/Impact Survey](#)

[Graduate Student Workshops](#)

[Annual Survey of Who Asks Questions Where](#)

[Library Staff Census](#) (under construction)

<http://metrics.library.upenn.edu/prototype/datafarm/>

# 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

# What's in a word?

What makes a **quality**  
**library**?

“Quality much like beauty is in the eye of the beholder”

# What's in a "Library"?

*A word is not crystal, transparent and unchanged; it is the skin of a living thought, and may vary greatly in color and content according to the circumstances and time in which it is used.*

--Justice Oliver Wendell Holmes

# Interpreting Data

$$1 + 1 = 2$$

# Thank you

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