

May 9, 2006

TO: ARL Statistics and Assessment Committee

David Carlson (Southern Illinois Carbondale) 2006-2007  
Joanne Eustis (Case Western Reserve) 2006-2007  
Brinley Franklin (Connecticut) 2006-2008  
Judith Nadler (Chicago) 2006-2007  
Randy Olsen (Brigham Young) 2006  
Diane Perushek (Hawaii at Manoa) 2006-2008  
Bill Potter (Georgia) 2006-2008  
Paul Wiens (Queen's) 2006-2008  
Sandra Yee (Wayne State) 2006-2007

FROM:

Colleen Cook, Chair, Texas A&M University  
Martha Kyrillidou, Director of Statistics and Measurement Program, ARL

Enclosed are the agenda and supporting documents for the ARL Statistics and Assessment Committee meeting that will take place from 8:00 a.m. to 10:00 a.m. on Wednesday, May 17, 2006, in the Gatineau Room of the Fairmont Chateau Laurier, Ottawa, Ontario.

As part of the ARL Strategic Planning process, the ARL Statistics and Measurement Committee was reconstituted as an ARL Board Committee and renamed 'ARL Statistics and Assessment.' The meeting will focus on reviewing the new charge and role of the committee, understanding the status of ongoing current projects, and the status of the qualitative and quantitative inquiry currently underway that furthers the recommendations of the Task Force on New Ways of Measuring Collections. The committee chair has also been tasked to discuss with the Steering Committee chairs how this committee can serve ARL's new strategic directions.

We look forward to working with you in continuing to build the strong agenda of the Statistics and Assessment Committee in charting new directions that support ARL's new strategic directions. We look forward to a productive meeting and your continuing engagement, input and direction over the course of the coming years.



**148th ARL Membership Meeting  
ARL Statistics and Assessment  
Wednesday, May 17, 2006  
8:00 a.m. – 10:00 a.m.  
Gatineau Room  
Fairmont Chateau Laurier, Ottawa, Ontario**

AGENDA

Introductions

- (a) New charge and role of the committee

Attachment A: ARL Board Statistics and Assessment Committee,  
Charge and Composition

- (b) Status of current projects

Attachment B: Statistics and Measurement Activities, May 2006

- (c) Explore the desirability of establishment of additional working groups and task forces (i.e. possibly a group of survey coordinators that advises on the definitions of the annual surveys and informs the NISO Z39.7 MA)

- (d) Qualitative and quantitative inquiry currently underway from the Task Force on New Ways of Measuring Collections.

Attachment C1: Task Force on New Ways of Measuring Collections  
Update, January 29, 2006 (presented to the ARL Board)

Attachment C2: Proposal to Develop a Profile of ARL Research Libraries

## **ARL Board Statistics and Assessment Committee**

### **Charge & Composition**

The Statistics and Assessment Committee is established as an ARL Board Committee to

- advise the Statistics & Measurement Program and
- identify quantitative and qualitative metrics and assessment tools needed in support of ARL's programmatic objectives.

Adopted by the ARL Board July 25, 2005

### **Subgroups**

As needed, the Statistics and Assessment Committee should consider whether task forces or subgroups might best help the Committee in carrying out its charge, and bring recommendations to the Board for establishing subsidiary groups.

### **Composition**

The committee composition is 9 people. As a Board committee, normally the chair will be a Board member but in all circumstances a Board member should serve on the committee.

### **Ties to other Committees**

The chair should recommend and pursue strategies that ensure that the work of this committee informs and supports the directions and priorities of the Strategic Direction Steering Committees and the ARL Membership Committee.

### **Terms of Appointments & Continuity of Agenda**

Appointments to the committee are for three-year terms and are non-renewable. Continuity of expertise on the agenda of the committee should be addressed at the task force or subgroup level. For overall guidance from the committee, the chair is encouraged to work with the Executive Committee to identify the subsequent chair a year prior to the transition. In addition, the chair may consult with the Executive Committee about circumstances that they feel justify renewal appointments for a member of the committee.

Revised as per Executive Committee discussions/jb  
March 2006

<i>Areas of activity</i>	<i>Accomplished</i>	<i>Planned</i>
1. Statistics and Assessment Committee	<ul style="list-style-type: none"> <li>• Reconstituted Committee as an ARL Board Committee and renamed it the Statistics and Assessment Committee</li> <li>• Task Force on New Ways of Measuring Collections developed recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• New Committee structure established and activities prioritized</li> <li>• Task Force on New Ways of Measuring Collections will oversee implementation of recommendations</li> <li>• Sustain communication with liaisons to external organizations such as ALA and NISO</li> </ul>
2. StatsQUAL+™ A gateway to library assessment tools	<ul style="list-style-type: none"> <li>• Technical infrastructure developed to support gateway to an extended set of database development projects</li> <li>• Statistical surveys revised to incorporate previously separate Q&amp;A document and instructions changed to report bundled serials under serials purchased</li> <li>• 240 libraries participated in administration of LibQUAL+® survey and computer infrastructure moved from Texas A&amp;M University to an external hosting facility</li> <li>• Completed DigiQUAL™ NSF/NSDL grant</li> <li>• Completed MINES for Libraries® (Measuring the Impact of Networked Electronic Services) project with Ontario Council of University Libraries</li> </ul>	<ul style="list-style-type: none"> <li>• Continue development of gateway based on feedback from ARL survey coordinators collecting ARL Statistics and annual surveys through a new web interface</li> <li>• Follow up on ARL survey coordinator discussion about definitional issues for electronic resources held at ALA Midwinter 2006</li> <li>• 260 libraries and 5 in-kind grant awardees signed up to administer LibQUAL+®</li> <li>• Analyze DigiQUAL data and find out how they are being used by UTOPIA and other digital libraries</li> <li>• Proposal to administer MINES for Libraries® at the University of Iowa and possibly explore interest from other ARL libraries</li> <li>• If funded by IMLS, partner with U.Md. on project to develop a tool to assess organizational culture and diversity</li> </ul>
3. Making Library Assessment Work	<ul style="list-style-type: none"> <li>• Visiting Program Officers Jim Self (Virginia) and Steve Hiller (Washington) complete Phase I by visiting 7 libraries and are in the middle of Phase II</li> </ul>	<ul style="list-style-type: none"> <li>• Phase II completed after visiting 18 libraries</li> <li>• Library Assessment Conference to be held September 25-27 in Charlottesville, VA</li> </ul>

		<ul style="list-style-type: none"> <li>• Recommendations for further activities to be reviewed by Statistics and Assessment Committee</li> </ul>
4. Learning Outcomes	<ul style="list-style-type: none"> <li>• Project SAILS Phase III testing completed and IMLS no-cost extension received to complete validation and system redesign</li> </ul>	<ul style="list-style-type: none"> <li>• Statistics and Assessment Committee will review Working Group final report and with RTL Steering Committee to recommend next steps</li> <li>• Determination of relationship of Project SAILS to ARL to be made upon completion of IMLS grant after September 2006</li> </ul>
5. Human Resources	<ul style="list-style-type: none"> <li>• ARL is one of several partners collaborating with UNC-Chapel Hill School of Information and Library Science. ARL representatives serving on the project Advisory Board: Carla Stoffle (Arizona), Gary Strong (UCLA), John Price Wilkin (Michigan). Martha Kyrillidou (ARL) on Statistical Advisory Board</li> </ul>	<ul style="list-style-type: none"> <li>• National Study on the Future of Librarians in the Workforce and will ARL will contribute to survey design, methodology, and data analysis</li> <li>• Annual Salary Survey 2005-06 collected additional demographic data</li> </ul>
6. Electronic Resource Management Initiative (ERMI)	<ul style="list-style-type: none"> <li>• Reading and Mapping License Language for Electronic Resource Management: A Pilot ARL/DLF Workshop held in June at ALA Annual Conference</li> <li>• Introduction to Standardized Usage Statistics Harvesting Initiative (SUSHI) in January at ALA Midwinter Meeting</li> </ul>	<ul style="list-style-type: none"> <li>• Establish Visiting Program Officer relationship with Trisha Davis (Ohio State) and Diane Grover (Washington) to build on DLF partnership by promoting awareness and tools among the research library community for electronic resource management and offering training workshops</li> </ul>

**TO: ARL Board**

**Re: Task Force on New Ways of Measuring Collections Update**

**DATE: January 29, 2006**

## **Background**

Representatives of three current and former ARL committees (Statistics and Measurement, Collections and Access, and Membership) formed a Task Force on New Ways of Measuring Collections to define the issues and propose solutions for measuring research library collections. During 2005, the task force engaged all member libraries in a constructive dialogue on how collections can or should be described and measured to demonstrate library contributions to research, teaching, learning, and public engagement. During the October 2006 membership meeting, the Task Force forwarded to the ARL Board a set of recommendations and the ARL Board approved the first three of the recommendations stated as follows:

1. Revisit the foundations of the ARL statistics collected for membership purposes to determine if there are new ways of describing research library collections. Undertake exploratory factor analysis to find (a) what is it we are measuring with our data collection activities, (b) whether ARL statistics measure the correct constructs and for what purposes, and (c) develop alternative models regarding the nature of the constructs measured by ARL. The possibility of developing a range of indices using the existing data elements may be one of the possible outcomes from this recommendation.
2. Simultaneously, develop a profile of the characteristics of a contemporary research library that could serve to complement other measures of library collections. The profile might include consortial partnerships, collection strengths, unique materials, collection use, service quality, contributions to the North American community (e.g., interlibrary loan, preservation), investment in local digital projects, contributions to research, teaching and learning, good local stewardship, and how library staff contributes to advances in librarianship.
3. Then, determine/develop new meaningful measures to augment current ones to support the profile of a research library. These measures might address the provision of resources and services, assessment of the quality of resources and services, and outcomes for research, teaching and learning.

## Proposed Timeline

<b>Chronology</b>	<b>Recommendation #1</b>	<b>Recommendation #2</b>
<b>October to December 2005</b>	<b>Review existing datafiles Identify data coding issues Normalize data variables</b>	<b>Identify suggestions for a research library profile from interview transcripts with ARL directors</b>
<b>January to February 2006</b>	<b>Conduct factor<sup>1</sup> analysis on variables and institutions Conduct cluster analysis<sup>2</sup></b>	<b>Develop preliminary profile Conduct interviews/focus groups for validating the profile</b>
<b>May 2006</b>	<b>Present analysis to Task Force and ARL Board</b>	<b>Present analysis to Task Force and ARL Board</b>
<b>Summer 2006</b>	<b>Conduct factor analysis and cluster analysis on 2006 data</b>	<b>Conduct additional interviews/focus groups for the development of the profile</b>
<b>October 2006</b>	<b>Present findings to the Task Force and the ARL Board</b>	<b>Present findings to the Task Force and the ARL Board</b>

## Current Developments

Recommendation #1: During the October-January timeframe, ARL staff met and brainstormed different options we have for engaging an external consultant for the quantitative analysis. In consultation with Brinley Franklin and Colleen Cook, we approached Bruce Thompson, Professor and Distinguished Research Scholar, Department of Educational Psychology, Texas A&M University, and Adjunct Professor of Community Medicine, Baylor College of Medicine, a well-known methodologist with vast expertise in data reduction methodologies and also known for his research in the library field. He expressed interest and willingness to work with ARL staff and analyze the annual statistical data. His initial advice was to focus on the last five years of data. Martha Kyrillidou provided the data and coding procedures to him which he has started reviewing. In addition, Kendon Stubbs has agreed to review and comment on the results of this analysis.

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<sup>1</sup> Factor analysis methods attempt: (1) to *reduce* the number of variables and (2) to *detect structure* in the relationships between variables, that is to *classify variables*. Therefore, factor analysis is applied as a data reduction or structure detection method (the term *factor analysis* was first introduced by Thurstone, 1931). <http://www.statsoft.com/textbook/stfacan.html>

<sup>2</sup> Cluster Analysis is the name given to a diverse collection of techniques that can be used to classify objects (e.g. individuals, species *etc*). The classification has the effect of reducing the dimensionality of a data table by reducing the number of rows (cases). The classification will depend upon the particular method used. This is because it is possible to measure similarity and dissimilarity in a number of ways. Consequently there is no such thing as a single correct classification, although there have been attempts to define concepts such as 'optimal' classifications. <http://149.170.199.144/multivar/hc.htm>



Recommendation #2. Mary Jackson examined the original transcripts to identify suggestions for a research library profile from the interview transcripts with ARL directors. This exercise developed a detailed list of attributes along the categories of collections, services, the general library organization and some miscellaneous aspects of their operation. ARL staff also brainstormed different options we have for engaging an external consultant for the qualitative analysis. We provided the interview transcripts and the report submitted to the ARL Board to Yvonna Lincoln, Ruth Harrington Chair of Educational Administration and Distinguished Professor of Higher Education, Educational Administration and Human Resource Development Department, Texas A&M University. Following a telephone interview, we asked her to develop a proposal for developing a profile of ARL Research Libraries. She provided a draft document that was reviewed by two members of the Task Force and we are in the process of negotiating a final draft proposal with her.

### **Estimated Budget for 2006**

We are in the process of negotiating final proposals with timeline and budget with researchers as outlined above. Task Force members were updated regarding our exploration to work with the Texas A&M research team. The recent appointment of Colleen Cook as the new chair of the ARL Statistics and Assessment Committee is also facilitating action towards this direction. We are working under the general assumptions of the following budget estimates:

#### **Recommendation #1**

One month of statistical/quantitative expert consultant (\$12,000)  
Travel (2 trips x \$2,000/trip)  
TOTAL \$16,000

#### **Recommendation #2**

One month of qualitative expert consultant (\$12,000)  
External research group (2 people x \$30,000)  
Travel (5 trips x 2 people x \$2,000/trip)  
TOTAL \$92,000

### **ARL Task Force on New Ways of Measuring Collections**

Shirley Baker, Washington-St. Louis  
Dale Canelas, Florida  
Colleen Cook, Texas A&M  
Carol Pitts Diedrichs, Kentucky  
Eileen Hitchingham, Virginia Tech  
Mod Mekkawi, Howard  
Lou Pitschmann, Alabama  
Alice Prochaska, Yale  
Jennifer Younger, Notre Dame  
Brinley Franklin, Chair, Connecticut

**Proposal to Develop a Profile of ARL Research Libraries**

**Submitted to:**  
**Association of Research Libraries**  
**21 Dupont Circle**  
**Washington, D.C. 20036**  
**Attention: Martha Kyrillidou, Director,**  
**Statistics and Measurement Program**

**Principal Investigators:**

Yvonna S. Lincoln, Ruth Harrington Chair of Educational Administration and Distinguished Professor of Higher Education, Educational Administration and Human Resource Development Department, Texas A&M University

Vicente Lechuga, Assistant Professor, Educational Administration and Human Resource Development Department, Texas A&M University

C. Colleen Cook, Dean and Professor, University Libraries, Sterling Evans Library, Texas A&M University

**Purpose of Study:**

In response to an ARL Task Force study, one recommendation was to begin to develop a profile of what a research library of the future might look like, and subsequently, what a sound evaluation of such a library might want to take into account which is not currently being evaluated or described. Increasingly, the transitions which research libraries have undergone and are currently experiencing as a result of digital technologies means that libraries are reorganizing their collections and re-arraying the mix of materials, information and data which are made available to users. One major transition is the rebalancing of acquisitions to reflect a smaller proportion of resources going into text collections, and a larger proportion of resources directed toward digital materials, shared collections, as well as other inventive strategies designed to increase user access and keep costs under control.

Task Force members interviewed virtually every ARL member institution library director with a series of open-ended questions. While directors made substantial contributions to the discussions of transitions which their libraries are undergoing, and provided provocative statements about the kinds of information which they are using on their particular campuses to ensure the flow of resources, they did not address themselves directly to the question of an “institutional profile”, nor did they specify new and different performance measures for ARL member institutions.

This proposal seeks to address both the profile and the development of new metrics directly.

## Methodology:

A qualitative strategy will be employed to explore more thoroughly what a purposive sample of library directors envision to be the library of the 21<sup>st</sup> century, and what signal elements, both qualitative and quantitative, will be critical to measure, assess, and/or describe. The Tentative Interview Protocol (see attached), will be utilized with this sample.

Twelve to fifteen “interview events”—likely focus groups—will be planned for mid-spring, late spring, and early summer. Lincoln will conduct ½ of these focus groups (similar to focus groups conducted with DLESE and MERLOT digital library developers, users and directors). Lechuga will conduct the other half, throughout June.

Sample. Guidelines for groups we want to interview focus not on user perspectives (as does LibQUAL+™, for instance), but rather on the perspectives of experts, i.e., professional librarians and directors of ARL-member libraries. The following types of institutions should be represented:

- √ A mix of public and private institutions
- √ Size and scope of library
- √ Some attention to geographic representation, e.g., East Coast, West Coast, north, south, Midwest, etc.
- √ Both rural and urban campuses should be represented
- √ One or more Canadian directors should be included, since the previous Task Force interviews revealed that those libraries are ranked by the Canadian federal government on their consortial and collaborative arrangements. Task force interviews with Directors of Canadian research libraries indicated that these individuals feel that consortial and collaborative arrangements between research facilities are the future of libraries, and thus one element of a new evaluation protocol, as well as a description of the library of the future, would include sound depictions of such consortial or collaborative arrangements as exist. Thus, one or more of these Directors might prove extremely helpful data for this project.

The research team recommends that we try to identify a select group of leaders among the directors that are actively involved in the committee structure and governance of ARL, and seek their assistance in this effort. ARL elected officials is one obvious group. Task Force and ARL Board members will be solicited for nominations of libraries and directors who fit within these guidelines.

Interviewers. Two individuals among the principal investigators are prepared to help conduct this set of focus groups. Lincoln and Lechuga will conduct 4-5 interviews apiece (roughly two-thirds) between them this spring, and the remainder during the month of June.

Analyses. All focus group sessions will be taped, and the tapes transcribed at TAMU-College Station. Lincoln has worked with an excellent transcriber (the same individual who prepared the DLESE and MERLOT transcriptions for analysis), and he has indicated a preliminary willingness to work with Cook and Lincoln on this task. The total cost for such transcription is estimated to be approximately \$3-4000.

All transcriptions will be subjected to a formal content analysis to identify primary themes, particular issues, and salient topics and items. In turn these themes, issues, topics, concerns and specific recommendations and items will be organized into meaningful categories of data which aid in the development of a research university profile, and subsequently, a set of recommendations regarding new evaluation rubrics, proposed qualitative and descriptive data, and other forms of assessments not now currently employed by ARL. Graduate student help in content analyses of these data (e.g., preparing data cards with unitized data on them for sorting) will be contributed time from the Lincoln journal research assistantship and the Harrington Chair graduate assistantship. Cook, Kyrillidou (ARL), Lechuga, and Lincoln will consult frequently as findings emerge. Standard sociological member checks will be followed so every person who has been involved in the study will be given a chance to review, enlarge, clarify and extend the interpretations.

Another opportunity also exists. Larry Faulkner, outgoing President of the University of Texas-Austin, has indicated an intense interest (to Dr. Fred Heath, Director of the UT-Austin libraries) that he wants to organize a small but high-powered conference on research libraries, likely this coming October. Among the invited speakers are numbers of individuals who are themselves not librarians, but who are individuals intimately connected to various aspects of libraries, including former presidents charged with the responsibility of funding research libraries, individuals from the digital environment and others. President Faulkner wishes to use this conference to think about the future of libraries into the 21<sup>st</sup> century, and thus a rather visionary conference is likely to eventuate. There is some possibility that the co-PIs might be able to convince some (or all) presenters to participate in a focus group as well. Although this group would not meet until after the October Board meeting, the data from such a focus group, if it can be arranged, would provide both additional data from largely non-librarians, and an opportunity to triangulate the data collected and analyzed from ARL directors.

The co-PIs recommend that the ARL Task Force and the ARL Board examine these additional data. The co-PIs (who will likely attend the conference in any event) would be glad to try to arrange that a focus group take place. While it would not be possible to provide data to the Task Force and the ARL Board for the October meeting, triangulated data could be fed into ARL Board deliberations between the October and May meetings.

Additional Reliability and Validity Measures. As a means of ensuring additional perspectives are brought into the research, the co-principal investigators propose that the ARL Board fund an external research auditor. The role of a research auditor in phenomenological research is roughly analogous to that of a fiscal auditor in the accounting sphere. Research auditors examine both the *process* of the research—that is, were the research methods and processes well-established research techniques clearly understood within the research community, and were the analytic techniques appropriate for these forms of data?—and the *products* of the research—that is, can specific facts, assertions, claims, concerns, issues, constructions, opinions, etc. be traced back to specific statements made by interviewees, or do they appear in other research materials (Schwandt & Halpern, *Linking auditing and metaevaluation*, Thousand Oaks, California: Sage, 1988) ?

The co-principal investigators propose that Professor William G. Tierney of the University of Southern California be hired as a consultant to perform this research audit. Dr. Tierney is extremely familiar with interpretive and phenomenological inquiry, having been trained in anthropology at Harvard University (M.A., under the direction of Professor Sarah Lightfoot Lawrence), and extending his training in qualitative research with his Ph.D. at Stanford. He is well-qualified to bring a systematic inquiry perspective unlike that of the co-PIs, but consonant with the research aims. Two days of auditing work, including examining all first-order (transcribed) and second-order (analyzed) data alongside the report, and one day of drafting the auditor's report would be sufficient. The consultant's fee could be negotiated with ARL at a later date if such an auditing procedure appears useful, and the outside perspective seems warranted. The final auditor's report is typically provided to both the sponsoring agency (ARL) and the investigators independently by the consultant.

### **Products**

Two products are envisioned for this project.

1. A status report and preliminary analysis will be presented at the May meeting (Lincoln and Cook). The research will be based on the views of the people that will be part of the study and the interpretation of the data will be validated by the study participants.
2. A final report, upon completion of the entire transcription and category analysis, will be presented at the ARL meeting in October. All ARL members will have the opportunity to review the paper inviting comments from Task Force and ARL Board members, the ARL Executive Director and other interested parties. A final technical report will be available to guide the evolution of a revised and updated evaluation plan for ARL member institutions.
3. A third possibility exists for triangulated data, if the ARL Task Force and the ARL Board so wish (see discussion above).

Additional products will perhaps include one or more journal articles around the process and the final recommendations. Lincoln, Lechuga, and Cook will be responsible for preparation of these reports, preliminary and final, in consultation with Kyrillidou.

## **Attachment A**

### **Interview Protocol – Draft**

#### **Introduction**

As you know, ARL is embarked on a mission to describe the library of the future, and to design an evaluation for their member institutions that reflects the transitions libraries are undergoing. There are four major dimensions to this project: What are the elements which best describe the transitions which ARL institutions' libraries are going through? What new organizational arrangements, collection arrays, and questions are important to you? What are those qualitative elements that best speak to the transitions? The quantitative elements? And, given that resources are always finite, which of those elements do you believe it would be most important to collect information around?

1. Describe some of the most important transitions that you see happening in your own library in the past 5-10 years.
2. What kinds of data are you being asked to provide to your own institutions in order to make the case for your budget? What new questions are being asked that you didn't hear in the decade previous to this one?
3. What is not being described or taken account of that should be? Ex., shared collections, consortial arrangements, etc.
4. If you could design your own assessment system for ARL, what would be in it that is not now in it?

Qualitative and descriptive data?

Quantitative data?

5. What do you think the library of the future will look like? How will its collections be arrayed? How will stakeholders—faculty, students, visiting scholars—use it?

6. How do you demonstrate the contribution of the library to the intellectual life of your campus? How do you demonstrate its contribution to undergraduate learning outcomes? To graduate preparation?
7. What kinds of information/data would be useful to you from a faculty perspective?
8. If you could add anything in terms of space, how would you use it?
9. What role does service provision play in arguing for resources?



**Contact Information for Co-Principal Investigators**

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Final proposal without budget information