

# STATISTICS & MEASUREMENT

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## BOUND FOR DISAPPOINTMENT: FACULTY AND JOURNALS AT RESEARCH INSTITUTIONS

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*Editor's Note: It is widely understood that faculty have voracious appetites for journals, appetites that are hard for a library to satisfy. The report below quantifies the pervasiveness of this faculty disappointment even across research libraries with very large journal collections and highlights the alignment of this assessment with faculty overall feelings about the library. In addition, the author describes how the University of Virginia Library conducted follow-up interviews with their faculty to identify specific shortfalls in the journal collections and understand better how to address real or perceived collection gaps.*

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### Overview

LibQUAL+® is a suite of services that libraries use to solicit, track, understand, and act upon users' opinions of library service quality. The program's centerpiece is a rigorously tested Web-based survey where respondents offer their views about the services offered by their library. Specifically, the survey asks the user to report on their desired, perceived, and minimal level of expectations for a range of library services.

This paper mines LibQUAL+® data for 2004, 2005, and 2006, focusing on faculty at ARL member libraries, and their responses to the survey question that asks about the library's "Print and/or electronic journal collections I require for my work" (question IC-8).

One of the striking findings of the LibQUAL+® survey is the low regard that academic faculty, even in large research institutions, have for the journal collections in their own libraries. Most reporting of LibQUAL+® results has used composite results, either conflating faculty and students into a single category, or combining several variables into a single "dimension." A search of the LibQUAL+® literature does not reveal any reporting or analysis of faculty evaluations of journal collections.

ARL is an organization of 123 of the largest research libraries in North America. Of these institutions, 113 are university libraries. Each of these libraries spends a considerable sum purchasing journals and other serial publications. In fiscal year 2005, serial expenditures at ARL university libraries ranged from \$1.6 million to \$11.3 million.<sup>1</sup>

In the three years from 2004 through 2006, 76 of these 113 university libraries in ARL conducted LibQUAL+®

surveys of their faculty. During this period, thousands of faculty members at ARL institutions have completed the LibQUAL+® survey. These faculty have consistently stated that their libraries are not meeting their minimum needs when it comes to print and/or electronic journal collections. In 2006, a total of 37 ARL libraries used LibQUAL+® to survey academic faculty.<sup>2</sup>

This paper explores an important question: Given the substantial investment in journals at ARL libraries, why are faculty at these institutions consistently dissatisfied with their library's journal collections?

### Methodology

This paper analyzes LibQUAL+® results at ARL libraries in 2004, 2005, and 2006. For 2004 and 2005 the ARL composite notebooks were examined to provide an overview of the results. The 2006 results were studied in more detail; the results notebooks of each of the 37 participating ARL libraries were examined and analyzed. The analysis of the 2006 data focused on faculty responses, but there was also some examination of graduate student responses.

The 2006 responses of faculty and graduate students at the University of Virginia received further analysis, using the full data file, rather than relying on the notebooks. Results for question IC-8 were tallied for each major discipline, in order to determine which academic areas were most (and least) dissatisfied with the library's journal collections.

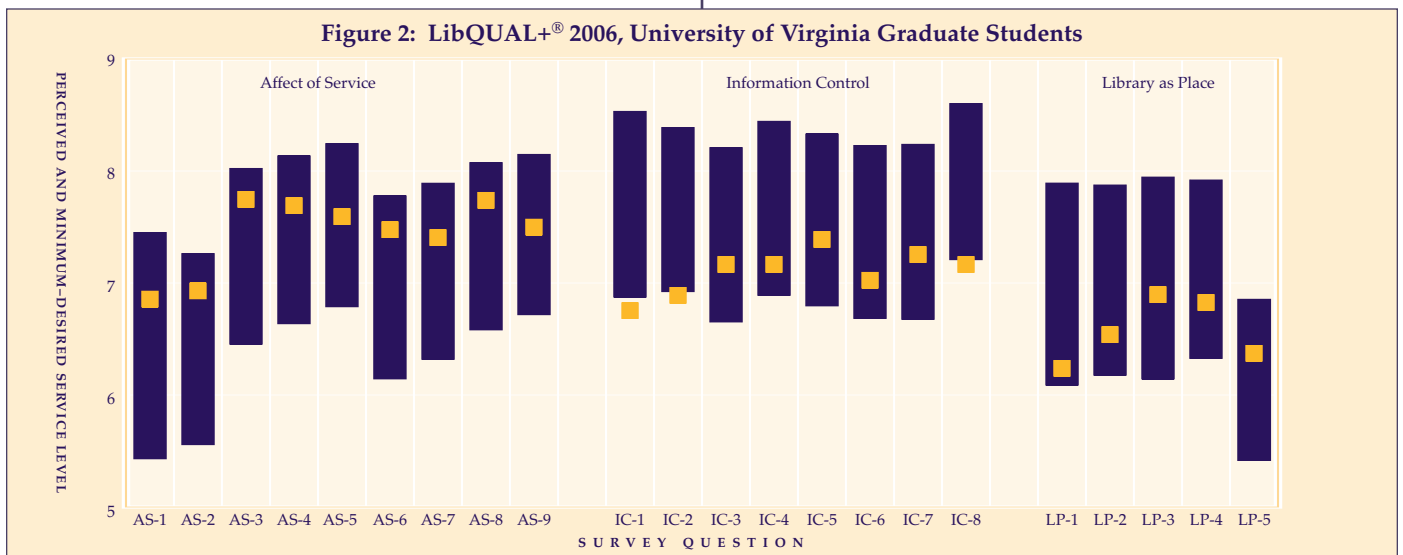
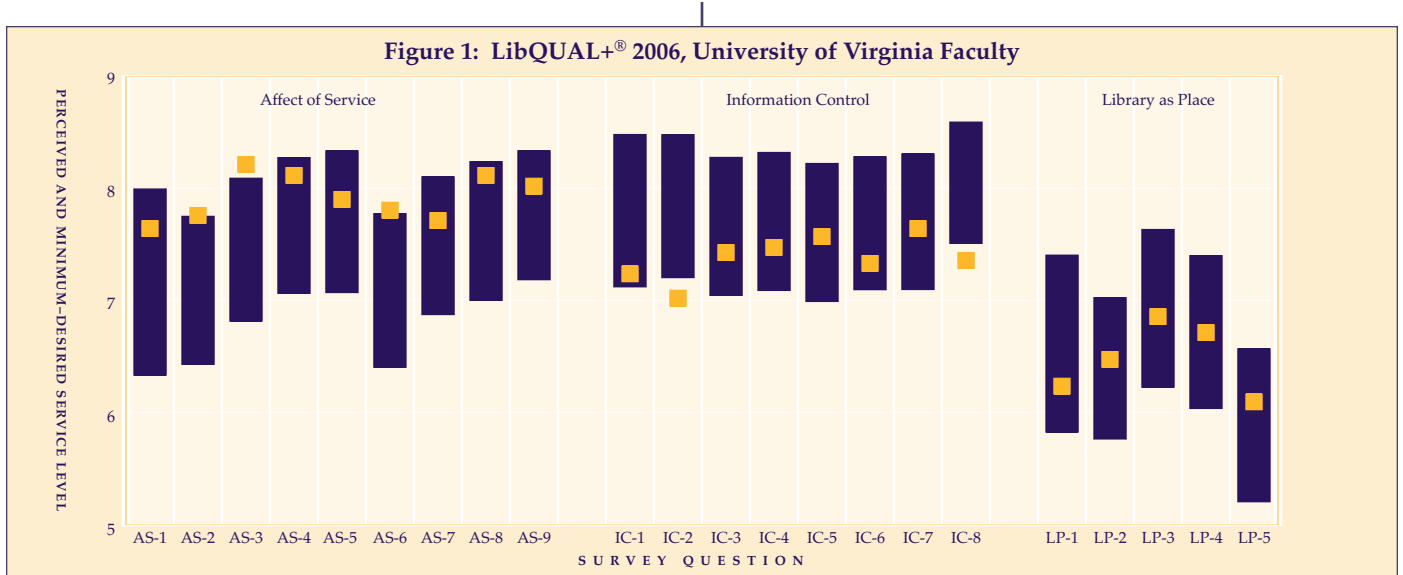
The quantitative information was supplemented with qualitative data from the University of Virginia (U.Va.). The comments from the survey were examined. In addition, a total of 82 faculty members at U.Va. were interviewed. They were asked to state their needs and desires for journal collections, and to provide detailed information regarding shortfalls, including specific names of missing journal titles and databases. The interviews concluded with open-ended questions regarding journal resources and services.

### The LibQUAL+® Survey

The LibQUAL+® survey includes demographic questions, general satisfaction questions, information literacy questions, queries on frequency of use of libraries and search engines, and a set of locally selected questions. However, the distinctive aspect of LibQUAL+® is the set of 22 core questions for which the respondent provides three answers on a 1–9 scale: the minimum level, the desired level, and the perceived level of the service actually provided by the library.

This three-part answering scheme is what makes LibQUAL+® particularly noteworthy. Some respondents are confused or annoyed by this feature; however, it allows LibQUAL+® to provide information that is not available in a standard survey. It allows the analyst to compare desired level and minimum level with the

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perceived level of service for each of the 22 items, and for each category of respondent. It provides context for each set of scores.

## Results at the University of Virginia

Figure 1 displays the responses of University of Virginia faculty when LibQUAL+® was administered in November 2006. The graph shows the three scores for each of the 22 core questions. The top of the bar is the desired level, the bottom is the minimum. The gold square indicates the perceived level. In an ideal world, the square would be at the top of each bar.

The graph clearly indicates that U.Va. faculty place a relatively high value on “affect of service” (the left side of the chart), and believe the library is performing at an almost optimal level. The faculty give an even higher value to “information control,” and believe the library is barely meeting the minimum, or is falling short. “Library as place” is not important for faculty, and given

those low expectations, the library is performing adequately.

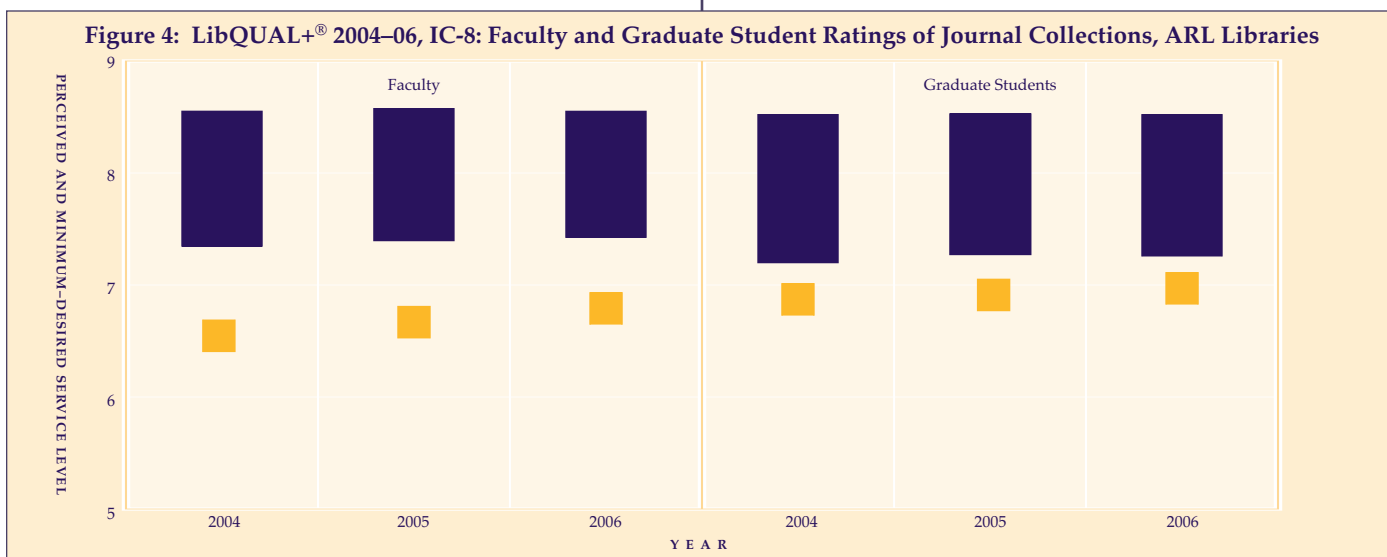
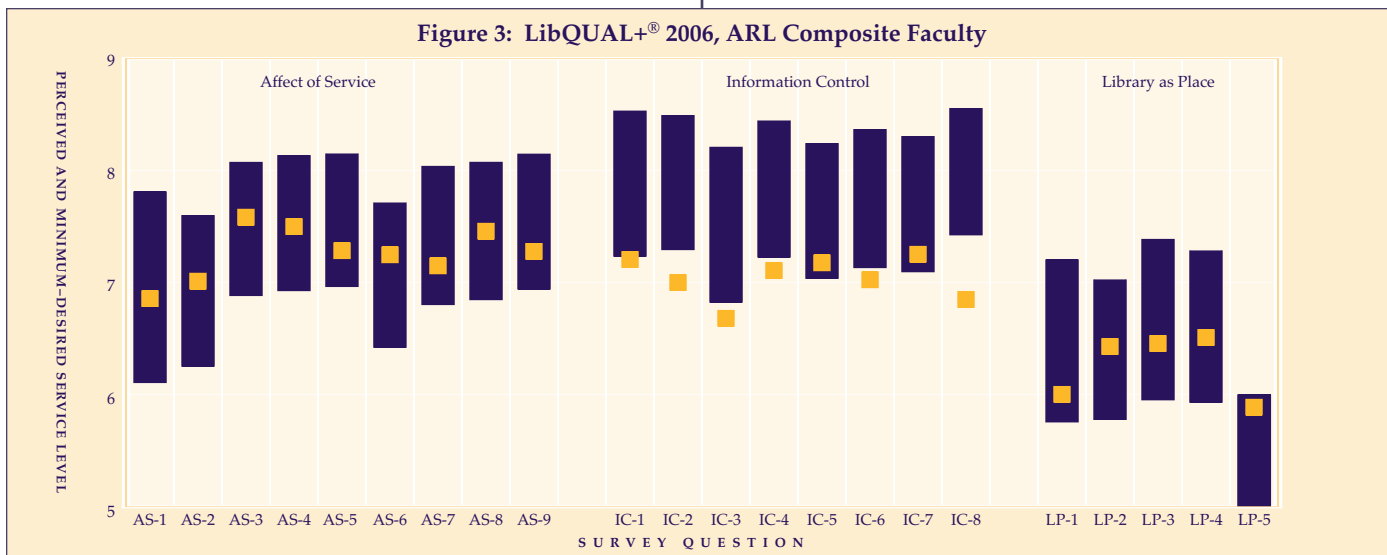
Figure 2 provides the same display for U.Va. graduate students, who also have high expectations, and rather low perceived ratings, for information control. In the other areas the library is performing at least adequately.

## Results at ARL Institutions

In 2006, 37 ARL libraries surveyed their faculty. The composite results are shown in Figure 3.

When examining the composite of 37 ARL libraries, one finds results similar to U.Va., but with more negative scores in the information control section. Faculty at large research libraries throughout North America are willing to say the library is not meeting their minimum needs when it comes to collections and resources.

This paper is focusing on question IC-8: “Print and/or electronic journal collections I require for my work.” Looking at Figure 3, one sees that IC-8 has the



highest “desired” score, the highest “minimum” score, and the largest negative gap between the “perceived” level and the “minimum” level.

Journal collections are what ARL faculty want most of all, and the area of their greatest dissatisfaction.

### Comparisons over Time

Figure 4 compares composite scores for faculty and graduate students at ARL institutions for question IC-8 over the past three years. The ratings for journal collections have consistently been in the negative zone; 2006 was not an exceptional case.

### Results at Each Participating ARL Library

Figure 5 drills into the ARL data, showing the faculty scores for IC-8 at the 37 ARL libraries that conducted LibQUAL+® in 2006. The libraries are arranged from the largest (on the left) to the smallest (on the right). In only two of the libraries did the faculty rate the journals

collections above the minimum level.

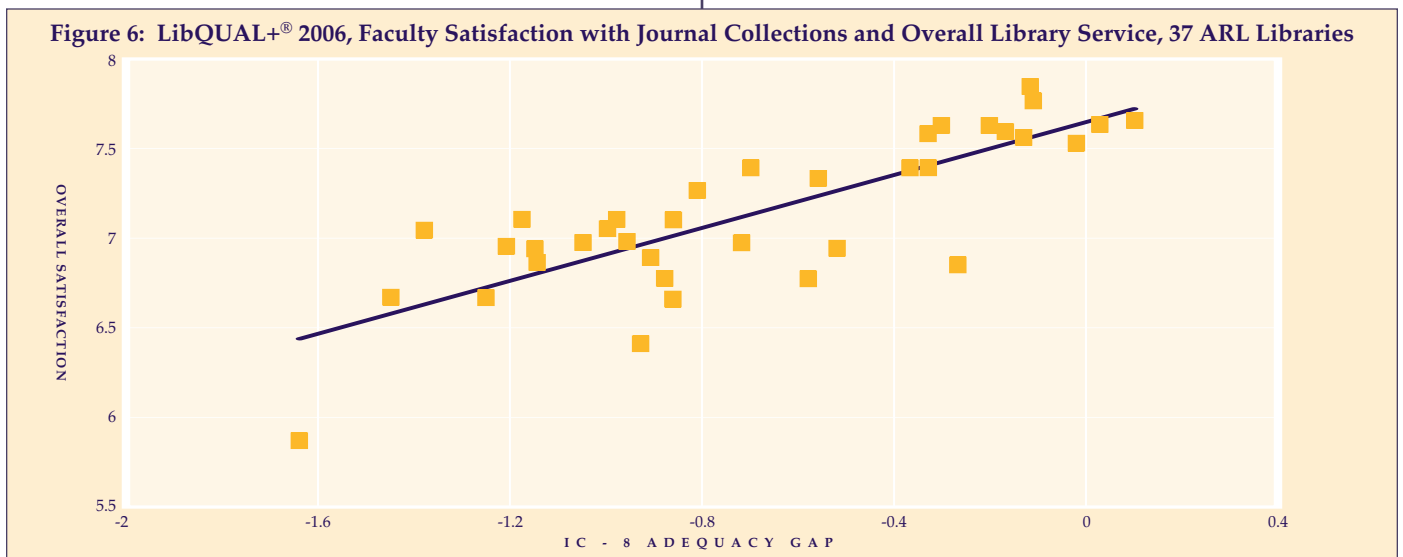
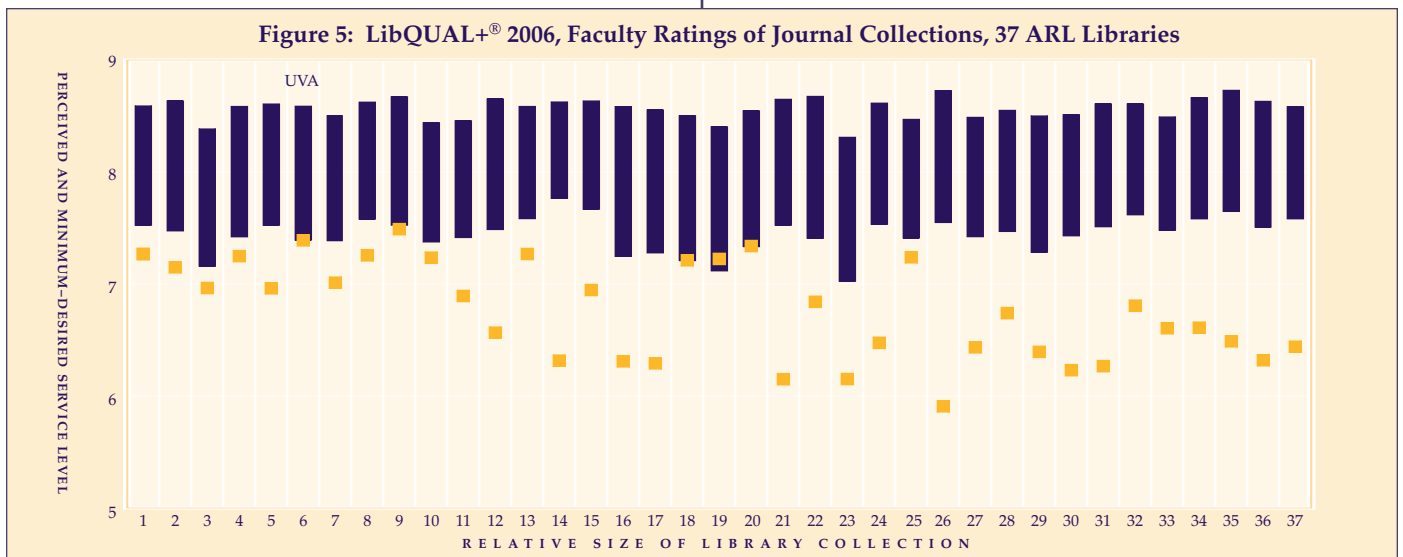
In scanning the bars across the chart, it is apparent that the desired level at the smallest libraries is almost as high as it is at the largest libraries. However, the perceived ratings tend to drop as one moves from largest to smallest.

What is most remarkable about this graph is just how very important journals are for faculty across ARL institutions—from largest to smallest.

Serial expenditures at ARL libraries in fiscal year 2005 ranged from \$3.6 million to \$11.4 million. The 37 libraries shown above spent a total of \$232 million for serials that year.<sup>3</sup> However, there is no statistical relationship between serial expenditures and the faculty desired score. ( $r = -.14$ ) In the ARL libraries, faculty at smaller institutions, with smaller libraries, want journals just as much as those at the largest schools.

Asking a somewhat different question: do serial expenditures seem to affect the perception of journal

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collections (as opposed to the desired level and minimum level)? There is a connection between serial expenditures and the level of satisfaction regarding journals. When comparing the IC-8 “adequacy gap” and serial expenditures of the 37 participating ARL libraries, one finds a positive correlation of .63.

### Journal Ratings and Overall Satisfaction

Another issue worthy of exploration is the connection between journal scores and overall satisfaction. The scattergram in Figure 6 plots faculty results for two variables in the 2006 LibQUAL+® survey: overall satisfaction score and IC-8 adequacy gap for each of the 37 ARL participants.

The vertical scale in the scattergram is the overall satisfaction score; the horizontal scale is the journals question. Each square is an ARL library. The libraries closely follow the trend line. Only two libraries had a positive score on the journals question, but several were

very close to the minimum level. The ones close to the vertical line all had high overall satisfaction.

The correlation between the IC-8 adequacy gap and overall satisfaction is a very strong .81. If faculty are happy with the journal collections, they are happy overall.

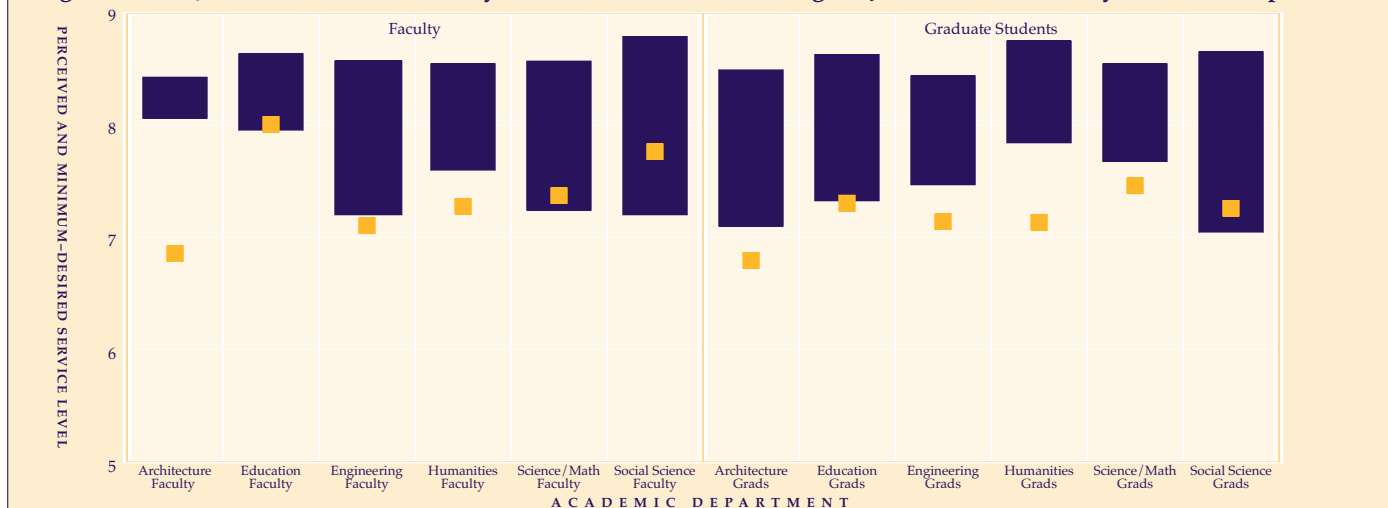
### Following up at U.Va.

At the University of Virginia there has been an effort to identify specific sources of dissatisfaction. The comments submitted with the LibQUAL+® survey were examined. The qualitative information provided general information, but nothing very specific or actionable. Typical comments were:

- “We need more journals in my field.”
- “Budget problems have caused too many cancellations.”

Another part of this effort sought to identify those academic areas with the greatest dissatisfaction. Figure 7 displays the journal collections ratings among

Figure 7: LibQUAL+® 2006: U.Va. Faculty and Graduate Student Ratings of Journal Collections by Academic Department



U Va. faculty and graduate students in each major academic unit.

This display shows clearly there are shortfalls in the architecture school, the engineering school, and the humanities departments. With this information in hand, the Management Information Services (MIS) unit at the U.Va. Library followed up the LibQUAL+® data with a series of very brief interviews with faculty. The purpose was to find specific issues and problems relating to journal collections. The interviews were not given to a random group of faculty. While the interviewees were diverse, the focus was on those areas that had given low scores in the journals question. Each interviewee was asked to state his or her specific needs and wants regarding journal collections. A total of 82 faculty were interviewed, distributed as follows:

- Humanities 20
- Engineering 19
- Architecture 14
- Social sciences 10
- Science/math 8
- Education 7
- Music/arts 2
- Business 2

The results from the interviews were suggestive, but not definitive. Nearly everyone said the library was meeting their minimum level for journals, but many respondents said the library was not meeting their desired level. The specific shortfalls mentioned included the following:

- Access to journals is confusing
- More foreign titles are needed
- More older content and backfiles are needed
- Location (branches, storage) is often a problem
- Electronic remote access does not work well
- Browsing facilities need improvement

In summary, no single issue is producing the shortfalls. Searching and access are major problems, but not the only problems. At the University of Virginia Library there are continuing efforts to improve the search interfaces, and a greater effort to inform and instruct faculty and graduate students, as well as increased awareness of the importance of journals to faculty. It is hoped these measures will bring greater satisfaction, or less dissatisfaction, with the journal collections.

Whatever the reasons for the discontent, the basic finding of this study is the importance of journals to faculty. When it comes to libraries, journals are the most important item for faculty, and the source of their greatest dissatisfaction. How faculty feel about the library is closely aligned to the feelings toward the journal collections.

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<sup>1</sup> ARL Statistics Interactive Edition, <http://fisher.lib.virginia.edu/arl/index.html> (accessed October 15, 2007). See also, Martha Kyriillidou and Mark Young, comps. and eds., *ARL Statistics 2004–05* (Washington DC: ARL, 2006), <http://www.arl.org/bm~doc/arlstat05.pdf>.

<sup>2</sup> Colleen Cook et al., *LibQUAL+® 2006 Survey: ARL* (Washington DC: ARL, 2006), [http://www.libqual.org/documents/admin/ARL\\_Notebook\\_2006.pdf](http://www.libqual.org/documents/admin/ARL_Notebook_2006.pdf). The LibQUAL+® notebook for 2006 lists 46 ARL members as participating that year. The number includes four health science libraries, two law libraries, two small units within the institution, and one institution that surveyed students but not faculty. These nine participants are not included in the analysis for this paper. All institutional data are derived from the 37 institutional LibQUAL+® notebooks that are available only to survey participants through the LibQUAL+® Web site and this article complies with the LibQUAL+® Policy on Disseminating Results that states, "Institutions may use other libraries' data in a confidential manner without disclosing the institutional identity of other libraries."

<sup>3</sup> ARL Statistics Interactive Edition, <http://fisher.lib.virginia.edu/arl/index.html> (accessed October 19, 2007).