LibQUAL+®

2008 Survey

Oregon Health & Science University

Association of Research Libraries / Texas A&M University

www.libqual.org

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1 Introduction

1.1 Acknowledgements

This notebook contains information from the 2008 administration of the LibQUAL+® protocol. The material on the following pages is drawn from the analysis of responses from the participating institutions collected in 2008.

The LibQUAL+® project requires the skills of a dedicated group. We would like to thank several members of the LibQUAL+® team for their key roles in the development of this service. From Texas A&M University, the qualitative leadership of Yvonna Lincoln has been key to the project's integrity. The behind-the-scenes roles of Bill Chollet and others from the library Systems and Training units were also formative in the early years. From the Association of Research Libraries, we are appreciative of the past contributions of Consuella Askew, Richard Groves, Amy Hoseth, Mary Jackson, Jonathan Sousa, and Benny Yu.

A New Measures initiative of this scope is possible only as the collaborative effort of many libraries. To the directors and liaisons at all participating libraries goes the largest measure of gratitude. Without your commitment, the development of LibQUAL+® would not have been possible. We would like to extend a special thank you to all administrators at the participating consortia and libraries that are making this project happen effectively across various institutions.

We would like to acknowledge the role of the Fund for the Improvement of Post-secondary Education (FIPSE), U.S. Department of Education, which provided grant funds of $498,368 over a three-year period (2001-03). We would also like to acknowledge the support of the National Science Foundation (NSF) for its grant of $245,737 over a three-year period (2002-04) to adapt the LibQUAL+® instrument for use in the science, math, engineering, and technology education digital library community, an assessment tool in development now called DigiQUAL. We would like to express our thanks for the financial support that has enabled the researchers engaged in this project to exceed all of our expectations in stated goals and objectives and deliver a remarkable assessment tool to the library community.

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1.2 LibQUAL+®: A Project from StatsQUAL®

I would personally like to say a word about the development of LibQUAL+® over the last few years and to thank the people that have been involved in this effort. LibQUAL+® would not have been possible without the many people who have offered their time and constructive feedback over the years for the cause of improving library services. In a sense, LibQUAL+® has built three kinds of partnerships: one between ARL and Texas A&M University, a second one among the participating libraries and their staff, and a third one comprising the thousands of users who have provided their valuable survey responses over the years.

LibQUAL+® was initiated in 2000 as an experimental project for benchmarking perceptions of library service quality across 13 ARL libraries under the leadership of Fred Heath and Colleen Cook, then both at Texas A&M University Libraries. It matured quickly into a standard assessment tool that has been applied at more than 1,000 libraries, collecting information on more than half a million library users. Each year since 2003, we have had more than 200 libraries conduct LibQUAL+®, more than 100,000 users respond, and annually more than 50,000 users provide rich comments about the ways they use their libraries.

There have been numerous advancements over the years. In 2005, libraries were able to conduct LibQUAL+® over a two session period (Session I: January to May and Session II: July to December). The LibQUAL+® servers were moved from Texas A&M University to an external hosting facility under the ARL brand known as StatsQUAL®. Through the StatsQUAL® gateway we will continue to provide innovative tools for libraries to assess and manage their environments in the coming years. In 2006, we added the LibQUAL+® Analytics (for more information, see Section 1.6).

LibQUAL+® findings have engaged thousands of librarians in discussions with colleagues and ARL on what these findings mean for local libraries, for their regions, and for the future of libraries across the globe. Consortia have supported their members' participation in LibQUAL+® in order to offer an informed understanding of the changes occurring in their shared environment. Summary highlights have been published on an annual basis showcasing the rich array of information available through LibQUAL+®:

LibQUAL+® 2007 Survey Highlights
<**http://www.libqual.org/documents/admin/LibQUALHighlights2007_Full_Supplemental.pdf**>
<**http://www.libqual.org/documents/admin/LibQUALHighlights2007_Full.pdf**>

LibQUAL+® 2006 Survey Highlights
<**http://www.libqual.org/documents/admin/LibQUALHighlights2006.pdf**>

LibQUAL+® 2005 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights20051.pdf>

LibQUAL+® 2004 Survey Highlights
<http://www.libqual.org/documents/admin/ExecSummary%201.3.pdf>

LibQUAL+® 2003 Survey Highlights
<http://www.libqual.org/documents/admin/ExecSummary1.1_locked.pdf>

Summary published reports have also been made available:

<http://www.arl.org/pubscat/libqualpubs.html>

The socio-economic and technological changes that are taking place around us are affecting the ways users interact with libraries. We used to think that libraries could provide reliable and reasonably complete access to published and scholarly output, yet we now know from LibQUAL+® that users have an insatiable appetite for content. No library can ever have sufficient information content that would come close to satisfying this appetite.

The team at ARL and beyond has worked hard to nurture the community that has been built around LibQUAL+®. We believe that closer collaboration and sharing of resources will bring libraries nearer to meeting the ever changing needs of their demanding users. It is this spirit of collaboration and a willingness to view the world of libraries as an organic, integrated, and cohesive environment that can bring forth major innovations and break new ground. Innovation and aggressive marketing of the role of libraries in benefiting their communities strengthen libraries.

In an example of collaboration, LibQUAL+® participants are sharing their results within the LibQUAL+® community with an openness that nevertheless respects the confidentiality of each institution and its users. LibQUAL+® participants are actively shaping our Share Fair gatherings, our in-person events, and our understanding of how the collected data can be used. LibQUAL+® offers a rich resource that can be viewed using many lenses, should be interpreted in multiple ways, and is a powerful tool libraries can use to understand their environment.

LibQUAL+® is a community mechanism for improving libraries and I hope we see an increasing number of libraries utilizing it successfully in the years to come. I look forward to your continuing active involvement in helping us understand the many ways we can improve library services.

With warm regards,

Martha Kyrillidou
Director, ARL Statistics and Service Quality Programs

1.3 LibQUAL+®: Defining and Promoting Library Service Quality

What is LibQUAL+®?

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

- Foster a culture of excellence in providing library service
- Help libraries better understand user perceptions of library service quality
- Collect and interpret library user feedback systematically over time
- Provide libraries with comparable assessment information from peer institutions
- Identify best practices in library service
- Enhance library staff members' analytical skills for interpreting and acting on data

As of 2007, more than 1,000 libraries have participated in the LibQUAL+® survey, including Canadian government libraries, colleges and universities, community colleges, health sciences and hospital/medical libraries, law libraries, public libraries, and secondary school libraries---some through various consortia, others as independent participants. LibQUAL+® has expanded internationally, with participating institutions in Canada, the U.K. and other European countries as well as Australia and South Africa. It has been translated into a number of languages, including Afrikaans, Chinese (Traditional), Danish, Dutch, Finnish, French, German, Japanese, Norwegian, Spanish, Swedish, and Welsh. The growing LibQUAL+® community of participants and its extensive dataset are rich resources for improving library services.

How will LibQUAL+® benefit your library?

Library administrators have successfully used LibQUAL+® survey data to identify best practices, analyze deficits, and effectively allocate resources. Benefits to participating institutions include:

- Institutional data and reports that enable you to assess whether your library services are meeting user expectations
- Aggregate data and reports that allow you to compare your library's performance with that of peer institutions
- Workshops designed for participants
- Access to an online library of LibQUAL+® research articles
- The opportunity to become part of a community interested in developing excellence in library services

LibQUAL+® gives your library users a chance to tell you where your services need improvement so you can respond to and better manage their expectations. You can develop services that better meet your users' expectations by comparing your library's data with that of peer institutions and examining the practices of those libraries that are evaluated highly by their users.

How is the LibQUAL+® survey conducted?

Conducting the LibQUAL+® survey requires little technical expertise on your part. You invite your users to take the survey by distributing the URL for your library's Web form via e-mail. Respondents complete the survey form and their answers are sent to a central database. The data are analyzed and presented to you in reports describing your users' desired, perceived, and minimum expectations of service.

What are the origins of the LibQUAL+® survey?

The LibQUAL+® survey evolved from a conceptual model based on the SERVQUAL instrument, a popular tool for assessing service quality in the private sector. The Texas A&M University Libraries and other libraries used modified SERVQUAL instruments for several years; those applications revealed the need for a newly adapted tool that would serve the particular requirements of libraries. ARL, representing the largest research libraries in North America, partnered with Texas A&M University Libraries to develop, test, and refine LibQUAL+®. This effort was supported in part by a three-year grant from the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE).

1.4 Web Access to Data

Data summaries from the 2008 iteration of the LibQUAL+® survey will be available to project participants online via the LibQUAL+® survey management site:

<http://www.libqual.org/Manage/Results/index.cfm>

1.5 Explanation of Charts and Tables

A working knowledge of how to read and derive relevant information from the tables and charts used in your LibQUAL+® results notebook is essential. In addition to the explanatory text below, you can find a self-paced tutorial on the project web site at:

<http://www.libqual.org/Information/Tools/index.cfm>

Both the online tutorial and the text below are designed to help you understand your survey results and present and explain those results to others at your library.

Radar Charts

Radar charts are commonly used throughout the following pages to display both aggregate results and results from individual institutions. Basic information about radar charts is outlined below, and additional descriptive information is included throughout this notebook.

What is a radar chart?
Radar charts are useful when you want to look at several different factors all related to one item. Sometimes called "spider charts" or "polar charts", radar charts feature multiple axes or "spokes" along which data can be plotted. Variations in the data are shown by distance from the center of the chart. Lines connect the data points for each series, forming a spiral around the center.

In the case of the LibQUAL+® survey results, each axis represents a different survey question. Questions are identified by a code at the end of each axis. The three dimensions measured by the survey are grouped together on the radar charts, and each dimension is labeled: Affect of Service (AS), Information Control (IC), and Library as Place (LP).

Radar charts are used in this notebook to present the item summaries (the results from the 22 core survey questions).

How to read a radar chart
Radar charts are an effective way to show strengths and weaknesses graphically by enabling you to observe symmetry or uniformity of data. Points close to the center indicate a low value, while points near the edge indicate a high value. When interpreting a radar chart, it is important to check each individual axis as well as the chart's overall shape in order to gain a complete understanding of its meaning. You can see how much data fluctuates by observing whether the spiral is smooth or has spikes of variability.

Respondents' minimum, desired, and perceived levels of service quality are plotted on each axis of your LibQUAL+® radar charts. The resulting "gaps" between the three levels are shaded in blue, yellow, green, and red. Generally, a radar graph shaded blue and yellow indicates that users' perceptions of service fall within the "zone of tolerance"; the distance between minimum expectations and perceptions of service quality is shaded in blue, and the distance between their desired and perceived levels of service quality is shown in yellow. When users' perceptions fall outside the "zone of tolerance," the graph will include areas of red and green shading. If the distance between users' minimum expectations and perceptions of service delivery is represented in red, that indicates a negative service adequacy gap score. If the distance between the desired level of service and perceptions of service delivery is represented in green, that indicates a positive service superiority gap score.

Means

The mean of a collection of numbers is their arithmetic average, computed by adding them up and dividing by their total number.

In this notebook, means are provided for users' minimum, desired, and perceived levels of service quality for each item on the LibQUAL+® survey. Means are also provided for the general satisfaction and information literacy outcomes questions.

Standard Deviation

Standard deviation is a measure of the spread of data around their mean. The standard deviation (SD) depends on calculating the average distance of each score from the mean.

In this notebook, standard deviations are provided for every mean presented in the tables.

Service Adequacy

The service adequacy gap score is calculated by subtracting the minimum score from the perceived score on any given question, for each user. Both means and standard deviations are provided for service adequacy gap scores on each item of the survey, as well as for each of the three dimensions of library service quality. In general, service adequacy is an indicator of the extent to which you are meeting the minimum expectations of your users. A negative service adequacy gap score indicates that your users' perceived level of service quality is below their minimum level of service quality and is printed in red.

Service Superiority

The service superiority gap score is calculated by subtracting the desired score from the perceived score on any given question, for each user. Both means and standard deviations are provided for service superiority gap scores on each item of the survey, as well as for each of the three dimensions of library service quality. In general, service superiority is an indicator of the extent to which you are exceeding the desired expectations of your users. A positive service superiority gap score indicates that your users' perceived level of service quality is above their desired level of service quality and is printed in green.

Sections with charts and tables are omitted from the following pages when there are three or fewer individuals in a specific group.

In consortia notebooks, institution type summaries are not shown if there is only one library for an institution type. Individual library notebooks are produced separately for each participant.

1.6 A Few Words about LibQUAL+® 2008

Libraries today confront escalating pressure to demonstrate impact. As Cullen (2001) has noted,

> Academic libraries are currently facing their greatest challenge since the explosion in tertiary education and academic publishing which began after World War II... [T]he emergence of the virtual university, supported by the virtual library, calls into question many of our basic assumptions about the role of the academic library, and the security of its future. Retaining and growing their customer base, and focusing more energy on meeting their customers' expectations is the only way for academic libraries to survive in this volatile environment. (pp. 662-663)

Today, "A measure of library quality based solely on collections has become obsolete" (Nitecki, 1996, p. 181). These considerations have prompted the Association of Research Libraries (ARL) to sponsor a number of "New Measures" initiatives. The New Measures efforts represent a collective determination on the part of the ARL membership to augment the collection-count and fiscal input measures that comprise the ARL Index and ARL Statistics, to date the most consistently collected statistics for research libraries, with outcome measures such as assessments of service quality and satisfaction. One New Measures Initiative is the LibQUAL+® service (Cook, Heath & B. Thompson, 2002, 2003; Heath, Cook, Kyrillidou & Thompson, 2002; Thompson, Cook & Heath, 2003; Thompson, Cook & Thompson, 2002).

Within a service-quality assessment model, "only customers judge quality; all other judgments are **essentially irrelevant**" (Zeithaml, Parasuraman, Berry, 1990, p. 16). LibQUAL+® was modeled on the 22-item SERVQUAL tool developed by Parasuraman, Berry and Zeithaml (Parasuraman, Berry & Zeithaml, 1991). However, SERVQUAL has been shown to measure some issues not particularly relevant in libraries, and to not measure some issues of considerable interest to library users.

The final 22 LibQUAL+® items were developed through several iterations of studies involving a larger pool of 56 items. The selection of items employed in the LibQUAL+® survey has been grounded in the *users' perspective* as revealed in a series of qualitative studies involving a larger pool of items. The items were identified following qualitative research interviews with student and faculty library users at several different universities (Cook, 2002a; Cook & Heath, 2001).

LibQUAL+® is **not** just a list of 22 standardized items. First, LibQUAL+® offers libraries the ability to select five optional local service quality assessment items. Second, the survey includes a comments box soliciting open-ended user views. *Almost half of the people responding to the LibQUAL+® survey provide valuable feedback through the comments box.* These open-ended comments are helpful for not only (a) understanding **why** users provide certain ratings, but also (b) understanding **what policy changes** users suggest, because many users feel the obligation to be constructive. Participating libraries are finding the real-time access to user comments one of the most useful devices in challenging library administrators to think outside of the box and develop innovative ways for improving library services.

LibQUAL+® is one of 11 ways of listening to users, called a *total market survey*. As Berry (1995) explained,

> When well designed and executed, total market surveys provide a range of information unmatched by any other method... A critical facet of total market surveys (and the reason for using the word 'total') is the measurement of competitors' service quality. This [also] requires

using non-customers in the sample to rate the service of their suppliers. (p. 37)

Although (a) measuring perceptions of both users and non-users, and (b) collecting perceptions data with regard to peer institutions can provide important insights Berry recommended using multiple listening methods and emphasized that "Ongoing data collection... is a necessity. Transactional surveys, total market surveys, and employee research should always be included" (Berry, 1995, p. 54).

Score Scaling

"Perceived" scores on the 22 LibQUAL+® core items, the three subscales, and the total score, are all scaled 1 to 9, with 9 being the most favorable. Both the gap scores ("Adequacy" = "Perceived" - "Minimum"; "Superiority" = "Perceived" - "Desired") are scaled such that higher scores are more favorable. Thus, an *adequacy* gap score of +1.2 on an item, subscale, or total score is better than an adequacy gap score of +1.0. A *superiority* gap score of -0.5 on an item, subscale, or total score is better than a superiority gap score of -1.0.

Using LibQUAL+® Data

In some cases LibQUAL+® data may confirm prior expectations and library staff will readily formulate action plans to remedy perceived deficiencies. But in many cases library decision-makers will seek additional information to corroborate interpretations or to better understand the dynamics underlying user perceptions.

For example, once an interpretation is formulated, library staff might review recent submissions of users to suggestion boxes to evaluate whether LibQUAL+® data are consistent with interpretations, and the suggestion box data perhaps also provide user suggestions for remedies. User focus groups also provide a powerful way to explore problems and potential solutions. A university-wide retreat with a small-group facilitated discussion to solicit suggestions for improvement is another follow-up mechanism that has been implemented in several LibQUAL+® participating libraries.

Indeed, the open-ended comments gathered as part of LibQUAL+® are themselves useful in fleshing out insights into perceived library service quality. Respondents often use the comments box on the survey to make constructive suggestions on specific ways to address their concerns. Qualitative analysis of these comments can be very fruitful. In short, LibQUAL+® is not 22 items. LibQUAL+® is 22 items plus a comments box!

Cook (2002b) provided case study reports of how staff at various libraries have employed data from prior renditions of LibQUAL+®. Heath, Kyrillidou, and Askew edited a special issue of the *Journal of Library Administration* (Vol. 40, No. 3/4) reporting additional case studies on the use of LibQUAL+® data to aid the improvement of library service quality. This special issue has also been published by Hayworth Press as a monograph. These publications can be ordered by sending an email to libqual@arl.org.

2008 Data Screening

The 22 LibQUAL+® core items measure perceptions of total service quality, as well as three sub-dimensions of perceived library quality: (a) *Service Affect* (9 items, such as "willingness to help users"); (b) *Information Control* (8 items, such as "a library Web site enabling me to locate information on my own" and "print and/or electronic journal collections I require for my work"); and (c) *Library as Place* (5 items, such as "a getaway for study, learning, or research").

However, as happens in any survey, in 2008 some users provided incomplete data, inconsistent data, or both. In compiling the summary data reported here, several criteria were used to determine which respondents to omit from these analyses.

1. Complete Data. The Web software that presents the 22 core items monitors whether a given user has completed all items. On each of these items, in order to submit the survey successfully, users must provide a rating of (a) minimally-acceptable service, (b) desired service, and (c) perceived service or rate the item "not applicable" ("N/A"). If these conditions are not met, when the user attempts to leave the Web page presenting the 22 core items, the software shows the user where missing data are located, and requests complete data. The user may of course abandon the survey without completing all the items. *Only records with complete data on the 22 items and where respondents chose a "user group," if applicable, were retained in summary statistics.*

2. Excessive "N/A" Responses. Because some institutions provided access to a lottery drawing for an incentive (e.g., a iPod) for completing the survey, some users might have selected "N/A" choices for all or most of the items rather than reporting their actual perceptions. Or, some users may have views on such a narrow range of quality issues that their data are not very informative. *In this survey it was decided that records containing more than 11 "N/A" responses should be eliminated from the summary statistics.*

3. Excessive Inconsistent Responses. On the LibQUAL+® survey, user perceptions can be interpreted by locating "perceived" results within the "zone of tolerance" defined by data from the "minimum" and the "desired" ratings. For example, a mean "perceived" rating of 7.5 on the 1-to-9 (9 is highest) scale might be very good if the mean "desired" rating is 6.0. But a 7.5 perception score is less satisfactory if the mean "desired" rating is 8.6, or if the mean "minimum" rating is 7.7.

One appealing feature of such a "gap measurement model" is that the rating format provides a check for inconsistencies (i.e., score inversions) in the response data (Thompson, Cook & Heath, 2000). Logically, on a given item the "minimum" rating should not be higher than the "desired" rating on the same item. For each user a count of such inconsistencies, ranging from "0" to "22," was made. *Records containing more than 9 logical inconsistencies were eliminated from the summary statistics.*

LibQUAL+® Norms

An important way to interpret LibQUAL+® data is by examining the zones of tolerance for items, the three subscale scores, and the total scores. However, the collection of such a huge number of user perceptions has afforded us with the unique opportunity to create norms tables that provide yet another perspective on results.

Norms tell us how scores "stack up" within a particular user group. For example, on the 1-to-9 (9 is highest) scale, users might provide a mean "perceived" rating of 6.5 on an item, "the printed library materials I need for my work." The same users might provide a mean rating on "minimum" for this item of 7.0, and a mean service-adequacy "gap score" (i.e., "perceived" minus "minimum") of -0.5.

The zone-of-tolerance perspective suggests that this library is not doing well on this item, because "perceived" falls below "minimally acceptable." This is important to know. But there is also a second way (i.e., normatively) to interpret the data. Both perspectives can be valuable.

A total market survey administered to more than 100,000 users, as was LibQUAL+® in 2004 and 2005, affords the

opportunity to ask normative questions such as, "How does a mean 'perceived' score of 6.5 stack up among all individual users who completed the survey?", or "How does a mean service-adequacy gap score of -0.5 stack up among the gap scores of all institutions participating in the survey?"

If 70 percent of individual users generated "perceived" ratings lower than 6.5, 6.5 might not be so bad. And if 90 percent of institutions had service-adequacy gap scores lower than -0.5 (e.g., -0.7, -1.1), a mean gap score of -0.5 might actually be quite good. Users simply may have quite high expectations in this area. They may also communicate their dissatisfaction by rating both (a) "perceived" lower and (b) "minimum" higher.

This does not mean that a service-adequacy gap score of -0.5 is necessarily a cause for celebration. But a service-adequacy gap score of -0.5 on an item for which 90 percent of institutions have a lower gap score is a different gap score than the same -0.5 for a different item in which 90 percent of institutions have a higher service-adequacy gap score.

Only norms give us insight into this comparative perspective. And a local user-satisfaction survey (as against a total market survey) can never provide this insight.

Common Misconception Regarding Norms. An unfortunate and incorrect misconception is that norms make value statements. Norms do not make value statements! Norms make fact statements. If you are a forest ranger, and you make $25,000 a year, a norms table might inform you of the fact that you make less money than 85 percent of the adults in the United States.

But if you love the outdoors, you do not care very much about money, and you are very service-oriented, this fact statement might not be relevant to you. Or, in the context of your values, you might interpret this fact as being quite satisfactory.

LibQUAL+® Norms Tables. Of course, the fact statements made by the LibQUAL+® norms are only valuable if you care about the dimensions being evaluated by the measure. More background on LibQUAL+® norms is provided by Cook and Thompson (2001), and Cook, Heath and B. Thompson (2002). We do not publish norms on an annual basis any more as research indicates a remarkable stability of norms over time (see Thompson, Cook and Kyrillidou, 2005). LibQUAL+® norms for earlier years are available on the Web at the following URLs:

<http://www.coe.tamu.edu/~bthompson/libq2005.htm>
<http://www.coe.tamu.edu/~bthompson/libq2004.htm>

Response Rates

At the American Library Association (ALA) Midwinter Meeting in San Antonio in January 2000, participants were cautioned that response rates on the final LibQUAL+® survey would probably range from 25-33 percent. Higher response rates can be realized (a) with shorter surveys that (b) are directly action-oriented (Cook, Heath & R.L. Thompson, 2000). For example, a very high response rate could be realized by a library director administering the following one-item survey to users:

> Instructions. Please tell us what time to close the library every day. In the future **we will close at whatever time receives the most votes**.
>
> Should we close the library at?

(A) 10 p.m. (B) 11 p.m. (C) midnight (D) 2 p.m.

Lower response rates will be expected for total market surveys measuring general perceptions of users across institutions, and when an intentional effort is made to solicit perceptions of both users and non-users. Two considerations should govern the evaluation of LibQUAL+® response rates.

Minimum Response Rates. Response rates are computed by dividing the number of completed surveys at an institution by the number of persons asked to complete the survey. However, we do not know the actual response rates on LibQUAL+®, because we do not know the correct denominators for these calculations.

For example, given inadequacy in records at schools, we are not sure how many e-mail addresses for users are accurate. And we do not know how many messages to invite participation were actually opened. In other words, what we know for LibQUAL+® is the "lower-bound estimate" of response rates.

For example, if 200 out of 800 solicitations result in completed surveys, we know that the response rate is at least 25 percent. But because we are not sure whether 800 e-mail addresses were correct or that 800 e-mail messages were opened, we are not sure that 800 is the correct denominator. The response rate involving only correct e-mail addresses might be 35 or 45 percent. We don't know the exact response rate.

Representativeness Versus Response Rate. If 100 percent of the 800 people we randomly selected to complete our survey did so, then we can be assured that the results are representative of all users. But if only 25 percent of the 800 users complete the survey, the representativeness of the results is not assured. Nor is unrepresentativeness assured.

Representativeness is actually a matter of degree. And several institutions each with 25 percent response rates may have data with different degrees of representativeness.

We can never be sure about how representative our data are as long as not everyone completes the survey. But we can at least address this concern by comparing the demographic profiles of survey completers with the population (Thompson, 2000). At which university below would one feel more confident that LibQUAL+® results were reasonably representative?

Alpha University

Completers (n=200 / 800)	Population (N=16,000)
Gender	Gender
Students 53% female	Students 51% female
Faculty 45% female	Faculty 41% female
Disciplines	Disciplines
Liberal Arts 40%	Liberal Arts 35%
Science 15%	Science 20%
Other 45%	Other 45%

Omega University

Completers (n=200 / 800)	Population (N=23,000)
Gender	Gender
Students 35% female	Students 59% female
Faculty 65% female	Faculty 43% female
Disciplines	Disciplines
Liberal Arts 40%	Liberal Arts 15%
Science 20%	Science 35%
Other 40%	Other 50%

The persuasiveness of such analyses is greater as the number of variables used in the comparisons is greater. The LibQUAL+® software has been expanded to automate these comparisons and to output side-by-side graphs and tables comparing sample and population profiles for given institutions. Show these to people who question result representativeness.

However, one caution is in order regarding percentages. When total n is small for an institution, or within a particular subgroup, huge changes in percentages can result from very small shifts in numbers.

LibQUAL+® Interactive Statistics

In addition to the institution and group notebooks and the norms, LibQUAL+® had provided an experimental interactive environment for data analysis where institutions could mine institutional data for peer comparisons in 2003 and 2004. The LibQUAL+® Interactive Statistics for these years includes graphing capabilities for all LibQUAL+® scores (total and dimension scores) for each individual institution or groups of institutions. Graphs may be generated in either JPEG format for presentation purposes or flash format that includes more detailed information for online browsing. Tables may also be produced in an interactive fashion for one or multiple selections of variables for all individual institutions or groups of participating institutions. **Our goal is to integrate this capability into the LibQUAL+® Analytics.**

LibQUAL+® Analytics

The LibQUAL+® Analytics is a new tool that permits participants to dynamically create institution-specific tables and charts for different subgroups and across years. The current interface grants access to 2004 to the most current statistical data and has two sections:

(a) **Institution Explorer** includes a summary of all questions and dimension means for any combination of user groups and disciplines.

(b) **Longitudinal Analysis** allows participants to perform longitudinal comparisons of their data across survey years.

These two functionalities are only the beginning of our effort to provide more customized analysis. More features are in development based on feedback we receive from our participants.

Survey Data

In addition to the notebooks, the norms, the Interactive Statistics, and the Analytics, LibQUAL+® also makes available (a) raw survey data in SPSS at the request of participating libraries, (b) raw survey data in Excel for all participating libraries, and (c) survey comments that can be downloaded to Excel or text format from the Web site.. Additional training using the SPSS data file is available as a follow-up workshop and through the Service Quality Evaluation Academy (see below), which also offers training on analyzing qualitative data.

We continually analyze and publish findings from these data that highlight important aspects of the findings (see Thompson, Kyrillidou & Cook, 2008) as well as new communities and types of libraries that have joined the project (see Thompson, Kyrillidou & Cook, 2007).

ARL Service Quality Evaluation Academy

LibQUAL+® is an important tool in the New Measures toolbox that librarians can use to improve service quality. But, even more fundamentally, the LibQUAL+® initiative is more than a single tool. LibQUAL+® is an effort to

create a culture of data-driven service quality assessment and service quality improvement within libraries.

Such a culture must be informed by more than one tool, and by more than only one of the 11 ways of listening to users. To facilitate a culture of service quality assessment, and to facilitate more informed usage of LibQUAL+® data, the Association of Research Libraries has created the ARL Service Quality Evaluation Academy. For more information about the Academy, see the LibQUAL+® events page at

<http://www.libqual.org/Events/index.cfm>

The intensive, five-day Academy teaches both qualitative and quantitative skills that library staff can use to evaluate and generate service-quality assessment information. The Academy is one more resource for library staff who would like to develop enhanced service-quality assessment skills.

For more information, about LibQUAL+® or the Association of Research Libraries' Statistics and Measurement program, see:

<http://www.libqual.org/>
<http://www.statsqual.org/>
<http://www.arl.org/stats/>

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1.7 Library Statistics for OHSU

The statistical data below were provided by the participating institution in the online Representativeness* section. Definitions for these items can be found in the *ARL Statistics*: <http://www.arl.org/stats/>.

Note: Participating institutions were not required to complete the Representativeness section. When statistical data is missing or incomplete, it is because this data was not provided.

Volumes held June 30, 2007:	**282,214**
Volumes added during year - Gross:	**0**
Total number of current serials received:	**2,954**
Total library expenditures (in USD):	**$2,508,294**
Personnel - professional staff, FTE:	**17**
Personnel - support staff, FTE:	**22**

1.8 Contact Information for OHSU

The person below served as the institution's primary LibQUAL+® liaison during this survey implementation.

Name:	**Ms. Janet A. Crum**
Title:	**Head, Collection Management & Systems**
Address:	**OHSU Library, LIB** **3181 SW Sam Jackson Park Road** **Portland, OR 97239** **USA**
Phone:	**503-494-0691**
Email:	**crumj@ohsu.edu**

2 Demographic Summary for OHSU

2.1 Respondents by User Group

User Group	Respondent n	Respondent %
Undergraduate		
First year	16	2.19%
Second year	16	2.19%
Third year	21	2.88%
Fourth year	17	2.33%
Fifth year and above	11	1.51%
Non-degree	12	1.64%
Sub Total:	93	12.74%
Graduate		
Masters	42	5.75%
Doctoral	110	15.07%
Non-degree or Undecided	6	0.82%
Sub Total:	158	21.64%
Faculty		
Adjunct Faculty	16	2.19%
Assistant Professor	43	5.89%
Associate Professor	22	3.01%
Lecturer	4	0.55%
Professor	25	3.42%
Other Academic Status	32	4.38%
Sub Total:	142	19.45%
Library Staff		
Administrator	0	0.00%
Manager, Head of Unit	1	0.14%
Public Services	4	0.55%
Systems	0	0.00%
Technical Services	0	0.00%
Other	2	0.27%
Sub Total:	7	0.96%
Staff		
Administrator/Manager	44	6.03%
Basic Science Staff (non-faculty)	55	7.53%
Clerical Staff (non-exempt)	22	3.01%
Clinical Staff (non-faculty)	47	6.44%
Resident, Fellow, or Intern	31	4.25%
Technical Support Staff	39	5.34%
Other staff positions	92	12.60%
Sub Total:	330	45.21%
Total:	**730**	**100.00%**

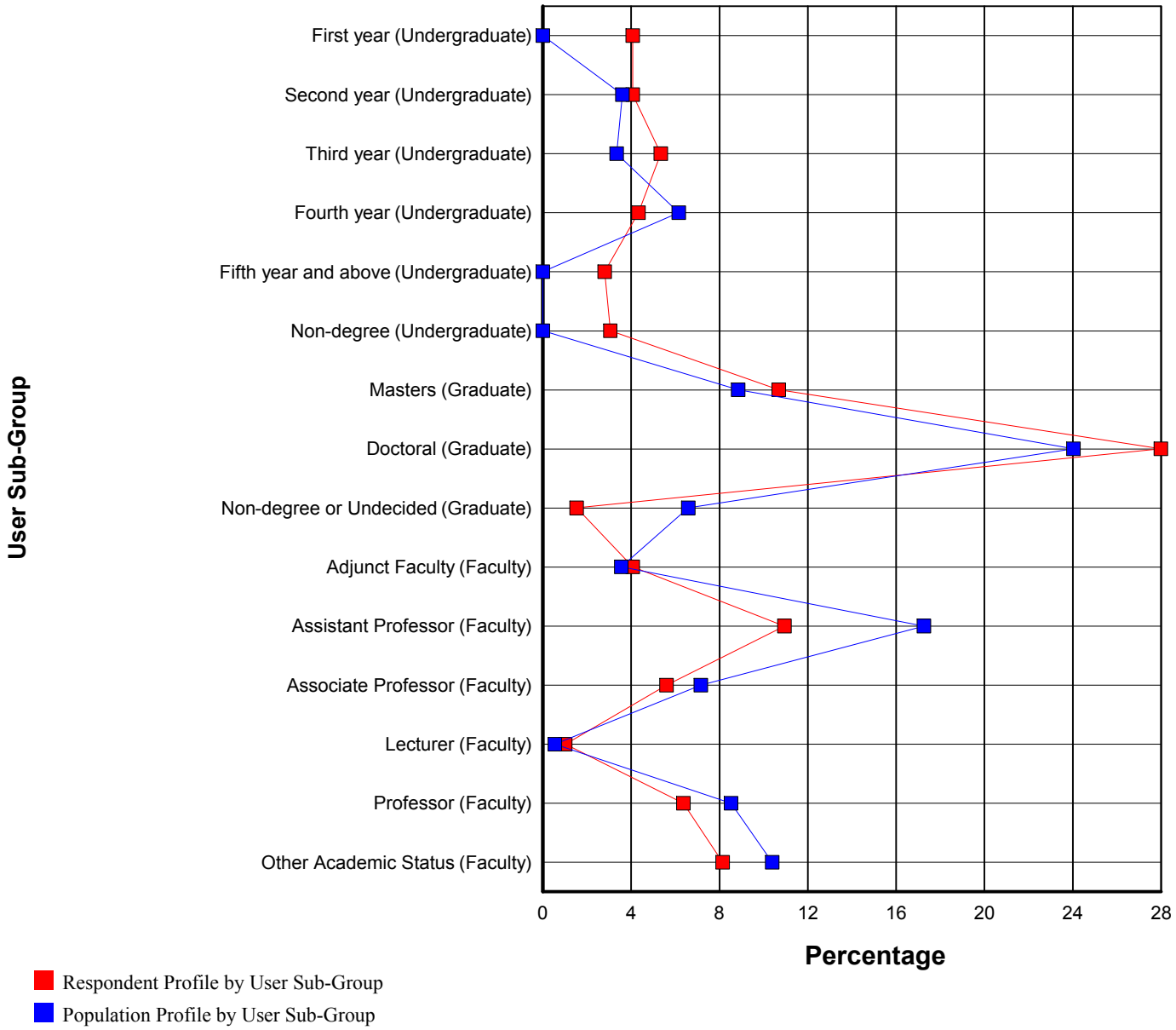
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: All

2.2 Population and Respondents by User Sub-Group

The chart and table below show a breakdown of survey respondents by sub-group (e.g. First year, Masters, Professor), based on user responses to the demographic questions at the end of the survey instrument and the demographic data provided by institutions in the online Representativeness section*.

The chart maps the percentage of respondents for each user subgroup in red. Population percentages for each user subgroup are mapped in blue. The table shows the number and percentage for each user sub-group for the general population (N) and for survey respondents (n).

**Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.*



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff, Staff)

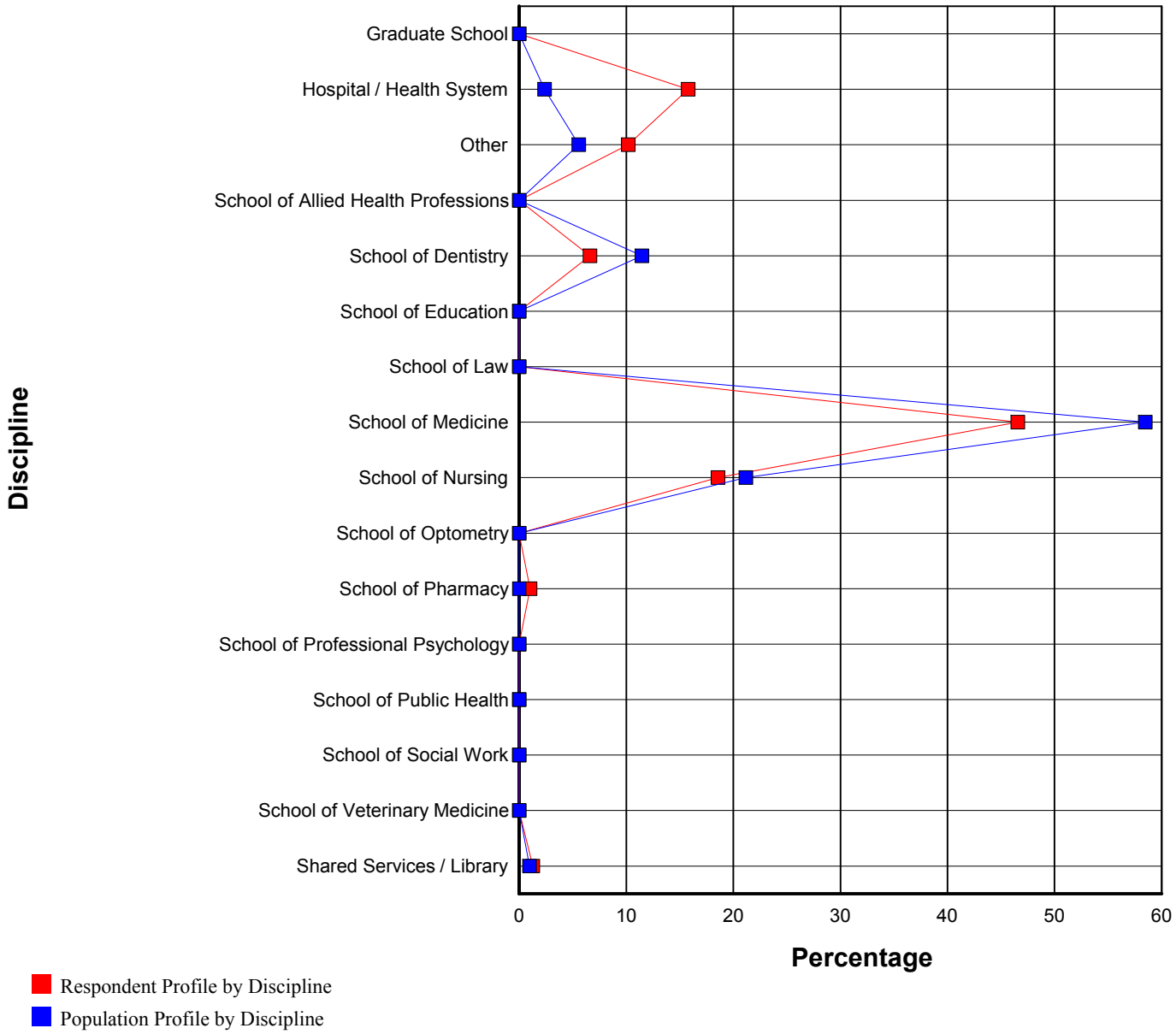
User Sub-Group	Population N	Population %	Respondents n	Respondents %	%N - %n
First year (Undergraduate)	0	0.00%	16	4.07%	-4.07%
Second year (Undergraduate)	166	3.60%	16	4.07%	-0.47%
Third year (Undergraduate)	154	3.34%	21	5.34%	-2.00%
Fourth year (Undergraduate)	284	6.16%	17	4.33%	1.83%
Fifth year and above (Undergraduate)	0	0.00%	11	2.80%	-2.80%
Non-degree (Undergraduate)	0	0.00%	12	3.05%	-3.05%
Masters (Graduate)	408	8.85%	42	10.69%	-1.84%
Doctoral (Graduate)	1,108	24.03%	110	27.99%	-3.96%
Non-degree or Undecided (Graduate)	304	6.59%	6	1.53%	5.07%
Adjunct Faculty (Faculty)	164	3.56%	16	4.07%	-0.51%
Assistant Professor (Faculty)	796	17.26%	43	10.94%	6.32%
Associate Professor (Faculty)	330	7.16%	22	5.60%	1.56%
Lecturer (Faculty)	25	0.54%	4	1.02%	-0.48%
Professor (Faculty)	393	8.52%	25	6.36%	2.16%
Other Academic Status (Faculty)	479	10.39%	32	8.14%	2.25%
Total:	**4,611**	**100.00%**	**393**	**100.00%**	**0.00%**

2.3 Population and Respondents by Standard Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).

**Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.*



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff, Staff)

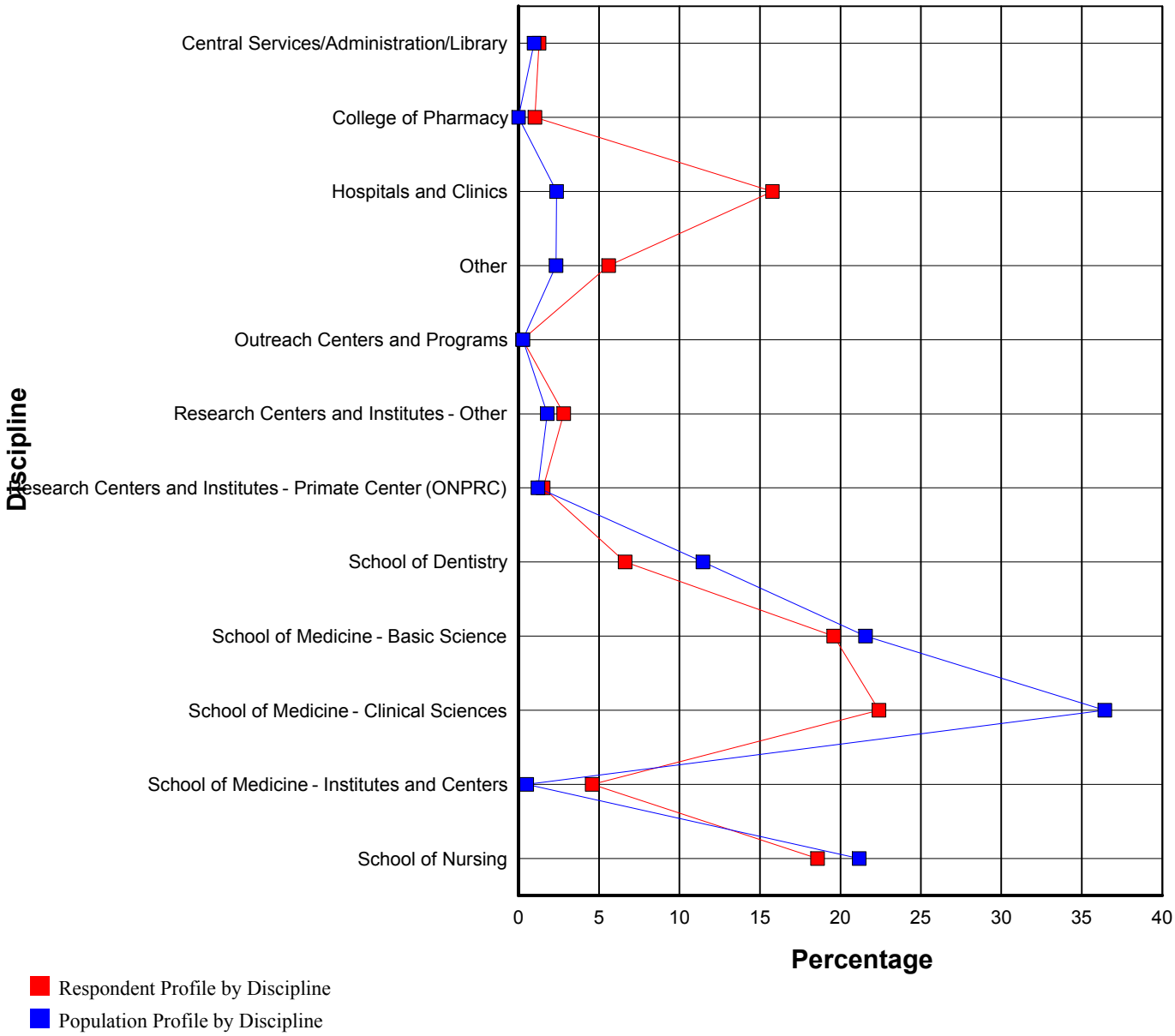
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Graduate School	0	0.00%	0	0.00%	0.00%
Hospital / Health System	109	2.37%	62	15.78%	-13.41%
Other	256	5.56%	40	10.18%	-4.61%
School of Allied Health Professions	0	0.00%	0	0.00%	0.00%
School of Dentistry	527	11.45%	26	6.62%	4.84%
School of Education	0	0.00%	0	0.00%	0.00%
School of Law	0	0.00%	0	0.00%	0.00%
School of Medicine	2,691	58.49%	183	46.56%	11.92%
School of Nursing	974	21.17%	73	18.58%	2.59%
School of Optometry	0	0.00%	0	0.00%	0.00%
School of Pharmacy	0	0.00%	4	1.02%	-1.02%
School of Professional Psychology	0	0.00%	0	0.00%	0.00%
School of Public Health	0	0.00%	0	0.00%	0.00%
School of Social Work	0	0.00%	0	0.00%	0.00%
School of Veterinary Medicine	0	0.00%	0	0.00%	0.00%
Shared Services / Library	44	0.96%	5	1.27%	-0.32%
Total:	**4,601**	**100.00%**	**393**	**100.00%**	**0.00%**

2.4 Population and Respondents by Customized Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*.

This section shows survey respondents broken down based on the customized discipline categories supplied by the participating library. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).

**Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.*



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff, Staff)

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Central Services/Administration/Library	44	0.96%	5	1.27%	-0.32%
College of Pharmacy	0	0.00%	4	1.02%	-1.02%
Hospitals and Clinics	109	2.37%	62	15.78%	-13.41%
Other	107	2.33%	22	5.60%	-3.27%
Outreach Centers and Programs	12	0.26%	1	0.25%	0.01%
Research Centers and Institutes - Other	82	1.78%	11	2.80%	-1.02%
Research Centers and Institutes - Primate Center (ONPRC)	55	1.20%	6	1.53%	-0.33%
School of Dentistry	527	11.45%	26	6.62%	4.84%
School of Medicine - Basic Science	992	21.56%	77	19.59%	1.97%
School of Medicine - Clinical Sciences	1,676	36.43%	88	22.39%	14.04%
School of Medicine - Institutes and Centers	23	0.50%	18	4.58%	-4.08%
School of Nursing	974	21.17%	73	18.58%	2.59%
Total:	**4,601**	**100.00%**	**393**	**100.00%**	**0.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: All (Excluding Library Staff, Staff)

2.5 Respondent Profile by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	24	3.32%
23 - 30	224	30.98%
31 - 45	270	37.34%
46 - 65	194	26.83%
Over 65	11	1.52%
Total:	**723**	**100.00%**

2.6 Population and Respondent Profiles by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

Sex	Population N	Population %	Respondents n	Respondents %
Male	2,125	46.09%	243	33.61%
Female	2,486	53.91%	480	66.39%
Total:	**4,611**	**100.00%**	**723**	**100.00%**

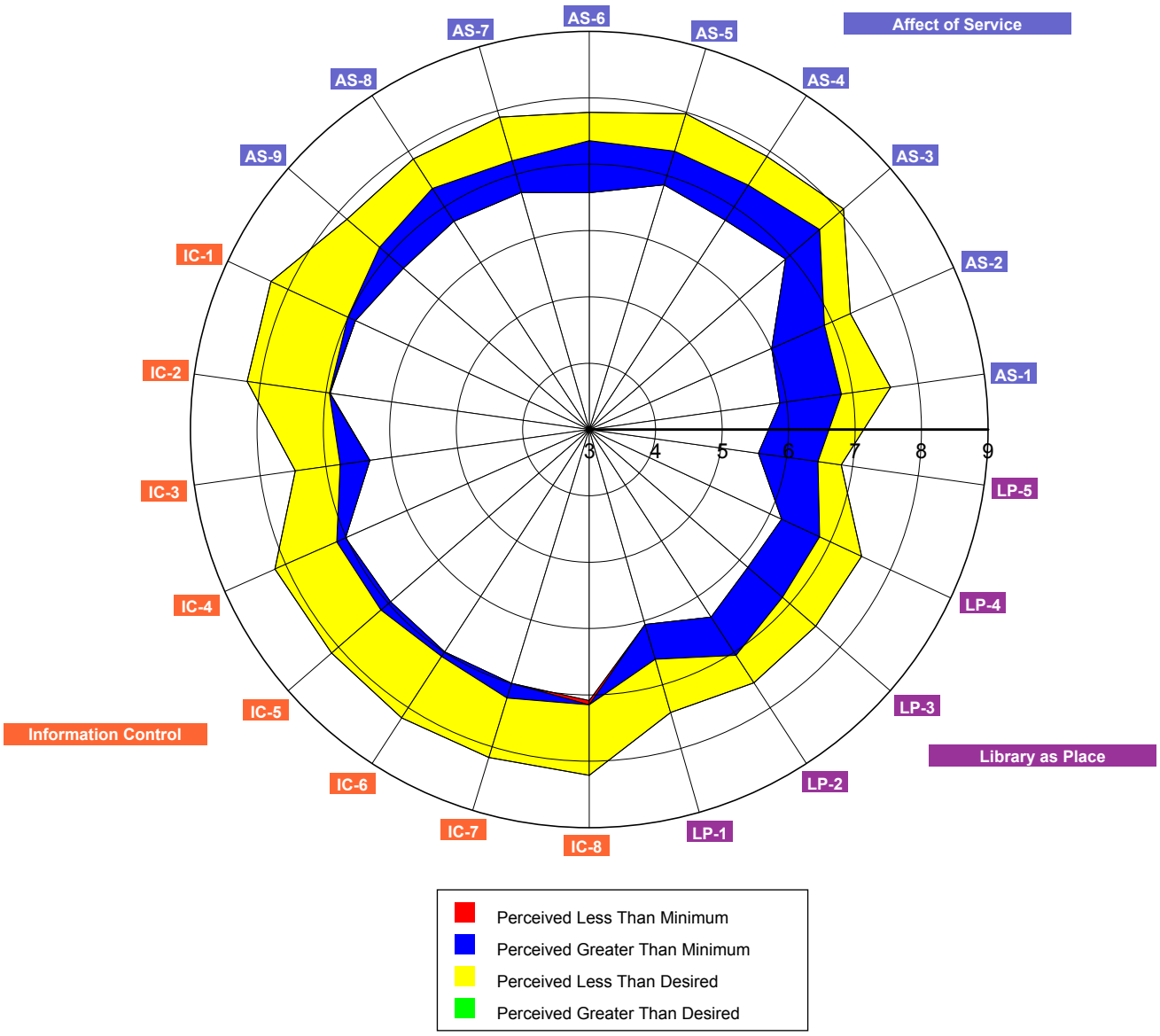
3 Survey Item Summary for OHSU

3.1 Core Questions Summary

This radar chart shows the aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Information Control, and Library as Place.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The following two tables show mean scores and standard deviations for each question, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff)

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	5.90	7.58	6.83	0.94	-0.75	672
AS-2	Giving users individual attention	6.01	7.30	6.87	0.87	-0.43	672
AS-3	Employees who are consistently courteous	6.92	8.07	7.59	0.68	-0.47	706
AS-4	Readiness to respond to users' questions	6.76	7.91	7.40	0.63	-0.51	691
AS-5	Employees who have the knowledge to answer user questions	6.86	7.98	7.39	0.53	-0.59	682
AS-6	Employees who deal with users in a caring fashion	6.57	7.78	7.35	0.79	-0.43	687
AS-7	Employees who understand the needs of their users	6.72	7.90	7.21	0.50	-0.68	676
AS-8	Willingness to help users	6.74	7.86	7.34	0.59	-0.52	692
AS-9	Dependability in handling users' service problems	6.71	7.83	7.18	0.48	-0.65	632
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.88	8.28	7.01	0.13	-1.27	694
IC-2	A library Web site enabling me to locate information on my own	6.95	8.20	6.93	-0.01	-1.26	705
IC-3	The printed library materials I need for my work	6.33	7.47	6.79	0.45	-0.68	587
IC-4	The electronic information resources I need	7.01	8.17	7.16	0.15	-1.01	705
IC-5	Modern equipment that lets me easily access needed information	6.96	8.13	7.15	0.19	-0.98	677
IC-6	Easy-to-use access tools that allow me to find things on my own	7.00	8.18	7.08	0.08	-1.10	703
IC-7	Making information easily accessible for independent use	7.00	8.17	7.23	0.23	-0.94	693
IC-8	Print and/or electronic journal collections I require for my work	7.15	8.21	7.09	-0.06	-1.12	638
Library as Place							
LP-1	Library space that inspires study and learning	6.06	7.44	6.60	0.54	-0.83	640
LP-2	Quiet space for individual activities	6.37	7.55	7.06	0.69	-0.49	621
LP-3	A comfortable and inviting location	6.17	7.52	6.85	0.69	-0.66	657
LP-4	A getaway for study, learning, or research	6.20	7.52	6.83	0.63	-0.70	637
LP-5	Community space for group learning and group study	5.57	6.83	6.48	0.90	-0.35	530
Overall:		6.61	7.84	7.09	0.48	-0.75	723

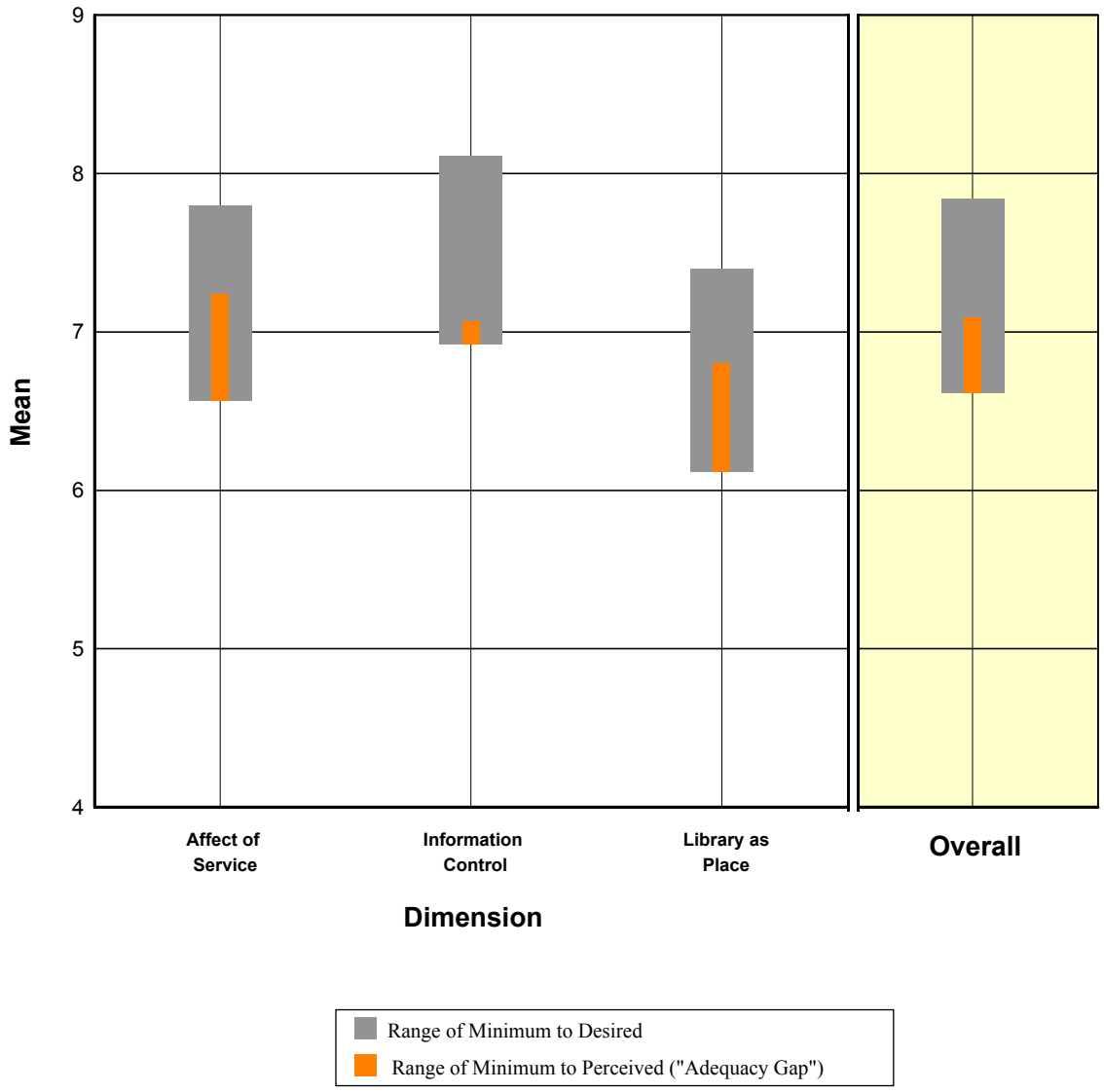
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: All (Excluding Library Staff)

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.82	1.53	1.55	1.81	1.50	672
AS-2	Giving users individual attention	1.93	1.71	1.67	1.86	1.61	672
AS-3	Employees who are consistently courteous	1.75	1.30	1.44	1.75	1.35	706
AS-4	Readiness to respond to users' questions	1.67	1.29	1.47	1.71	1.42	691
AS-5	Employees who have the knowledge to answer user questions	1.65	1.36	1.48	1.74	1.49	682
AS-6	Employees who deal with users in a caring fashion	1.76	1.39	1.39	1.63	1.31	687
AS-7	Employees who understand the needs of their users	1.71	1.35	1.44	1.76	1.49	676
AS-8	Willingness to help users	1.75	1.40	1.50	1.70	1.42	692
AS-9	Dependability in handling users' service problems	1.62	1.40	1.48	1.70	1.42	632
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.78	1.26	1.71	1.95	1.69	694
IC-2	A library Web site enabling me to locate information on my own	1.67	1.26	1.65	1.84	1.67	705
IC-3	The printed library materials I need for my work	1.88	1.69	1.65	1.82	1.70	587
IC-4	The electronic information resources I need	1.57	1.19	1.46	1.79	1.56	705
IC-5	Modern equipment that lets me easily access needed information	1.55	1.18	1.38	1.67	1.49	677
IC-6	Easy-to-use access tools that allow me to find things on my own	1.58	1.14	1.45	1.79	1.50	703
IC-7	Making information easily accessible for independent use	1.59	1.18	1.42	1.79	1.49	693
IC-8	Print and/or electronic journal collections I require for my work	1.65	1.27	1.57	1.85	1.66	638
Library as Place							
LP-1	Library space that inspires study and learning	2.06	1.84	1.86	2.17	2.08	640
LP-2	Quiet space for individual activities	2.02	1.80	1.73	2.04	1.95	621
LP-3	A comfortable and inviting location	1.92	1.65	1.72	2.00	1.89	657
LP-4	A getaway for study, learning, or research	2.00	1.78	1.66	1.91	1.78	637
LP-5	Community space for group learning and group study	2.05	2.06	1.73	2.01	2.00	530
Overall:		1.36	1.02	1.20	1.35	1.09	723

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: All (Excluding Library Staff)

3.2 Core Question Dimensions Summary

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff)

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.57	7.80	7.24	0.67	-0.56	722
Information Control	6.92	8.11	7.07	0.15	-1.04	723
Library as Place	6.12	7.40	6.80	0.68	-0.60	699
Overall:	6.61	7.84	7.09	0.48	-0.75	723

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where *n* is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.48	1.16	1.27	1.43	1.14	722
Information Control	1.37	0.99	1.25	1.45	1.21	723
Library as Place	1.75	1.53	1.50	1.69	1.58	699
Overall:	1.36	1.02	1.20	1.35	1.09	723

3.3 Local Questions Summary

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.61	7.77	6.86	0.25	-0.91	638
Employees teaching me how to access or manage information	6.26	7.53	6.91	0.65	-0.63	648
An environment that facilitates group study and problem solving	5.59	6.76	6.42	0.83	-0.34	543
Access to information resources that support patient care	6.97	7.92	7.22	0.24	-0.70	520
Electronic resources matching my information needs	6.96	8.17	7.11	0.15	-1.05	700

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.74	1.53	1.62	1.84	1.62	638
Employees teaching me how to access or manage information	1.88	1.71	1.71	1.96	1.81	648
An environment that facilitates group study and problem solving	2.13	2.15	1.81	1.99	1.96	543
Access to information resources that support patient care	1.79	1.56	1.49	1.71	1.58	520
Electronic resources matching my information needs	1.61	1.28	1.50	1.77	1.58	700

3.4 General Satisfaction Questions Summary

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.43	1.47	723
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.10	1.54	723
How would you rate the overall quality of the service provided by the library?	7.28	1.32	723

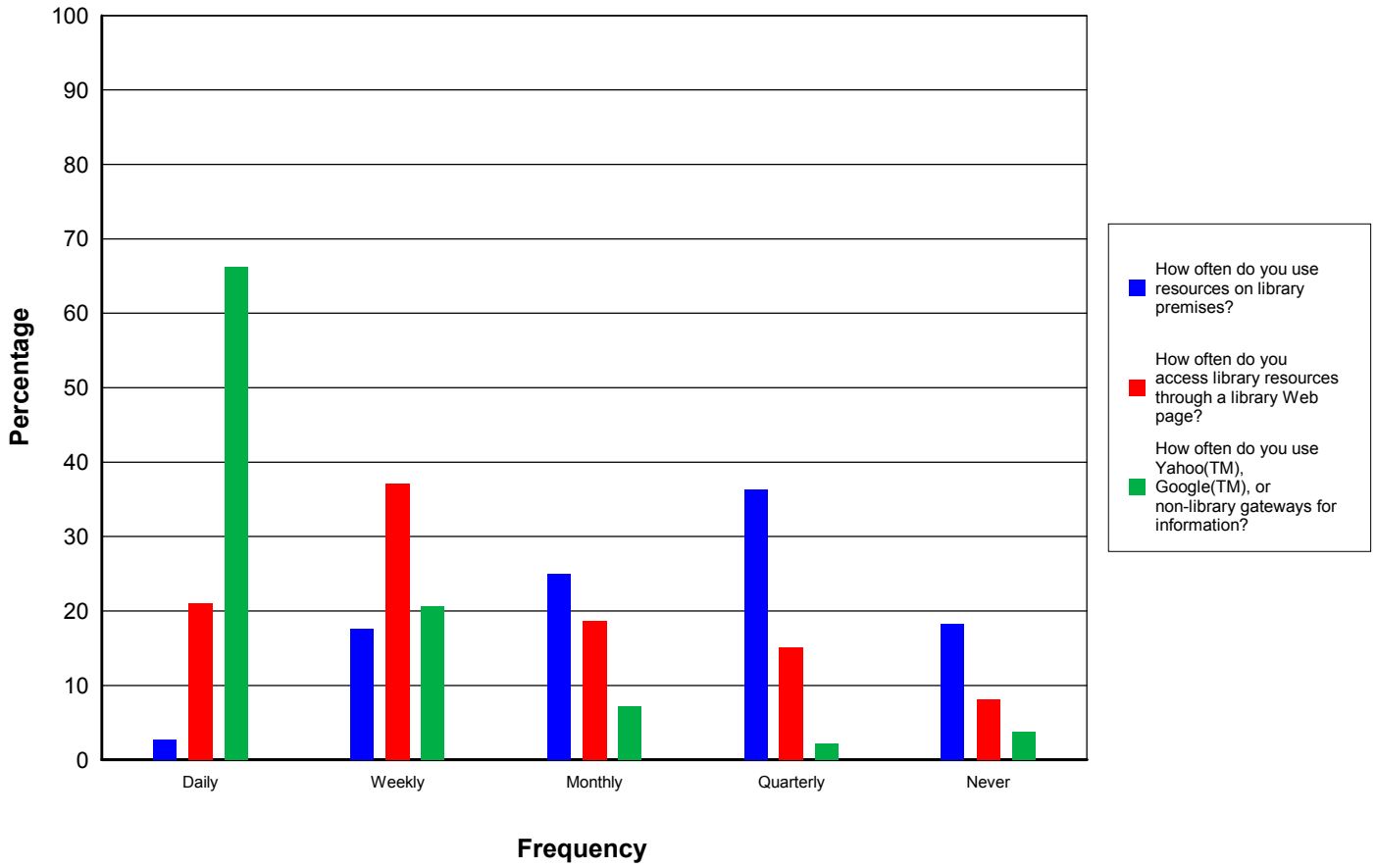
3.5 Information Literacy Outcomes Questions Summary

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.58	1.70	723
The library aids my advancement in my academic discipline or work.	6.90	1.65	723
The library enables me to be more efficient in my academic pursuits or work.	6.90	1.69	723
The library helps me distinguish between trustworthy and untrustworthy information.	6.01	1.90	723
The library provides me with the information skills I need in my work or study.	6.44	1.78	723

3.6 Library Use Summary

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	20 2.77%	127 17.57%	181 25.03%	263 36.38%	132 18.26%	**723** **100.00%**
How often do you access library resources through a library Web page?	152 21.02%	268 37.07%	135 18.67%	109 15.08%	59 8.16%	**723** **100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	479 66.25%	149 20.61%	52 7.19%	16 2.21%	27 3.73%	**723** **100.00%**

Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	All (Excluding Library Staff)

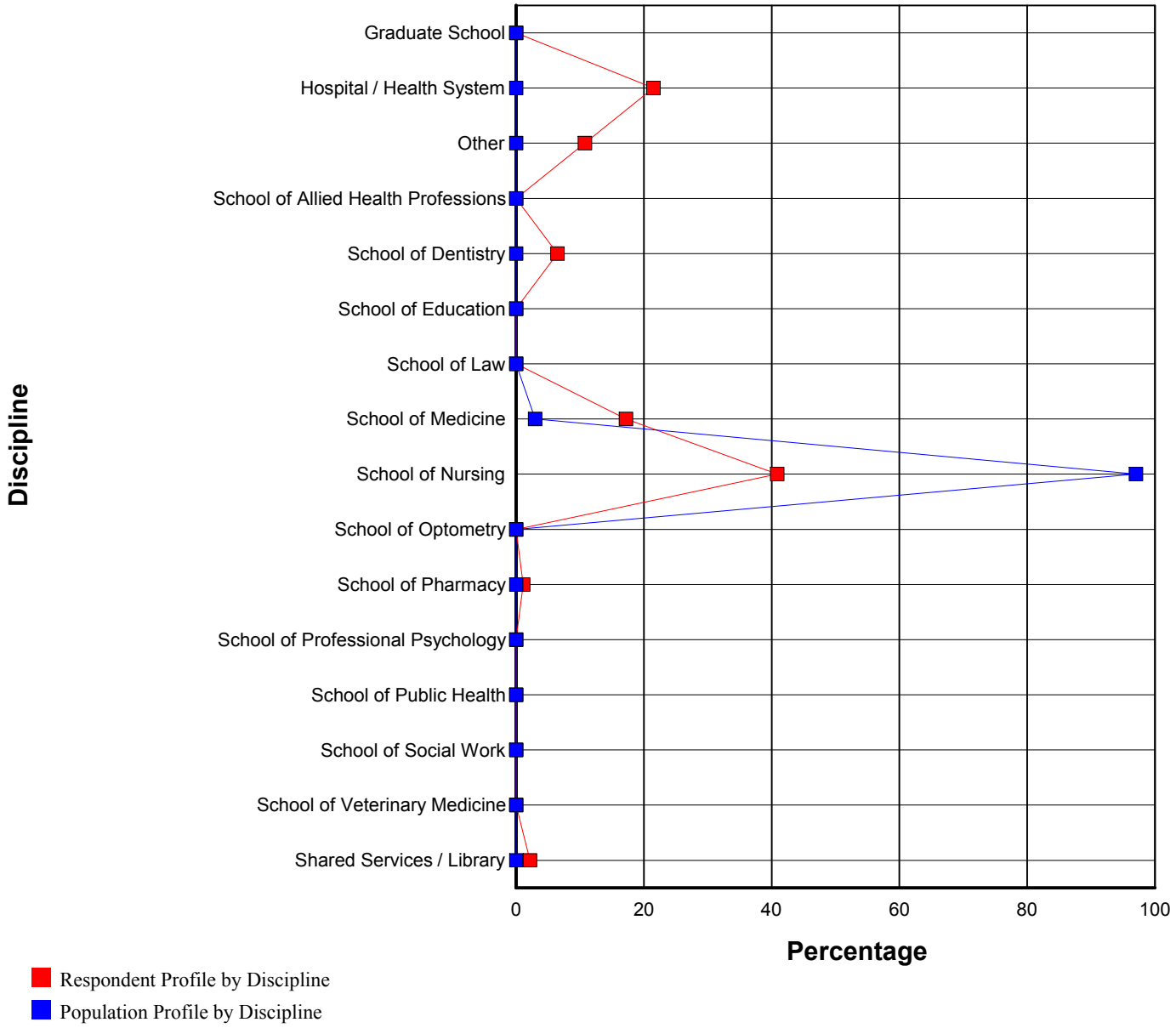
4 Undergraduate Summary

4.1 Demographic Summary for Undergraduate

4.1.1 Population and Respondent Profiles for Undergraduate by Standard Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Undergraduate

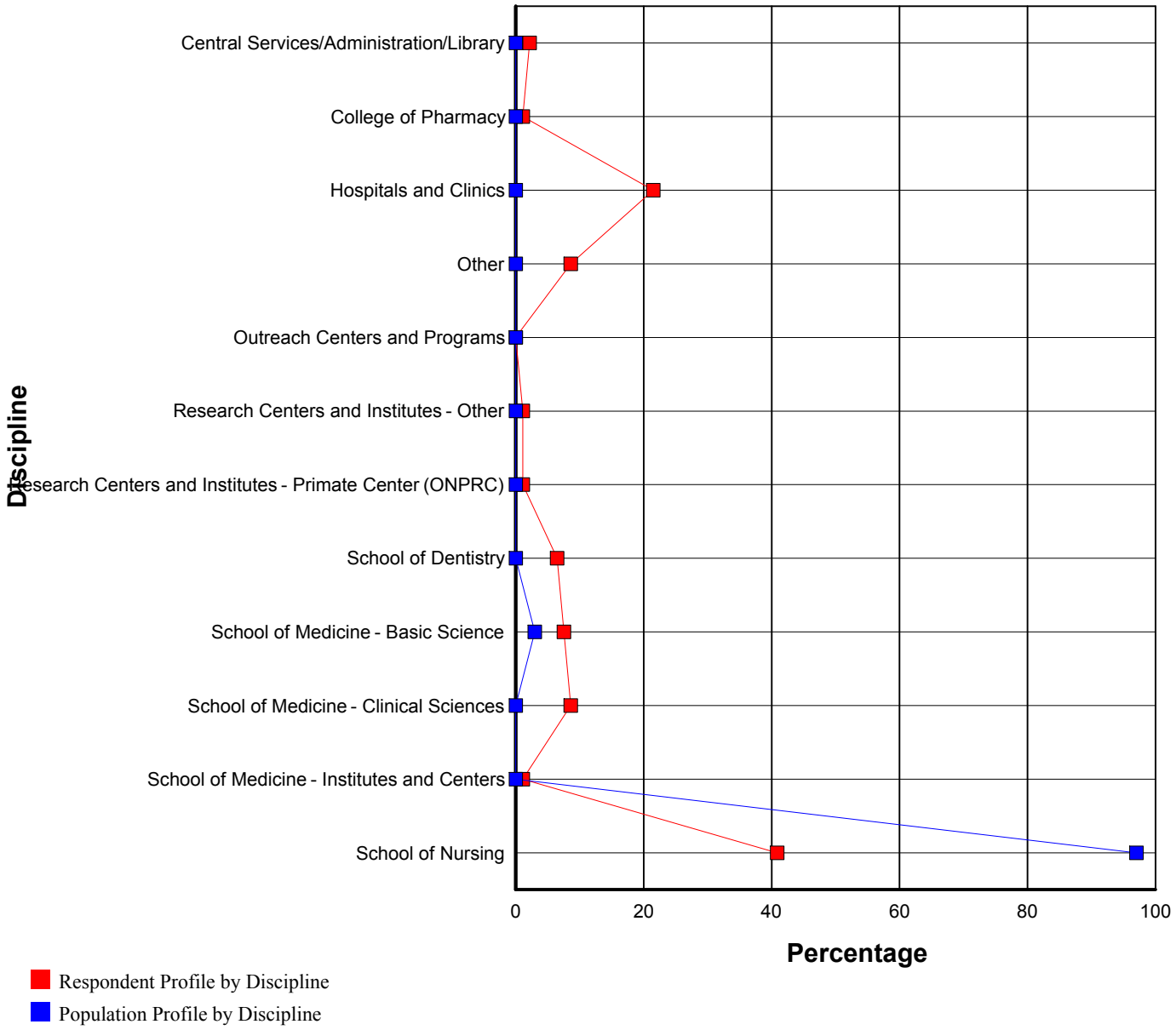
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Graduate School	0	0.00%	0	0.00%	0.00%
Hospital / Health System	0	0.00%	20	21.51%	-21.51%
Other	0	0.00%	10	10.75%	-10.75%
School of Allied Health Professions	0	0.00%	0	0.00%	0.00%
School of Dentistry	0	0.00%	6	6.45%	-6.45%
School of Education	0	0.00%	0	0.00%	0.00%
School of Law	0	0.00%	0	0.00%	0.00%
School of Medicine	18	2.98%	16	17.20%	-14.22%
School of Nursing	586	97.02%	38	40.86%	56.16%
School of Optometry	0	0.00%	0	0.00%	0.00%
School of Pharmacy	0	0.00%	1	1.08%	-1.08%
School of Professional Psychology	0	0.00%	0	0.00%	0.00%
School of Public Health	0	0.00%	0	0.00%	0.00%
School of Social Work	0	0.00%	0	0.00%	0.00%
School of Veterinary Medicine	0	0.00%	0	0.00%	0.00%
Shared Services / Library	0	0.00%	2	2.15%	-2.15%
Total:	**604**	**100.00%**	**93**	**100.00%**	**0.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Undergraduate

4.1.2 Population and Respondent Profiles for Undergraduate by Customized Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the customized discipline categories supplied by the participating library. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Undergraduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Central Services/Administration/Library	0	0.00%	2	2.15%	-2.15%
College of Pharmacy	0	0.00%	1	1.08%	-1.08%
Hospitals and Clinics	0	0.00%	20	21.51%	-21.51%
Other	0	0.00%	8	8.60%	-8.60%
Outreach Centers and Programs	0	0.00%	0	0.00%	0.00%
Research Centers and Institutes - Other	0	0.00%	1	1.08%	-1.08%
Research Centers and Institutes - Primate Center (ONPRC)	0	0.00%	1	1.08%	-1.08%
School of Dentistry	0	0.00%	6	6.45%	-6.45%
School of Medicine - Basic Science	18	2.98%	7	7.53%	-4.55%
School of Medicine - Clinical Sciences	0	0.00%	8	8.60%	-8.60%
School of Medicine - Institutes and Centers	0	0.00%	1	1.08%	-1.08%
School of Nursing	586	97.02%	38	40.86%	56.16%
Total:	**604**	**100.00%**	**93**	**100.00%**	**0.00%**

4.1.3 Respondent Profile for Undergraduate by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	11	11.83%
23 - 30	35	37.63%
31 - 45	29	31.18%
46 - 65	17	18.28%
Over 65	1	1.08%
Total:	**93**	**100.00%**

4.1.4 Population and Respondent Profiles for Undergraduate by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

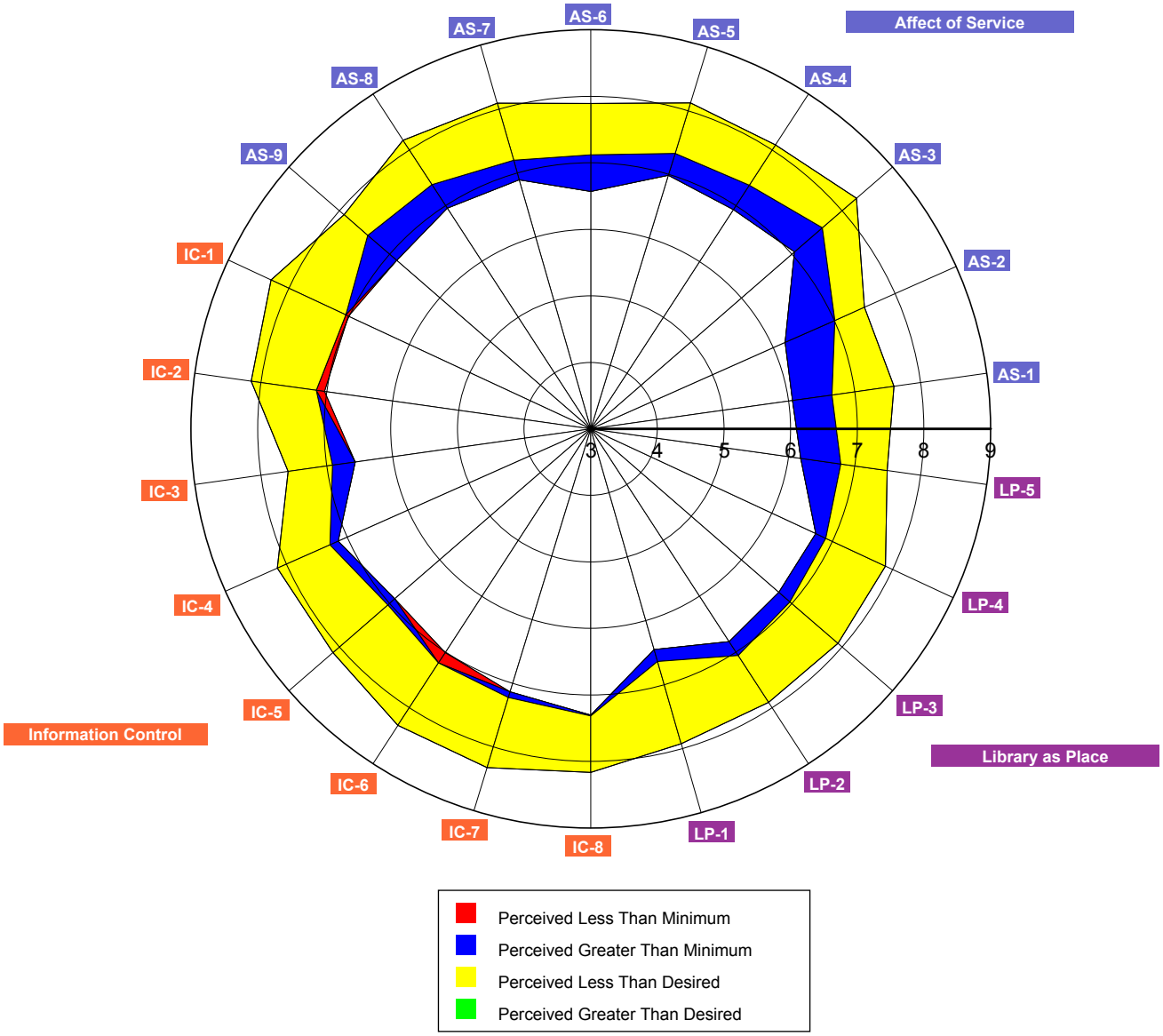
Sex	Population N	Population %	Respondents n	Respondents %
Male	92	15.23%	25	26.88%
Female	512	84.77%	68	73.12%
Total:	**604**	**100.00%**	**93**	**100.00%**

4.2 Core Questions Summary for Undergraduate

This radar chart shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Library as Place, and Information Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Undergraduate

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.06	7.60	6.66	0.60	-0.94	87
AS-2	Giving users individual attention	6.20	7.49	7.01	0.82	-0.48	87
AS-3	Employees who are consistently courteous	7.05	8.28	7.61	0.55	-0.67	92
AS-4	Readiness to respond to users' questions	6.93	8.09	7.37	0.44	-0.72	87
AS-5	Employees who have the knowledge to answer user questions	6.99	8.13	7.33	0.34	-0.80	88
AS-6	Employees who deal with users in a caring fashion	6.57	7.89	7.12	0.55	-0.77	91
AS-7	Employees who understand the needs of their users	6.89	8.09	7.20	0.31	-0.89	85
AS-8	Willingness to help users	6.96	8.17	7.38	0.42	-0.80	93
AS-9	Dependability in handling users' service problems	6.86	7.91	7.44	0.58	-0.47	85
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.06	8.30	7.01	-0.05	-1.28	88
IC-2	A library Web site enabling me to locate information on my own	7.16	8.15	7.03	-0.13	-1.11	88
IC-3	The printed library materials I need for my work	6.57	7.59	6.91	0.34	-0.67	70
IC-4	The electronic information resources I need	7.15	8.15	7.29	0.14	-0.86	87
IC-5	Modern equipment that lets me easily access needed information	6.90	8.13	7.03	0.14	-1.09	87
IC-6	Easy-to-use access tools that allow me to find things on my own	7.20	8.32	7.01	-0.18	-1.30	92
IC-7	Making information easily accessible for independent use	7.13	8.33	7.22	0.09	-1.10	89
IC-8	Print and/or electronic journal collections I require for my work	7.30	8.16	7.32	0.01	-0.85	79
Library as Place							
LP-1	Library space that inspires study and learning	6.45	7.93	6.64	0.19	-1.29	80
LP-2	Quiet space for individual activities	6.81	7.90	7.06	0.25	-0.84	81
LP-3	A comfortable and inviting location	6.74	7.91	6.96	0.22	-0.95	82
LP-4	A getaway for study, learning, or research	6.73	7.88	6.89	0.17	-0.99	84
LP-5	Community space for group learning and group study	6.18	7.49	6.79	0.61	-0.70	77
Overall:		6.84	8.02	7.14	0.30	-0.88	93

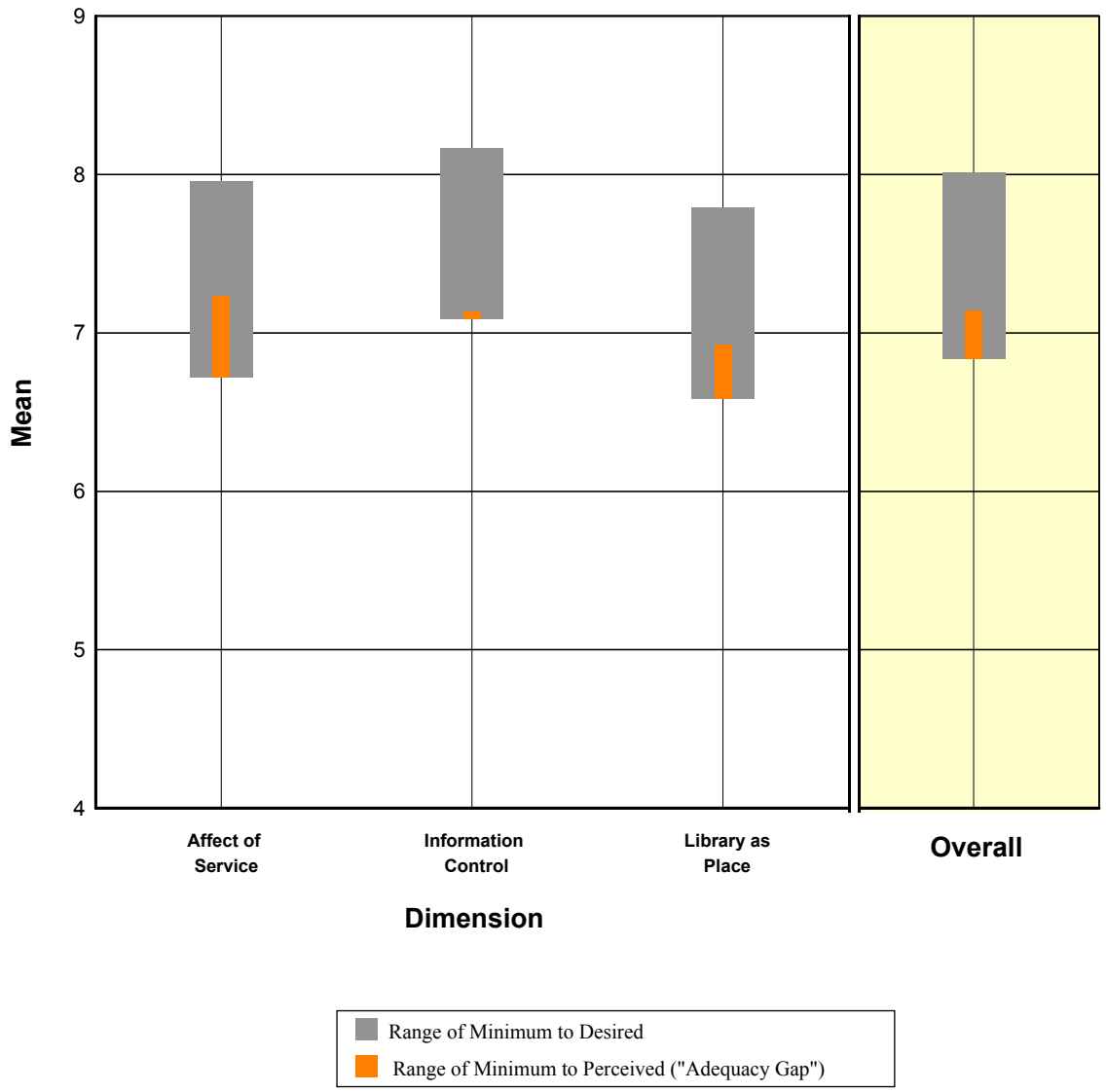
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Undergraduate

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.75	1.40	1.52	1.79	1.33	87
AS-2	Giving users individual attention	1.79	1.41	1.39	1.72	1.40	87
AS-3	Employees who are consistently courteous	1.64	1.02	1.36	1.82	1.42	92
AS-4	Readiness to respond to users' questions	1.66	1.12	1.40	1.80	1.56	87
AS-5	Employees who have the knowledge to answer user questions	1.64	1.24	1.53	1.67	1.55	88
AS-6	Employees who deal with users in a caring fashion	1.70	1.28	1.44	1.65	1.51	91
AS-7	Employees who understand the needs of their users	1.54	1.15	1.34	1.66	1.52	85
AS-8	Willingness to help users	1.64	1.11	1.52	1.78	1.66	93
AS-9	Dependability in handling users' service problems	1.64	1.30	1.32	1.47	1.24	85
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.72	1.17	1.73	2.02	1.73	88
IC-2	A library Web site enabling me to locate information on my own	1.67	1.43	1.60	1.71	1.58	88
IC-3	The printed library materials I need for my work	1.61	1.49	1.43	1.61	1.74	70
IC-4	The electronic information resources I need	1.41	1.12	1.49	1.77	1.62	87
IC-5	Modern equipment that lets me easily access needed information	1.58	1.23	1.51	1.59	1.72	87
IC-6	Easy-to-use access tools that allow me to find things on my own	1.43	1.06	1.54	1.78	1.60	92
IC-7	Making information easily accessible for independent use	1.54	1.01	1.40	1.72	1.56	89
IC-8	Print and/or electronic journal collections I require for my work	1.64	1.38	1.45	1.88	1.73	79
Library as Place							
LP-1	Library space that inspires study and learning	1.84	1.36	1.90	1.97	1.95	80
LP-2	Quiet space for individual activities	1.49	1.25	1.64	1.68	1.72	81
LP-3	A comfortable and inviting location	1.78	1.46	1.70	2.05	1.99	82
LP-4	A getaway for study, learning, or research	1.65	1.52	1.61	1.80	2.01	84
LP-5	Community space for group learning and group study	2.05	1.83	1.51	2.13	2.25	77
Overall:		1.31	0.95	1.15	1.26	1.15	93

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Undergraduate

4.3 Core Question Dimensions Summary for Undergraduate

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Undergraduate

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.72	7.96	7.23	0.51	-0.73	93
Information Control	7.09	8.17	7.14	0.05	-1.03	93
Library as Place	6.58	7.79	6.92	0.34	-0.87	87
Overall:	6.84	8.02	7.14	0.30	-0.88	93

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.41	0.92	1.18	1.35	1.11	93
Information Control	1.28	0.98	1.16	1.32	1.20	93
Library as Place	1.54	1.24	1.44	1.59	1.64	87
Overall:	1.31	0.95	1.15	1.26	1.15	93

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Undergraduate

4.4 Local Questions Summary for Undergraduate

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.99	8.10	7.06	0.07	-1.05	88
Employees teaching me how to access or manage information	6.69	7.89	6.99	0.30	-0.90	84
An environment that facilitates group study and problem solving	6.28	7.41	6.59	0.32	-0.82	76
Access to information resources that support patient care	7.19	8.00	7.56	0.37	-0.44	78
Electronic resources matching my information needs	7.04	8.12	7.18	0.13	-0.94	90

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.65	1.29	1.61	1.75	1.54	88
Employees teaching me how to access or manage information	1.61	1.38	1.53	1.83	1.71	84
An environment that facilitates group study and problem solving	1.98	1.83	1.83	2.23	2.23	76
Access to information resources that support patient care	1.75	1.67	1.38	1.82	1.86	78
Electronic resources matching my information needs	1.63	1.36	1.43	1.61	1.49	90

4.5 General Satisfaction Questions Summary for Undergraduate

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.34	1.35	93
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.04	1.47	93
How would you rate the overall quality of the service provided by the library?	7.33	1.14	93

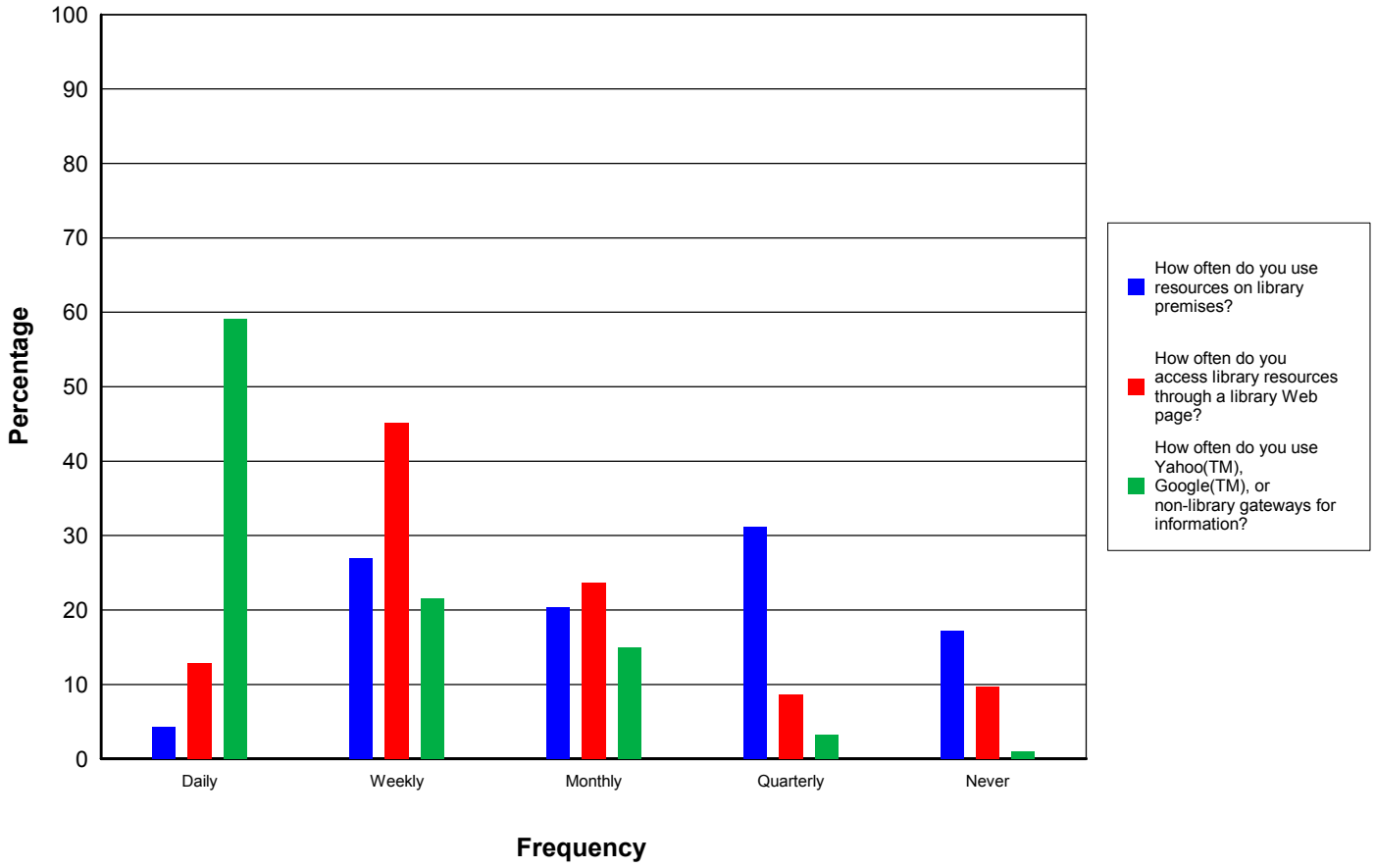
4.6 Information Literacy Outcomes Questions Summary for Undergraduate

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.66	1.49	93
The library aids my advancement in my academic discipline or work.	6.98	1.42	93
The library enables me to be more efficient in my academic pursuits or work.	6.87	1.60	93
The library helps me distinguish between trustworthy and untrustworthy information.	6.52	1.67	93
The library provides me with the information skills I need in my work or study.	6.70	1.49	93

4.7 Library Use Summary for Undergraduate

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	4 4.30%	25 26.88%	19 20.43%	29 31.18%	16 17.20%	**93** **100.00%**
How often do you access library resources through a library Web page?	12 12.90%	42 45.16%	22 23.66%	8 8.60%	9 9.68%	**93** **100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	55 59.14%	20 21.51%	14 15.05%	3 3.23%	1 1.08%	**93** **100.00%**

Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Undergraduate

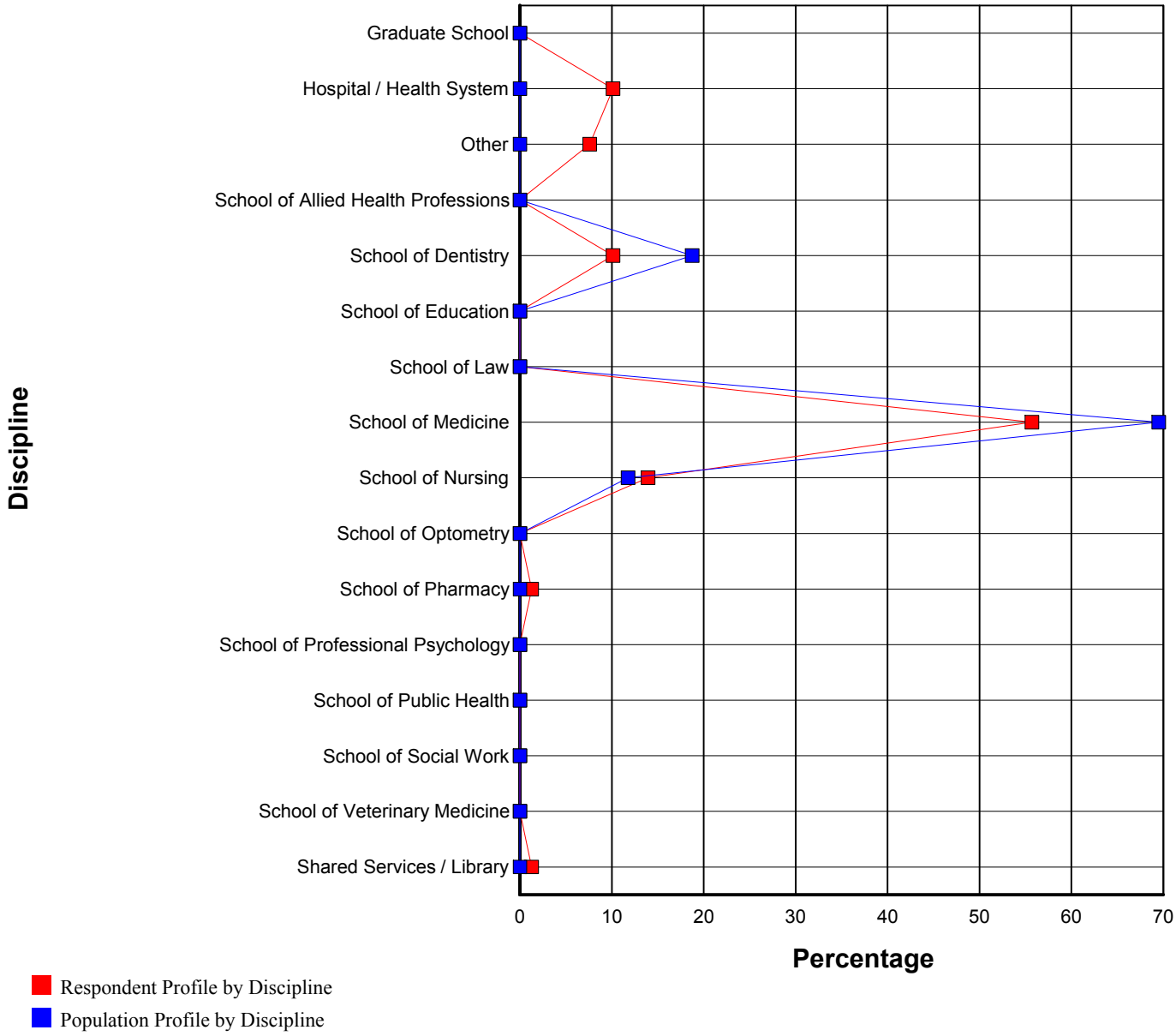
5 Graduate Summary

5.1 Demographic Summary for Graduate

5.1.1 Population and Respondent Profiles for Graduate by Standard Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



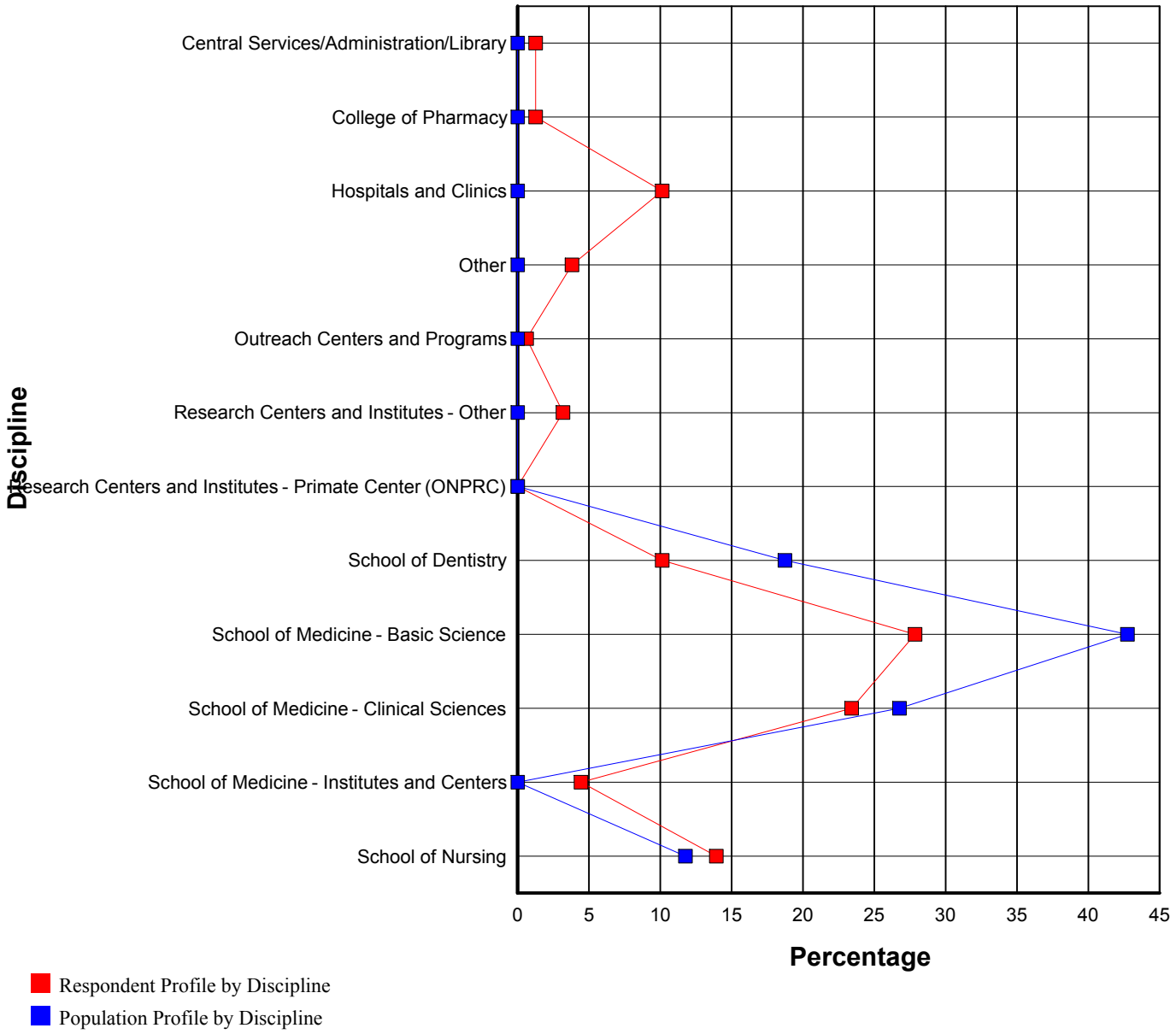
Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Graduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Graduate School	0	0.00%	0	0.00%	0.00%
Hospital / Health System	0	0.00%	16	10.13%	-10.13%
Other	0	0.00%	12	7.59%	-7.59%
School of Allied Health Professions	0	0.00%	0	0.00%	0.00%
School of Dentistry	341	18.74%	16	10.13%	8.61%
School of Education	0	0.00%	0	0.00%	0.00%
School of Law	0	0.00%	0	0.00%	0.00%
School of Medicine	1,265	69.51%	88	55.70%	13.81%
School of Nursing	214	11.76%	22	13.92%	-2.17%
School of Optometry	0	0.00%	0	0.00%	0.00%
School of Pharmacy	0	0.00%	2	1.27%	-1.27%
School of Professional Psychology	0	0.00%	0	0.00%	0.00%
School of Public Health	0	0.00%	0	0.00%	0.00%
School of Social Work	0	0.00%	0	0.00%	0.00%
School of Veterinary Medicine	0	0.00%	0	0.00%	0.00%
Shared Services / Library	0	0.00%	2	1.27%	-1.27%
Total:	**1,820**	**100.00%**	**158**	**100.00%**	**0.00%**

5.1.2 Population and Respondent Profiles for Graduate by Customized Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the customized discipline categories supplied by the participating library. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Graduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Central Services/Administration/Library	0	0.00%	2	1.27%	-1.27%
College of Pharmacy	0	0.00%	2	1.27%	-1.27%
Hospitals and Clinics	0	0.00%	16	10.13%	-10.13%
Other	0	0.00%	6	3.80%	-3.80%
Outreach Centers and Programs	0	0.00%	1	0.63%	-0.63%
Research Centers and Institutes - Other	0	0.00%	5	3.16%	-3.16%
Research Centers and Institutes - Primate Center (ONPRC)	0	0.00%	0	0.00%	0.00%
School of Dentistry	341	18.74%	16	10.13%	8.61%
School of Medicine - Basic Science	778	42.75%	44	27.85%	14.90%
School of Medicine - Clinical Sciences	487	26.76%	37	23.42%	3.34%
School of Medicine - Institutes and Centers	0	0.00%	7	4.43%	-4.43%
School of Nursing	214	11.76%	22	13.92%	-2.17%
Total:	**1,820**	**100.00%**	**158**	**100.00%**	**0.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Graduate

5.1.3 Respondent Profile for Graduate by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	3	1.90%
23 - 30	99	62.66%
31 - 45	43	27.22%
46 - 65	13	8.23%
Over 65	0	0.00%
Total:	**158**	**100.00%**

5.1.4 Population and Respondent Profiles for Graduate by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

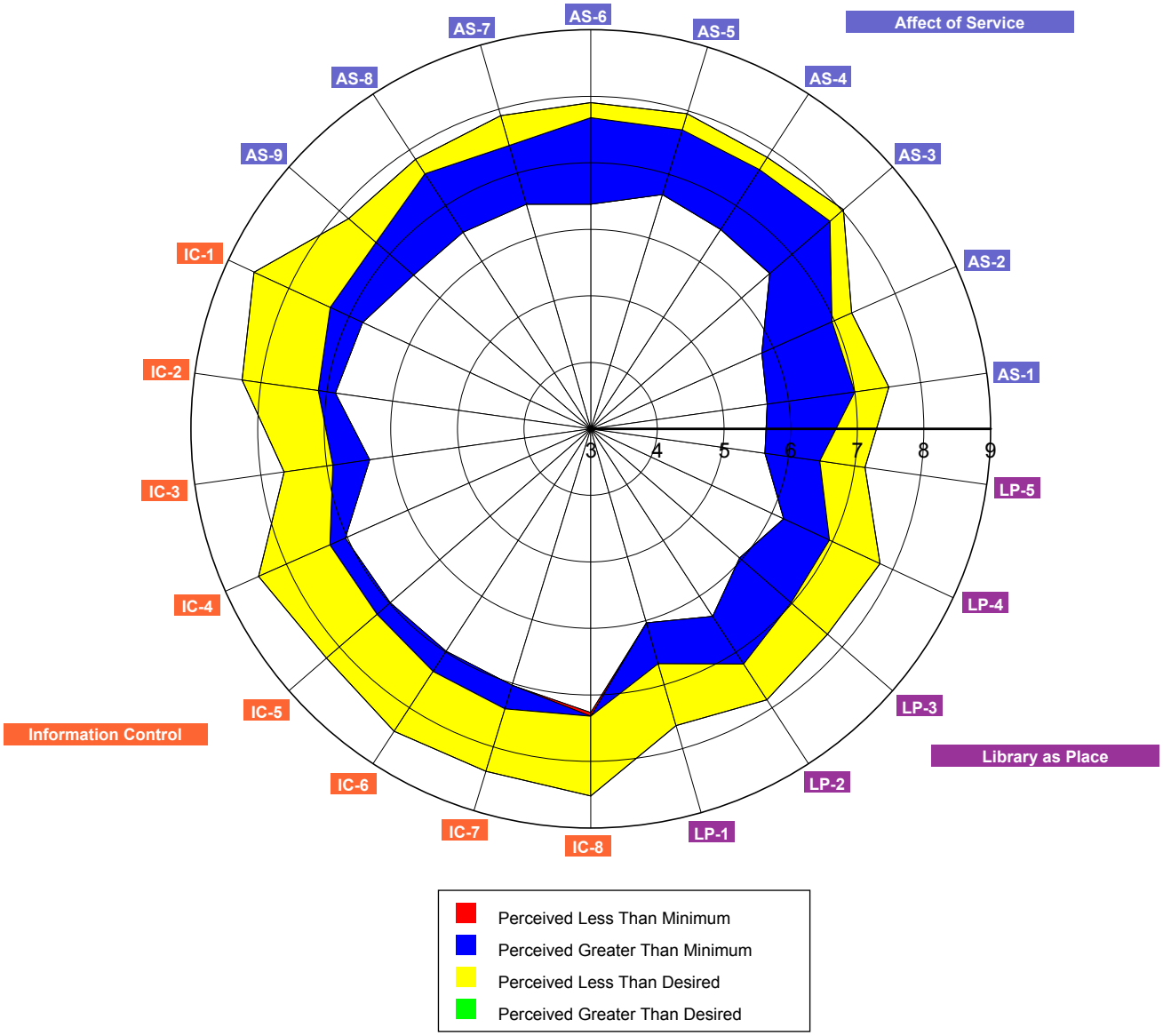
Sex	Population N	Population %	Respondents n	Respondents %
Male	850	46.70%	64	40.51%
Female	970	53.30%	94	59.49%
Total:	**1,820**	**100.00%**	**158**	**100.00%**

5.2 Core Questions Summary for Graduate

This radar chart shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Library as Place, and Information Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Graduate

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	5.67	7.52	7.00	1.33	-0.52	141
AS-2	Giving users individual attention	5.81	7.29	6.97	1.15	-0.32	143
AS-3	Employees who are consistently courteous	6.56	8.03	7.76	1.20	-0.26	155
AS-4	Readiness to respond to users' questions	6.58	7.87	7.65	1.07	-0.22	151
AS-5	Employees who have the knowledge to answer user questions	6.68	7.95	7.70	1.02	-0.25	148
AS-6	Employees who deal with users in a caring fashion	6.38	7.90	7.68	1.30	-0.23	146
AS-7	Employees who understand the needs of their users	6.51	7.90	7.43	0.92	-0.47	148
AS-8	Willingness to help users	6.53	7.83	7.57	1.05	-0.26	150
AS-9	Dependability in handling users' service problems	6.53	7.81	7.27	0.75	-0.54	135
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.78	8.57	7.32	0.54	-1.26	155
IC-2	A library Web site enabling me to locate information on my own	6.87	8.28	7.13	0.26	-1.15	156
IC-3	The printed library materials I need for my work	6.35	7.65	6.91	0.56	-0.74	122
IC-4	The electronic information resources I need	7.03	8.46	7.28	0.25	-1.17	155
IC-5	Modern equipment that lets me easily access needed information	6.99	8.26	7.25	0.26	-1.01	149
IC-6	Easy-to-use access tools that allow me to find things on my own	6.99	8.42	7.35	0.36	-1.07	155
IC-7	Making information easily accessible for independent use	7.03	8.38	7.40	0.37	-0.98	149
IC-8	Print and/or electronic journal collections I require for my work	7.32	8.52	7.27	-0.06	-1.25	143
Library as Place							
LP-1	Library space that inspires study and learning	6.03	7.64	6.68	0.64	-0.97	145
LP-2	Quiet space for individual activities	6.36	7.85	7.22	0.85	-0.64	144
LP-3	A comfortable and inviting location	5.96	7.71	6.99	1.03	-0.72	151
LP-4	A getaway for study, learning, or research	6.20	7.79	6.95	0.76	-0.84	148
LP-5	Community space for group learning and group study	5.64	7.16	6.47	0.83	-0.69	134
Overall:		6.51	7.95	7.24	0.73	-0.71	158

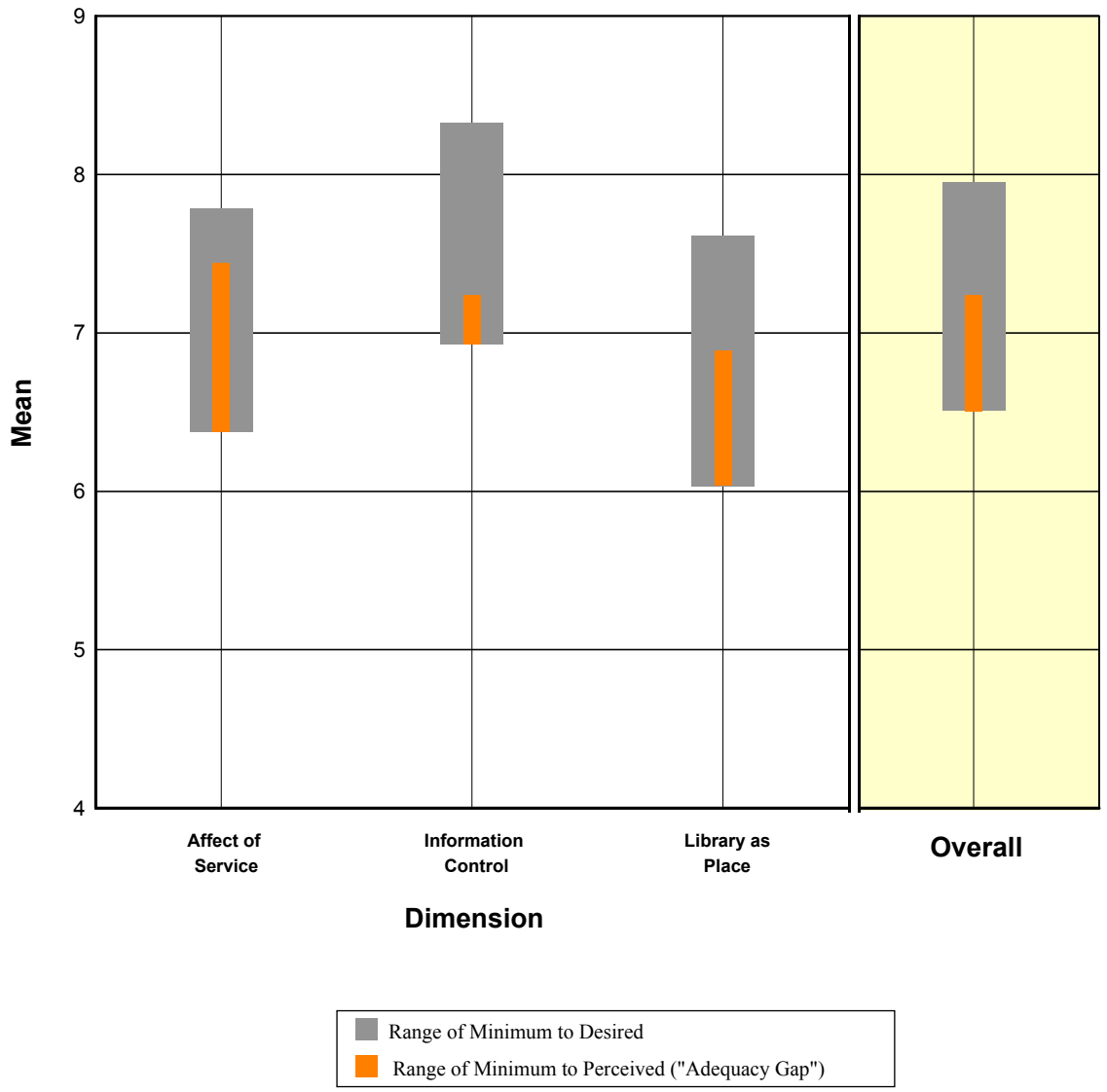
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Graduate

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.85	1.58	1.51	1.68	1.34	141
AS-2	Giving users individual attention	1.93	1.85	1.70	1.64	1.57	143
AS-3	Employees who are consistently courteous	1.89	1.40	1.50	1.71	1.17	155
AS-4	Readiness to respond to users' questions	1.77	1.36	1.47	1.67	1.23	151
AS-5	Employees who have the knowledge to answer user questions	1.79	1.47	1.28	1.79	1.42	148
AS-6	Employees who deal with users in a caring fashion	1.90	1.26	1.28	1.62	1.06	146
AS-7	Employees who understand the needs of their users	1.86	1.41	1.33	1.54	1.17	148
AS-8	Willingness to help users	1.91	1.51	1.39	1.58	1.08	150
AS-9	Dependability in handling users' service problems	1.71	1.39	1.51	1.88	1.42	135
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.71	1.00	1.60	1.82	1.55	155
IC-2	A library Web site enabling me to locate information on my own	1.70	1.20	1.51	1.78	1.52	156
IC-3	The printed library materials I need for my work	1.97	1.68	1.73	1.78	1.47	122
IC-4	The electronic information resources I need	1.61	0.94	1.49	1.87	1.52	155
IC-5	Modern equipment that lets me easily access needed information	1.58	1.10	1.45	1.84	1.53	149
IC-6	Easy-to-use access tools that allow me to find things on my own	1.55	0.92	1.32	1.63	1.29	155
IC-7	Making information easily accessible for independent use	1.54	1.12	1.47	1.76	1.47	149
IC-8	Print and/or electronic journal collections I require for my work	1.55	1.01	1.55	1.81	1.53	143
Library as Place							
LP-1	Library space that inspires study and learning	2.03	1.76	1.86	2.38	2.21	145
LP-2	Quiet space for individual activities	1.98	1.58	1.71	2.13	1.86	144
LP-3	A comfortable and inviting location	2.06	1.56	1.77	2.28	1.97	151
LP-4	A getaway for study, learning, or research	2.05	1.75	1.70	1.95	1.75	148
LP-5	Community space for group learning and group study	2.04	2.15	1.85	2.13	2.13	134
Overall:		1.36	0.95	1.12	1.29	0.95	158

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Graduate

5.3 Core Question Dimensions Summary for Graduate

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Graduate

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.37	7.78	7.44	1.07	-0.35	158
Information Control	6.93	8.32	7.24	0.31	-1.09	158
Library as Place	6.04	7.61	6.89	0.85	-0.73	157
Overall:	6.51	7.95	7.24	0.73	-0.71	158

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.56	1.21	1.20	1.34	0.95	158
Information Control	1.32	0.81	1.22	1.41	1.09	158
Library as Place	1.80	1.56	1.52	1.79	1.66	157
Overall:	1.36	0.95	1.12	1.29	0.95	158

5.4 Local Questions Summary for Graduate

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.57	7.92	6.87	0.30	-1.05	136
Employees teaching me how to access or manage information	6.09	7.50	7.26	1.18	-0.24	137
An environment that facilitates group study and problem solving	5.75	7.39	6.78	1.04	-0.61	130
Access to information resources that support patient care	7.01	8.04	7.30	0.29	-0.75	118
Electronic resources matching my information needs	6.99	8.36	7.26	0.26	-1.10	152

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.88	1.53	1.63	1.91	1.57	136
Employees teaching me how to access or manage information	2.06	1.91	1.68	1.87	1.68	137
An environment that facilitates group study and problem solving	2.13	2.08	1.80	1.88	1.86	130
Access to information resources that support patient care	1.94	1.66	1.65	1.83	1.64	118
Electronic resources matching my information needs	1.49	1.06	1.41	1.67	1.53	152

5.5 General Satisfaction Questions Summary for Graduate

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.85	1.21	158
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.43	1.41	158
How would you rate the overall quality of the service provided by the library?	7.50	1.19	158

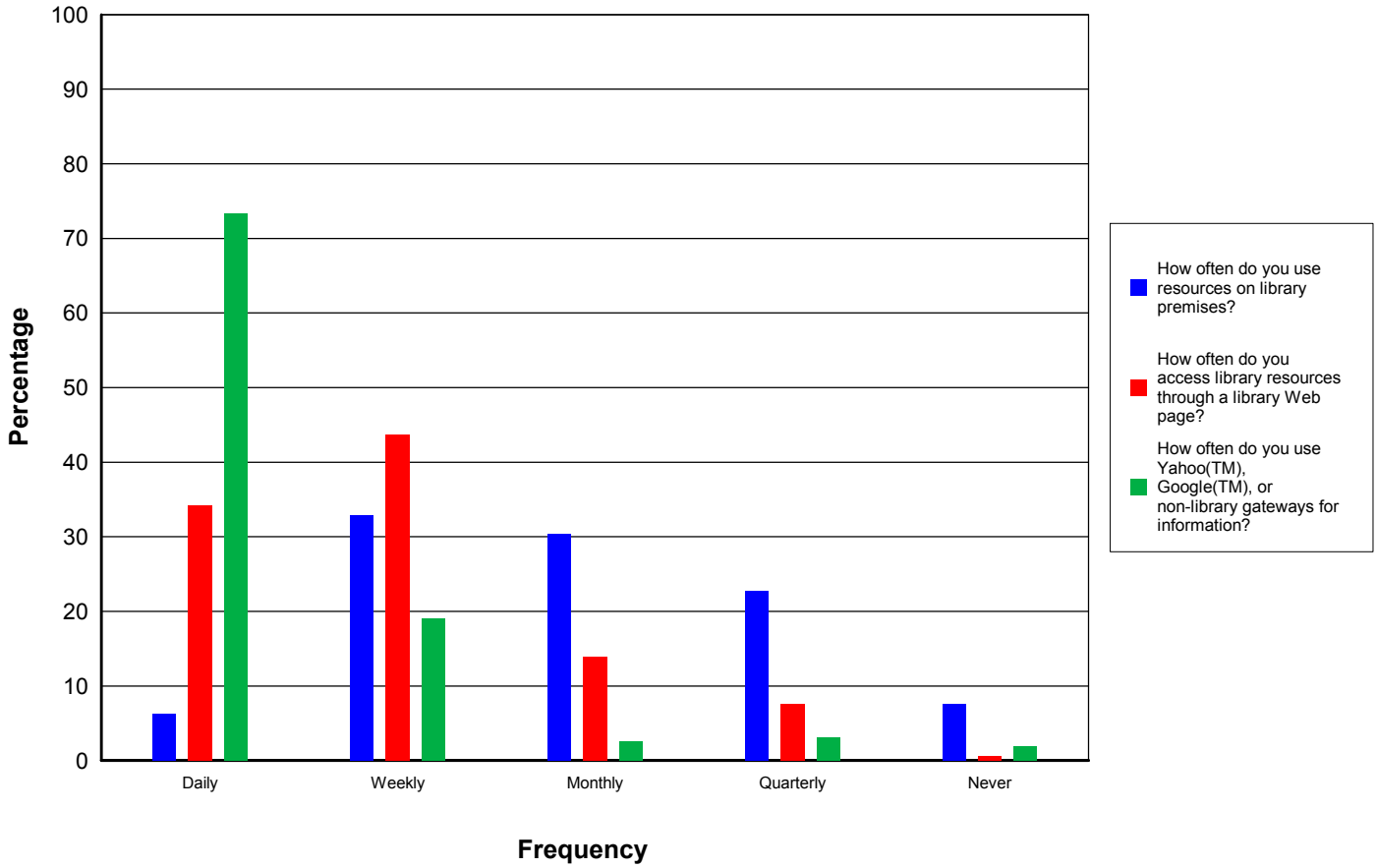
5.6 Information Literacy Outcomes Questions Summary for Graduate

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.87	1.76	158
The library aids my advancement in my academic discipline or work.	7.45	1.42	158
The library enables me to be more efficient in my academic pursuits or work.	7.35	1.45	158
The library helps me distinguish between trustworthy and untrustworthy information.	6.15	1.87	158
The library provides me with the information skills I need in my work or study.	6.81	1.69	158

5.7 Library Use Summary for Graduate

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	10	52	48	36	12	**158**
	6.33%	32.91%	30.38%	22.78%	7.59%	**100.00%**
How often do you access library resources through a library Web page?	54	69	22	12	1	**158**
	34.18%	43.67%	13.92%	7.59%	0.63%	**100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	116	30	4	5	3	**158**
	73.42%	18.99%	2.53%	3.16%	1.90%	**100.00%**

Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Graduate

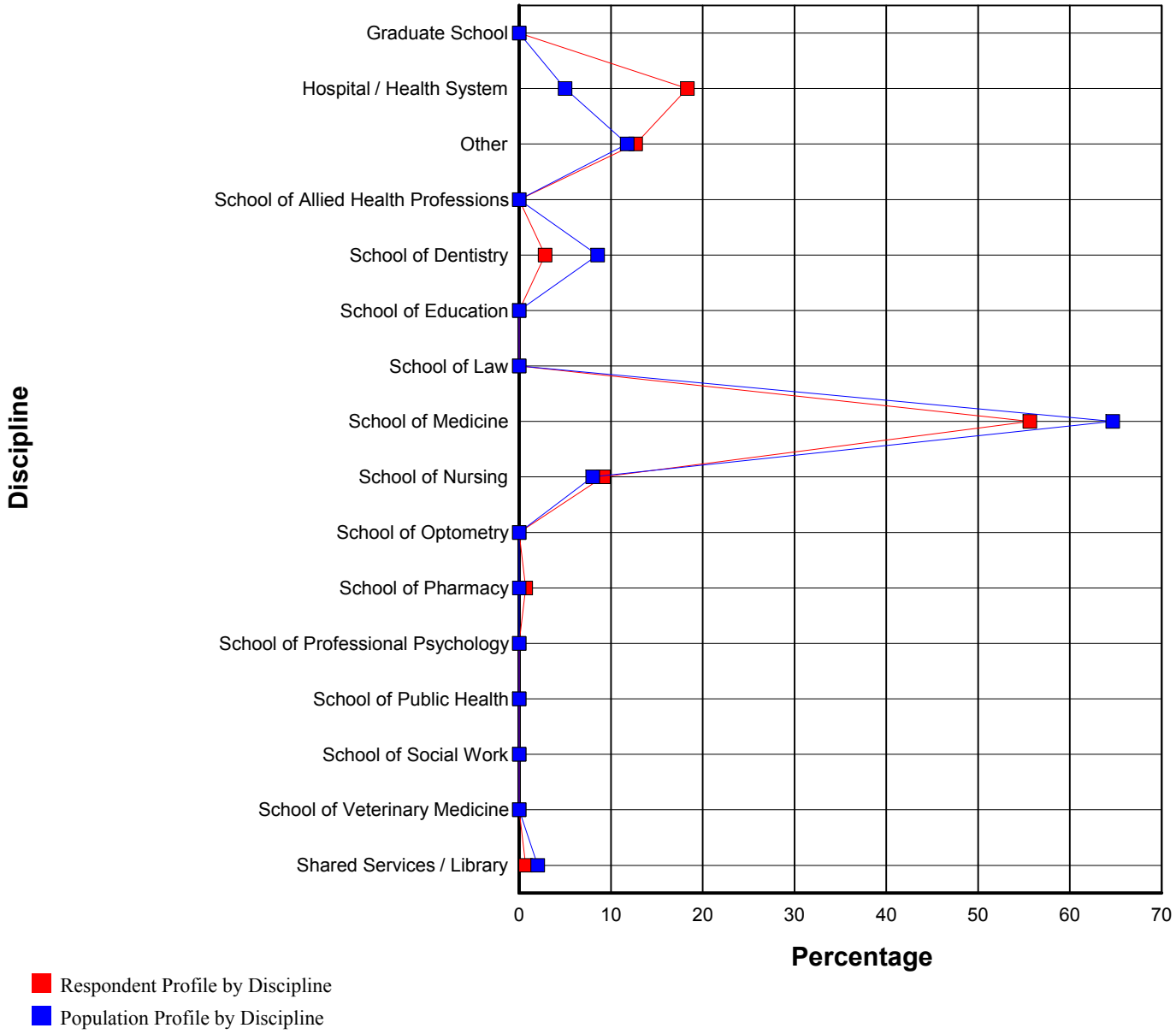
6 Faculty Summary

6.1 Demographic Summary for Faculty

6.1.1 Population and Respondent Profiles for Faculty by Standard Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the LibQUAL+® standard discipline categories. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Faculty

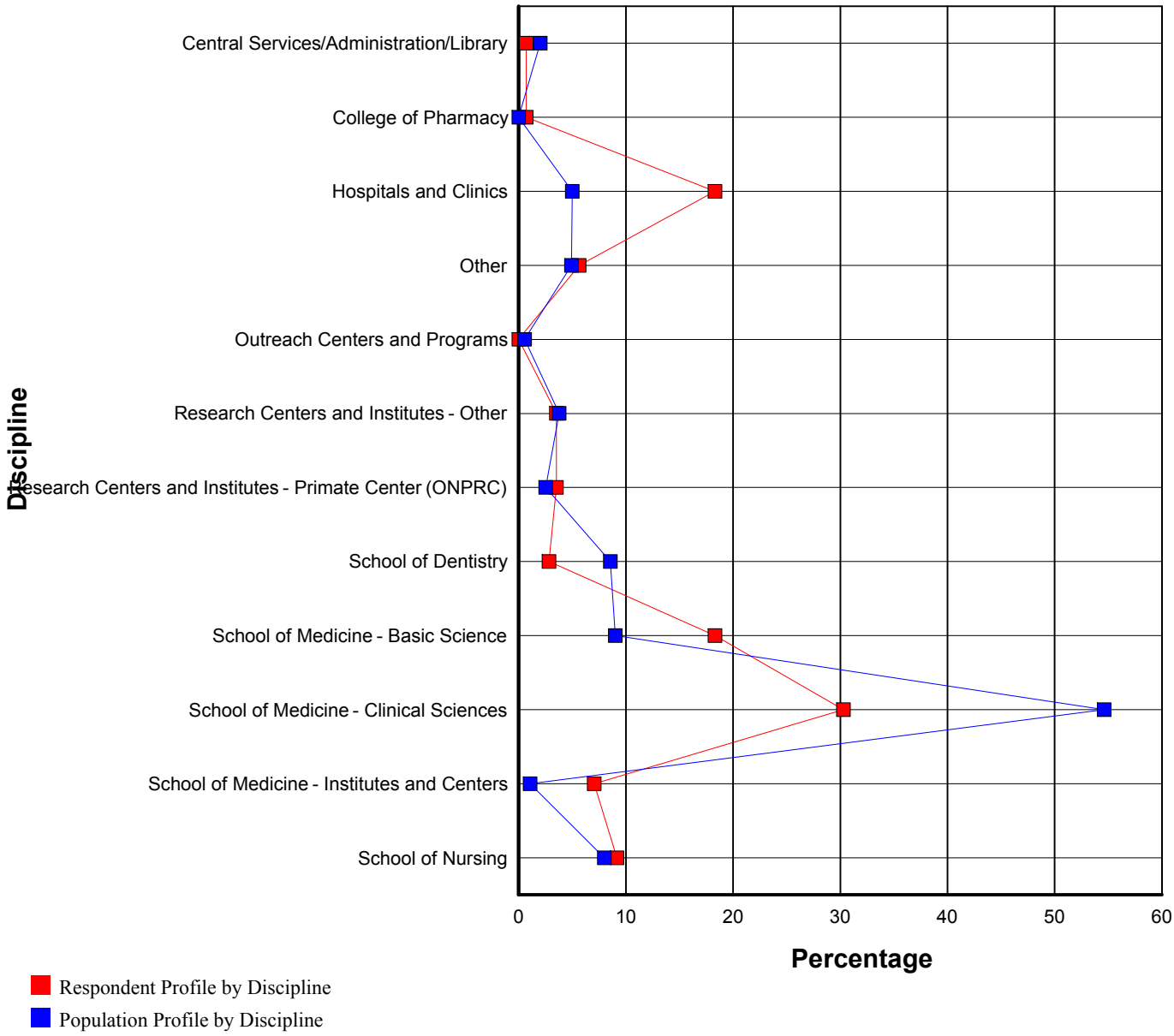
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Graduate School	0	0.00%	0	0.00%	0.00%
Hospital / Health System	109	5.01%	26	18.31%	-13.30%
Other	256	11.76%	18	12.68%	-0.92%
School of Allied Health Professions	0	0.00%	0	0.00%	0.00%
School of Dentistry	186	8.54%	4	2.82%	5.73%
School of Education	0	0.00%	0	0.00%	0.00%
School of Law	0	0.00%	0	0.00%	0.00%
School of Medicine	1,408	64.68%	79	55.63%	9.04%
School of Nursing	174	7.99%	13	9.15%	-1.16%
School of Optometry	0	0.00%	0	0.00%	0.00%
School of Pharmacy	0	0.00%	1	0.70%	-0.70%
School of Professional Psychology	0	0.00%	0	0.00%	0.00%
School of Public Health	0	0.00%	0	0.00%	0.00%
School of Social Work	0	0.00%	0	0.00%	0.00%
School of Veterinary Medicine	0	0.00%	0	0.00%	0.00%
Shared Services / Library	44	2.02%	1	0.70%	1.32%
Total:	**2,177**	**100.00%**	**142**	**100.00%**	**0.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Faculty

6.1.2 Population and Respondent Profiles for Faculty by Customized Discipline

The chart and table below show a breakdown of survey respondents by discipline, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section.

This section shows survey respondents broken down based on the customized discipline categories supplied by the participating library. The chart maps percentage of respondents for each discipline in red. Population percentages for each discipline are mapped in blue. The table shows the number and percentage for each discipline, for the general population (N) and for survey respondents (n).



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Faculty

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Central Services/Administration/Library	44	2.02%	1	0.70%	1.32%
College of Pharmacy	0	0.00%	1	0.70%	-0.70%
Hospitals and Clinics	109	5.01%	26	18.31%	-13.30%
Other	107	4.92%	8	5.63%	-0.72%
Outreach Centers and Programs	12	0.55%	0	0.00%	0.55%
Research Centers and Institutes - Other	82	3.77%	5	3.52%	0.25%
Research Centers and Institutes - Primate Center (ONPRC)	55	2.53%	5	3.52%	-0.99%
School of Dentistry	186	8.54%	4	2.82%	5.73%
School of Medicine - Basic Science	196	9.00%	26	18.31%	-9.31%
School of Medicine - Clinical Sciences	1,189	54.62%	43	30.28%	24.33%
School of Medicine - Institutes and Centers	23	1.06%	10	7.04%	-5.99%
School of Nursing	174	7.99%	13	9.15%	-1.16%
Total:	**2,177**	**100.00%**	**142**	**100.00%**	**0.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Faculty

6.1.3 Respondent Profile for Faculty by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	1	0.70%
23 - 30	6	4.23%
31 - 45	54	38.03%
46 - 65	74	52.11%
Over 65	7	4.93%
Total:	**142**	**100.00%**

6.1.4 Population and Respondent Profiles for Faculty by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

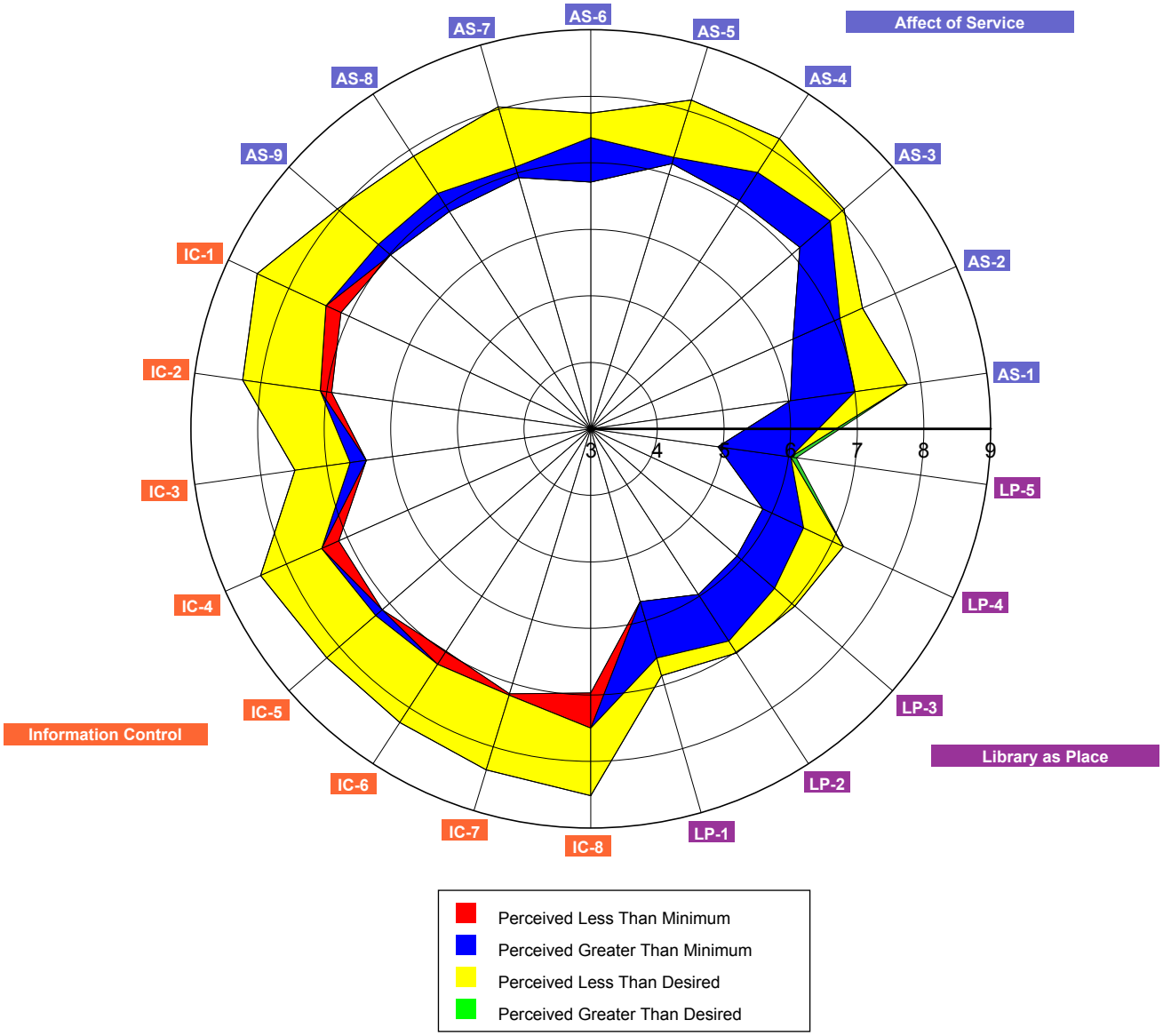
Sex	Population N	Population %	Respondents n	Respondents %
Male	1,183	54.09%	56	39.44%
Female	1,004	45.91%	86	60.56%
Total:	**2,187**	**100.00%**	**142**	**100.00%**

6.2 Core Questions Summary for Faculty

This radar chart shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Library as Place, and Information Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Faculty

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.03	7.80	7.01	0.98	-0.79	135
AS-2	Giving users individual attention	6.33	7.46	7.09	0.77	-0.37	138
AS-3	Employees who are consistently courteous	7.16	8.04	7.77	0.61	-0.27	137
AS-4	Readiness to respond to users' questions	7.09	8.20	7.60	0.50	-0.61	137
AS-5	Employees who have the knowledge to answer user questions	7.17	8.17	7.27	0.10	-0.90	135
AS-6	Employees who deal with users in a caring fashion	6.71	7.75	7.38	0.67	-0.37	134
AS-7	Employees who understand the needs of their users	6.93	8.04	7.10	0.16	-0.94	134
AS-8	Willingness to help users	6.90	7.89	7.22	0.33	-0.67	135
AS-9	Dependability in handling users' service problems	6.98	8.04	7.23	0.24	-0.81	127
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.38	8.52	7.13	-0.25	-1.39	141
IC-2	A library Web site enabling me to locate information on my own	7.10	8.28	6.93	-0.17	-1.35	141
IC-3	The printed library materials I need for my work	6.40	7.48	6.65	0.25	-0.84	122
IC-4	The electronic information resources I need	7.42	8.42	7.14	-0.28	-1.28	142
IC-5	Modern equipment that lets me easily access needed information	7.15	8.25	7.28	0.13	-0.97	129
IC-6	Easy-to-use access tools that allow me to find things on my own	7.22	8.26	6.99	-0.23	-1.28	137
IC-7	Making information easily accessible for independent use	7.19	8.36	7.17	-0.02	-1.20	138
IC-8	Print and/or electronic journal collections I require for my work	7.50	8.51	6.97	-0.53	-1.54	140
Library as Place							
LP-1	Library space that inspires study and learning	5.70	6.86	6.59	0.88	-0.27	121
LP-2	Quiet space for individual activities	5.97	7.02	6.81	0.83	-0.21	108
LP-3	A comfortable and inviting location	5.91	7.06	6.66	0.74	-0.41	116
LP-4	A getaway for study, learning, or research	5.85	7.18	6.53	0.68	-0.66	114
LP-5	Community space for group learning and group study	4.93	6.03	6.11	1.18	0.08	88
Overall:		6.78	7.89	7.09	0.31	-0.80	142

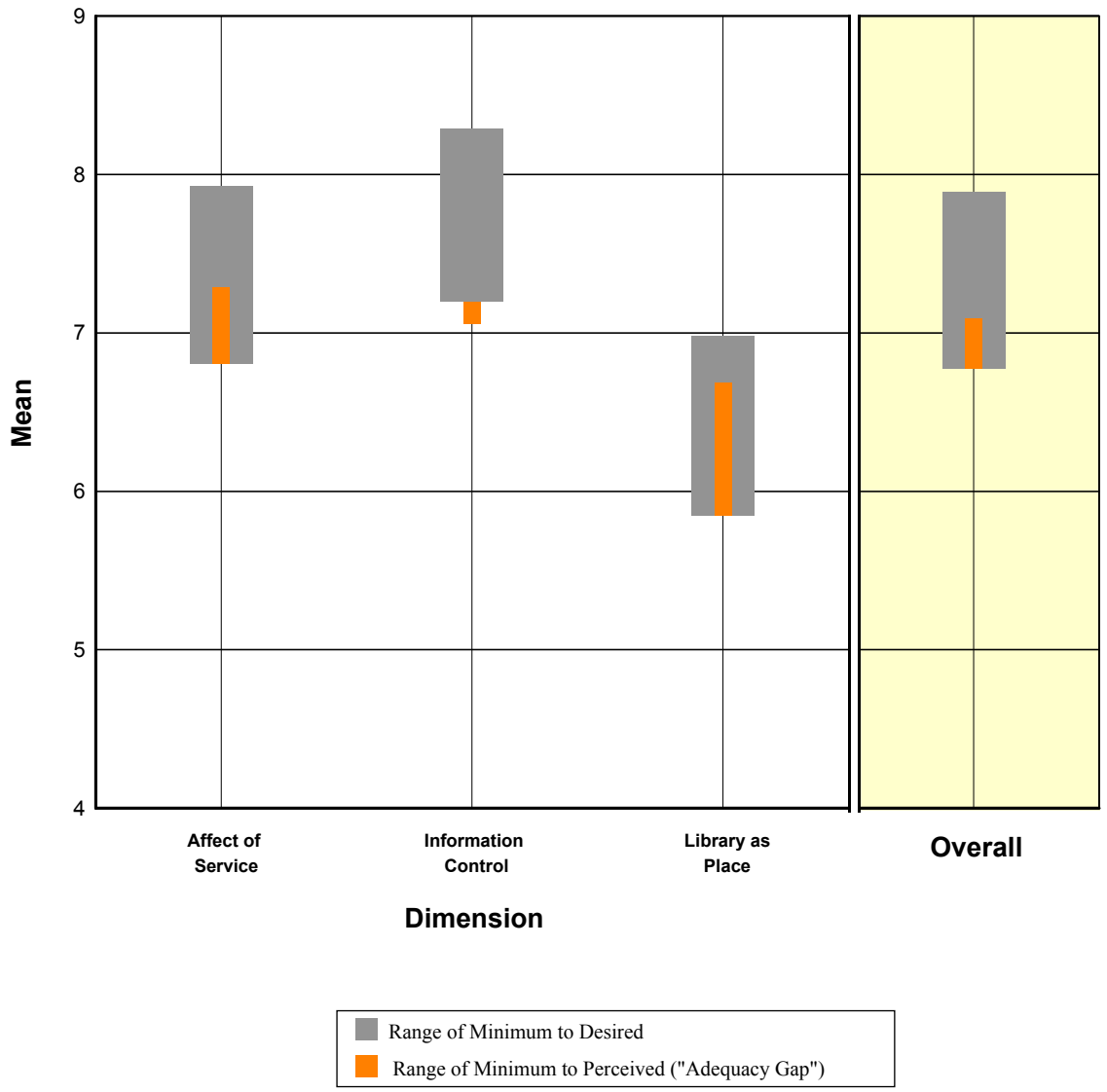
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Faculty

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.65	1.55	1.66	1.77	1.67	135
AS-2	Giving users individual attention	1.72	1.65	1.56	1.81	1.63	138
AS-3	Employees who are consistently courteous	1.50	1.33	1.26	1.47	1.23	137
AS-4	Readiness to respond to users' questions	1.23	0.99	1.35	1.63	1.50	137
AS-5	Employees who have the knowledge to answer user questions	1.41	1.19	1.66	1.81	1.63	135
AS-6	Employees who deal with users in a caring fashion	1.53	1.58	1.52	1.63	1.41	134
AS-7	Employees who understand the needs of their users	1.50	1.34	1.61	1.88	1.65	134
AS-8	Willingness to help users	1.61	1.54	1.70	1.85	1.63	135
AS-9	Dependability in handling users' service problems	1.46	1.43	1.55	1.67	1.42	127
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.51	0.87	1.77	2.10	1.82	141
IC-2	A library Web site enabling me to locate information on my own	1.56	1.25	1.84	2.02	1.96	141
IC-3	The printed library materials I need for my work	1.78	1.74	1.73	2.01	2.03	122
IC-4	The electronic information resources I need	1.29	0.92	1.45	1.97	1.73	142
IC-5	Modern equipment that lets me easily access needed information	1.25	1.08	1.43	1.63	1.50	129
IC-6	Easy-to-use access tools that allow me to find things on my own	1.34	1.04	1.50	1.99	1.70	137
IC-7	Making information easily accessible for independent use	1.38	0.94	1.50	1.98	1.67	138
IC-8	Print and/or electronic journal collections I require for my work	1.42	0.92	1.60	1.87	1.70	140
Library as Place							
LP-1	Library space that inspires study and learning	2.04	2.06	1.84	2.20	2.19	121
LP-2	Quiet space for individual activities	2.10	2.20	1.86	2.20	2.34	108
LP-3	A comfortable and inviting location	1.83	1.88	1.81	2.04	2.03	116
LP-4	A getaway for study, learning, or research	2.01	2.07	1.73	2.10	2.12	114
LP-5	Community space for group learning and group study	2.07	2.39	1.81	1.89	2.09	88
Overall:		1.12	0.95	1.24	1.46	1.26	142

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Faculty

6.3 Core Question Dimensions Summary for Faculty

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Faculty

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.81	7.93	7.29	0.48	-0.64	142
Information Control	7.19	8.29	7.05	-0.14	-1.23	142
Library as Place	5.84	6.98	6.68	0.84	-0.30	133
Overall:	6.78	7.89	7.09	0.31	-0.80	142

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.24	1.16	1.33	1.45	1.23	142
Information Control	1.11	0.76	1.31	1.62	1.41	142
Library as Place	1.67	1.71	1.52	1.74	1.74	133
Overall:	1.12	0.95	1.24	1.46	1.26	142

6.4 Local Questions Summary for Faculty

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.52	7.65	6.78	0.27	-0.87	124
Employees teaching me how to access or manage information	6.61	7.81	6.79	0.18	-1.02	128
An environment that facilitates group study and problem solving	5.30	6.10	6.13	0.83	0.03	93
Access to information resources that support patient care	7.30	8.18	7.26	-0.04	-0.92	106
Electronic resources matching my information needs	7.26	8.48	7.00	-0.26	-1.48	141

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.67	1.67	1.72	1.99	1.81	124
Employees teaching me how to access or manage information	1.61	1.47	1.83	2.20	1.90	128
An environment that facilitates group study and problem solving	2.19	2.45	1.92	2.23	2.27	93
Access to information resources that support patient care	1.37	1.18	1.48	1.73	1.54	106
Electronic resources matching my information needs	1.42	1.01	1.75	2.12	1.85	141

6.5 General Satisfaction Questions Summary for Faculty

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.42	1.59	142
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.08	1.75	142
How would you rate the overall quality of the service provided by the library?	7.31	1.45	142

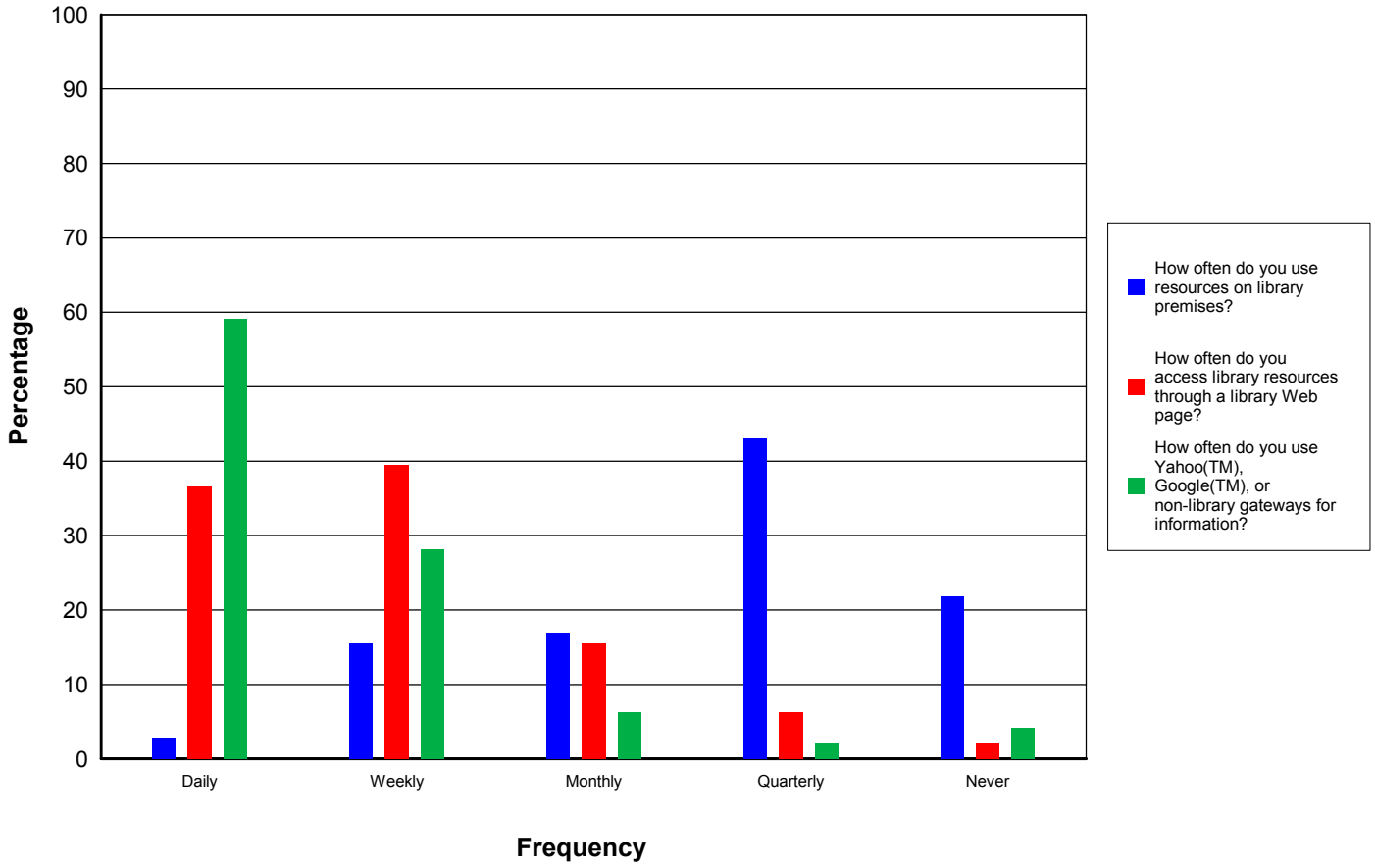
6.6 Information Literacy Outcomes Questions Summary for Faculty

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.75	1.92	142
The library aids my advancement in my academic discipline or work.	7.08	1.84	142
The library enables me to be more efficient in my academic pursuits or work.	7.18	1.88	142
The library helps me distinguish between trustworthy and untrustworthy information.	5.58	2.12	142
The library provides me with the information skills I need in my work or study.	5.99	2.04	142

6.7 Library Use Summary for Faculty

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	4 2.82%	22 15.49%	24 16.90%	61 42.96%	31 21.83%	**142** **100.00%**
How often do you access library resources through a library Web page?	52 36.62%	56 39.44%	22 15.49%	9 6.34%	3 2.11%	**142** **100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	84 59.15%	40 28.17%	9 6.34%	3 2.11%	6 4.23%	**142** **100.00%**

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Faculty

7 Library Staff Summary

7.1 Demographic Summary for Library Staff

7.1.1 Respondent Profile for Library Staff by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	0	0.00%
23 - 30	2	28.57%
31 - 45	3	42.86%
46 - 65	2	28.57%
Over 65	0	0.00%
Total:	**7**	**100.00%**

7.1.2 Respondent Profile for Library Staff by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

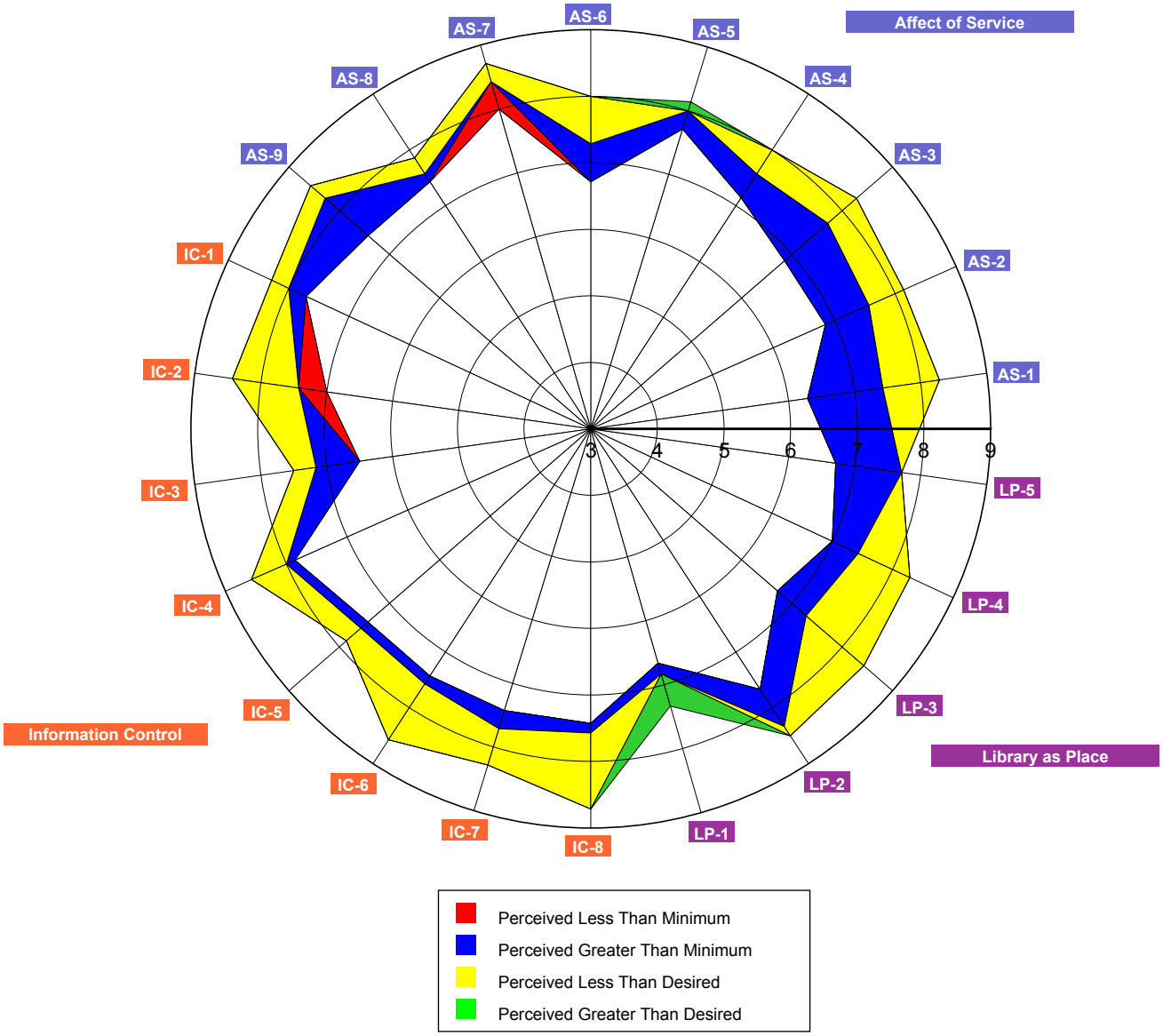
Sex	Respondents n	Respondents %
Male	1	14.29%
Female	6	85.71%
Total:	**7**	**100.00%**

7.2 Core Questions Summary for Library Staff

This radar chart shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Library as Place, and Information Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Library Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	6.29	8.29	7.43	1.14	-0.86	7
AS-2	Giving users individual attention	6.86	8.14	7.57	0.71	-0.57	7
AS-3	Employees who are consistently courteous	6.86	8.29	7.71	0.86	-0.57	7
AS-4	Readiness to respond to users' questions	7.14	8.00	7.57	0.43	-0.43	7
AS-5	Employees who have the knowledge to answer user questions	7.71	8.00	8.14	0.43	0.14	7
AS-6	Employees who deal with users in a caring fashion	6.71	8.00	7.29	0.57	-0.71	7
AS-7	Employees who understand the needs of their users	8.43	8.71	8.00	-0.43	-0.71	7
AS-8	Willingness to help users	7.43	7.86	7.57	0.14	-0.29	7
AS-9	Dependability in handling users' service problems	7.43	8.57	8.29	0.86	-0.29	7
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.71	8.29	8.00	0.29	-0.29	7
IC-2	A library Web site enabling me to locate information on my own	7.43	8.43	7.00	-0.43	-1.43	7
IC-3	The printed library materials I need for my work	6.50	7.50	7.17	0.67	-0.33	6
IC-4	The electronic information resources I need	7.86	8.57	8.00	0.14	-0.57	7
IC-5	Modern equipment that lets me easily access needed information	7.43	7.86	7.57	0.14	-0.29	7
IC-6	Easy-to-use access tools that allow me to find things on my own	7.43	8.57	7.57	0.14	-1.00	7
IC-7	Making information easily accessible for independent use	7.43	8.29	7.71	0.29	-0.57	7
IC-8	Print and/or electronic journal collections I require for my work	7.43	8.71	7.57	0.14	-1.14	7
Library as Place							
LP-1	Library space that inspires study and learning	6.67	6.83	7.33	0.67	0.50	6
LP-2	Quiet space for individual activities	7.67	8.50	8.33	0.67	-0.17	6
LP-3	A comfortable and inviting location	6.71	8.43	7.29	0.57	-1.14	7
LP-4	A getaway for study, learning, or research	7.00	8.29	7.43	0.43	-0.86	7
LP-5	Community space for group learning and group study	6.71	7.71	7.71	1.00	0.00	7
Overall:		7.23	8.18	7.64	0.41	-0.54	7

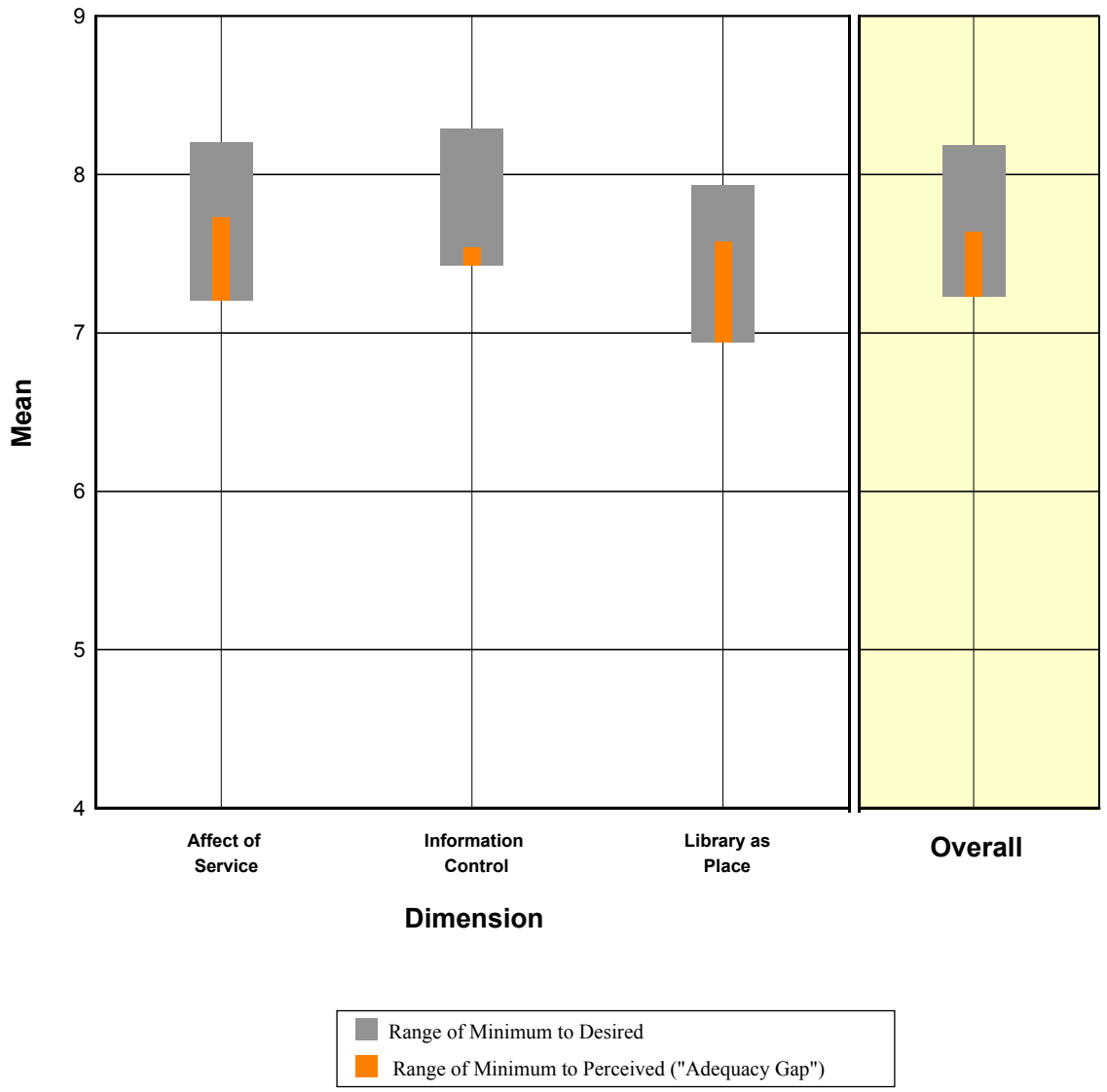
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Library Staff

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.60	0.95	0.98	1.21	1.35	7
AS-2	Giving users individual attention	1.86	1.21	1.27	1.38	0.79	7
AS-3	Employees who are consistently courteous	2.19	1.11	1.11	1.86	1.13	7
AS-4	Readiness to respond to users' questions	1.21	0.82	0.79	0.98	0.79	7
AS-5	Employees who have the knowledge to answer user questions	1.80	1.53	0.69	1.90	1.68	7
AS-6	Employees who deal with users in a caring fashion	1.50	1.41	1.11	1.72	1.50	7
AS-7	Employees who understand the needs of their users	0.53	0.49	0.82	0.79	0.95	7
AS-8	Willingness to help users	1.40	1.21	1.40	1.77	1.11	7
AS-9	Dependability in handling users' service problems	1.27	0.79	0.76	0.69	1.11	7
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.11	1.50	1.00	1.70	1.80	7
IC-2	A library Web site enabling me to locate information on my own	2.23	0.79	2.08	2.76	2.15	7
IC-3	The printed library materials I need for my work	1.52	1.52	1.60	1.21	0.82	6
IC-4	The electronic information resources I need	1.46	0.79	1.15	1.07	0.79	7
IC-5	Modern equipment that lets me easily access needed information	1.72	1.57	0.98	2.04	1.60	7
IC-6	Easy-to-use access tools that allow me to find things on my own	1.72	0.79	1.27	1.57	1.15	7
IC-7	Making information easily accessible for independent use	1.81	1.11	1.11	1.50	0.98	7
IC-8	Print and/or electronic journal collections I require for my work	0.79	0.49	1.72	1.57	1.46	7
Library as Place							
LP-1	Library space that inspires study and learning	2.88	2.99	1.51	1.75	2.35	6
LP-2	Quiet space for individual activities	1.21	0.84	0.52	0.82	0.75	6
LP-3	A comfortable and inviting location	1.80	0.79	1.70	1.40	1.68	7
LP-4	A getaway for study, learning, or research	1.41	0.76	1.27	1.40	0.90	7
LP-5	Community space for group learning and group study	1.89	1.11	1.11	1.41	1.00	7
Overall:		1.13	0.77	0.93	0.79	0.86	7

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Library Staff

7.3 Core Question Dimensions Summary for Library Staff

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Library Staff

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	7.21	8.21	7.73	0.52	-0.48	7
Information Control	7.43	8.29	7.54	0.12	-0.74	7
Library as Place	6.94	7.94	7.58	0.64	-0.36	7
Overall:	7.23	8.18	7.64	0.41	-0.54	7

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.22	0.86	0.73	0.91	0.90	7
Information Control	1.08	0.74	1.12	1.25	1.09	7
Library as Place	1.51	1.20	1.28	0.79	0.87	7
Overall:	1.13	0.77	0.93	0.79	0.86	7

7.4 Local Questions Summary for Library Staff

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.71	8.43	7.57	0.86	-0.86	7
Employees teaching me how to access or manage information	6.71	8.00	7.86	1.14	-0.14	7
An environment that facilitates group study and problem solving	6.57	7.86	7.14	0.57	-0.71	7
Access to information resources that support patient care	8.00	8.00	7.50	-0.50	-0.50	4
Electronic resources matching my information needs	7.43	8.86	7.86	0.43	-1.00	7

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.89	0.98	1.40	1.07	0.90	7
Employees teaching me how to access or manage information	1.70	1.00	0.69	1.21	0.69	7
An environment that facilitates group study and problem solving	1.40	0.90	1.21	0.79	0.95	7
Access to information resources that support patient care	0.82	1.15	0.58	0.58	0.58	4
Electronic resources matching my information needs	1.27	0.38	1.77	0.79	1.41	7

7.5 General Satisfaction Questions Summary for Library Staff

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.86	1.46	7
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.57	1.72	7
How would you rate the overall quality of the service provided by the library?	8.00	1.15	7

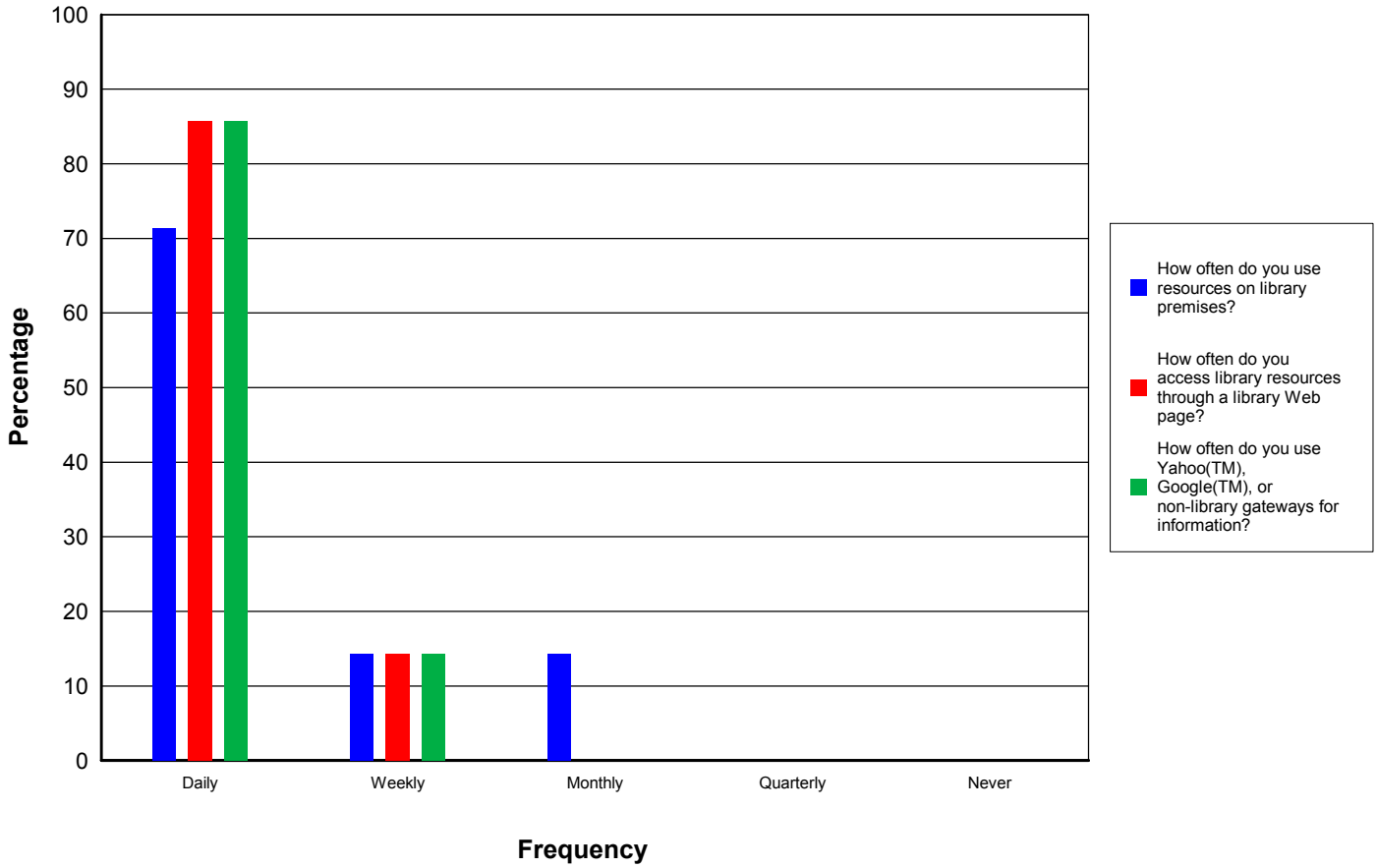
7.6 Information Literacy Outcomes Questions Summary for Library Staff

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	7.00	1.63	7
The library aids my advancement in my academic discipline or work.	7.57	1.51	7
The library enables me to be more efficient in my academic pursuits or work.	6.86	1.46	7
The library helps me distinguish between trustworthy and untrustworthy information.	6.71	1.38	7
The library provides me with the information skills I need in my work or study.	7.43	1.40	7

7.7 Library Use Summary for Library Staff

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	5 71.43%	1 14.29%	1 14.29%	0 0.00%	0 0.00%	**7** **100.00%**
How often do you access library resources through a library Web page?	6 85.71%	1 14.29%	0 0.00%	0 0.00%	0 0.00%	**7** **100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	6 85.71%	1 14.29%	0 0.00%	0 0.00%	0 0.00%	**7** **100.00%**

Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Library Staff

8 Staff Summary

8.1 Demographic Summary for Staff

8.1.1 Respondent Profile for Staff by Age

This table shows a breakdown of survey respondents by age; both the number of respondents (n) and the percentage of the total number of respondents represented by each age group are displayed.

Age	Respondents n	Respondents %
Under 18	0	0.00%
18 - 22	9	2.73%
23 - 30	84	25.45%
31 - 45	144	43.64%
46 - 65	90	27.27%
Over 65	3	0.91%
Total:	**330**	**100.00%**

8.1.2 Respondent Profile for Staff by Sex

The table below shows a breakdown of survey respondents by sex, based on user responses to the demographic questions and the demographic data provided by institutions in the online Representativeness section*. The number and percentage for each sex are given for the general population and for survey respondents.

*Note: Participating institutions were not required to complete the Representativeness section. When population data is missing or incomplete, it is because this data was not provided.

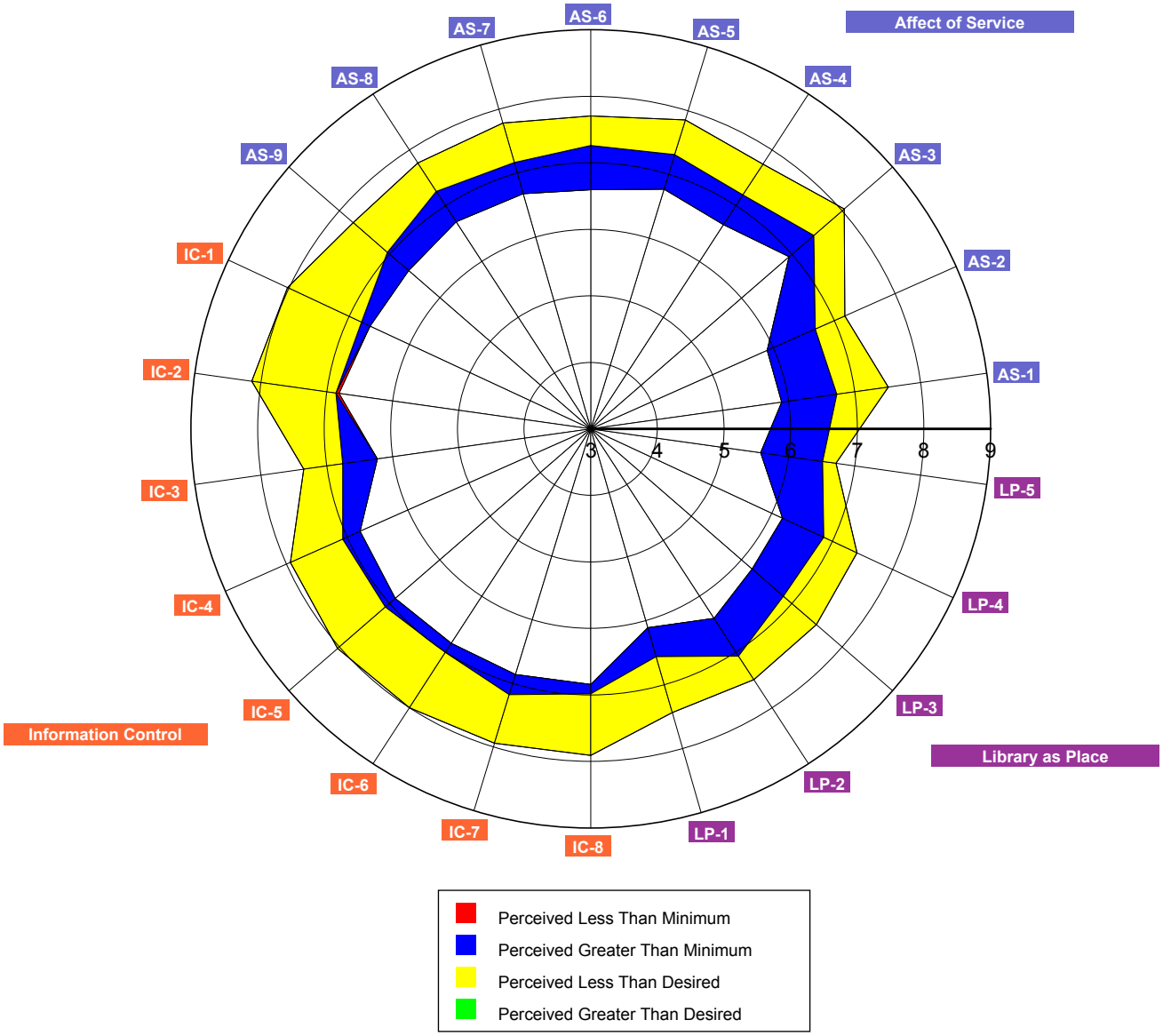
Sex	Respondents n	Respondents %
Male	98	29.70%
Female	232	70.30%
Total:	**330**	**100.00%**

8.2 Core Questions Summary for Staff

This radar chart shows aggregate results for the core survey questions. Each axis represents one question. A code to identify each question is displayed at the outer point of each axis. While questions for each dimension of library service quality are scattered randomly throughout the survey, on this chart they are grouped into sections: Affect of Service, Library as Place, and Information Control.

On each axis, respondents' minimum, desired, and perceived levels of service quality are plotted, and the resulting "gaps" between the three levels (representing service adequacy or service superiority) are shaded in blue, yellow, green, and red.

The two following tables show mean scores and standard deviations for each question, where n is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Staff

ID	Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service							
AS-1	Employees who instill confidence in users	5.90	7.51	6.73	0.83	-0.78	309
AS-2	Giving users individual attention	5.90	7.17	6.69	0.79	-0.48	304
AS-3	Employees who are consistently courteous	6.95	8.04	7.43	0.49	-0.61	322
AS-4	Readiness to respond to users' questions	6.66	7.75	7.19	0.53	-0.55	316
AS-5	Employees who have the knowledge to answer user questions	6.77	7.86	7.31	0.54	-0.55	311
AS-6	Employees who deal with users in a caring fashion	6.59	7.71	7.26	0.66	-0.45	316
AS-7	Employees who understand the needs of their users	6.68	7.78	7.17	0.49	-0.62	309
AS-8	Willingness to help users	6.71	7.77	7.26	0.54	-0.51	314
AS-9	Dependability in handling users' service problems	6.62	7.73	7.05	0.42	-0.68	285
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.66	8.02	6.80	0.14	-1.23	310
IC-2	A library Web site enabling me to locate information on my own	6.86	8.14	6.82	-0.05	-1.32	320
IC-3	The printed library materials I need for my work	6.23	7.35	6.76	0.52	-0.59	273
IC-4	The electronic information resources I need	6.79	7.93	7.07	0.29	-0.86	321
IC-5	Modern equipment that lets me easily access needed information	6.89	8.03	7.08	0.20	-0.95	312
IC-6	Easy-to-use access tools that allow me to find things on my own	6.85	8.00	7.01	0.16	-0.99	319
IC-7	Making information easily accessible for independent use	6.86	7.94	7.18	0.32	-0.76	317
IC-8	Print and/or electronic journal collections I require for my work	6.84	7.91	6.99	0.14	-0.92	276
Library as Place							
LP-1	Library space that inspires study and learning	6.11	7.44	6.56	0.45	-0.88	294
LP-2	Quiet space for individual activities	6.40	7.50	7.07	0.67	-0.42	288
LP-3	A comfortable and inviting location	6.21	7.49	6.83	0.62	-0.65	308
LP-4	A getaway for study, learning, or research	6.18	7.41	6.86	0.68	-0.55	291
LP-5	Community space for group learning and group study	5.58	6.72	6.52	0.94	-0.20	231
Overall:		6.53	7.71	7.00	0.47	-0.71	330

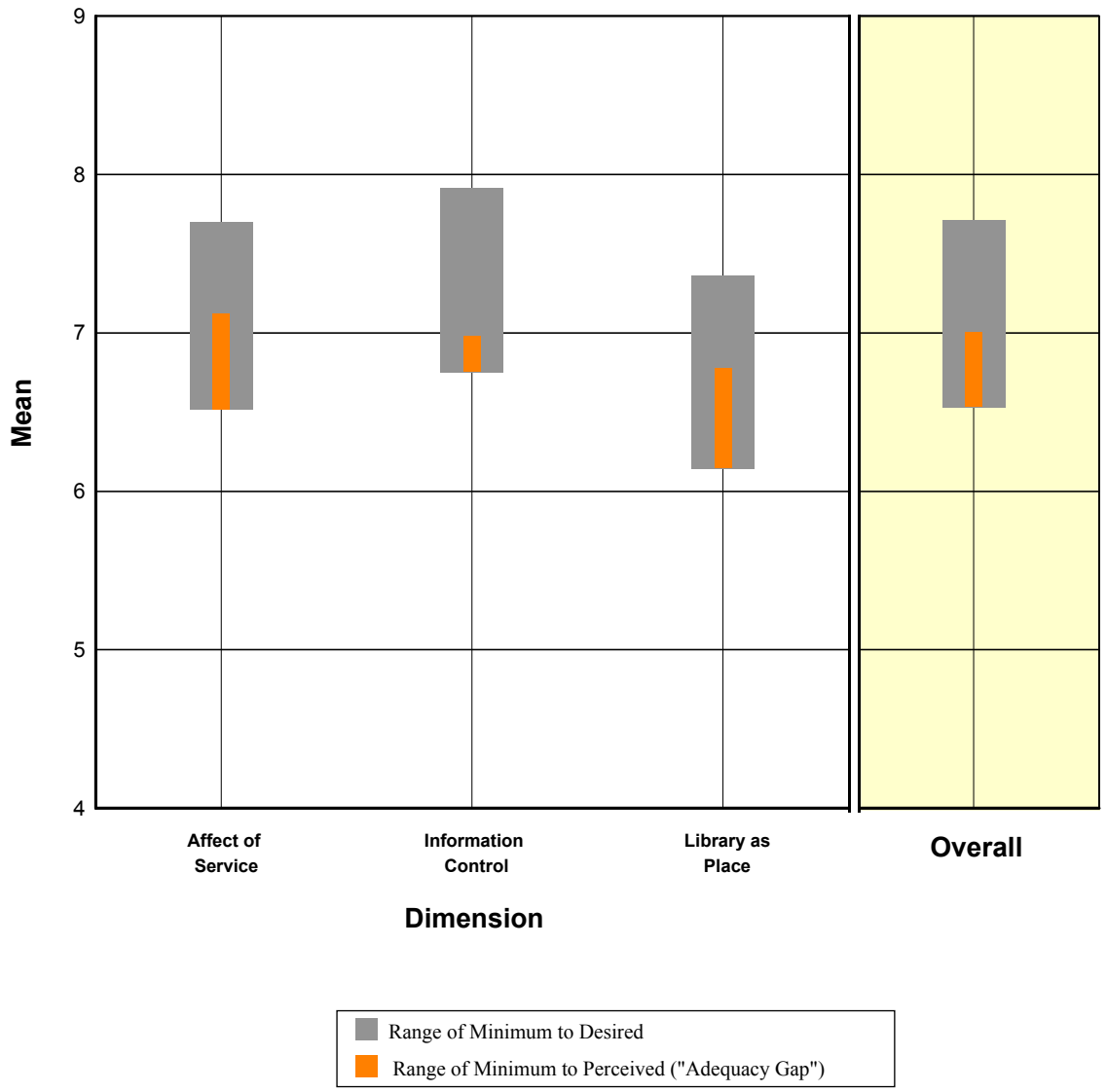
Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Staff

ID	Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service							
AS-1	Employees who instill confidence in users	1.89	1.54	1.51	1.87	1.53	309
AS-2	Giving users individual attention	2.05	1.74	1.76	2.01	1.69	304
AS-3	Employees who are consistently courteous	1.79	1.30	1.50	1.82	1.44	322
AS-4	Readiness to respond to users' questions	1.77	1.38	1.52	1.72	1.41	316
AS-5	Employees who have the knowledge to answer user questions	1.68	1.40	1.46	1.65	1.40	311
AS-6	Employees who deal with users in a caring fashion	1.81	1.39	1.35	1.59	1.29	316
AS-7	Employees who understand the needs of their users	1.74	1.37	1.43	1.79	1.53	309
AS-8	Willingness to help users	1.76	1.34	1.44	1.63	1.38	314
AS-9	Dependability in handling users' service problems	1.63	1.42	1.47	1.68	1.46	285
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.91	1.49	1.71	1.89	1.68	310
IC-2	A library Web site enabling me to locate information on my own	1.69	1.25	1.64	1.81	1.63	320
IC-3	The printed library materials I need for my work	1.95	1.73	1.64	1.80	1.62	273
IC-4	The electronic information resources I need	1.67	1.37	1.43	1.64	1.48	321
IC-5	Modern equipment that lets me easily access needed information	1.64	1.23	1.29	1.63	1.41	312
IC-6	Easy-to-use access tools that allow me to find things on my own	1.72	1.27	1.46	1.75	1.47	319
IC-7	Making information easily accessible for independent use	1.70	1.30	1.37	1.72	1.38	317
IC-8	Print and/or electronic journal collections I require for my work	1.75	1.44	1.59	1.82	1.64	276
Library as Place							
LP-1	Library space that inspires study and learning	2.13	1.85	1.86	2.10	1.97	294
LP-2	Quiet space for individual activities	2.11	1.82	1.70	2.02	1.89	288
LP-3	A comfortable and inviting location	1.88	1.61	1.67	1.80	1.76	308
LP-4	A getaway for study, learning, or research	2.05	1.72	1.63	1.84	1.57	291
LP-5	Community space for group learning and group study	1.99	1.83	1.69	1.93	1.74	231
Overall:		1.46	1.09	1.22	1.34	1.07	330

Language: American English
Institution Type: Academic Health Sciences
Consortium: AAHSL
User Group: Staff

8.3 Core Question Dimensions Summary for Staff

On the chart below, scores for each dimension of library service quality have been plotted graphically. The exterior bars represent the range of minimum to desired mean scores for each dimension. The interior bars represent the range of minimum to perceived mean scores (the service adequacy gap) for each dimension of library service quality.



Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Staff

The following table displays mean scores for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Affect of Service	6.52	7.70	7.12	0.60	-0.58	329
Information Control	6.75	7.91	6.98	0.23	-0.94	330
Library as Place	6.14	7.36	6.78	0.63	-0.59	322
Overall:	6.53	7.71	7.00	0.47	-0.71	330

The following table displays standard deviation for each dimension of library service quality measured by the LibQUAL+® survey, where n is the number of respondents for each particular dimension. (For a more detailed explanation of the headings, see the Introduction to this notebook.) A complete listing of the survey questions and their dimensions can be found in Appendix A.

Dimension	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Affect of Service	1.55	1.18	1.28	1.45	1.17	329
Information Control	1.49	1.12	1.26	1.42	1.18	330
Library as Place	1.78	1.47	1.51	1.64	1.43	322
Overall:	1.46	1.09	1.22	1.34	1.07	330

8.4 Local Questions Summary for Staff

This table shows mean scores for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum Mean	Desired Mean	Perceived Mean	Adequacy Mean	Superiority Mean	n
Providing health information when and where I need it	6.56	7.65	6.83	0.28	-0.81	290
Employees teaching me how to access or manage information	6.07	7.33	6.77	0.70	-0.56	299
An environment that facilitates group study and problem solving	5.41	6.48	6.29	0.88	-0.19	244
Access to information resources that support patient care	6.71	7.69	7.02	0.31	-0.67	218
Electronic resources matching my information needs	6.78	7.95	7.07	0.29	-0.88	317

This table displays the standard deviations for each of the local questions added by the individual library or consortium, where *n* is the number of respondents for each particular question. (For a more detailed explanation of the headings, see the Introduction to this notebook.)

Question Text	Minimum SD	Desired SD	Perceived SD	Adequacy SD	Superiority SD	n
Providing health information when and where I need it	1.73	1.52	1.59	1.76	1.58	290
Employees teaching me how to access or manage information	1.93	1.76	1.70	1.87	1.82	299
An environment that facilitates group study and problem solving	2.13	2.04	1.75	1.86	1.74	244
Access to information resources that support patient care	1.87	1.61	1.42	1.60	1.45	218
Electronic resources matching my information needs	1.71	1.41	1.45	1.67	1.46	317

8.5 General Satisfaction Questions Summary for Staff

This table displays the mean score and standard deviation for each of the general satisfaction questions: Satisfaction with Treatment, Satisfaction with Support, and Satisfaction with Overall Quality of Service, where *n* is the number of respondents for each question. These scores are calculated from responses to the general satisfaction questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9.

Satisfaction Question	Mean	SD	n
In general, I am satisfied with the way in which I am treated at the library.	7.26	1.53	330
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.97	1.51	330
How would you rate the overall quality of the service provided by the library?	7.15	1.36	330

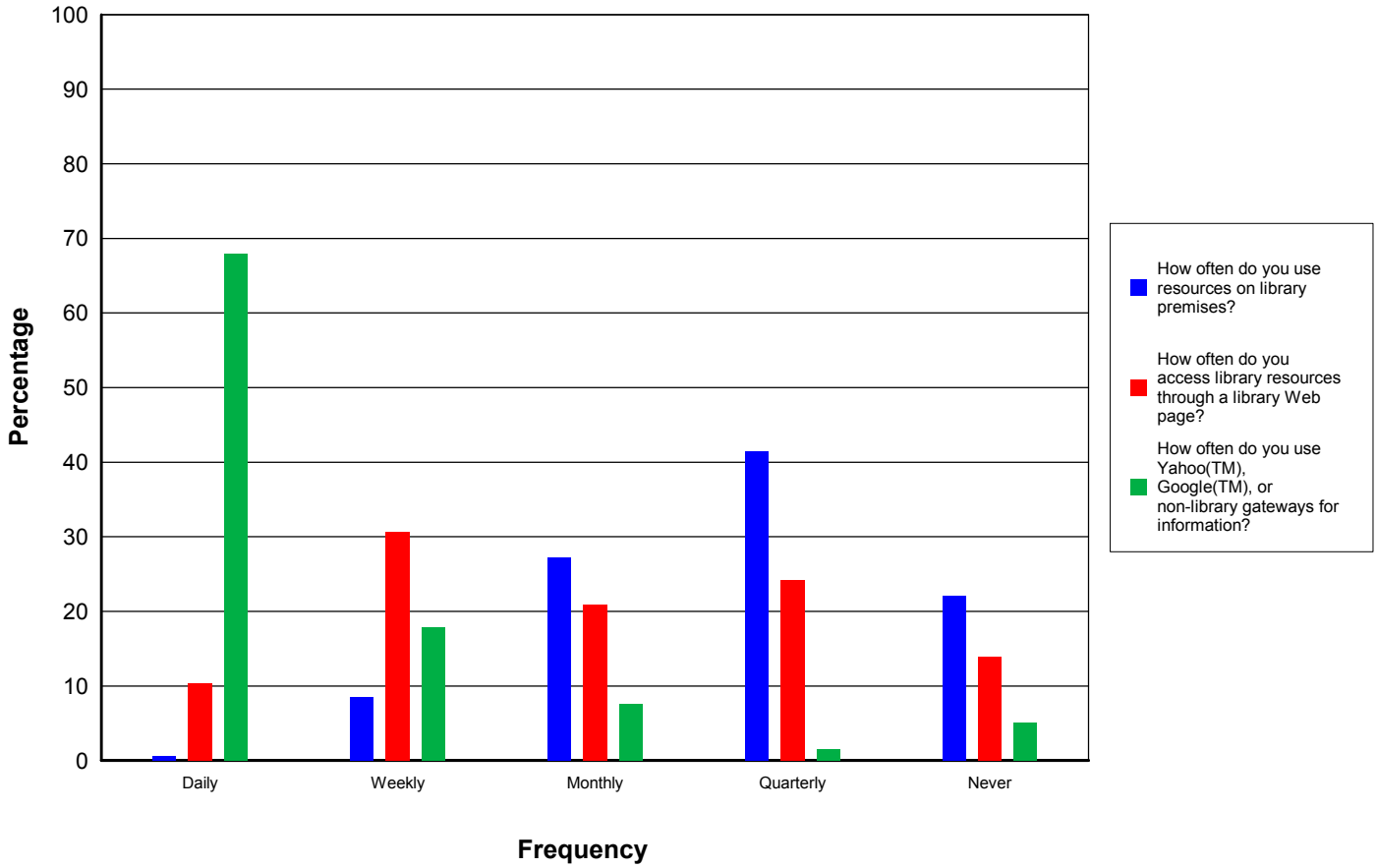
8.6 Information Literacy Outcomes Questions Summary for Staff

This table displays the mean score and standard deviation for each of the information literacy outcomes questions, where *n* is the number of respondents for each question. These scores are calculated from responses to the information literacy outcomes questions on the LibQUAL+® survey, in which respondents rated their levels of general satisfaction on a scale from 1-9 with 1 being "strongly disagree" and 9 representing "strongly agree".

Information Literacy Outcomes Questions	Mean	SD	n
The library helps me stay abreast of developments in my field(s) of interest.	6.34	1.61	330
The library aids my advancement in my academic discipline or work.	6.53	1.65	330
The library enables me to be more efficient in my academic pursuits or work.	6.58	1.67	330
The library helps me distinguish between trustworthy and untrustworthy information.	5.98	1.84	330
The library provides me with the information skills I need in my work or study.	6.38	1.73	330

8.7 Library Use Summary for Staff

This chart shows a graphic representation of library use (both on the premises and electronically), as well as use of non-library information gateways such as Yahoo™ and Google™. Bars represent the frequency with which respondents report using these resources: Daily, Weekly, Monthly, Quarterly, or Never. The table below the chart displays the number and percentage of respondents who selected each option.



	Daily	Weekly	Monthly	Quarterly	Never	n / %
How often do you use resources on library premises?	2 0.61%	28 8.48%	90 27.27%	137 41.52%	73 22.12%	**330** **100.00%**
How often do you access library resources through a library Web page?	34 10.30%	101 30.61%	69 20.91%	80 24.24%	46 13.94%	**330** **100.00%**
How often do you use Yahoo(TM), Google(TM), or non-library gateways for information?	224 67.88%	59 17.88%	25 7.58%	5 1.52%	17 5.15%	**330** **100.00%**

Language:	American English
Institution Type:	Academic Health Sciences
Consortium:	AAHSL
User Group:	Staff

9 Appendix A: LibQUAL+® Dimensions

LibQUAL+® measures dimensions of perceived library quality---that is, each survey question is part of a broader category (a dimension), and scores within those categories are analyzed in order to derive more general information about library users' perceptions of service. These dimensions were first based on the original SERVQUAL survey instrument (the framework for the LibQUAL+® survey tool; for more information on the origins of LibQUAL+®, go to <http://www.libqual.org/Publications/>). The LibQUAL+® survey dimensions have evolved with each iteration, becoming more refined and focused for application to the library context. Dimensions for each iteration of the LibQUAL+® survey are outlined below.

LibQUAL+® 2000 Dimensions

The 2000 iteration of the LibQUAL+® survey, which had 41 questions, measured eight separate dimensions:

- Assurance (the knowledge and courtesy of employees, and their ability to convey trust and confidence)
- Empathy (caring, individual attention)
- Library as Place (library as a sanctuary/haven or site for learning and contemplation)
- Reliability (ability to perform the promised service dependably and accurately)
- Responsiveness (willingness to help customers and provide prompt service)
- Tangibles (appearance of physical facilities, equipment, personnel and communications materials)
- Instructions/Custom Items
- Self-Reliance

LibQUAL+® 2001 Dimensions

After careful analysis of the results from the 2000 survey, the dimensions were further refined to re-ground the SERVQUAL items in the library context. Four sub-dimensions resulted for the 2001 iteration:

- Service Affect (nine items, such as “willingness to help users”)
- Library as Place (five items, such as “a haven for quiet and solitude”)
- Personal Control (six items, such as “website enabling me to locate information on my own”), and
- Information Access (five items, such as “comprehensive print collections” and “convenient business hours”)

LibQUAL+® 2002 and 2003 Dimensions

For the 2002 iteration of the LibQUAL+® survey, the dimensions were once again refined based on analysis of the previous year's results. While the four dimensions were retained, their titles were changed slightly to more clearly represent the questions and data. The same four dimensions were also used on the 2003 survey:

- Access to Information
- Affect of Service
- Library as Place
- Personal Control

LibQUAL+® 2004 - 2008 Dimensions

After the 2003 survey was completed, factor and reliability analyses on the resulting data revealed that two of the

dimensions measured by the survey-Access to Information and Personal Control-had collapsed into one. The following three dimensions have been measured since then: Affect of Service, Information Control, and Library as Place. In addition, three core items were eliminated from the 2003 version of the survey, leaving 22 core items on the final survey instrument.

The list below displays the dimensions used to present the results in the 2008 notebooks, along with the questions that relate to each dimension. *(Note: The questions below are those used in the College and University implementation of the survey, American English version.)*

Affect of Service

[AS-1] Employees who instill confidence in users
[AS-2] Giving users individual attention
[AS-3] Employees who are consistently courteous
[AS-4] Readiness to respond to users' questions
[AS-5] Employees who have the knowledge to answer user questions
[AS-6] Employees who deal with users in a caring fashion
[AS-7] Employees who understand the needs of their users
[AS-8] Willingness to help users
[AS-9] Dependability in handling users' service problems

Information Control

[IC-1] Making electronic resources accessible from my home or office
[IC-2] A library Web site enabling me to locate information on my own
[IC-3] The printed library materials I need for my work
[IC-4] The electronic information resources I need
[IC-5] Modern equipment that lets me easily access needed information
[IC-6] Easy-to-use access tools that allow me to find things on my own
[IC-7] Making information easily accessible for independent use
[IC-8] Print and/or electronic journal collections I require for my work

Library as Place

[LP-1] Library space that inspires study and learning
[LP-2] Quiet space for individual activities
[LP-3] A comfortable and inviting location
[LP-4] A getaway for study, learning or research
[LP-5] Community space for group learning and group study

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