LibQUAL+®

2013 Survey

GEORGIA TECH

Association of Research Libraries / Texas A&M University

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1 Introduction

1.1 Acknowledgements

This notebook contains information from the 2013 administration of the LibQUAL+® protocol. The material on the following pages is drawn from the analysis of responses from the participating institutions collected in 2013.

The LibQUAL+® project requires the skills of a dedicated group. We would like to thank several alumni 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 contributions made by Consuella Askew, MaShana Davis, David Green, Richard Groves, Kaylyn Groves, Amy Hoseth, Kristina Justh, 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, a project known as DigiQUAL that produced valuable insights on the evolution of our work. 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. Through 2012, we have had 2,418 institutional surveys implemented across 1,263 institutions in over 28 countries, 21 language translations, and over 1.7 million respondents. About 40% of the users who respond to the survey 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 an experimental version of the LibQUAL+® Analytics (for more information, see Section 1.6). Between 2007 and 2010 we incorporated additional languages including non-roman languages like Chinese, Greek, Hebrew, and Japanese. In 2012, we added Korean, and in 2013 we are testing Arabic with the group of libraries in the Gulf Region.

In 2008, we started experimenting with a new technology platform that incorporates many desired enhancements and tested a shorter version of the LibQUAL+® survey known as LibQUAL+® Lite. In 2010, we launched the new platform in our operational environment after researching extensively the LibQUAL+® Lite behavior [see: Kyrillidou, M. (2009). *Item Sampling in Service Quality Assessment Surveys to Improve Rates and Reduce Respondent Burden: The 'LibQUAL+® Lite' Randomized ControlTrial (RCT)* (Doctoral dissertation). Retrieved from <https://www.ideals.illinois.edu/bitstream/handle/2142/14570/Kyrillidou_Martha.pdf?sequence=3>.

In 2010, we introduced a participation fee that rewards systematic periodic participation in LibQUAL+® in a way that the implementation fee gets reduced when a library implements the protocol on an annual or biennial basis. In 2011, we introduced a Membership Subscription fee to support access to the data repository for those years that libraries do not implement a survey and for future enhancement of LibQUAL+® Analytics. In 2012, we introduced the customization feature for the Position/User group categories.

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+® 2012 Survey Highlights
<**https://www.libqual.org/documents/LibQual/publications/2012_LibQUAL_Highlights.pdf**>

LibQUAL+® 2011 Survey Highlights
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2011_Full.pdf>
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2011_Full_Supplement.pdf>

LibQUAL+® 2010 Survey Highlights
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2010_Full.pdf>
<http://www.libqual.org/documents/LibQual/publications/LibQUALHighlights2010_Full_Supplement.pdf>

LibQUAL+® 2009 Survey Highlights

<http://www.libqual.org/documents/admin/LibQUALHighlights2009_Full.pdf>
<http://www.libqual.org/documents/admin/LibQUALHighlights2009_Full_Supplement.pdf>

LibQUAL+® 2008 Survey Highlights
<**http://www.libqual.org/documents/admin/LibQUALHighlights2008_Full1.pdf**>
<http://www.libqual.org/documents/admin/LibQUALHighlights2008_Full_Supplement1.pdf>

LibQUAL+® 2007 Survey Highlights
<http://www.libqual.org/documents/admin/LibQUALHighlights2007_Full1.pdf>
<http://www.libqual.org/documents/admin/2007_Highlights_Supplemental.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/resources/pubs/libqualpubs/index.shtml>

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. Furthermore, our websites, access technologies and discovery tools are not quite maximizing the value libraries can deliver. There is a lot of room for improvement in this area!***

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, collaborative, complementary and cohesive environment that can bring forth scalable innovations and break new ground. Innovation, demonstrating value and marketing services effectively are key activities contributing to stronger libraries with better services and improved learning and research outcomes for our users.

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. Furthermore, we recognize that this tool is one of the strategic elements of the evolving assessment infrastructure libraries are building, as can be seen from the Library Assessment Conference gatherings.

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, PhD
Senior Director, ARL Statistics and Service Quality Programs
Association of Research Libraries

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 paired with training that helps libraries assess and improve library services, change organizational culture, and market the library. The survey instrument measures library users' minimum, perceived, and desired service levels of service quality across three dimensions: Affect of Service, Information Control, and Library as Place. 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 comparable assessment information from peer institutions
- Identify best practices in library service
- Enhance library staff members' analytical skills for interpreting, and acting on data

Since 2000, more than 1,000 libraries have participated in LibQUAL+®, including college and university libraries, community college libraries, health sciences libraries, academic law libraries, and public libraries---some through various consortia, others as independent participants. LibQUAL+® has expanded internationally, with participating institutions in Africa, Asia, Australia and Europe. It has been translated into a number of languages, including Arabic, Afrikaans, Chinese (Traditional), Danish, Dutch, Finnish, French, German, Greek, Hebrew, Japanese, Korean, 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 LibQUAL+® 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. Use our online Management Center to set up and track the progress of your survey. You invite your users to take the survey by distributing the URL for your library's Web form via e-mail or posting a link to your survey on the library's Web site. Respondents complete the survey form and their answers are sent to the LibQUAL+® 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 2013 iteration of the LibQUAL+® survey will be available to project participants online in the Data Repository via the LibQUAL+® survey management site:

<http://www.libqual.org/repository>

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/about/about_survey/tools>

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. If all users rated an item identically, the SD would be zero. Larger SDs indicate more disparate opinions of the users about library service quality.

In this notebook, standard deviations are provided for every mean presented in the tables. In a very real sense, the SD indicates how well a given numerical mean does at representing all the data. If the SD of the scores about a given mean was zero, the mean perfectly represents everyone's scores, and all the scores and the mean are all identical!

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+® 2013

Libraries today confront escalating pressure to demonstrate value and 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; Kyrillidou & Cook, 2008; Kyrillidou, Cook, & Rao, 2008; Thompson, Cook & Heath, 2003; Thompson, Cook & Thompson, 2002; Thompson, Kyrillidou & Cook, 2007a, 2007b, 2008).

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).

LibQUAL+® Lite

In 2010, the LibQUAL+® Lite customization feature was introduced: a shorter version of the survey that takes less time to fill in. The Lite protocol uses item sampling methods to gather data on all 22 LibQUAL+® core items, while only requiring a given single user to respond to a subset of the 22 core questions. Every Lite user responds to one "linking" item from each of the subscales (Affect of Service, Information Control, and Library as Place), and to a randomly-selected subset of five items from the remaining 19 core LibQUAL+® items. However, all 22 core items are completed by at least some users on a given campus. As a consequence, because individual Lite users only complete a subset of the core items, survey response times are roughly cut in half, while the library still receives data on every survey question. Each participating library sets a "Lite-view Percentage" to determine what percentage of individuals will randomly receive the Lite versus the long version of the survey.

The mechanics of item sampling strategy and results from pilot testing are described in Martha Kyrillidou's dissertation. Findings indicate that LibQUAL+® Lite is the preferred and improved alternative to the long form of 22 core items that has been established since 2003. The difference between the long and the Lite version of the survey is enough to result in higher participation rates ranging from 3.1 to 10.6 percent more for surveys that reduce average response times from 10 to 6 minutes (Kyrillidou, 2009, Thompson, Kyrillidou & Cook, 2009a; Thompson, Kyrillidou & Cook, 2009b).

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. Kyrillidou (2008) edited a compilation of articles that complements and provides an updated perspective on these earlier special issues. These publications can be ordered by sending an email to libqual@arl.org. Numerous other articles have been published in the literature and a good number of references can be located on the LibQUAL+® publication page search engine under 'Related articles.'

2013 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 2013 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 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 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 presented core 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., an 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. *It was decided that records of the long version of the survey containing more than 11 "N/A" responses and records of the Lite version containing more than 4 "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 was made. *Records of the long version of the survey containing more than 9 logical inconsistencies and records of the Lite version containing more than 3 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). LibQUAL+® norms are available on the LibQUAL+® Web site at::

<http://www.libqual.org/resources/norms_tables>

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+® Analytics

The LibQUAL+® Analytics is a tool that permits participants to dynamically create institution-specific tables and charts for different subgroups and across years. The current interface grants access to 2004-2013 statistical data and unifies the legacy Institution Explorer (a summary of all questions and dimension means for any combination of

user groups and disciplines) and Longitudinal Analysis (allows participants to perform longitudinal comparisons of their data across survey years) modules to provide a one-stop dynamic shop to interactively analyze results and benchmark with other institutions.

Participants can refine the data by selecting specific years, user groups, and disciplines, view and save the selection in various tables and charts, and download their datasets for further manipulation in their preferred software. These current version of LibQUAL+® Analytics is only the beginning of our effort to provide more customized analysis. More features are in development based on feedback we receive from our participants. For a subscription to LibQUAL+® Analytics, email libqual@arl.org.

Survey Data

In addition to the notebooks, the norms, and the Analytics, LibQUAL+® also makes available (a) raw survey data in SPSS and (b) raw survey data in Excel for all participating libraries. 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. The survey comments are also downloadable in various formats from the Web site.

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>

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.

Library Assessment Conference

The growing community of practice related to library assessment is convening regularly in North America through the biennial Library Assessment Conference. Gatherings of this community took place in 2006, 2008, 2010 and 2012. The proceedings and recent information are available at

<http://www.libraryassessment.org>

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

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

References

Begay, Wendy, Daniel R. Lee, Jim Martin, and Michael Ray. “Quantifying Qualitative Data: Using LibQUAL+(TM) Comments for Library-Wide Planning Activities at the University of Arizona.” Journal of Library Administration 40, no. 3/4 (2004): 111-120.

Berry, L.L. *On Great Service: A Framework For Action.* New York: The Free Press, 1995.

Bradford, Dennis W. and Tim Bower. “Using Content Analysis Software to Analyze Survey Comments.” Portal: Libraries and the Academy 8, no. 4 (2008): 423-437.

Cabrerizo, Francisco J., Ignacio J. Pérez, Javier López-Gijón, Enrique Herrera-Viedma, An Extended LibQUAL+ Model Based on Fuzzy Linguistic Information. *Modeling Decisions for Artificial Intelligence Lecture Notes in Computer Science 2012*: 90-101.

Calvert, Philip, J. *Assessing the Effectiveness and Quality of Libraries.* Ph.D. Thesis, Victoria University of Wellington, 2008.

Cook, Colleen C., Fred Heath, and Bruce Thompson. LibQUAL+™ from the UK Perspective. 5th Northumbria International Conference Proceedings, Durham, UK, July, 2003.

Cook, Colleen C. (Guest Ed.). “Library Decision-Makers Speak to Their Uses of Their LibQUAL+™ Data: Some LibQUAL+™ Case Studies.” *Performance Measurement and Metrics*, 3 (2002b).

Cook, Colleen C. “A Mixed-Methods Approach to the Identification and Measurement of Academic Library Service Quality Constructs: LibQUAL+™.” (PhD diss., Texas A&M University, 2001) *Dissertation Abstracts International*, 62 (2002A): 2295A (University Microfilms No. AAT3020024).

Cook, Colleen C., and Fred Heath. “Users' Perceptions of Library Service Quality: A ’LibQUAL+™’ Qualitative Study.” *Library Trends*, 49 (2001): 548-84.

Cook, Colleen C., Fred Heath, and Bruce Thompson. “’Zones of tolerance’ in Perceptions of Library Service Quality: A LibQUAL+™ Study.” *portal: Libraries and the Academy*, 3 (2003): 113-123.

Cook, Colleen C., Fred Heath and Bruce Thompson.. “Score Norms for Improving Library Service Quality: A LibQUAL+™ Study.” *portal: Libraries and the Academy*, 2 (2002): 13-26.

Cook, Colleen C., Fred Heath, and Russell L. Thompson. “A Meta-Analysis of Response Rates in Web- or Internet-based Surveys.” *Educational and Psychological Measurement*, 60 (2000): 821-36.

Cook, Colleen C., and Bruce Thompson. “Psychometric Properties of Scores from the Web-based LibQUAL+™ Study of Perceptions of Library Service Quality.” *Library Trends*, 49 (2001): 585-604.

Cook, C., Bruce Thompson, and Martha Kyrillidou. (2010, May). Does using item sampling methods in library service quality assessment affect score norms?: A LibQUAL+® Lite study. <http://libqual.org/documents/LibQual/publications/lq_gr_3.pdf>. Paper presented at the 2nd Qualitative and Quantitative Methods in Libraries (QQML 2010) International Conference, Chania (Crete), Greece, May 27, 2010.

Cullen, Rowena. “Perspectives on User Satisfaction Surveys.” *Library Trends*, 49 (2002): 662-86.

Greenwood, Judy T., Alex P. Watson, and Melissa Dennis. “Ten Years of LibQual: A Study of Qualitative and Quantitative Survey Results at the University of Mississippi 2001-2010.” *The Journal of Academic Librarianship* 37, no. 4 (2011): 312-318.

Guidry, Julie Anna. "LibQUAL+(TM) spring 2001 comments: a qualitative analysis using Atlas.ti ." *Performance Measurement and Metrics* 3, no. 2 (2002): 100-107.

Heath, F., Martha Kyrillidou. and Consuella A. Askew (Guest Eds.). "Libraries Report on Their LibQUAL+® Findings: From Data to Action." *Journal of Library Administration* 40 (3/4) (2004).

Heath, F., Colleen C. Cook, Martha Kyrillidou, and Bruce Thompson. "ARL Index and Other Validity Correlates of LibQUAL+™ Scores." *portal: Libraries and the Academy*, 2 (2002): 27-42.

Jones, Sherri and Kayongo, Jessica. "Identifying Student and Faculty Needs through LibQUAL+™: An Analysis of Qualitative Survey Comments." *College & Research Libraries* 69, no. 6 (2008): 493-509.

Kieftenbeld, Vincent and Prathiba Natesan. "Examining the measurement and structural invariance of LibQUAL+® across user groups." *Library & Information Science Research* (2013, in press).

Kyrillidou, M. The Globalization of Library Assessment and the Role of LibQUAL+®. From Library Science to Information Science: Studies in Honor of G. Kakouri (Athens, Greece: Tipothito-Giorgos Dardanos, 2005). [In Greek]

Kyrillidou, Martha. "Library Assessment As A Collaborative Enterprise." *Resource Sharing and Information Networks*, 18 ½ (2005-2006): 73-87.

Kyrillidou, Martha. (2006). "Measuring Library Service Quality: A Perceived Outcome for Libraries. This chapter appears in *Revisiting Outcomes Assessment in Higher Education.* Edited by Peter Hernon, Robert E. Dugan, and Candy Schwartz (Westport, CT: Library Unlimited, 2006): 351-66.

Kyrillidou, Martha. (Guest Ed.). "LibQUAL+® and Beyond: Library assessment with a focus on library improvement." *Performance Measurement and Metrics*, 9 (3) (2008).

Kyrillidou, M. "Item Sampling in Service Quality Assessment Surveys to Improve Response Rates and Reduce Respondent Burden: The "LibQUAL+® Lite" Randomized Control Trial (RCT)" (PhD diss., University of Illinois at Urbana-Champaign, 2009). <https://www.ideals.illinois.edu/bitstream/handle/2142/14570/Kyrillidou_Martha.pdf?sequence=3>

Kyrillidou, Martha and Colleen C. Cook. "The evolution of measurement and evaluation of libraries: a perspective from the Association of Research Libraries." *Library Trends* 56 (4) (Spring 2008): 888-909.

Kyrillidou, Martha and Colleen C. Cook and S. Shyam Sunder Rao. "Measuring the Quality of Library Service through LibQUAL+®." In *Academic Library Research: Perspectives and Current Trends.* Edited by Marie L. Radford and Pamela Snelson (Chicago, IL: ACRL/ALA, 2008): 253-301.

Kyrillidou, M., Terry Olshen, Fred Heath, Claude Bonnelly, and Jean-Pierre Côte. "Cross-Cultural Implementation of LibQUAL+™: the French Language Experience. *5th Northumbria International Conference Proceedings* (Durham, UK, 2003): 193-99.

Kyrillidou, M., Colleen Cook. and Bruce Thompson. (2010, May). Does using item sampling methods in library service quality assessment affect zone of tolerance boundaries?: A LibQUAL+® Lite study <http://libqual.org/documents/LibQual/publications/lq_gr_2.pdf>. Paper presented at the 2nd Qualitative and Quantitative Methods in Libraries (QQML 2010) International Conference, Chania (Crete), Greece, May 27, 2010.

Kyrillidou, M. and Mark Young. ARL Statistics 2003-04. Washington, DC: Association of Research Libraries, 2005.

Lane, Forrest C., Baaska Anderson, Hector F. Ponce and Prathiba Natesan. "Factorial Invariance of LibQUAL+® as

a Measure of Library Service Quality Over Time." *Library & Information Science Research* 34, no. 1 (2012): 22-30.

Miller, Kathleen. *Service Quality in Academic Libraries: An Analysis of LibQUAL+™ Scores and Instiutional Characteristics* . Ed.D. Dissertation, University of Central Florida, 2008.

Nitecki, D.A. "Changing the Concept and Measure of Service Quality in Academic Libraries." *The Journal of Academic Librarianship*, 22 (1996): 181-90.

Parasuraman, A., Leonard Berry, and Valerie Zeithaml. "Refinement and Reassessment of the SERVQUAL Scale *Journal of Retailing*, 67 (1991): 420-50.

Thompson, B. "Representativeness Versus Response Rate: It Ain't the Response Rate!." Paper presented at the Association of Research Libraries (ARL) Measuring Service Quality Symposium on the New Culture of Assessment: Measuring Service Quality, Washington, DC, October 2002.

Thompson, B., Colleen C. Cook, and Fred Heath. "The LibQUAL+™ Gap Measurement Model: The Bad, he Ugly, and the Good of Gap Measurement." *Performance Measurement and Metrics*, 1 (2002): 165-78.

Thompson, B., Colleen C. Cook, and Fred Heath. "Structure of Perceptions of Service Quality in Libraries: A LibQUAL+™ Study." *Structural Equation Modeling*, 10 (2003): 456-464.

Thompson, B., Colleen C. Cook, and Russell L. Thompson. Reliability and Structure of LibQUAL+™ Scores: Measuring Perceived Library Service Quality. *portal: Libraries and the Academy*, 2 (2002): 3-12.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. (2005). Concurrent validity of LibQUAL+® scores: What do LibQUAL+® scores measure? *Journal of Academic Librarianship*, 31: 517-22.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "Using Localized Survey Items to Augment Standardized Benchmarking Measures: A LibQUAL+® Study. *portal: Libraries and the Academy*, 6(2) (2006): 219-30.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "Stability of Library Service Quality Benchmarking Norms Across Time and Cohorts: A LibQUAL+® Study." Paper presented at the Asia-Pacific Conference of Library and Information Education and Practice (A-LIEP), Singapore, April 3-4 2006.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "How Can You Evaluate the Integrity of Your Library Assessment Data: Intercontinental LibQUAL+® Analysis Used as Concrete Heuristic Examples." Paper presented at the Library Assessment Conference: Building Effective, Sustainable, and Practical Assessment, Charlottesville, VA, August 4-6, 2006.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "On-premises Library versus Google™-Like Information Gateway Usage Patterns: A LibQUAL+® Study." *portal: Libraries and the Academy* 7 (4) (Oct 2007a): 463-480.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "User library service expectations in health science vs. other settings: a LibQUAL+® Study." *Health Information and Libraries Journal* 24 (8) Supplement 1, (Dec 2007b): 38-45.

Thompson, B., Colleen C. Cook, and Martha Kyrillidou. "Library Users Service Desires: a LibQUAL+® Study." *Library Quarterly* 78 (1) (Jan 2008): 1-18.

Thompson, B., Martha Kyrillidou, and Colleen Cook. "Item sampling in service quality assessment surveys to improve response rates and reduce respondent burden: The "LibQUAL+® Lite" example." *Performance Measurement & Metrics*, 10 (1) (2009): 6-16.

Thompson, B., Martha Kyrillidou, and Colleen Cook. “Equating scores on Lite and long library user survey forms: The LibQUAL+® Lite randomized control trials.” *Performance Measurement & Metrics*, 10 (3) (2009): 212-219.

Thompson, B., Martha Kyrillidou, and Colleen Cook. (2010, May). “Does using item sampling methods in library service quality assessment compromise data integrity?: A LibQUAL+® Lite study. <http://libqual.org/documents/LibQual/publications/lq_gr_1.pdf>”. Paper presented at the 2nd Qualitative and Quantitative Methods in Libraries (QQML 2010) International Conference, Chania (Crete), Greece, May 27, 2010.

Thompson, B., Martha Kyrillidou, and Colleen Cook (forthcoming). “Does using item sampling methods in library service quality assessment compromise data integrity or zone of tolerance interpretation?: A LibQUAL+® Lite Study.” 2010 Library Assessment Conference: Building Effective, Sustainable, Practical Assessment. Baltimore MD, October 25-27, 2010. (Washington DC: Association of Research Libraries, 2011).

Voorbij, H.. “The use of LibQUAL+ by European research libraries,” *Performance Measurement and Metrics*, Vol. 13 Iss: 3 (2012): 154 - 168.

Zeithaml, Valerie, A. Parasuraman, and Leonard L. Berry. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: Free Press, 1990.

1.7 Library Statistics for GEORGIA TECH

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:	**2,560,562**
Volumes added during year - Gross:	**51,864**
Total number of serial titles currently received,:	**18,675**
Total library expenditures (in U.S. $):	**$14,042,895**
Personnel - professional staff, FTE:	**53**
Personnel - support staff, FTE:	**80**
Total library materials expenditures (in U.S. $):	**6,931,145**
Total salaries and wages for professional staff (in U.S. $):	**5,935,202**

1.8 Contact Information for GEORGIA TECH

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

Name:	**Ameet Doshi**
Title:	**User Engagement Librarian/Assessment Coordinator**
Address:	**Georgia Institute of Technology** **Library and Information Center** **704 Cherry St.** **Atlanta, GEORGIA 30332-0900** **United States of America**
Phone:	**404-894-4598**
Email:	**ameet.doshi@library.gatech.edu**

1.9 Survey Protocol and Language for GEORGIA TECH

The data below indicate the number of valid surveys collected by language and long/Lite breakdowns.

		Lite	**Total** *(by Language)*
English (American)	Count	704	**704**
	% of Protocol	*100.00%*	*100.00%*
	% of Language	*100.00%*	*100.00%*
	% of Total Cases	*100.00*	*100.00*
Total *(by Survey Protocol)*	Count	**704**	**704**
	% of Protocol	*100.00%*	*100.00%*
	% of Language	*100.00%*	*100.00%*
	% of Total Cases	*100.00*	*100.00*

2 Demographic Summary for GEORGIA TECH

2.1 Respondents by User Group

User Group		Respondent n	Respondent %
Undergraduate			
First year		72	10.23%
Second year		57	8.10%
Third year		79	11.22%
Fourth year		74	10.51%
Fifth year and above		28	3.98%
Non-degree or Undecided		3	0.43%
	Sub Total:	313	44.46%
Graduate			
Masters		109	15.48%
Doctoral		157	22.30%
Non-degree or Undecided		0	0.00%
	Sub Total:	266	37.78%
Faculty			
Professor		29	4.12%
Associate Professor		11	1.56%
Assistant Professor		12	1.70%
Lecturer		4	0.57%
Adjunct Faculty		1	0.14%
Other Faculty Status		2	0.28%
Research Scientist or Engineer		35	4.97%
Post-Doc or Visiting Scholar		29	4.12%
	Sub Total:	123	17.47%
Staff			
Staff		2	0.28%
	Sub Total:	2	0.28%
Total:		**704**	**100.00%**

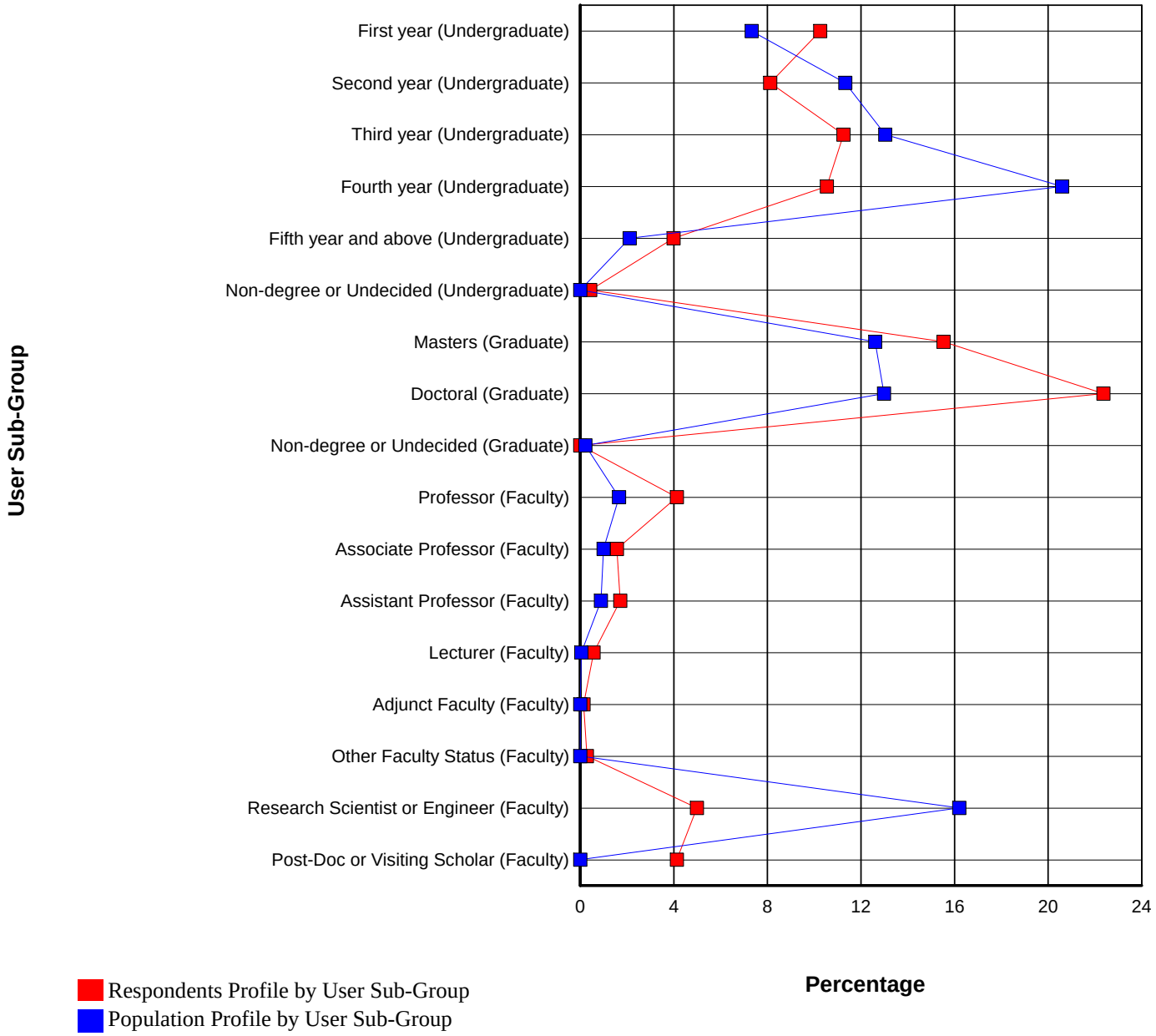
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

User Sub-Group	Population N	Population %	Respondents n	Respondents %	%N - %n
First year (Undergraduate)	1,823	7.33	72	10.26	-2.93
Second year (Undergraduate)	2,819	11.33	57	8.12	3.21
Third year (Undergraduate)	3,244	13.04	79	11.25	1.78
Fourth year (Undergraduate)	5,125	20.60	74	10.54	10.06
Fifth year and above (Undergraduate)	526	2.11	28	3.99	-1.87
Non-degree or Undecided (Undergraduate)	0	0.00	3	0.43	-0.43
Masters (Graduate)	3,137	12.61	109	15.53	-2.92
Doctoral (Graduate)	3,231	12.98	157	22.36	-9.38
Non-degree or Undecided (Graduate)	55	0.22	0	0.00	0.22
Professor (Faculty)	412	1.66	29	4.13	-2.48
Associate Professor (Faculty)	248	1.00	11	1.57	-0.57
Assistant Professor (Faculty)	220	0.88	12	1.71	-0.83
Lecturer (Faculty)	12	0.05	4	0.57	-0.52
Adjunct Faculty (Faculty)	0	0.00	1	0.14	-0.14
Other Faculty Status (Faculty)	0	0.00	2	0.28	-0.28
Research Scientist or Engineer (Faculty)	4,031	16.20	35	4.99	11.21
Post-Doc or Visiting Scholar (Faculty)	0	0.00	29	4.13	-4.13
Total:	**24,883**	**100.00**	**702**	**100.00**	**0.00**

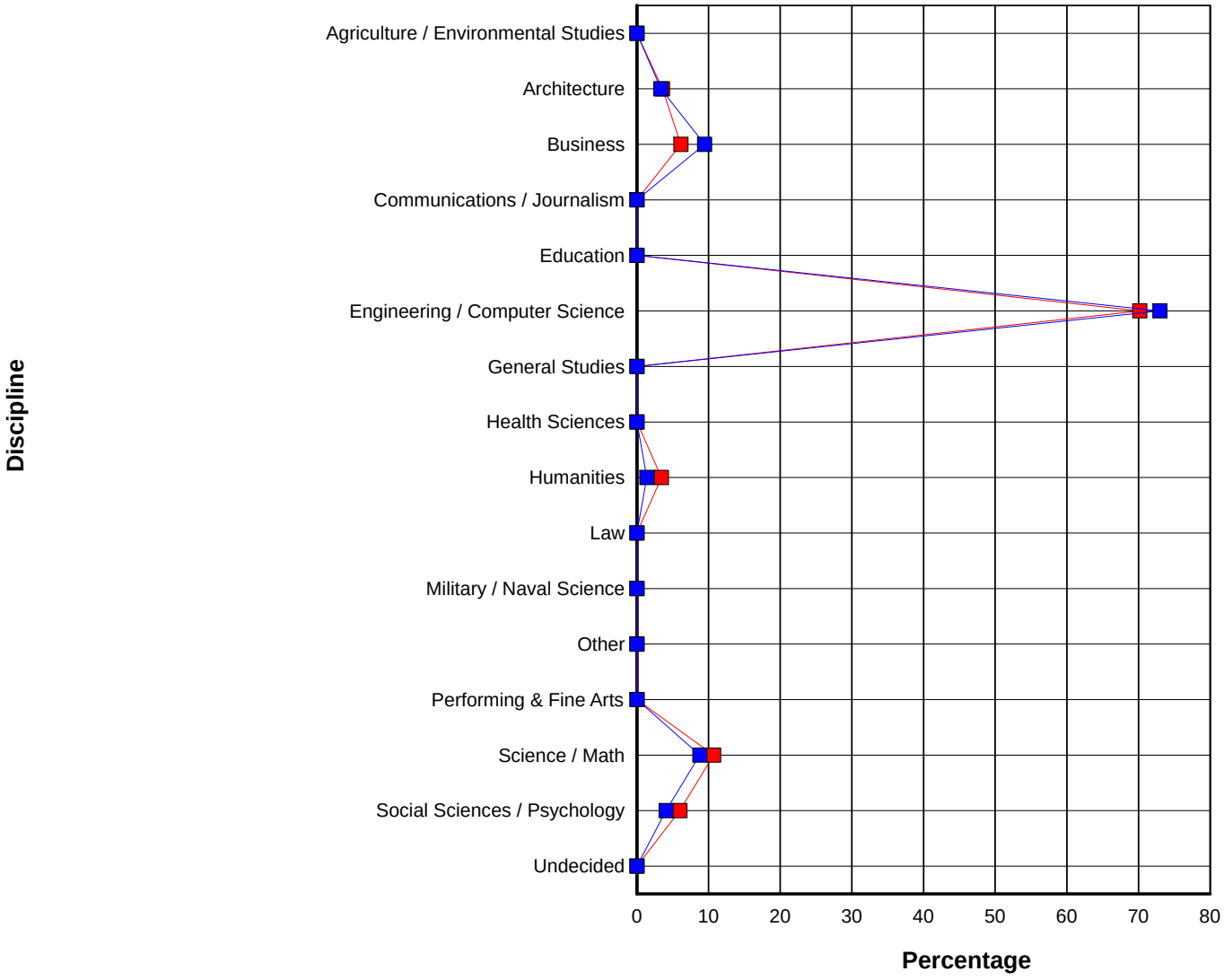
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	0	0.00	0	0.00	0.00
Architecture	681	3.33	25	3.57	-0.24
Business	1,932	9.45	43	6.13	3.31
Communications / Journalism	0	0.00	0	0.00	0.00
Education	0	0.00	0	0.00	0.00
Engineering / Computer Science	14,922	72.98	492	70.19	2.79
General Studies	0	0.00	0	0.00	0.00
Health Sciences	0	0.00	0	0.00	0.00
Humanities	283	1.38	24	3.42	-2.04
Law	0	0.00	0	0.00	0.00
Military / Naval Science	0	0.00	0	0.00	0.00
Other	0	0.00	0	0.00	0.00
Performing & Fine Arts	5	0.02	0	0.00	0.02
Science / Math	1,794	8.77	75	10.70	-1.93
Social Sciences / Psychology	831	4.06	42	5.99	-1.93
Undecided	0	0.00	0	0.00	0.00
Total:	**20,448**	**100.00**	**701**	**100.00**	**0.00**

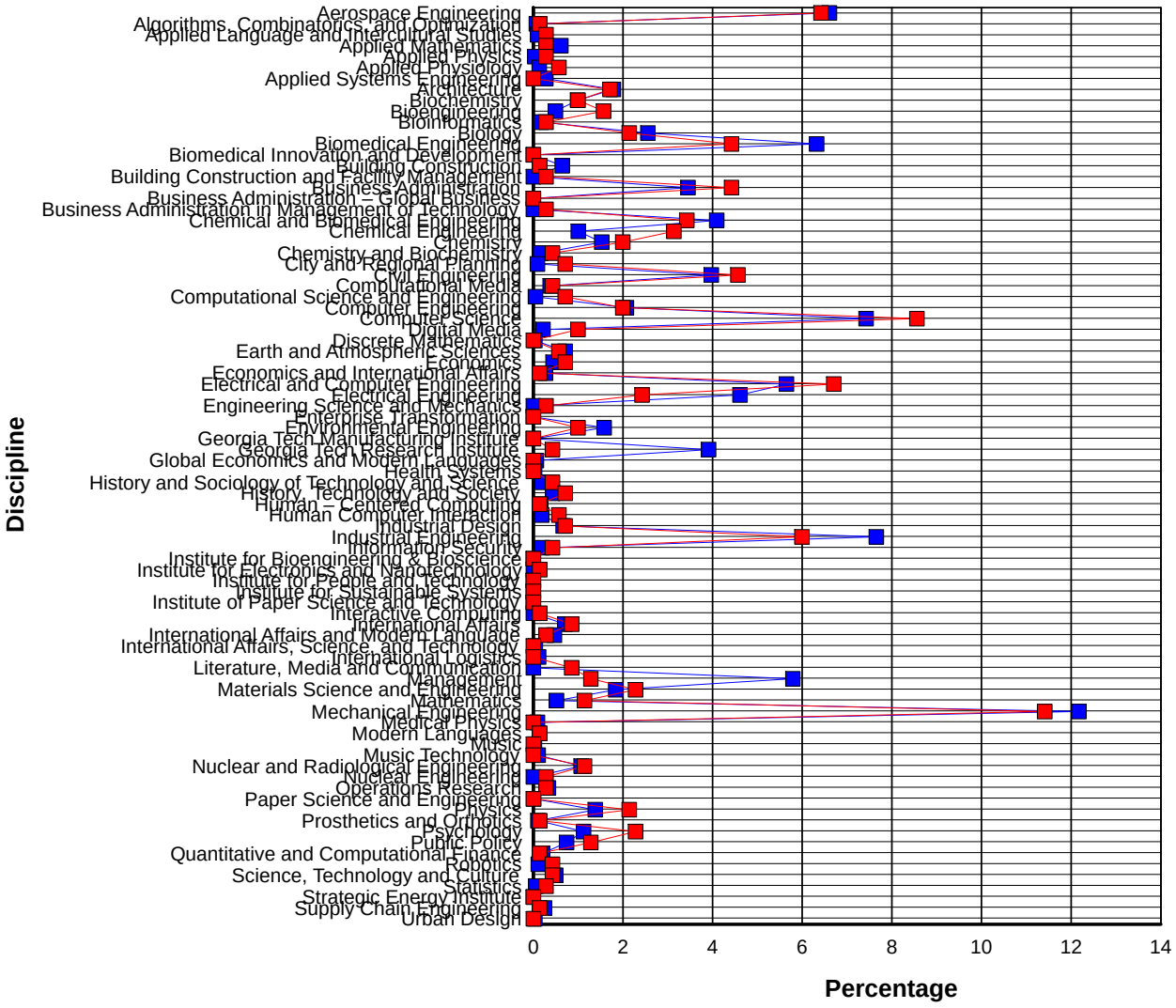
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

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.*



Respondents Profile by User Sub-Group
Population Profile by User Sub-Group

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Aerospace Engineering	1,351	6.61	45	6.42	0.19
Algorithms, Combinatorics, and Optimization	14	0.07	1	0.14	-0.07
Applied Language and Intercultural Studies	20	0.10	2	0.29	-0.19
Applied Mathematics	126	0.62	2	0.29	0.33
Applied Physics	7	0.03	2	0.29	-0.25
Applied Physiology	27	0.13	4	0.57	-0.44
Applied Systems Engineering	57	0.28	0	0.00	0.28
Architecture	365	1.79	12	1.71	0.07
Biochemistry	202	0.99	7	1.00	-0.01
Bioengineering	101	0.49	11	1.57	-1.08
Bioinformatics	36	0.18	2	0.29	-0.11
Biology	523	2.56	15	2.14	0.42
Biomedical Engineering	1,293	6.32	31	4.42	1.90
Biomedical Innovation and Development	0	0.00	0	0.00	0.00
Building Construction	132	0.65	1	0.14	0.50
Building Construction and Facility Management	0	0.00	2	0.29	-0.29
Business Administration	706	3.45	31	4.42	-0.97
Business Administration – Global Business	0	0.00	0	0.00	0.00
Business Administration in Management of Technology	0	0.00	2	0.29	-0.29
Chemical and Biomedical Engineering	837	4.09	24	3.42	0.67
Chemical Engineering	205	1.00	22	3.14	-2.14
Chemistry	312	1.53	14	2.00	-0.47
Chemistry and Biochemistry	34	0.17	3	0.43	-0.26
City and Regional Planning	19	0.09	5	0.71	-0.62
Civil Engineering	812	3.97	32	4.56	-0.59
Computational Media	77	0.38	3	0.43	-0.05
Computational Science and Engineering	10	0.05	5	0.71	-0.66
Computer Engineering	425	2.08	14	2.00	0.08
Computer Science	1,518	7.42	60	8.56	-1.14
Digital Media	44	0.22	7	1.00	-0.78
Discrete Mathematics	7	0.03	0	0.00	0.03
Earth and Atmospheric Sciences	146	0.71	4	0.57	0.14
Economics	90	0.44	5	0.71	-0.27
Economics and International Affairs	56	0.27	1	0.14	0.13
Electrical and Computer Engineering	1,155	5.65	47	6.70	-1.06
Electrical Engineering	943	4.61	17	2.43	2.19

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

Engineering Science and Mechanics	0	0.00	2	0.29	-0.29
Enterprise Transformation	0	0.00	0	0.00	0.00
Environmental Engineering	323	1.58	7	1.00	0.58
Georgia Tech Manufacturing Institute	0	0.00	0	0.00	0.00
Georgia Tech Research Institute	800	3.91	3	0.43	3.48
Global Economics and Modern Languages	14	0.07	0	0.00	0.07
Health Systems	6	0.03	0	0.00	0.03
History and Sociology of Technology and Science	41	0.20	3	0.43	-0.23
History, Technology and Society	89	0.44	5	0.71	-0.28
Human – Centered Computing	33	0.16	1	0.14	0.02
Human Computer Interaction	39	0.19	4	0.57	-0.38
Industrial Design	136	0.67	5	0.71	-0.05
Industrial Engineering	1,565	7.65	42	5.99	1.66
Information Security	40	0.20	3	0.43	-0.23
Institute for Bioengineering & Bioscience	0	0.00	0	0.00	0.00
Institute for Electronics and Nanotechnology	0	0.00	1	0.14	-0.14
Institute for People and Technology	0	0.00	0	0.00	0.00
Institute for Sustainable Systems	0	0.00	0	0.00	0.00
Institute of Paper Science and Technology	0	0.00	0	0.00	0.00
Interactive Computing	0	0.00	1	0.14	-0.14
International Affairs	144	0.70	6	0.86	-0.15
International Affairs and Modern Language	96	0.47	2	0.29	0.18
International Affairs, Science, and Technology	9	0.04	0	0.00	0.04
International Logistics	24	0.12	0	0.00	0.12
Literature, Media and Communication	0	0.00	6	0.86	-0.86
Management	1,184	5.79	9	1.28	4.51
Materials Science and Engineering	376	1.84	16	2.28	-0.44
Mathematics	106	0.52	8	1.14	-0.62
Mechanical Engineering	2,489	12.17	80	11.41	0.76
Medical Physics	19	0.09	0	0.00	0.09
Modern Languages	28	0.14	1	0.14	-0.01
Music	5	0.02	0	0.00	0.02
Music Technology	22	0.11	0	0.00	0.11
Nuclear and Radiological Engineering	218	1.07	8	1.14	-0.08
Nuclear Engineering	0	0.00	2	0.29	-0.29
Operations Research	69	0.34	2	0.29	0.05
Paper Science and Engineering	2	0.01	0	0.00	0.01
Physics	283	1.38	15	2.14	-0.76

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff, Staff)

Prosthetics and Orthotics	21	0.10	1	0.14	-0.04
Psychology	229	1.12	16	2.28	-1.16
Public Policy	152	0.74	9	1.28	-0.54
Quantitative and Computational Finance	42	0.21	1	0.14	0.06
Robotics	23	0.11	3	0.43	-0.32
Science, Technology and Culture	102	0.50	3	0.43	0.07
Statistics	11	0.05	2	0.29	-0.23
Strategic Energy Institute	0	0.00	0	0.00	0.00
Supply Chain Engineering	51	0.25	1	0.14	0.11
Urban Design	7	0.03	0	0.00	0.03
Total:	**20,448**	**100.00**	**701**	**100.00**	**0.00**

2.5 Respondent Profile by Answer to the Question: The library that you use most often:

The library that you use most often:	Respondents n	Respondents %
Main Library and Archives	687	97.72
Architecture Library	16	2.28
Total:	**703**	**100.00**

2.6 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	1	0.14
18 - 22	294	41.76
23 - 30	267	37.93
31 - 45	95	13.49
46 - 65	42	5.97
Over 65	5	0.71
Total:	**704**	**100.00**

2.7 Respondent Profile 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 %
Female	6,286	29.89	209	29.69
Male	14,742	70.11	495	70.31
Total:	**21,028**	**100.00**	**704**	**100.00**

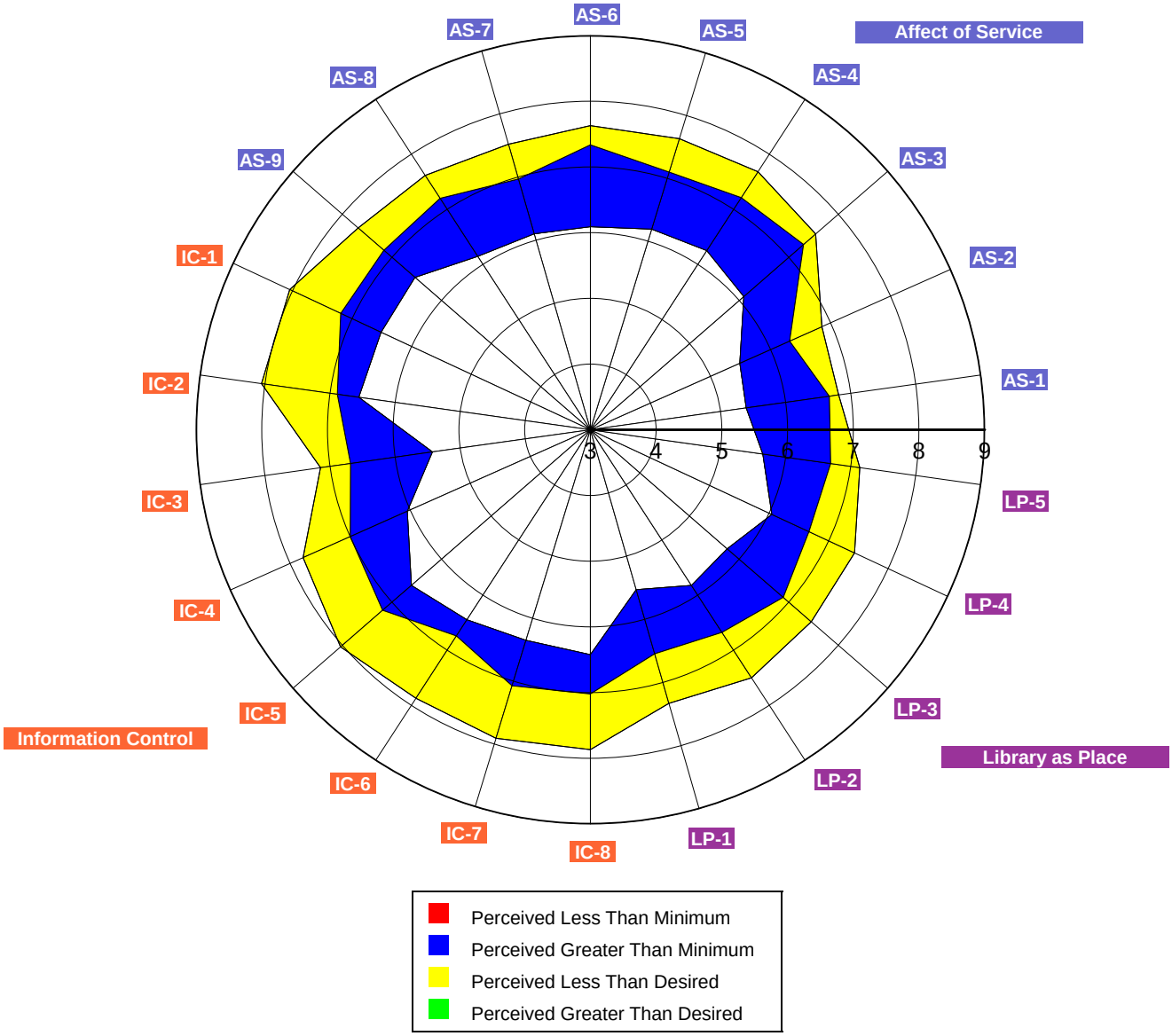
3. Survey Item Summary for GEORGIA TECH

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	5.39	6.82	6.67	1.28	-0.14	147
AS-2	Giving users individual attention	5.49	6.86	6.32	0.83	-0.54	153
AS-3	Employees who are consistently courteous	6.09	7.54	7.30	1.21	-0.24	160
AS-4	Readiness to respond to users' questions	6.25	7.68	7.22	0.96	-0.47	158
AS-5	Employees who have the knowledge to answer user questions	6.19	7.63	7.10	0.91	-0.53	175
AS-6	Employees who deal with users in a caring fashion	6.09	7.63	7.34	1.25	-0.29	654
AS-7	Employees who understand the needs of their users	6.10	7.52	6.97	0.87	-0.55	144
AS-8	Willingness to help users	6.15	7.62	7.20	1.05	-0.41	169
AS-9	Dependability in handling users' service problems	6.54	7.68	7.17	0.63	-0.52	145
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.51	8.05	7.19	0.68	-0.86	204
IC-2	A library Web site enabling me to locate information on my own	6.56	8.05	6.89	0.33	-1.16	182
IC-3	The printed library materials I need for my work	5.43	7.15	6.69	1.26	-0.46	178
IC-4	The electronic information resources I need	6.05	7.79	7.00	0.95	-0.79	681
IC-5	Modern equipment that lets me easily access needed information	6.61	8.04	7.19	0.58	-0.85	190
IC-6	Easy-to-use access tools that allow me to find things on my own	6.45	7.87	6.74	0.29	-1.13	198
IC-7	Making information easily accessible for independent use	6.35	7.91	7.07	0.72	-0.84	190
IC-8	Print and/or electronic journal collections I require for my work	6.42	7.87	7.02	0.60	-0.85	189
Library as Place							
LP-1	Library space that inspires study and learning	5.53	7.33	6.55	1.02	-0.78	637
LP-2	Quiet space for individual activities	5.82	7.50	6.68	0.85	-0.82	171
LP-3	A comfortable and inviting location	5.76	7.45	6.89	1.13	-0.56	163
LP-4	A getaway for study, learning, or research	6.05	7.44	6.67	0.62	-0.76	140
LP-5	Community space for group learning and group study	5.65	7.14	6.69	1.04	-0.45	157
Overall:		6.03	7.59	6.96	0.92	-0.63	704

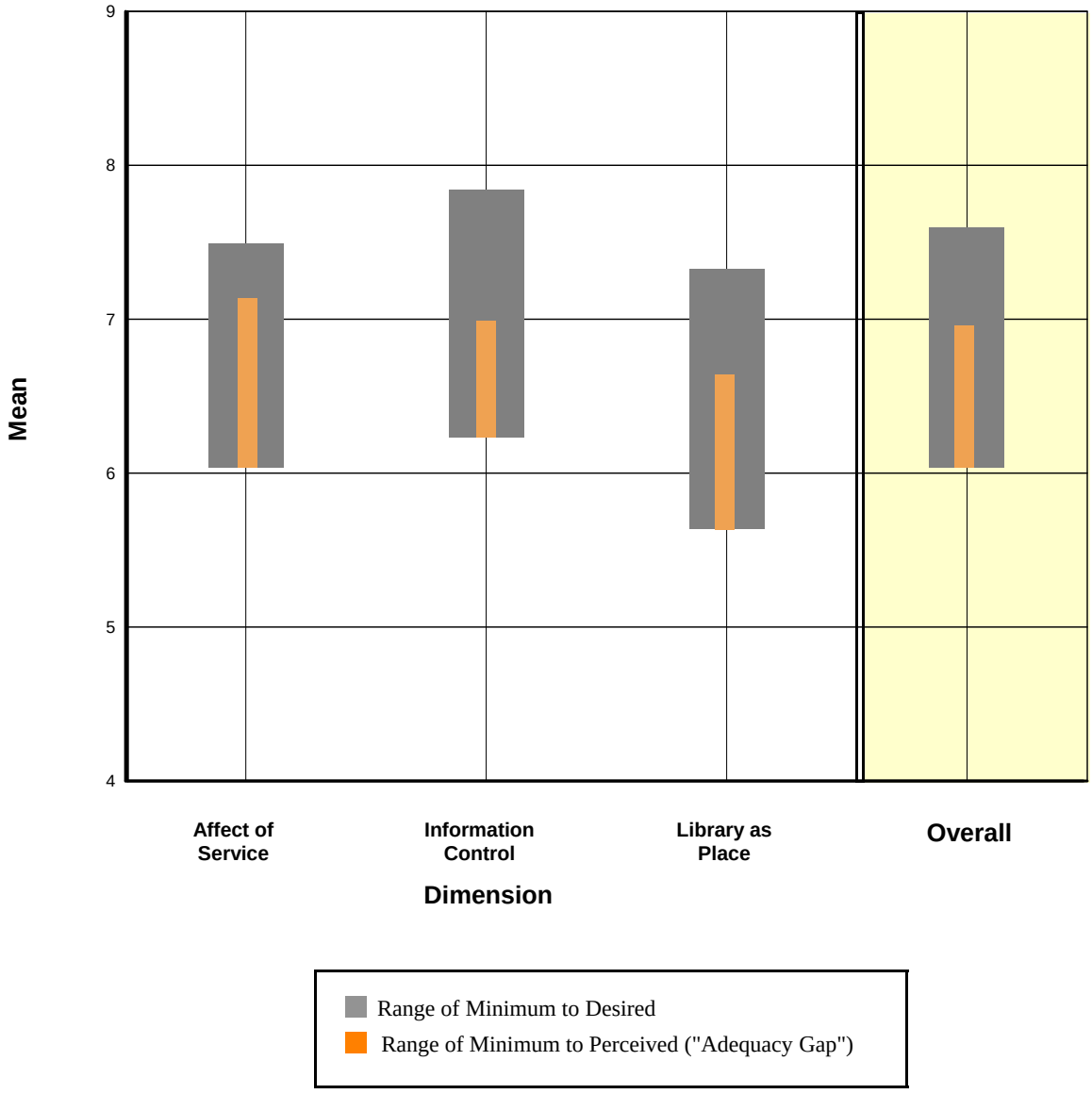
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff)

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	1.90	1.74	1.58	1.75	1.45	147
AS-2	Giving users individual attention	2.00	1.77	1.73	1.92	1.87	153
AS-3	Employees who are consistently courteous	1.85	1.58	1.43	1.87	1.54	160
AS-4	Readiness to respond to users' questions	1.77	1.37	1.65	1.99	1.72	158
AS-5	Employees who have the knowledge to answer user questions	1.78	1.53	1.55	1.88	1.66	175
AS-6	Employees who deal with users in a caring fashion	1.84	1.45	1.43	1.81	1.61	654
AS-7	Employees who understand the needs of their users	1.92	1.52	1.50	1.85	1.58	144
AS-8	Willingness to help users	1.67	1.49	1.37	1.61	1.44	169
AS-9	Dependability in handling users' service problems	1.84	1.43	1.41	1.74	1.56	145
Information Control							
IC-1	Making electronic resources accessible from my home or office	2.00	1.40	1.64	1.85	1.61	204
IC-2	A library Web site enabling me to locate information on my own	1.56	1.21	1.74	1.90	1.80	182
IC-3	The printed library materials I need for my work	2.13	1.79	1.48	1.93	1.69	178
IC-4	The electronic information resources I need	1.82	1.49	1.48	1.89	1.65	681
IC-5	Modern equipment that lets me easily access needed information	1.73	1.27	1.56	1.79	1.73	190
IC-6	Easy-to-use access tools that allow me to find things on my own	1.70	1.27	1.55	1.91	1.58	198
IC-7	Making information easily accessible for independent use	1.65	1.15	1.33	1.78	1.57	190
IC-8	Print and/or electronic journal collections I require for my work	1.83	1.65	1.58	2.13	2.01	189
Library as Place							
LP-1	Library space that inspires study and learning	2.02	1.97	1.72	2.34	2.31	637
LP-2	Quiet space for individual activities	2.16	2.03	1.75	2.56	2.48	171
LP-3	A comfortable and inviting location	2.03	1.75	1.57	2.21	1.98	163
LP-4	A getaway for study, learning, or research	2.06	1.82	1.80	2.17	2.20	140
LP-5	Community space for group learning and group study	2.12	2.11	1.75	2.36	2.16	157
Overall:		1.38	1.05	1.15	1.41	1.20	704

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	6.03	7.49	7.14	1.10	-0.35	688
Information Control	6.23	7.84	6.99	0.76	-0.85	702
Library as Place	5.64	7.32	6.64	1.01	-0.68	663
Overall	6.03	7.59	6.96	0.92	-0.63	704

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	1.67	1.34	1.34	1.62	1.40	688
Information Control	1.50	1.10	1.28	1.57	1.36	702
Library as Place	1.93	1.84	1.56	2.16	2.11	663
Overall	1.38	1.05	1.15	1.41	1.20	704

3.3 Local Question Summary

This table shows mean scores of 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
Access to archives, special collections	5.36	6.83	6.59	1.23	-0.24	108
Full-text delivered electronically to individual users	6.38	7.86	7.01	0.63	-0.85	125
Having comprehensive electronic resources	6.76	8.12	7.07	0.31	-1.05	120
Library staff teaching me how to effectively use the electronically available databases, journals, and books	5.22	6.60	6.66	1.44	0.05	129
The value of the library's resources and services to me for my academic success	6.53	7.97	7.31	0.78	-0.66	132

This table shows 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
Access to archives, special collections	2.32	2.03	1.77	2.28	2.31	108
Full-text delivered electronically to individual users	1.91	1.65	1.55	1.93	1.94	125
Having comprehensive electronic resources	1.68	1.24	1.59	1.89	1.62	120
Library staff teaching me how to effectively use the electronically available databases, journals, and books	2.25	2.04	1.79	2.33	2.05	129
The value of the library's resources and services to me for my academic success	1.60	1.26	1.28	1.63	1.41	132

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff)

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.	7.54	1.33	362
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.12	1.55	342
How would you rate the overall quality of the service provided by the library?	7.29	1.29	704

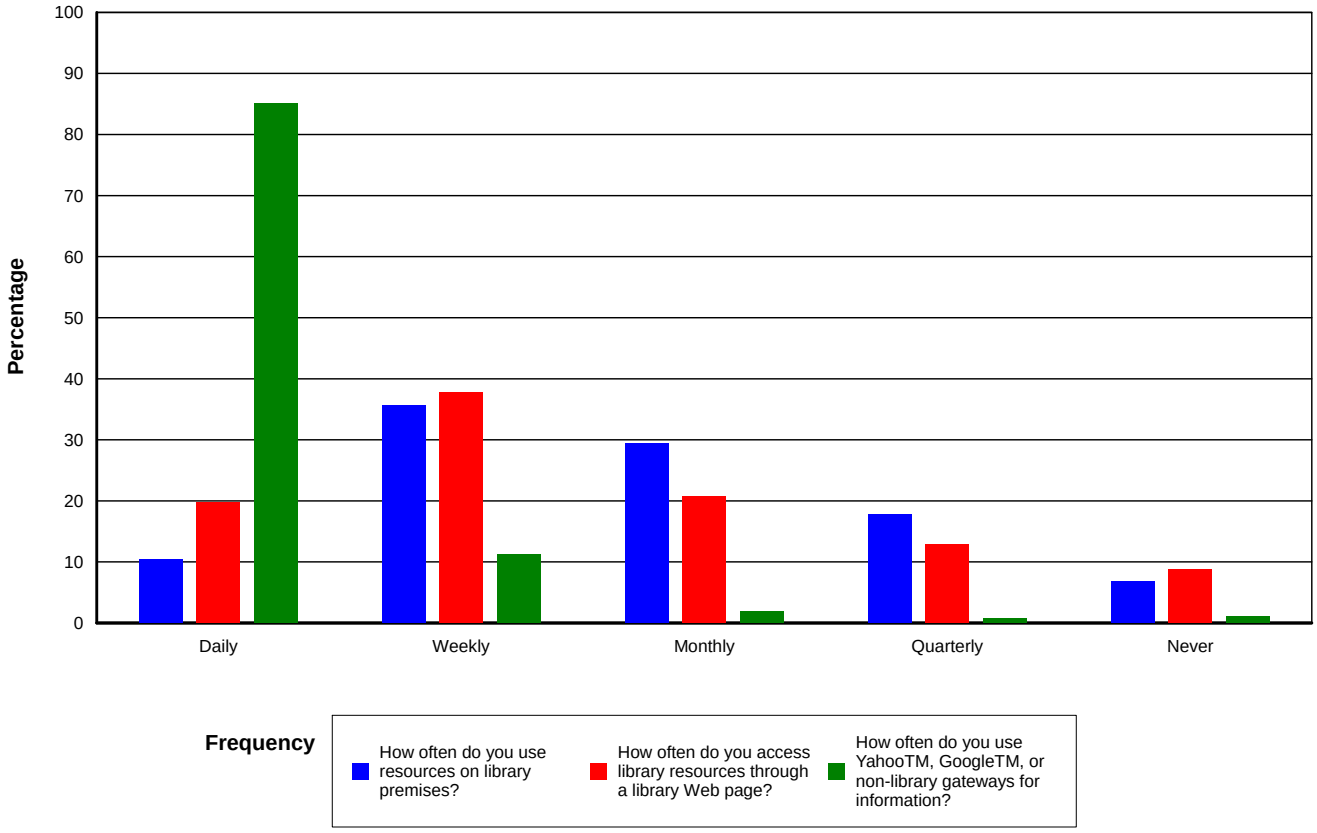
3.5 Information Literacy Outcomes Questions Summary

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.	5.96	1.97	232
The library aids my advancement in my academic discipline or work.	7.10	1.67	323
The library enables me to be more efficient in my academic pursuits or work.	7.07	1.63	310
The library helps me distinguish between trustworthy and untrustworthy information.	6.11	1.68	299
The library provides me with the information skills I need in my work or study.	6.67	1.54	244

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?	73 10.37%	251 35.65%	207 29.40%	125 17.76%	48 6.82%	704 100.00%
How often do you access library resources through a library Web page?	139 19.74%	266 37.78%	146 20.74%	91 12.93%	62 8.81%	704 100.00%
How often do you use YahooTM, GoogleTM, or non-library gateways for information?	599 85.09%	79 11.22%	13 1.85%	5 0.71%	8 1.14%	704 100.00%

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: All (Excluding Library Staff)

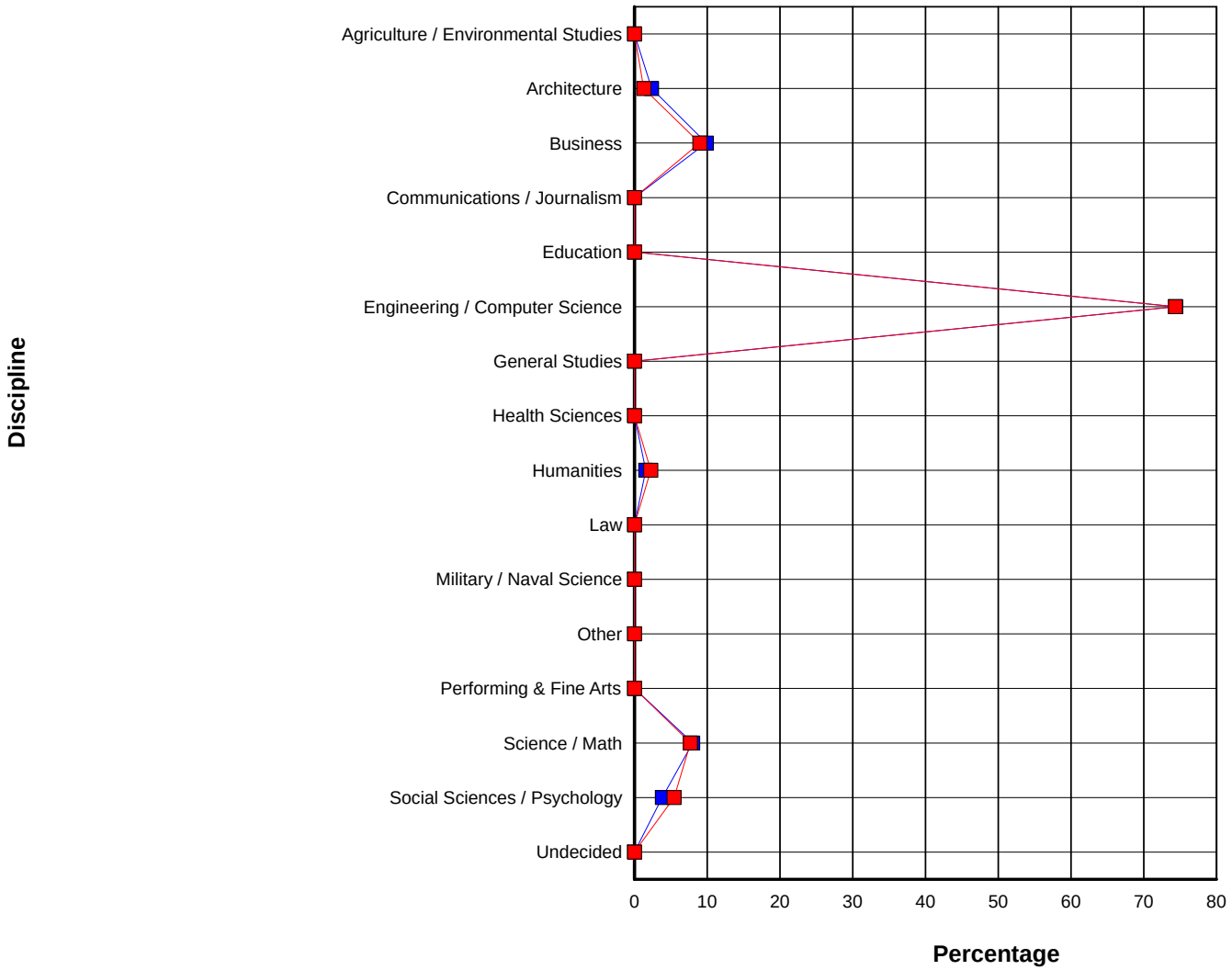
4 Undergraduate Summary for GEORGIA TECH

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).



Respondent Profile by Discipline
Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

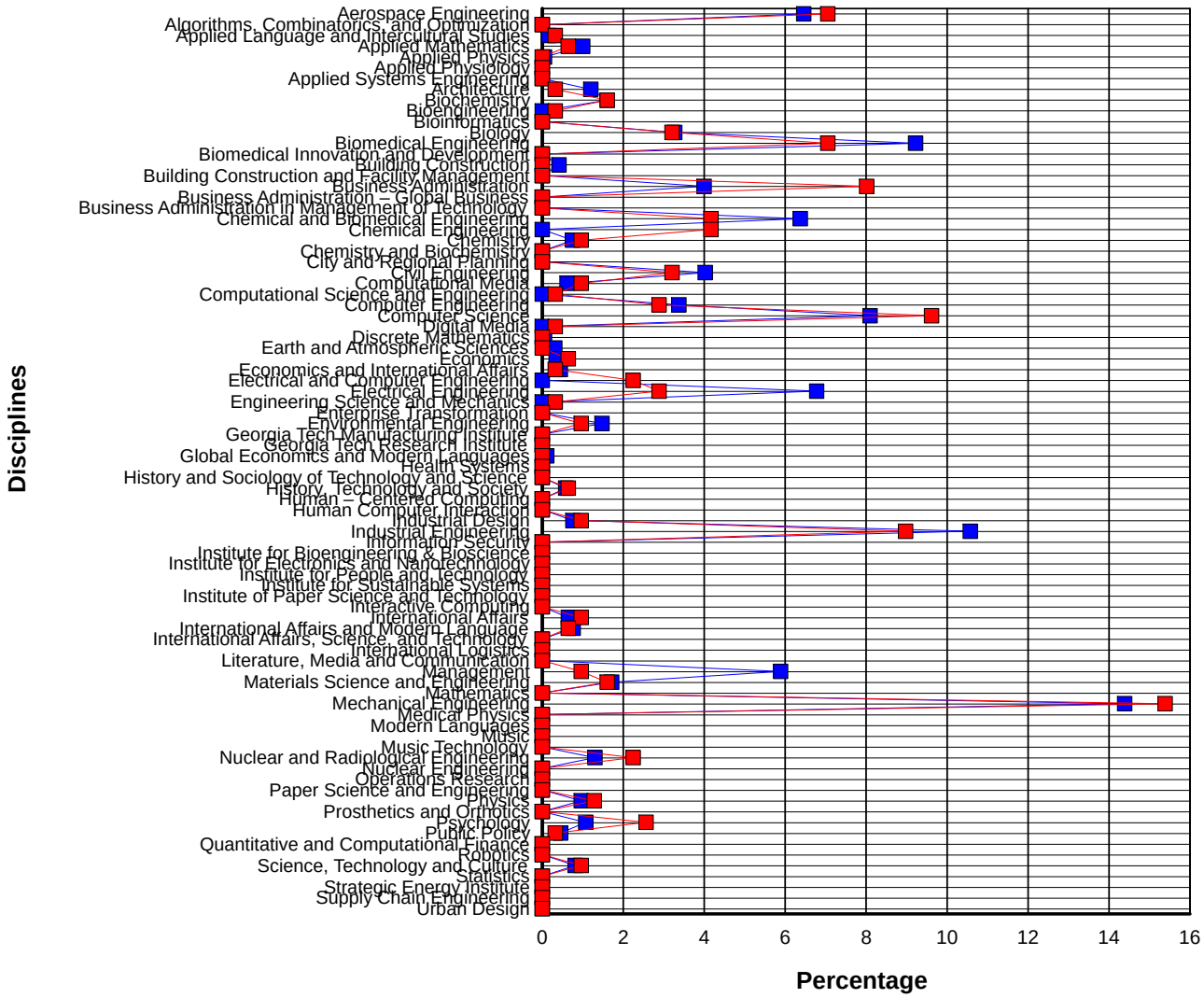
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	0	0.00	0	0.00	0.00
Architecture	298	2.36	4	1.28	1.08
Business	1,246	9.89	28	8.97	0.91
Communications / Journalism	0	0.00	0	0.00	0.00
Education	0	0.00	0	0.00	0.00
Engineering / Computer Science	9,373	74.38	232	74.36	0.02
General Studies	0	0.00	0	0.00	0.00
Health Sciences	0	0.00	0	0.00	0.00
Humanities	195	1.55	7	2.24	-0.70
Law	0	0.00	0	0.00	0.00
Military / Naval Science	0	0.00	0	0.00	0.00
Other	0	0.00	0	0.00	0.00
Performing & Fine Arts	0	0.00	0	0.00	0.00
Science / Math	1,008	8.00	24	7.69	0.31
Social Sciences / Psychology	482	3.82	17	5.45	-1.62
Undecided	0	0.00	0	0.00	0.00
Total:	**12,602**	**100.00**	**312**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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).



Respondent Profile by Discipline

Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Aerospace Engineering	814	6.46	22	7.05	-0.59
Algorithms, Combinatorics, and Optimization	0	0.00	0	0.00	0.00
Applied Language and Intercultural Studies	20	0.16	1	0.32	-0.16
Applied Mathematics	126	1.00	2	0.64	0.36
Applied Physics	7	0.06	0	0.00	0.06
Applied Physiology	0	0.00	0	0.00	0.00
Applied Systems Engineering	0	0.00	0	0.00	0.00
Architecture	151	1.20	1	0.32	0.88
Biochemistry	202	1.60	5	1.60	0.00
Bioengineering	0	0.00	1	0.32	-0.32
Bioinformatics	0	0.00	0	0.00	0.00
Biology	412	3.27	10	3.21	0.06
Biomedical Engineering	1,162	9.22	22	7.05	2.17
Biomedical Innovation and Development	0	0.00	0	0.00	0.00
Building Construction	52	0.41	0	0.00	0.41
Building Construction and Facility Management	0	0.00	0	0.00	0.00
Business Administration	504	4.00	25	8.01	-4.01
Business Administration – Global Business	0	0.00	0	0.00	0.00
Business Administration in Management of Technology	0	0.00	0	0.00	0.00
Chemical and Biomedical Engineering	803	6.37	13	4.17	2.21
Chemical Engineering	0	0.00	13	4.17	-4.17
Chemistry	94	0.75	3	0.96	-0.22
Chemistry and Biochemistry	0	0.00	0	0.00	0.00
City and Regional Planning	0	0.00	0	0.00	0.00
Civil Engineering	507	4.02	10	3.21	0.82
Computational Media	77	0.61	3	0.96	-0.35
Computational Science and Engineering	0	0.00	1	0.32	-0.32
Computer Engineering	425	3.37	9	2.88	0.49
Computer Science	1,020	8.09	30	9.62	-1.52
Digital Media	0	0.00	1	0.32	-0.32
Discrete Mathematics	7	0.06	0	0.00	0.06
Earth and Atmospheric Sciences	39	0.31	0	0.00	0.31
Economics	43	0.34	2	0.64	-0.30
Economics and International Affairs	56	0.44	1	0.32	0.12
Electrical and Computer Engineering	0	0.00	7	2.24	-2.24

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

Electrical Engineering	854	6.78	9	2.88	3.89
Engineering Science and Mechanics	0	0.00	1	0.32	-0.32
Enterprise Transformation	0	0.00	0	0.00	0.00
Environmental Engineering	186	1.48	3	0.96	0.51
Georgia Tech Manufacturing Institute	0	0.00	0	0.00	0.00
Georgia Tech Research Institute	0	0.00	0	0.00	0.00
Global Economics and Modern Languages	14	0.11	0	0.00	0.11
Health Systems	0	0.00	0	0.00	0.00
History and Sociology of Technology and Science	0	0.00	0	0.00	0.00
History, Technology and Society	73	0.58	2	0.64	-0.06
Human – Centered Computing	0	0.00	0	0.00	0.00
Human Computer Interaction	0	0.00	0	0.00	0.00
Industrial Design	95	0.75	3	0.96	-0.21
Industrial Engineering	1,332	10.57	28	8.97	1.60
Information Security	0	0.00	0	0.00	0.00
Institute for Bioengineering & Bioscience	0	0.00	0	0.00	0.00
Institute for Electronics and Nanotechnology	0	0.00	0	0.00	0.00
Institute for People and Technology	0	0.00	0	0.00	0.00
Institute for Sustainable Systems	0	0.00	0	0.00	0.00
Institute of Paper Science and Technology	0	0.00	0	0.00	0.00
Interactive Computing	0	0.00	0	0.00	0.00
International Affairs	81	0.64	3	0.96	-0.32
International Affairs and Modern Language	96	0.76	2	0.64	0.12
International Affairs, Science, and Technology	0	0.00	0	0.00	0.00
International Logistics	0	0.00	0	0.00	0.00
Literature, Media and Communication	0	0.00	0	0.00	0.00
Management	742	5.89	3	0.96	4.93
Materials Science and Engineering	216	1.71	5	1.60	0.11
Mathematics	0	0.00	0	0.00	0.00
Mechanical Engineering	1,813	14.39	48	15.38	-1.00
Medical Physics	0	0.00	0	0.00	0.00
Modern Languages	0	0.00	0	0.00	0.00
Music	0	0.00	0	0.00	0.00
Music Technology	0	0.00	0	0.00	0.00
Nuclear and Radiological Engineering	164	1.30	7	2.24	-0.94
Nuclear Engineering	0	0.00	0	0.00	0.00
Operations Research	0	0.00	0	0.00	0.00

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

Paper Science and Engineering	0	0.00	0	0.00	0.00
Physics	121	0.96	4	1.28	-0.32
Prosthetics and Orthotics	0	0.00	0	0.00	0.00
Psychology	135	1.07	8	2.56	-1.49
Public Policy	57	0.45	1	0.32	0.13
Quantitative and Computational Finance	0	0.00	0	0.00	0.00
Robotics	0	0.00	0	0.00	0.00
Science, Technology and Culture	102	0.81	3	0.96	-0.15
Statistics	0	0.00	0	0.00	0.00
Strategic Energy Institute	0	0.00	0	0.00	0.00
Supply Chain Engineering	0	0.00	0	0.00	0.00
Urban Design	0	0.00	0	0.00	0.00
Total:	**12,602**	**100.00**	**312**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

4.1.3 Respondent Profile by Answer to the Question: The library that you use most often:

The library that you use most often:	Respondents n	Respondents %
Main Library and Archives	312	99.68
Architecture Library	1	0.32
Total:	**313**	**100.00**

4.1.4 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	1	0.32
18 - 22	274	87.54
23 - 30	34	10.86
31 - 45	4	1.28
46 - 65	0	0.00
Over 65	0	0.00
Total:	**313**	**100.00**

4.1.5 Respondent Profile 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.

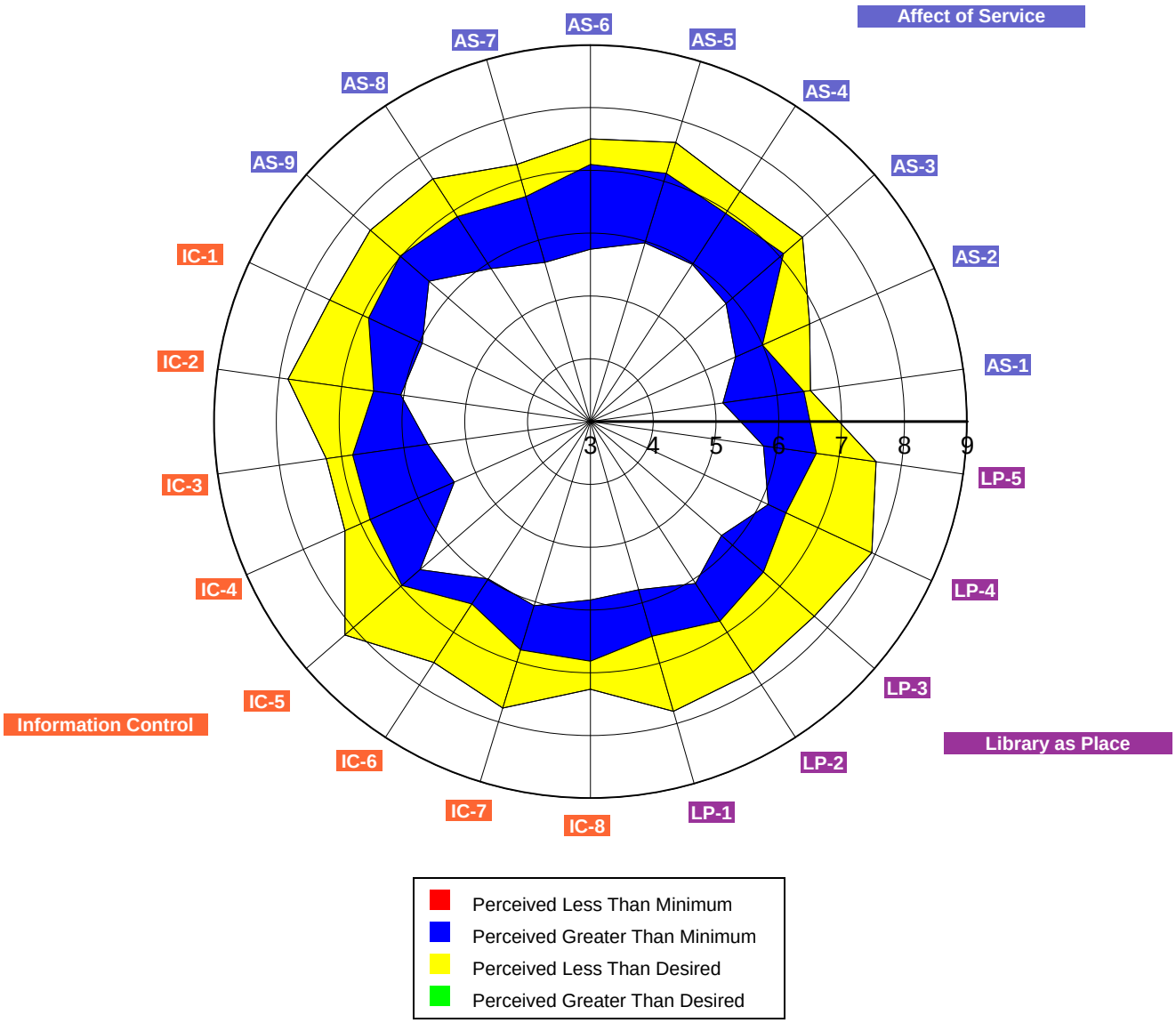
Sex:	Population N	Population %	Respondents n	Respondents %
Female	4,449	32.86	114	36.42
Male	9,089	67.14	199	63.58
Total:	**13,538**	**100.00**	**313**	**100.00**

4.2 Core Questions Summary for Undergraduate

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	5.13	6.54	6.43	1.30	-0.11	76
AS-2	Giving users individual attention	5.53	6.82	6.00	0.47	-0.82	62
AS-3	Employees who are consistently courteous	5.86	7.48	7.08	1.21	-0.40	80
AS-4	Readiness to respond to users' questions	5.98	7.37	6.95	0.97	-0.42	65
AS-5	Employees who have the knowledge to answer user questions	5.98	7.65	7.13	1.16	-0.51	82
AS-6	Employees who deal with users in a caring fashion	5.74	7.50	7.09	1.35	-0.41	297
AS-7	Employees who understand the needs of their users	5.64	7.26	6.73	1.09	-0.53	66
AS-8	Willingness to help users	5.91	7.61	6.89	0.99	-0.72	74
AS-9	Dependability in handling users' service problems	6.41	7.64	7.02	0.61	-0.63	59
Information Control							
IC-1	Making electronic resources accessible from my home or office	5.95	7.58	6.90	0.94	-0.68	88
IC-2	A library Web site enabling me to locate information on my own	6.05	7.86	6.49	0.44	-1.38	80
IC-3	The printed library materials I need for my work	5.61	7.25	6.82	1.21	-0.42	85
IC-4	The electronic information resources I need	5.37	7.28	6.84	1.47	-0.44	292
IC-5	Modern equipment that lets me easily access needed information	6.60	8.18	6.98	0.38	-1.20	89
IC-6	Easy-to-use access tools that allow me to find things on my own	5.99	7.58	6.46	0.48	-1.11	80
IC-7	Making information easily accessible for independent use	6.07	7.77	6.80	0.74	-0.97	91
IC-8	Print and/or electronic journal collections I require for my work	5.84	7.26	6.82	0.97	-0.45	76
Library as Place							
LP-1	Library space that inspires study and learning	5.79	7.80	6.56	0.77	-1.24	308
LP-2	Quiet space for individual activities	6.07	7.76	6.79	0.71	-0.97	94
LP-3	A comfortable and inviting location	5.77	7.72	6.65	0.88	-1.07	69
LP-4	A getaway for study, learning, or research	6.13	7.94	6.44	0.31	-1.51	71
LP-5	Community space for group learning and group study	5.78	7.59	6.64	0.85	-0.96	74
Overall:		5.78	7.50	6.78	1.00	-0.73	313

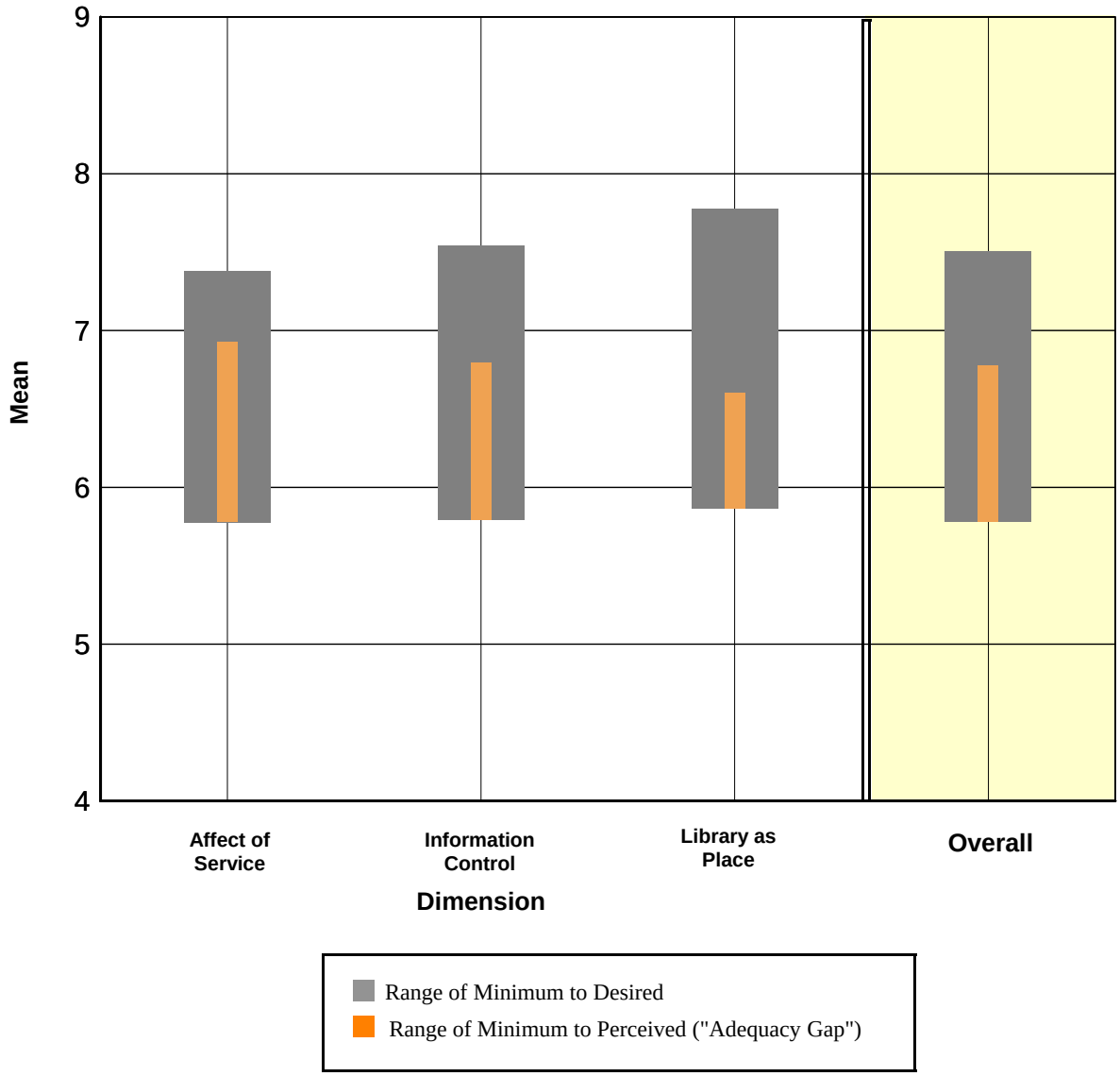
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

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	1.98	1.70	1.64	1.68	1.39	76
AS-2	Giving users individual attention	2.13	1.99	2.03	2.18	2.30	62
AS-3	Employees who are consistently courteous	1.85	1.53	1.54	2.04	1.71	80
AS-4	Readiness to respond to users' questions	1.56	1.44	1.66	2.08	2.14	65
AS-5	Employees who have the knowledge to answer user questions	1.69	1.57	1.61	1.86	1.66	82
AS-6	Employees who deal with users in a caring fashion	1.81	1.47	1.52	1.97	1.79	297
AS-7	Employees who understand the needs of their users	2.00	1.66	1.42	2.04	1.79	66
AS-8	Willingness to help users	1.48	1.53	1.34	1.36	1.37	74
AS-9	Dependability in handling users' service problems	1.98	1.41	1.67	1.91	1.75	59
Information Control							
IC-1	Making electronic resources accessible from my home or office	2.07	1.67	1.65	1.71	1.52	88
IC-2	A library Web site enabling me to locate information on my own	1.52	1.21	1.94	2.15	1.99	80
IC-3	The printed library materials I need for my work	1.99	1.66	1.58	1.79	1.52	85
IC-4	The electronic information resources I need	1.81	1.60	1.48	1.89	1.77	292
IC-5	Modern equipment that lets me easily access needed information	1.70	1.12	1.73	1.87	1.94	89
IC-6	Easy-to-use access tools that allow me to find things on my own	1.70	1.39	1.69	2.10	1.81	80
IC-7	Making information easily accessible for independent use	1.68	1.27	1.49	2.09	1.91	91
IC-8	Print and/or electronic journal collections I require for my work	1.90	1.96	1.45	1.89	2.11	76
Library as Place							
LP-1	Library space that inspires study and learning	1.73	1.55	1.76	2.22	2.17	308
LP-2	Quiet space for individual activities	1.79	1.67	1.75	2.36	2.31	94
LP-3	A comfortable and inviting location	1.79	1.48	1.81	2.39	2.01	69
LP-4	A getaway for study, learning, or research	1.85	1.36	1.82	2.32	2.13	71
LP-5	Community space for group learning and group study	1.92	1.43	1.78	2.44	1.81	74
Overall:		1.35	1.07	1.21	1.49	1.34	313

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	5.78	7.38	6.93	1.15	-0.46	306
Information Control	5.79	7.54	6.80	1.00	-0.75	312
Library as Place	5.86	7.78	6.60	0.74	-1.18	311
Overall	5.78	7.50	6.78	1.00	-0.73	313

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	1.63	1.38	1.39	1.70	1.55	306
Information Control	1.49	1.20	1.34	1.64	1.51	312
Library as Place	1.59	1.30	1.60	2.08	1.94	311
Overall	1.35	1.07	1.21	1.49	1.34	313

4.4 Local Question Summary for Undergraduate

This table shows mean scores of 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
Access to archives, special collections	4.86	6.65	6.55	1.69	-0.10	49
Full-text delivered electronically to individual users	5.71	7.29	6.49	0.78	-0.80	51
Having comprehensive electronic resources	6.22	7.88	6.84	0.63	-1.04	51
Library staff teaching me how to effectively use the electronically available databases, journals, and books	5.21	6.20	6.61	1.39	0.41	61
The value of the library's resources and services to me for my academic success	5.95	7.62	7.11	1.16	-0.51	61

This table displays the standard deviations of 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
Access to archives, special collections	2.29	1.93	1.98	2.42	2.53	49
Full-text delivered electronically to individual users	1.98	1.89	1.74	2.25	2.51	51
Having comprehensive electronic resources	1.90	1.26	1.77	2.17	1.84	51
Library staff teaching me how to effectively use the electronically available databases, journals, and books	2.43	2.28	1.71	2.36	1.97	61
The value of the library's resources and services to me for my academic success	1.64	1.42	1.18	1.68	1.46	61

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.	7.52	1.30	170
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	6.94	1.58	143
How would you rate the overall quality of the service provided by the library?	7.14	1.35	313

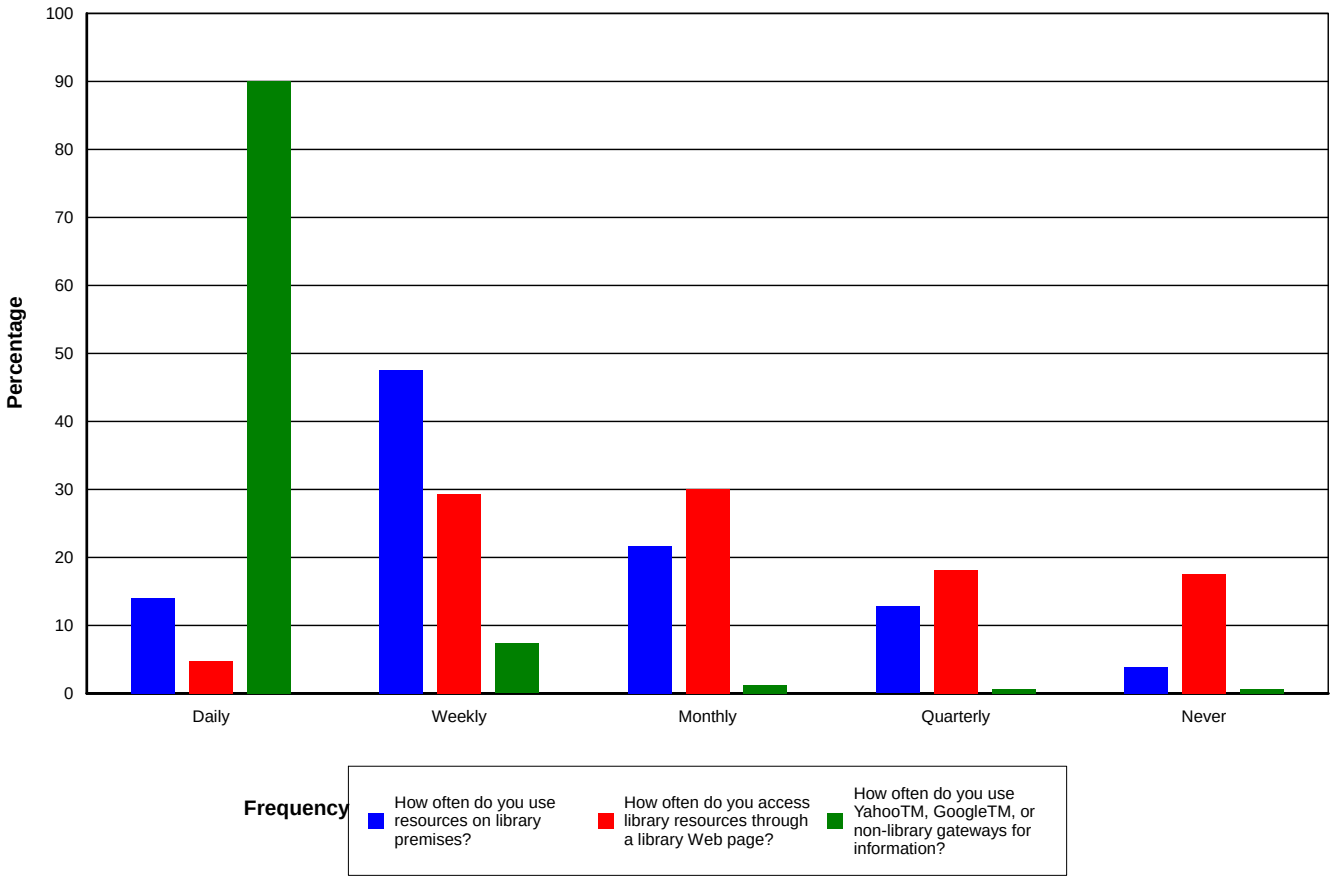
4.6 Information Literacy Outcomes Questions Summary for Undergraduate

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.	5.51	1.82	105
The library aids my advancement in my academic discipline or work.	7.00	1.63	153
The library enables me to be more efficient in my academic pursuits or work.	6.78	1.56	127
The library helps me distinguish between trustworthy and untrustworthy information.	6.23	1.55	134
The library provides me with the information skills I need in my work or study.	6.39	1.57	107

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?	44 14.06%	149 47.60%	68 21.73%	40 12.78%	12 3.83%	313 100.00%
How often do you access library resources through a library Web page?	15 4.79%	92 29.39%	94 30.03%	57 18.21%	55 17.57%	313 100.00%
How often do you use YahooTM, GoogleTM, or non-library gateways for information?	282 90.10%	23 7.35%	4 1.28%	2 0.64%	2 0.64%	313 100.00%

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Undergraduate

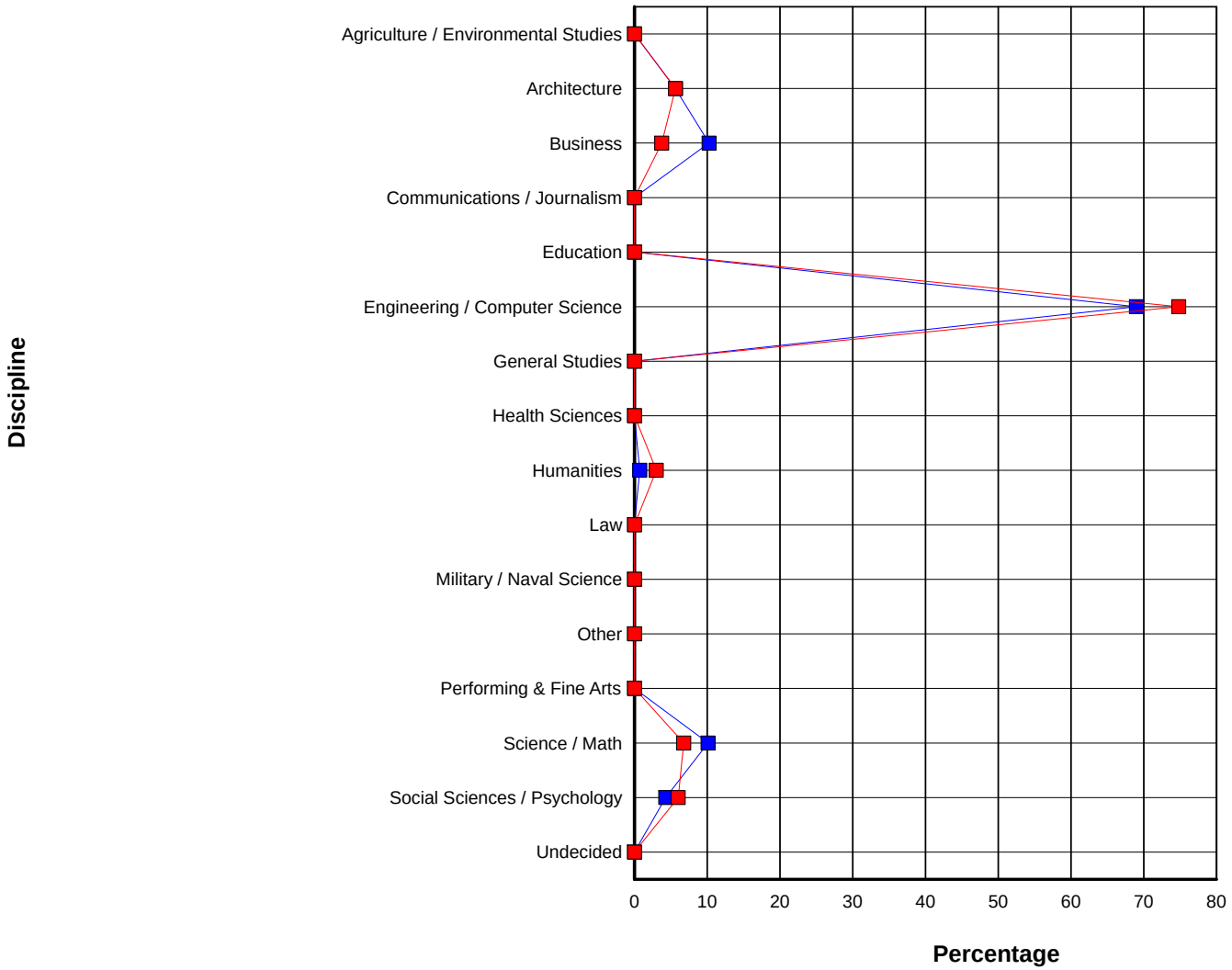
5 Graduate Summary for GEORGIA TECH

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).



Respondent Profile by Discipline
Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

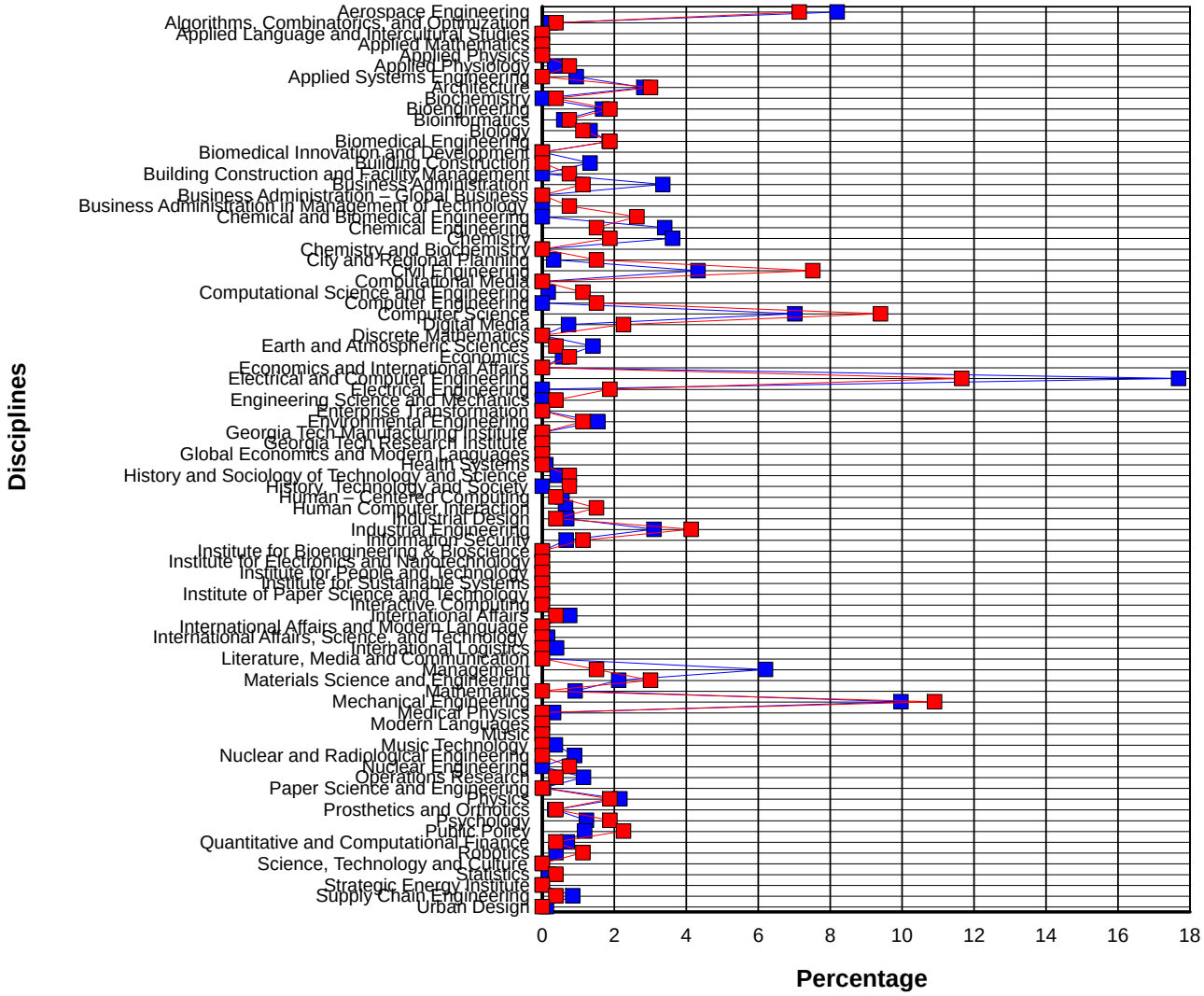
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	0	0.00	0	0.00	0.00
Architecture	339	5.62	15	5.64	-0.02
Business	618	10.25	10	3.76	6.49
Communications / Journalism	0	0.00	0	0.00	0.00
Education	0	0.00	0	0.00	0.00
Engineering / Computer Science	4,159	68.98	199	74.81	-5.83
General Studies	0	0.00	0	0.00	0.00
Health Sciences	0	0.00	0	0.00	0.00
Humanities	44	0.73	8	3.01	-2.28
Law	0	0.00	0	0.00	0.00
Military / Naval Science	0	0.00	0	0.00	0.00
Other	0	0.00	0	0.00	0.00
Performing & Fine Arts	0	0.00	0	0.00	0.00
Science / Math	610	10.12	18	6.77	3.35
Social Sciences / Psychology	259	4.30	16	6.02	-1.72
Undecided	0	0.00	0	0.00	0.00
Total:	**6,029**	**100.00**	**266**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

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).



Respondent Profile by Discipline

Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Aerospace Engineering	494	8.19	19	7.14	1.05
Algorithms, Combinatorics, and Optimization	14	0.23	1	0.38	-0.14
Applied Language and Intercultural Studies	0	0.00	0	0.00	0.00
Applied Mathematics	0	0.00	0	0.00	0.00
Applied Physics	0	0.00	0	0.00	0.00
Applied Physiology	21	0.35	2	0.75	-0.40
Applied Systems Engineering	57	0.95	0	0.00	0.95
Architecture	170	2.82	8	3.01	-0.19
Biochemistry	0	0.00	1	0.38	-0.38
Bioengineering	101	1.68	5	1.88	-0.20
Bioinformatics	36	0.60	2	0.75	-0.15
Biology	80	1.33	3	1.13	0.20
Biomedical Engineering	112	1.86	5	1.88	-0.02
Biomedical Innovation and Development	0	0.00	0	0.00	0.00
Building Construction	80	1.33	0	0.00	1.33
Building Construction and Facility Management	0	0.00	2	0.75	-0.75
Business Administration	202	3.35	3	1.13	2.22
Business Administration – Global Business	0	0.00	0	0.00	0.00
Business Administration in Management of Technology	0	0.00	2	0.75	-0.75
Chemical and Biomedical Engineering	0	0.00	7	2.63	-2.63
Chemical Engineering	205	3.40	4	1.50	1.90
Chemistry	218	3.62	5	1.88	1.74
Chemistry and Biochemistry	0	0.00	0	0.00	0.00
City and Regional Planning	19	0.32	4	1.50	-1.19
Civil Engineering	261	4.33	20	7.52	-3.19
Computational Media	0	0.00	0	0.00	0.00
Computational Science and Engineering	10	0.17	3	1.13	-0.96
Computer Engineering	0	0.00	4	1.50	-1.50
Computer Science	423	7.02	25	9.40	-2.38
Digital Media	44	0.73	6	2.26	-1.53
Discrete Mathematics	0	0.00	0	0.00	0.00
Earth and Atmospheric Sciences	85	1.41	1	0.38	1.03
Economics	34	0.56	2	0.75	-0.19
Economics and International Affairs	0	0.00	0	0.00	0.00
Electrical and Computer Engineering	1,066	17.68	31	11.65	6.03

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

Electrical Engineering	0	0.00	5	1.88	-1.88
Engineering Science and Mechanics	0	0.00	1	0.38	-0.38
Enterprise Transformation	0	0.00	0	0.00	0.00
Environmental Engineering	93	1.54	3	1.13	0.41
Georgia Tech Manufacturing Institute	0	0.00	0	0.00	0.00
Georgia Tech Research Institute	0	0.00	0	0.00	0.00
Global Economics and Modern Languages	0	0.00	0	0.00	0.00
Health Systems	6	0.10	0	0.00	0.10
History and Sociology of Technology and Science	25	0.41	2	0.75	-0.34
History, Technology and Society	0	0.00	2	0.75	-0.75
Human – Centered Computing	33	0.55	1	0.38	0.17
Human Computer Interaction	39	0.65	4	1.50	-0.86
Industrial Design	41	0.68	1	0.38	0.30
Industrial Engineering	187	3.10	11	4.14	-1.03
Information Security	40	0.66	3	1.13	-0.46
Institute for Bioengineering & Bioscience	0	0.00	0	0.00	0.00
Institute for Electronics and Nanotechnology	0	0.00	0	0.00	0.00
Institute for People and Technology	0	0.00	0	0.00	0.00
Institute for Sustainable Systems	0	0.00	0	0.00	0.00
Institute of Paper Science and Technology	0	0.00	0	0.00	0.00
Interactive Computing	0	0.00	0	0.00	0.00
International Affairs	46	0.76	1	0.38	0.39
International Affairs and Modern Language	0	0.00	0	0.00	0.00
International Affairs, Science, and Technology	9	0.15	0	0.00	0.15
International Logistics	24	0.40	0	0.00	0.40
Literature, Media and Communication	0	0.00	0	0.00	0.00
Management	374	6.20	4	1.50	4.70
Materials Science and Engineering	128	2.12	8	3.01	-0.88
Mathematics	55	0.91	0	0.00	0.91
Mechanical Engineering	601	9.97	29	10.90	-0.93
Medical Physics	19	0.32	0	0.00	0.32
Modern Languages	0	0.00	0	0.00	0.00
Music	0	0.00	0	0.00	0.00
Music Technology	22	0.36	0	0.00	0.36
Nuclear and Radiological Engineering	54	0.90	0	0.00	0.90
Nuclear Engineering	0	0.00	2	0.75	-0.75
Operations Research	69	1.14	1	0.38	0.77

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

Paper Science and Engineering	2	0.03	0	0.00	0.03
Physics	130	2.16	5	1.88	0.28
Prosthetics and Orthotics	21	0.35	1	0.38	-0.03
Psychology	74	1.23	5	1.88	-0.65
Public Policy	71	1.18	6	2.26	-1.08
Quantitative and Computational Finance	42	0.70	1	0.38	0.32
Robotics	23	0.38	3	1.13	-0.75
Science, Technology and Culture	0	0.00	0	0.00	0.00
Statistics	11	0.18	1	0.38	-0.19
Strategic Energy Institute	0	0.00	0	0.00	0.00
Supply Chain Engineering	51	0.85	1	0.38	0.47
Urban Design	7	0.12	0	0.00	0.12
Total:	**6,029**	**100.00**	**266**	**100.00**	**0.00**

5.1.3 Respondent Profile by Answer to the Question: The library that you use most often:

The library that you use most often:	Respondents n	Respondents %
Main Library and Archives	254	95.85
Architecture Library	11	4.15
Total:	**265**	**100.00**

5.1.4 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	19	7.14
23 - 30	209	78.57
31 - 45	35	13.16
46 - 65	3	1.13
Over 65	0	0.00
Total:	**266**	**100.00**

5.1.5 Respondent Profile 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.

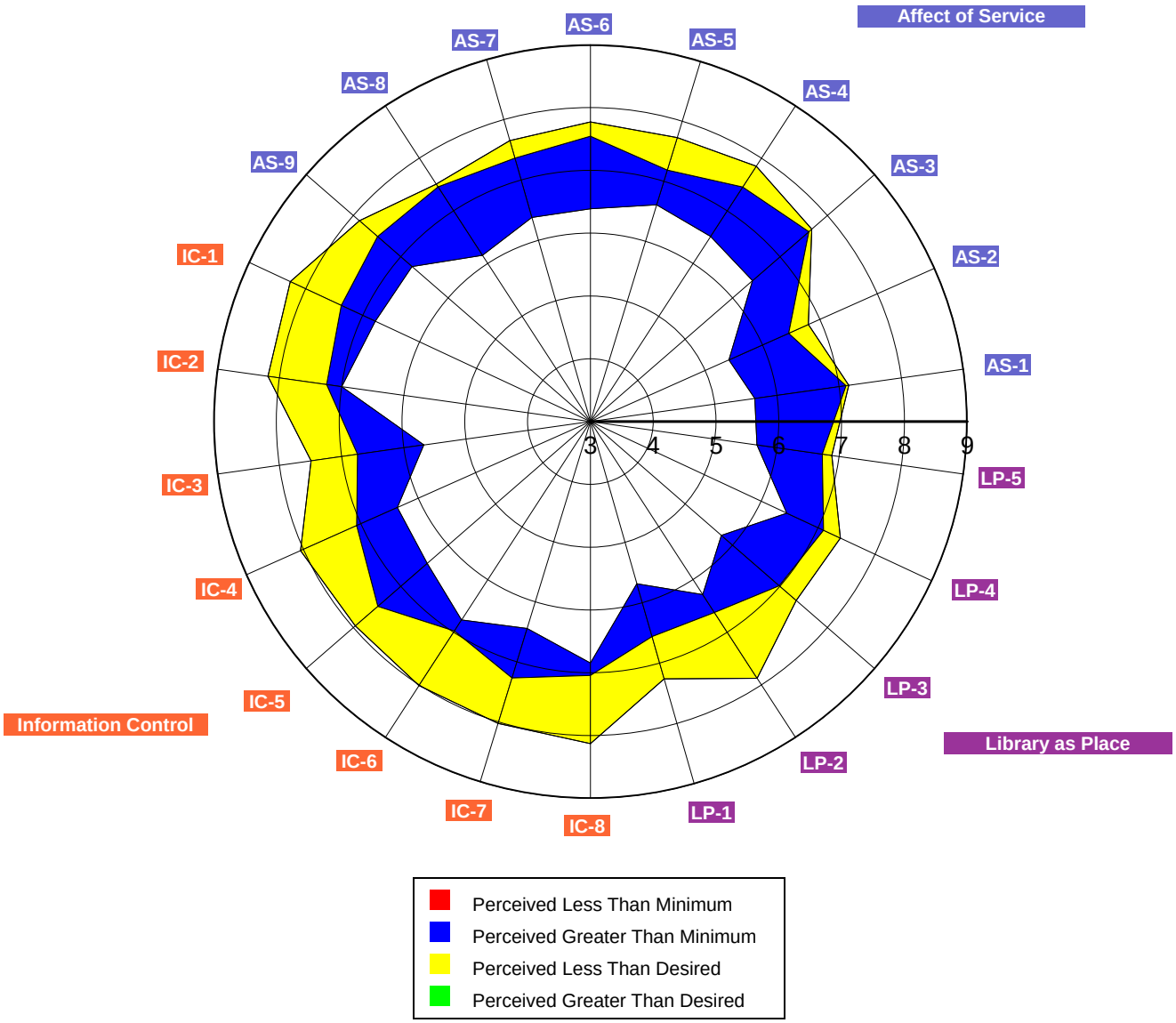
Sex:	Population N	Population %	Respondents n	Respondents %
Female	1,610	25.07	72	27.07
Male	4,813	74.93	194	72.93
Total:	**6,423**	**100.00**	**266**	**100.00**

5.2 Core Questions Summary for Graduate

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	5.64	7.16	7.11	1.47	-0.04	45
AS-2	Giving users individual attention	5.41	6.80	6.46	1.04	-0.34	70
AS-3	Employees who are consistently courteous	6.42	7.67	7.61	1.19	-0.06	64
AS-4	Readiness to respond to users' questions	6.52	7.85	7.45	0.94	-0.39	66
AS-5	Employees who have the knowledge to answer user questions	6.61	7.73	7.19	0.58	-0.54	59
AS-6	Employees who deal with users in a caring fashion	6.39	7.77	7.54	1.16	-0.23	245
AS-7	Employees who understand the needs of their users	6.38	7.65	7.36	0.98	-0.29	55
AS-8	Willingness to help users	6.16	7.51	7.46	1.30	-0.05	57
AS-9	Dependability in handling users' service problems	6.76	7.87	7.49	0.73	-0.38	55
Information Control							
IC-1	Making electronic resources accessible from my home or office	6.78	8.27	7.38	0.60	-0.90	77
IC-2	A library Web site enabling me to locate information on my own	7.00	8.19	7.24	0.24	-0.94	70
IC-3	The printed library materials I need for my work	5.68	7.49	6.75	1.07	-0.75	59
IC-4	The electronic information resources I need	6.36	8.05	7.08	0.71	-0.98	266
IC-5	Modern equipment that lets me easily access needed information	6.44	7.96	7.49	1.04	-0.47	72
IC-6	Easy-to-use access tools that allow me to find things on my own	6.77	8.01	6.98	0.21	-1.03	86
IC-7	Making information easily accessible for independent use	6.45	8.03	7.27	0.82	-0.76	74
IC-8	Print and/or electronic journal collections I require for my work	6.85	8.13	7.04	0.20	-1.08	71
Library as Place							
LP-1	Library space that inspires study and learning	5.69	7.26	6.56	0.88	-0.70	240
LP-2	Quiet space for individual activities	6.29	7.88	6.63	0.34	-1.25	56
LP-3	A comfortable and inviting location	5.76	7.34	6.99	1.22	-0.36	76
LP-4	A getaway for study, learning, or research	6.45	7.39	7.10	0.65	-0.29	51
LP-5	Community space for group learning and group study	5.68	6.88	6.73	1.05	-0.15	59
Overall:		6.27	7.72	7.13	0.85	-0.60	266

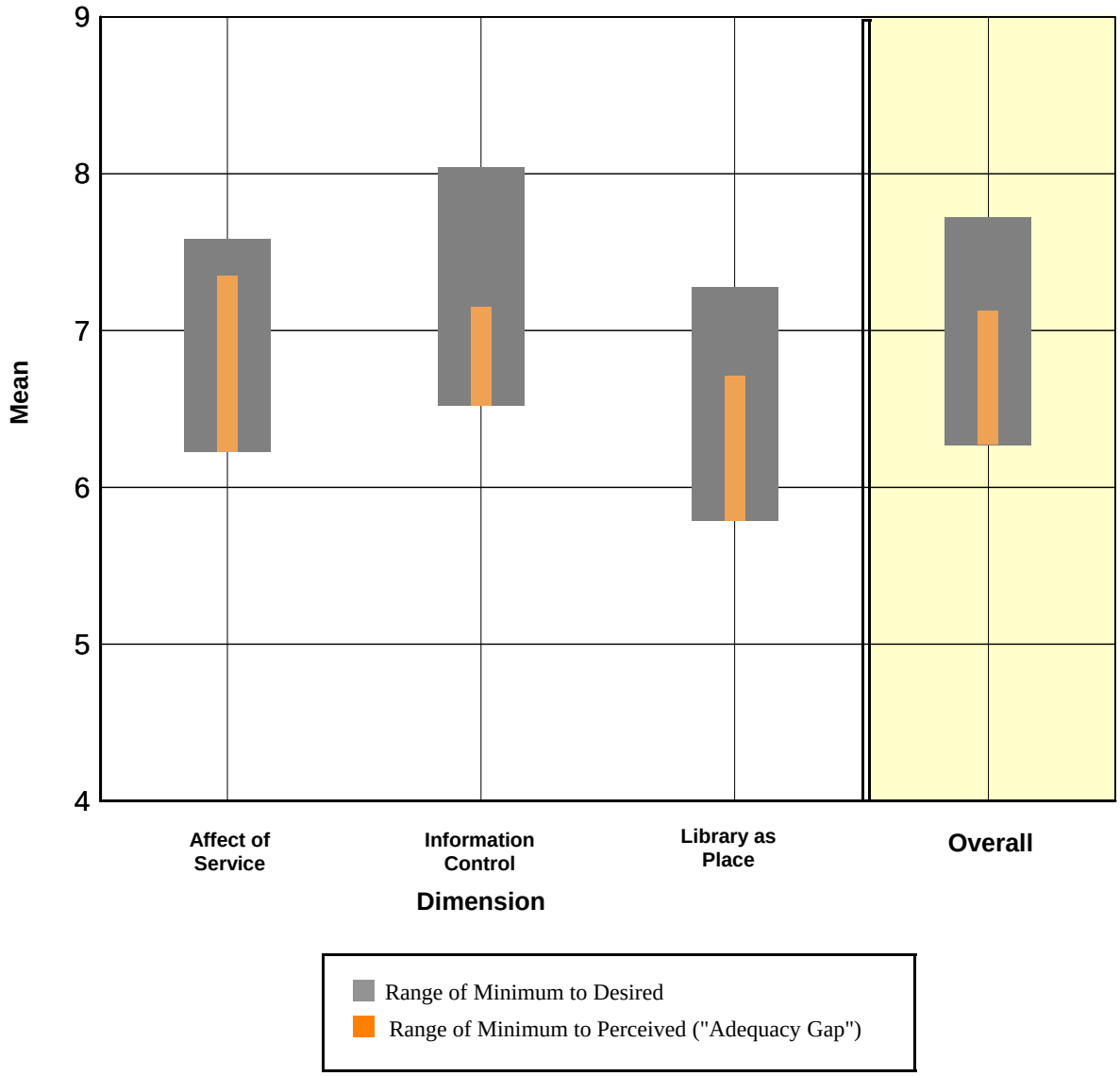
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

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	1.67	1.59	1.42	1.63	1.28	45
AS-2	Giving users individual attention	1.85	1.54	1.54	1.60	1.42	70
AS-3	Employees who are consistently courteous	1.74	1.50	1.19	1.65	1.36	64
AS-4	Readiness to respond to users' questions	1.80	1.30	1.65	1.84	1.24	66
AS-5	Employees who have the knowledge to answer user questions	1.52	1.20	1.32	1.52	1.26	59
AS-6	Employees who deal with users in a caring fashion	1.73	1.31	1.33	1.57	1.30	245
AS-7	Employees who understand the needs of their users	1.80	1.39	1.44	1.63	1.24	55
AS-8	Willingness to help users	1.78	1.51	1.34	1.69	1.54	57
AS-9	Dependability in handling users' service problems	1.62	1.00	1.07	1.38	1.13	55
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.90	1.14	1.58	1.96	1.72	77
IC-2	A library Web site enabling me to locate information on my own	1.32	1.21	1.47	1.71	1.53	70
IC-3	The printed library materials I need for my work	2.11	1.56	1.46	1.96	1.64	59
IC-4	The electronic information resources I need	1.69	1.32	1.53	1.86	1.54	266
IC-5	Modern equipment that lets me easily access needed information	1.71	1.24	1.33	1.64	1.37	72
IC-6	Easy-to-use access tools that allow me to find things on my own	1.64	1.17	1.35	1.78	1.27	86
IC-7	Making information easily accessible for independent use	1.61	0.99	1.08	1.49	1.26	74
IC-8	Print and/or electronic journal collections I require for my work	1.77	1.38	1.77	2.40	2.04	71
Library as Place							
LP-1	Library space that inspires study and learning	2.05	1.96	1.67	2.31	2.14	240
LP-2	Quiet space for individual activities	2.13	1.90	1.86	2.69	2.51	56
LP-3	A comfortable and inviting location	2.14	1.79	1.39	2.02	1.85	76
LP-4	A getaway for study, learning, or research	1.96	1.80	1.63	1.59	1.60	51
LP-5	Community space for group learning and group study	2.25	2.46	1.79	2.39	2.48	59
Overall:		1.36	0.96	1.08	1.30	1.01	266

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	6.23	7.59	7.35	1.12	-0.23	260
Information Control	6.52	8.04	7.15	0.63	-0.89	266
Library as Place	5.78	7.27	6.71	0.93	-0.56	254
Overall	6.27	7.72	7.13	0.85	-0.60	266

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	1.60	1.18	1.27	1.40	1.10	260
Information Control	1.43	0.95	1.21	1.53	1.22	266
Library as Place	1.99	1.89	1.52	2.07	1.99	254
Overall	1.36	0.96	1.08	1.30	1.01	266

5.4 Local Question Summary for Graduate

This table shows mean scores of 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
Access to archives, special collections	5.90	7.13	6.70	0.80	-0.43	40
Full-text delivered electronically to individual users	6.80	8.20	7.22	0.42	-0.98	50
Having comprehensive electronic resources	7.17	8.32	7.36	0.19	-0.96	53
Library staff teaching me how to effectively use the electronically available databases, journals, and books	5.44	7.02	6.79	1.35	-0.23	43
The value of the library's resources and services to me for my academic success	6.90	8.14	7.49	0.59	-0.65	49

This table displays the standard deviations of 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
Access to archives, special collections	2.17	1.96	1.73	2.03	2.09	40
Full-text delivered electronically to individual users	1.77	1.34	1.31	1.68	1.41	50
Having comprehensive electronic resources	1.37	1.12	1.44	1.56	1.43	53
Library staff teaching me how to effectively use the electronically available databases, journals, and books	2.16	1.74	1.87	2.47	2.18	43
The value of the library's resources and services to me for my academic success	1.48	1.14	1.32	1.44	1.35	49

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.	7.59	1.33	125
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.33	1.53	141
How would you rate the overall quality of the service provided by the library?	7.42	1.18	266

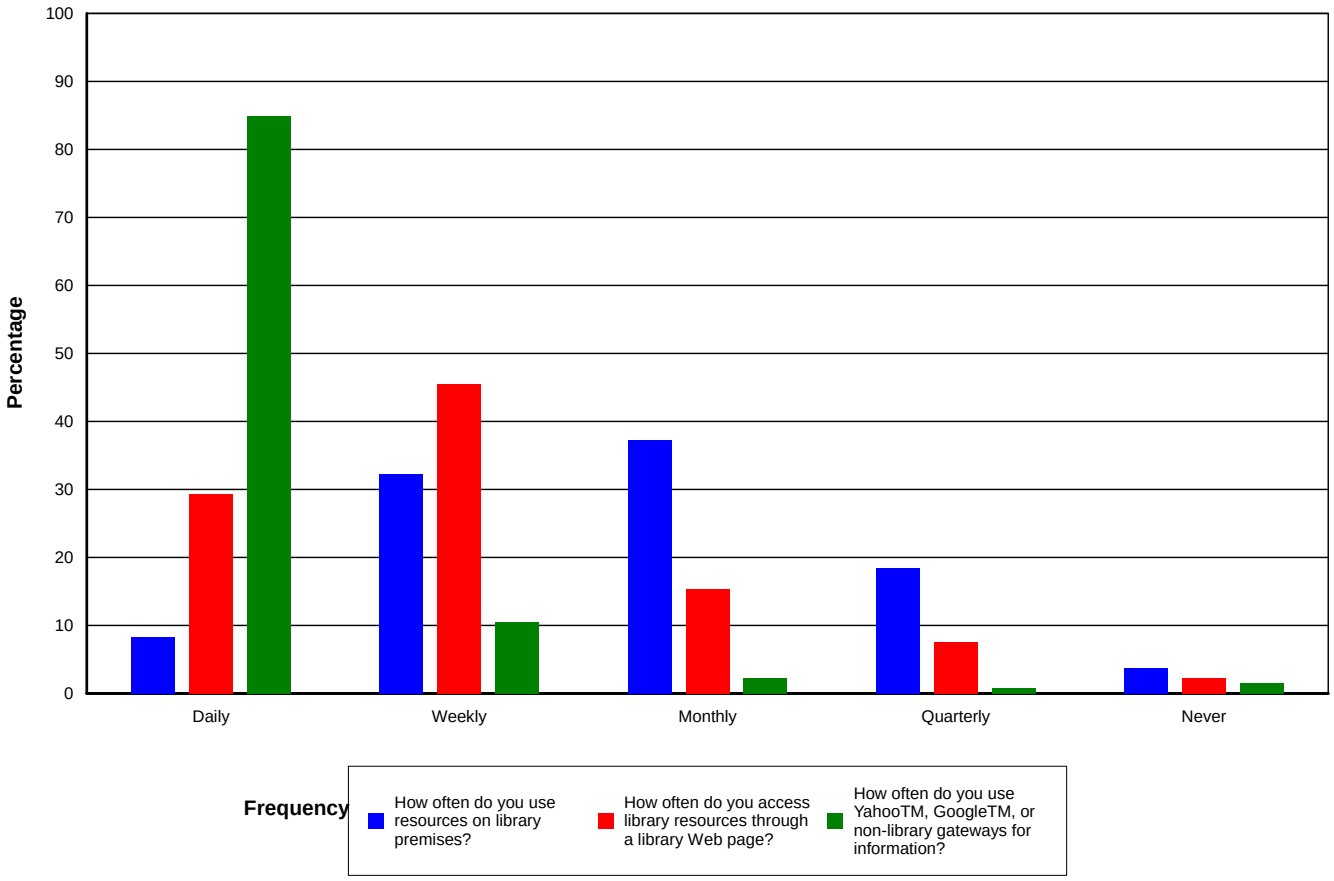
5.6 Information Literacy Outcomes Questions Summary for Graduate

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.	6.51	1.90	87
The library aids my advancement in my academic discipline or work.	7.13	1.67	115
The library enables me to be more efficient in my academic pursuits or work.	7.26	1.66	113
The library helps me distinguish between trustworthy and untrustworthy information.	6.18	1.73	118
The library provides me with the information skills I need in my work or study.	6.83	1.48	99

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?	22 8.27%	86 32.33%	99 37.22%	49 18.42%	10 3.76%	266 100.00%
How often do you access library resources through a library Web page?	78 29.32%	121 45.49%	41 15.41%	20 7.52%	6 2.26%	266 100.00%
How often do you use YahooTM, GoogleTM, or non-library gateways for information?	226 84.96%	28 10.53%	6 2.26%	2 0.75%	4 1.50%	266 100.00%

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Graduate

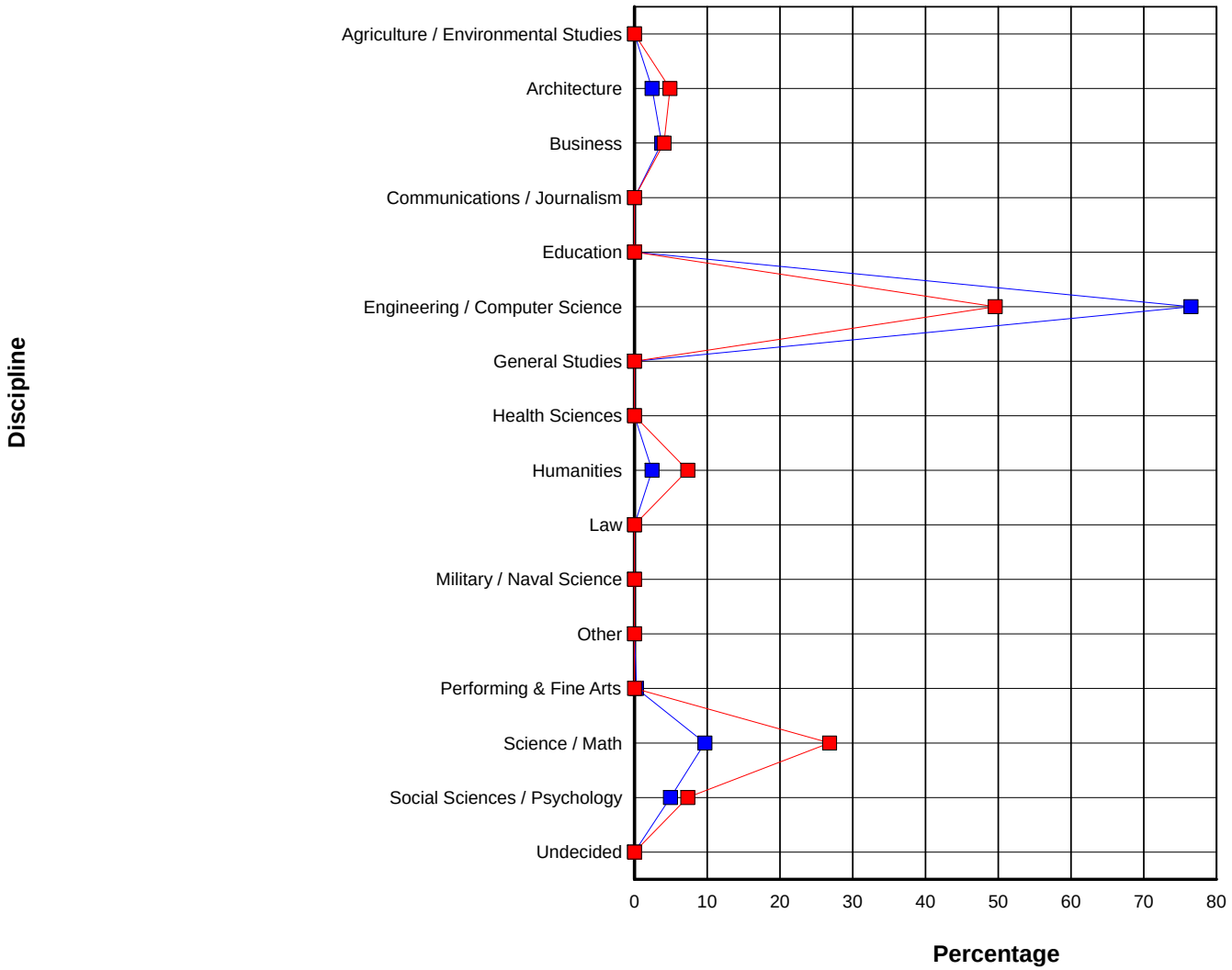
6 Faculty Summary for GEORGIA TECH

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).



Respondent Profile by Discipline
Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

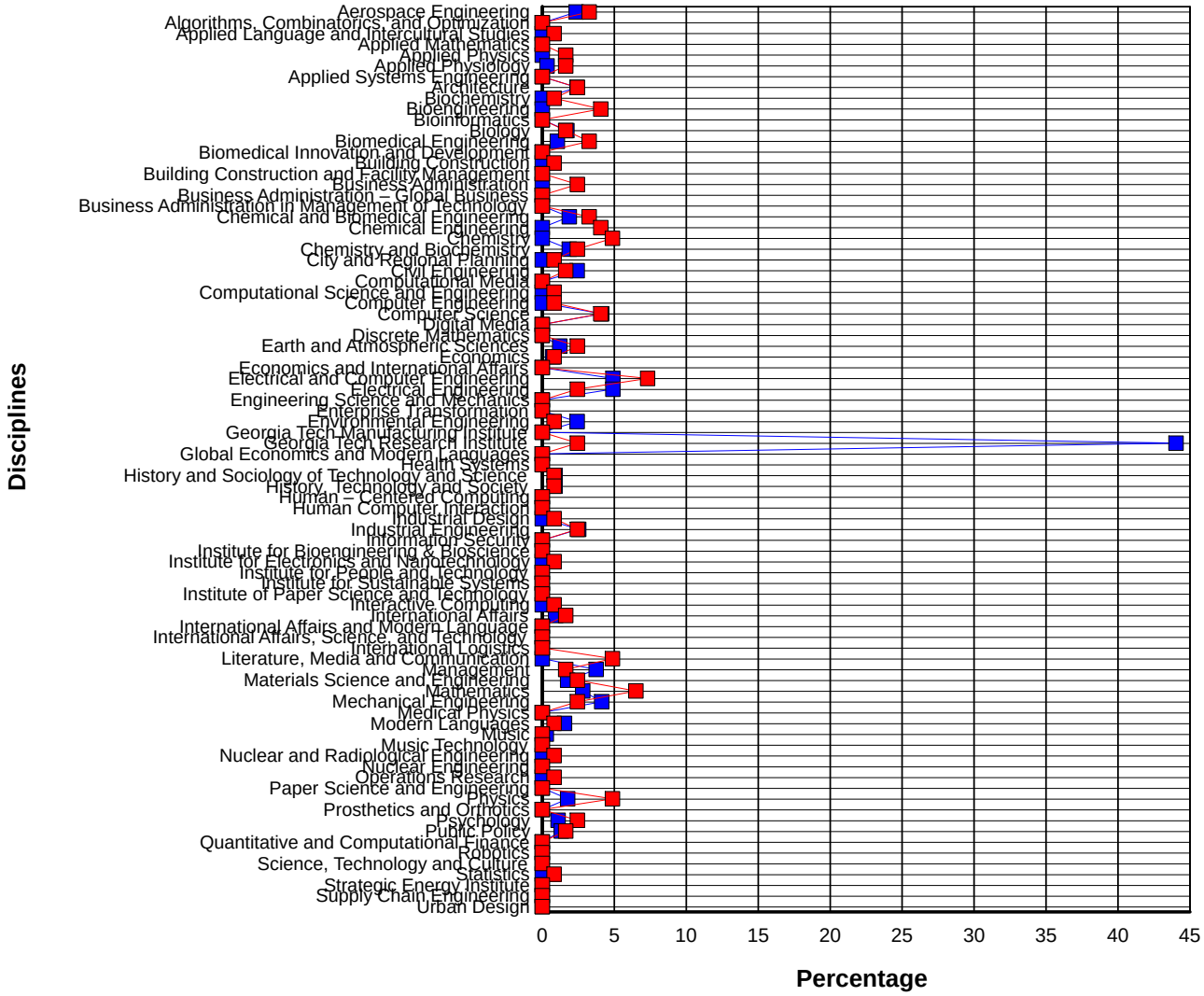
Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Agriculture / Environmental Studies	0	0.00	0	0.00	0.00
Architecture	44	2.42	6	4.88	-2.46
Business	68	3.74	5	4.07	-0.32
Communications / Journalism	0	0.00	0	0.00	0.00
Education	0	0.00	0	0.00	0.00
Engineering / Computer Science	1,390	76.50	61	49.59	26.91
General Studies	0	0.00	0	0.00	0.00
Health Sciences	0	0.00	0	0.00	0.00
Humanities	44	2.42	9	7.32	-4.90
Law	0	0.00	0	0.00	0.00
Military / Naval Science	0	0.00	0	0.00	0.00
Other	0	0.00	0	0.00	0.00
Performing & Fine Arts	5	0.28	0	0.00	0.28
Science / Math	176	9.69	33	26.83	-17.14
Social Sciences / Psychology	90	4.95	9	7.32	-2.36
Undecided	0	0.00	0	0.00	0.00
Total:	**1,817**	**100.00**	**123**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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).



Respondent Profile by Discipline

Population Profile by Discipline

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

Discipline	Population N	Population %	Respondents n	Respondents %	%N - %n
Aerospace Engineering	43	2.37	4	3.25	-0.89
Algorithms, Combinatorics, and Optimization	0	0.00	0	0.00	0.00
Applied Language and Intercultural Studies	0	0.00	1	0.81	-0.81
Applied Mathematics	0	0.00	0	0.00	0.00
Applied Physics	0	0.00	2	1.63	-1.63
Applied Physiology	6	0.33	2	1.63	-1.30
Applied Systems Engineering	0	0.00	0	0.00	0.00
Architecture	44	2.42	3	2.44	-0.02
Biochemistry	0	0.00	1	0.81	-0.81
Bioengineering	0	0.00	5	4.07	-4.07
Bioinformatics	0	0.00	0	0.00	0.00
Biology	31	1.71	2	1.63	0.08
Biomedical Engineering	19	1.05	4	3.25	-2.21
Biomedical Innovation and Development	0	0.00	0	0.00	0.00
Building Construction	0	0.00	1	0.81	-0.81
Building Construction and Facility Management	0	0.00	0	0.00	0.00
Business Administration	0	0.00	3	2.44	-2.44
Business Administration – Global Business	0	0.00	0	0.00	0.00
Business Administration in Management of Technology	0	0.00	0	0.00	0.00
Chemical and Biomedical Engineering	34	1.87	4	3.25	-1.38
Chemical Engineering	0	0.00	5	4.07	-4.07
Chemistry	0	0.00	6	4.88	-4.88
Chemistry and Biochemistry	34	1.87	3	2.44	-0.57
City and Regional Planning	0	0.00	1	0.81	-0.81
Civil Engineering	44	2.42	2	1.63	0.80
Computational Media	0	0.00	0	0.00	0.00
Computational Science and Engineering	0	0.00	1	0.81	-0.81
Computer Engineering	0	0.00	1	0.81	-0.81
Computer Science	75	4.13	5	4.07	0.06
Digital Media	0	0.00	0	0.00	0.00
Discrete Mathematics	0	0.00	0	0.00	0.00
Earth and Atmospheric Sciences	22	1.21	3	2.44	-1.23
Economics	13	0.72	1	0.81	-0.10
Economics and International Affairs	0	0.00	0	0.00	0.00
Electrical and Computer Engineering	89	4.90	9	7.32	-2.42

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

Electrical Engineering	89	4.90	3	2.44	2.46
Engineering Science and Mechanics	0	0.00	0	0.00	0.00
Enterprise Transformation	0	0.00	0	0.00	0.00
Environmental Engineering	44	2.42	1	0.81	1.61
Georgia Tech Manufacturing Institute	0	0.00	0	0.00	0.00
Georgia Tech Research Institute	800	44.03	3	2.44	41.59
Global Economics and Modern Languages	0	0.00	0	0.00	0.00
Health Systems	0	0.00	0	0.00	0.00
History and Sociology of Technology and Science	16	0.88	1	0.81	0.07
History, Technology and Society	16	0.88	1	0.81	0.07
Human – Centered Computing	0	0.00	0	0.00	0.00
Human Computer Interaction	0	0.00	0	0.00	0.00
Industrial Design	0	0.00	1	0.81	-0.81
Industrial Engineering	46	2.53	3	2.44	0.09
Information Security	0	0.00	0	0.00	0.00
Institute for Bioengineering & Bioscience	0	0.00	0	0.00	0.00
Institute for Electronics and Nanotechnology	0	0.00	1	0.81	-0.81
Institute for People and Technology	0	0.00	0	0.00	0.00
Institute for Sustainable Systems	0	0.00	0	0.00	0.00
Institute of Paper Science and Technology	0	0.00	0	0.00	0.00
Interactive Computing	0	0.00	1	0.81	-0.81
International Affairs	17	0.94	2	1.63	-0.69
International Affairs and Modern Language	0	0.00	0	0.00	0.00
International Affairs, Science, and Technology	0	0.00	0	0.00	0.00
International Logistics	0	0.00	0	0.00	0.00
Literature, Media and Communication	0	0.00	6	4.88	-4.88
Management	68	3.74	2	1.63	2.12
Materials Science and Engineering	32	1.76	3	2.44	-0.68
Mathematics	51	2.81	8	6.50	-3.70
Mechanical Engineering	75	4.13	3	2.44	1.69
Medical Physics	0	0.00	0	0.00	0.00
Modern Languages	28	1.54	1	0.81	0.73
Music	5	0.28	0	0.00	0.28
Music Technology	0	0.00	0	0.00	0.00
Nuclear and Radiological Engineering	0	0.00	1	0.81	-0.81
Nuclear Engineering	0	0.00	0	0.00	0.00
Operations Research	0	0.00	1	0.81	-0.81

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

Paper Science and Engineering	0	0.00	0	0.00	0.00
Physics	32	1.76	6	4.88	-3.12
Prosthetics and Orthotics	0	0.00	0	0.00	0.00
Psychology	20	1.10	3	2.44	-1.34
Public Policy	24	1.32	2	1.63	-0.31
Quantitative and Computational Finance	0	0.00	0	0.00	0.00
Robotics	0	0.00	0	0.00	0.00
Science, Technology and Culture	0	0.00	0	0.00	0.00
Statistics	0	0.00	1	0.81	-0.81
Strategic Energy Institute	0	0.00	0	0.00	0.00
Supply Chain Engineering	0	0.00	0	0.00	0.00
Urban Design	0	0.00	0	0.00	0.00
Total:	**1,817**	**100.00**	**123**	**100.00**	**0.00**

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

6.1.3 Respondent Profile by Answer to the Question: The library that you use most often:

The library that you use most often:	Respondents n	Respondents %
Main Library and Archives	119	96.75
Architecture Library	4	3.25
Total:	**123**	**100.00**

6.1.4 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	0	0.00
23 - 30	24	19.51
31 - 45	56	45.53
46 - 65	38	30.89
Over 65	5	4.07
Total:	**123**	**100.00**

6.1.5 Respondent Profile 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.

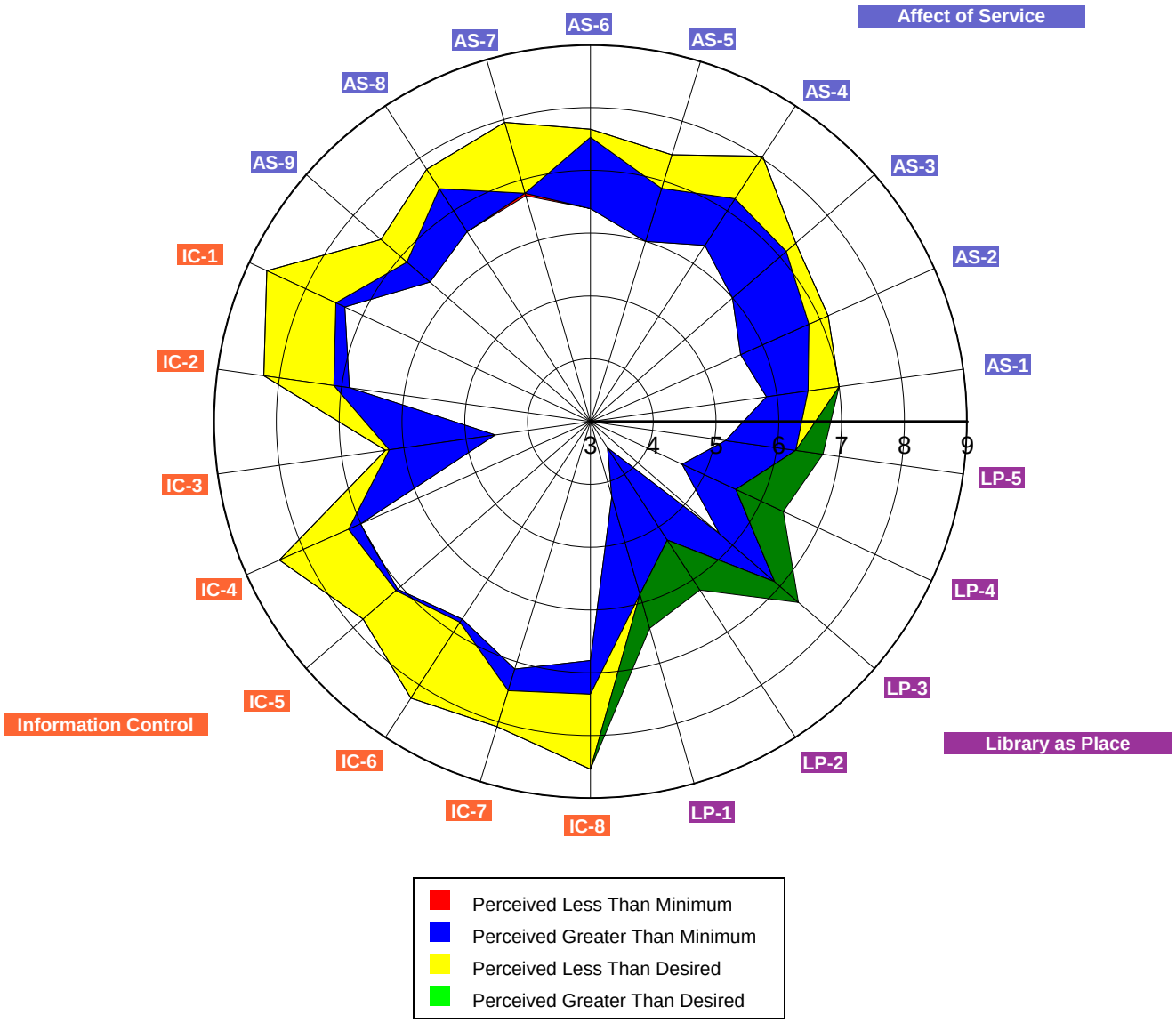
Sex:	Population N	Population %	Respondents n	Respondents %
Female	227	21.27	23	18.70
Male	840	78.73	100	81.30
Total:	**1,067**	**100.00**	**123**	**100.00**

6.2 Core Questions Summary for Faculty

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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	5.83	7.00	6.50	0.67	-0.50	24
AS-2	Giving users individual attention	5.62	7.14	6.81	1.19	-0.33	21
AS-3	Employees who are consistently courteous	6.00	7.33	7.13	1.13	-0.20	15
AS-4	Readiness to respond to users' questions	6.35	8.04	7.23	0.88	-0.81	26
AS-5	Employees who have the knowledge to answer user questions	6.00	7.44	6.88	0.88	-0.56	34
AS-6	Employees who deal with users in a caring fashion	6.39	7.65	7.53	1.14	-0.13	110
AS-7	Employees who understand the needs of their users	6.78	7.96	6.74	-0.04	-1.22	23
AS-8	Willingness to help users	6.61	7.79	7.42	0.82	-0.37	38
AS-9	Dependability in handling users' service problems	6.39	7.42	6.87	0.48	-0.55	31
Information Control							
IC-1	Making electronic resources accessible from my home or office	7.32	8.68	7.47	0.16	-1.21	38
IC-2	A library Web site enabling me to locate information on my own	6.88	8.25	7.13	0.25	-1.13	32
IC-3	The printed library materials I need for my work	4.53	6.29	6.24	1.71	-0.06	34
IC-4	The electronic information resources I need	7.01	8.42	7.21	0.21	-1.21	121
IC-5	Modern equipment that lets me easily access needed information	7.07	7.79	7.10	0.03	-0.69	29
IC-6	Easy-to-use access tools that allow me to find things on my own	6.75	8.25	6.81	0.06	-1.44	32
IC-7	Making information easily accessible for independent use	7.12	8.08	7.48	0.36	-0.60	25
IC-8	Print and/or electronic journal collections I require for my work	6.80	8.54	7.34	0.54	-1.20	41
Library as Place							
LP-1	Library space that inspires study and learning	4.24	5.86	6.43	2.18	0.56	87
LP-2	Quiet space for individual activities	3.50	5.25	6.20	2.70	0.95	20
LP-3	A comfortable and inviting location	5.72	6.89	7.39	1.67	0.50	18
LP-4	A getaway for study, learning, or research	4.61	5.56	6.39	1.78	0.83	18
LP-5	Community space for group learning and group study	5.17	6.30	6.74	1.57	0.43	23
Overall:		6.19	7.53	7.04	0.85	-0.49	123

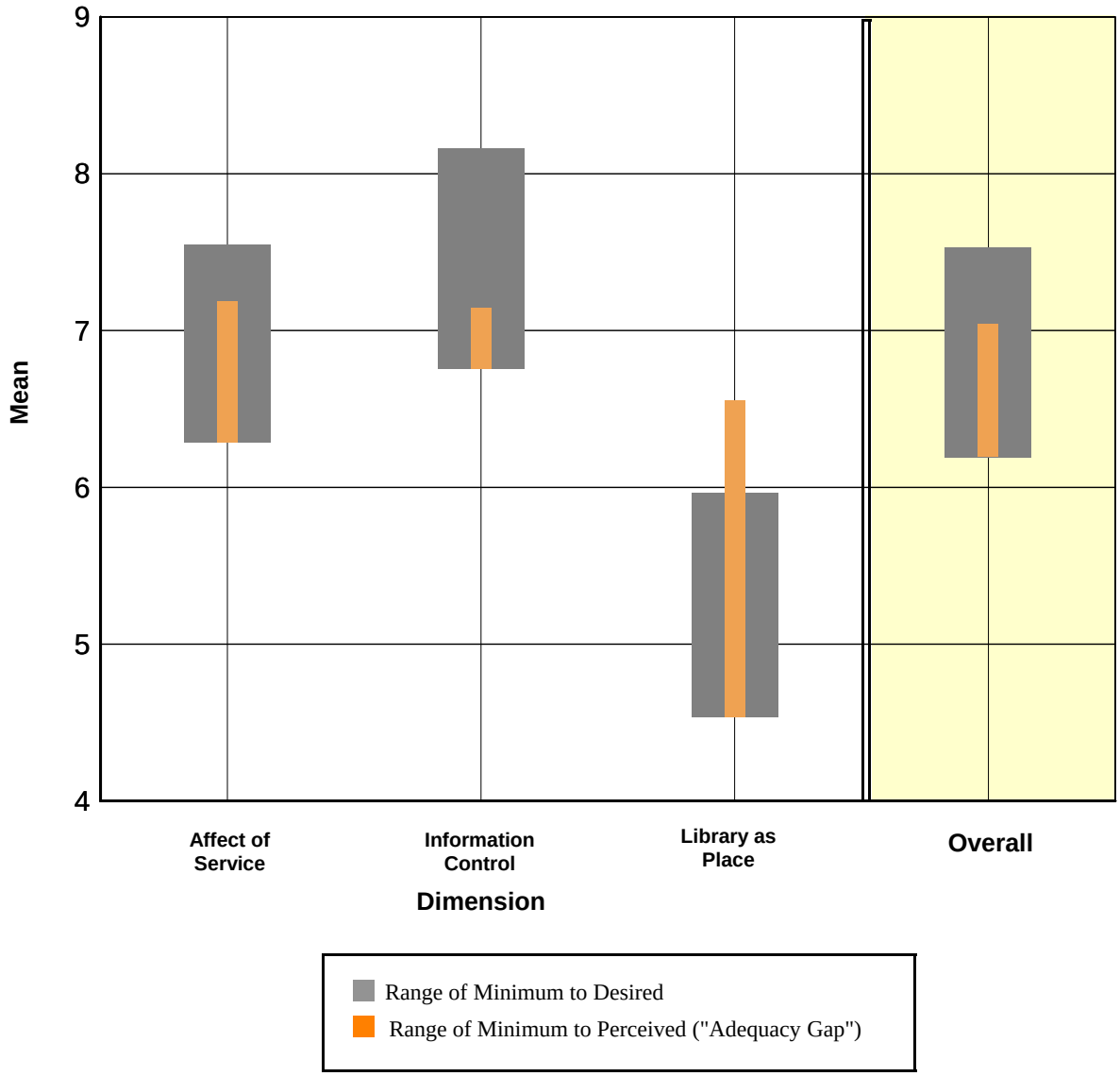
Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

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	2.04	2.11	1.56	2.08	1.93	24
AS-2	Giving users individual attention	2.18	1.85	1.21	2.02	1.74	21
AS-3	Employees who are consistently courteous	2.20	2.23	1.60	1.88	1.37	15
AS-4	Readiness to respond to users' questions	2.12	1.28	1.61	2.18	1.67	26
AS-5	Employees who have the knowledge to answer user questions	2.26	1.91	1.77	2.40	2.22	34
AS-6	Employees who deal with users in a caring fashion	2.01	1.68	1.31	1.86	1.70	110
AS-7	Employees who understand the needs of their users	1.68	1.30	1.68	1.55	1.54	23
AS-8	Willingness to help users	1.78	1.40	1.39	1.92	1.32	38
AS-9	Dependability in handling users' service problems	1.96	2.00	1.36	2.00	1.84	31
Information Control							
IC-1	Making electronic resources accessible from my home or office	1.66	0.62	1.69	1.84	1.60	38
IC-2	A library Web site enabling me to locate information on my own	1.81	1.19	1.56	1.63	1.83	32
IC-3	The printed library materials I need for my work	2.31	2.24	1.18	2.21	2.12	34
IC-4	The electronic information resources I need	1.45	1.12	1.39	1.60	1.43	121
IC-5	Modern equipment that lets me easily access needed information	1.85	1.70	1.50	1.68	1.67	29
IC-6	Easy-to-use access tools that allow me to find things on my own	1.63	1.02	1.62	1.76	1.72	32
IC-7	Making information easily accessible for independent use	1.48	1.12	1.19	1.22	0.87	25
IC-8	Print and/or electronic journal collections I require for my work	1.50	0.98	1.46	1.94	1.66	41
Library as Place							
LP-1	Library space that inspires study and learning	2.44	2.57	1.69	2.48	2.66	87
LP-2	Quiet space for individual activities	2.42	2.59	1.32	2.15	2.56	20
LP-3	A comfortable and inviting location	2.49	2.37	1.20	2.30	1.86	18
LP-4	A getaway for study, learning, or research	2.59	2.25	2.06	2.71	2.75	18
LP-5	Community space for group learning and group study	2.44	2.69	1.60	2.00	2.00	23
Overall:		1.41	1.15	1.07	1.39	1.19	123

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
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	6.29	7.55	7.19	0.90	-0.36	120
Information Control	6.75	8.16	7.14	0.39	-1.02	122
Library as Place	4.54	5.96	6.56	2.02	0.59	96
Overall	6.19	7.53	7.04	0.85	-0.49	123

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	1.83	1.54	1.28	1.84	1.56	120
Information Control	1.39	0.96	1.23	1.35	1.21	122
Library as Place	2.41	2.44	1.54	2.30	2.42	96
Overall	1.41	1.15	1.07	1.39	1.19	123

6.4 Local Question Summary for Faculty

This table shows mean scores of 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
Access to archives, special collections	5.56	6.61	6.44	0.89	-0.17	18
Full-text delivered electronically to individual users	6.92	8.33	7.67	0.75	-0.67	24
Having comprehensive electronic resources	7.13	8.19	6.81	-0.31	-1.38	16
Library staff teaching me how to effectively use the electronically available databases, journals, and books	4.84	6.88	6.56	1.72	-0.32	25
The value of the library's resources and services to me for my academic success	7.32	8.55	7.45	0.14	-1.09	22

This table displays the standard deviations of 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
Access to archives, special collections	2.59	2.50	1.29	2.35	2.33	18
Full-text delivered electronically to individual users	1.64	1.37	1.27	1.70	1.52	24
Having comprehensive electronic resources	1.45	1.52	1.38	1.82	1.50	16
Library staff teaching me how to effectively use the electronically available databases, journals, and books	1.93	1.74	1.89	2.05	1.95	25
The value of the library's resources and services to me for my academic success	1.21	0.67	1.41	1.70	1.41	22

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.	7.51	1.44	67
In general, I am satisfied with library support for my learning, research, and/or teaching needs.	7.04	1.51	56
How would you rate the overall quality of the service provided by the library?	7.35	1.33	123

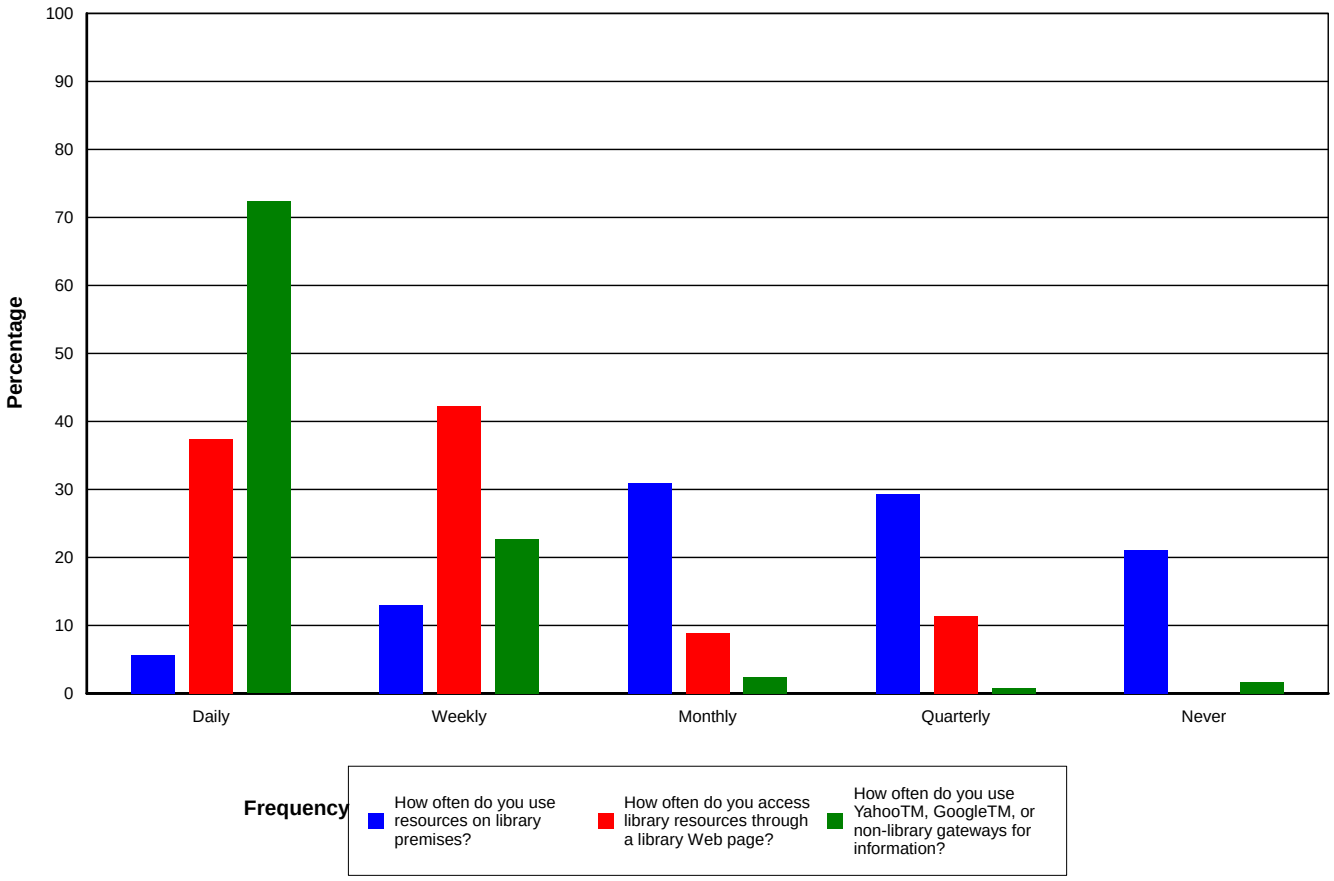
6.6 Information Literacy Outcomes Questions Summary for Faculty

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.	5.95	2.22	40
The library aids my advancement in my academic discipline or work.	7.31	1.80	54
The library enables me to be more efficient in my academic pursuits or work.	7.28	1.67	68
The library helps me distinguish between trustworthy and untrustworthy information.	5.57	1.80	47
The library provides me with the information skills I need in my work or study.	7.05	1.49	37

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?	7 5.69%	16 13.01%	38 30.89%	36 29.27%	26 21.14%	123 100.00%
How often do you access library resources through a library Web page?	46 37.40%	52 42.28%	11 8.94%	14 11.38%	0 0 %	123 100.00%
How often do you use YahooTM, GoogleTM, or non-library gateways for information?	89 72.36%	28 22.76%	3 2.44%	1 0.81%	2 1.63%	123 100.00%

Language: English (American)
Institution Type: College or University
Consortium: Georgia Consortium
User Group: Faculty

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 - Present 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 2012 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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