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University of Iowa Libraries User Needs Assessment Project, Final Phase: A Comparative Analysis 1998-2000

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DOI: <https://doi.org/10.17077/hl2r-smo8>

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**University of Iowa Libraries
User Needs Assessment Project
Final Phase: A Comparative Analysis
1998-2000**

**Submitted to Executive Council
March 8, 2001**

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Executive Summary

The Comparative Analysis is the culminating phase of the User Needs Assessment Project. The purpose is to identify statistically significant differences in usage and level of satisfaction between the user groups studied.

The specific project objectives were:

- to know and understand how services and resources are accessed by library users,
- to know and understand what library services, resources, collections and facilities library users take advantage of for study, teaching and research,
- to know and understand user perceptions about library resources and services,
- to know and understand user attitudes about library resources and services, and
- to know and understand user unmet needs and areas for improvement.

The open-ended responses were dominated by comments from Undergraduate and Graduate students. The top three areas of concerns, as indicated by the open-ended responses are issues related to collections, facilities and staff. Undergraduates frequently use the Main Library, while all other groups sometimes use the Main Library. The majority of on-site visits to the Libraries are by undergraduate students. During their visits, they use the Information Arcade and/or the Information Commons to develop presentations, web pages, or scan materials. They are the heaviest users of LCAT. Undergraduates and Merit staff are the primary users of OASIS on site. Although Undergraduates are among the heaviest users of in-person library assistance and the public service desks, fewer agree that the libraries' staff is courteous or helpful. In addition, fewer of them can easily locate library materials. Of the groups studied all but Merit use in-service reference and circulation services. Faculty use the Hardin Library more than any other group; they are the predominant users of remote access to the libraries via LWIS, and to library reference services via e-mail. But when on-site they too use in-person reference and circulation services, as well as personal contact with library staff to address other library related questions or issues. Except for Faculty, library users are primarily female who are either enrolled as full-time students or employed on a full-time basis by the University of Iowa.

Project Overview

The University of Iowa Libraries User Needs Assessment project began as a pilot study in 1996. A preliminary survey was developed and administered to eleven Rhetoric II classes during the Fall semester. The results of the study underscored the need to conduct a more broadbased analysis, and consequently, the User Needs Assessment Group was established in 1997. Because the University of Iowa Library system is complex and serves a broad customer base, it was decided to implement the assessment in three phases over a period of three years. The first phase, the Undergraduate Study (Undergraduate) was conducted in 1998. The second phase, the Graduate and Professional Student Study (Graduate) took place in 1999. The third phase, the Faculty and Staff Study was completed in 2000.

Purpose and Goals

The User Needs Assessment Project was developed to assess library user satisfaction with current information services and resources, to help identify library-wide user services and resource needs, and to increase dialogue and involvement with library users. The establishment of such a project is the result of the UI Libraries commitment to creating a learning environment that encourages quality research, teaching and scholastic achievement.

The overall project goals were:

- to determine which information services and resources library users use,
- to measure library users' perception of and satisfaction with library services and resources,
- to establish what information resources and services library users need, and
- to ascertain library users' future needs.

Methodology

The members of the User Needs Assessment Group worked with library staff, project consultants in the areas of statistics and facilitation, the University Registrar, the Office of Evaluation and Examination Services staff and representatives from the Office of the

Provost and University Human Resources to implement the project. A representative group of potential respondents pre-tested each survey prior to administration. The University Registrar drew the required samples for the Undergraduate and the Graduate and Professional Student studies. Committee members worked with representatives from the Provost's Office and the Office of Human Resources to draw the Faculty, Professional and Scientific (P&S) and Merit samples.

The Undergraduate Sample

During the fall semester of 1997 there were 17,908 Undergraduate students enrolled at the University of Iowa. Of those students, 10% (1790) were selected to participate in the Undergraduate study. After two consecutive mailings, a total of 707 surveys were returned which represented a response rate of 39.5%.

The Graduate and Professional Student Sample

During the fall semester of 1998 there were 7,154 Graduate and Professional students enrolled at the University of Iowa. Of those students, 10% (717) were selected to participate in the Graduate and Professional Student Study. After two consecutive mailings, 318 surveys were returned which represented a response rate of 44%.

The Faculty and Staff Sample

During the fall semester of 2000, 1,929 faculty, 591 of P&S and 515 Merit staff participated in the Faculty and Staff Study. Two consecutive mailings resulted in the following response rates: 46.3% for Faculty, 47% for P&S, and 46.3% for Merit staff.

FINAL PHASE: A COMPARATIVE ANALYSIS

Purpose and Goals

The Comparative Analysis is the culminating phase of the User Needs Assessment Project. The purpose of this phase is to identify statistically significant differences in usage and level of satisfaction between the user groups studied.

The specific project objectives were:

- to know and understand how services and resources are accessed by library users,
- to know and understand what library services, resources, collections and facilities library users take advantage of for study, teaching and research,
- to know and understand user perceptions about library resources and services,
- to know and understand user attitudes about library resources and services, and
- to know and understand user unmet needs and areas for improvement.

Methodology

A one-way analysis of variance was conducted to identify significant differences between the participants in Phase I-III of the Libraries' User Needs Assessment Project. The analysis was based on questions asked across all of the studies. Broad categories of similar questions included frequency of use; purpose of use; library queries; services; print resources; electronic resources; use of special departments, reference, instructional services, circulation, interlibrary loan, Libraries' websites, and OASIS (the Libraries' computerized catalogs and indexes); user satisfaction; gender; and part-time/full-time enrollment and employment status.

A representative from the Office of Examination and Evaluation Services developed a combined database and generated descriptive statistics. In conjunction with the project statistical consultant and a graduate student, the data was analyzed using an SPSS statistical package.

Analysis and Highlights

A one-way analysis of variance was conducted to identify significant differences between the 5 user groups (Undergraduate students, Graduate students, Faculty, P&S and Merit staff) across 51 questions. It is important to note that this type of analysis is very sensitive to the number of respondents and the standard deviation—an approximate indication of how far the numbers tend to vary from the mean. The criterion/alpha level for each test was $p \leq 0.05$. Of the 51 variables tested, there were 15 in which there were no significant differences between the means.

Understanding the Tables

An inverse 5-point Likert scale was used to measure use, satisfaction and agreement. The scale for use ranged from 1/high (Very Frequently) to 5/low (Never). The scales for satisfaction (1=Very Satisfied to 5=Very Dissatisfied) and agreement (1=Strongly Agree to 5=Strongly Disagree) were designed in the same manner. Significant differences are denoted by the symbol “>.” For example, U>F reads, the mean for Undergraduates (U) is significantly greater than the mean for Faculty (F), higher means constitute lower use/satisfaction/agreement for a given test. Each table includes the group mean, the total number of respondents (n), and the standard deviation.

Highlights

Main and Branch Libraries

- Undergraduates frequently use the Main Library, while all other groups sometimes use the Main Library (see Table 7).
- Undergraduates and Merit staff seldom use the Hardin Library (see Table 6).
- Faculty use the Hardin Library more than any other group (see Table 6).

Library Departments in the Main Library

- Undergraduates use Media services more than any other user group (see Table 26).
- Users seldom or never use the Iowa Women’s Archives, Government Publications and the Map Collection in the Main Library (see Tables 27, 28 and 29)
- Undergraduates are the heaviest users of the Information Arcade (see Table 25).

Electronic Resources

- LIBCATS is seldom or never used (see Table 39).
- Undergraduates are using OASIS on site almost as much as Graduate students (see Table 37).
- LWIS is used more frequently by Faculty to answer library related questions, but the those who use it among all groups are satisfied or somewhat satisfied with it (see Tables 16 and 41).

- Undergraduates use the computers in the Information Commons and the Information Arcade to develop presentations, web pages and to scan material more often than the other groups (see Table 22).
- Undergraduates are the heaviest users of LCAT (see Table 38).

Library Equipment and Facilities

- The photocopiers are used predominantly by the Undergraduate and Graduate students (see Table 14).
- Fewer Graduate students agree that the Libraries have pleasant physical facilities (see Table 48).

Library Services

- Faculty are the primary users of recall (see Table 13).
- Undergraduates prefer to seek assistance from library staff and use the public service desks more than any of the other library users (see Tables 17 and 18).
- Fewer Undergraduates and Merit staff agree that the libraries' staff is courteous, helpful, or that they can easily locate the materials they need (see Tables, 46, and 47).
- Even though users seldom use reference consultations, those who do are satisfied with the service (see Tables 19 and 42).
- Reference service by e-mail is used most by Faculty and least by Undergraduates (see Table 30).
- Faculty use reference service by telephone more than any other user group (Table 31).
- Of the user groups studied, in-person reference service is used least by Merit staff (see Table 32).

Print Resources

- Users seldom use the printed handouts, but those who do are satisfied with them (see Tables 15 and 40).
- Faculty are the heaviest users of printed indexes and bibliographies (see Table 23).

User Demographics

- The majority of Undergraduate, Graduate, and staff library users are female. Faculty users are primarily male (see Table 50).
- Users are primarily full-time students or full-time university employees (see Table 21).

Open-Ended Responses

- Users are most concerned with issues related to collections, facilities and staff (see Chart A and Table 52).
- The majority of open-ended comments came from Undergraduate and Graduate students (see Table 52, and Charts B1 and B2).
- There were 1.89 open-ended responses per Graduate student, and 1.05 open-ended responses per Undergraduate student (see Table 53).

Conclusion

This study confirmed what library staff knew to be true by observation, but also identified areas in need of improvement. The Undergraduates are the predominant users of technology in the libraries, which is exemplified by their use of OASIS, LCAT, the Information Arcade and the Information Commons. Undergraduates prefer in-person circulation and reference services. They are also heavy users of the public service desks. But, fewer Undergraduates and Merit staff agree that library staff is courteous or helpful compared to the other users, and fewer find it easy to locate library materials.

Faculty use remote services more than any other user group. This was exemplified by their preference for reference service by e-mail and telephone and their use of LWIS to answer library related questions. In spite of their preference for remote services, like Undergraduates, they too prefer in-person reference and circulation services when they visit the libraries. They are also the heaviest users of print indexes and bibliographies.

Merit and P&S staff are not fully utilizing the services and resources made available to them. Although Merit staff use the public service desks, OASIS from within the

Libraries and in-person reference services, fewer agree that the Libraries offer the services they need.

Like undergraduates, graduate students prefer in-person reference and circulation services. They use LCAT, OASIS from within the libraries, and the public service desks but fewer agree that the Libraries have pleasant physical facilities.

The Undergraduate and Graduate students responded more to the open-ended questions. Faculty were more reticent in answering the open-ended questions than the researchers expected.

A Final Note

The careful attention paid by the researchers to the development and implementation of this project coupled with their dedication to the project make the resulting data a rich resource of valid, reliable and relevant information. Because satisfaction is primarily a measurement of personal and emotional reaction to a given service or product, the fertility of the results depreciate overtime. Therefore, it is imperative that subsequent evaluations are conducted periodically to more accurately reflect current conditions and to track the impact of the changes implemented as a result of these findings.

APPENDIX: TABLES

| Table 1: Use of the Art Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.1645 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 655 | 4.74 | 0.73 | |
| Graduate (G) | 306 | 4.78 | 0.72 | |
| Faculty (F) | 780 | 4.69 | 0.74 | |
| P&S | 149 | 4.82 | 0.51 | |
| Merit (M) | 81 | 4.69 | 0.74 | |

| Table 2: Use of the Biological Sciences Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 652 | 4.66 | 0.77 | U>F |
| Graduate (G) | 306 | 4.74 | 0.65 | G>F |
| Faculty (F) | 785 | 4.45 | 0.91 | |
| P&S | 149 | 4.55 | 0.81 | |
| Merit (M) | 80 | 4.70 | 0.68 | |

| Table 3: Use of the Chemistry Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0245 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 654 | 4.64 | 0.81 | |
| Graduate (G) | 306 | 4.75 | 0.74 | |
| Faculty (F) | 781 | 4.64 | 0.85 | |
| P&S | 148 | 4.78 | 0.57 | |
| Merit (M) | 79 | 4.82 | 0.50 | |

Table 4: Use of the Engineering Library**p=0.0041**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 4.54 | 1.03 | |
| Graduate (G) | 304 | 4.52 | 1.06 | |
| Faculty (F) | 786 | 4.53 | 0.94 | |
| P&S | 148 | 4.78 | 0.54 | P&S>U;P&S>F;P&S>G |
| Merit (M) | 80 | 4.81 | 0.62 | |

Table 5: Use of the Geology Library**p=0.2076**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 4.89 | 0.52 | |
| Graduate (G) | 304 | 4.95 | 0.32 | |
| Faculty (F) | 768 | 4.87 | 0.52 | |
| P&S | 147 | 4.90 | 0.38 | |
| Merit (M) | 80 | 4.85 | 0.55 | |

Table 6: Use of the Hardin Library for the Health Sciences**p=0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 649 | 4.20 | 1.22 | U>G;U>P&S;U>F |
| Graduate (G) | 305 | 3.29 | 1.59 | G>F |
| Faculty (F) | 799 | 2.99 | 1.47 | |
| P&S | 149 | 3.17 | 1.31 | |
| Merit (M) | 80 | 3.91 | 1.22 | M>G; M>P&S; M>F |

| Table 7: Use of the Main Library | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 651 | 2.37 | 1.08 | |
| Graduate (G) | 306 | 2.98 | 1.44 | G>U |
| Faculty (F) | 812 | 3.21 | 1.34 | F>G; F>U |
| P&S | 150 | 3.37 | 1.00 | P&S>G; P&S>U |
| Merit (M) | 82 | 3.23 | 1.21 | M>U |

| Table 8: Use of the Marvin A. Pomerantz Business Library | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 653 | 4.05 | 1.32 | |
| Graduate (G) | 305 | 4.51 | 1.00 | G>U |
| Faculty (F) | 778 | 4.64 | 0.89 | F>U |
| P&S | 149 | 4.71 | 0.65 | P&S>U |
| Merit (M) | 80 | 4.70 | 0.77 | M>U |

| Table 9: Use of the Mathematical Sciences Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 653 | 4.80 | 0.60 | U>F |
| Graduate (G) | 305 | 4.67 | 0.81 | |
| Faculty (F) | 777 | 4.59 | 0.97 | |
| P&S | 148 | 4.85 | 0.43 | P&S>F |
| Merit (M) | 80 | 4.85 | 0.53 | M>F |

| Table 10: Use of the Physics Library | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 653 | 4.85 | 0.52 | U>F |
| Graduate (G) | 306 | 4.88 | 0.49 | G>F |
| Faculty (F) | 781 | 4.70 | 0.81 | |
| P&S | 148 | 4.89 | 0.38 | P&S>F |
| Merit (M) | 80 | 4.80 | 0.64 | |

| Table 11: Use of the Psychology Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0032 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 653 | 4.45 | 1.01 | U>F |
| Graduate (G) | 306 | 4.34 | 1.19 | |
| Faculty (F) | 787 | 4.26 | 1.14 | |
| P&S | 148 | 4.33 | 1.00 | |
| Merit (M) | 79 | 4.62 | 0.76 | M>F |

| Table 12: Use of the Rita Benton Music Library | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0003 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 653 | 4.77 | 0.72 | |
| Graduate (G) | 306 | 4.89 | 0.55 | G>F |
| Faculty (F) | 781 | 4.70 | 0.82 | |
| P&S | 147 | 4.89 | 0.39 | P&S>F |
| Merit (M) | 80 | 4.85 | 0.53 | |

| Table 13: Use of Recall p=0.0001 | | | | |
|---|----------|-------------|-----------|--------------------------|
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 648 | 4.28 | 0.95 | U>G; U>F |
| Graduate (G) | 302 | 3.84 | 1.15 | G>F |
| Faculty (F) | 816 | 3.37 | 1.05 | |
| P&S | 150 | 4.11 | 0.96 | P&S>F |
| Merit (M) | 78 | 4.22 | 1.03 | M>G; M>F |

| Table 14: Use of Photocopiers p=0.0001 | | | | |
|---|----------|-------------|-----------|--------------------------|
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 655 | 2.95 | 1.20 | |
| Graduate (G) | 305 | 2.87 | 1.35 | |
| Faculty (F) | 825 | 3.20 | 1.26 | F>U; F>G |
| P&S | 150 | 3.31 | 1.24 | P&S>U; P&S>G |
| Merit (M) | 81 | 3.68 | 1.26 | M>F; M>U; M>G |

| Table 15: Use of Printed Handouts p=0.1509 | | | | |
|---|----------|-------------|-----------|--------------------------|
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 654 | 3.97 | 1.03 | |
| Graduate (G) | 304 | 4.09 | 0.92 | |
| Faculty (F) | 826 | 4.01 | 0.83 | |
| P&S | 150 | 3.99 | 0.90 | |
| Merit (M) | 80 | 4.19 | 0.87 | |

Table 16: Use of LWIS To Answer Questions About the Libraries**p=.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 4.62 | 0.75 | U>M; U>G; U>P&S; U>F |
| Graduate (G) | 305 | 3.77 | 1.25 | G>P&S; G>F |
| Faculty (F) | 832 | 3.08 | 1.28 | |
| P&S | 151 | 3.38 | 1.23 | P&S>F |
| Merit (M) | 80 | 3.80 | 1.11 | M>F |

Table 17: Ask A Library Staff Member to Answer Questions About the Libraries**p=.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 654 | 2.92 | 1.17 | |
| Graduate (G) | 303 | 3.30 | 1.02 | G>U |
| Faculty (F) | 832 | 3.14 | 0.90 | F>U |
| P&S | 150 | 3.39 | 0.87 | P&S>F; P&S>U |
| Merit (M) | 82 | 3.65 | 1.00 | M>F; M>U |

Table 18: Use of Public Service Desks**p=.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 3.00 | 1.12 | |
| Graduate (G) | 305 | 3.12 | 1.10 | |
| Faculty (F) | 807 | 3.23 | 0.99 | F>U |
| P&S | 144 | 3.34 | 1.01 | P&S>U |
| Merit (M) | 75 | 3.40 | 1.04 | M>U |

| Table 19: Use of Reference Consultations | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.73 | 0.70 | U>F |
| Graduate (G) | 303 | 4.64 | 0.75 | |
| Faculty (F) | 773 | 4.52 | 0.80 | |
| P&S | 129 | 4.71 | 0.63 | P&S>F |
| Merit (M) | 60 | 4.89 | 0.45 | M>F |

| Table 20: Use of Videos | | | | |
|--------------------------------|----------|-------------|-----------|--------------------------|
| p=0.1517 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.42 | 0.89 | |
| Graduate (G) | 306 | 4.50 | 0.89 | |
| Faculty (F) | 829 | 4.46 | 1.00 | |
| P&S | 151 | 4.62 | 0.65 | |
| Merit (M) | 82 | 4.39 | 0.95 | |

| Table 21: Use of Microfilm/Microfiche | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0373 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 654 | 4.31 | 0.90 | |
| Graduate (G) | 305 | 4.32 | 0.86 | |
| Faculty (F) | 826 | 4.18 | 0.93 | |
| P&S | 151 | 4.25 | 0.83 | |
| Merit (M) | 81 | 4.14 | 0.93 | |

Table 22: Use of Computers in the Information Commons or Arcade to Develop Presentations, Web Pages or Scan Material

p=0.0001

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 3.91 | 1.27 | |
| Graduate (G) | 304 | 4.17 | 1.10 | G>U |
| Faculty (F) | 784 | 4.36 | 0.92 | F>U |
| P&S | 136 | 4.33 | 0.99 | P&S>U |
| Merit (M) | 62 | 4.10 | 1.17 | |

Table 23: Use of Printed Indexes and Bibliographies

p=0.0001

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 4.21 | 1.04 | U>G; U>P&S; U>F |
| Graduate (G) | 302 | 3.82 | 1.17 | G>F |
| Faculty (F) | 820 | 3.31 | 1.14 | |
| P&S | 148 | 3.67 | 1.02 | P&S>F |
| Merit (M) | 77 | 3.95 | 0.99 | M>F |

Table 24: Use of Maps and Ariel Photos

p=0.0028

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 4.60 | 0.76 | |
| Graduate (G) | 305 | 4.74 | 0.60 | G>U; G>M |
| Faculty (F) | 828 | 4.67 | 0.67 | |
| P&S | 151 | 4.65 | 0.72 | |
| Merit (M) | 81 | 4.46 | 0.84 | |

| Table 25: Use of the Information Arcade | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 655 | 3.98 | 1.12 | |
| Graduate (G) | 305 | 4.17 | 1.08 | |
| Faculty (F) | 831 | 4.34 | 0.88 | F>U |
| P&S | 151 | 4.17 | 1.02 | |
| Merit (M) | 80 | 4.09 | 1.07 | |

| Table 26: Use of Media Services | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 655 | 4.05 | 1.05 | |
| Graduate (G) | 306 | 4.21 | 1.01 | |
| Faculty (F) | 831 | 4.31 | 1.04 | F>U |
| P&S | 151 | 4.40 | 0.79 | P&S>U |
| Merit (M) | 81 | 4.22 | 0.99 | |

| Table 27: Use of Iowa Women's Archives | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.5835 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 655 | 4.83 | 0.55 | |
| Graduate (G) | 306 | 4.85 | 0.47 | |
| Faculty (F) | 829 | 4.85 | 0.53 | |
| P&S | 151 | 4.80 | 0.48 | |
| Merit (M) | 81 | 4.77 | 0.58 | |

| Table 28: Use of Government Publications | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0551 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.53 | 0.81 | |
| Graduate (G) | 306 | 4.37 | 0.96 | |
| Faculty (F) | 829 | 4.43 | 0.90 | |
| P&S | 151 | 4.42 | 0.84 | |
| Merit (M) | 81 | 4.53 | 0.88 | |

| Table 29: Use of Map Collection in Main Library | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.2348 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.77 | 0.59 | |
| Graduate (G) | 306 | 4.80 | 0.53 | |
| Faculty (F) | 830 | 4.80 | 0.53 | |
| P&S | 151 | 4.73 | 0.69 | |
| Merit (M) | 81 | 4.68 | 0.63 | |

| Table 30: Use of Reference Services by E-Mail | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.77 | 0.71 | U>G; U>P&S; U>F |
| Graduate (G) | 305 | 4.49 | 0.93 | G>F |
| Faculty (F) | 830 | 3.95 | 1.08 | |
| P&S | 150 | 4.43 | 0.93 | P&S>F |
| Merit (M) | 80 | 4.68 | 0.63 | M>F |

| Table 31: Use of Reference Service by Telephone | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.31 | 0.98 | U>F |
| Graduate (G) | 305 | 4.39 | 0.89 | G>P&S; G>F |
| Faculty (F) | 834 | 3.86 | 0.93 | |
| P&S | 151 | 4.08 | 1.02 | |
| Merit (M) | 81 | 4.15 | 1.00 | |

| Table 32: Use of In-Person Reference Service | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.0180 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 3.30 | 1.21 | |
| Graduate (G) | 306 | 3.25 | 1.19 | |
| Faculty (F) | 835 | 3.30 | 1.00 | |
| P&S | 152 | 3.48 | 0.97 | |
| Merit (M) | 81 | 3.64 | 1.04 | M>G |

| Table 33: Use of Circulation Services by E-Mail | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 656 | 4.61 | 0.95 | U>F |
| Graduate (G) | 305 | 4.44 | 1.10 | G>F |
| Faculty (F) | 828 | 4.22 | 1.17 | |
| P&S | 150 | 4.46 | 1.00 | |
| Merit (M) | 81 | 4.47 | 1.01 | |

Table 34: Use of Circulation Services by Telephone**p=0.0715**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 4.43 | 0.98 | |
| Graduate (G) | 306 | 4.41 | 0.97 | |
| Faculty (F) | 830 | 4.30 | 0.95 | |
| P&S | 150 | 4.43 | 0.91 | |
| Merit (M) | 81 | 4.30 | 1.01 | |

Table 35: Use of In-Person Circulation Services**0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 3.66 | 1.29 | |
| Graduate (G) | 306 | 3.43 | 1.32 | |
| Faculty (F) | 833 | 3.50 | 1.23 | |
| P&S | 150 | 3.90 | 1.13 | P&S>F; P&S>G |
| Merit (M) | 82 | 4.01 | 1.09 | M>F; M>G |

Table 36: Use of LWIS Within the Libraries**0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 4.54 | 0.85 | U>P&S; U>F; U>G |
| Graduate (G) | 304 | 3.97 | 1.27 | |
| Faculty (F) | 828 | 4.04 | 1.13 | |
| P&S | 150 | 4.24 | 1.00 | |
| Merit (M) | 81 | 4.38 | 0.92 | M>F; M>G |

Table 37: Use of OASIS From Within the Libraries**p=0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 2.86 | 1.26 | |
| Graduate (G) | 305 | 2.80 | 1.43 | |
| Faculty (F) | 835 | 3.17 | 1.28 | F>U; F>G |
| P&S | 150 | 3.69 | 1.14 | P&S>F; P&S>U; P&S>G |
| Merit (M) | 82 | 3.76 | 1.25 | M>F; M>U; M>G |

Table 38: Use of LCAT**p=0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 2.52 | 1.37 | |
| Graduate (G) | 306 | 2.72 | 1.50 | |
| Faculty (F) | 834 | 2.95 | 1.53 | F>U |
| P&S | 149 | 3.62 | 1.38 | P&S>F; P&S>G; P&S>U |
| Merit (M) | 81 | 3.99 | 1.33 | M>F; M>G; M>U |

Table 39: Use of LIBCATS**p=0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 4.12 | 1.10 | |
| Graduate (G) | 303 | 4.05 | 1.18 | |
| Faculty (F) | 833 | 3.96 | 1.21 | |
| P&S | 149 | 4.40 | 0.96 | P&S>G; P&S>F |
| Merit (M) | 82 | 4.56 | 0.74 | M>U; M>G; M>F |

| Table 40: Satisfaction With Printed Handouts | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.4468 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 384 | 2.33 | 0.72 | |
| Graduate (G) | 142 | 2.33 | 0.66 | |
| Faculty (F) | 258 | 2.42 | 0.69 | |
| P&S | 76 | 2.42 | 0.68 | |
| Merit (M) | 33 | 2.39 | 0.70 | |

| Table 41: Satisfaction With LWIS | | | | |
|---|----------|-------------|-----------|--------------------------|
| p=0.1268 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 189 | 2.46 | 0.77 | |
| Graduate (G) | 174 | 2.31 | 0.79 | |
| Faculty (F) | 557 | 2.32 | 0.75 | |
| P&S | 98 | 2.41 | 0.73 | |
| Merit (M) | 40 | 2.50 | 0.68 | |

| Table 42: Satisfaction With Reference Consultations | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.3477 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 93 | 2.27 | 0.81 | |
| Graduate (G) | 118 | 2.19 | 0.71 | |
| Faculty (F) | 456 | 2.19 | 0.78 | |
| P&S | 59 | 2.27 | 0.76 | |
| Merit (M) | 22 | 2.50 | 0.74 | |

| Table 43: Satisfaction With Services Received at Public Service Desks | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0021 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 557 | 2.11 | 0.72 | |
| Graduate (G) | 244 | 2.17 | 0.67 | |
| Faculty (F) | 596 | 2.21 | 0.70 | |
| P&S | 112 | 2.29 | 0.79 | |
| Merit (M) | 52 | 2.44 | 0.73 | M>U |

| Table 44: Satisfaction With Library Instructional Classes | | | | |
|--|----------|-------------|-----------|--------------------------|
| 0.0021 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 100 | 2.45 | 0.96 | |
| Graduate (G) | 107 | 2.31 | 0.73 | |
| Faculty (F) | 266 | 2.25 | 0.77 | |
| P&S | 47 | 2.26 | 0.67 | |
| Merit (M) | 12 | 2.50 | 0.67 | |

| Table 45: The Libraries Offer the Services I Need | | | | |
|--|----------|-------------|-----------|--------------------------|
| 0.0707 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 650 | 2.14 | 0.81 | |
| Graduate (G) | 285 | 2.11 | 0.69 | |
| Faculty (F) | 768 | 2.24 | 0.85 | |
| P&S | 145 | 2.23 | 0.72 | |
| Merit (M) | 68 | 2.22 | 0.67 | |

| Table 46: The Libraries' Staff is Helpful | | | | |
|--|----------|-------------|-----------|--------------------------|
| p=0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 651 | 2.14 | 0.81 | U>G; U>F |
| Graduate (G) | 271 | 1.96 | 0.71 | |
| Faculty (F) | 756 | 1.83 | 0.72 | |
| P&S | 145 | 2.00 | 0.71 | |
| Merit (M) | 70 | 2.21 | 0.72 | M>F |

| Table 47: The Libraries' Staff is Courteous | | | | |
|--|----------|-------------|-----------|--------------------------|
| 0.0001 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 652 | 2.24 | 0.86 | U>G; U>P&S; U>F |
| Graduate (G) | 267 | 2.02 | 0.77 | G>F |
| Faculty (F) | 760 | 1.81 | 0.72 | |
| P&S | 145 | 2.02 | 0.75 | P&S>F |
| Merit (M) | 70 | 2.14 | 0.67 | M>F |

| Table 48: The Libraries Have Pleasant Physical Facilities | | | | |
|--|----------|-------------|-----------|--------------------------|
| 0.0117 | | | | |
| Group | n | Mean | SD | Significant Means |
| Undergraduate (U) | 650 | 2.82 | 1.21 | |
| Graduate (G) | 285 | 2.93 | 1.12 | G>F |
| Faculty (F) | 771 | 2.68 | 0.98 | |
| P&S | 145 | 2.71 | 1.06 | |
| Merit (M) | 69 | 2.83 | 0.89 | |

Table 49: Overall, I Can Easily Locate the Materials I Need**p=0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 651 | 2.78 | 1.08 | U>G; U>F |
| Graduate (G) | 287 | 2.53 | 0.89 | |
| Faculty (F) | 775 | 2.50 | 0.90 | |
| P&S | 146 | 2.62 | 0.89 | |
| Merit (M) | 71 | 2.66 | 0.77 | |

Table 50: Gender**0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 656 | 1.64 | 0.48 | U>F |
| Graduate (G) | 307 | 1.59 | 0.49 | G>F |
| Faculty (F) | 837 | 1.29 | 0.45 | |
| P&S | 152 | 1.69 | 0.46 | P&S>F |
| Merit (M) | 82 | 1.62 | 0.49 | M>F |

Table 51: Enrollment/Employment Status**0.0001**

| Group | n | Mean | SD | Significant Means |
|-------------------|----------|-------------|-----------|--------------------------|
| Undergraduate (U) | 655 | 1.90 | 0.30 | U>G |
| Graduate (G) | 305 | 1.70 | 0.46 | |
| Faculty (F) | 839 | 1.94 | 0.24 | F>G |
| P&S | 152 | 1.91 | 0.28 | P&S>G |
| Merit (M) | 82 | 1.85 | 0.36 | M>G |

Table 52: Overall Open-Ended Responses by Category and Group

| CATEGORY | Undergraduate (U) | Graduate (G) | Faculty (F) | P&S | Merit (M) | TOTAL |
|------------------------------|--------------------------|---------------------|--------------------|----------------|------------------|--------------|
| Collections | 171 | 115 | 171 | 22 | 2 | 481 |
| Facilities | 188 | 177 | 47 | 12 | 2 | 426 |
| Staff | 109 | 50 | 92 | 8 | 0 | 259 |
| Equipment | 57 | 93 | 25 | 4 | 0 | 179 |
| Instruction/Awareness | 73 | 39 | 32 | 3 | 0 | 147 |
| Electronic Resources | 40 | 44 | 39 | 3 | 0 | 126 |
| Services | 13 | 18 | 74 | 9 | 0 | 114 |
| General | 18 | 33 | 14 | 5 | 0 | 70 |
| UNAG Survey | 0 | 6 | 11 | 3 | 0 | 20 |
| ITC | 14 | 0 | 0 | 0 | 0 | 14 |
| Information Arcade | 4 | 4 | 0 | 0 | 0 | 8 |
| Consultations | 5 | 0 | 0 | 0 | 0 | 5 |
| TOTAL | 692 | 579 | 505 | 69 | 4 | 1849 |

Table 53: Per-Person Open-Ended Response

| Group | Usable Surveys | Total # of Responses | Per-Person Response |
|-------------------|-----------------------|-----------------------------|----------------------------|
| Undergraduate (U) | 656 | 692 | 1.05 |
| Graduate (G) | 307 | 579 | 1.89 |
| Faculty (F) | 842 | 505 | 0.60 |
| P&S | 152 | 69 | 0.45 |
| Merit (M) | 82 | 4 | 0.05 |

APPENDIX: CHARTS

Chart A: Overall Open-Ended Responses by Category

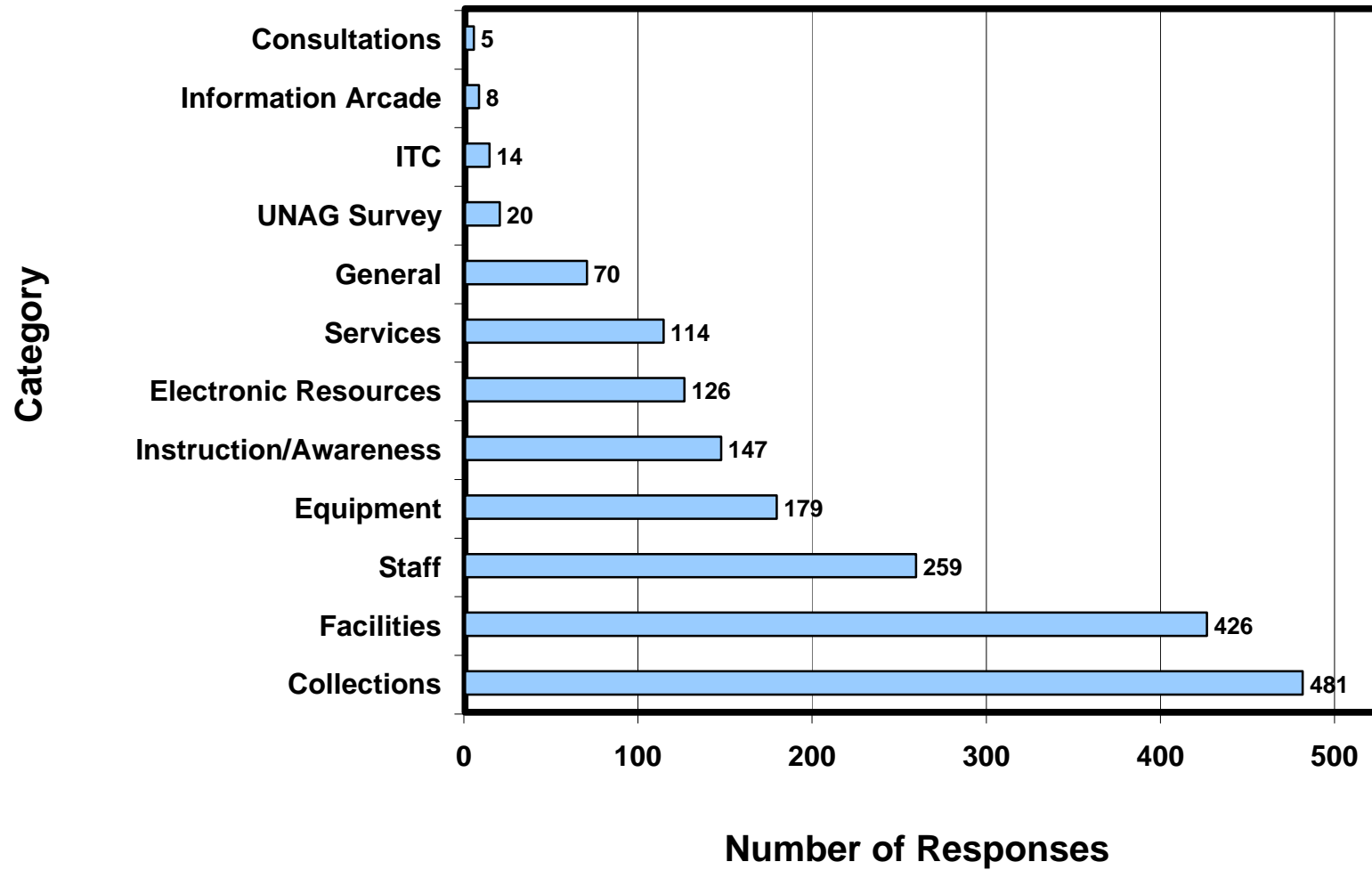


Chart B1: Open-Ended Responses By Category and Group

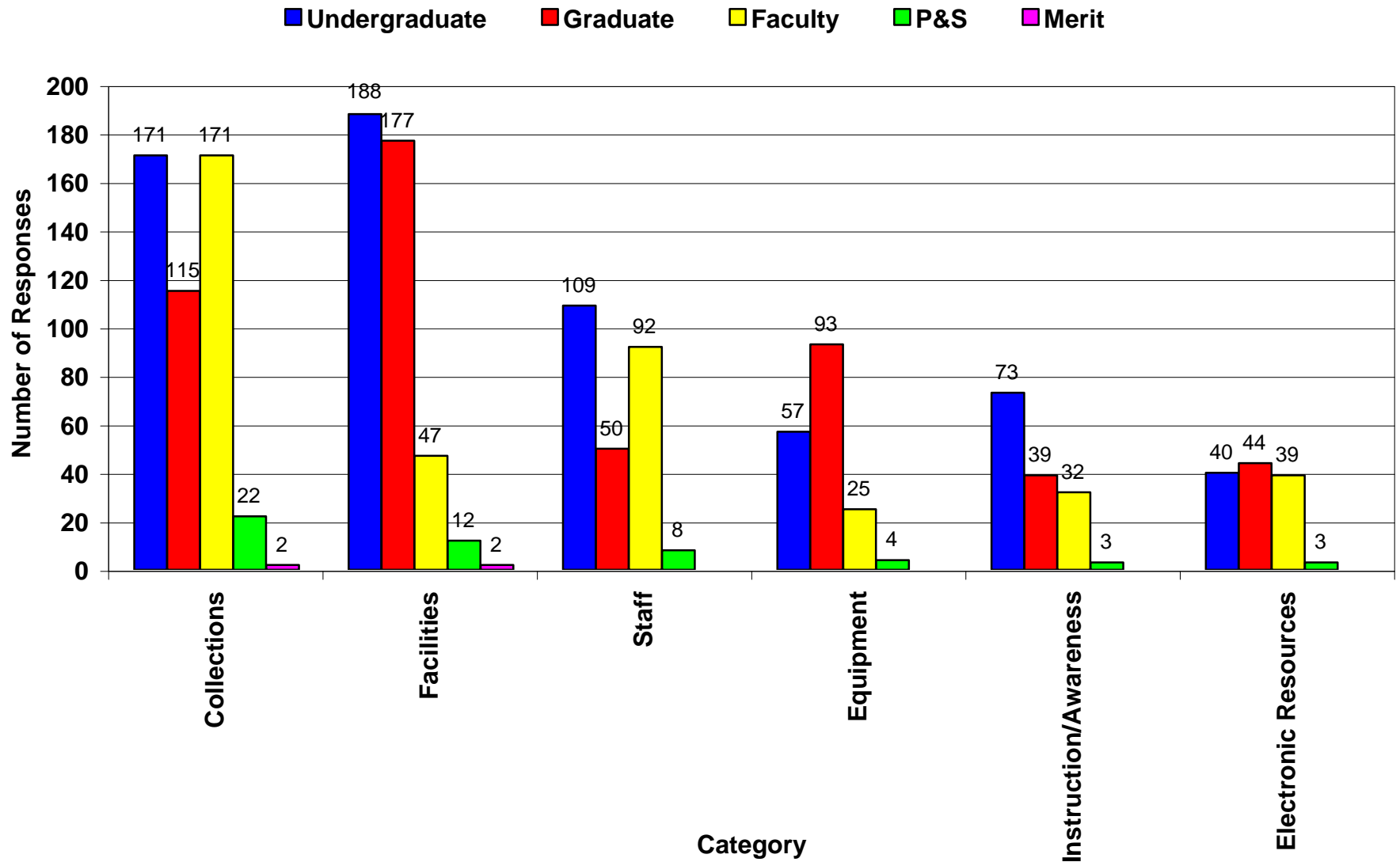


Chart B2: Open-Ended Responses By Category and Group (Continued)

■ Undergraduate ■ Graduate ■ Faculty ■ P&S ■ Merit

