

MINES for Libraries[™]

Measuring the Impact of Networked Electronic Services and the

Ontario Council of University Libraries' Scholars Portal

Final Report



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Links:

MINES for Libraries™: a project from StatsQUAL™ http://www.statsqual.org/mines/index.cfm

MINES for LibrariesTM http://www.arl.org/stats/newmeas/mines.html

Ontario Council of University Libraries (OCUL) http://www.ocul.on.ca/

Scholars Portal http://www.scholarsportal.info/

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Measuring the Impact of Networked Electronic Services (MINES) and the Ontario Council of University Libraries' Scholars Portal

Final Report

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Executive Summary

- Scholars Portal has successfully mounted and delivered information resources acquired through OCUL consortia purchases and has ensured rapid and reliable access to these resources
- Continuing support for the Scholars Portal will provide for the long term, secure archiving of resources to ensure continued availability
- MINES for LibrariesTM, a transaction-based research methodology consisting of a web-based survey form and a random moments sampling plan, shows that Scholars Portal resources are heavily used by faculty and students in all OCUL institutions collecting data from more than 20,000 uses over the course of a year
- The majority of the uses of the Scholars Portal resources are from the sciences and the medical health field
- Close to half of the use made of the Scholars Portal resources is by undergraduate students (46%)
- Close to half of the use made of the Scholars Portal resources is from offcampus locations (45%)
- The largest portion of the use of the Scholars Portal resources is for purposes of coursework (42%) with sponsored research representing an important second highest category of use (26%)
- MINES for LibrariesTM, combined with usage counts, provides an infrastructure to make Scholars Portal usage studies routine, robust, and easily integrated into OCUL's administrative decision-making process for assessing networked electronic resources

Introduction

As libraries implement access to electronic resources through portals, collaborations, and consortium arrangements, the MINES for LibrariesTM protocol offers a convenient way to collect information from users in an environment where they no longer need to physically enter the library in order to access resources (Franklin and Plum, 2004, 2003, 2002). MINES for LibrariesTM adapts a long-established methodology to account for the use of information resources in the digital environment. The survey is based on methods developed to determine the indirect costs (Franklin, 2001) of conducting grant-funded R&D activities, and was adopted as part of ARL's New Measures program in May 2003.

Ontario Council of University Libraries (OCUL)

The Ontario Council of University Libraries (OCUL) is a consortium of twenty university libraries cooperating to enhance information services through resource sharing, collective purchasing, document delivery and many other similar activities. Funding from a government initiatives fund, the Ontario Innovation Trust (OIT), was instrumental in the creation of the Ontario Information Infrastructure (OII) Scholars Portal. OCUL received \$7.6 million for the start-up period of 2000-2005. Beginning in 2006, OCUL universities will share the cost of the Scholars Portal.

In 2001, OCUL created the Scholars Portal, an information infrastructure to support digital content which delivers resources for research, teaching and learning to the province's universities. The Scholars Portal includes a number of core services that are shared by all members. The project goals for the electronic resources component of OCUL services are:

- Centrally mounting and delivering information resources acquired through OCUL consortia purchases to ensure rapid and reliable access, and secure archiving.
- Ensuring that the resources and services provided by the OII address the needs of faculty, students and staff.
- Ensuring that resources and services can be seamlessly integrated to the local library and information systems of the institution.

In January 2004, the evaluation phase of the electronic journals project began.

John Cotton Dana, a key figure in 20th century librarianship, wrote in 1920:

"All public institutions...should give returns for their costs; and those returns should be in good degree positive, definite, visible and measurable [...] Common sense demands that a publicly-supported institution do something for its supporters and that some part at least of what it does be capable of clear description and downright valuation." ¹

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¹ John Cotton Dana. The New Museum: Selected Writings by John Cotton Dana, edited by William Penniston (1999). Quoted in *The 2003 OCLC Environmental Scan: Pattern Recognition* in chapter "The Economic Landscape", Online Computer Library Centre, (Dublin Ohio: OCLC, 2004):30.

To meet that imperative, OCUL applied the innovative measurement survey tool, Measuring the Impact of Networked Electronic Services (MINES), to this multi-library multi-million dollar province-wide electronic resources project to measure its success and impact on the users of Ontario's academic libraries. The Ontario universities are public institutions and therefore have a responsibility to provide government funders and campus stakeholders with measurable evidence that the resources and efforts poured into the Scholars Portal have resulted in meeting the projects goals and constituents' expectations.

Table 1 shows the OCUL member libraries and the number of full-time equivalents (FTE) students enrolled in each institution.

These institutions span a wide spectrum with differences that impact the nature of their collections and services as well as the electronic journal usage patterns of their students, faculty and staff.

All consortia members dip into the same pool of quality electronic resources. The Scholars Portal Electronic Journals cover most disciplines, with a concentration in the sciences, but with growing social sciences and humanities content. It is one of the largest collections of electronic journals available to researchers anywhere. Technical and developmental support is provided by OCUL staff housed at the University of Toronto, which acts as OCUL's service provider. The Scholars Portal contains 8.2 million articles from 7,219 full text electronic journals² from the following publishers which are locally loaded on to an OCUL server at the University of Toronto:

- Academic Press.
- American Psychological Association,
- American Chemical Society,
- Berkeley Electronic Press,
- Blackwell Publishing
- Cambridge University Press.
- Emerald Publishing,
- Elsevier Science (Elsevier Science, Harcourt Health Sciences),
- IEEE Publication,
- Kluwer (Kluwer Academic Publishers, Kluwer Law International and Kluwer/Plenum).
- Oxford University Press,
- Project MUSE,
- Sage Publications,
- Springer-Verlag,
- Taylor and Francis
- John Wiley & Sons.

7

² As of July, 2005.

The MINES for LibrariesTM Methodology

MINES for LibrariesTM is a research methodology that been used to measure which networked electronic resources of a library or consortium are utilized by a specific category of the patron population (e.g., patron status or university departmental affiliation). It also solicits the patron's location at the time of use, and the purpose of use.

MINES for LibrariesTM is different from other electronic resource usage measures that quantify total usage, such as Project COUNTER and the Association of Research Libraries' E-metrics initiatives, or how well a library or consortium of libraries makes electronic resources accessible, such as ARL's DigiQualTM or LibQual+ TM. MINES for Libraries TM was adopted by the Association of Research Libraries as part of the "New Measures" toolkit in May, 2003. The primary difference between the MINES for Libraries TM approach and many of the other web-based user surveys is the emphasis on usage. Although user demographic information is collected, the web survey is really a usage survey, not a user survey. The questions are asked at the point of downloading articles, "meaning uses rather than users, and respondents could answer the survey multiple times during the data collection period" (Connell, Rogers, and Diedrichs, 2005).³

The sampling methodology employed in the Scholars Portal assessment project is a random moments sampling technique that surveyed Scholars Portal users during a twelve month period using one randomly selected two hour survey period each month. Because OCUL maintains detailed Scholars Portal usage statistics that tracks usage by time of day, we were able to weight the choice of two hour time periods so that periods of higher use received a higher proportionate likelihood of being selected as a survey period time. The OCUL usage statistics are similar to vendor supplied frequency data for sessions, searches, and views, but they are commensurable across different vendors, and are broken out by institution.

From electronic resource usage data collected in five previous MINES surveys, a statistician, Uwe Koehn, reported that, in the electronic environment, the sample size (n) required for accuracy (A) is $n=1/A^2$ (Koehn, 2003). Koehn also recommended stratifying survey periods throughout the year, as was done in the OCUL Scholars Portal study. Based on Koehn's calculations a twelve period, or twenty-four hours per year, sampling plan was employed for the OCUL Scholars Portal survey. Data was collected from sixteen OCUL libraries, comprising more than 20,000 uses, between May, 2004 and April, 2005.

During the one randomly selected two hour survey period each month, all Scholars Portal users were presented with a brief web-based survey form each time they accessed a networked electronic resources offered through OCUL's Scholars Portal. The respondent had to choose or select the resource in order to be presented with the survey, therefore

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³ This is similar to a recently published study regarding electronic journal use at Ohio State University using OhioLINK resources

memory or impression management errors were avoided. Once the survey is completed, the respondent's browser was forwarded to the desired networked electronic resource. Participation in the survey was mandatory in order to connect to the electronic resource being sought by a user. Because the random moments sampling technique requires samples of only a very small time period (two hours per month), it was important to obtain as high a response rate as possible during the sample period. An ongoing study at another library seems to show that voluntary participation in the survey, or a sample of a sample, does not yield as representative an estimate of total usage as a sample requiring all users to participate. (Franklin and Plum, 2005, unpublished data)

Technically, the Scholars Portal presented some unusual challenges, which were overcome by Alan Darnell and Vidhya Parthasarathy, who comprised the University of Toronto OCUL technical group for this project. The Scholars Portal resources are accessed from web pages within each library either through direct links to the ejournal titles as presented on various lists of e-resources, direct links to the ejournal titles through records in the online catalog, or prominently displayed links to the Scholars Portal home page on the library's web site. Electronic journals are authenticated by Internet Protocol (IP) address, but the Scholars Portal also restricts by IP. Most member libraries have a proxy server; primarily, but not exclusively, EZProxy.

Once in Scholars Portal, there is a search function which retrieves journal articles, and a browse function retrieving journal titles. Roughly, 60% of the usage was through browse, and the remaining 40% was through the search feature, based on Scholars Portal frequency of use data. For this reason, the survey was placed at the point of viewing an article. Intercepting the library patron at the article view solved the problem of trying count usage of journal titles and journal articles as though they were the same. Surveying at the article view also made consistent the survey intercept for all libraries, so that those libraries emphasizing browsing of titles would not have different results from those libraries which chose to highlight the search function on the Scholars Portal home page. In the case of repeated usage by the same user (that is, the same workstation) the survey auto-populated, using a cookie, retaining the values for the previously completed survey. This strategy captured repeated usage and lessened the potential for annoying the patron.

The Scholars Portal technical group used perl scripts and CGIs to provide access to resources, and the survey was written using same these techniques. MINES has followed the web survey design guidelines recommended by Dillman (2000), which suggests fourteen principles for the design of web surveys to mitigate the traditional sources of web survey error: sampling, coverage, measurement and non-response. To reduce the effects on the respondents of different renderings of the survey by different workstation browsers, the survey used simple text for its questions. The survey is short, with only a few questions, easy to navigate, and plain. In addition to the values of the questions to which the users responded, the record for each surveyed usage included a time and date stamp, the IP address of the client workstation or proxy server, the referring URL, the destination or target URL, and the institution with which the patron was affiliated. The IP address was used to identify the institutional affiliation of the surveyed patron. ISSNs are part of the target file structure, and so could be broken out, easily identifying the target ejournal.

MINES SURVEY at OCUL

The focus of the MINES survey was this electronic journals component of the Scholars Portal. The aim was to evaluate how well Ontario university libraries were meeting researcher needs with the consortia-purchased electronic resources offered.

The desired outcomes in utilizing the MINES survey methodology were:

- To capture in-library and remote web usage of Scholars Portal in a sound representative sample using MINES methodology
- To identify the demographic differences between in-house library users as compared to remote users by status of user (presently we cannot get user status from our Scholars Portal usage data).
- To identify users' purposes for accessing Scholars Portal electronic services (funded research, non-funded research, instruction/education use, student research papers and course work) to assist with the evaluation of the project (as well as to broaden the scope to capture information for OCUL about indirect research costs.)
- To develop an OCUL infrastructure to make studies of patron usage of OCUL networked electronic resources routine, robust and integrated in to the decisionmaking process.

History of OCUL Involvement and Survey Implementation

OCUL used a customized version of the MINES instrument and methodology previously employed at five academic health sciences libraries and two large main academic libraries in the United States. These studies were designed and conducted by Brinley Franklin (University of Connecticut) and Terry Plum (Simmons Graduate School of Library and Information Science).

MINES for Libraries™ came to OCUL's attention in 2003 after it was incorporated into ARL's New Measures Initiatives. The OII Project Management Team was excited about the MINES project because of its potential to provide OCUL with unique information about actual Scholars Portal use that was not achievable through other means. In the fall of 2003, an agreement was signed with ARL to work on a joint project in implementing the MINES survey for OCUL libraries.

Details were worked out with the key people at the University of Toronto responsible for running the methodology for the seventeen OCUL institutions which had computing environments that would sustain the application of the survey. ARL prepared a schedule for random two-hour monthly runs of the survey. A year's worth of data would be

collected that would span all times of the day and night and academic sessions. It was recognized that the methodology was unorthodox in that it included a mandatory element that might be problematic. It was also acknowledged that the survey might be annoying for patrons who were retrieving a large number of electronic journals during the same two-hour sample period, and therefore would be repeatedly surveyed. However, it was agreed that the benefits of rigorous data collection were great and every effort was made to minimize user inconvenience, including an immediate automatic connection to the resource of choice, and an auto-populated form if a user was accessing more than one journal in succession.

Several OCUL libraries mounted web pages or produced newsletter articles explaining the project, its methodology, and benefits. In order to accommodate the needs at the three bilingual institutions in the province, the survey form and the explanatory material were translated into French. Each survey participant was given a choice of language on the survey form. A test run was implemented in January 2004. The pilot highlighted the need for all institutions to be using a consistent link resolver URL when connecting to the Scholars Portal from their catalogues or eResources databases. Each site reviewed their configuration and necessary changes were made. Due to technical problems including a server disruption, the February and March runs were considered tests and the April run was cancelled. The real data collection ran from May 2004 through April 2005.

The February and March runs of the survey highlighted the different ways OCUL libraries implemented and accessed the Scholars Portal. That variety needed to be reflected in the data gathering. As originally planned, the data gathering was revised to capture every journal usage during the two- hour survey periods coming from :

- local electronic resources databases
- library catalogues
- Scholars Portal browse and search functions.

OCUL employed a unique definition of usage which was possible since article-level data was archived on an OCUL server: a successful search was defined as connecting the user to an article of interest for viewing, downloading or printing. The figure below shows the survey form as it appeared on the web (see Figure 1).

Benefits of the Methodology

The methodology is based on an attempt to capture every user of the service. Without a random sampling plan, in which each user has an equal chance of being included in the sample, we cannot really say anything about the population from which the sample is drawn. The sample based on random moments permits OCUL to make reliable inferences about the population, and to test hypotheses. The random sampling plan and the mandatory nature of the questions are both required to create a statistically sound study. If the survey is not mandatory, the group of non-respondents is likely to be different from the group of respondents, and we will not know what that difference is. One of the strengths and innovations of this survey technique is that it is based upon actual use, not on predicted, intended, or remembered use.

Figure 1:OCUL MINES for LibrariesTM Survey Form

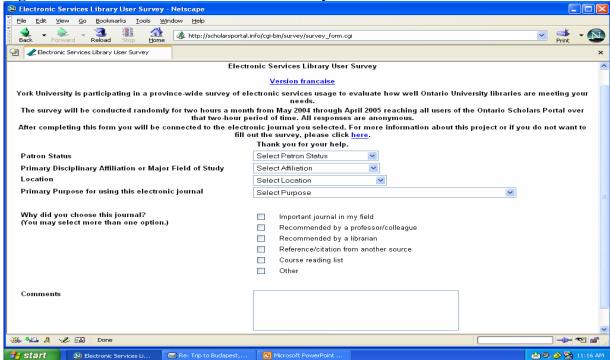
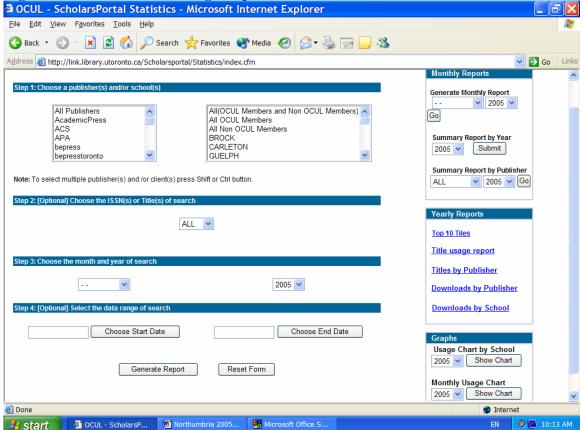


Figure 2. Scholars Portal Usage Report Generator



Ethics Review

All Canadian Universities must comply with the *Tri-Council Policy Statement on Ethical Conduct for Human Research Involving Humans* 1998 (Updated 2000, 2002 http://www.ncehr-cnerh.org/english/code_2/) put out by the Medical Research Council of Canada, the Natural Sciences and Engineering Research Council of Canada, and the Social Sciences and Humanities Research Council of Canada. A major step in implementing the MINES survey in each of the seventeen eligible libraries was contacting research ethics officers and/or Ethics Review Boards to get approval to run the survey.

The purpose of ethics reviews for human subjects is to prevent putting subjects at risk. In the document, "the standard of minimal risk is commonly defined as follows: if potential subjects can reasonably be expected to regard the probability and magnitude of possible harms implied by participation in the research to be no greater than those encountered by the subject in those aspects of his or her everyday life that relate to the research then the research can be regarded as within the range of minimal risk." Ultimately, eight campuses did not require approval because the survey fell into quality assurance guidelines and was seen as a library management tool; eight received approval after an application process. One library did not receive approval due to the mandatory nature of the survey. It was determined that it was preferable to go with statistical valid data from the large number of OCUL libraries (sixteen out of seventeen) able to participate rather than stray from the benefits of the methodology. The findings of the MINES for LibrariesTM survey are complemented by journal usage statistics maintained by the University of Toronto (see Figure 2).

Survey Findings

A total of 20,293 usable cases were collected through the MINES for Libraries TM evaluation of the OCUL Scholars Portal survey during the period May 2004 to April 2005. Detailed analysis of all of the variables for all institutions is presented to OCUL in three different ways: (a) through a series of print reports – summary tables for all OCUL institutions and institutional specific reports; (b) an html spss file available under password protection on the web; (c) an interactive analytical interface built with ColdFusion, SQLServer, and Dundas Charts. The interactive analytical interface shows interactive analysis of the data with specific institutional level tables is presented through StatsQUALTM -- a gateway to library assessment tools. MINES for LibrariesTM is one of these tools in the StatsQUALTM interface and is accessible by OCUL libraries through a password protected interface at: http://www.statsqual.org/mines/index.cfm

Figure 3 presents a web page that demonstrates the analytical interface ARL has created for the OCUL MINES for LibrariesTM project.

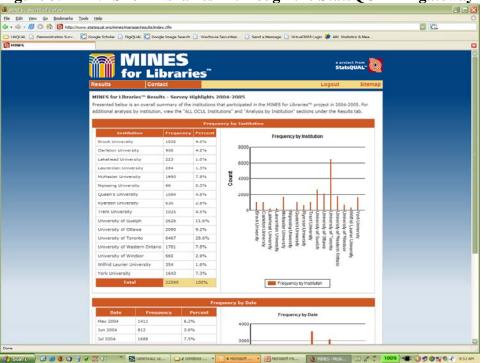


Figure 3. MINES for LibrariesTM through the StatsQUALTM gateway

The MINES for LibrariesTM database is a rich resources for all sixteen OCUL institutions that participated in this study. The analysis presented here can cover only a basic approach which is expected to be enhanced locally by the participating libraries. It highlights only a select number of findings from the perspective of the analysts at the Association of Research Libraries Statistics and Measurement Program.

Who uses electronic resources?

There were 20,293 complete responses for the Affiliation, User Status, Location and Purpose of Use questions. Table 2 presents the distribution of the respondents on these key variables.

The subject affiliation of the majority of the respondents is science comprising 23.2% (4,698 respondents), closely followed by medical health (21.6%), social sciences (19.2%) and applied sciences (14.4%) (Figure 4).

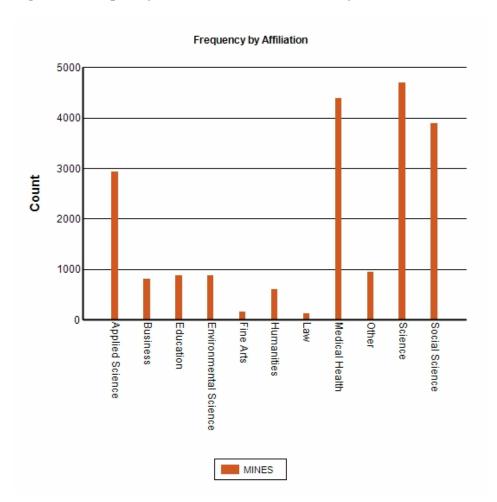


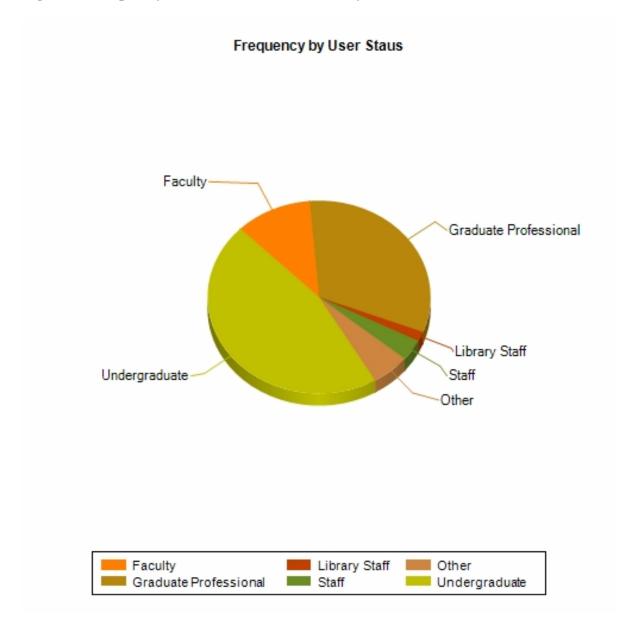
Figure 4. Frequency of Uses of Scholars Portal by Affiliation

Close to half of the respondents are undergraduates (45.9%), followed by graduate professionals (32.3%), and faculty (11.1%) (Figure 5).

Where are the users located at the point of use?

Most respondents use these resources from off-campus (45.1%), next from on campus locations but outside the library (34.9%) and only 19.9% of them use electronic resources from within a library building (Figure 6).

Figure 5. Frequency of Uses of Scholars Portal by User Status



Frequency by Location Library-On-Campus Off-Campus On-Campus Library Off-Campus

Figure 6. Frequency of Uses of Scholars Portal by Location

What is the primary purpose of use?

The primary purpose of use of these resources is coursework (42.6%), followed by sponsored research (26.2%), and other research activities (16.2%) (Figure 7). In the OhioLINK study when each respondent was asked to indicate the primary reason for viewing an article, the most frequently cited reason was also a class paper or project. (Connell, Rogers, and Diedrichs, 2005).

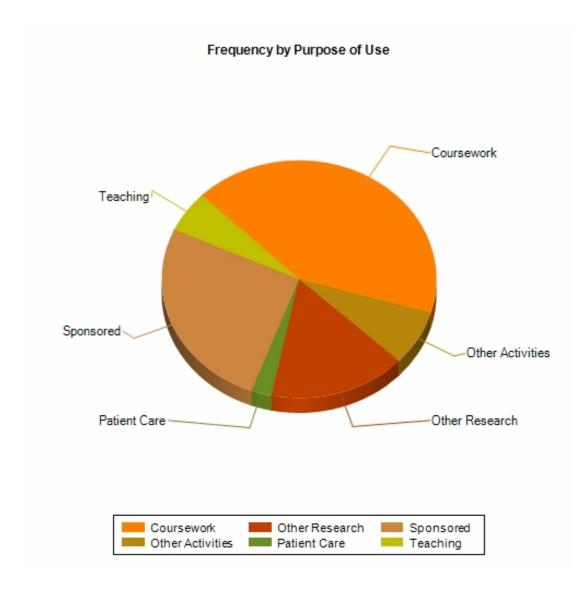


Figure 7. Frequency of Uses of Scholars Portal by Primary Purpose of Use

A cross tabulation of purpose of use with affiliation shows that while coursework accounts for 42% (8,530/20,293) of the overall uses of Scholars Portal resources, it accounts for 62.6% (2,435/3,887) of the uses in the social sciences, 44.6% (2,096/4,698) of the uses in the sciences, but only 29.7% (1,305/4,391) of the uses in medical health and 24% (704/2,930) in applied sciences.

Sponsored research accounts overall for 26.2%. There is variation across discipline categories though. Sponsored research represents 32% (1,404/4,391) of the uses of the Scholars Portal in the medical health, 46.3% (1,357/2,930) in the applied sciences, 31.8% (1,495/4,698) in the sciences, and only 13.6% (529/3,887) in the social sciences. In

addition to the 32% sponsored research uses in the medical health field, another 18.4% (810/4,391) are for other research purposes, accounting for more than 50% use for research purposes in medical health. Similarly in addition to the 46.3% sponsored research uses in applied sciences, another 17.7% (520/2,930) are for other research purposes. The Scholars Portal is heavily used for purposes of medical health and applied science research (Table 3).

A cross tabulation of purpose of use with users' status (Table 4) shows that 75.8% (7,056/9,310) of the undergraduate uses were for coursework. 45.4% (2,972/6,545) of the graduate professional uses were for purposes of sponsored research and 25.5% (1,667/6,545) for other research purposes. Only 19.5% (1,279/6,545) of the graduate professional category indicated that their primary purpose was coursework. Similarly, 42.6% (964/2,261) of the faculty uses were for sponsored research, and 21.2% (479/2,261) were for other research purposes. If undergraduate sponsored research is assigned to instruction, then the percentages of user status by sponsored research remains unchanged, except that undergraduate sponsored research goes to 0%, and undergraduate coursework increases to 81.7%. It could be argued that undergraduates are not involved in sponsored research. In Table 4, the undergraduate sponsored research value is as reported and not re-assigned.

A cross tabulation of purpose of use with location (Table 5) shows that a large portion of the use is off-campus (45.1%, 9,158/20,293) and most of that off-campus use happens for the purposes of coursework (47.2%, 4,319/9,158). Other research has 17.3% (1,581/9,158) uses off-campus, and sponsored research had 19.9% (1,826/9,158) uses off-campus. On campus location but outside the library is the second most frequent location for users of the Scholars Portal (34.9%, 7,088/20,293). A large portion of these on campus uses are for sponsored research (42.2%, 2,994/7,088). The next most frequent purpose of use for on campus location was coursework (29.2%, 2,073/7,088). Only 4,047 out of the 20,293 (19.9%) uses take place within the library. From the uses within the library, 52.8% (2,138/4,047) are for coursework purposes, and only 12.3% (498/4,047) of the uses within the library are for sponsored research.

Reason for Use

Unlike the other questions in the survey, it was possible for the patron to pick more than one reason for use. The most frequent reason for use provided for the 20,293 uses, was the importance of the journal (50.4%), the second most frequent reason was by following a reference or a citation (30%), next recommended by colleague (12%), followed by course reading assignment (4.6%) and recommended by a librarian (3.1%). This pattern is rather consistent across the different discipline affiliations when it comes to the importance of the journal and recommendations by colleagues. There is more variation though across disciplines regarding the propensity to use other references/citations, with medical health indicating 41.9% (1,840/4,391), business 31.6% (257/814), sciences 29.9% (1,406/4,698), applied sciences 28.8% (843/2,930), social sciences 26% (1,011/3,887), to a low of 10.3% (12/117) for law, 12.5% for humanities (91/600), and 15.2% (20/160) for fine arts.

There are also variations across user groups (faculty, graduate professional, library staff, other, staff) and undergraduate, when it comes to the reasons they offer for use of these resources. For example, faculty indicated that 54.4% (1,230/2,261) of all faculty uses are because of the importance of the journal, and only 46.2% (4,305/9,310) of all undergraduate uses are for this reason. A larger proportion of faculty uses (43.1%, 974/2,261)) are motivated by following reference/citations and a smaller percent of undergraduate uses (18.6%, 1,731/9,310) are for this reason. Graduate professional patterns tend to be similar to the faculty uses patterns when it comes to the various reasons for use.

As one might expect, the "recommended by librarian" reason for use occurs much more frequently from within the library (8.1%, 326/4047) than from on campus but not in the library (2.2%, 156/7088) or off campus (138/9158) For the reason for use "reference/citation," 34.2% (2,426/7,088) uses are on-campus, 31.8% (2,912/9,158) are off campus, and 18.6% (752/4,047) are from within the library. The most popular reason for use, that is, the journal is important, represents roughly the same percentage of the total n for each location (47.7% - 55.3%).

Where are the users?

As we indicated earlier, most use is outside the library, 45.1% (9,158/20,293) off campus, and 34.9% (7,088/20,293) on campus. Yet from the three primary user groups – faculty, graduate professional and undergraduates, a larger portion of undergraduates (30.2%, 2,812/9,310) uses of Scholars Portal are from within the library compared to faculty (9.7%, 219/2,261) and graduate professional (8.4%, 552/6,545). 47.9% (1,084/2,261) faculty uses and 48.6% (3,184/6,545) of graduate professional uses are from on-campus locations but only 22% (2,047/9,310) of undergraduate uses are from on-campus locations outside the library. A large portion of uses is from off-campus locations for all three user groups: 42.4% for faculty, 42.9% for graduate professionals, and 47.8% for undergraduates.

In Summary

The goal of the analysis is to inform decision making for future funding of these resources and a sense of perceived value based on use across different user categories. Scholars Portal has successfully mounted and delivered information resources acquired through OCUL consortia purchases and has ensured rapid and reliable access to these resources. Continuing support for the Scholars Portal will provide for the long term, secure archiving of resources to ensure continued availability.

By sampling uses of electronic resources and capturing additional information about these uses through an online survey, we are adding to the value of the usage statistics collected by OCUL through the MINES for LibrariesTM protocol. As users are not physically coming into the library and are not physically checking out physical items, our

knowledge of who they are, what is their purpose of use and how they use these resources is diminished. Increased knowledge of how these resources are used can assist those making collection management decisions during difficult fiscal times and help them prioritize the need for additional resources.

• How extensively do sponsored researchers use OCUL's Scholars Portal? How much usage is for non-funded research, instruction/education, student research papers, and course work?

MINES for LibrariesTM, a transaction-based research methodology consisting of a web-based survey form and a random moments sampling plan, shows that the Scholars Portal resources are heavily used by faculty and students in all OCUL. The majority of the use is from the sciences and the medical field and particularly in those fields the majority of the use is for sponsored research purposes.

• Are researchers more likely to use the Scholars Portal from inside or outside the library? What about other classifications of users?

Most faculty, graduate professionals and undergraduates uses of the Scholars Portal are from outside the library building. Undergraduates though do show many uses of the Scholars Portal from within the library as they are probably becoming more exposed to these resources by having more physical contact with the library.

• Are there differences in Scholars Portal based on the user's location (e.g., in the library; on-campus, but not in the library; or off-campus)?

Most of the faculty and graduate professionals use Scholars Portal either from on-campus locations outside the library or from other off-campus locations. Most of the uses from these locations outside the library are for sponsored research purposes.

 Could MINES, combined with usage counts, provide an infrastructure to make Scholars Portal usage studies routine, robust, and easily integrated into OCUL's administrative decision-making process for assessing networked electronic resources?

MINES for LibrariesTM, combined with usage counts, provides an infrastructure to make Scholars Portal usage studies routine, robust, and easily integrated into OCUL's administrative decision-making process for assessing networked electronic resources. It is relatively easy to continue this evaluation on an ongoing basis to justify the costs associated with the purchase of electronic resources. This type of evaluation provides both quantitative and qualitative information about the use of electronic resources and can be mined on an ongoing basis to assess library services to a user community that is increasingly self-sufficient and independent in the way it is approaching information discovery and retrieval.

References

Connell, Tschera Harkness, Sally A. Rodgers, and Carol Pitts Diedrichs. 2005. "OhioLINK Electronic Journal Use at Ohio State University" *portal: Libraries and the Academy* 5 (3): 371-390.

Dillman, Don. A. 2000. *Mail and Internet Surveys, The Tailored Design Method*. 2nd Ed. New York: John Wiley & Sons.

Franklin, Brinley, and Terry Plum. 2004. <u>"Library usage patterns in the electronic information environment." *Information Research*, 9(4), paper 187. http://informationr.net/ir/9-4/paper187.html</u>

Franklin, Brinley, and Terry Plum. 2003. "Documenting Usage Patterns of Networked Electronic Services." *ARL Bimonthly Report*, No. 230/231 (October/December): 20-21. http://www.arl.org/newsltr/230/usage.html

Franklin, Brinley, and Terry Plum. 2002. "Networked Electronic Services Usage Patterns at Four Academic Health Sciences Libraries." *Performance Measurement and Metrics* 3(3): 123-133. http://www.emeraldinsight.com/1467-8047.htm

Franklin, Brinley. 2001. "Academic Research Library Support of Sponsored Research in the United States." Proceedings of the 4th Northumbria International Conference on Performance Measurement in Libraries and Information Services. Association of Research Libraries, Washington, D.C. http://www.libqual.org/documents/admin/franklin.pdf

Koehn, Uwe. 2003. Personal communication. (June 15).

| Table 1. Ontario Council of Univer July 2005 | sity Libraries |
|---|----------------|
| Partner Institutions | FTEs |
| Brock University | 13,691 |
| Carleton University | 19,574 |
| University of Guelph | 18,082 |
| Lakehead University | 6,738 |
| Laurentian University | 7,505 |
| McMaster University | 20,497 |
| Nipissing University | 4,285 |
| Ontario College of Art and Design | 2,717 |
| University of Ontario Institute of Technology | 900 |
| University of Ottawa | 26,893 |
| Queen's University | 18,877 |
| Royal Military College of Canada* | 1,941 |
| Ryerson University | 20,990 |
| University of Toronto | 60,456 |
| Trent University | 6,726 |
| University of Waterloo | 22,765 |
| University of Western Ontario | 31,336 |
| Wilfrid Laurier University | 11,306 |
| University of Windsor | 14,577 |
| York University | 40,899 |
| *2002 | |
| Total | 350,755 |

Table 2. Frequencies by Affiliation, User Status, Location, Purpose of Use

| Affiliation | Frequency |
|-----------------------|-----------|
| Applied Sciences | 2930 |
| Business | 814 |
| Education | 881 |
| Environmental Studies | 867 |
| Fine Arts | 160 |
| Humanities | 600 |
| Law | 117 |
| Medical Health | 4391 |
| Other | 948 |
| Sciences | 4698 |
| Social Sciences | 3887 |
| Total | 20293 |
| User Status | Frequency |
| Faculty | 2261 |
| Graduate Professional | 6545 |
| Library Staff | 328 |
| Other | 721 |
| Staff | 1128 |
| Undergraduate | 9310 |
| Total | 20293 |
| Location | Frequency |
| Library | 4047 |
| Off-Campus | 9158 |
| On-Campus | 7088 |
| Total | 20293 |
| Purpose of Use | Frequency |
| Coursework | 8530 |
| Other Activities | 1523 |
| Other Research | 3290 |
| Patient Care | 487 |
| Sponsored | 5318 |
| Teaching | 1145 |
| Total | 20293 |

| Affiliation | Percent |
|-----------------------|---------|
| Applied Sciences | 14.4% |
| Business | 4.0% |
| Education | 4.3% |
| Environmental Studies | 4.3% |
| Fine Arts | 0.8% |
| Humanities | 3.0% |
| Law | 0.6% |
| Medical Health | 21.6% |
| Other | 4.7% |
| Sciences | 23.2% |
| Social Sciences | 19.2% |
| Total | 100.0% |
| User Status | Percent |
| Faculty | 11.1% |
| Graduate Professional | 32.3% |
| Library Staff | 1.6% |
| Other | 3.6% |
| Staff | 5.6% |
| Undergraduate | 45.9% |
| Total | 100.0% |

| Location | Percent |
|------------------|---------|
| Library | 19.9% |
| Off-Campus | 45.1% |
| On-Campus | 34.9% |
| Total | 100.0% |
| Purpose of Use | Percent |
| Coursework | 42.0% |
| Other Activities | 7.5% |
| Other Research | 16.2% |
| Patient Care | 2.4% |
| Sponsored | 26.2% |
| Teaching | 5.6% |
| Total | 100.0% |

Table 3. Affiliation * Purpose of Use - Percentages

| | Purpose of Use | | | | | | |
|--------------------------|----------------|---------------------|-------------------|-----------------|-----------------------|----------|--------|
| Affiliation | Coursework | Other Activities | Other Research | Patient Care | Sponsored Research | Teaching | Total |
| Applied Sciences | 24.0% | 7.6% | 17.7% | 0.6% | 46.3% | 3.7% | 100.0% |
| Business | 34.8% | 7.6% | 30.0% | 0.9% | 10.8% | 16.0% | 100.0% |
| Education | 40.9% | 5.4% | 17.1% | 0.8% | 11.8% | 24.0% | 100.0% |
| Environmental Studies | 43.5% | 2.5% | 24.0% | 0.3% | 23.3% | 6.3% | 100.0% |
| Fine Arts | 56.3% | 6.9% | 20.6% | 1.3% | 5.6% | 9.4% | 100.0% |
| Humanities | 51.5% | 10.8% | 21.0% | 0.5% | 9.5% | 6.7% | 100.0% |
| Law | 67.5% | 6.8% | 12.8% | 0.9% | 2.6% | 9.4% | 100.0% |
| Medical Health | 29.7% | 5.5% | 18.4% | 8.6% | 32.0% | 5.7% | 100.0% |
| Other | 51.9% | 22.8% | 10.9% | 2.1% | 7.4% | 5.0% | 100.0% |
| Sciences | 44.6% | 9.7% | 11.1% | 0.4% | 31.8% | 2.4% | 100.0% |
| Social Sciences | 62.6% | 4.5% | 14.4% | 0.7% | 13.6% | 4.2% | 100.0% |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% |

Table 4. User Status * Purpose of Use - Percentages

| | Purpose of Use | | | | | | |
|--------------------------|----------------|---------------------|-------------------|-----------------|-----------------------|----------|--------|
| User Status | Coursework | Other Activities | Other Research | Patient Care | Sponsored Research | Teaching | Total |
| Faculty | 1.5% | 4.7% | 21.2% | 4.4% | 42.6% | 25.6% | 100.0% |
| Graduate Professional | 19.5% | 3.9% | 25.5% | 2.5% | 45.4% | 3.2% | 100.0% |
| Library Staff | 23.5% | 24.1% | 13.1% | 16.5% | 17.7% | 5.2% | 100.0% |
| Other | 6.0% | 35.2% | 20.8% | 8.7% | 26.8% | 2.5% | 100.0% |
| Staff | 3.5% | 9.5% | 20.6% | 2.1% | 51.6% | 12.7% | 100.0% |
| Undergraduate | 75.8% | 7.8% | 7.7% | 0.9% | 5.9% | 1.9% | 100.0% |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% |

Table 5. Location * Purpose of Use - Percentages

| Purpose of Use | | | | 1 | | | |
|----------------|------------|---------------------|-------------------|-----------------|-----------------------|----------|--------|
| Location | Coursework | Other Activities | Other Research | Patient Care | Sponsored Research | Teaching | Total |
| Library | 52.8% | 14.9% | 10.8% | 1.2% | 12.3% | 7.9% | 100.0% |
| Off-campus | 47.2% | 7.0% | 17.3% | 4.1% | 19.9% | 4.6% | 100.0% |
| On-campus | 29.2% | 4.0% | 17.9% | 0.9% | 42.2% | 5.7% | 100.0% |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% |

Appendix: List of Tables

Table 1.1

Frequencies by Affiliation, User Status, Location, Purpose of Use, and Reason for Use

Table 2.1

Affiliation * Purpose of Use

Table 2.2

Affiliation * Purpose of Use - Percentages

Table 3.1

User Status * Purpose of Use

Table 3.2

User Status * Purpose of Use - Percentages

Table 4.1

Location * Purpose of Use

Table 4.2

Location * Purpose of Use - Percentages

Affiliation * Reason for Use

Table 5.1

Affiliation * Reason for Use - Important Journal

Table 5.2

Affiliation * Reason for Use - Recommended Colleague

Table 5.3

Affiliation * Reason for Use – Recommended Librarian

Table 5.4

Affiliation * Reason for Use - Reference/Citation

Table 5.5

Affiliation * Reason for Use - Course Reading

Table 5.6

Affiliation * Reason for Use - Other

User Status * Reason for Use

Table 6.1

User Status * Reason for Use – Important Journal

Table 6.2

User Status * Reason for Use – Recommended Colleague

Table 6.3

User Status * Reason for Use - Recommended Librarian

Table 6.4

User Status * Reason for Use - Reference/Citation

Table 6.5

User Status * Reason for Use - Course Reading

Table 6.6

User Status * Reason for Use - Other

Location * Reason for Use

Table 7.1

Location * Reason for Use - Important Journal

Table 7.2

Location * Reason for Use - Recommended Colleague

Table 7.3

Location * Reason for Use – Recommended Librarian

Table 7.4

Location * Reason for Use - Reference/Citation

Table 7.5

Location * Reason for Use - Course Reading

Table 7.6

Location * Reason for Use - Other

Table 8.1

User Status * Location

Table 8.2

User Status * Location - Percentages

Table 9.1

Purpose of Use by User Status * Location

Table 9.2

Purpose of Use by User Status * Location - Percentages

Table 10.1

User Status * Affiliation

Table 10.2

User Status * Affiliation - Percentages

Table 11.1

Location * Affiliation

Table 11.2

Location * Affiliation - Percentages

Table 12.1 Purpose of Use by User Status * Affiliation

Table 13.1 User Status by Location * Affiliation

Table 1.1 Frequencies by Affiliation, User Status, Location, Purpose of Use, and Reason for Use

| Affiliation | Frequency |
|-----------------------|-----------|
| Applied Sciences | 2930 |
| Business | 814 |
| Education | 881 |
| Environmental Studies | 867 |
| Fine Arts | 160 |
| Humanities | 600 |
| Law | 117 |
| Medical Health | 4391 |
| Other | 948 |
| Sciences | 4698 |
| Social Sciences | 3887 |
| Total | 20293 |

| Affiliation | Percent |
|-----------------------|---------|
| Applied Sciences | 14.4% |
| Business | 4.0% |
| Education | 4.3% |
| Environmental Studies | 4.3% |
| Fine Arts | 0.8% |
| Humanities | 3.0% |
| Law | 0.6% |
| Medical Health | 21.6% |
| Other | 4.7% |
| Sciences | 23.2% |
| Social Sciences | 19.2% |
| Total | 100.0% |

| User Status | Frequency |
|-----------------------|-----------|
| Faculty | 2261 |
| Graduate Professional | 6545 |
| Library Staff | 328 |
| Other | 721 |
| Staff | 1128 |
| Undergraduate | 9310 |
| Total | 20293 |

| User Status | Percent |
|-----------------------|---------|
| Faculty | 11.1% |
| Graduate Professional | 32.3% |
| Library Staff | 1.6% |
| Other | 3.6% |
| Staff | 5.6% |
| Undergraduate | 45.9% |
| Total | 100.0% |

| Location | Frequency |
|------------|-----------|
| Library | 4047 |
| Off-Campus | 9158 |
| On-Campus | 7088 |
| Total | 20293 |

| Location | Percent |
|------------|---------|
| Library | 19.9% |
| Off-Campus | 45.1% |
| On-Campus | 34.9% |
| Total | 100.0% |

| Purpose of Use | Frequency |
|------------------|-----------|
| Coursework | 8530 |
| Other Activities | 1523 |
| Other Research | 3290 |
| Patient Care | 487 |
| Sponsored | 5318 |
| Teaching | 1145 |
| Total | 20293 |

| Purpose of Use | Percent |
|------------------|---------|
| Coursework | 42.0% |
| Other Activities | 7.5% |
| Other Research | 16.2% |
| Patient Care | 2.4% |
| Sponsored | 26.2% |
| Teaching | 5.6% |
| Total | 100.0% |

| Reason for Use (n=20293) | Frequency |
|--------------------------|-----------|
| Important Journal | 10219 |
| Recommended Colleague | 2436 |
| Reference/Citation | 6090 |
| Recommended Librarian | 620 |
| Course Reading | 925 |
| Other | 4388 |

| Reason for Use (n=20293) | Percent |
|--------------------------|---------|
| Important Journal | 50.4% |
| Recommended Colleague | 12.0% |
| Reference/Citation | 30.0% |
| Recommended Librarian | 3.1% |
| Course Reading | 4.6% |
| Other | 21.6% |

Table 2.1 Affiliation * Purpose of Use

| Table 2.1 Allination | | Purpose of Use | | | | | |
|--------------------------|------------|---------------------|-------------------|-----------------|-----------|----------|-------|
| Affiliation | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total |
| Applied Sciences | 704 | 222 | 520 | 18 | 1357 | 109 | 2930 |
| Business | 283 | 62 | 244 | 7 | 88 | 130 | 814 |
| Education | 360 | 48 | 151 | 7 | 104 | 211 | 881 |
| Environmental Studies | 377 | 22 | 208 | 3 | 202 | 55 | 867 |
| Fine Arts | 90 | 11 | 33 | 2 | 9 | 15 | 160 |
| Humanities | 309 | 65 | 126 | 3 | 57 | 40 | 600 |
| Law | 79 | 8 | 15 | 1 | 3 | 11 | 117 |
| Medical Health | 1305 | 241 | 810 | 379 | 1404 | 252 | 4391 |
| Other | 492 | 216 | 103 | 20 | 70 | 47 | 948 |
| Sciences | 2096 | 455 | 520 | 19 | 1495 | 113 | 4698 |
| Social Sciences | 2435 | 173 | 560 | 28 | 529 | 162 | 3887 |
| Total | 8530 | 1523 | 3290 | 487 | 5318 | 1145 | 20293 |

Table 2.2 Affiliation * Purpose of Use - Percentages

| | | Purpose of Use | | | | | |
|-----------------------|------------|---------------------|-------------------|-----------------|-----------|----------|--------|
| Affiliation | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total |
| Applied Sciences | 24.0% | 7.6% | 17.7% | 0.6% | 46.3% | 3.7% | 100.0% |
| Business | 34.8% | 7.6% | 30.0% | 0.9% | 10.8% | 16.0% | 100.0% |
| Education | 40.9% | 5.4% | 17.1% | 0.8% | 11.8% | 24.0% | 100.0% |
| Environmental Studies | 43.5% | 2.5% | 24.0% | 0.3% | 23.3% | 6.3% | 100.0% |
| Fine Arts | 56.3% | 6.9% | 20.6% | 1.3% | 5.6% | 9.4% | 100.0% |
| Humanities | 51.5% | 10.8% | 21.0% | 0.5% | 9.5% | 6.7% | 100.0% |
| Law | 67.5% | 6.8% | 12.8% | 0.9% | 2.6% | 9.4% | 100.0% |
| Medical Health | 29.7% | 5.5% | 18.4% | 8.6% | 32.0% | 5.7% | 100.0% |
| Other | 51.9% | 22.8% | 10.9% | 2.1% | 7.4% | 5.0% | 100.0% |
| Sciences | 44.6% | 9.7% | 11.1% | 0.4% | 31.8% | 2.4% | 100.0% |
| Social Sciences | 62.6% | 4.5% | 14.4% | 0.7% | 13.6% | 4.2% | 100.0% |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% |

Table 3.1 User Status * Purpose of Use

| | Purpose of Use | | | | | | |
|--------------------------|----------------|---------------------|-------------------|-----------------|-----------|----------|-------|
| User Status | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total |
| Faculty | 35 | 106 | 479 | 99 | 964 | 578 | 2261 |
| Graduate Professional | 1279 | 255 | 1667 | 163 | 2972 | 209 | 6545 |
| Library Staff | 77 | 79 | 43 | 54 | 58 | 17 | 328 |
| Other | 43 | 254 | 150 | 63 | 193 | 18 | 721 |
| Staff | 40 | 107 | 232 | 24 | 582 | 143 | 1128 |
| Undergraduate | 7056 | 722 | 719 | 84 | 549 | 180 | 9310 |
| Total | 8530 | 1523 | 3290 | 487 | 5318 | 1145 | 20293 |

Table 3.2 User Status * Purpose of Use - Percentages

| | | Purpose of Use | | | | | | |
|---------------|------------|---------------------|-------------------|-----------------|-----------|----------|--------|--|
| User Status | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total | |
| Faculty | 1.5% | 4.7% | 21.2% | 4.4% | 42.6% | 25.6% | 100.0% | |
| Graduate | | | | | | | | |
| Professional | 19.5% | 3.9% | 25.5% | 2.5% | 45.4% | 3.2% | 100.0% | |
| Library Staff | 23.5% | 24.1% | 13.1% | 16.5% | 17.7% | 5.2% | 100.0% | |
| Other | 6.0% | 35.2% | 20.8% | 8.7% | 26.8% | 2.5% | 100.0% | |
| Staff | 3.5% | 9.5% | 20.6% | 2.1% | 51.6% | 12.7% | 100.0% | |
| Undergraduate | 75.8% | 7.8% | 7.7% | 0.9% | 5.9% | 1.9% | 100.0% | |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% | |

Table 4.1 Location * Purpose of Use

| | | Purpose of Use | | | | | | |
|----------------|------------|---------------------|-------------------|-----------------|-----------|----------|-------|--|
| Location | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total | |
| Library | 2138 | 604 | 439 | 47 | 498 | 321 | 4047 | |
| Off- campus | 4319 | 637 | 1581 | 375 | 1826 | 420 | 9158 | |
| On- campus | 2073 | 282 | 1270 | 65 | 2994 | 404 | 7088 | |
| Total | 8530 | 1523 | 3290 | 487 | 5318 | 1145 | 20293 | |

Table 4.2 Location * Purpose of Use - Percentages

| | Purpose of Use | | | | | | |
|----------|----------------|---------------------|-------------------|-----------------|-----------|----------|--------|
| Location | Coursework | Other Activities | Other Research | Patient Care | Sponsored | Teaching | Total |
| Library | 52.8% | 14.9% | 10.8% | 1.2% | 12.3% | 7.9% | 100.0% |
| Off- | | | | | | | |
| campus | 47.2% | 7.0% | 17.3% | 4.1% | 19.9% | 4.6% | 100.0% |
| On- | | | | | | | |
| campus | 29.2% | 4.0% | 17.9% | 0.9% | 42.2% | 5.7% | 100.0% |
| Total | 42.0% | 7.5% | 16.2% | 2.4% | 26.2% | 5.6% | 100.0% |

Affiliation * Reason for Use

Table 5.1 Affiliation * Reason for Use - Important Journal

| Affiliation | n | Percent | Total n |
|-----------------------|-------|---------|---------|
| Applied Sciences | 1736 | 59.2% | 2930 |
| Business | 341 | 41.9% | 814 |
| Education | 405 | 46.0% | 881 |
| Environmental Studies | 551 | 63.6% | 867 |
| Fine Arts | 74 | 46.3% | 160 |
| Humanities | 260 | 43.3% | 600 |
| Law | 61 | 52.1% | 117 |
| Medical Health | 2078 | 47.3% | 4391 |
| Other | 350 | 36.9% | 948 |
| Sciences | 2485 | 52.9% | 4698 |
| Social Sciences | 1878 | 48.3% | 3887 |
| Total | 10219 | 50.4% | 20293 |

Table 5.2 Affiliation * Reason for Use - Recommended Colleague

| Affiliation | n | Percent | Total n |
|-----------------------|------|---------|---------|
| Applied Sciences | 435 | 14.8% | 2930 |
| Business | 174 | 21.4% | 814 |
| Education | 127 | 14.4% | 881 |
| Environmental Studies | 120 | 13.8% | 867 |
| Fine Arts | 16 | 10.0% | 160 |
| Humanities | 49 | 8.2% | 600 |
| Law | 7 | 6.0% | 117 |
| Medical Health | 395 | 9.0% | 4391 |
| Other | 115 | 12.1% | 948 |
| Sciences | 573 | 12.2% | 4698 |
| Social Sciences | 425 | 10.9% | 3887 |
| Total | 2436 | 12.0% | 20293 |

Table 5.3 Affiliation * Reason for Use - Reference/Citation

| Affiliation | n | Percent | Total n |
|-----------------------|------|---------|---------|
| Applied Sciences | 843 | 28.8% | 2930 |
| Business | 257 | 31.6% | 814 |
| Education | 255 | 28.9% | 881 |
| Environmental Studies | 197 | 22.7% | 867 |
| Fine Arts | 20 | 12.5% | 160 |
| Humanities | 91 | 15.2% | 600 |
| Law | 12 | 10.3% | 117 |
| Medical Health | 1840 | 41.9% | 4391 |
| Other | 158 | 16.7% | 948 |
| Sciences | 1406 | 29.9% | 4698 |
| Social Sciences | 1011 | 26.0% | 3887 |
| Total | 6090 | 30.0% | 20293 |

Table 5.4 Affiliation * Reason for Use - Recommended Librarian

| Affiliation | n | Percent | Total n |
|-----------------------|-----|---------|---------|
| Applied Sciences | 181 | 6.2% | 2930 |
| Business | 69 | 8.5% | 814 |
| Education | 42 | 4.8% | 881 |
| Environmental Studies | 63 | 7.3% | 867 |
| Fine Arts | 14 | 8.8% | 160 |
| Humanities | 9 | 1.5% | 600 |
| Law | 15 | 12.8% | 117 |
| Medical Health | 63 | 1.4% | 4391 |
| Other | 45 | 4.7% | 948 |
| Sciences | 43 | 0.9% | 4698 |
| Social Sciences | 76 | 2.0% | 3887 |
| Total | 620 | 3.1% | 20293 |

Table 5.5 Affiliation * Reason for Use - Course Reading

| Affiliation | n | Percent | Total n |
|-----------------------|-----|---------|---------|
| Applied Sciences | 117 | 4.0% | 2930 |
| Business | 69 | 8.5% | 814 |
| Education | 94 | 10.7% | 881 |
| Environmental Studies | 75 | 8.7% | 867 |
| Fine Arts | 25 | 15.6% | 160 |
| Humanities | 53 | 8.8% | 600 |
| Law | 7 | 6.0% | 117 |
| Medical Health | 132 | 3.0% | 4391 |
| Other | 42 | 4.4% | 948 |
| Sciences | 138 | 2.9% | 4698 |
| Social Sciences | 173 | 4.5% | 3887 |
| Total | 925 | 4.6% | 20293 |

Table 5.6 Affiliation * Reason for Use - Other

| Affiliation | n | Percent | Total n |
|-----------------------|------|---------|---------|
| Applied Sciences | 479 | 16.3% | 2930 |
| Business | 163 | 20.0% | 814 |
| Education | 139 | 15.8% | 881 |
| Environmental Studies | 191 | 22.0% | 867 |
| Fine Arts | 60 | 37.5% | 160 |
| Humanities | 218 | 36.3% | 600 |
| Law | 32 | 27.4% | 117 |
| Medical Health | 704 | 16.0% | 4391 |
| Other | 385 | 40.6% | 948 |
| Sciences | 960 | 20.4% | 4698 |
| Social Sciences | 1057 | 27.2% | 3887 |
| Total | 4388 | 21.6% | 20293 |

User Status * Reason for Use

Table 6.1 User Status * Reason for Use - Important Journal

| User Status | n | Percent | Total n |
|-----------------------|-------|---------|---------|
| Faculty | 1230 | 54.4% | 2261 |
| Graduate Professional | 3700 | 56.5% | 6545 |
| Library Staff | 146 | 44.5% | 328 |
| Other | 314 | 43.6% | 721 |
| Staff | 524 | 46.5% | 1128 |
| Undergraduate | 4305 | 46.2% | 9310 |
| Total | 10219 | 50.4% | 20293 |

Table 6.2 User Status * Reason for Use - Recommended Colleague

| User Status | n | Percent | Total n |
|-----------------------|------|---------|---------|
| Faculty | 155 | 6.9% | 2261 |
| Graduate Professional | 692 | 10.6% | 6545 |
| Library Staff | 110 | 33.5% | 328 |
| Other | 41 | 5.7% | 721 |
| Staff | 71 | 6.3% | 1128 |
| Undergraduate | 1367 | 14.7% | 9310 |
| Total | 2436 | 12.0% | 20293 |

Table 6.3 User Status * Reason for Use - Reference/Citation

| | 11000011101 | | |
|-----------------------|-------------|---------|---------|
| User Status | n | Percent | Total n |
| Faculty | 974 | 43.1% | 2261 |
| Graduate Professional | 2467 | 37.7% | 6545 |
| Library Staff | 183 | 55.8% | 328 |
| Other | 238 | 33.0% | 721 |
| Staff | 497 | 44.1% | 1128 |
| Undergraduate | 1731 | 18.6% | 9310 |
| Total | 6090 | 30.0% | 20293 |

Table 6.4 User Status * Reason for Use - Recommended Librarian

| User Status | n | Percent | Total n |
|-----------------------|-----|---------|---------|
| Faculty | 50 | 2.2% | 2261 |
| Graduate Professional | 125 | 1.9% | 6545 |
| Library Staff | 111 | 33.8% | 328 |
| Other | 43 | 6.0% | 721 |
| Staff | 20 | 1.8% | 1128 |
| Undergraduate | 271 | 2.9% | 9310 |
| Total | 620 | 3.1% | 20293 |

Table 6.5 User Status * Reason for Use - Course Reading

| User Status | n | Percent | Total n |
|-----------------------|-----|---------|---------|
| Faculty | 93 | 4.1% | 2261 |
| Graduate Professional | 210 | 3.2% | 6545 |
| Library Staff | 43 | 13.1% | 328 |
| Other | 13 | 1.8% | 721 |
| Staff | 20 | 1.8% | 1128 |
| Undergraduate | 546 | 5.9% | 9310 |
| Total | 925 | 4.6% | 20293 |

Table 6.6 User Status * Reason for Use - Other

| User Status | n | Percent | Total n | |
|-----------------------|------|---------|---------|--|
| Faculty | 199 | 8.8% | 2261 | |
| Graduate Professional | 827 | 12.6% | 6545 | |
| Library Staff | 203 | 61.9% | 328 | |
| Other | 202 | 28.0% | 721 | |
| Staff | 155 | 13.7% | 1128 | |
| Undergraduate | 2802 | 30.1% | 9310 | |
| Total | 4388 | 21.6% | 20293 | |

Location * Reason for Use

Table 7.1 Location * Reason for Use - Important Journal

| Location | n | Percent | Total n |
|------------|-------|---------|---------|
| Library | 1932 | 47.7% | 4047 |
| Off-Campus | 4368 | 47.7% | 9158 |
| On-Campus | 3919 | 55.3% | 7088 |
| Total | 10219 | 50.4% | 20293 |

Table 7.2 Location * Reason for Use - Recommended Colleague

| Location | n | Percent | Total n |
|------------|------|---------|---------|
| Library | 749 | 18.5% | 4047 |
| Off-Campus | 933 | 10.2% | 9158 |
| On-Campus | 754 | 10.6% | 7088 |
| Total | 2436 | 12.0% | 20293 |

Table 7.3 Location * Reason for Use - Reference/Citation

| Location | n | Percent | Total n |
|------------|------|---------|---------|
| Library | 752 | 18.6% | 4047 |
| Off-Campus | 2912 | 31.8% | 9158 |
| On-Campus | 2426 | 34.2% | 7088 |
| Total | 6090 | 30.0% | 20293 |

Table 7.4 Location * Reason for Use - Recommended Librarian

| Location | n | Percent | Total n |
|------------|-----|---------|---------|
| Library | 326 | 8.1% | 4047 |
| Off-Campus | 138 | 1.5% | 9158 |
| On-Campus | 156 | 2.2% | 7088 |
| Total | 620 | 3.1% | 20293 |

Table 7.5 Location * Reason for Use - Course Reading

| Location | n | Percent | Total n | | |
|------------|-----|---------|---------|--|--|
| Library | 250 | 6.2% | 4047 | | |
| Off-Campus | 404 | 4.4% | 9158 | | |
| On-Campus | 271 | 3.8% | 7088 | | |
| Total | 925 | 4.6% | 20293 | | |

Table 7.6 Location * Reason for Use - Other

| Location | n | Percent | Total n |
|------------|------|---------|---------|
| Library | 1149 | 28.4% | 4047 |
| Off-Campus | 2100 | 22.9% | 9158 |
| On-Campus | 1139 | 16.1% | 7088 |
| Total | 4388 | 21.6% | 20293 |

Table 8.1 User Status * Location

| | | Location | | | | | | | | |
|-----------------------|---------|----------------|---------------|-------|--|--|--|--|--|--|
| User Status | Library | Off- Campus | On- Campus | Total | | | | | | |
| Faculty | 219 | 958 | 1084 | 2261 | | | | | | |
| Graduate Professional | 552 | 2809 | 3184 | 6545 | | | | | | |
| Library Staff | 224 | 89 | 15 | 328 | | | | | | |
| Other | 127 | 437 | 157 | 721 | | | | | | |
| Staff | 113 | 414 | 601 | 1128 | | | | | | |
| Undergraduate | 2812 | 4451 | 2047 | 9310 | | | | | | |
| Total | 4047 | 9158 | 7088 | 20293 | | | | | | |

Table 8.2 User Status * Location - Percentages

| | Loc | ation – Per | rcent | |
|-----------------------|---------|----------------|---------------|--------|
| User Status | Library | Off- Campus | On- Campus | Total |
| Faculty | 9.7% | 42.4% | 47.9% | 100.0% |
| Graduate Professional | 8.4% | 42.9% | 48.6% | 100.0% |
| Library Staff | 68.3% | 27.1% | 4.6% | 100.0% |
| Other | 17.6% | 60.6% | 21.8% | 100.0% |
| Staff | 10.0% | 36.7% | 53.3% | 100.0% |
| Undergraduate | 30.2% | 47.8% | 22.0% | 100.0% |
| Total | 19.9% | 45.1% | 34.9% | 100.0% |

Table 9.1 Purpose of Use by User Status * Location

| Table 3.11 a | rpose of Use by User | | Location | | | | | | | |
|--------------|----------------------|----------------|----------|--------|-------|--|--|--|--|--|
| Purpose of | | | Off- | On- | | | | | | |
| Use | User Status | Library | Campus | Campus | Total | | | | | |
| | Faculty | 3 | 18 | 14 | 35 | | | | | |
| | Graduate | | | | | | | | | |
| | Professional | 156 | 649 | 474 | 1279 | | | | | |
| Coursework | Library Staff | 68 | 8 | 1 | 77 | | | | | |
| | Other | 14 | 22 | 7 | 43 | | | | | |
| | Staff | 5 | 9 | 26 | 40 | | | | | |
| | Undergraduate | 1892 3613 1551 | | | 7056 | | | | | |
| | Faculty | 12 | 67 | 27 | 106 | | | | | |
| | Graduate | 00 | 4.45 | 0.7 | 055 | | | | | |
| Other | Professional | 23 | 145 | 87 | 255 | | | | | |
| Activities | Library Staff | 71 | 3 | 5 | 79 | | | | | |
| | Other | 56 | 169 | 29 | 254 | | | | | |
| | Staff | 21 | 33 | 53 | 107 | | | | | |
| | Undergraduate | 421 | 220 | 81 | 722 | | | | | |
| | Faculty Graduate | 28 | 259 | 192 | 479 | | | | | |
| | Professional | 142 | 741 | 784 | 1667 | | | | | |
| Other | Library Staff | 20 | 16 | 704 | 43 | | | | | |
| Research | Other | 30 | 93 | 27 | 150 | | | | | |
| | Staff | 28 | 117 | 87 | 232 | | | | | |
| | Undergraduate | 191 | 355 | 173 | 719 | | | | | |
| | Faculty | 2 | 75 | 22 | 99 | | | | | |
| | Graduate | | 70 | | - 00 | | | | | |
| | Professional | 11 | 124 | 28 | 163 | | | | | |
| Patient | Library Staff | 1 | 52 | 1 | 54 | | | | | |
| Care | Other | 5 | 56 | 2 | 63 | | | | | |
| | Staff | 6 | 16 | 2 | 24 | | | | | |
| | Undergraduate | 22 | 52 | 10 | 84 | | | | | |
| | Faculty | 33 | 330 | 601 | 964 | | | | | |
| | Graduate | | | | | | | | | |
| | Professional | 176 | 1049 | 1747 | 2972 | | | | | |
| Sponsored | Library Staff | 48 | 10 | 0 | 58 | | | | | |
| | Other | 18 | 84 | 91 | 193 | | | | | |
| | Staff | 34 | 187 | 361 | 582 | | | | | |
| | Undergraduate | 189 | 166 | 194 | 549 | | | | | |
| | Faculty | 141 | 209 | 228 | 578 | | | | | |
| | Graduate | | 404 | | | | | | | |
| | Professional | 44 | 101 | 64 | 209 | | | | | |
| Teaching | Library Staff | 16 | 0 | 1 | 17 | | | | | |
| | Other | 4 | 13 | 1 | 18 | | | | | |
| | Staff | 19 | 52 | 72 | 143 | | | | | |
| | Undergraduate | 97 | 45 | 38 | 180 | | | | | |
| | Total | 4047 | 9158 | 7088 | 20293 | | | | | |

Table 9.2 Purpose of Use by User Status * Location - Percentages

| | pose of ose by oser | | Location | ercemages | |
|---------------------|---------------------|---------|----------|-----------|---------|
| Purpose of | | | Off- | On- | |
| Use | User Status | Library | Campus | Campus | Total |
| | Faculty | 8.6% | 51.4% | 40.0% | 100.0% |
| | Graduate | 0.070 | 011170 | 101070 | 100.070 |
| | Professional | 12.2% | 50.7% | 37.1% | 100.0% |
| Coursework | Library Staff | 88.3% | 10.4% | 1.3% | 100.0% |
| | Other | 32.6% | 51.2% | 16.3% | 100.0% |
| | Staff | 12.5% | 22.5% | 65.0% | 100.0% |
| | Undergraduate | 26.8% | 51.2% | 22.0% | 100.0% |
| | Faculty | 11.3% | 63.2% | 25.5% | 100.0% |
| | Graduate | | | | |
| Othor | Professional | 9.0% | 56.9% | 34.1% | 100.0% |
| Other Activities | Library Staff | 89.9% | 3.8% | 6.3% | 100.0% |
| Activities | Other | 22.0% | 66.5% | 11.4% | 100.0% |
| | Staff | 19.6% | 30.8% | 49.5% | 100.0% |
| | Undergraduate | 58.3% | 30.5% | 11.2% | 100.0% |
| | Faculty | 5.8% | 54.1% | 40.1% | 100.0% |
| | Graduate | | | | |
| Other | Professional | 8.5% | 44.5% | 47.0% | 100.0% |
| Research | Library Staff | 46.5% | 37.2% | 16.3% | 100.0% |
| rescaron | Other | 20.0% | 62.0% | 18.0% | 100.0% |
| | Staff | 12.1% | 50.4% | 37.5% | 100.0% |
| | Undergraduate | 26.6% | 49.4% | 24.1% | 100.0% |
| | Faculty | 2.0% | 75.8% | 22.2% | 100.0% |
| | Graduate | | | | |
| Patient | Professional | 6.7% | 76.1% | 17.2% | 100.0% |
| Care | Library Staff | 1.9% | 96.3% | 1.9% | 100.0% |
| Caro | Other | 7.9% | 88.9% | 3.2% | 100.0% |
| | Staff | 25.0% | 66.7% | 8.3% | 100.0% |
| | Undergraduate | 26.2% | 61.9% | 11.9% | 100.0% |
| | Faculty | 3.4% | 34.2% | 62.3% | 100.0% |
| | Graduate | | | | |
| | Professional | 5.9% | 35.3% | 58.8% | 100.0% |
| Sponsored | Library Staff | 82.8% | 17.2% | 0.0% | 100.0% |
| | Other | 9.3% | 43.5% | 47.2% | 100.0% |
| | Staff | 5.8% | 32.1% | 62.0% | 100.0% |
| | Undergraduate | 34.4% | 30.2% | 35.3% | 100.0% |
| | Faculty | 24.4% | 36.2% | 39.4% | 100.0% |
| | Graduate | 04.40/ | 40.007 | 00.00/ | 400.007 |
| | Professional | 21.1% | 48.3% | 30.6% | 100.0% |
| Teaching | Library Staff | 94.1% | 0.0% | 5.9% | 100.0% |
| | Other | 22.2% | 72.2% | 5.6% | 100.0% |
| | Staff | 13.3% | 36.4% | 50.3% | 100.0% |
| | Undergraduate | 53.9% | 25.0% | 21.1% | 100.0% |
| | Total | 19.9% | 45.1% | 34.9% | 100.0% |

Table 10.1 User Status * Affiliation

| | | Affiliation | | | | | | | | | | |
|---------------|----------|-------------|-----------|----------|------|------------|-----|---------|-------|----------|----------|-------|
| | Applied | | | Environ. | Fine | | | Medical | | | Social | |
| User Status | Sciences | Business | Education | Studies | Arts | Humanities | Law | Health | Other | Sciences | Sciences | Total |
| Faculty | 253 | 124 | 202 | 59 | 10 | 64 | 17 | 688 | 48 | 449 | 347 | 2261 |
| Graduate | | | | | | | | | | | | |
| Professional | 1482 | 258 | 284 | 320 | 15 | 113 | 28 | 1565 | 122 | 1341 | 1017 | 6545 |
| Library Staff | 68 | 8 | 4 | 38 | 3 | 13 | 0 | 115 | 72 | 3 | 4 | 328 |
| Other | 50 | 13 | 17 | 21 | 4 | 38 | 2 | 244 | 172 | 102 | 58 | 721 |
| Staff | 136 | 27 | 38 | 50 | 7 | 8 | 0 | 482 | 48 | 275 | 57 | 1128 |
| Undergraduate | 941 | 384 | 336 | 379 | 121 | 364 | 70 | 1297 | 486 | 2528 | 2404 | 9310 |
| Total | 2930 | 814 | 881 | 867 | 160 | 600 | 117 | 4391 | 948 | 4698 | 3887 | 20293 |

Table 10.2 User Status * Affiliation - Percentages

| | | Affiliation | | | | | | | | | | |
|---------------|----------|-------------|-----------|----------|------|------------|------|---------|-------|----------|----------|--------|
| | Applied | | | Environ. | Fine | | | Medical | | | Social | |
| User Status | Sciences | Business | Education | Studies | Arts | Humanities | Law | Health | Other | Sciences | Sciences | Total |
| Faculty | 11.2% | 5.5% | 8.9% | 2.6% | 0.4% | 2.8% | 0.8% | 30.4% | 2.1% | 19.9% | 15.3% | 100.0% |
| Graduate | | | | | | | | | | | | |
| Professional | 22.6% | 3.9% | 4.3% | 4.9% | 0.2% | 1.7% | 0.4% | 23.9% | 1.9% | 20.5% | 15.5% | 100.0% |
| Library Staff | 20.7% | 2.4% | 1.2% | 11.6% | 0.9% | 4.0% | 0.0% | 35.1% | 22.0% | 0.9% | 1.2% | 100.0% |
| Other | 6.9% | 1.8% | 2.4% | 2.9% | 0.6% | 5.3% | 0.3% | 33.8% | 23.9% | 14.1% | 8.0% | 100.0% |
| Staff | 12.1% | 2.4% | 3.4% | 4.4% | 0.6% | 0.7% | 0.0% | 42.7% | 4.3% | 24.4% | 5.1% | 100.0% |
| Undergraduate | 10.1% | 4.1% | 3.6% | 4.1% | 1.3% | 3.9% | 0.8% | 13.9% | 5.2% | 27.2% | 25.8% | 100.0% |
| Total | 14.4% | 4.0% | 4.3% | 4.3% | 0.8% | 3.0% | 0.6% | 21.6% | 4.7% | 23.2% | 19.2% | 100.0% |

Table 11.1 Location * Affiliation

| | Affiliation | | | | | | | | | | | |
|---------|-------------|----------|-----------|----------|------|------------|-----|---------|-------|----------|----------|-------|
| User | Applied | | | Environ. | Fine | | | Medical | | | Social | |
| Status | Sciences | Business | Education | Studies | Arts | Humanities | Law | Health | Other | Sciences | Sciences | Total |
| Library | 656 | 242 | 267 | 186 | 37 | 175 | 49 | 386 | 256 | 1051 | 742 | 4047 |
| Off- | | | | | | | | | | | | |
| Campus | 773 | 231 | 372 | 350 | 91 | 277 | 52 | 2853 | 432 | 1691 | 2036 | 9158 |
| On- | | | | | | | | | | | | |
| Campus | 1501 | 341 | 242 | 331 | 32 | 148 | 16 | 1152 | 260 | 1956 | 1109 | 7088 |
| Total | 2930 | 814 | 881 | 867 | 160 | 600 | 117 | 4391 | 948 | 4698 | 3887 | 20293 |

Table 11.2 Location * Affiliation - Percentages

| 14810 1112 | | | 1 0.001110 | . 9 | | | | | | | | | |
|----------------|------------------|-------------|------------|---------------------|--------------|------------|------|-------------------|-------|----------|--------------------|--------|--|
| | | Affiliation | | | | | | | | | | | |
| User Status | Applied Sciences | Business | Education | Environ. Studies | Fine Arts | Humanities | Law | Medical Health | Other | Sciences | Social Sciences | Total | |
| Library | 16.2% | 6.0% | 6.6% | 4.6% | 0.9% | 4.3% | 1.2% | 9.5% | 6.3% | 26.0% | 18.3% | 100.0% | |
| Off- Campus | 8.4% | 2.5% | 4.1% | 3.8% | 1.0% | 3.0% | 0.6% | 31.2% | 4.7% | 18.5% | 22.2% | 100.0% | |
| On- | | | | | | | | | | | | | |
| Campus | 21.2% | 4.8% | 3.4% | 4.7% | 0.5% | 2.1% | 0.2% | 16.3% | 3.7% | 27.6% | 15.6% | 100.0% | |
| Total | 14.4% | 4.0% | 4.3% | 4.3% | 0.8% | 3.0% | 0.6% | 21.6% | 4.7% | 23.2% | 19.2% | 100.0% | |

Table 12.1 Purpose of Use by User Status * Affiliation

| | | | | | | Af | filiation | | | | | | |
|----------------|--------------------------|---------------------|----------|-----------|---------------------|--------------|------------|-----|------------------|-------|----------|--------------------|-------|
| Purpose of Use | User Status | Applied Sciences | Business | Education | Environ. Studies | Fine Arts | Humanities | Law | Medical Heath | Other | Sciences | Social Sciences | Total |
| | Faculty | 1 | 5 | 11 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 10 | 35 |
| | Graduate | | | | | | | | | | | | |
| | Professional | 164 | 62 | 111 | 70 | 6 | 26 | 12 | 286 | 80 | 195 | 267 | 1279 |
| Coursework | Library Staff | 61 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 9 | 0 | 0 | 77 |
| | Other | 0 | 0 | 10 | 1 | 0 | 0 | 2 | 9 | 12 | 8 | 1 | 43 |
| | Staff | 0 | 4 | 13 | 0 | 0 | 1 | 0 | 11 | 3 | 3 | 5 | 40 |
| | Undergraduate | 478 | 212 | 215 | 304 | 84 | 279 | 65 | 989 | 388 | 1890 | 2152 | 7056 |
| | Faculty | 10 | 5 | 17 | 0 | 0 | 1 | 0 | 54 | 3 | 4 | 12 | 106 |
| | Graduate Professional | 67 | 16 | 7 | 5 | 0 | 6 | 4 | 69 | 4 | 41 | 36 | 255 |
| Other | Library Staff | 1 | 4 | 0 | 0 | 3 | 5 | 0 | 9 | 54 | 0 | 3 | 79 |
| Activities | Other | 9 | 12 | 0 | 8 | 4 | 18 | 0 | 46 | 108 | 18 | 31 | 254 |
| · | Staff | 29 | 0 | 3 | 0 | 0 | 1 | 0 | 24 | 19 | 27 | 4 | 107 |
| | Undergraduate | 106 | 25 | 21 | 9 | 4 | 34 | 4 | 39 | 28 | 365 | 87 | 722 |
| | Faculty | 42 | 41 | 27 | 27 | 4 | 19 | 6 | 143 | 12 | 58 | 100 | 479 |
| | Graduate Professional | 311 | 119 | 74 | 121 | 4 | 50 | 9 | 371 | 22 | 260 | 326 | 1667 |
| Other | Library Staff | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 26 | 9 | 2 | 0 | 43 |
| Research | Other | 16 | 0 | 1 | 4 | 0 | 17 | 0 | 70 | 8 | 19 | 15 | 150 |
| , | Staff | 19 | 11 | 9 | 20 | 5 | 1 | 0 | 97 | 13 | 47 | 10 | 232 |
| | Undergraduate | 129 | 73 | 40 | 36 | 20 | 36 | 0 | 103 | 39 | 134 | 109 | 719 |
| | Faculty | 3 | 1 | 0 | 0 | 1 | 2 | 0 | 81 | 0 | 2 | 9 | 99 |
| | Graduate Professional | 7 | 4 | 2 | 3 | 0 | 1 | 0 | 136 | 3 | 3 | 4 | 163 |
| Patient Care | Library Staff | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 1 | 54 |
| | Other | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 44 | 17 | 0 | 0 | 63 |
| | Staff | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 2 | 24 |
| | Undergraduate | 7 | 2 | 3 | 0 | 1 | 0 | 1 | 44 | 0 | 14 | 12 | 84 |
| Sponsored | Faculty | 144 | 19 | 26 | 16 | 0 | 33 | 0 | 290 | 8 | 333 | 95 | 964 |

Table 12.1 Purpose of Use by User Status * Affiliation

| | | Affiliation | | | | | | | | | | | |
|-------------------|--------------------------|---------------------|----------|-----------|---------------------|--------------|------------|-----|------------------|-------|----------|--------------------|-------|
| Purpose of Use | User Status | Applied Sciences | Business | Education | Environ. Studies | Fine Arts | Humanities | Law | Medical Heath | Other | Sciences | Social Sciences | Total |
| | Graduate Professional | 912 | 35 | 45 | 106 | 0 | 19 | 3 | 645 | 13 | 831 | 363 | 2972 |
| | Library Staff | 1 | 2 | 3 | 38 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 58 |
| | Other | 24 | 0 | 0 | 5 | 0 | 1 | 0 | 71 | 27 | 54 | 11 | 193 |
| | Staff | 82 | 0 | 2 | 22 | 1 | 0 | 0 | 278 | 7 | 154 | 36 | 582 |
| | Undergraduate | 194 | 32 | 28 | 15 | 8 | 4 | 0 | 106 | 15 | 123 | 24 | 549 |
| | Faculty | 53 | 53 | 121 | 14 | 5 | 9 | 11 | 114 | 25 | 52 | 121 | 578 |
| | Graduate Professional | 21 | 22 | 45 | 15 | 5 | 11 | 0 | 58 | 0 | 11 | 21 | 209 |
| Teaching | Library Staff | 1 | 2 | 1 | 0 | 0 | 2 | 0 | 10 | 0 | 1 | 0 | 17 |
| | Other | 1 | 1 | 4 | 3 | 0 | 2 | 0 | 4 | 0 | 3 | 0 | 18 |
| | Staff | 6 | 12 | 11 | 8 | 1 | 5 | 0 | 50 | 6 | 44 | 0 | 143 |
| | Undergraduate | 27 | 40 | 29 | 15 | 4 | 11 | 0 | 16 | 16 | 2 | 20 | 180 |
| | Total | 2930 | 814 | 881 | 867 | 160 | 600 | 117 | 4391 | 948 | 4698 | 3887 | 20293 |

Table 13.1 User Status by Location * Affiliation

| Table 13.1 User | Status by | Location ' | Affiliation | 1 | | | | | | | | | Т |
|--------------------------|----------------|------------------|-------------|-----------|---------------------|--------------|------------|-----|-------------------|-------|----------|--------------------|-------|
| | | | ı | T | ı | Α | ffiliation | 1 | ı | | 1 | | |
| User Status | Location | Applied Sciences | Business | Education | Environ. Studies | Fine Arts | Humanities | Law | Medical Health | Other | Sciences | Social Sciences | Total |
| | Library | 43 | 29 | 84 | 14 | 4 | 1 | 11 | 18 | 5 | 3 | 7 | 219 |
| Faculty | Off- Campus | 59 | 22 | 58 | 20 | 5 | 48 | 3 | 480 | 20 | 110 | 133 | 958 |
| | On- Campus | 151 | 73 | 60 | 25 | 1 | 15 | 3 | 190 | 23 | 336 | 207 | 108 |
| | Library | 121 | 61 | 43 | 46 | 1 | 16 | 8 | 74 | 28 | 94 | 60 | 55 |
| Graduate Professional | Off- Campus | 377 | 58 | 135 | 109 | 14 | 50 | 8 | 1061 | 57 | 413 | 527 | 280 |
| Tiolessional | On- Campus | 984 | 139 | 106 | 165 | 0 | 47 | 12 | 430 | 37 | 834 | 430 | 318 |
| | Library | 65 | 7 | 4 | 38 | 0 | 13 | 0 | 34 | 57 | 3 | 3 | 22 |
| Library Staff | Off- Campus | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 77 | 9 | 0 | 0 | 8 |
| | On- Campus | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 6 | 0 | 1 | 1 |
| | Library | 6 | 9 | 5 | 3 | 1 | 32 | 0 | 9 | 18 | 23 | 21 | 12 |
| Other | Off- Campus | 20 | 4 | 12 | 13 | 3 | 2 | 2 | 195 | 110 | 49 | 27 | 43 |
| | On- Campus | 24 | 0 | 0 | 5 | 0 | 4 | 0 | 40 | 44 | 30 | 10 | 15 |
| | Library | 19 | 11 | 8 | 4 | 0 | 5 | 0 | 30 | 25 | 8 | 3 | 11 |
| Staff | Off- Campus | 39 | 4 | 12 | 20 | 6 | 2 | 0 | 247 | 8 | 53 | 23 | 41 |
| | On- Campus | 78 | 12 | 18 | 26 | 1 | 1 | 0 | 205 | 15 | 214 | 31 | 60 |
| Indergraduate | Library | 402 | 125 | 123 | 81 | 31 | 108 | 30 | 221 | 123 | 920 | 648 | 281 |
| <u>-</u> | Off- Campus | 278 | 143 | 155 | 188 | 60 | 175 | 39 | 793 | 228 | 1066 | 1326 | 445 |

Table 13.1 User Status by Location * Affiliation

| _ | | | | | | | | | | | | | | |
|---|-------------|----------|----------|-------------|-----------|----------|------|------------|-----|---------|-------|----------|----------|-------|
| | | | | Affiliation | | | | | | | | | | |
| | | | Applied | | | Environ. | Fine | | | Medical | | | Social | |
| | User Status | Location | Sciences | Business | Education | Studies | Arts | Humanities | Law | Health | Other | Sciences | Sciences | Total |
| | | On- | | | | | | | | | | | | |
| | | Campus | 261 | 116 | 58 | 110 | 30 | 81 | 1 | 283 | 135 | 542 | 430 | 2047 |
| Ī | _ | Total | 2930 | 814 | 881 | 867 | 160 | 600 | 117 | 4391 | 948 | 4698 | 3887 | 20293 |