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ABSTRACT

The purpose of this study conducted in May 1984 was to: (1) develop a demographic profile of the typical student user of Minnesota University's Walter Library; (2) confirm the validity of a similar survey conducted the previous year; and (3) determine why subjects used this particular library. The third objective was added to this survey via the inclusion of evaluative variables to determine whether a correlation existed between the students' overall satisfaction with Walter Library and their use/nonuse of materials and services, activities while in the library, reasons for choosing Walter Library, major areas of study, and grade point averages. A total of 555 students out of the 910 approached (61% response rate) completed questionnaires. Data collected were used to examine six hypotheses which suggested that overall student library satisfaction, number of visits within the past year, duration of library visits, and use/non-use of each of 10 areas of the library, nine specific library materials, and four specific library services were functions of such variables as use. demographic characteristics, Pearson Product Correlation and multiple regression analysis were used to test the correlation, and it was concluded that the previous survey findings were valid. In addition, a demographic profile of the typical student user of the library was compiled through the tabulation of descriptive data. However, the evaluative variables added to this survey were no more conclusive in predicting why students used Walter Library. Five appendixes include the questionnaire, descriptive statistics, and multiple regression analyses of the data. (CGD)

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USE OF THE UNIVERSITY OF MINNESOTA'S WALTER LIBRARY: A FOLLOW-UP SURVEY OF STUDENT USERS

Kathleen L. Gorman

May 1984

Walter Libra^{*}
Reference and Information Services
University of Minnesota

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Introduction

During spring quarter, 1983, a survey of the users of Walter Library was conducted in order to develop a general profile of the student users of Walter Library. For the purposes of that survey, it was decided to exclude evaluation of the library's materials and services. As a result, the survey proved useful as a descriptive measurement of student use of Walter Library, but did not offer any possibility of correlating the frequency of library use with evaluative variables. The student types who used Walter Library were determined, but no conclusions could be drawn as to why these students used Walter Library. At the conclusion of the 1983 survey a 1984 follow-up survey, which would include evaluation variables, was recommended.

In May, 1984, a follow-up survey was conducted. With a few additions, the survey instrument for 1984 remained much the same as the instrument used in 1983. The major changes included the addition of a five-point scale which was used to measure the students' satisfaction with 1) specific library materials, 2) specific library services, and 3) overall library quality; and a six-point scale to measure the students' overall satisfaction with 1) library materials as a whole, and 2) library services as a whole. It was hoped that the addition of these evaluative variables would assist in determining why the subjects used Walter Library.

The purpose of this follow-up survey was to test the validity and consistency of results obtained during the 1983 survey; i.e., to determine exactly which students used Walter Library, their reasons for choosing Walter Library instead of another library, their activities while in the library, and what areas, materials, and services they used during their visit. In addition, the follow-up survey was conducted in order to determine how the student users evaluated Walter Library's materials and services and the overall quality of Walter Library, and what effect, if any, their evaluations had on their use of Walter Library. By focusing specifically on the student users of Walter Library, it was not possible to examine in minute detail the various services or materials offered in the different areas of the library. Also excluded was comprehensive examination of each unit of service. The overwhelming majority of Walter Library's users are students at the University of Minnesota, therefore this study did not include data on faculty or staff users, or users not affiliated in any way with the University of Minnesota.

This study not only provides a basis from which future plans and decisions



regarding Walter Library can be based, but it also provides data which can be generalized to other comparable academic libraries.



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Objectives

The follow-up study of Walter Library's student users had a number of objectives. One of the primary purposes of this study was to confirm the validity of the original study conducted in 1983. This was accomplished by adopting the original study's objectives which included developing a demographic profile of the typical student user of Walter Library; determining what areas, materials, and services were used most frequently by subjects; what activities occupied subjects during their visits to the library; and why the subjects chose Walter Library instead of another library. It was also desirable to ascertain whether or not significant correlations existed between the subjects' demographic characteristics and the use/non-use of library areas, materials, and services.

Unique to this follow-up study was the inclusion of evaluative variables. The objective resulting from their inclusion was to determine whether or not a correlation existed between the subject's overall satisfaction with Walter Library and the use/non-use of materials and services, students' activities in the library, students' reasons for choosing Walter Library instead of another library, majors, and grade point averages.

Hypotheses

In order to fulfill the objectives of this study, the following six hypotheses were tested:

Hypothesis 1: The student's overall satisfaction with Walter Library's quality is a function of major, grade point average, reasons for choosing Walter Library instead of another library, activities while in Walter Library, satisfaction with Walter Library's services, satisfaction with Walter Library's materials, number of visits made to Walter Library within the past year, duration of the visit to Walter Library, campus on which most of the student's time is spent, class, number of credits, student status, sex, and age.

<u>Hypothesis 2</u>: The number of visits made to Walter Library within the past year is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is



spent.

<u>Hypothesis</u> 3: The duration of the visit to Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent.

Hypothesis 4: The use/nonuse of each specific area in Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. A series of hypotheses where developed in order to test the use/nonuse of each specific area in the library; e.g., the use/nonuse of the Kerlan Collection is a function of class, college, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. Similar hypotheses were tested for the Reference Room, Second Floor Lobby, Learning Resources Center, Music Library, Art Library, Library Book Stacks, Archives, Chemistry Library, and 24-Hour Study Hall.

Hypothesis 5: The use/nonuse of specific materials in Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. A series of hypotheses were developed in order to test the use/nonuse of specific materials in the library; e.g., the use/nonuse of scholarly journals or periodicals is a function of class, college, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. Similar hypotheses were tested for popular magazines; newspapers; reference materials; bcoks, monographs, or individual works; microfilm, microfiche, or microcards; phonograph .ecords or audiotapes; films, slides, or videotapes; reserve materials; and other unlisted materials.

Hypothesis 6: The use/nonuse of specific services in Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. A series of hypotheses were developed in order to test the use/nonuse of specific services in the library; e.g., the use/nonuse of the librarians' assistance is a



function of class, college, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent. Similar hypotheses were tested for the computerized literature search service, the public-access photocopy machines, the photocopy service, and other unlisted services.



Procedure

Population and Sample

The population for this study consisted of students at the University of Minnesota who are users of Walter Library. The study was designed as a cross-sectional survey of this population. In order to increase the reliability of the data describing student use of the library, data were collected from students immediately after their use of the library. Consequently, the data were collected by means of a self-administered questionnaire from a systematically selected sample of students exiting the library during one typical data in the spring quarter of 1984. Of the 910 students approached, 555 agreed to participate for a response rate of sixty-one percent. A detailed discussion of the sampling procedure is provided in the Data Collection section.

Instrumentation and Measurement

A copy the questionnaire is provided in Appendix I.

The following discussion of dependent and independent variables details the measurement of those variables which are included in the six hypotheses outlined previously in this study.

Dependent Variables

In order to determine the students' overall evaluation of Walter Library, subjects were asked to select a response on a five point interval level scale (1=poor, 5=excellent).

In order to determine the number of visits made to Walter Library within the past year, subjects were asked to estimate how frequently they had visited Walter Library during the past year by selecting a response on a seven point interval scale (1=once a month or less, 7=more than once daily).

In order to determine the duration of the visits made to Walter Library, subjects were asked to approximate the length of that day's visit to Walter Library by filling in the number of hours and/or minutes in the appropriate blank spaces.

In order to determine what areas in Walter Library were used, subjects were asked to indicate all areas of the library in which they had spent time during that day's visit to Walter Library by checking as many of the listed areas as were



appropriate. The areas included were: 1) Kerlan Collection, 2) Reference Room (formerly the Education-Psychology-Library Science Library), 3) Second Floor Lobby, 4) Learning Resources Center, 5) Music Library, 6) Art Library, 7) Library Book Stacks, 8) Archives, 9) Chemistry Library, 10) 24-Hour Study Room, 11) Basement Typing Area, 12) Basement Group Study Room (Room 9), and 13) Computer Lab (Room 9).

In order to determine what materials were used in Walter Library and students? evaluations of these materials, subjects were asked to evaluate all of the materials which they had used during that day's visit to Walter Library by selecting a response on a five point interval level scale (1=poor, 5=excellent) for each item used during the library visit. The materials include were 1) scholarly journals or periodicals, 2) popular magazines. 3) newspapers, 4) reference materials, 5) books, monographs, or individual works, 6) microfilm, microfiche or microcards, 7) phonograph records or audio tapes, 8) films, slides or videotapes, 9) reserve materials, and 10) other materials (the subject was asked to state what other materials were used).

Independent Variables

In order to determine the demographic characteristics of the users of Walter Library, subjects were asked to indicate their college, major, credit load for the current quarter, current grade point average, primary language, and age by filling in the data in the appropriate blank space for each response. For the purpose of data analysis, two of these variables, major and language, were simplified. various majors listed by respondents were grouped into seven major categories. These categories are discussed in further detail in the Results section. Language was condensed into non-English (0) and English (1). Subjects were asked to check the appropriate response choice for the remaining demographic characteristics. Sex was indicated by selecting a response choice of either female (0) or male (1). Citizenship was indicated by selecting a response choice of either American (0) or foreign (1). The campus on which most or the subject's time is spent was indicated by selecting the appropriate response choice (1=mostly on the east back of the Minneapolis campus, 2=mostly on the west bank of the Minneapolis campus, 3=evenly divided between the east and west banks of the Minneapolis campus, 4=on the St. Paul campus, and 5=other). Student status was indicated by selecting the appropriate response choice (1=day school, full-time; 2=day school, part-time; 3=extension;



4=day school and extension, and 5=other). Class was indicated by selecting the appropriate response choice (1=freshman, 2=sophomore, 3=junior, 4=senior, 5=Master's student, 6=Ph.D. student, 7=adult special, and 8=other).

Data 6. .ction

The survey of Walter Library's student users was conducted on May 2, 1984, during regular library hours. The data collection process for the 1984 survey was identical to that used for the 1983 survey. A Wednesday during the sixth week of the ten week spring quarter was chosen in order to avoid biasing the survey results with mid-quarter or final exam periods. The day was chosen in anticipation of its being a typical day of library operations. The vast majority of Walter Library's users are students attending the University of Minnesota. Assuming a refusal rate of approximately thirty percent, it was estimated that asking every fourth persor who exited the library at either of two exit gates would yield a response large enough to construct an accurate profile of Walter Library's student users.

The survey began at 8 a.m. and continued until 9 p.m. Signs were posted at the first floor and basement entrance gates which informed library users that a survey was taking place that day and that upon exiting the library certain individuals would systematically be chosen to participate in the survey. Every fourth person exiting at either the first floor or basement gates of the library was asked by a survey monitor to complete a questionnaire consisting of seven pages and requiring approximately ten minutes to complete. Tables, chairs, and pencils were provided for the subjects' convenience and also to encourage survey participation. Those subjects who preferred to complete the questionnaire at another time were given self-addressed, Campus Mail envelopes and were requested to return the completed questionnaires by Friday, May 4. Four survey monitors, two at each exit gate, recorded how many subjects were approached, how many agreed to participate on the spot, and of those who refused to participate on the spot, how many agreed to return the questionnaire by mail.

A total of 910 students were approached during the survey period. Of this number, 505 completed questionnaires on the spot, 169 refused to participate, and 236 took questionnaires with them. Fifty of the take-home questionnaires were completed and returned. The total sample size for the survey was 555 University of Minnesota students, which represented a sixty-one percent response rate.



Data Analysis

In order to test the first hypothesis (presented previously in this study), Pearson Product Correlations were conducted which tested the correlations between the subjects' overall satisfaction with Walter Library and 1) major, 2) grade point average, 3) reasons for choosing Walter Library instead of another library, 4) activities while in Walter Library, 5) satisfaction with Walter Library's services, 6) satisfaction with Walter Library's materials, 7) number of visits made to Walter Library within the past year, 8) duration of the visit to Walter Library, 9) campus on which most of the student's time is spent, 10) class, 11) number of credits, 12) student status, 13) sex, and 14) age.

In order to test the remaining five hypotheses (presented previously in this study), regression models were developed in which each of the dependent variables was regressed onto all of the independent variables in a step-wise fashion. Thus, 1) the number of library visits, 2) the duration of the library visit, 3) the ten areas of the libr. y, 4) the ten response choices included under library materials, and 5) the five response choices included under library services, were each individually regressed onto class, major, student status, credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent, in order to determine whether significant relationships existed between each of the dependent variables and the set of independent variables. The nominal level variables 1) major, 2) student sta s, and 3) campus on which most of the student's time is spent, were dummy coded as 0-1 variables for inclusion in the regression model. The variable language was recoded into "English" and "non-English." This created a total of twenty-four independent variables which were entered into each regression model. The ten response choices included under library materials and the five response choices included under library services were each recoded as 0-1 (didn't use/did use) variables for inclusion as dependent variables in the regression model. A total of twenty-seven regression analyses were conducted. The dichotomous variables sex, language, and citizenship are presented in the tables in Appendix with a parenthetical definition of each variable's "1" coded response following the variable label.

Results

Descriptive statistics for each question on the questionnaire are detailed in Appendix II and Appendix III.

Demographic Characteristics

The sample for this survey consisted of 555 student users of Walter Library. The majority of respondents were male (58.0%). The mean age was 23.1. The mean number of credits carried by the students was 12.6 and the mean grade point average was 3.2. American citizens (93.6%) comprised the majority of respondents and most respondents indicated that English was their primary language (92%). The majority of the respondents were full-time day school students (80.3%) who spent most of their time on the east bank of the Minneapolis campus (75.6%). An overwhelming majority of the respondents did not hold graduate assistant positions (96%).

The respondents indicated a total of 117 different majors. In order to simplify data analysis, these separate majors were grouped into seven major categories according to the University of Minnesota's school subdivisions. The breakdown of respondents by these areas was as follows:

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31 (5.6%) St. Paul campus (agriculture, home economics, veterinary medicine, forestry)
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47 (8.5%) Medicine & Health Sciences

190 (34.2%) Institute of Technology

59 (10.6%) Management/Business

31 (5.6%) Education

151 (27.2%) Liberal Arts

41 (7.4%) Undecided

5 (0.9%) No response

The college breakdown of the respondents was as follows:

- 11 (2.0%) Agriculture
- 13 (2.4%) Biological Sciences
- 312 (56.5%) Literal Arts
 - 29 (5.3%) Education
 - 5 (0.9%) Extension
 - 4 (0.7%) Forestry
- 12 (2.2%) General College
- 16 (2.9%) Home Economics
- 128 (23.2%) Institute of Technology
- 13 (2.4%) Management
- 1 (0.2%) Medicine
- 2 (0.4%) None
- 2 (0.4%) Nursing
- 1 (0.2%) Public Health
- 3 (0.5%) University Without Walls



Racial background of the respondents was predominantly white (93.7%). Only 27 respondents indicated that they were one of five other racial backgrounds. As a result of these small group sizes, race was eliminated as a variable of interest for further data analysis.

The class breakdown of the respondents was as follows:

22 (4.0%) Ph.D. student 35 (6.3%) Master's student 133 (24.1%) Senior 141 (25.5%) Junior 124 (22.4%)Sophomore 74 (13.4%) Freshman (2.9%)Adult Special 16 (1.4%)Other

The majority of respondents indicated that they used Walter Library three to six times per week (27.1%). Almost half of the sample population (48.8%) indicated that they used the library three times a week or more. The average visit lasted approximately two hours (18%).

The area most frequently used by respondents was the 24-Hour Study Room (24.7%). The majority of respondents indicated that they did not use any library materials or services (between 67% and 95.1%, varying with each of the materials or services). The mean response for overall satisfaction with library materials was 5.1 (satisfied to very satisfied). The mean response for overall satisfaction with library services was 4.9 (satisfied to very satisfied). Those respondents who use library materials or services indicated fulfillment of class requirements (46.5%) as their main activity when utilizing library materials and services.

When asked to state why they had chosen Walter Library instead of another library, the majority of respondents indicated that Walter's location was more convenient (67.7%).

The time at which most respondents exited Walter Library was between 12 noon and 1 p.m. (14%). A frequency distribution of respondents' exit times is provided in Appendix III.

The mean response for overall satisfaction with Walter Library was 3.7 (good to very good).

Test of Hypothesis 1

In order to determine which variables were influential in affecting the subjects' overall satisfaction with Walter Library, Pearson Product Correlations were conducted. The correlations were conducted with the following independent



variables: 1) each of the ten response choices concerning the use/nonuse of materials, 2) each of the five response choices concerning the use/nonuse of services, 3) each of the four response choices concerning activities while visiting Walter Library, 4) each of the six response choices concerning reasons for choosing Walter Library, 5) the number of visits to Walter Library within the past year, 6) the duration of that day's visit to Walter Library, 7) each of the five response choices concerning student status, 8) each of the five response choices concerning campus on which most of the student's time is spent, 9) each of the seven majors, 10) grade point average, 11) class, 12) credits, 13) sex, and 14) age. The results indicated that out of a total of forty-nine independent variables, twenty-one significantly affected the dependent variable (see Appendix IV). Among the ten response choices concerning the use/nonuse of library materials, use of the following materials significantly affected the dependent variable: 1) reference materials, 2) books, monographs or individual works, 3) scholarly journals or periodicals, 4) reserve materials, 5) phonograph records or audiotapes, 6) newspapers, 7) popular magazines, 8) microfilm, microfiche or microcards, and 9) films, slides or videotapes. Among the five response choices concerning the use/nonuse of library services, the use of the following services significantly affected the dependent variable: 1) librarians' assistance and 2) public-access photocopy machines. Among the four reponse choices concerning activities while in Walter Library, the following activities significantly affected the dependent variable: 1) not to satisfy class requirements, 2) not to support personal interests, and 3) not to support thesis or dissertation research. Among the six response choices concerning reasons for choosing Walter Library, the following reasons significantly affected the dependent variable: 1) not Walter's collection and 2) something else. Among the seven majors, the following majors significantly affected the dependent variable: 1) not being a liberal arts major, 2) being an Institute of Technology major, 3) not being an education major, and 4) being an undecided major. Grade point average was found to significantly affect the dependent variable in an inverse manner; e.g., as the subjects' grade point average decreased the subjects' overall satisfaction with Walter Library increased.

Test of Hypothesis 2

In order to determine which demographic variables were influential in



affecting the number of visits which respondents made to Walter Library within the past year, the dependent variable number of library visits was regressed1 onto 1) class, 2) the seven majors, 3) the five categories included under student status, 4) number of credits, 5) grade point average, 6) sex, 7) citizenship, 8) language, 9) age, and 10) the five campus locations. Out of the twenty-four demographic variables, seven were significant. Those demographic variables which affected number of library visits included 1) being an Institute of Technology major, 2) time not spent mostly on the west bank of the Minneapolis campus, 3) not having Extension student status, 4) age, 5) language (foreign), 6) not being a St. Paul campus major, and 7) number of credits. The variable being an Institute of Technology major was the most significantly correlated variable, explaining 5.0 percent of the variance. The variable time not spent mostly on the west bank. Minneapolis campus explained 2.0 percent of the variance, and the variable not being an Extension student explained 3.0 percent of the variance. The other four significantly correlated variables (age, language (foreign), not being a St. Paul campus major, and number of credits) together explained the remaining 5.0 percent of the variance and combined with the first three variables to explain a total of 15.0 percent of the variance (see Table 1). The variable age correlated inversely with the dependent variable thus indicating that as the subjects' age decreased, the number of library visits increased. Although a statistically significant relationship is indicated between number of library visits and the demographic variables, the weakness of the relationship indicated limited diagnostic usefulness. It is noteworthy that although Walter Library is intended to serve specific disciplines, neither of the appropriate majors (education or liberal arts) was significantly correlated with the number of library visits.

Test of Hypothesis 3

In order to determine which demographic characteristics were influential in affecting the duration of respondents' library visits, the dependent variable duration of the library visit was regressed onto 1) class, 2) the seven majors, 3) the five categories included under student status, 4) number of credits, 5) grade point average, 6) sex, 7) citizenship, 8) language, 9) age, and 10) the five campus locations. Of these thirty-one independent variables, two were significant. The variable language (foreign) explained 3.0 percent of the variance and the variable



being an Institute of Technology major explained 1.0 percent of the variance. Together these two variables explained a total of 4.0 percent of the variance (see Table 2). While statistically significant, these variable are, for all intents and purposes, diagnostically useless.

Test of Hypothesis 4

In order to determine which demographic characteristics were influential in affecting the use/nonuse of each of the ten different areas of the library, the data measuring use/nonuse of each area were each regressed onto the twenty-four independent variables previously identified. Thus, ten multiple regression analyses (identified in the following discussion by the name of the dependent variable) were conducted. Of these ten regression analyses, seven resulted in total explained variation equal to or less that 6.0 percent. While statistically significant, these explained variations were so low as to be diagnostically useless. The seven regression analyses were the use/nonuse of 1) the Reference Room (see Table 4), 2) the Second Floor Lobby (see Table 5), 3) the Learning Resources Center (see Table 6), 4) the Music Library (see Table 7), 5) the Art Library (see Table 8), 6) the Library Book Stacks (see Table 9), and 7) the Chemistry Library (see Table 11).

The remaining three statistically significant analyses resulted in higher explained variations and appear worthy of comment. The use/nonuse of the 24-Hour Study Room correlated significantly with age, being an Institute of Technology major, class, and being a business major, for a total of 8.0 percent (see Table 12). The variable class correlated inversely with the dependent variable, thus indicating that as the respondents' class decreased, use of the 24-Hour Study Room increased. The use/nonuse of the Archives correlated significantly with having other student status and time spent mostly on the west bank of the Minneapolis campus for a total of 8.0 percent (see Table 10). The variable other student status explained 6.0 percent of the variance. The use/nonuse of the Kerlan Collection correlated significantly with age, class, citizenship (foreign), having day school and extension student status, being a medicine and health sciences major, and being an education major for a total of 9.0 percent (see Table 3). The variable age explained 3.0 percent of the variance and the variable citizenship (foreign) explained 2.0 percent of the variance. The four remaining variables each explained



1.0 percent of the variance. The variable class correlated inversely with the dependent variable, thus indicating that as the respondents' class decreased, the use of the Kerlan Collection increased.

Test of Hypotheses 5

In order to determine which demographic characteristics were influential in affecting the use/nonuse of each of the nine specific library materials, the data measuring use/nonuse of each of the materials were each regressed onto the twenty-four independent variables previously identified. In addition, one other response choice was provided indicating that other unlisted materials were used. Thus, ten multiple regression analyses (identified in the following discussion by the name of the dependent variable) were conducted.

Of these, one, the use/nonuse of other unlisted materials did not yield any significant correlates (see Tab. 22). Of the nine remaining significant analyses, seven resulted in total explained variation equal to or less than 7.0 percent. While statistically significant, these explained variation were so low as to be diagnostically meaningless. The seven regression analyses were the use/nonuse of 1) newspapers (see Table 15), 2) reference materials (see Table 16), 3) books, monographs or individual works (see Table 17), 4) microfilms, microfiche or microcards (see Table 18), 5 phonograph records or audiotapes (see Table 19), 6) films, slides or videotapes (see Table 20), and 7) reserve materials (see Table 21).

The remaining two statistically significant analyses resulted in higher explained variations and appear worthy of comment. The use/nonuse of popular magazines correlated significantly with language (foreign) for a total of 10.0 percent (see Table 14). The use/nonuse of scholarly journals and periodicals correlated significantly with age, language (foreign), being a liberal arts major, being an education major, and grade point average for a total of 12.0 percent (see Table 13). Age explained 4.0 percent of the variance and language (foreign) and being a liberal arts major each explained 3.0 percent of the variance. The two remaining variables each explained 1.0 percent of the variance.

Test of Hypothesis 6

In order to determine which demographic characteristics were influential in affecting the use/nonuse of each of the four specific library services, the data



measuring use/nonuse of each of the services were each regressed onto the twentyfour independent variables previously identified. In addition, one other response
choice was provided indicating that other unlisted services were used. Thus, five
multiple regression analyses (identified in the following discussion by the name of
the dependent variable) were conducted. Two resulted in total explained variation
equal to or less that 4.0 percent. While statistically significant, these
explained variations were so low as to be diagnostically meaningless. The two
regression analyses were the use/nonuse of 1) the public-access photocopy machines
(see Table 25) and 2) other services (see Table 27).

The remaining three statistically significant analyses resulted in higher explained variations and appear worthy of comment. The use/nonuse of the librarians' assistance correlated significantly with citizenship (foreign), being an Institute of Technology major, and class for a total of 8.0 percent (see Table 23). Citizenship (foreign) explained 5.0 percent of the variance. The remaining two variables together explained 3.0 percent of the variance. The use/nonuse of the photocopy service correlated significantly with language (foreign) for a total of 10.0 (see Table 26). The use/nonuse of the computerized literature search service correlated significantly with language (foreign); time spent mostly on the east bank of the Minneapolis campus; being a medicine and health sciences major; and sex (male) for a total of 14.0 percent (see Table 24). Language (foreign) explained a total of 9.0 percent of the variance. The remaining three variables together explained 5.0 percent of the variance.



The data were analyzed by utilizing the regression program in Norman H. Nie, et al., SPSS: Statistical Package for the Social Sciences, 2nd ed. (New York: McGraw-Hill, 1975). The F to include parameter controlling the step-wise inclusion procedures was set at F=3.0, which generally assured ≈ 2.05 .

Summary

The purpose of this study was threefold. First, it was desirable to develop a demographic profile of the typical student user of Walter Library. This was accomplished by tabulating descriptive data cumulated by the survey. Second, it was hoped that the survey would confirm the validity of the original survey conducted spring quarter, 1983. This was tested by means of a regression model which tested the correlation between the use/nonuse of Walter Library and the respondents demographic characteristics. Third, it was hoped that by including evaluative variables in the original survey instrument, data analysis would determine more conclusively why subjects used Walter Library.

Six hypotheses were developed regarding respondents' use/nonuse of Walter Library. These hypotheses were:

- 1) The students' overall satisfaction with Walter Library's quality is a function of major, grade point average, reasons for choosing Walter Library instead of another campus library, activities while in Walter Library, satisfaction with Walter Library's services, satisfaction with Walter Library's materials, number of visits made to Walter Library within the past year, duration of the visit to Walter Library, campus on which most of the student's time is spent, class, number of credits, student status, sex, and age.
- 2) The number of visits made to Walter Library within the past year is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent.
- 3) The duration of the visit to Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent.
- 4) The use/nonuse of each specific area in Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent.
- 5) The use/nonuse of specific materials in Walter Library is a function of class, major, student status, number of credits, grade point average, sex, citizenship, language, age, and campus on which most of the student's time is spent.
- 6) The use/nonuse of specific services in Walter Library is a function of class, major, student status, number of credits, grade point average, sex,



citizenship, language, age, and campus on which most of the student's time is spent.

The first hypothesis was tested by conducting Pearson Product Correlations. The correlations were conducted by pairing the dependent variable, overall satisfaction with Walter Library, with the following independent variables: 1) each of the ten response choices concerning the use/nonuse of library materials, 2) each of the five response choices concerning the use/nonuse of library services, 3) each of the four response choices concerning activities while visiting Walter Library, 4) each of the six response choices concerning reasons for choosing Walter Library, 5) the number of visits to Walter Library within the past year, 6) the duration of that day's visit to Walter Library, 7) each of the five response choices concerning student status, 8) each of the five response choices concerning campus on which most of the student's time is spent, 9) each of the sever majors, 10) grade point average, 11) class, 12) credits, 13) sex, and 14) age.

The remaining five hypotheses were each tested by means of a multiple regression analysis. These analyses regressed each of the dependent variables, 1) the number of library visits, 2) the duration of the library visit, 3) each of the ten library areas, 4) each of the ten response choices concerning the use/nonuse of library materials, and 5) each of the five response choices concerning the use/nonuse of library services, onto all of the independent variables, 1) class, 2) the nine majors, 3) the five categories included under student status, 4) number of credits, 5) grade point average, 6) sex, 7) citizenship, 8) language, 9) age, and 10) the five campus locations. The independent variables were entered into these analyses in step-wise fashion.

Hypothesis 1: The Correlates of Overall Satisfaction with Walter Library

The first hypothesis, which tested the relationship of the subject's overall satisfaction with Walter Library with a total of forty-nine independent variables, yielded twenty-one significantly correlated variables. Among the ten response choices concerning the use/nonuse of library materials, the use of the following materials significantly affected the dependent variable: 1) reference materials, 2) books, monographs or individual works, 3) scholarly journals or periodicals, 4) reserve materials, 5) phonograph records or a diotapes, 6) newspapers, 7) popular magazines, 8) microfilm, microfiche or microcards, and 9) films, slides or videotapes. Among the five response choices concerning the use/nonuse of library



services, the use of the following services significantly affected the dependent variable: 1) not to satisfy class requirements, 2) not to support personal interests, and 3) not to support thesis or dissertation research. Among the six response choices concerning reasons for choosing Walter Library, the following reasons significantly affected the dependent variable: 1) not Walter's collection, and 2) something else. Among the seven majors, the following majors significantly affected the dependent variable: 1) not being a liberal arts major, 2) being an Institute of Technology major, 3) not being an education major, and 4) being an undecided major. Grade point average was found to significantly affect the dependent variable in an inverse manner, e.g., as the subjects' grade point average decreased, the subjects' overall satisfaction with Walter Library increased.

Hypothesis 2: The Correlates of Number of Library Visits

The second hypothesis, which tested the relationship of the number of library visits with the independent variables, yielded seven significantly correlated demographic variables. The variable being an Institute of Technology major was the most significantly correlated variable, explaining 5.0 percent of the variance. This variable combined with time spent mostly on the west bank of the Minneapolis campus; not having Extension student status; age; language (foreign); not being a St. Paul campus major; and number of credits to explain a total of 15.0 percent of the variance. The variable age correlated inversely with the dependent variable, thus indicating that as the subjects ages decreased, the number of library visits increased. Although these independent variables correlated significantly with the dependent variable, the relationship is weak and limited in diagnostic usefulness.

Hypothesis 3: The Correlates of Duration of the Library Visit

The third hypothesis tested the relationship of the duration of the library visit with the independent variables. Two variables, language (foreign) and being an Institute of Technology major, were significantly correlated with the dependent variable. However, together these variables explained only a total of 4.0 percent of the variance, thus indicating a relationship which is limited in its diagnostic usefulness.



Hypothesis 4: The Correlates of the Use/Nonuse of Each of the Library Areas

The data measuring use/nonuse of each of the ten library areas were each regressed onto the independent variables. Areas which yielded statistically significant relationships equal to or less than 6.0 percent included the Reference Room, Second Floor Lobby, Learning Resources Center, Music Library, Art Library, Library Book Stacks, and Chemistry Library. These relationships are, for all intents and purposes, diagnostically useless.

The remaining three statistically significant analyses resulted in higher explained variations. The 24-Hour Study Room analysis indicated four significantly correlated variables which explained 8.0 percent of the variance. The Archives analysis indicated two significantly correlated variables which explained 8.0 percent of the variance. The Kerlan Collection analysis indicated six significantly correlated variables which explained 9.0 percent of the variance.

Hypothesis 5: The Correlates of the Use/Nonuse of Each Type of Library Material

The data measuring use/nonuse of each of the ten library materials were regressed onto the independent variables. Materials which yielded statistically significant relationships equal to or less than 7.0 percent included newspapers; reference materials; books, monographs or individual works; microfilms, microfiche or microcards; phonograph records or audiotapes; films, slides or videotapes; and reserve materials. These relationships are, for all intents and purposes, diagnostically useless.

The remaining two statistically significant analyses resulted in higher explained variations. The analysis of the use/nonuse of popular magazines indicated one significantly correlated variable which explained 10.0 percent of the variance. The analysis of the use/nonuse of scholarly journals and periodicals indicated five significantly correlated variables which explained 12.0 percent of the variance.

Hypothesis 6: The Correlates of the Use/Nonuse of Each Type of Library Service

The data measuring use/nonuse of each of the five library services were regressed onto the independent variables. Services which yielded statistically



significant relationships totaling 4.0 percent or less included the public-access photocopy machines and other unlisted services. These relationships are, for all intents and purposes, diagnostically useless.

The remaining three statistically significant analyses resulted in higher explained variations. The analysis of the use/nonuse of the librarians' assistance indicated three significantly correlated variables which explained 8.0 percent of the variance. The analysis of the use/nonuse of the photocopy service indicated one significantly correlated variable which explained 10.0 percent of the variance. The analysis of the use/nonuse of the computerized literature search service indicated four significantly correlated variables which explained 14.0 percent of the variance.

Discussion of Results

This user survey successfully fulfilled two parts of its original purpose. A demographic profile of the typical student user of Walter Library was achieved through the tabulation of descriptive data. In addition, the validity of the 1983 user survey was established. This validity was confirmed both by the consistency of the typical student user's demographic profile, and by means of a regression model which tested the correlation between the use/nonuse of Walter Library and the respondents' demographic characteristics. However, the third aspect of the survey's purpose, determining conclusively why students used Walter Library, was not achieved.

The consistent difficulty in determining why students use Walter Library is a problem generic to library user surveys conducted in both public and academic libraries. Either researchers have yet to establish variables indicative of library use, or no such variables exist in which case attempts to predict library use is an exercise in futility. This survey determined that neither demographic characteristics of library users, nor their evaluation of the library affected library use. Perhaps other variables such as convenience of the library's location or the fulfillment of class requirements are better indicators of library use. If this is indeed the case, arguments in favor of a "main" library for East Bank students becomes more forceful. Such a library would need to include a broadly-based collection in a variety of subject areas in order to support East Bank students' research both within and outside of their major fields of study.



A survey of Walter Library non-users would possibly be more revealing than a surver of its users. The inconclusive data collected from past user surveys indicates that possibly it is more important to determine why students are <u>not</u> using Walter Library. A future survey of both users and non-users of Walter Library would provide more detailed and possibly more conclusive results for administrators of both Walter Library and other comparable academic libraries.



	a.	m.	/	p	•	m	
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APPENDIX I - QUESTIONNAIRE

STUDENT USERS

The purpose of this study is to provide Walter Library with profiles of typical users of the library. The questionnaire should take approximately ten minutes to complete. The questions should be answered by either checking or filling in the appropriate response as indicated. Please answer all questions except those which you are requested to skip. Complete information is necessary for precise data analysis.

You have been chosen at random and will remain anonymous. Space is provided at the end of the questionnaire should you wish to write any additional comments or suggestions.

Thank you for your time and your answers.

The following questions will give us general background information.

•	What	is your class?
		Ph.D. student
		Master's student
		Senior
		Junior
		Sophomore
		Freshman
		Adult Special
		Other
2.	What	is your college?
3.	What	is your major?



4.	What is your current student status Day school, full-time Day school, part-time Extension Day school and Extension Other	?
5.	Do you currently hold a Graduate Assistant position?	
	No (proceed to question #6)Yes	Which category best describes how much of your time today in Walter Library was spent in activities directly related to your responsibilities as a Graduate Assistant? All of your time Over half of your time Approximately half of your time Iess than half your time No time at all
6.	How many credits are you carrying t	this quarter?
7.	What is your current grade point as	verage?



8.	What is your sex?
	Female
	Male
9.	Which category best describes your citizenship?
	American citizen (proceed to question #9a; do not answer #9b)
	Foreign citizen (skip question #9a and proceed to #9b)
	9a. What is your racial background?
	American Indian Hispanic
	Asian White
	Black Other
	9b. In what country do you hold your citizenship?
10.	What is your primary language?
11.	How old were you on your last birthday?
	years old
12.	When on campus, where do you spend most of your time?
	Mostly on the east bank of the Minneapolis campus
	Mostly on the west bank of the Minneapolis campus
	Evenly divided between east/west banks of Mpls. campus
	On the St. Paul campus
	Other



ā	about opinio	ollowing questions will pryour visit to Walter Librons concerning the library verall quality.***	ary tod	lay, and with your
13.	Which Walte	n category best describes er Library this year?	how oft	ten you have visited
		Once a month or less	Thr	ree to six times a week
		Two to three times a month	Dai	.ly
		Once a week	Mor	re than once daily
		Twice a week		
14.	Appro last	oximately how long did you today?	ır visit	to Walter Library
		hours	minutes	5
15.		nich areas of Walter Libray? Check all that apply.	ry did	you spend some time
		Kerlan Collection		Library Book Stacks
		Reference Room (formerly the Education/Psychology/	,	Archives
		Library Science Library)		Chemistry Library
		Second Floor Lobby		24-hour Study Room
		Learning Resources Center/Reserve		Basement Typing Area
		Music Library		Basement Group Study Room (Room 9)
		Art Library		Computer Lab (Room 9)



16. Please examine the following list of materials available in Walter Library and, using the scale provided, rate <u>all</u> those materials which you used (or borrowed) today.

	Diđn't Use	Poor	Fair	Good	Very Good	Excellent
Scholarly journals or periodicals			***************************************		***************************************	
Popular magazines			********			
Newspapers				-		
Reference materials						
Books, monographs, or individual works	S					
Microfilm, microfich or microcards	ne ——					
Phonograph records or audiotapes	,					
Films, slides, or videotapes						***************************************
Reserve materials						
Other, not in above list (please state	e):					
		*********	**********			********

17. Overall, how satisfied are you with the materials in Walter Library?

Very Dissa- tisfied	Dissa- tisfied	Slightly Dissa- tisfied	Satis- fied	Very Satis- fied	Extremely Satisfied	No Opinion



18. Please examine the following list of services available in Walter Library and, using the scale provided, rate <u>all</u> those services which you used today.

	Didn't Use	Poor	Fair	Good	Very Good	Excellent
Librarians' assistance	****	***************************************	*************			****************
Computerized literature search service	*********					
Public-access photocopy machines		********		-		************
Photocopy service	. ——			******		
Other, not in above list (Please state):						

19. Overall, how satisfied are you with the services in Walter Library?

						
No Opinion	Very Dissa- tisfied	Dissa- tisfied	Slightly Dissa- tisfied	Satisfied	Very Satisfied	Extremely Satisfied

20. Please rate the overall quality of Walter Library according to the scale provided.

No Opinion	Poor	Fair	Good	Very Good	Excellent



21.	If you used any materials and/or services provided by Walter Library, please indicate what your reasons were for using these materials and/or services. Check all that apply. (NOTE: If you checked "Didn't Use" for all categories in both questions #16 and #18, you may skip this question and proceed to question #22.)
	To satisfy class requirements (such as reserve readings, term papers, oral presentations, etc.).
	To support my research (thesis or dissertation).
	To fulfill the duties of my Graduate Assistantship.
	To support my personal interests (hobbies) not related to my academic responsibilities.
	Other (please state):
22.	Why did you choose Walter Library today, as opposed to another library within the University's library system? Please check all that apply.
	Walter's collection contains the materials that I needed.
	Walter's services are better.
	Walter's staff is more helpful.
	Walter's location is more convenient.
	Walter's building is more pleasant and comfortable.
	Something else not mentioned above (please state):

CONCLUSION

23. Thank you for providing us with the above information. Your time and effort will help us improve Walter Library for you, the user. Please feel free to write in any additional comments or suggestions in the space remaining.



-30-APPENDIX II

STUDENT USERS OF WALTER LIBRARY--FOLLOW-UP SURVEY

Descriptive Statistics¹

		8	n	x	SD
1.	CLASS:		553		
	Ph.D. student	4.0			
	Master's student	6.3			
	Senior	24.1			
	Junior	25.5			
	Sophomore	22.4			
	Freshman	13.4			
	Adult Special	2.9			
	Other	1.4			
2.	COLLEGE:		555		
	Agriculture	2.0			
	Biological Sciences	2.4			
	Liberal Arts	56.5			
	Education	5.3			
	Extension	0.9			
	Forestry	0.7			
	General College	2.2			
	Home Economics	2.9			
	Institute of Technology	23.2			
	Management	2.4			
	Medicine	0.2			
	None	0.4			
	Nursing	0.4			
	Public Health	0.2			
	Uriversity Without Walls	0.5			

¹ The numbers in the descriptive statistics table refer to the numbers used in the questionnaire. Please refer to the questionnaire for further information.



		8	n		SD
3.	MAJOR:		550		
•	St. Paul Campus	5.6			
	Medicine & Health Sciences	8.5			
	Institute of Tech- nology	34.5			
	Management/Business	10.7			
	Education	5.6			
	Liberal Arts	27.5			
	Undecided	7.5			
4.	STUDENT STATUS:		552		
	Day school, full-time	80.3			
	Day school, part-time	9.2			
	Extension	4.5			
	Day school & Extension	5.3			
	Other	0.7			
5.	GRADUATE ASSISTANTSHIP:		554		
	No	96.0			
	All of your time	0.4			
	Over half of your time	0.4			
	Approximately half of your time	0.2			
	Less than half of your time	0.7			
	No time at all	2.3			
6.	CREDITS:		551	12.6	3.99
7.	GRADE POINT AVERAGE:		538	3.2	0.48



		8	n	x	SD
8.	SEX:		550		
	Female	42.0			
	Male	58.0			
9.	CITIZENSHIP:		548		
	American	93.6			
	Foreign	6.4			
9a.	RACE:		457		
	American Indian	0.9			
	Asian	3.3			
	Black	0.7			
	Hispanic	1.1			
	White	93.7			
	Other	0.4			
۵,					
9b.	COUNTRY:		30		
	Brazil	3.0			
	Chile	3.0			
	China	3.0			
	Cyprus	7.0			
	Germany	3.0			
	Hong Kong	3.0			
	Iran	7.0			
	Japan	7.0			
	Kenya	3.0			
	Laos	3.0			
	Malaysia	3.0			
	Morocco	3.0			
	Nigeria	10.0			
	Peru	7.0			
	Poland	3.0			



		8	n	x	SD
	0	2.0			
	Switzerland	3.0			
	Taiwan	7.0			
	Turkey	3.0			
	Viet Nam	17.0			
10.	LANGUAGE:		546		
	Arabic	0.0	(2)		
	Armenian	0.0	(2)		
	Cantonese	0.0	(1)		
	Chinese	1.0			
	English	92.0			
	Farsi	0.0	(1)		
	Greek	0.0	(2)		
	Italian	0.0	(1)		
	Japanese	0.0	(2)		
	Korean	0.0	(2)		
	Lao	0.0	(1)		
	Malay	0.0	(1)		
	Marathi	0.0	(1)		
	Persian	0.0	(1)		
	Polish	0.0	(1)		
	Portuguese	0.0	(1)		
	Russian	0.0	(2)		
	Spanish	1.0			
	Turkish	1.0			
	Vietnamese	9.0			
	Yoruba	4.0			
11.	AGE:		550	23.1	5.01



		8	n	콨	SD
12.	CAMPUS:		553		
	East bank, Minneapo- lis campus	75.6			
	West bank, Minneapo- lis campus	6.3			
	Evenly divided be- tween East and West banks	12.7			
	St. Paul campus	2.0			
	Other	3.3			
13.	NUMBER OF VISITS:		553		
	Once a month or less	9.4			
	Two to three times a month	12.8			
	Once a week	13.2			
	Twice a week	15.7			
	Three to six times a week	27.1			
	Daily	14.1			
	More than once daily	7.6			
14.	DURATION OF VISIT:		536	113.1	85.92
15.	AREAS:		555		
	Kerlan Collection Yes No	0.4 99.6			
	Reference Room Yes No	21.3 78.7			
	Second Floor Lobby Yes No	11.9 88.1			
	LRC/ Reserve Yes No	24.5 75.5			



		<u>&</u>	n	x	SD
	Music Library Yes	13.2			
	No	86.8			
	Art Library				
	Yes	18.9			
	No	81.1			
	Library Book Stacks				
	Yes No	17.8			
		82.2			
	Archives Yes	1.1			
	No	98.9			
	Chemistry Library				
	Yes	6.5			
	No	93.5			
	24-Hour Study Room				
	Yes No	24.7 75.3			
		13.3			
	Basement Typing Area Yes	3.6			
	No	96.4			
	Basement Group Study Room				
	Yes	5.4			
	No	94.6			
	Computer Lab	<i>c</i> 1			
	Yes No	6.1 93.9			
		3313			
16.	MATERIALS:				
	Scholarly journals or		555	8.1	2.09
	periodicals				
	Popular magazines		555	8.4	1.86
	Newspapers		555	8.1	2.16
	Reference materials		555	7.5	2.59
	Books, monographs, or individual works		د55 ع	7.9	2.37
				0.7	1 40
	Microfilm, microfiche, or microcards		555	8.7	1.42
	Phonograph records or		555	7.9	2.40
	audiotapes		-	: 	



		8	n	x	SD
	Films, slides or vid	eo- pes	555	8.5	1.60
	Reserve materials	pe s	ა55	7.9	2.29
	Other, not in above	list	555	8.7	1.32
17.	MATERIALS SATISFACTION	:	550	5.1	1.98
18.	SERVICES:				
	Librarians' assistan	ce	555	7.2	2.72
	Computerized literat search serv		555	8.6	1.51
	Public-access photoc machi		555	7.9	2.37
	Photocopy service		555	8.0	2.25
	Other, not in above	list	555	8.7	1.31
19.	SERVICES SATISFACTION:		551	4.9	1.88
20.	LIBRARY QUALITY:		553	3.7	1.89
21.	ACTIVITIES:		555		
	C _r ass requirements Yes No	46.5 53.5			
	Researc [.] Yes No	14.6 85.4			
	Graduate assistant- ship				
	Yes No	0.7 99.3			
	Personal interests Yes No	15.0 85.0			
	Other Yes No	6.1 93.9			

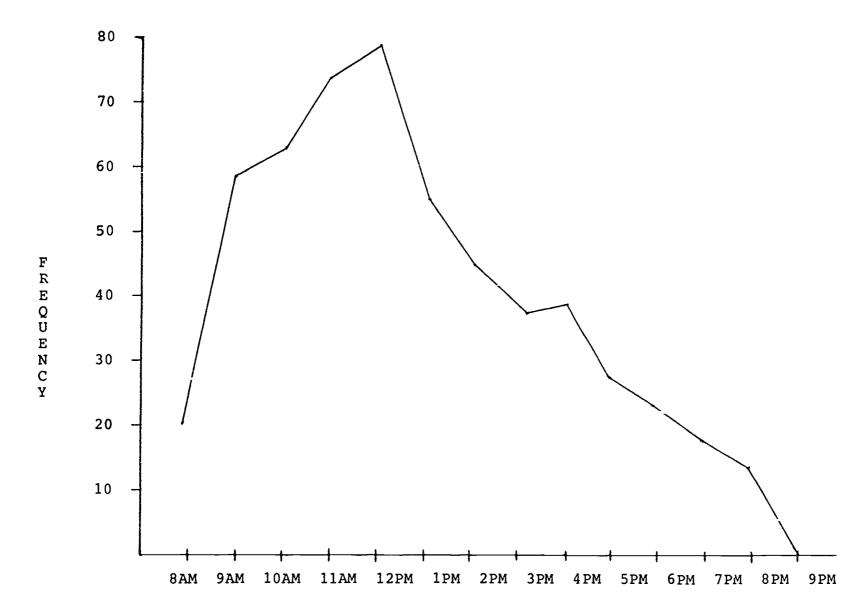


		8	n	x	SD
22.	REASONS:		555		
	Walter's collection Yes No	36.6 63.4			
	Walter's services Yes No	2.3 97.7			
	Walter's staff Yes No	2.5 9 7. 5			
	Walter's location Yes No	67.7 32.3			
	Walter's pleasant and comfortable surround- ings				
	Yes No	25.2 74.8			
	Something else not mentioned above Yes No	14.4 85.6			



-38-APPENDIX III

FREQUENCY DISTPIBUTION OF THE TIME AT WHICH RESPONDENTS EXITED WALTER LIBRARY (FOLLOW-UP STUDENT SURVEY--MAY, 1984)





TIME OF DAY

43

44

APPENDIX IV SIMPLE CORRELATIONS BETWEEN THE INDEPENDENT VARIABLES AND THE DEPENDENT VARIABLE

OVERALL SATISFACTION WITH WALTER LIBRARY

Materials	<u>n</u>	r	<u>r</u>	\propto
Reference materials Books, monographs or individual works Scholarly journals or periodicals Reserve materials Phonograph records or audiotapes Newspapers Popular magazines Microfilm, microfiche or microcards Films, slides or videotapes Other materials	553 553 553 553 553 553 553 553 553	.17 .16 .14 .13 .13 .11 .09 .08	.03 .02 .02 .02 .02 .01 .01	.001 .001 .001 .001 .002 .006 .020 .037
Services				
Librarians' assistance Public-access photocopy machines Computerized literature search service Photocopy service Other services	553 553 553 553 553	.18 .12 .01 .05	.03 .02 .00 .00	.001 .002 .403 .106
Activities				
To satisfy class requirements* To support personal interests* To support thesis or dissertation research* Other activities*	553 553 553 553	12	.05 .02 .01	.001 .002 .001 .487
Reasons Walter's collection* Something else* Walter's librarians* Walter's services* Walter's location* Walter's pleasant & comfortable surroundings*	553 553 553 553 553 553	19 .11 01 04 06	.04 .01 .00 .00	.001 .004 .442 .174 .071
<u>Visits</u> Number of visits Duration of visit	551 534	03 05	.00	.241 .107

^{*}Point biserial correlation



SIMPLE CORRELATIONS BETWEEN THE INDEPENDENT VARIABLES AND THE DEPENDENT VARIABLE

OVERALL SATISFACTION WITH WALTER LIBRARY

Student Status	<u>n</u>	r	<u>r</u>	<u>~</u>
Day school, full-time* Day school, part-time* Extension* Day school & Extension* Other*	553 553 553 553 553	.07 02	.00 .00 .00 .00	.460 .484 .051 .315
Campus				
East bank, Minneapolis campus* West bank, Minneapolis campus* East & west banks, Minneapolis campus* St. Paul campus* Another campus*	553 553 553 553 553	02	.00 .00 .00 .00	.173 .466 .291 .076 .494
Major				
Liberal arts* Institute of Technology* Education* Undecided* St. Paul campus* Medicine & health sciences* Business*		08 .08 02	.01 .01 .01 .01 .00	.002 .031 .024 .026 .306 .447
Demographics				
Grade point average Class Credits Sex# Age	536 551 549 548 548	11 05 01 03 01	.01 .00 .00 .00	.007 .420 .420 .261



^{*}Point biserial correlation

-41-APPENDIX V TABLE 1

MULTIPLE REGRESSION ANALYSIS OF THE NUMBER OF LIBRARY VISITS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Institute of Technology majors	.22	.05	.22
Time spent mostly on the west bank, Minneapolis campus	.27	.07	19
Extension student status	.31	.10	16
Age	.33	.11	17
Language (foreign)	.36	.13	14
St. Paul Campus majors	.37	.14	10
Number of credits	.39	.15	.17
Non-significant variables Class			17
Medicine & Health Sciences majors	5		.05
Business majors			06
Education majors			08
Liberal Arts majors			16
Undecided majors			.00
Day school, full-time student sta	atus		.04
Day school, part-time student sta	atus		.05
Day school & Extension student st	tatus		.03
Other student status			04
Grade point average			03
Sex (male)			.08
Citizenship (foreign)			.10
Time spent mostly on the east bar	nk, Minnea	polis campus	.16
Time spent mostly on the east & v	west banks	, Minneapo- lis campus	.00
Time spent mostly on the St. Paul	l campus		10
Time spent mostly on another camp	pus		06



MULTIPLE REGRESSION ANALYSIS OF THE DURATION OF THE LIBRARY VISIT ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Language (foreign)	.16	.03	16
Institute of Technology majors	.21	.04	.14
5-			
Non-significant variables			
Class			04
St. Paul Campus majors			01
Medicine & Health Sciences majors			.06
Business majors			03
Education majors			.02
Liberal Arts majors			13
Undecided majors			06
Day school, Call-time student status			01
Day school, part-time student status			.03
Extension student status			09
Day school & Extension student status	;		.07
Other student status			00
Number of credits			.06
Grade point average			08
Sex (male)			.08
Citizenship (foreign)			.13
Age			05
Time spent mostly on the east bank, M	dinneapo	olis campus	.02
Time spent mostly on the west bank, M	Minneapo	olis campus	.00
Time spent mostly on the east & west		Minneapo- is campus	.03
Time spent mostly on the St. Paul cam	npus		09
Time spent mostly on another campus			02



TABLE 3

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE KERLAN
COLLECTION ONTO THE DEMOGRAPHIC VARIABLES

	R	\mathbb{R}^2	r
Age	.17	.03	.17
Class	.21	.04	01
Citizenship (foreign)	.24	.06	.13
Day school & Extension student status	.26	.07	.13
Medicine & Health Sciences majors	.28	.08	.09
Education majors	.30	.09	.12
Non-significant variables			
St. Paul Campus majors			02
Institute of Technology majors			05
Business majors			02
Liberal Arts majors			04
Undecided majors			02
Day school, full-time student status			05
Day school, part-time student status			02
Extension student status			01
Other student status			00
Number of credits			00
Grade point average			.08
Sex (female)			01
Language (foreign)			12
Time spent mostly on the east bank, ${\tt M}$	inneapol	is campus	.04
Time spent mostly on the west bank, ${\tt M}$	inneapol	is campus	02
Time spent mostly on the east & west		iirneapo- ls campus	02
Time spent mostly on the St. Paul cam	pus		01
Time spent mostly on another campus			01



TABLE 4

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE REFERENCE ROOM ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Class	.17	.03	.17
Education majors	.21	.04	.15
Liberal Arts majors	.23	.05	.10
Day school, part-time student status	. 25	.06	.12
Non-significant variables			
St. Paul Campus majors			04
Medicine & Health Sciences majors			04
Institute of Technology majors			08
Business majors			05
Undecided majors			02
Day school, full-time student status	ł		08
Extension student status			01
Day school & Extension student statu	s		06
Other student status			.09
Number of credits			10
Grade point average			.07
Sex (female)			11
Citizenship (foreign)			.05
Language (foreign)			 05
Age			.09
Time spent mostly on the east bank,	_	_	.03
Time spent mostly on the west bank,	_	_	01
Time spent mostly on the east & west		linneapo- s campus	.02
Time spent mostly on the St. Paul car	mpus		04
Time spent mostly on another campus			07



TABLE 5

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE SECOND FLOOR LOBBY ONTO THE DEMOGRAPHIC VARIABLES

R	R^2	r
.16	.03	.16
		03
		01
		03
		01
		01
		.01
		.02
		.04
S		02
5		.05
		01
15		06
		.09
		10
		.07
		11
		05
		.09
Minneapol	is campus	.03
Minneapol	is campus	01
		.02
	.o campao	.08
<u>.</u> -		04
֓֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜֜	.16 Minneapol Minneapol t banks, M	Minneapolis campus Minneapolis campus Minneapolis campus t banks, Minneapo- lis campus



TABLE 6

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE LEARNING RESOURCES CENTER ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Institute of Technology majors	.15	.02	15
Undecided majors	.19	.04	.14
Medicine & Health Sciences majors	.23	.05	.14
Time spent mostly on the east bank, Minneapolis campus	.24	.06	.08
Non-significant variables			
Class			03
St. Paul Campus majors			04
Business majors			08
Education majors			01
Liberal Arts majors			.06
Day school, full-time student status			03
Day school, part-time student status			01
Extension student status			.08
Day school & Extension student statu	s		01
Other student status			.02
Number of credits			.03
Grade point average			.06
Sex (female)			12
Citizenship (foreign)			.08
Language (foreign)			07
Age			.04
Time spent mostly on the west bank,	Minneapo	lis campus	07
Time spent mostly on the east & west		Minneapo- is campus	05
Time spent mostly on the St. Paul ca	mpus		05
Time spent mostly on another campus			.04



TABLE 7

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE MUSIC LIBRARY ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Business majors	.12	.01	12
Non-significant variables			
Class			.02
St. Paul Campus majors			.01
Medicine & Health Sciences majors			02
Institute of Technology majors			.01
Education majors			00
Liberal Arts majors			.06
Undecided majors			.05
Day school, full-time student status			.02
Day school, part-time student status			05
Extension student status			.01
Day school & Extension student status			.04
Other student status			03
Number of credits			.07
Grade point average			03
Sex (male)			.01
Citizenship (American)			04
Language (English)			.05
Age			04
Time spent mostly on the east bank, M:	inneapolis	campus	.09
Time spent mostly on the west bank, M:	inneapoli s	campus	10
Time spent mostly on the east & west h		neapo- campus	00
Time spent mostly on the St. Paul camp	pus		01
Time spent mostly on another campus			04



MULTIPLE REGRESSION ANALYSIS CF THE USE/NONUSE OF THE ART LIBRARY ONTO THE DEMOGRAPHIC VARIABLES

	R	\mathbb{R}^2	r
Time spent mostly on the east & west banks, Minneapolis campus	.15	.02	.15
Non-significant variables			
Class			03
St. Paul Campus majors			01
Medicine & Health Sciences majors			01
Institute of Technology majors			07
Business majors			.09
Education majors			02
Liberal Arts majors			.03
Undecided majors			00
Day school, full-time student status			.00
Day school, part-time student status			.07
Extension student status			05
Day school & Extension student status			03
Other student status			04
Number of credits			.05
Grade point average			.01
Sex (male)			.04
Citizenship (American)			07
Language (English)			.08
Age			07
Time spent mostly on the east bank, Min			09
Time spent mostly on the west bank, Min	-	campus	04
Time spent mostly on the St. Paul campu	IS		.00
Time spent mostly on another campus			01



TABLE 9

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE LIBRARY
BOOK STACKS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Class	.15	.02	.15
Institute of Technology majors	.17	.03	11
Undecided majors	.19	.04	09
Non-significant majors			
St. Paul Campus majors			00
Medicine & Health Sciences majors			.05
Business majors			.00
Education majors			.09
Liberal Arts majors			.09
Day school, full-time student status	5		.02
Day school, part-time student status	5		04
Extension student status			04
Day school & Extension student state	ıs		.00
Other student status			.10
Number of credits			09
Grade point average			.08
Sex (female)			02
Citizenship (foreign)			.08
Language (foreign)			07
Age			.11
Time spent mostly on the east bank,	Minneapol	is campus	.04
Time spent mostly on the west bank,	Minneapol	is campus	.05
Time spent mostly on the east & west		Minneapo- .s campus	08
Time spent mostly on the St. Paul ca	ampus		03
Time spant mostly on another campus			.02



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE ARCHIVES ONTO THE DFMOGRAPHIC VARIABLES

	R	R^2	r
Other student status	.25	.06	. 25
Time spent mostly on the west bank, Minneapolis campus	.28	.08	.14
Non-significant variables			
Class			.04
St. Paul Campus majors			02
Medicine & Health Sciences majors			.04
Institute of Technology majors			07
Business majors			.03
Education majors			03
Liberal Arts majors			.07
Undecided majors			03
Day school, full-time student status			10
Day school, part-time student status			.04
Extension student status			02
Day school & Extension student statu	s		.07
Number of credits			07
Grade point average			.01
Sex (female)			04
Citizenship (American)			02
Language (English)			.03
Age			01
Time spent mostly on the east bank,	Minneapo	lis campus	04
Time spent mostly on the east & west		Minneapo- is campus	04
Time spent mostly on the St. Paul ca	mpus		01
Time spent mostly on another campus			02



TABLE 11

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE CHEMISTRY LIBRARY ONTO THE DEMOGRAPHIC VARIABLES

	R	\mathbb{R}^2	r
Institute of Technology majors	.11	.01	.11
Medicine & Health Sciences majors	.17	.03	.10
Sex (female)	.20	.04	06
Non-significant variables			
Class			.06
St. Paul Campus majors			.05
Business majors			09
Education majors			07
Liberal Arts majors			06
Undecided majors			07
Day school, full-time student status			.00
Day school, part-time student status			.00
Extension student status			01
Day school & Extension student status	5		.01
Other student status			02
Nu ber of credits			03
Grade point average			03
Citizenship (American)			06
Language (foreign)			04
Age			.04
Time spent mostly on the east bank, N			.01
Time spent mostly on the west bank, N	Min.eapo	lis campus	07
Time spent mostly on the east & west		Minneapo- is campus	.01
Time spert mostly on the St. Paul can	npus		.02
Time spent mostly on another campus			.04



TABLE 12

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE 24-HOUR STUDY HALL ONTO THE DEMOGRAPHIC VARIABLES

R R ²	r
Age .21 .04	21
Institute of Technology majors .24 .06	.15
Class .26 .07	21
Business majors .27 .08	.08
Non-significant variables	
St. Paul Campus majors	08
Medicine & Health Sciences majors	07
Edu ation majors	07
Liberal Arts majors	11
Undecided majors	.06
Day school, full-time student status	.03
Day school, part-time student status	04
Extension student status	01
Day school & Extension student status	.04
Other student status	04
Number of credits	.07
Grade point avorage	10
Sex (male)	.06
Citizenship (foreign)	.01
Language (foreign)	02
Time spent mostly on the east bank, Minneapolis campus	.02
Time spent mostly on the west bank, Minneapolis campus	.03
Time spent mostly on the east & west banks, Minneapo- lis campus	00
Time spent mostly on the St. Paul campus	06
Time spent mostly on another campus	04



TABLE 13

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF SCHOLARLY JOURNALS AND PERIODICALS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Age	.20	.04	.20
Language (foreign)	.26	.07	18
Liberal Arts majors	.31	.10	.19
Education majors	.33	.11	.11
Grade point average	.34	.12	.14
Non-significant variables			
Class			.18
St. Paul Campus majors			.01
Medicine & Health Sciences majors			00
Institute of Technology majors			17
Business majors			03
Undecided majors			08
Day school, full-time student statu	ıs		03
Day school, part-time student statu	S		.04
Extension student status			01
Day school & Extension student stat	us		01
Other student status			.04
Number of credits			14
Sex (female)			11
Citizenship (foreign)			.17
Time spent mostly on the east bank,	Minneap	olis campus	.05
Time spent mostly on the west bank,	Minneap	olis campus	01
Time spent mostly on the east & wes	st banks,	Minneapo- lis campus	05
Time spent mostly on the St. Paul of	campus		.01
Time spent mostly on another campus	5		02



TABLE 14

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF POPULAR MAGAZINES ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	. 31	.10	31
Non-significant variables			
Class			01
St. Paul Campus majors			.08
Medicine & Health Sciences majors			.08
Institute of Technology majors			04
Business majors			.04
Education majors			01
Liberal Arts majors			03
Undecided majors			07
Day school, full-time student statu	s		.01
Day school, part-time student statu	s		.02
Extension student status			04
Day school & Extension student stat	us		.00
Other student status			03
Number of credits			.04
Grade point average			07
Sex (male)			.05
Citizenship (foreign)			.25
Age			.04
Time spent mostly on the east bank,	Minneapo	lis campus	.00
Time spent mostly on the west bank,	Minneapo	lis campus	.02
Time spent mostly on the east & wes		Minneapo- is campus	.01
Time spent mostly on the St. Paul c	ampus		05
Time spent mostly on another campus			.00



TABLE 15

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF NEWSPAPERS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.19	0.2	1.0
		.03	19
Sex (male)	.23	.05	.12
Non-significant variables			
Class			.03
St. Paul Campus majors			.01
Medicine & Health Sciences majors			.06
Institute of Technology majors			01
Business majors			.06
Education majors			04
Liberal Arts majors			01
Undecided majors			08
Day school, full-time student status			02
Day school, part-time student status			.06
Extension student status			01
Day school & Extension student status	S		05
Other student status			.04
Number of credits			.01
Grade point average			.00
Citizenship (foreign)			.18
Age			.00
Time spent mostly on the east bank, A	Minneapolis	campus	.03
Time spent mostly on the west bank, A	Minneapolis	campus	.00
Time spent mostly on the east & west		neapo- campus	03
Time spent mostly on the St. Paul car	mpus		02
Time spent mostly on another campus			.01



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF REFERENCE MATERIALS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.11	.01	11
Class	.16	.02	.10
Time spent mostly on the east & west banks, Minneapolis campus	.18	.03	09
Time spent mostly on the east bank, Minneapolis campus	.20	.04	.09
Non-significant variables			
St. Paul Campus majors			02
Medicine & Health Sciences majors			02
Institute of Technology majors			04
Business majors			03
Education majors			.08
Liberal Arts majors			.09
Undecided majors			08
Day school, full-time student status	s		03
Day school, part-time student status	s		.07
Extension student status			.00
Day school & Extension student state	us		05
Other student status			.07
Number of credits			06
Grade point average			.03
Sex (female)			01
Citizenship (foreign)			.10
Age			.08
Time spent mostly on the west bank,	Minneapo	lis campus	07
Time spent mostly on the St. Paul c	ampus		.00
Time spent mostly on another campus			09



TABLE 17

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF BOOKS, MONOGRAPHS, AND INDIVIDUAL WORKS ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Class	.16	.03	.16
Language (foreign)	.21	.05	12
Liberal Arts majors	.25	.06	.15
Sex (male)	.28	.07	.04
Non-significant variables			
St. Paul Campus majors			05
Medicine & Health Sciences majors			.01
Institute of Technology majors			11
Business majors			.00
Education majors			.09
Undecided majors			10
Day school, full-time student statu	s		03
Day school, part-time student statu	.s		.06
Extension student status			03
Day school & Extension student stat	us		05
Other student status			.09
Number of credits			12
Grade point average			.05
Citizenship (foreign)			.12
Age			.13
Time spent mostly on the east bank,	Minneapo	lis campus	.00
Time spent mostly on the west bank,	Minneapo	lis campus	.04
Time spent mostly on the east & wes	banks,	Minneapo- is campus	.03
Time spent mostly on the St. Paul of	campus		04
Time spent mostly on another campus			06



TABLE 18

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF MICROFILM, MICROFICHE, AND MICROCARDS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.16	.02	16
Institute of Technology majors	.18	.03	08
Sex (female)	.21	.04	.06
Non-significant variables			
Class			.01
St. Paul Campus majors			.04
Medicine & Health Sciences majors			.06
Business majors			04
Education majors			.00
Liberal Arts majors			.07
Undecided majors			04
Day school, full-time student state	us		.03
Day school, part-time student state	us		00
Extension student status			05
Day school & Extension student sta	tus		03
Other student status			.09
Number of credits			03
Grade point average			.04
Citizenship (foreign)			.15
Age			.02
Time spent mostly on the east bank	, Minneap	olis campus	00
Time spent mostly on the west bank	, Minneap	olis campus	00
Time spent mostly on the east & we	st banks,	Minneapo- lis campus	.03
Time spent mostly on the St. Paul	campus		04
Time spent mostly on another campu	s		00



TABLE 19

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF PHONOGRAPH RECORDS AND AUDIOTAPES ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Undecided majors	.11	.01	.11
Extension student status	.14	.02	.11
Number of credits	.17	.03	.06
Non-significant variables			
Class			08
St. Paul Campus majors			04
Medicine & Health Sciences majors			.06
Institute of Technology majors			07
Business majors			03
Education majors			00
Liberal Arts majors			.01
Day school, full-time student stat	us		03
Day school, part-time student stat	us		04
Day school & Extension student sta	tus		.03
Other student status			03
Grade point average			.03
Sex (female)			03
Citizenship (foreign)			.07
Language (foreign)			06
Age			08
Time spent mostly on the east bank	, Minneapo	olis campus	.08
Time spent mostly on the west bank	, Minneapo	olis campus	06
Time spent mostly on the east & we		Minneapo- is campus	02
Time spent mostly on the St. Paul	campus		03
Time spent mostly on another campu	s		06



TABLE 20

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF FILMS, SLIDES, AND VIDEOTAPES ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.16	.02	16
Number of credits	.19	.04	.12
Non-significant variables			
Class			09
St. Paul Campus majors			01
Medicine & Health Sciences majors			.07
Institute of Technology majors			00
Business majors			05
Education majors			04
Liberal Arts majors			.02
Undecided majors			.01
Day school, full-time student status			.03
Day school, part-time student status			.01
Extension student status			06
Day school & Extension student status	3		00
Other student status			02
Grade point average			04
Sex (male)			.04
Citizenship (foreign)			.15
Age			08
Time spent rostly on the east bank, h	Minneapo	lis campus	03
Time spent mostly on the west bank, A	Minneapo	lis campus	.05
Time spent mostly on the east & west		Minneapo- is campus	.03
Time spent mostly on the St. Paul car	npus		04
Time spent mostly on another campus			01



-61-TABLE 21

MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF RESERVE MATERIALS ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Language (foreign)	.15	.02	15
Business majors	.18	.03	10
Non-significant variables			
Class			.01
St. Paul Campus majors			.06
Medicine & Health Sciences majors			00
Institute of Technology majors			03
Education majors			.05
Liberal Arts majors			.04
Undecided majors			01
Day school, full-time student statu	ıs		.01
Day school, part-time student statu	ıs		.01
Extension student status			03
Day school & Extension student stat	tus		01
Other student status			.02
Number of credits			.02
Grade point average			04
Sex (male)			.03
Citizenship (foreign)			.11
Age			.02
Time spent mostly on the east bank	, Minneapo	lis campus	.04
Time spent mostly on the west bank	, Minneapo	lis campus	09
Time spent mostly on the east & we	st banks, 1	Minneapo- is campus	01
Time spent mostly on the St. Paul	campus		.06
Time spent mostly on another campu	s		.01



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF OTHER MATERIALS ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Non-significant variables			
Class			.03
St. Paul Campus majors			.02
Medicine & Health Sciences majors			.02
Institute of Technology majors			01
Business majors			00
Education majors			02
Liberal Arts majors			.04
Undecided majors			07
Day school, full-time student status			.03
Day school, part-time student status			05
Extension student status			01
Day school & Extension student status			.02
Other student status			02
Number of credits			05
Grade point average			.04
Sex (female)			02
Citizenship (foreign)			02
Language (English)			00
Age			.04
Time spent mostly on the east bank, Mi	nneapolis	campus	.02
Time spent mostly on the west bank, Mi	Inneapolis	campus	03
Time spent mostly on the east & west b	oanks, Min lis	neapo- campus	.01
Time spent mostly on the St. Paul camp	pus		.02
Time spent mostly on another campus			04



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE LIBRARIANS' ASSISTANCE ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Titing ahin (foreign)	.23	.05	. 23
Citizenship (foreign)	.23	.03	15
Institute of Technology majors			.11
Class	.29	.08	• 11
Non-significant variables			
St. Paul Campus majors			. 05
Medicine & Health Sciences سنامrs			. 05
Business majors			00
Education majors			.12
Liberal Arts majors			.03
Undecided majors			01
Day school, full _me student status	;		01
Day school, part-time student status	3		06
Extension student status			04
Day school & Extension student statu	ıs		05
Other student status			.06
Number of credits			07
Grade point average			.02
Sex (female)			00
Language (foreign)			21
Age			.10
Time spent mostly on the east bank,	M' neapo	lis campus	05
Time spent mostly on the west bank,	Minneapo	lis campus	.02
Time spent mostly on the east & west		Minneapo- is campus	.02
Time spent mostly on the St. Paul ca	empus		01
Time spent mostly on another campus			.07



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE COMPUTERIZED LITERATURE SEARCH SERVICE ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.30	.09	30
Time spent mostly on the east & west banks, Minneapolis campus	.32	.10	.13
Medicine & Health Sciences majors	.35	.12	.14
Sex (male)	. 37	.14	.09
Non-significant variables			
Class			07
St. Paul Campus majors			03
Institute of Technology majors			03
Business majors			.05
Education majors			.03
Liberal Arts majors			06
Undecided majors			04
Day school, full-time student status			.04
Day school, part-time student status			01
Extension student status			02
Day school & Extension student status	}		03
Other student status			02
Number of credits			.05
Grade point average			05
Citizenship (foreign)			.27
Age			05
Time spent mostly on the east bank, M	linneapol	is campus	06
Time spent mostly on the west bank, M	Minneapol	is campus	04
Time spent mostly on the St. Paul can	npus		04
Time spent mostly on another campus			01



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE PUBLIC-ACCESS PHOTOCOPY MACHINES ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
7	.1	7 .03	17
Language (foreign)	.2		
Number of credits	• 2	0 .04	.10
Non-significant variables			
Class			00
St. Paul Campus majors			.08
Medicine & Health Sciences	majors		.05
Institute of Technology ma	ajors		02
Business majors			00
Education majors			.01
Liberal Arts majors			02
Undecided majors			05
Day school, full-time stud	dent status		.07
Day school, part-time stud	dent status		03
Extension student status			05
Day school & Extension stu	udent status		04
Other student status			.03
Grade point average			06
Sex (male)			.05
Citizenship (foreign)			.15
Age			05
Time spent mostly on the			
Time spent mostly on the	west bank, Minn	eapolis camp	ous06
Time spent mostly on the	east & west bar	nks, Minneapo lis campu	o05
Time spent mostly on the	St. Paul campus	3	.00
Time spent mostly on anot	her campus		01



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF THE PHOTOCOPY SERVICE ONTO THE DEMOGRAPHIC VARIABLES

	R	R^2	r
Language (foreign)	.31	.10	31
Non-significant variables			
Class			06
St. Paul Campus majors			.02
Medicine & Health Sciences majors			.07
Institute of Technology majors			.01
Business majors			.06
Education majors			.03
Liberal Arts majors			08
Undecided majors			07
Day school, full-time student status			.05
Day school, part-time student status			02
Extension student status			05
Day school & Extension student status	3		02
Other student status			.03
Number of credits			.09
Grade point average			07
Sex (male)			.02
Citizenship (foreign)			.26
Age			05
Time spent mostly on the east bank, A	4inneapo	lis campus	03
Time spent mostly on the west bank, A	1inneap o	lis campus	02
Time spent mostly on the east & west		Minneapo- is campus	.05
Time spent mostly on the St. Paul car	npus		.00
Time spent mostly on another campus			01



MULTIPLE REGRESSION ANALYSIS OF THE USE/NONUSE OF OTHER SERVICES ONTO THE DEMOGRAPHIC VARIABLES

	R	R ²	r
Liberal Arts majors	.09	.01	.09
Business majors	.13	.02	.07
•			
Non-significant variables			
Class			02
? . Paul Campus majors			05
medicine & Health Sciences majors			03
Institute of Technology majors			04
Education majors			02
Undecided majors			06
Day school, full-time student statu	s		01
Day school, part-time student statu	.s		01
Extension student status			05
Day school & Extension student stat	us		.07
Other student status			02
Number of credits			.03
Grade point average			. 06
Sex (male)			.04
Citizenship (foreign)			.07
Language (foreign)			05
Age			01
Time spent mostly on the east bank,			00
Time spent mostly on the west bank,	Minneapo:	lis campus	02
Time spent mostly on the east & wes		Minneapo- is campus	.06
Time spent mostly on the St. Paul of	ampus		03
Time spent mostly on another campus	3		04

