REPORTED SAVINGS FROM SUMMER EARNINGS
BY WISCONSIN STATE UNIVERSITY - LA CROSSE STUDENTS
AS A FUNCTION OF
SEX, CLASS, AND THE RECEPTION OR NONRECEPTION OF FINANCIAL AID

A Seminar Paper
Presented to
the Faculty of the Graduate College
Wisconsin State University - La Crosse

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

by
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Candidate:  Gary R. Olsen

I recommend acceptance of this seminar paper to the Graduate College in partial fulfillment of this candidate's requirements for the degree Master of Science. The candidate has completed his oral seminar report.

May 28, 1971  
Date

Seminar Paper Advisor

This seminar paper is approved for the Graduate College:

May 28, 1971  
Date

Dean, Graduate College
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To Dr. Andris Ziemelis, research advisor, the writer expresses his sincere gratitude and appreciation for the expert direction and supervision which were provided throughout the entire course of this study.
ABSTRACT

The purpose of this study was to determine the approximate amounts of summer savings among students attending WSU - La Crosse, and to compare these amounts with those assessed to financial aid applicants for expected student contributions. Three independent variables which might affect student summer savings were examined. These consisted of sex, year in school, and the reception or nonreception of financial aid.

The subjects for the study were 160 randomly selected undergraduate students attending WSU - La Crosse during the 1971 Spring Semester. Equal numbers of subjects were chosen to represent each independent variable combination.

The instrument used to gather data for the study was a 12 item, multiple choice type questionnaire. After the data were gathered, the responses were tabulated by computer. A 2 x 2 x 4 Factorial Analysis of Variance was performed upon the amount of summer savings, with sex, year in school, and the reception or nonreception of financial aid as independent variables.

The results of the study indicate that the main effect of sex upon the amount of summer savings was significant. Males saved a significantly larger amount during the summer than did females. The effects of year in school and the reception or nonreception of financial aid upon the amount of summer savings were nonsignificant, as were all interaction effects.

The results further revealed that amounts presently assessed to student applicants for summer savings did not accurately reflect the
summer saving potential of the student body. Average amounts saved by students attending WSU - La Crosse were found to be considerably lower than those amounts expected by the office of financial aid.
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CHAPTER I

INTRODUCTION

Student financial aid today introduces the possibility of college education for an ever increasing proportion of our society. Increases in student population, rising educational costs, and an inflated economy have made it imperative that student aid be provided to meet the increased financial needs of today's college students. The combined effort of parents and students often falls short in meeting college expenses. Consequently, financial aid must be awarded to fill the deficit.

Financial aid facilities in our colleges have, out of necessity, become complex operations, serving large numbers of students and allocating great amounts of money. Because the amount of aid is limited and the demand is great, the awarding of aid must be based on sophisticated processes, relying most heavily on impartial and objective means in determination of financial need. The common goal of financial aid departments is to supply the largest amount of aid to students having the greatest need. Bowman (1966) stated: "College admission and attendance should be totally unrelated to the existing finances of the applicant." Since financial aid programs are constantly changing, financial aid administrators must strive always to improve their methods for meeting the needs of students. New programs increase the complexity of aid operations and make it imperative that departments be reformed and procedures be updated.

Financial need is determined by subtracting the total possible
parent and student contributions from the total educational cost. By definition, then, parents and students are expected to contribute all that they can toward educational costs. This study is concerned with that portion of the student contribution derived from summer savings.

**Statement of problem**

This study represents an attempt to determine whether or not the assessed student contribution from summer savings, used by the Wisconsin State University - La Crosse Financial Aid Office, accurately reflects the summer saving potential of the student body.

The purpose of this study was to determine the approximate amounts of summer savings among students attending Wisconsin State University - La Crosse during the 1970-71 school year.

**Need for the study**

The distribution of financial aid today involves large sums of money and is based on the accurate and objective determination of student financial need. Valid determination of need is the only way in which an equitable distribution of the available resources can be achieved. To insure complete fairness, more precise measures for determining need must be devised and implemented.

Presently, in determining need, financial aid officers adhere to the philosophy that financial aid is to be awarded only after; (1) the parents have contributed all that they can, and (2) the students have contributed as much as they are expected to contribute for meeting educational costs.

As indicated above, it is assumed that all students are able to contribute an amount toward college expenses. The College Scholarship
Service points out that: "... the student has an obligation to assume a responsibility for a portion of the cost of his education. This obligation is reflected through a systematic expectation of contribution from a student's own savings and employment income." Since a large percentage of this amount results from summer employment, and because of the extreme difficulty in assessing each student an individual amount, financial aid departments have found it necessary to assess each student a standardized amount based on sex and year in school.

It is realized by financial aid experts that amounts which students can earn and save during summers vary greatly. These amounts are dependent upon such factors as the health, skills, age, and sex of the applicant, employment and economic conditions, geographic location, etc. For these reasons it is vitally important that the amount assessed each financial aid applicant be as accurate, equitable, and appropriate as possible.

Because many variables could potentially affect one's summer earnings, it is important to periodically reevaluate the validity of the need determination formula. The most recent study regarding student summer savings at Wisconsin State University - La Crosse was completed in 1968 by the office of financial aid. Recent economic and unemployment conditions suggest that more current information is needed to assure the accuracy and validity of student contribution amounts. Summer employment predictions for 1971 indicate the worst student employment market in recent years. Thus, changes in the most important variables affecting student summer savings, point toward the need for an updating study in this area.
Definition of terms

Financial aid: The amount of money allocated which parents and students cannot be expected to contribute or cannot contribute toward the cost of attending college.

Expected student contribution from summer earnings: An amount from summer earnings which each student aid applicant is expected to contribute toward meeting the cost of his education. The contribution is standardized, differing according to sex and year in school. The amount of the contribution begins with $400 for pre-freshmen males and $300 for pre-freshmen females and rises $50 per year in school.

College Scholarship Service: An agency of the College Entrance Examination Board which was established in 1954 to assist colleges, universities, and scholarship agencies in the equitable distribution of student financial aid resources.

Parent Confidential Statement: A lengthy and sophisticated evaluative instrument devised by the College Scholarship Service for determining financial need. The procedure utilizes the Income-Assets method for estimating parental contributions. The origin of this system stems from a great number of studies of what families in various income brackets with various numbers of children can seemingly contribute without accruing severe economic hardships.

Need analysis: A procedure conducted by CSS to determine student financial need established in reference to the cost of attending the institution.

Packaging of aid: Meeting the student's financial need with a combination of one or more programs for which he may qualify.
Scholarship: A gift award to a student who meets certain qualifications.

Grant: A gift award to a student which may or may not require a specific level of academic performance.

National Defense Student Loan: A federal aid program included in the National Defense Education Act of 1958. The program provides low cost student loans to college students who have established financial need.

Educational Opportunity Grant: A federal gift award of up to $1,000 per year based on financial need. The aid is provided for by the Higher Education Act of 1965.

College Work-Study Program: A federal program provided for by the Economic Opportunity Act of 1964. This program combined federal and college funds to encourage and to extend the employment of students, both on the campus and in nonprofit off-campus agencies. The provisions of this program state that preference in employment must be given to students from low-income families.

Sample

The subjects for this study were unmarried, undergraduate students attending Wisconsin State University during the Spring semester of 1971. In total, 160 students were included. Foreign and married students were omitted from the study because different procedures are used in considering them for student financial aid.

Assumptions and hypotheses

It was assumed that students contribute all that they can toward financing their educations and that the main source of this contribution
is savings from summer earnings.

The following four hypotheses were tested in this study.

1. Males will report larger earnings and savings from summer employment than will females.

2. As a student progresses toward graduation, his reported summer earnings and savings will increase.

3. Financial aid recipients will have lower reported summer earnings and savings than will nonrecipients.

4. No differences exist between expected student contribution amounts assessed to each financial aid applicant and reported amounts actually saved by the student body of WSU - La Crosse.
CHAPTER II

RELATED LITERATURE

There is a distinct lack of previous research in the field of student financial aid. The limited research in this area can be divided into two broad categories; (1) research conducted before 1964, and (2) research conducted from 1964 to the present. The year 1964 was an important one in the modern history of financial aid as it was at this time that the federal government introduced its first national program of aid based on the individual financial need of the student. The program was called College Work-Study and was soon followed by many other state and federal programs which utilized the same philosophy of aiding needy students.

Studies prepared before 1964 were often narrow in scope and unrelated to financial aid as it is known today. They dealt with the type of aid available at that time. Early financial aid was often in the form of scholarship programs which were organized to provide aid for special groups of students, such as those studying to become teachers, doctors, and nurses. Institutions used aid funds to recruit students in the hope that the students receiving aid would be able to attract other students. Some examples of these programs were gifts awarded to students with ability in athletics, debating, music, and other fields.

Colleges began using their funds to attract students with academic or other special talents, with no regard to the financial positions of these individuals. The term "scholarship" became known as a gift used to
reward special talents. The names of these gifts became familiar as "academic scholarship", "athletic scholarship", or "music scholarship".

Van Dusen and O'Hearne (1968) stated that the theories behind student aid began to change in the late 1950's. This shift began with the National Defense Education Act of 1958. The National Defense Student Loan Program was a major student aid effort established by the federal government. Through this program, the emphasis on aid was changed from scholarship to a combination of scholarship and need. Van Dusen and O'Hearne stated in 1968: "Although the NDSL Program was clearly a loan program it followed the pattern established by earlier scholarship programs in that it required that preference among needy student borrowers be given to those of exceptional promise who would enter such critical areas as mathematics, science, foreign languages, engineering, and education. (Preference consideration for outstanding students preparing to enter those special areas is no longer mandated by the NDSL Program)." (P.4)

Research conducted in the field of financial aid before 1961 dealt mainly with analyzing individual types of aid and their relationships to college attendance and performance. The studies also seem to have a primary objective of determining the sources of money spent by college students for their educations.

A study conducted by Dickinson and Newbegin (1959) for the purpose of determining the relationship between student employment and predicted grades found that outside employment seems to have either a slightly negative or essentially no relationship with academic work. They found, as could be expected, that the greater the number of hours worked, the lower the achievement and the fewer number of credits
completed. The study did show that students can work from five to 14 hours per week with no undesirable effects on academic achievement.

These early approaches to the study of student financial aid indicated that a relationship between aid decisions and the socioeconomic class of applicants might exist. Cliff and Ekstrom (1962) reported that families of scholarship applicants were more highly educated and tended to earn more than the general population. They also found that "(1) The amount of assets which parents have for financing college is small relative to the actual cost of college. (2) Families tend to underestimate the cost of college. (3) Parents were found to have contributed about half of the money for college, with student savings, student earnings, and scholarships providing the remaining amount." (P. 159)

Lansing, Lorimer, and Moriguchi (1960) found that the educational level of the parents and number of children in the family were predictive of the amount of parent's contribution toward expenses, but that the sex of the child was not. They found that there was very little planning for college expenses by families with pre-college children.

Cliff (1962) found that the family contribution toward college expenses seemed to be largely independent of how the money was earned. The amount of family contribution is correlated most highly with family income, parental acceptance, cost of college, and amount of aid available. Other variables such as assets, indebtedness, and other children in college had a reduced effect on total family contribution.

Miller, Ivery, and Goldstein (1964) found that 39% of students surveyed desired employment and that one half of all student employment would be met through university jobs. They also found that 20% of the student body had applied for loans. They found that
student attitudes toward loans were changing and that loans were becoming increasingly important as a source of financial support. This study also revealed that only 6% of the student population received scholarships or grants. They noted a trend for fewer scholarships to be offered by state universities as compared to private universities.

Financial aid as we know it today actually began in 1964 with the passage of the Economic Opportunity Act, which authorized the College Work-Study Program. This program combined federal and college funds to encourage the employment of students on campus. This program is restricted to students from low-income families.

The Higher Education Act of 1965 centralized student aid activities in the United States Office of Education and established the Educational Opportunity Grant Program. This program authorizes direct grants, which are not to be repaid, to students who demonstrate that they and their families are unable to pay for higher education.

As pointed out by Van Dusen and O'Hearne, "The major federal programs of student aid have now departed from an earlier practice of limiting eligibility to academically superior students. The essential criterion of these programs is the student's need for funds. This need can be met through a combination of aid forms depending on the degree of need established by the student." (P. 5)

Recent research deals with these present concepts of aid and attempts to determine the effectiveness of this aid as well as to predict for the future. Schlekat (1968) found that more than half of all applications for financial aid were rejected because of lack of need. The lower the socioeconomic class level, the lower was the probability of a rejection for aid. This study indicated that socioeconomic class should
be a variable for consideration in administering and developing financial aid programs.

Henry (1969) wrote about trends in student financial aid and the changing philosophy and structure of aid programs. He stressed the challenge to meet the needs of the disadvantaged student. Henry stated: "There seems to be a special attempt to seek out and motivate disadvantaged students, particularly those of minority races. The Higher Education Act provided funds to prepare talent searches which would seek out the most talented students from extremely low income bracket families." (P. 229) Henry also found that there is a trend toward easing the college costs of many middle class income groups. Because of the high costs of education, students from this category often cannot finance totally their college careers. The author mentioned that the increased aid for vocational-technical students and the growth of state aid programs are current trends in student financial aid.

Barber and Caple (1968) conducted a research study to determine the relationship of the federal Educational Opportunity Grant to attrition in college students. The authors attempted to discover new variables affecting college persistence. They found no new basis for predicting college success. The most discriminating variables for the Educational Opportunity Grant recipients and persistence were scholastic ability and academic achievement. The amount of financial aid had no effect on persistence in college.

Studies directly related to that portion of student contributions derived from summer earnings have been conducted on individual college campuses since the modern concept of financial aid began in 1964. While no full scale research has been conducted by the College Scholarship
Service as to the actual student contribution from summer earnings, CSS has consolidated many of the individual studies and has formulated a general guideline for self help by students. Member institutions are encouraged to conduct their own research in this area, using CSS figures as a bearing and individualizing according to their own situation.

For many years, the College Scholarship Service expected a pre-freshmen contribution of $250 for male students and $150 for female students. Bowman of the College Scholarship Service in 1969 stated: "The period of 1955-1966 has been one of unparalleled economic growth which has seen the median money income of families in the United States increase by about 70%. Adjusted for increase in the price level, real income has grown by some 40%. There is every evidence that in general, students have been able to share in this economic growth, both in terms of job opportunities and in higher pay for employment." (P. 2)

As a result of the economic expansion of the 1960's, CSS increased expected student contributions in 1969 to $300 for pre-freshmen males and $200 for females. These guidelines were again reestablished in 1970 to $400 for pre-freshmen males and $300 for females.

As was stated earlier, Stadthaus (1968) conducted a study to determine student summer earning and saving potential at Wisconsin State University - La Crosse. The results of the Stadthaus study revealed that the average summer savings for female Freshmen was $265, Sophomore - $361, Junior - $344, Senior - $214. The comparative figures for males were; Freshmen - $526, Sophomore - $610, Junior (figures not available), Senior - $625. Stadthaus concluded that it was very difficult to assess completely accurate standardized amounts for student contributions as the range of earnings was quite diversified. Because many students were either
considerably above or below the average, any standardized amount would not be completely equitable. The study did disclose, however, that all categories of students sampled (with the exception of Senior females) had savings exceeding the maximum amount expected at that time. Consequently, the expected student contribution in the need analysis formula for 1969 was increased by $50 for all students.

Another consequence revealed by the study was the need for more individualization regarding the assessment of student contributions. Resulting from the observance that many students were unable to save any money from summer employment, steps were taken to reduce or omit expected contributions from certain financial aid applicants.

In summary, then, the studies reported in the previous section were divided into two groups; those before 1964 and the more recent studies involving the area of student financial aid as it is today. Recent studies appear to deal with how to best meet financial need and seem to emphasize the increased costs for college and the increased need for student aid. They also disclose the vast increase in the availability and reception of aid. Van Dusen and O'Hearne indicated that the total amount of aid increased from $96 million in 1955-56 to $2.2 billion in 1968-69. The number of students aided during 1968-69 was over one million.

The recent literature also points out that students no longer apply for specific types of financial aid. Resulting from the centralization of financial aid department operations, students now apply for financial aid in general. Students who are able to establish financial need, have this need met by a combination of aid sources, depending on the degree of need which they have established.
As student contributions are considered in current financial need analysis methodology, studies to determine student summer earnings and savings play an important part in financial aid research. Each institution adhering to the philosophy of need as the basic criteria for awarding aid must accurately determine the saving potential of their student body.
CHAPTER III

PROCEDURE

Three independent variables which might ostensibly affect student summer savings were manipulated in this study. These were: (1) sex; (2) year in school; and (3) reception or non-reception of financial aid. The independent variable combinations yielded a following $2 \times 2 \times 4$ factorial design. (See Figure 1.)

<table>
<thead>
<tr>
<th>(X-1) Sex</th>
<th>(X-2) Reception or Non-reception of Financial Aid</th>
<th>(X-3) Year in School</th>
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<td>Freshman</td>
</tr>
<tr>
<td></td>
<td>Off Aid</td>
<td>Sophomore</td>
</tr>
<tr>
<td>Female</td>
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<td>Junior</td>
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<tr>
<td></td>
<td>Off Aid</td>
<td>Senior</td>
</tr>
</tbody>
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Fig. 1. Illustration of a $2 \times 2 \times 4$ Factorial Design With 16 Treatment Groups.

A stratified random sample of undergraduate students attending Wisconsin State University - La Crosse during the 1971 Spring Semester was selected. Students for the sample were chosen from the 1971 Student Permit List distributed by the Office of the Registrar. The permit list contained the names of all students who were accepted for admission for the 1971 Spring Semester. This listing also included the sex and year in school of each student. The sample was chosen by selecting the name of every 35th male and female freshman and every 20th male and female upperclassman.
This selection resulted in a random sample containing eight groups of names based on sex and year in school. These categories were then screened for the purpose of separating financial aid recipients from nonrecipients. Using information provided by the Financial Aid Printout, a listing of all financial aid recipients, subjects were further divided into groups of students who were receiving aid and those not receiving aid. A random selection of 15 names from each group constituted the listing of students to whom questionnaires were mailed.

The instrument used to gather data for the study was a twelve item, multiple choice type questionnaire. (See Table 1.) The questionnaire was formulated under the direction of Mr. Clarence Althaus, Director of Financial Aid at Wisconsin State University - La Crosse. Although not directly related to this study, many of the items used in the questionnaire were included to supply the office of financial aid with information about groups of students who were recipients or non-recipients of student financial aid.

After the names of prospective respondents were chosen, each student was asked to complete the questionnaire and return it to the researcher. The directions stated that the study was being used to compare groups of students attending Wisconsin State University - La Crosse. The students were informed that their identities were not a concern of the researcher and that it was preferred that they would remain anonymous.

The introduction to the questionnaire was purposefully written in an ambiguous manner as it was felt that students might exaggerate the amounts reported for summer savings if they realized that the study dealt primarily with those figures.
TABLE 1.
ITEMS INCLUDED IN THE QUESTIONNAIRE

1. ___ (1) Male (2) Female

2. ___ Year in School: (1) Freshman (2) Sophomore (3) Junior (4) Senior

3. ___ Population of Hometown: (1) Rural (2) Under 1,000 (3) 1,000-5,000
(4) 5,000-10,000 (5) 10,000-25,000 (6) 25,000-50,000 (7) over 50,000

4. ___ (1) Resident of Wisconsin (2) Nonresident

5. ___ Amount of your earnings last summer: (1) Under $100 (2) $100-200
(3) $200-300 (4) $300-400 (5) $400-600 (6) $600-800 (7) Over $800

6. ___ How much of the amount listed in #5 were you able to save?
(1) Under $100 (2) $100-200 (3) $200-300 (4) $300-400
(5) $400-600 (6) $600-800 (7) Over $800

7. ___ Did you live at home last summer? (1) Yes, I lived at home.
(2) No, I did not live at home. (3) I lived away from home,
but with relatives.

8. ___ Participation in college extracurricular activities: (1) High
Participation (2) Medium Participation (3) Low Participation

9. ___ Are you currently employed? If so, indicate the number of hours
you work per week. (1) Under 10 (2) 10-20 (3) 20-30 (4) 30-40
(5) Over 40

10. ___ Did you attend summer school last summer? (1) Did not attend
summer school. (2) Attended as a full time student. (3)
Attended as a part time student.

11. ___ Number of credits you are presently carrying: (1) Under 6
(2) 6-9 (3) 9-12 (4) 12-15 (5) 15-18

12. ___ Current Grade Point Average: (1) Under 2.0 (2) 2.0-2.25
(3) 2.25-2.5 (4) 2.5-2.75 (5) 2.75-3.0 (6) Over 3.0
The twelve items on the questionnaire dealt with subjective information easily recallable by the respondents. Each item contained a number of alternatives from which the respondent was to choose the appropriate reply. The dependent variable, the amount of summer savings which the respondent was able to save, was the sixth item on the questionnaire.

The information needed to analyze the three independent variables was also included on the questionnaire. Items one and two of the instrument dealt with the sex and year in school of the respondents. The other independent variable, whether or not the student was a financial aid recipient, was obtained by using a color code. White sheets of paper were sent to subjects who were not recipients of financial aid, and colored sheets were used for students who were receiving aid.

The respondents were not asked on the questionnaire if they were recipients of student financial aid because it was felt that a question of that nature would affect both the accuracy of information submitted and the per cent of reply. Students receiving aid might hesitate to report high summer earnings and savings as the amount of aid awarded is contingent upon financial need.

In total, 285 questionnaires were sent to randomly selected students. Of this number, 211 were returned, constituting a 75% reply. Because certain groups of students responded at a lower rate than was expected, it was necessary to mail additional questionnaires to a subsequent random sample representing the incomplete groups. As a result of the second mailing, many of the 16 groups contained more than 10 questionnaires. The extra responses were randomly deleted, thus reducing each group to the appropriate sample size.
The questionnaires were then sorted according to 16 groups, each containing 10 students and each representing one of the independent variable combinations. The data gathered were analyzed by the use of a $2 \times 2 \times 4$ Factorial Analysis of Variance.
CHAPTER IV

RESULTS

The presentation of results is divided into three sections: descriptive data; tests of significance; and graphic representations.

Descriptive Data

Coded means, representing amounts of summer savings reported by each of the 16 groups of students at WSU - La Crosse are shown in Table 2. The grand mean for all 16 groups was 3.4, indicating an average summer savings figure for the entire student body of under $300. Comparing males and females, the grand mean for males was 3.8, while the females had a mean of 3.1. A comparison of recipients of financial aid with nonrecipients revealed means of 3.35 and 3.53, respectively. Means for year in school comparisons were Freshmen - 3.20, Sophomores - 3.65, Juniors - 3.93, and Seniors - 2.97.

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<td>A(_1)</td>
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<td>A(_2) - Females</td>
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<tr>
<td>B(_1) - Freshmen</td>
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<tr>
<td>B(_2) - Sophomores</td>
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<td>B(_3) - Juniors</td>
</tr>
<tr>
<td>B(_4) - Seniors</td>
</tr>
<tr>
<td>C(_1) - Recipients of Aid</td>
</tr>
<tr>
<td>C(_2) - Nonrecipients</td>
</tr>
</tbody>
</table>
Table 3 compares the dollar amounts actually saved by the students in the study with the expected contribution amount used in the financial need determination formula. A direct comparison of exact amounts cannot be accomplished as this study was not structured to yield specific dollar figures for summer savings amounts. Included in the questionnaire were only categories of amounts, divided into increments of $100 and $200. Using these categories, the comparisons shown in Table 3 indicate that for every group listed, savings were lower than the amount expected from that group.

**TABLE 3**

A Comparison of Actual and Expected Summer Savings Amounts

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>ACTUAL SAVINGS</th>
<th>EXPECTED SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE FRESHMEN</td>
<td>$200-300</td>
<td>$400</td>
</tr>
<tr>
<td>MALE SOPHOMORES</td>
<td>$200-300</td>
<td>$450</td>
</tr>
<tr>
<td>MALE JUNIORS</td>
<td>$300-400</td>
<td>$500</td>
</tr>
<tr>
<td>MALE SENIORS</td>
<td>$200-300</td>
<td>$550</td>
</tr>
<tr>
<td>FEMALE FRESHMEN</td>
<td>$200-300</td>
<td>$300</td>
</tr>
<tr>
<td>FEMALE SOPHOMORES</td>
<td>$200-300</td>
<td>$350</td>
</tr>
<tr>
<td>FEMALE JUNIORS</td>
<td>$200-300</td>
<td>$400</td>
</tr>
<tr>
<td>FEMALE SENIORS</td>
<td>$100-200</td>
<td>$450</td>
</tr>
</tbody>
</table>

Tables 4 through 6 present the percentages of responses to item number six of the questionnaire for the three independent variable groups used in the study.

In the comparison between males and females shown in Table 4, it
was found that males more frequently than females, endorsed the higher amount categories. Table 4 also reveals that 57.1% of the males saved less than $400 and 61.1% of the females saved less than $300; the minimum expected savings for male and female aid applicants.

**TABLE 4**

Percentages of Reported Summer Savings As A Function of Sex

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>Under $100</th>
<th>100-200</th>
<th>200-300</th>
<th>300-400</th>
<th>400-600</th>
<th>600-800</th>
<th>Over 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALES</td>
<td>22.5</td>
<td>16.2</td>
<td>10.0</td>
<td>8.7</td>
<td>14.9</td>
<td>6.2</td>
<td>21.2</td>
</tr>
<tr>
<td>FEMALES</td>
<td>38.7</td>
<td>8.7</td>
<td>13.7</td>
<td>8.7</td>
<td>13.7</td>
<td>8.7</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Table 5 presents a comparison of the percentage distributions of responses for Freshmen, Sophomores, Juniors, and Seniors. The data suggest that no significant differences are present. However, slight similarities in responses among the Freshmen and Senior groups and among the Sophomore and Junior groups are noted. Sophomores and Juniors had a greater percentage of responses in the higher amount categories than did Freshmen and Seniors.

**TABLE 5**

Percentages of Reported Summer Savings
As a Function of Year in School

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>Under $100</th>
<th>100-200</th>
<th>200-300</th>
<th>300-400</th>
<th>400-600</th>
<th>600-800</th>
<th>Over 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRESHMEN</td>
<td>27.5</td>
<td>10.0</td>
<td>27.5</td>
<td>5.0</td>
<td>17.5</td>
<td>5.0</td>
<td>7.4</td>
</tr>
<tr>
<td>SOPHOMORES</td>
<td>27.5</td>
<td>17.5</td>
<td>7.4</td>
<td>7.4</td>
<td>12.5</td>
<td>5.0</td>
<td>22.5</td>
</tr>
<tr>
<td>JUNIORS</td>
<td>27.5</td>
<td>5.0</td>
<td>7.4</td>
<td>10.0</td>
<td>22.5</td>
<td>12.5</td>
<td>14.9</td>
</tr>
<tr>
<td>SENIORS</td>
<td>40.0</td>
<td>17.5</td>
<td>5.0</td>
<td>12.5</td>
<td>5.0</td>
<td>7.4</td>
<td>12.5</td>
</tr>
</tbody>
</table>
In Table 6, the percentages of reported summer savings as a function of the reception or nonreception of financial aid are presented. No significant differences in amounts of summer savings are noted. However, it appears that the distribution of savings is more positively skewed for students receiving aid than for those not receiving aid.

**TABLE 6**

Percentages of Reported Summer Savings As a Function of The Reception or Nonreception of Financial Aid

<table>
<thead>
<tr>
<th>GROUPS</th>
<th>Under $100</th>
<th>100-200</th>
<th>200-300</th>
<th>300-400</th>
<th>400-600</th>
<th>600-800</th>
<th>Over 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>WITH AID</td>
<td>39.5</td>
<td>9.8</td>
<td>8.6</td>
<td>6.1</td>
<td>8.6</td>
<td>9.3</td>
<td>17.2</td>
</tr>
<tr>
<td>WITHOUT AID</td>
<td>21.5</td>
<td>15.1</td>
<td>15.1</td>
<td>11.3</td>
<td>20.2</td>
<td>5.0</td>
<td>11.3</td>
</tr>
</tbody>
</table>

**Discussion of the Test of Significance**

A three-way analysis of variance was performed on the amount of summer savings, with sex, year in school, and the reception or nonreception of financial aid representing independent variables. The main effect of sex was significant (F=4.877, df 1/144, P<.05); but the effects of year in school and the reception or nonreception of aid were not significant (F=1.597, df 3/144, P>.05, and F=0.264, df 1/144, P>.05, respectively). All interactions were nonsignificant. (See Table 7).

The first hypothesis stated that males saved more during the summer than did females. The three-way analysis of variance indicates that the main effects of sex upon summer savings are significant, with P<.05, thus confirming hypothesis one.

The second hypothesis stated that, as college students progress toward graduation, summer savings would increase for each year of
TABLE 7
Analysis of Variance of Reported Summer Savings as a Function of
Sex, Year in School and the Reception or Nonreception of Financial Aid

<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SUM OF SQUARES</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEX (A)</td>
<td>22.49</td>
<td>1</td>
<td>22.49</td>
<td>4.877</td>
<td>.05</td>
</tr>
<tr>
<td>YEAR (B)</td>
<td>22.09</td>
<td>3</td>
<td>7.37</td>
<td>1.597</td>
<td>NS</td>
</tr>
<tr>
<td>AID (C)</td>
<td>1.22</td>
<td>1</td>
<td>1.22</td>
<td>0.264</td>
<td>NS</td>
</tr>
<tr>
<td>A X B</td>
<td>2.79</td>
<td>3</td>
<td>0.93</td>
<td>0.201</td>
<td>NS</td>
</tr>
<tr>
<td>A X C</td>
<td>8.10</td>
<td>1</td>
<td>8.10</td>
<td>1.755</td>
<td>.25</td>
</tr>
<tr>
<td>B X C</td>
<td>12.06</td>
<td>3</td>
<td>4.02</td>
<td>0.872</td>
<td>NS</td>
</tr>
<tr>
<td>A X B X C</td>
<td>34.62</td>
<td>3</td>
<td>11.54</td>
<td>2.502</td>
<td>.10</td>
</tr>
<tr>
<td>WITHIN</td>
<td>664.01</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>767.38</td>
<td>159</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

attendance. Review of Table 7 reveals that this hypothesis was not confirmed.
Also, the mean scores for year in school fell in the predicted direction
for Freshmen, Sophomores, and Juniors, but the differences were not signifi-
cant. The data further revealed that the sample of seniors, instead of
saving the most, actually reported saving the least of all.

The third hypothesis, that recipients of financial aid would have
lower summer savings than nonrecipients, also failed to be confirmed.
A trend was present for female aid recipients, as they did appear to
save less than nonrecipients. However, the situation was reversed for
males, with recipients of aid reporting saved the larger amounts.

The null hypothesis, that no differences existed between assessed
student contributions and actual student savings, was rejected. A Sign
test performed upon the data yielded a significant trend in that actual savings were lower than expected savings for each of the eight groups. A finding of this kind could occur by chance only seven out of 1,000 times.

Discussion of Figures

Figure 2 represents the various group means with respect to summer savings. Although year in school was found to have no significant effects upon summer savings, a definite trend was noted. Freshmen saved less than Sophomores, who in turn saved less than Juniors. However, Seniors saved the least of all. This trend appeared consistently for all groups, with the exception of female aid recipients, who reversed the trend.

Figure 3 presents the mean scores for males and females per year in school (excluding financial aid consideration). Increases in mean scores through the Junior year, with a decrease for Seniors are displayed by this graph. Also, males saved more than females for all four years of attendance. The mean differences in reported savings for sex, according to year in school were; (1) Freshmen .4, (2) Sophomores .6, (3) Juniors .95, and (4) Seniors 1.05. The average male advantage was .77, or between $50 and $100 for each year in school.

Figure 4 presents the mean scores for male and female aid recipients and nonrecipients. The mean scores for males with financial aid and without financial aid were 39.50 and 36.75, respectively. The comparative figures for females were 27.50 and 33.75. The mean scores for males and females contradicted each other as male aid recipients saved more than nonrecipients, while female aid recipients saved less than nonrecipients.
Fig. 2. - Reported Summer Savings as a Function of Sex and Year in School.
Fig. 3. - Reported Summer Savings as a Function of Sex, Year in School and the Reception or Nonreception of Financial Aid
Fig. 4: Reported Summer Savings as a Function of Sex and the Reception of Financial Aid.
CHAPTER V

CONCLUSIONS, RECOMMENDATIONS, AND SUMMARY

The purpose of the foregoing study was to estimate the summer savings potential of the WSU - La Crosse student body and to compare this potential to amounts which student financial aid applicants were expected to contribute toward educational costs. An analysis of the results yielded the following conclusions: (1) males saved significantly more than females; (2) savings increased for each year in school through the junior year, with a decrease for the senior year; (3) the reception or non-reception of financial aid did not significantly affect summer savings; and (4) summer savings amounts assessed to student aid applicants were higher than the amounts which the students actually reported saving.

Sex

Probably the primary reason for male savings being significantly higher than female savings is the fact that summer employment opportunities are much broader for males than for females. During the summer, most industries expand their operations, thus creating additional jobs. Many of the jobs established by expansion of industrial operations during the summer are the unskilled, physical labor type, for which males are best suited. Another possible explanation is that parents consider sons to be more independent than daughters and expect them to work during the summer and to share in their own maintenance. It has been found that greater numbers of females attend summer school than males. This hinders summer
employment possibilities; however, it is not known how many females attend summer school because employment is not available.

Class

There appear to be many possible explanations for increases in summer savings as a function of years completed in school. Age might be the prominent reason. Many freshmen are not 18 years of age upon graduation from high school. Consequently, they are unable to meet the age limit regulations required for entry into many occupations. If students who are under 18 are able to locate employment, it is often of a part-time, low remuneration capacity. In a tight job market such as existed in 1970, 18 and 17 year old students are usually among the last groups to be hired.

Just as the quantity of summer employment positions increase per year in school, so does the quality of such positions. Older students are generally more mature and may be given jobs involving more responsibility which in turn may yield higher salaries. Once a student gains experience at a certain job, his chances for being hired the following summer are increased.

Some other reasons for savings to increase per year in school include the possibility that an increase in the educational level of a worker also increases ones chances for employment possibilities. For example, a physical education major may become a head life guard because of his participation in health and safety courses in college.

A final consideration is the maturity each student gains as his education progresses. Most students learn to accept greater responsibility and to assume more of the burden of financing an education as they become older. As a result, a larger proportion of summer savings may be saved for
The reasons why summer savings decrease during the senior year of college attendance may also be quite varied. One possible theory is that seniors earn as much or more than underclassmen, but because of increased expenses, spend a larger proportion of their earnings. Seniors find themselves nearing full time professional employment and may begin preparing for this role while still in college. This preparation might involve the purchase of new wardrobes, automobiles, professional equipment, etc. Many seniors discover that they must spend extra sums of money for transportation expenses incurred while searching for employment. Also, many seniors incur extra expenses because of marriage preparations.

Another explanation for a decrease in savings during the senior year could be due to the fact that many seniors accept summer jobs commensurate with their chosen educational field. Often these jobs are accepted for their related experience value without consideration of salary benefits. Such jobs as camp counselors, playground supervisors, and teacher aides are low salary positions, but are often sought by senior education majors for the practical experience they render.

A further consideration is that many students attend summer school during their senior year in an attempt to graduate within the traditional four years. Summer school attendance definitely impedes the possibility of high summer earnings and savings.

Reception vs. Nonreception of Aid

The third major finding was that financial aid consideration failed to significantly affect summer savings amounts. It was felt that students who received aid would have lower savings particularly because
of their established financial need. It seemed logical that students with parents having low incomes or large families would use a greater proportion of their summer savings to contribute to their own support. Consequently, it was felt that they would not be able to save as much for educational purposes as students from families with no financial need. The study indicated, however, that student saving potential seemed to be independent of parental financial status.

Equity of Summer Savings Assessments

The last finding of significance revealed that the summer savings potential of the student body had diminished considerably from amounts saved in 1968, and that amounts which student aid applicants were required to contribute from summer savings were no longer appropriate or equitable. Such inequities may be present as the result of a combination of circumstances. In 1968, the office of financial aid conducted a study to determine approximate summer savings averages in order to update student contribution amounts. (Stadthaus 1968) This study was conducted during the latter portion of a prosperous economic situation. As a result, average summer savings figures were found to be quite elevated. In 1969 the College Scholarship Service readjusted its student contribution guidelines upward. Because of the results of the 1968 study, WSU - La Crosse also increased student contribution amounts. After the 1968 study, however, the prosperous economic situation began to decline and unemployment began to increase. Despite this decline, CSS again raised student contribution amounts in 1970. WSU - La Crosse again adhered to CSS guidelines, differing somewhat in amounts expected from sophomores and juniors.
The present study indicates that student savings have decreased since 1968 and suggests that the guidelines published by the College Scholarship Service in 1970 are no longer appropriate for WSU - La Crosse. The inequities noted in the present study seemingly resulted, then, from a reversal of the prosperous economic trend of the 1960's and the adherence to CSS guidelines without a follow-up of the 1968 study.

Other possible explanations for the decrease in summer savings could center around the spending habits of the student body. It is possible that student earnings have not decreased, but that student spending has increased. As was noted earlier, student expenses may have increased, thus lowering possible savings amounts. Closely associated with this thought is the fact that nearly one half of the student body at WSU La Crosse is employed during the entire school year. Financial need methodology is not structured to include these additional earnings in the need analysis formula. Students who have constant incomes throughout the year probably do not need to save a large proportion of their summer earnings to meet educational costs.

Possibly the need analysis formula, itself, is too generous in respect to what it actually costs students to attend WSU - La Crosse. If the budgeted amounts for the cost of attendance are too liberal or too high, students would receive more aid than they needed, thus reducing the amounts they would have to save during the summer.

Conclusions

The main conclusion drawn from this study is that an apparent discrepancy exists between expected summer savings as stated in the financial aid need analysis formula and actual amounts saved by the student body at
WSU - La Crosse. Summer savings have decreased by an average amount of $250 since the Stadthaus study in 1968, while during the same period of time, expected student contribution amounts were increased by $150. Many explanations can be offered for the present inequities, however, the most reasonable seem to be those dealing with recent economic changes and the error of adhering to outdated CSS guidelines. Increases in student spending or additional yearly employment could also affect amounts of savings.

It was further concluded that summer savings for college seniors were not higher than for all other years of college attendance, and that additional expenses, summer school considerations, and the acceptance of summer employment for occupational experience all may tend to lower the amounts which seniors are able to save.

**Recommendations**

Based on the results of this study, the following recommendations are made:

1. It is recommended that a study of this nature be conducted annually by each school in the Wisconsin State University system. The office of financial aid at WSU - La Crosse should be responsible for familiarizing each financial aid officer in the state with the results of the present study. Each director should be advised of the necessity for further research in this area and encouraged to initiate the first of these studies shortly after the beginning of the 1971 Fall Semester.

The studies must be completed in conjunction with the preparation of 1972-73 aid packages since 1971-72 proposals have already been awarded. The task must be accomplished by each university in the system because the system is unified in adhering to the same parameters.
for all components of the need determination formula. Thus, any decision to change assessed amounts for summer savings must be a joint agreement based on system averages.

It is felt that all future amounts assessed for summer savings should be reevaluated using systematic methods of research. Guidelines published by the College Scholarship Service should not be followed as they are based on nationwide averages which may not accurately reflect the situation in Wisconsin.

2. Amounts for summer savings assessed to seniors should not be based on the assumption that seniors are able to save more than freshmen, sophomores, or juniors. This study pointed out that because of various possible reasons, seniors reported saving the least of the groups examined. It is recommended that only two separate amounts for summer savings be assessed by the office of financial aid. One amount should be used for freshmen and one amount for the three remaining years of attendance. The assessment amounts according to year in school should be divided at this point because of the disadvantages many freshmen encounter as a result of their age. (i.e., most occupations require an age limit of 18 for entry). Consequently, a large number of freshmen cannot locate gainful summer employment before their first semester of college simply because they are under 18 years of age.

It is felt that the savings figures for sophomores, juniors, and seniors should be combined, with the average being assessed to all upperclassmen. In this manner, seniors would probably be expected to contribute an amount considerably lower than figures presently being utilized. The use of only two amounts would also help in the simplification of financial aid operations.
3. Every effort should be made to contact students who are unable to attain the student contribution figure expected from them. A continuation of the present policy of reducing or omitting contributions for these cases should be in effect. One way these students could be located is through the letter of introduction forwarded with each aid proposal. The last paragraph in this letter presently reads: "This office is ready to assist you in solving your financial problem. We will be pleased to answer your questions or meet with you after you are on campus. We urge you to read all the enclosed material carefully." The following addition to this paragraph would strengthen the contact effect of the letter: "This office is ready to assist you in solving your financial problems. If for any well-grounded reason you are unable to meet college financial obligations, we encourage you to contact the office of financial aid after you are on campus."

4. Every effort should be made to locate more summer jobs for students in La Crosse and the surrounding area. This could include a telephone or written campaign to every local employer who has hired students in the past, informing them of the large numbers of WSU - La Crosse students who are seeking employment. These employers should be urged to hire college students first if an opening arises in their organization.

Employment is a type of aid which enables students to establish a feeling of self pride. The student is less likely to incur debts, and is less likely to have the feeling that "someone is giving him something for nothing." It is felt that an increase in this type of "self help" aid would be very beneficial to both the student body of WSU - La Crosse, and to the institution itself.
Summary

The purpose of the foregoing study was to determine the approximate amounts of summer savings among students attending WSU - La Crosse, and to compare these amounts with those actually assessed to financial aid applicants for expected student contributions. Three independent variables which might affect student summer savings were tested. These consisted of sex, year in school, and the reception or nonreception of financial aid.

A 2 x 2 x 4 Factorial Analysis of Variance was performed upon the amount of summer savings, with sex, year in school, and the reception or nonreception of financial aid representing independent variables.

The results of the study indicated that the main effects of sex upon the amount of summer savings were significant. Males saved significantly larger amounts during the summer than did females. The main effects of year in school, and of the reception or nonreception of financial aid were nonsignificant. All interaction effects were also nonsignificant.

The results further revealed that amounts presently assessed to student aid applicants for summer savings do not accurately reflect the summer savings potential of the student body. Average amounts saved by the student body were consistently found to be lower than those expected by the office of financial aid.
ADDENDUM

Whenever a questionnaire is used to gather data, the possibility exists that responses to items may not be completely accurate. The questionnaire used in this study contained items dealing with amounts of summer earnings and savings. It is felt that there could be differences between reported summer savings and amounts actually saved by the respondents. As a result, whenever amounts are included in the study as "actual savings", it must be realized that these are "reported savings".
BIBLIOGRAPHY


