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2-1-1991

## Is There a Correlation Between Grade Point Average and Credit Hours Completed of Defaulters and Non-Defaulters?

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Is there a correlation between  
grade point average and credit hours  
completed of defaulters and non-defaulters?

A Field Project Proposal

Presented to the  
Department of Educational Administration  
and the  
Faculty of the Graduate College  
University of Nebraska at Omaha

In Partial Fulfillment  
of the Requirements for the Degree  
Specialist in Educational Administration  
University of Nebraska at Omaha

by  
Dennis M. Martin  
February, 1991

UMI Number: EP74061

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FIELD PROJECT ACCEPTANCE

Accepted for the Graduate Faculty, University of Nebraska, in partial fulfillment of the requirements for the degree Specialist in Education, University of Nebraska at Omaha.

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## CHAPTER ONE

### Introduction

#### Context of the Problem

The gross percentage of Guaranteed Student Loan defaults, in 1986, was more than 20 per cent at 2,190 of the institutions participating in the Guaranteed Student Loan program. These 2,190 institutions represent more than 30 per cent of institutions participating in the program. These 2,190 institution enrolled some 30 per cent of Guaranteed Student Loan borrowers, and these borrowers accounted for some 57 per cent of the total amount of money in default [Wilms, 1987]. Research studies have tried to offer characteristics of students who have a higher default rate on their Guaranteed Student Loans.

Wilms [1987] reports in the same study that college dropouts were among the most likely to default on Guaranteed Student Loans. This characteristic was followed by students from poor economic backgrounds. These characteristics were presented in a 1984 study by the Ehlenfeldt and Springfield in a study of approximately 4,000 Virginia defaulters. They found that over 77% were from families that, at the time their loans were originated, had a total income of \$20,000 or less.

Gray [1985] found a positive relationship between student loan defaulters and black minority students. Data in this study revealed

that black students were more than twice as likely as non-black students to default. Barney [1979] developed profiles of delinquent and non-delinquent student loan borrowers on the basis of a number of characteristics, and concluded that single black males were the poorest loan risks.

It was determined by Cross and Olinsky [1984] that students who borrowed to attend vocational schools had two times as great default as borrowers who had attended two year schools. At four year colleges and graduate schools, the percentage of delinquent defaulters dropped to 4.8 and 2.7% respectively.

In other studies such characteristics of students as high school dropouts, unmarried status, size of loan and major in college, were significant predictors of non-repayment behavior. These studies, although they identified a growing list of characteristics of students who do not repay their student loan, stopped short in identifying all possible characteristics.

The Metropolitan Community College has been concerned with the rate their students default on Guaranteed Student Loans since research during the academic year of 1983 demonstrated a severe default problem. The college administrative staff made a number of changes to attempt to balance the twin goals of equity [providing access and funding for low-income students] and productivity [reducing defaults and other costs] for the Guaranteed Student Loan program. Statistics released by the Department of Education on November 4, 1987 continue to show an unacceptable default rate. In order to understand and possibly reduce the rate of default, this

study focused on the grade point average and credit hours completed of defaulters and non-defaulters.

#### Statement of the Problem

Is there a significant correlation between grade point averages and the number of hours completed among defaulters and non-defaulters on Guaranteed Student loans at Metropolitan Community College?

#### Hypothesis to be tested

There is no significant correlation between the number of hours completed and the grade point average of defaulters and non-defaulters of Guaranteed Student Loan holders at Metropolitan Community College.

#### Delimitations

1. Conclusions of the study are only applicable to the Guaranteed Student Loan Program.
2. The population involved in this study was confined to students at Metropolitan Community College from September, 1975 to April, 1987.
3. The population was further delimited to students who processed a Guaranteed Student Loan.
4. The design for the study was ex post facto.

#### Limitations

1. Conclusions for the study are only applicable to Metropolitan Community College students from 1975 to 1987.
2. This study was subject to those weaknesses inherent in an ex post facto design, such as lack of control over treatment and nonequivalent groups.



### Assumptions

1. The population was a representative sample of Guaranteed Student Loan borrowers at Metropolitan Community College.
2. The procedures used to identify the student loan recipients for the study was valid.

### Methodology

Four hundred and forty randomly selected Guaranteed Student Loan files were deemed to be a large enough sample to be statistically representative of the student loan population who had received Guaranteed Student Loan[s] over the period of September, 1975 to April, 1987 at Metropolitan Community College. After these loans had been selected, the information became the data file in the college's computer which the SPSS-X program was run to generate statistics. The elements of this data file consisted of: student identification number, loan[s] amount, credit hours attempted and completed, grade point average, graduated status and defaulted status. This ex post facto research was a criterion-group design. The two groups were Guaranteed Student Loan defaulters and non-defaulters.

### Definitions

1. Guaranteed Student Loan [GSL] is a federally subsidized, low interest loan made to a student by banks, savings and loan associations, or credit unions to help finance their education expenses after high school.
2. Default is when a borrower fails to make an installment payment when due, fails to establish a repayment plan, or violates

other items of the loan agreement such that it can be reasonably concluded that the borrower no longer intends to repay the loan. These conditions must exist for 180 days before the loan is considered in default.

#### Significance of Study

Faced with conditions of limited resources, identifying characteristics of students who do not pay back a Guaranteed Loan aids in policy formation and administration of this program. If the limited resources can be targeted to help students who honor the terms of agreement of the loan program, then this aid resource more directly meets the intent Congress established for the program.

## CHAPTER TWO

## Review of Related Research

Research on the characteristics of students who have defaulted on the Guaranteed Student Loan has usually been a by-product to other related research. These studies dealt with stereotypes and myths associated with loan defaulters. For example, it was generally thought that typical defaulters were white, male, professional school graduates, between the ages of 22 and 28, and driving a red sports car. There are, however, some studies that deal specifically with the characteristics of loan defaulters.

Wilms [1987] found in a study mandated by California's Legislature and funded by the State Student Aid Commission that college dropouts are among the most likely to default on Guaranteed Student Loans. These are followed by student from poor economic backgrounds. In a New York State Higher Education Services Corporation [1984] study of student loan payers defaulting, a Cross and Olinsky analysis of information showed that there was a strong inverse relationship between default and the number of years a student spent in school. Seniors and graduate students were shown as being the least likely to default. Freshmen were two to five times as likely to default as borrowers who had progressed beyond that level when they last borrowed. Furthermore, freshmen students comprised 69% of delinquent defaulters.

Gray [1985] found a positive relationship between student loan defaulters and black minority students. Data in this study revealed

that while only 11.6% of Federal Insured Loans [F.I.S.L.s] and 9.8% of Guaranteed Student Loans [G.S.L.s] made during the years of 1966-1974 were made to black students, this group represented 32.5% of all defaulted F.I.S.L. loans and 25.8% of all G.S.L. loans. Barnes [1978] developed profiles of delinquent and non-delinquent student loan borrowers on the basis of a number of characteristics, and concluded that single black males were the poorest loan risks. Lee [1982] also reported that the best single predictor of default was black ethnicity. The Wilms [1987] study ranks ethnicity as the second most important variable that would predicate a student default.

A California State Post Secondary Education Commission Study [1985] found that 64% of California defaulters attended either proprietary schools or community college. Ten and four tenths percent of outstanding loans in California originated from community college students. While proprietary school student represented 15.5%. The rate of default at proprietary schools stood at 21.7% while it was 17.8% for community college borrowers. Cross and Olinsky [1984] affirmed this in the New York State Higher Education Services Corporation Study of Student Loan Payers and Defaulters. Their study indicated that students who last borrowed for attendance at vocational schools had a default rate of 17.2%, two times as great as borrowers who had attended two-year schools [8.6%]. At four-year colleges and graduate schools, the percentage of delinquent defaulters dropped to 4.8% and 2.7%, respectively. Borrowers who had attended vocational schools comprised 49% of the delinquent

defaulters.

Ehlenfeldt and Springfield [1984] in a study of approximately 4,000 Virginia defaulters, found that over 77% were from families that, at the time their loans were originated, had total incomes of \$20,000 or less. Those from families with incomes of \$20,001 to \$40,000 and above accounted for less than 3%.

Boyd and Martin [1985] found the highest levels of unemployment among former GSL borrowers to be within the ranks of former proprietary school students, while the lowest unemployment levels came from students with postgraduate degrees. Cross and Olinsky [1984] reported that borrowers who were employed when their loans came due were more likely to begin repayment of their loans. Eighty per cent of repayers were employed but only 26% of defaulters reported being employed at the time that their loans came due. In the 1985 California State Postsecondary Education Commission Study, one of the significant conclusions was that over 98% of defaulters had made at least partial payment on their loans.

Wilms [1987] revealed in his research results that roughly a third of high school dropouts defaulted on Guaranteed Student Loans, compared with 20% of those with a high school diploma. While a review of the literature does not find a great number of research studies to suggest or document that non high school or GED graduates fail to repay their loans, there is enough replication to include this as a characteristic.

Stephens [1976], Dye and McGann [1977], Barnes [1979], and Myers and Siera [1980] have all concluded that college grade point average

is positively related to loan repayment. Dye and McGann speculate that grade point average may be as much an index of socialization as it is of intelligence in that it is "Collinear with personal characteristics associated with repaying a debt." While none of the studies researched low grade point averages with defaulting, there was a direct inference that lower GPA predicted higher default rates.

Dye and McGann [1977] in a study at the University of Wyoming concluded that unmarried students are more likely to default than married students. This characteristic is further documented in Wilms' [1987] study which found that dependent students were more likely to default on loans than those who supported themselves. The study discovered that 23% of dependent students did not make their required loan payment, compared with 17% of independent students. In a related finding, Gross and Olinsky [1984] determined that borrowers in general receive little family assistance in repaying their loans. However, the proportion of repayers reported receiving family assistance was three times as large as the proportion of defaulters who reported such help.

In a report prepared by the National Commission on Student Financial Assistance, Miller [1982] concluded that there is little evidence of a positive relationship existing between size of Guaranteed Student Loan debt and default. The study indicated that those borrowers with the largest debts defaulted least often. Gross and Olinsky [1984] in the New York State Higher Education Services Corporation Study of Student Loan Payers and Defaulters, repayers tended to have borrowed more frequently and to have incurred greater

indebtedness than borrowers in default. On the average, defaulters had one and three fourth loans and borrowed a total of \$3,106 as compared with two and one fourth loans and \$4,626 for borrowers who were repaying their loans. Dye and McGann [1977] displayed evidence in their research that students who chose high monthly payments were more likely to pay than those who chose low monthly payments.

Wilms (1987) determined that U.S. citizens, were less likely to pay off loans than students from foreign countries. U.S. citizens have a default rate of 23%, compared with just 10% for nonresidents.

Dye and McGann (1977) using discriminant analysis, found a positive relationship with actual loan repayment behavior from engineering majors. In the group studied, no engineering major ever defaulted on his/her loan. Arranging the borrowers' academic majors in descending order of their probability of repayment resulted in the following sequence: engineering, graduate student, agriculture, health sciences, commerce and industry, education, and arts and sciences. Gray (1985) indicated that being enrolled in the College of Arts and Sciences was one of the four significant predictors of non-repayment behavior.

In conclusion, the review of the literature offers characteristics of students who have a higher default rate on their Guaranteed Student Loans. These characteristics are college and high school dropouts, students from poor economic backgrounds, black ethnicity, students attending either proprietary schools or community colleges, dependent students, students enrolled in the College of Arts and Sciences and students with low grade point averages.

## CHAPTER THREE

### Design of the Study

Permission to conduct this study was granted by the Vice President for College Support Services of Metropolitan Community College.

The purpose of this study was to determine if there was a significant correlation between grade point averages and number of hours completed between defaulters and non-defaulters of Guaranteed Student Loans at Metropolitan Community College. This study was conducted on four hundred and forty randomly selected Guaranteed loan files. This number of files was deemed to be a large enough sample to be statistically representative of the student loan population who have received Guaranteed Loan(s) over the period of September, 1975 to April, 1987 at Metropolitan Community College.

#### Study Description

After these loans had been selected, the information became a data file in the College's computer in which the SPSS-X program was run to generate statistics. The elements of this data file consisted of: Student identification number, loan(s) amount, credit hours attempted and completed, grade point average, graduated status and defaulted status. This ex post facto research was a criterion-group design. The two groups were Guaranteed Loan Defaulters and those loan recipients who had not defaulted.

#### Data Processing, Categorization, and Analysis

The data was categorized according to the number of hours



completed and the grade point average of non-defaulters and the number of hours completed and the grade point average of defaulters. The level of relationship of the number of hours complete and the grade point averages of these two groups was then subjected to the Pearson-Product-Moment-Correlation treatment. The correlation was then subjected to a t-test to determine if it was statistically significant.

## CHAPTER FOUR

## Presentation and Analysis of Data

An analysis of the credit hours completed from zero to 80, and the grade point averages using the computation of the Pearson-Product-Moment resulted in a positive correlation of .8525464.

**Table 1** - Title: Comparison of Grade Point Averages and Credit Hours Completed of Defaulters and Non-Defaulters

| Credit Hours Completed | GPA        |                |
|------------------------|------------|----------------|
|                        | Defaulters | Non-defaulters |
| 5                      | 0.45       | 1.27           |
| 10                     | 0.58       | 1.44           |
| 11.5                   | 0.62       | 1.46           |
| 12.0                   | 0.63       | 1.47           |
| 22.5                   | 0.91       | 1.67           |
| 23.5                   | 0.94       | 1.69           |
| 24.0                   | 0.95       | 1.70           |
| 29.5                   | 1.10       | 1.80           |
| 30.0                   | 1.12       | 1.81           |
| 39.5                   | 1.37       | 1.98           |
| 40.0                   | 1.38       | 1.99           |
| 45.5                   | 1.53       | 2.10           |
| 46.0                   | 1.54       | 2.10           |
| 59.5                   | 1.90       | 2.36           |
| 60.0                   | 1.92       | 2.36           |
| 79.5                   | 2.44       | 2.73           |
| 80.0                   | 2.45       | 2.74           |

The t-test for the significance defaulters and non-defaulters using the results of Pearson product-moment correlation resulted in a t-value of 6.3175863. This correlation was significant at the  $p < .001$  level.

## CHAPTER FIVE

## Summary, Conclusions, and Recommendations

Restatement of the Problem and Principal Findings

Using Pearson-Product-Moment and the t-test, it was determined that there was a significant correlation between the number of credit hours completed and the grade point averages of defaulters and non-defaulters of Guaranteed Student Loan holders at Metropolitan Community College.

The analysis of the correlation of the grade point averages of defaulters and non-defaulters of Guaranteed Student Loans at Metropolitan Community College indicates that there was a statistical correlation of .8525464. A further analysis using the t-test for the significance resulted in a t-value of 6.3175863. This is significant at  $P < .001$  level.

Conclusions

These research findings have value in establishing a Standards of Progress Policy affecting students applying for student aid. By establishing a minimum grade point average for all students applying for aid, an institution would, in effect, be screening out that group of students who are more likely to default. Also, by more closely monitoring loan recipients who are identified as "at-risk", an institution's Guaranteed Student Loan default rate could be lowered.

Recommendations for Future Research

The implications of this research are that staff at institutions need to do follow-up research to find out if the institution's

Guaranteed Student Loan default rate does decline due to a minimum grade point average Standards of Progress. Questions that would need to be answered are:

What is the appropriate grade point level for the Standards of Progress to reduce the number of defaulters? By reducing the potential number of student loan defaulters, when is the institution balancing the individual need for equitable access and the public's investment.

Another area of possible research is why these student characteristics are primary among all the student characteristics researched. The reason(s) why these characteristics predict defaulting remains in many cases unclear.

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