

2011

Examining the Relationship Between Financial Aid and Three Aspects of Students' First-Year Experience: Grade Point Averages, Persistence, and Housing Decisions

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EXAMINING THE RELATIONSHIP BETWEEN FINANCIAL AID AND THREE
ASPECTS OF STUDENTS' FIRST-YEAR EXPERIENCE: GRADE POINT
AVERAGES, PERSISTENCE, AND HOUSING DECISIONS

A thesis is submitted in partial fulfillment
of the requirements for the degree of
Master of Arts

By

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B.A., Wright State University, 1999

2011
Wright State University

WRIGHT STATE UNIVERSITY
SCHOOL OF GRADUATE STUDIES

November 19, 2010

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY SUPERVISION BY Aaron M. Skira ENTITLED Examining the Relationship Between Financial Aid and Three Aspects of Students' First-Year Experience: Grade Point Averages, Persistence, and Housing Decisions BE ACCEPTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF Master of Arts.

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ABSTRACT

Skira, Aaron M. M.A., Department of Educational Leadership, College of Education and Human Services, Wright State University, 2011. Examining the Relationship Between Financial Aid and Three Aspects of Students' First-Year Experience: Grade Point Averages, Persistence, and Housing Decisions.

The purpose of this research study was to examine the relationship between financial aid and three aspects of students' first-year experience: grade point averages, persistence, and housing decisions. Analyses from data obtained from one public four-year institution in the Midwest found few differences in grade point averages, persistence, and housing decisions between students who received financial aid and those who did not. However, when examining the dependent variables among students who received different types of financial aid, several significant differences were found. Students who received scholarships and work study had significantly higher grade point averages than those who did not; student loans were the most common type of financial aid received; and students who received financial aid were significantly more likely to reside on-campus. Recommendations for future research include examining other variables, such as students' socioeconomic status, prior student achievement, net price, and combinations of types of financial aid received.

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Acknowledgement

I would like to recognize a number of individuals who helped me complete this project. In no specific order, my sincere gratitude is given to Dr. Suzanne Franco, Dr. Charles Ryan, Dr. Joanne Risacher, David R. Darr, Dr. Glenn Graham, Dr. Yoko Miura, Tiffany Wellinghoff, Barbara Bullock, and Kimberly Sierschula.

Dedication

I dedicate this project to my family of friends, co-workers, and loved ones. Thank you all for being sources of support and encouragement.

CHAPTER 1

INTRODUCTION TO THE STUDY

According to the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) spring 2009 data collection, 77% of full-time, first-time, degree-seeking undergraduates attending public four-year institutions in the United States during the 2007-2008 academic year received financial aid (Knapp, Kelly-Reid, & Ginder, 2010). Financial aid included federal, state/local, and institutional grants and loans to students (excluding loans borrowed by parents to pay for students' expenses). What is particularly surprising about the large percentage of students receiving financial aid is the fact that postsecondary financial aid policies from federal and state governments have, since the late 1990s, shifted less from need-based gift aid programs and more toward self-help (loans and employment) and merit-based gift aid programs (Coomes, 2000; Ort, 2000). Perhaps the high number of undergraduate aid recipients can be attributed to rising tuition costs which have been increasing since the 1970s at percentages that often surpassed annual inflation rates (Hearn, Griswold, & Marine, 1996). Or maybe the large percentage of aid recipients is due to the growth of institutional financial aid awards from colleges that have utilized the revenue from their increased tuition rates to fund campus-based aid awards (Ort, 2000). But if the majority of incoming undergraduate students are receiving financial aid, is financial aid making a difference in measureable aspects of students' first-year experience?

Significance of the Study

With the majority of full-time, first-time, degree-seeking undergraduate students who attend public four-year institutions receiving financial aid, the cost of tuition rising at astounding rates, and financial aid programs and policies in constant flux, it is important researchers continue to explore relationships between financial aid and college student success and achievement. Better understanding the dynamic between financial aid and postsecondary student outcomes could impact the budgeting strategies utilized by university administrators to determine institutional financial aid programs and policies.

Statement of the Problem

The majority of full-time, first-time, degree-seeking undergraduate students are receiving financial aid in the U.S. (Knapp, Kelly-Reid, & Ginder, 2010), yet the interpretations of research literature examining the impact of financial aid on postsecondary students remain contradictory (St. John, 2000). In this study, the relationship between financial aid and students' first-year experience at a public four-year institution in the Midwest was examined. Three aspects of students' first-year experience were selected for evaluation: grade point averages, first-year persistence, and housing decisions. The purpose of the study was to determine if full-time, first-time, in-state, degree-seeking undergraduates who received financial aid had different grade point averages, first-year persistence, and housing decisions compared to those students who did not receive financial aid. For those students who received financial aid, the study sought to explore any differences in grade point averages among students who received different types of financial aid (scholarships, grants, work study, student loans, and parent loans). The study also sought to examine what types of financial aid, including no aid at

all, were more prevalent than others among (1) those students who persisted full-time throughout their first year versus those students who did not persist full-time and (2) those students who resided on-campus versus those students who resided off-campus. In addition, this study evaluated Expected Family Contribution (EFC) ranges, as determined by students' Free Application for Federal Student Aid (FAFSA), to determine if any EFC ranges were more frequent than others among those students who applied for financial aid and persisted full-time throughout their first year versus those students who applied for financial aid and did not persist full-time.

Definition of Terms

The following terms were operationally defined for this study:

- **Cost of attendance:** the educational costs associated with attending an institution of higher education. Costs include tuition and fees, room and board, books and supplies, transportation, and personal expenses for a given academic year.
- **Degree-seeking undergraduate students:** students pursuing an undergraduate degree.
- **Expected Family Contribution (EFC):** a numerical value calculated by the U.S. Department of Education that is used to determine students' financial need based on students' FAFSA for a given academic year. The lower the EFC, the less the student is expected to contribute financially towards the student's cost of attendance.
- **Financial aid:** any scholarships, grants, employment (work study), student loans, and/or parent loans awarded and paid to students' fees directly through the Office of Financial Aid. In this study, financial aid does not include university fee waivers,

payment or reimbursement from third parties, and outside scholarships paid from external donors (e.g., church, high school, etc.).

- **Financial need:** the difference between a school's cost of attendance and a student's EFC.
- **First-time students:** students admitted as new and attending the institution in the fall quarter, directly from high school.
- **First-year persistence:** students who after attending full-time fall quarter re-enrolled full-time for subsequent quarters (winter and spring) within their first year of undergraduate study.
- **Free Application for Federal Student Aid (FAFSA):** the U.S. Department of Education's application for which students can apply for federal student aid to assist in financing their postsecondary education or beyond.
- **Full-time students:** students enrolled full-time in a quarter (registered for 12 or more credit hours as of the institution's 14th day census date for a given quarter).
- **Grade point averages:** students' cumulative grade point averages.
- **In-state students:** students who had in-state tuition and fees assessed by Accounts Receivable.
- **Institutional-fit model:** a theory which suggests that the degree to which students are able to "fit in" socially at a postsecondary institution directly influences students' level of commitment to enroll at the institution.
- **Merit-based aid:** financial aid awards based on one or more aspects of students' ability (e.g., academics, athleticism, talent, etc.).
- **Need-based aid:** financial aid awards based on students' financial need.

- **Net-price theory:** a theory which suggests that students' decisions to enroll at a postsecondary institution are influenced by the overall net-price (tuition minus gift aid) of the institution.
- **Off-campus housing decision:** students who do not have on-campus housing fees assessed by Accounts Receivable.
- **On-campus housing decision:** students who do have on-campus housing fees assessed by Accounts Receivable.
- **Stopouts:** students who intend to withdraw temporarily from an institution of postsecondary education.

Research Questions and Hypotheses

The following research questions were developed for this study:

Research Question 1

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in grade point averages?

Hypothesis. There was a difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Null hypothesis. There was no difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Question 2

For those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid, was there a difference in grade point averages among students who received different types of financial aid?

Hypothesis. There was a difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received different types of financial aid.

Null hypothesis. There was no difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received different types of financial aid.

Research Question 3

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in full-time, first-year persistence?

Hypothesis. There was a difference in full-time, first-year persistence between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Null hypothesis. There was no difference in full-time, first-year persistence between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Question 4

For those full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Hypothesis. There was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year that was more prevalent than others.

Null hypothesis. There was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year that was more prevalent than others.

Research Question 5

For those full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Hypothesis. There was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year that was more prevalent than others.

Null hypothesis. There was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year that was more prevalent than others.

Research Question 6

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year, was there an EFC range that was more prevalent than others?

Hypothesis. There was an EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year.

Null hypothesis. There was no EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year.

Research Question 7

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year, was there an EFC range that was more prevalent than others?

Hypothesis. There was an EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year.

Null hypothesis. There was no EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year.

Research Question 8

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in on- and off-campus housing decisions?

Hypothesis. There was a difference in on- and off-campus housing decisions between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Null hypothesis. There was no difference in on- and off-campus housing decisions between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Question 9

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Hypothesis. There was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus that was more prevalent than others.

Null hypothesis. There was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus that was more prevalent than others.

Research Question 10

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Hypothesis. There was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus that was more prevalent than others.

Null hypothesis. There was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus that was more prevalent than others.

Assumptions

The following assumptions were acknowledged for this study:

- Student records had been accurately managed and maintained by college personnel,
- Historical data had been properly stored and backed up by the institution,
- Financial aid awarding criterion and strategies remained consistent throughout the 2009-2010 academic year, and
- Students provided accurate data on their 2009-2010 FAFSAs.

Scope

The scope of this study was limited to full-time, first-time, in-state, degree-seeking undergraduate students who enrolled at a public four-year institution in the Midwest in the Fall Quarter 2009. The institution in this study also had a branch campus; however, students attending the branch campus were excluded from this study. The institution was selected because university administrators intentionally revised their

institutional financial aid policies for the 2009-2010 academic year by replacing institutional loan programs with need-based gift aid awards in an effort to impact student choice and success. Financial aid was considered to be any scholarship, grant, employment (work study), student loans, and/or parent loans awarded and paid to students' fees directly through the Office of Financial Aid, excluding university fee waivers, payment or reimbursement from third parties, and outside scholarships paid from external donors (e.g., church, high school, etc.). Generalizations cannot be implied towards other institutions of higher education from the results of this study.

Overview

This thesis is comprised of five chapters to offer a comprehensive investigation of the topic. Chapter 1 has introduced the general background, research questions, and a number of considerations regarding the study. Chapter 2 examines research literature related to the impact of financial aid on college student achievement and success, focusing on research pertaining to the relationship between financial aid and students' grade point averages, persistence, and housing decisions. Chapter 3 describes the research methods and design for the study, including the procedures used in data analysis and collection. Chapter 4 lists the results from the data obtained from procedures in Chapter 3. Chapter 5 discusses the results documented in Chapter 4, provides recommendations for future research, and presents implications for the profession of student affairs based on the results of this study.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Research examining the effects of financial aid on postsecondary students has often led to contradictory interpretations (St. John, 2000). Reasons for the discrepancies lie within (1) the historical context of the financial aid programs under examination (Hossler, 2000), (2) limitations in theories which were commonly used by economists and college administrators to establish budgets and predict student choice, and (3) limitations found in research methodologies (St. John, 2000).

Hossler (2000) contended that student financial aid programs and policies change too quickly for college administrators to determine definitively the effects of student aid. Support from the federal government to maintain national income-contingent student financial aid programs and policies which initially promoted access and choice to higher education has flattened over the past several decades and, consequently, the financial roles of state governments, families, and institutions have changed (Kurz, 1995). In the late 1990s, “[federal] policy shifted from public financing of higher education (via appropriations and grants) to student funding (via higher tuition and borrowing)” (Ort, 2000, p. 21) and a domino effect slowly unraveled. At the federal level, the government began shifting its funding from need-based gift aid awards to loans (Kurz, 1995). As a result of the federal government’s shift towards loan funding, state aid policies began to shift away from need-based gift aid towards merit-based gift aid and, in turn, institutional need-based and merit-based aid awards started to increase—often in tandem with tuition

increases—to meet the needs of families (Ort, 2000). According to Kurz (1995), the dissolving partnership between the federal and state governments and institutions of higher education is a primary cause for today’s unpredictable state of financial aid.

The dramatic changes in student aid programs and policy at the federal, state, and institutional levels have exposed limitations to theories that had been commonly used by economists and university administrators to dictate financing strategies and interpret research findings on student choice (St. John, 2000). For example, the *net-price theory* which “has provided a foundation for government financing strategies and institutional pricing in higher education” (St. John & Starkey, 1995, p.157) argued that students respond to a single fixed net price—specifically, tuition minus grants (St. John, 2000). However, as financial aid programs change and tuition costs increase, students respond differently to price subsidies (grants) than they do to price and “the process of estimating the effects of prices on enrollment is not a simple linear process” (St. John & Starkey, 1995, p. 181). Similarly, the principle of the *institutional-fit model*, which according to Thomas (2000) assumed that “student commitment to the institution is theorized to be affected by peers’ attitudes and pressures” and “the greater the level of social integration the greater will be the commitment to the institution” (p. 592), did not consider the impact of financial aid at all. Yet, as financial aid programs have become more and more unstable, the effect of price (tuition) and student subsidies (gift aid) have played a role in student decision-making (St. John, 2000).

Limitations in research methodologies have also contributed to contradictory interpretations of the effects of financial aid on postsecondary students. First, Van der Klaauw (2002) stated that omitted variables—and the fact that “the financial aid decision

is a subjective one” (p. 1250)—impact the analysis of the data collected. For example, without interviewing every student, researchers lack information about students’ alternative options to college enrollment, such as employment opportunities in the job market (Van der Klaauw). Second, it is necessary for researchers to control for variables, such as family income, and closely examine positive, negative, and neutral coefficients for aid variables and their significance to interpret the data accurately (St. John, 2000). Last, selection bias occurs when students and families begin considering a choice of colleges. According to St. John, students’ and families’ “perceptions of college costs and the ability to pay have a direct influence on enrollment and persistence” (p. 64). Hossler (2000) asserted that “some students and families automatically equate higher cost with higher quality. Other potential college matriculants automatically exclude higher cost institutions because they believe they cannot afford them. They often do this without any knowledge of possible financial aid awards” (pp. 80-81).

As a result of unstable financial aid policies, theory limitations, and limitations to research methodologies, much of the literature on the impact of financial aid on college students is nebulous, though most agree financial aid makes a difference. To gain a better understanding of the contradictory findings of the impact of financial aid on the postsecondary experience at the undergraduate level, the subsequent review of literature focuses on the effect of financial aid on students’ grade point averages, first-year persistence, and housing decisions.

Financial Aid and Grade Point Averages

Prior student academic performance is often directly linked to financial aid eligibility. To qualify for federal student aid (need-based and merit-based gift aid, work-

study, and loans), otherwise eligible college students must also meet the school's standards of academic progress (U.S. Department of Education, Federal Student Aid, & Student Aid Awareness and Applicant Services, 2010) which is federally mandated and includes a review of students' grade point averages, where appropriate. Similarly, merit-based scholarships are commonly awarded based on grades and, generally, scholarship recipients are required to maintain certain grade point averages.

Although financial aid eligibility and academic performance are often closely tied, research studies examining the effects of financial aid on students' academic progress yield discrepant findings. The conflicting results can be attributed to various types of financial aid (e.g., loans, gift aid, employment, etc.) and their relationship to students' grade point averages. Students who received loans, for example, were found to have lower grade point averages (Wang, Arboleda, Shelley, & Whalen, 2003), whereas, merit-based gift aid has been determined to affect positively students' grade point averages (Henry, Rubenstein, & Bugler, 2004). Similarly, need-based aid awards have also been found to affect positively postsecondary students' grade point averages, but not as significantly as merit-based aid awards (Stater, 2009). In their study of male students who worked typically less than 25 hours per week, Ehrenberg and Sherman (1987) found that the impact of work on the students' grade point averages was not statistically significant.

Financial Aid and Persistence

According to St. John (2000), in the 1970s, 1980s, and early 1990s, most research found a positive relationship between financial aid and persistence, but in the mid to late 1990s—as financial aid programs changed from need-based gift aid (grants) to self-help

aid (loans and employment)—more and more researchers began to find that financial aid was negatively associated with persistence. Since the 1970s, research literature focusing on the relationship between financial aid and student persistence has yielded dramatically different findings. For example, Pedrini and Pedrini (1978) found that “financial aid did not differentiate dropouts and persisters” (p. 237) in their controlled examination of freshmen at the University of Nebraska at Omaha. Conversely, Seneca and Taussig (1987), who examined the first-year enrollment decisions of students admitted to Rutgers University, found that the effect of aid offers on overall enrollment probabilities are small. Braunstein, McGrath, and Pescatrice (1999), however, examined financial aid and student choice and determined that “the receipt of financial aid does have a positive impact on the enrollment of accepted applicants” and that “for every \$1,000 increase in the amount of financial aid offered, the probability of enrollment increases between 1.1% and 2.5%” (p. 252).

Studies have also found that the types of financial aid students receive are related to student persistence; however the findings are contradictory. DesJardins, Ahlburg, and McCall (2002) studied stopout probabilities at a large public land-grant university and found that financial aid positively impacted persistence, but various types of aid impacted persistence to varying degrees. For example, DesJardins et al. discovered that “grants have no impact on averting stopout while a scholarship of equal value has the largest impact” (p. 674) and that, although loans also reduced the probability of stopout, they did so to a lesser extent than any other type of financial aid. Conversely, Herzog (2005) found at one public research university that loans had a negative effect on enrollment when examining persistence rates of students from their first year to their second year.

Similar to types of financial aid, research literature has also found that students' financial need is associated with student persistence. A school calculates each student's financial need individually. To calculate a student's financial need, the school subtracts the student's Expected Family Contribution (EFC)—as determined from the student's Free Application for Federal Student Aid (FAFSA)—from the school's cost of attendance, or what the school considers to be an estimate of the student's total cost to attend the institution (e.g., tuition, room and board, books, and other expenses) before deducting any financial assistance. Bowen, Chingos, and McPherson (2009) studied the graduation rates at 18 state flagship universities and found that a lower net price (students with lower EFCs and therefore typically more need-based grant aid) is related to higher graduation rates. Bowen et al. stated:

Our estimates imply that an increase in annual net price of \$1,000 is associated with a decline of 3 percentage points in the six-year graduation rate and a decline of 4.5 percentage points in the four-year graduation rate for students in the lowest income group. (p. 184)

Financial Aid and Housing Decisions

Living in on-campus housing has the potential to enhance the psychological well-being of first-year students (Bowman, 2010), and the receipt of financial aid to assist in paying for room and board can reduce students' stress levels simply because students know their educational costs have been met (Nora, Barlow, & Crisp, 2006). This researcher could find little research examining the relationship between financial aid and students' housing decisions; however, research does exist on students' perceptions of college cost, specifically tuition and room and board. One study conducted at a major

land-grant Midwestern university found that housing costs were not significantly influential in predicting whether or not a student would reside on- or off-campus (Li, Sheely, & Whalen, 2005). Conversely, Lillis and Tian (2008) found that “for some, cost [tuition and room and board] is the most important factor in the college choice process while others are willing to spare no expense when it comes to educational costs” (p. 13). So, it could be inferred that financial aid—which can directly impact students’ overall net price—could be perceived as influential to some students and not to others when deciding whether to reside on- or off-campus.

Summary

Research findings investigating the relationship between financial aid and various college student outcomes, yield dramatically different findings. Some justifications for the discrepancies include ever-changing governmental financial aid policies and programs, limitations in commonly used theories, and limitations in research methods and designs. Several studies have surmised radically different relationships between financial aid and college student achievement, success, and choice, even when examining those relationships among various types of financial aid (e.g., gift aid, employment, loans, etc.).

CHAPTER 3

METHODOLOGY

This chapter describes the research methods and design utilized in this study. In addition to the methods and design, this chapter includes information regarding the research population, data collection, and data analysis procedures.

Research Design

A descriptive, ex post facto research design was employed for this study which examined the relationships between financial aid and students' grade point averages, persistence, and housing decisions at a public four-year institution in the Midwest during the 2009-2010 academic year. The independent variable was the receipt of financial aid and the dependent variables were grade point averages, first-year persistence, and housing decisions. Data from the selected institution were obtained through the school's Office of Institutional Research.

Population and Sampling

The population for this study was full-time, first-time, in-state, degree-seeking undergraduate students. To be included in this study, Fall Quarter 2009 main campus students must have been:

- Admitted as new students, directly from high school;
- Registered full-time (a minimum of 12 credit hours) as of the institution's 14th day census date;

- Billed in-state tuition; and
- Pursuing an undergraduate degree.

A total of 2,252 students were identified by the Office of Institutional Research as meeting the criterion for inclusion in this study.

Data Collection

The following data were extracted from the selected institution's database by the Office of Institutional Research for each of the 2,252 student records in the sample population for this study. The data retrieved were stored on the Office of Institutional Research's shared drive in Excel format. Data retrieved included:

- Students' 2009-2010 academic year enrollment history (i.e., students' enrollment status as of institution's 14th day census date for the fall, winter, and spring quarters);
- Students' Fall Quarter 2009 student type (e.g., new, direct from high school);
- Students' Fall Quarter 2009 residency status (i.e., the institution had assessed in-state tuition and fees during the Fall Quarter 2009);
- Students' Fall Quarter 2009 degree status (e.g., degree-seeking);
- Students' Fall Quarter 2009 student level (e.g., undergraduate);
- Students' university identification numbers (UIDs);
- Students' 2009-2010 FAFSA filing status (i.e., whether or not students filed a FAFSA);
- Students' 2009-2010 EFCs;
- Types of financial aid awards paid to students' fees during the Fall Quarter 2009 (e.g., scholarships, grants, work study, student loans, and parent loans);
- Students' Fall Quarter 2009 grade point averages; and

- Students' Fall Quarter 2009 housing decisions (i.e., whether or not the institution had assessed on-campus housing charges during the Fall Quarter 2009).

Students' UIDs were only used by the Office of Institutional Research to retrieve and merge data from the institution's database. The data used by this researcher were stripped of any personal identifiers.

Data Analysis

The data analyses are presented by research question.

Research Question 1

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in grade point averages?

Procedures. First, two groups of grade point averages were established:

- Grade point averages of students who received financial aid, and
- Grade point averages of students who did not.

Then, a *t* test for independent means, using Excel's Analysis ToolPak, was used to determine if there was a difference in grade point averages between the two groups, and, if so, if the difference was statistically significant at the .05 level ($p < .05$) for a two-tailed test.

Research Question 2

For those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid, was there a difference in grade point averages among students who received different types of financial aid?

Procedures. First, two groups of grade point averages were established for each type of financial aid (scholarships, grants, work study, student loans, and parent loans):

- Grade point averages of students who received the aid type, and
- Grade point averages of students who did not.

Then, for each type of financial aid, a *t* test for independent means, using Excel's Analysis ToolPak, was used to determine if there was a significant difference between the grade point averages of students who received the aid type and those who did, and, if so, if the difference was statistically significant at the .05 level ($p < .05$) for a two-tailed test.

To measure the variance between grade point averages of students who received different types of financial aid, the grade point averages were grouped by students who only received one type of financial aid to establish independent groups. Then, an analysis of variance, using SPSS v. 18.0, was used to determine if there was a difference in grade point averages between the groups, and, if so, if that difference was statistically significant at the .05 level ($p < .05$). Lastly, a post hoc comparison was executed to identify any differences among the specific types of financial aid, and, if so, if that difference was statistically significant at the .05 level ($p < .05$).

Research Question 3

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in full-time, first-year persistence?

Procedures. First, four groups of students were established:

- Students who did not receive financial aid and persisted,
- Students who received financial aid and persisted,
- Students who did not receive financial aid and did not persist, and
- Students who received financial aid and did not persist.

Then, using VassarStats online statistical package, a 2x2 contingency table was utilized to perform a chi-square test of association to measure the relationship (strength) between the receipt of financial aid and persistence at the .05 level ($p < .05$).

Research Question 4

For those full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Procedures. First, students who persisted were grouped by the type of financial aid they received (scholarships, grants, work study, student loans, parent loans, and no financial aid). Because several students received more than one type of financial aid, students appeared in more than one group. Then, a frequency count of students in each group was performed to determine which type of financial aid was most commonly received among those students who persisted.

Research Question 5

For those full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Procedures. First, students who did not persist were grouped by the type of financial aid they received (scholarships, grants, work study, student loans, parent loans, and no financial aid). Because several students received more than one type of financial aid, students appeared in more than one group. Then, a frequency count of students in each group was performed to determine which type of financial aid was most commonly received among those students who did not persist.

Research Question 6

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year, was there an EFC range that was more prevalent than others?

Procedures. First, three EFC ranges were established:

- EFCs below the institution's published costs for full-time, in-state tuition and books for the 2009-2010 academic year (0 – 8,999);
- EFCs above the institution's published costs for full-time, in-state tuition and books, but below the published costs for full-time, in-state tuition, books, room and board for the 2009-2010 academic year (9,000 – 17,999); and
- EFC's above the institution's published costs for full-time, in-state tuition, books, room and board for the 2009-2010 academic year (18,000 – 99,999);

Then, students who filed a 2009-2010 FAFSA and persisted were grouped by the three EFC ranges. Any students who filed a 2009-2010 FAFSA but did not have an EFC due to missing FAFSA data were excluded. Finally, a frequency count of students in each group was performed to determine if there was an EFC range that was more prevalent than others among those students who persisted.

Research Question 7

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year, was there an EFC range that was more prevalent than others?

Procedures. First, using the three EFC ranges established for Research Question 6, students who filed a 2009-2010 FAFSA and did not persist were grouped by the three

EFC ranges. Any students who filed a 2009-2010 FAFSA but did not have an EFC due to missing FAFSA data were excluded. Then, a frequency count of students in each group was performed to determine if there was an EFC range that was more prevalent than others among those students who did not persist.

Research Question 8

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in on- and off-campus housing decisions?

Procedures. First, four groups of students were established:

- Students who did not receive financial aid and resided on-campus,
- Students who received financial aid and resided on-campus,
- Students who did not receive financial aid and resided off-campus, and
- Students who received financial aid and resided off-campus.

Then, using VassarStats online statistical package, a 2x2 contingency table was utilized to perform a chi-square test of association to measure the relationship (strength) between the receipt of financial aid and on- and off-campus housing decisions at the .05 level ($p < .05$).

Research Question 9

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Procedures. First, students who resided on-campus were grouped by the type of financial aid they received (scholarships, grants, work study, student loans, parent loans,

and no financial aid). Because several students received more than one type of financial aid, students appeared in more than one group. Then, a frequency count of students in each group was performed to determine which type of financial aid was most commonly received among those students who resided on-campus.

Research Question 10

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Procedures. First, students who resided off-campus were grouped by the type of financial aid they received (scholarships, grants, work study, student loans, parent loans, and no financial aid). Because several students received more than one type of financial aid, students appeared in more than one group. Then, a frequency count of students in each group was performed to determine which type of financial aid was most commonly received among those students who resided off-campus.

Setting and Environment

This study was conducted at a public four-year institution located in the Midwest United States. During the Fall Quarter 2009, there were 18,786 students enrolled at the university, of which 13,770 were degree-seeking undergraduates.

Summary

This study used a descriptive, ex post facto research design to examine the relationship between financial aid and three aspects of students' first-year experience: grade point averages, persistence, and housing decisions. The population included those full-time, first-time, in-state, degree-seeking undergraduate students who enrolled in the

2009-2010 academic year at a public four-year institution in the Midwest. Data obtained from the selected institution's Office of Institutional Research were analyzed using a variety of statistical analyses. The results of the analyses are presented in Chapter 4.

CHAPTER 4

RESULTS

The purpose of this research study was to determine whether or not full-time, first-time, in-state, degree-seeking undergraduates who received financial aid at a public four-year institution in the Midwest had different grade point averages, first-year persistence, and housing decisions than those students who did not receive financial aid. The impact of financial aid on postsecondary students has been contradictory, and yet the majority of students are receiving financial aid. The analysis of data will provide further insight into the relationship between financial aid and three aspects of students' first-year experience: grade point averages, first-year persistence, and housing decisions. Results are presented following each research question.

Research Question 1

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in grade point averages?

Results

The grade point averages of full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid ($M = 2.54$, $SD = 1.13$) were not significantly different than the grade point averages of students who did not receive financial aid ($M = 2.54$, $SD = 0.96$), $t(2,250) = -0.057$, $p = .95$.

Research Question and Hypothesis

In response to Research Question 1, grade point averages did not significantly differ between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not. The hypothesis that there was a difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is rejected. Therefore, the null hypothesis that there was no difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is retained.

Research Question 2

For those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid, was there a difference in grade point averages among students who received different types of financial aid?

Results

Scholarships. Full-time, first-time, in-state, degree-seeking undergraduate students who received scholarships had significantly higher grade point averages ($M = 3.12$, $SD = 0.87$) than those who did not receive scholarships ($M = 2.08$, $SD = 1.09$), $t(1,986) = 22.89$, $p < .001$.

Grants. Full-time, first-time, in-state, degree-seeking undergraduate students who received grants had significantly lower grade point averages ($M = 2.27$, $SD = 1.16$) than those who did not receive grants ($M = 2.78$, $SD = 1.04$), $t(1,986) = -10.40$, $p < .001$.

Work study. Full-time, first-time, in-state, degree-seeking undergraduate students who received work study had significantly higher grade point averages ($M =$

2.85, $SD = 1.01$) than those who did not receive work study ($M = 2.53$, $SD = 1.13$), $t(1,986) = 2.27$, $p = .023$.

Student loans. Full-time, first-time, in-state, degree-seeking undergraduate students who received student loans had significantly lower grade point averages ($M = 2.34$, $SD = 1.12$) than those who did not receive student loans ($M = 3.12$, $SD = 0.94$), $t(1,986) = -13.82$, $p < .001$.

Parent loans. Full-time, first-time, in-state, degree-seeking undergraduate students who received parent loans did not have significantly different grade point averages ($M = 2.51$, $SD = 1.03$) than those who did not receive parent loans ($M = 2.54$, $SD = 1.14$), $t(1,986) = -0.36$, $p = .72$.

All types of financial aid. An analysis of variance yielded a significant difference in grade point averages, $F(2, 686) = 123.83$, $p < .001$, between full-time, first-time, in-state, degree-seeking undergraduates who received scholarships only ($M = 3.37$, $SD = 0.72$), grants only ($M = 2.36$, $SD = 1.16$), and student loans only ($M = 2.21$, $SD = 1.04$). Post hoc comparisons indicated that grade point averages were significantly different between students who received scholarships only and grants only. Likewise, grade point averages differed significantly between students who received scholarships only and student loans only. However, there was no significant difference between those students who received grants only and student loans only. Too few students received work study only and parent loans only to make comparisons with the other types of financial aid.

Research Question and Hypothesis

In response to Research Question 2, grade point averages differed significantly between full-time, first-time, in-state, degree-seeking undergraduate students who

received different types of financial aid. The null hypothesis that there was no difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received different types of financial aid is rejected. Therefore, the hypothesis that there was a difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduate students who received different types of financial aid is retained.

Research Question 3

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in full-time, first-year persistence?

Results

A chi-square test of association was performed to examine the difference in full-time, first-year persistence between students who did and did not receive financial aid. No significant difference was found in the full-time, first-year persistence between students who did and did not receive financial aid, $X^2(1, N = 2,252) = 0.85, p = .36$.

Research Question and Hypothesis

In response to Research Question 3, no significant difference in full-time, first-year persistence was found between those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not. The hypothesis that there was a difference in full-time, first-year persistence between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is rejected. Therefore, the null hypothesis that there was no difference in full-

time, first-year persistence between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is retained.

Research Question 4

For those full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who persisted full-time throughout their first year ($n = 1,797$) by the types of financial aid received (scholarships, grants, work study, student loans, parent loans, and no financial aid) indicated that student loans ($n = 1,156$, 64.33%) were the most prevalent type of financial aid. Table 1 displays the count of students by types of financial aid received for (1) the total population ($N = 2,252$), (2) students who persisted full-time throughout their first year ($n = 1,797$), and (3) students who did not persist full-time throughout their first year ($n = 455$).

Table 1

Count of Students by Type of Financial Aid and Persistence

Type of Financial Aid	Total Population*	Persisted*	Did Not Persist*
Scholarships	873	780	93
Grants	957	743	214
Work Study	65	62	3
Student Loans	1,491	1,156	335
Parent Loans	284	237	47
None	264	205	59

*Multiple representations exist due to the fact that students may have received more than one type of financial aid.

Research Question and Hypothesis

In response to Research Question 4, student loans were the most prevalent type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year. The null hypothesis that there was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year that was more prevalent than others is rejected. Therefore, the hypothesis that there was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year that was more prevalent than others is retained.

Research Question 5

For those full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who did not persist full-time throughout their first year ($n = 455$) by the types of financial aid received (scholarships, grants, work study, student loans, parent loans, and no financial aid) indicated that student loans ($n = 335$, 73.63%) were the most prevalent type of financial aid (see Table 1).

Research Question and Hypothesis

In response to Research Question 5, student loans were the most prevalent type of financial aid received by those full-time, first-time, in-state, degree-seeking

undergraduate students who did not persist full-time throughout their first year. The null hypothesis that there was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year that was more prevalent than others is rejected. Therefore, the hypothesis that there was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year that was more prevalent than others is retained.

Research Question 6

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year, was there an EFC range that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year ($n = 1,635$) by EFC range indicated that that the EFC range 0 – 8,999 ($n = 880$, 53.82%) was the most prevalent. Table 2 displays the count of students by EFC range for (1) students who filed a 2009-2010 FAFSA ($n = 2,046$), (2) students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year ($n = 1,635$), and (3) students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year ($n = 411$).

Table 2

Count of Students who Filed a 2009-2010 FAFSA by EFC Range and Persistence

EFC Range	Total Population	Persisted	Did Not Persist
0*	465	345	120
1 – 8,999**	680	535	145
9,000 – 17,999***	440	361	79
18,000 – 99,999	461	394	67
Total	2,046	1,635	411

Note. This table does not include three students for whom no EFC was calculated due to missing FAFSA data.

*Students (and/or their families) with a 0 EFC were not expected to be able to contribute financially towards their educational costs for the 2009-2010 academic year based upon their FAFSA data.

**Students (and/or their families) with an EFC between 1 and 8,999 were expected to contribute financially an amount less than the selected institution’s published costs for full-time, in-state tuition and books for the 2009-2010 academic year based upon their FAFSA data.

***Students (and/or their families) with an EFC between 9,000 and 17,999 were expected to contribute financially an amount greater than the selected institution’s published costs for full-time, in-state tuition and books, but less than the amount for full-time, in-state tuition, books, room, and board for the 2009-2010 academic year based upon their FAFSA data.

Research Question and Hypothesis

In response to Research Question 6, the EFC range 0 – 8,999 was the most prevalent EFC range for those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year. The null hypothesis that there was no EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year is rejected. Therefore, the hypothesis that there was an EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time throughout their first year is retained.

Research Question 7

For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year, was there an EFC range that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year ($n = 411$) by EFC range indicated that the EFC range 0 – 8,999 ($n = 265$, 64.48%) was the most prevalent EFC range (see Table 2).

Research Question and Hypothesis

In response to Research Question 7, the EFC range 0 – 8,999 was the most prevalent EFC range for those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year. The null hypothesis that there was no EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year is rejected. Therefore, the hypothesis that there was an EFC range more prevalent than others for full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year is retained.

Research Question 8

For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in on- and off-campus housing decisions?

Results

A chi-square test of association was performed to examine the difference in Fall Quarter 2009 on- and off-campus housing decisions between students who did and did not receive financial aid. Students who received financial aid were more likely to reside on-campus than those who did not receive financial aid, $X^2 (1, N = 2,252) = 39.87, p < .001$.

Research Question and Hypothesis

In response to Research Question 8, on- and off-campus housing decisions differed significantly between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not. The null hypothesis that there was no difference in on- and off-campus housing decisions between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is rejected. Therefore, the hypothesis that there was a difference in on- and off-campus housing decisions between full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not is retained.

Research Question 9

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who resided on-campus ($n = 1,253$) by the types of financial aid received (scholarships, grants, work study, student loans, parent loans, and no financial

aid) indicated that student loans ($n = 947$, 75.58%) were the most prevalent type of financial aid. Table 3 displays the count of students by types of financial aid received for (1) the total population ($N = 2,252$), (2) students who resided on-campus ($n = 1,253$), and (3) students who resided off-campus ($n = 999$).

Table 3

Count of Students by Type of Financial Aid and Housing Decisions

Type of Financial Aid	Total Population*	On-Campus*	Off-Campus*
Scholarships	873	464	409
Grants	957	605	352
Work Study	65	50	15
Student Loans	1,491	947	544
Parent Loans	284	213	71
None	264	99	165

*Multiple representations exist due to the fact that students may have received more than one type of financial aid.

Research Question and Hypothesis

In response to Research Question 9, student loans were the most prevalent type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus. The null hypothesis that there was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus that was more prevalent than others is rejected.

Therefore, the hypothesis that there was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus that was more prevalent than others is retained.

Research Question 10

For those full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Results

A count of the number of full-time, first-time, in-state, degree seeking undergraduate students who resided off-campus ($n = 999$) by the types of financial aid received (scholarships, grants, work study, student loans, parent loans, and no financial aid) indicated that student loans ($n = 544, 54.45\%$) were the most prevalent type of financial aid (see Table 3).

Research Question and Hypothesis

In response to Research Question 10, student loans were the most prevalent type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus. The null hypothesis that there was not one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus that was more prevalent than others is rejected. Therefore, the hypothesis that there was one type of financial aid received by full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus that was more prevalent than others is retained.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this research study was to determine whether or not full-time, first-time, in-state, degree-seeking undergraduates who received financial aid at a public four-year institution in the Midwest had different grade point averages, first-year persistence, and housing decisions than those students who did not receive financial aid. For those students who receive financial aid, the study aimed to determine if there were any differences in grade point averages among students who received different types of financial aid (scholarships, grants, work study, student loans, and parent loans). It also intended to find what types of financial aid, including no aid at all, were more prevalent than others among (1) those students who persisted full-time throughout the 2009-2010 academic year versus those students who did not persist full-time and (2) those students who resided on-campus versus those students who resided off-campus. In addition, this study sought to establish whether any EFC ranges were more frequent than others among those students who filed a FAFSA and persisted full-time throughout the 2009-2010 academic year versus those students who filed a FAFSA and did not persist full-time.

Analyses from this study found few differences in grade point averages, persistence, and housing decisions between students who received financial aid and those who did not. However, when examining the dependent variables among students who received different types of financial aid, several significant differences were found.

Summary, conclusions, and recommendations are presented following each research question and research questions are grouped by the three dependent variables examined in this study—grade point averages, persistence, and housing decisions.

Financial Aid and Grade Point Averages

Research Questions 1 and 2 examined grade point averages between those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Questions

- **Research Question 1:** For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in grade point averages?
- **Research Question 2:** For those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid, was there a difference in grade point averages among students who received different types of financial aid?

Discussion of Results

Interestingly, in response to Research Question 1, there was no significant difference found between the grade point averages of those students who received financial aid and those who did not, and yet, regarding Research Question 2, for those students who received financial aid, significant differences were found in grade point averages relative to different types of financial aid (scholarships, grants, work study, and student loans), with the exception of parent loans.

Scholarships. Similar to the findings of Henry, Rubenstein, & Bugler (2004) and Stater (2009), this study found that students who received scholarships had significantly higher grade point averages than students who did not receive scholarships.

Grants. Whereas Stater (2009) found a positive relationship between need-based aid awards and first-year students' grade point averages, this study found that first-year students who received grants had significantly lower grade point averages than students who did not receive grants.

Work study. Although Ehrenberg and Sherman (1987) documented that part-time employment did not significantly impact students' grade point averages, this study found that students who received work study had significantly higher grade point averages than students who did not receive work study.

Student loans. Akin to the findings of Wang, Arboleda, Shelley, & Whalen (2003), this study determined that students who received student loans had significantly lower grade point averages than students who did not receive student loans.

Parent loans. In this study, there was no significant difference between the grade point averages of those students who received parent loans and those who did not.

The discrepant findings between Research Questions 1 and 2 may be due to other variables that were not controlled for in this study. For example, students who received scholarships had significantly higher grade point averages. Usually, students receive scholarships in honor of prior stellar academic performance. Therefore, student ability and prior achievement may have contributed to the discrepant findings. Similarly, students who are typically eligible to receive grants are from lower-income families. Family income is one measure for socioeconomic status. Thus, other variables associated

with students' socioeconomic backgrounds, such as income, parent's highest level of education, and social class may have played a role in the discrepant findings.

In addition, student loan indebtedness may have played a factor for those students who received student loans and had significantly lower grade point averages. Wang, Arboleda, Shelley, and Whalen (2003) stated "students who borrowed more for educational loans tended to receive lower [grade point averages]" (p. 19). If student loan indebtedness negatively impacts grade point averages, then perhaps the reason there was no significant difference between the grade point averages of those students who received parent loans and those who did not is due to the fact that the student was not the loan borrower. When parents incurred the debt as loan borrower, students were simply too far removed from the financial commitment for loan indebtedness to influence their grade point averages.

Conclusions and Recommendations

There was no significant difference in grade point averages between those full-time, first-time, in-state, degree-seeking undergraduates who received financial and those who did not. However, analyses of grade point averages for those students who received different types of financial aid revealed:

1. Students who received scholarships or work study had significantly higher grade point averages than students who did not receive scholarships or work study,
2. Students who received grants or student loans had significantly lower grade point averages than students who did not receive grants or student loans, and
3. There was no significant difference in grade point averages between students who did and did not receive parent loans.

To further investigate these discrepant findings, future studies should include other variables, such as prior student achievement, socioeconomic status factors (e.g., income, education, social class), and student loan indebtedness, when examining the relationship between financial aid and grade point averages.

Financial Aid and Persistence

Research Questions 3, 4, 5, 6, and 7 examined full-time, first-year persistence between those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Questions

- **Research Question 3:** For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in full-time, first-year persistence?
- **Research Question 4:** For those full-time, first-time, in-state, degree-seeking undergraduate students who persisted full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?
- **Research Question 5:** For those full-time, first-time, in-state, degree-seeking undergraduate students who did not persist full-time throughout their first year, was there a type of financial aid received, including no financial aid, that was more prevalent than others?
- **Research Question 6:** For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and persisted full-time

throughout their first year, was there an EFC range that was more prevalent than others?

- **Research Question 7:** For those full-time, first-time, in-state, degree-seeking undergraduate students who filed a 2009-2010 FAFSA and did not persist full-time throughout their first year, was there an EFC range that was more prevalent than others?

Discussion of Results

Just as this study determined no difference in grade point averages between full-time, first-time, in-state, degree-seeking undergraduates who did and did not receive financial aid regarding Research Question 1, no significant difference was found in full-time, first-year persistence regarding Research Question 3. This supports the findings of Pedrini and Pedrini (1978) who posited no difference between first-year dropouts and persisters and financial aid. The findings from this study also contradict the findings of DesJardins, Ahlburg, and McCall (2002) who noted that financial aid positively impacted persistence. However, this study only examined full-time persistence, whereas Pedrini and Pedrini (1978) and DesJardins, Ahlburg, and McCall (2002) examined students who persisted versus stopping out. An examination of students who did and did not receive financial aid and simply persisted (either full-time or less than full-time) throughout their first year may have yielded different results.

Types of financial aid. In response to Research Questions 4 and 5, student loans were the most common type of financial aid received by both those students who persisted full-time throughout their first year and those who did not. The fact that student loans were the most prevalent type of financial aid supports the works of Ort (2000) and

Kurz (1995) who both noted that government funding of financial aid programs has shifted away from gift aid programs and towards loan programs. Perhaps another aspect to explore would be an examination of different combinations of types of financial aid received by persisters and non-persisters.

Financial need. In response to Research Questions 6 and 7, EFCs ranging from 0 to 8,999 were the most prevalent among those full-time, first-time, in-state, degree-seeking undergraduates who did persist full-time throughout their first year and those who did not persist. Students in this EFC range would have been expected to financially contribute an amount less than the cost of full-time, in-state tuition and books at the selected institution for the 2009-2010 academic year. This finding does support a similar pattern noted by Bowen, Chingos, and McPherson (2009) who documented that a lower net price (e.g., lower EFCs and therefore typically more need-based grant aid) is related to higher graduation rates. Unlike, Bowen, Chingos, and McPherson (2009), however, this study did not examine the dollar amount of financial aid received.

Conclusions and Recommendations

The analyses of full-time, first-year persistence between those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not revealed:

1. There was no significant difference in full-time, first-year persistence between those students who did and did not receive financial aid;
2. Student loans were the most common type of financial aid received by both students who did and did not persist full-time throughout their first year; and

3. The lowest EFC range, 0 – 8,999, was the most prevalent EFC range of both students who did and did not persist full-time throughout their first year.

Similar to the recommendations for evaluating grade point averages between students who receive financial aid and those who do not, recommendations for future research into the relationship between persistence and financial aid include controlling for other variables, such as continuous enrollment versus full-time enrollment, various combinations of financial aid received, and the dollar amount of financial aid received.

Financial Aid and Housing Decisions

Research Questions 8, 9, and 10 examined housing decisions between those full-time, first-time, in-state, degree-seeking undergraduate students who received financial aid and those who did not.

Research Questions

- **Research Question 8:** For those full-time, first-time, in-state, degree-seeking undergraduate students who did and did not receive financial aid, was there a difference in on- and off-campus housing decisions?
- **Research Question 9:** For those full-time, first-time, in-state, degree-seeking undergraduate students who resided on-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?
- **Research Question 10:** For those full-time, first-time, in-state, degree-seeking undergraduate students who resided off-campus, was there a type of financial aid received, including no financial aid, that was more prevalent than others?

Discussion of Results

Unlike the comparisons made between grade point averages and full-time, first year persistence between those full-time, first-time, in-state, degree-seeking undergraduates who did and did not receive financial aid, this study found a significant difference in on- and off-campus housing decisions between those students who received aid and those who did not. Students who received financial aid were significantly more likely to reside on-campus. Furthermore, this study found that student loans were the most common type of financial aid received by students regardless of whether they resided on- or off-campus.

The findings regarding Research Questions 8, 9, and 10 support similar patterns determined by other scholars. Lillis and Tian (2008) stated that, for some students, the cost of tuition and room and board was the most important factor in college choice. Certainly the receipt of a financial aid award reduces net price and therefore can impact not only college choice but on- and off-campus housing plans. Similar to the recommendations for future research on financial aid and persistence, to further investigate the relationship between financial aid and housing decisions in relation to net price, future research should focus the dollar amount of financial aid received, its relationship to students' total cost for tuition and room and board, and housing decisions.

The fact that the majority of students, regardless of housing decisions, are receiving student loans again supports the works of Ort (2000) and Kurz (1995) who noted that loan programs are receiving the majority of support from government funding. Similar to earlier recommendations, future researchers should examine more closely the different combinations of financial aid received.

Conclusions and Recommendations

Analyses of housing decisions between those full-time, first-time, in-state, degree-seeking undergraduates who received financial aid and those who did not revealed:

1. Students who received financial aid were more likely to reside on-campus, and
2. Student loans were the most common type of financial aid received by both students who resided on- and off-campus.

Parallel to the recommendations for future research between grade point averages and full-time, first-year persistence between those students who received financial aid and those who did not, recommendations for future research evaluating the relationship between financial aid and housing decisions include examining other variables, such as the dollar amount of financial aid, students' net price, and combinations of types of financial aid received.

Limitations

Although this study presents several significant findings, there were limitations to the study. First, the study was limited to full-time, first-time, in-state, degree-seeking undergraduate students who enrolled at one public four-year institution in the Midwest in the Fall Quarter 2009. Second, the study only examined financial aid awards that were paid to students' fees directly through the Office of Financial Aid. Third, the financial aid awards examined were particular to the selected institution's awarding philosophy, which for the 2009-2010 academic year included an initiative to replace institutional loan programs with need-based gift aid awards. Lastly, this study only examined the relationship between financial aid and three aspects of students' first-year experience:

grade point averages, persistence, and housing decisions. The study did not determine causality between the independent and dependent variables.

Implications for the Profession

This study presents several implications for college administrators. First, this study offers a prime example of the challenges associated with research studies that examine financial aid and postsecondary students. As noted in the literature review, research investigating the impact of financial aid on college students is often inconsistent (St. John, 2000). Within this study, discrepancies were found when examining grade point averages between students who received financial aid and those who did not. Secondly, this study lends itself to the importance of routine assessment. Within this study several similar recommendations were suggested for future research, such as controlling for other variables, when investigating the relationship between financial aid and dissimilar dependent variables. Lastly, this study posits that college administrators should strongly consider types of financial aid when determining funding strategies for institutional financial aid programs and policies. Student achievement and student choice may be influenced differently by various types of financial aid. Studies, such as this one, enable student affairs professionals to better understand the complexities between financial aid and measures of student success, such as grade point average and persistence, and student decision-making, such as housing plans.

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