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# Analysis of Financial Assistance on Graduation Rates and Grade Point Averages

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ANALYSIS OF FINANCIAL ASSISTANCE ON GRADUATION RATES AND  
GRADE POINT AVERAGES

by

John L Perry

Dissertation

Submitted to the Faculty of

Olivet Nazarene University

School of Graduate and Continuing Studies

in Partial Fulfillment of the Requirements for

the Degree of

Doctor of Education

in

Ethical Leadership

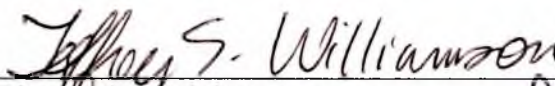
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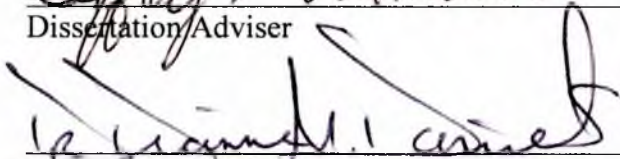
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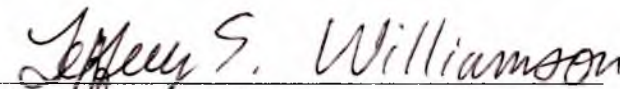
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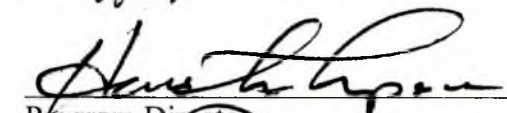
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## DEDICATION

This dissertation is dedicated to my wife, Monique Perry. Her patience and understanding has enabled me to make it through this grueling process. She is a great inspiration, my best friend, and genuine person.

## ABSTRACT

This investigation examined the different types of federal, state, institutional, employment, and loan programs available to students at an Illinois community college in order to determine the impact of these programs on student graduation rates and grade point averages. The method selected for this analysis was a quasi-experimental design because it allowed the researcher to determine the relationships between multiple pre-assigned groups. Data was collected from first-time students from multiple academic years and separated into groups based on the type of financial aid received including grants, loans, grants and loans, institutional scholarship, Federal Work Study, and no financial assistance. The independent variables were the different groups of financial aid and the dependent variables were the graduation rate and the grade point average. Findings were consistent with previous research and indicated statistical significance on graduation rates of students who received grants, institutional scholarships, and Federal Work Study over students who received only loans or no financial assistance. No statistical significance was found with grade point average. Based on these findings, it is suggested that community colleges continue to seek ways to make college completion a reality for students with financial need.

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## CHAPTER I

### INTRODUCTION

In the United States, student financial aid can be traced back to the 1600s when the first scholarships were founded for students attending Harvard University (Kantrowitz, 2013). However, student financial assistance, as it is known today, began with a series of Congressional bills signed into law in the mid-1960s. The Higher Education Act of 1965 established the Educational Opportunity Grant Program, later renamed the Federal Pell Grant, along with the Guaranteed Student Loan Program (Kantrowitz). From that point, the federal government established itself as an entity in the student financial aid process. Currently, each year brings more laws and regulations that impact colleges and universities, students, and taxpayers.

With federal funding reaching into many billions of dollars, it seemed necessary to explore the effectiveness of federal and state financial aid programs. According to Robinson and Cheston (2012) the Pell Grant is the largest education expense of the federal government, costing taxpayers \$35.6 billion in 2010-2011. According to the Congressional Budget Office, Nonpartisan Analysis for the U. S. Congress (2013), Pell Grant spending grew by 158% from 2006-2007 to 2010-2011 and has allowed more undergraduate students to receive it.

Nguyen (2009) examined federal student loans, dropout rates, and loan repayment and found that reliance on education loans will continue to see growth due to rising college prices and stagnation in family income and grant assistance. Student loans can be

effective in assisting students in financing a portion of their education but may lead to financial hardship for those who leave college without a degree. Students in this scenario are more likely to be unemployed, have lower median incomes, and have higher default rates than those who graduate (Nguyen).

The federal government is not the only entity seeing increasing funding challenges as it pertains to college costs and aid programs. State grant funds continue to see greater demand and reductions due to budget shortfalls. The State of Illinois continues to see more students with financial need seeking access to funds while budget constraints hinder this access (Quinn, 2012). Because of this, the Illinois Monetary Award Program (MAP) grant continues to move the date of eligibility up, thus, making it more difficult to submit the necessary forms of application on time to seek eligibility (Quinn, 2012). Governor Quinn went on to suggest that community college students feel the brunt of this challenge because they tend to file for financial aid much later in the year than their four-year peers.

Given the economic stagnation, rising tuition costs, budget shortfalls, and large increases in student borrowing, the implications are such that a study is appropriate and necessary to determine if the different types of financial aid programs are assisting students to achieve college success.

#### Statement of the Problem

With tuition rates on the rise, students and their parents have greater concerns regarding college debt. According to Callender and Jackson (2008), these concerns lead students to seek more affordable education, such as community college. However, even community colleges are seeing a rise in student borrowing to cover living expenses,

which has caused great concern among financial aid professionals and policy makers (Dowd & Coury, 2006). Increased tuition and economic stagnation caused students to seek out multiple forms of financial assistance such as student loans and work-study programs coupled with any need-based or merit-based aid for which they qualified (Dowd & Coury). Community college students struggle to find a work-school-family balance that allows them to meet educational goals while maintaining employment and family responsibilities (Complete College America, 2011).

As mentioned in the introduction, some forms of aid are based on need while others are based on merit. Programs such as the federal Pell grant and Illinois MAP grant are based on calculations that determine need, while other programs are based on some type of merit, including academic performance (Doyle, 2010a; Hillman, 2011; Miron, Jones, & Kelaher-Young, 2012; Rubin, 2011). With so many assistance programs available, it is difficult to determine which are associated with college completion

The purpose of this study will be to evaluate the graduation rates and grade point averages of students with different types of financial assistance including the federal Pell Grant, Illinois MAP Grant, institutional foundation scholarships, subsidized and unsubsidized student loans, and Federal Work Study in order to determine which programs are more associated with college completion.

### Background

The background information in the following section is divided into four sections: need-based aid, merit-based aid, student borrowing, and financial aid specific to community colleges. Each section provided information necessary to understand the

correlation of financial aid programs on student grade point averages and college completion at a northeastern Illinois community college.

#### Need-Based Aid

Alon (2011) researched whether need-based grants are equally conducive to the college persistence of students from various economic backgrounds and the extent to which a redistribution of funds can narrow economic-based inequality in college persistence. Alon defined college persistence as a first year student progressing to the second year. He also defined it in terms of graduation within six years. According to Alon:

This study advances the current scholarship by considering the relationship between financial aid and persistence in college from the perspective of social equity: namely, by assessing whether need-based grants are equally conducive to the college persistence of students from various economic strata and the extent to which a redistribution of funds can narrow economic-based inequality in college persistence. (p. 808)

Alon (2011) concluded that need-based grants are a potentially effective instrument for raising college persistence rates for economically disadvantaged students to the level of their more affluent peers. Alon contended that increasing grant allocations to lower income students would increase the number of college graduates among this group and reduce the gap between them and their higher income peers. The redistribution of education funds can increase the share of bachelor's degree recipients and reduce the economic inequality.

Chen and DesJardins (2008) researched whether there was a gap in the dropout rates for low-income students compared with their upper income peers. They contended that research focusing on understanding the differences in dropout risks among income groups and the types of aid they receive in reducing gaps in affordability is often ignored.

Chen and DesJardins (2008) confirmed in their research that there is a gap in dropout rates for low-income students compared with their upper income peers. It appeared that dropout risk for students from low income families is not significantly different but the odds of dropping out for high income families were only 61.1% that of low income families. The researchers also noted that parental education played a role in drop out risks, with higher parental education being associated with lower dropout rates.

LaManque (2009) had a different approach to the issues plaguing financial assistance. He surveyed Free Application for Federal Student Aid (FAFSA) applicants to determine why some students delay the submission of their application prior to college enrollment. LaManque noted of FAFSA completers who filed at different times during the year had similar income levels as well as similar expected family contributions. Therefore, students who filed later in the year were just as likely to receive Pell Grants but unaware of their likeliness to obtain financial aid.

LaManque (2009) went on to conclude that, “uncertainty stemming from a lack of information can result in less financial aid awarded and lower student persistence” (p. 11). He also noted that, “The linkage between financial aid knowledge, a late application, reduced award amounts, and student persistence makes the study of financial aid knowledge an important part of efforts to improve student success” (p. 11).



Researchers such as Romano and Millard (2006) pointed to data that showed small percentages of students at community colleges being eligible for need-based aid, such as the Pell grant. They examined several hypotheses that might explain the low rate of Pell recipients at community colleges and found that community colleges have a large population of part-time students who reduce the overall percentage. This reduction occurs because part-time students receive less Pell funding as well as have less information about financial aid programs. Romano and Millard noted that only 36.2% of the 2-year public college students were full-time, while the percentage for the public 4-year colleges was 78.2%. Romano and Millard suggested a more accurate comparison would be to adjust for the differences in the part-time, full-time ratio. This adjustment raised the Pell Grant rate for community colleges from 13.8% to 23.8%, the same as public four-year colleges.

This was an important finding because it is perceived that lower income students attend community college (Romano & Millard, 2006). Therefore, these lower income students would have the possibility of greater eligibility for financial aid sources. Romano and Millard concluded that one cannot accurately use the percentage of Pell Grant recipients to determine where low-income students attend college.

There are many students who do not qualify for need-based financial assistance based on federal methodology calculations, more specifically the expected family contribution (EFC). However, these students are far from being considered at the middle-income level. Rubin (2011) examined the effect of federal Pell grant eligibility on college enrollment for student who graduated high school and also completed the FAFSA. After completing her analysis, she found that, "Having an EFC just less than or equal to \$3850

does not increase the probability that a low-income, on-time high school graduate who completed the FAFSA would enroll in college on-time in comparison to students just above the cutoff” (p. 685). Rubin also noted that 86% of high school graduates who completed a FAFSA enrolled in college irrespective of their expected family contribution.

While this study concluded that Pell grant eligibility did not have an effect on college enrollment, it is not to say that college persistence would not be affected. Rubin (2011) went on to say that, “There is no effect of federal Pell-eligibility on college enrollment due to the complexity of the FAFSA and uncertainty around one’s financial aid package” (p. 689). Due to the complex nature of filling out the FAFSA many low-income students who would likely be eligible for aid do not receive it.

#### Merit-Based Aid

While need-based aid accounted for a large portion of financial assistance at most colleges and universities, there was a move to provide more merit-based aid options at the institutional and state level. Andrews, DesJardins, and Ranchhod (2009) researched the likelihood of whether students from the Kalamazoo Public Schools considered attending public colleges in Michigan due to the implementation of the Kalamazoo Promise. An anonymous donor funded the Kalamazoo Promise. The donor offered to pay tuition and mandatory fees of graduates of Kalamazoo public high schools if they enrolled in college in Michigan. The researchers noted that, “By subsidizing the cost of public post-secondary institutions in Michigan, the Promise aims to attract families who are interested in securing these benefits for their children and increasing the likelihood that educated citizens remain in the area” (p. 25).

Over the last decade, merit-based requirements on student performance have been incorporated into state scholarship programs. Several states in the south implemented programs similar to that of the Kalamazoo Promise. Ness and Tucker (2008) gathered survey data regarding the perceptions of eligible scholarship recipients to determine the impact the Tennessee Education Lottery Scholarship had on college access for minority and low-income students. The authors noted that, “Tennessee is the only statewide merit aid program to offer two separate means to earn a scholarship: high school grade point average or standardized test score” (p. 573).

While state funded initiatives impacted student aid and college choice, other factors such as ethnic background and economic status influenced those decisions. Ness and Tucker (2008) found that the college decision process of African Americans was more likely than that of Caucasians to be perceived as being influenced by the receipt of merit aid. Similarly, students from families earning less than \$36,000 per year were more influenced by the receipt of merit-based aid. The authors concluded that a significant perceived difference of eligibility for merit-based scholarship awards could make a difference in under-represented populations in terms of initial enrollment and persistence.

Farrell and Kienzl (2009) sought to determine whether state merit scholarship programs achieved the objective of encouraging enrollment in higher education and kept students in state for college. The authors found that:

On average, 63 percent of all recent U. S. high school graduates between 1992 and 2004 went on to postsecondary education, which represents 2.2 to 2.7 million students. Roughly four out five high school graduates attended an in-state college. States with merit scholarship programs had nearly the same percentage of recent

high school graduates enrolled in college compared with states that did not, but of those who enrolled in college, the gap in in-state enrollment of recent high school graduates was much larger in merit aid states than in non-merit aid states. (p. 162)

Farrell and Kienzl (2009) noted that merit scholarship states experienced an eight percent increase in enrollment after the implementation of the program and concluded that state merit-based scholarship programs are having a positive impact on college enrollment and keeping students in state for college.

Other studies, such as Curs and Harper (2012), researched whether merit aid has a causal effect on collegiate success as measured by a student's first-year grade point average. They noted that, "Despite substantial research that estimates the relationship between financial aid and college access, retention, and graduation, the effect of financial aid on grade point averages has been relatively understudied" (p. 642).

Curs and Harper (2012) found positive effects of institutional financial aid on first-year GPA of underrepresented populations. They concluded that the positive effect of financial aid on retention and graduation may not come through the student's increased ability to afford tuition and remain in school but also through an increased incentive to receive better grades and focus on academic endeavors. In other words, the use of merit-based awards can be an important factor in academic performance among all students, including low-income and minority students.

Gross, Hossler, and Ziskin (2007) examined the effects of institutional financial aid on year-to-year persistence for a cohort of first-time, first-year students at three large doctorate-granting public universities. They found "The effects of institutional aid suggest that colleges and universities may be able to improve student persistence rates by

awarding financial aid to a greater number of enrolled students” (p. 36). There was also the possibility that the average amount of the institutional aid awarded may help explain retention and graduation rates.

Institutional aid could be need-based or merit-based. As Gross et al. (2007) indicated in their study, any type of institutional aid seemed to benefit in the persistence of the student. Based on findings, they noted, “Understanding of the effects of campus aid may help campus and public policy makers assess more carefully the effects of all forms of aid on student persistence, assisting in the development of comprehensive policies to enhance student success” (p. 37).

Some researchers were skeptical of need-based aid and, whether or not, it was equitable for lower income students because of the propensity for merit-based aid to replace need-based aid. Doyle (2010b) researched whether the implementation of more merit-based state financial aid programs would reduce funding or support from need-based programs and found that, “Given the models and specifications identified in this analysis, there is not detectable impact of merit-based aid on changes in need-based aid” (p. 412).

### Student Borrowing

There are a number of research studies that support a link between loans and college success. Kim (2007) investigated the relationship between undergraduate student loan debt and degree attainment. Kim noted “Higher education loans had a substantial negative effect on degree completion for low-income students and a modest negative effect on middle-income students” (p. 90). Increased borrowing among Black students had significant negative effects as compared to slight positive effects for White students.

Kim suggested that students from different socioeconomic backgrounds and racial/ethnic groups may have different levels of tolerance for student loan debt. These tolerances could have an effect on completion rates.

Kim (2007) went on to contend that, “There is likely to be a positive relationship between selectivity and rates of degree attainment because institutional selectivity influences the benefits of a college education” (p. 91). Kim defined selectivity as the degree to which institutions admit students. Students tended to complete a degree if they expected that the degree would be beneficial.

While the selectivity of certain institutions drives borrowers to completion with expectations of a payoff with a more prestigious job, colleges with lower selectivity face other borrowing challenges from their students. Callender and Jackson (2008) investigated if the fear of college debt actually constrained the selection of a college and the subject of study. The researchers provided information from the United Kingdom, who recently restructured the method of financing college within the country:

The 2004 Higher Education Act heralds a radical shift in England’s higher education funding, and particularly in student finances. The Act, which came into force in 2006/2007, has deregulated undergraduate tuition fees and introduced a quasi-market in higher education. Universities in 2006/2007 can charge up to a maximum of £3000 for any undergraduate course. However, all students, irrespective of their family’s income, now pay tuition fees. So, the means-tested flat rate tuition fees paid up front introduced in 1998 have been replaced with deferred fees repaid after graduation via an option student loan. Consequently, students now can take out a loan for both their living costs and their tuition fees.

And it is anticipated that the take up of loans for tuition will be the same as the take up of loans for maintenance, around 80%. Thus, the new student funding system is increasingly predicated on the accumulation of debt. (p. 405)

Callender and Jackson (2008) found that the change in policy in the United Kingdom created a change in thinking among college students. They suggested that students' choice of attending a university was constrained by the cost of going to university, especially among low-income families. Callender and Jackson noted that lower income students were more sensitive to the amount of debt they would accrue. Because of this, it impacted their choice of college.

The idea that student loan debt constrained the choice of college ties into some of the issues seen at community colleges. Because community colleges, historically, had low selectivity and inexpensive tuition and mandatory fees, it is important to research student borrowing at the community college level. England-Siegerdt (2011) investigated whether loans actually expand opportunities among community college students. She found that, "Being a first generation college student decreases the odds that a student will borrow. The same is true for students who are female and for those students who are still financially dependent on their parents" (p. 94). However, some students were more likely to borrow. For instance, older students borrowed more than younger students and higher income students borrowed more than lower income students (England-Siegerdt).

Many students and families were unsure how much borrowing is appropriate for the college experience. In fact, many tried to leverage student borrowing against future earning power. Simpson, Smith, Taylor, and Chadd (2012) explored risk factors associated with educational debt and the effects of these risk factors on college freshmen

and their willingness to incur educational debt. Their primary goal was to examine the relationships between loan knowledge, money management skills, debt tolerance attitudes, and student income potential to their willingness to incur educational debt. Simpson et al. found that, “Freshmen students lacked personal and general loan knowledge and had unrealistic expectations of future income at graduation. Each can be a contributing factor in overall student loan debt and should be addressed” (p. 24).

#### Aid At Community Colleges

Financial aid continues to be a difficult subject for students and families to understand when making decisions on college enrollment as well as college persistence through graduation. Specific to community colleges, financial aid faces additional issues. Dowd and Coury (2006) analyzed data to determine whether subsidized loans affect the persistence of students attending community colleges. Dowd and Coury found that, “Those who have loans will more quickly become dissatisfied with their college investment decision and withdraw” (p. 52). Dowd and Coury (2006) continued:

The risks of loan default are greater among low-income students, who have less of a financial cushion to absorb loan repayments, particularly in the absence of higher earnings associate with degree completion. With a mean income of \$29,000, these community college students are a relatively low income college-going population. (p. 53)

Due to the fact that community colleges have lower selectivity and a wider array of program and certificate options, retention and completion are major issues. Fike and Fike (2008) studied predictors of fall-to-spring and fall-to-fall retention for first-time college students enrolled in a community college. They found that, “according to the



regression models in the study, the strongest predictor for retention is passing a developmental reading course. College-level reading comprehension and reading strategies are essential for students to be able to read and understand their college-level textbooks” (p. 80).

Community colleges have historically attracted students that are required to take at least one developmental class because they have not tested into college level courses. Developmental coursework, therefore, becomes integrated into the education plan of a community college student. Fike and Fike (2008) went on to say:

Passing developmental mathematics courses is an indicator of fall-to-spring and fall-to-fall student retention. Not taking a developmental mathematics course lowered the odds of retention compared to students who took developmental mathematics even if they did not successfully complete it. Although we do not know the reason for this finding, it highlights the importance of developmental mathematics and warrants further study. (p. 81)

Fike and Fike (2008) found that a vast majority of students entering community college were not ready to take college level courses. Therefore, developmental courses were a major part of community college retention and completion. However, using financial aid for developmental courses becomes complicated because these courses do not count for college credit. Because of this, students enrolled in developmental courses are using up financial aid at a quicker rate and can exhaust need-based funds such as the Pell Grant before degree completion. Fike and Fike concluded that financial aid was a predictor in student retention.

The policies and procedures of the financial aid office are another important indicator on student enrollment. MacCallum (2008) explored the relationship between financial aid policies and procedures and the enrollment rate, retention, and success of students receiving financial aid. He noted:

The California community colleges are open-enrollment, low-cost institutions. Although a significant portion of financial aid students apply for financial aid early, a large number of students enroll shortly before instruction begins. Financial aid delivery begins the week before school starts and, since costs are low and on-campus student housing is uncommon, nearly all aid is disbursed directly to students. Once the initial financial aid disbursement has been made, students receive funds on rolling basis. California community college students are often low-income; the timely delivery of financial aid to purchase of books and cover living expenses is important to them. Policies and procedures, staffing levels, and other financial aid office characteristics that impinge upon financial aid processing therefore may also impinge upon financial aid student outcomes.

(p. 17)

MacCallum (2008) found that the typical California community college financial aid office is poorly integrated into its institution and the financial aid director does not have the appropriate status at the institution. Staffing levels within the financial aid offices were also shown to be inadequate to handle the demands of the students. MacCallum noted that the higher the need to upgrade staff, the lower retention and success of financial aid students. The length of time to process financial aid was

positively related to retention which indicated that at-risk students become frustrated and drop out before receiving their first financial aid disbursements.

### Research Questions

The research was guided by the following questions:

1. What differences exist in graduation rates between students who receive different forms of financial assistance?
2. What differences exist in first semester grade point average between students who receive different forms of financial assistance?
3. What differences exist in graduation rate and grade point average of students with any type of financial aid compared to students with no financial aid?

### Description of Terms

*College Success.* According to Crockett, Heffron, & Schneider (2012) college success was defined as graduation with associate degrees within a three-year period.

*Expected Family Contribution (EFC).* According to the U. S. Department of Education, Federal Student Aid (2012), the Expected Family Contribution (EFC) is a measure of a family's financial strength and is calculated according to a formula established by law. A family's taxed and untaxed income, assets, and benefits (such as unemployment or Social Security) are all considered in the formula. Also considered are family size and the number of family members who will attend college during the year.

*Federal Direct Subsidized and Unsubsidized Stafford Loans.* According to the U.S. Department of Education, Federal Student Aid (2012), subsidized and unsubsidized loans are federal student loans for eligible students to help cover the cost of higher education at a four-year college or university, community college, or trade, career, or

technical school. The U.S. Department of Education offers eligible students at participating schools Direct Subsidized Loans and Direct Unsubsidized Loans.

*Federal Pell Grant.* According to the U. S. Department of Education, Federal Student Aid (2012), A Federal Pell Grant, unlike a loan, does not have to be repaid. Federal Pell Grants are only awarded to undergraduate students who have not earned a bachelor's or professional degree.

*Federal Supplemental Educational Opportunity Grant (FSEOG or SEOG).* According to the U. S. Department of Education, Federal Student Aid (2012), to receive FSEOG, an applicant must fill out the Free Application for Federal Student Aid so the selected college can determine how much financial need exists. Students who will receive Federal Pell Grants and have the most financial need will receive FSEOGs first. The FSEOG does not need to be repaid. The FSEOG program is administered directly by the financial aid office at each participating school and is therefore called campus-based aid.

*Federal Work Study.* According to the U. S. Department of Education, Federal Student Aid (2012), Federal Work-Study provides part-time jobs for undergraduate and graduate students with financial need, allowing them to earn money to help pay education expenses. The program encourages community service work and work related to the student's course of study.

*Free Application for Federal Student Aid (FAFSA).* According to the U. S. Department of Education, Federal Student Aid (2012), this term refers to the federal form that must be completed by students who would like to seek eligibility for a wide array of financial assistance.

*Illinois Monetary Award Program (MAP) Grant.* According to the Illinois Student Assistance Commission, College Zone (2012), the Monetary Award Program (MAP) provides grants, which do not need to be repaid, to Illinois residents who attend approved Illinois colleges and demonstrate financial need, based on the information provided on the Free Application for Federal Student Aid (FAFSA).

*Merit-based Aid.* Financial assistance received by a student for academic performance, such as grade point average or standardized test score (The Princeton Review, 2013).

*Need-based Aid.* Financial assistance received by a student based on family income and assets (The Princeton Review, 2013).

*Scholarships.* According to the U. S. Department of Education, Federal Student Aid (2012), Scholarships are gifts. They do not need to be repaid. There are thousands of them, offered by schools, employers, individuals, private companies, nonprofits, communities, religious groups, and professional and social organizations.

### Significance of Study

This study was significant in that it provided a northeastern Illinois community college with information regarding the different types of financial aid programs used at the institution. Each financial aid program was researched on a cohort of students to find college success rates of the students who had certain types of awards. Further, information was also gathered on students who did not qualify for any type of financial aid program. It was the intent of the researcher to investigate the financial aid programs to assist college administrators in strategic planning regarding student success. It is clear from the literature review in the background section of this chapter that financial aid has

been researched in many different ways to provide clarity on the impact it makes on students. These studies (Alon, 2011; Chen & DesJardins, 2008; Farrell & Kienzl, 2009; MacCallum, 2008; Ness & Tucker, 2008) have looked at the amount of aid, socioeconomic status of the students and their family, merit-based versus need-based aid, and academic performance of students. This study will fill the research gap by specifically analyzing the financial aid programs and the relationship they have on graduation rates and GPA.

#### Process to Accomplish

The purpose of this dissertation was to examine different types of financial assistance programs. The focus was to analyze select financial aid programs to determine if there was a relationship with GPA, or if financial aid programs assisted students in attaining an associate degree. Further, conclusions can be made as to which financial assistance programs were more associated with graduation and GPA. This study evaluated the success rates of students with different types of financial assistance including the federal Pell Grant, Illinois MAP Grant, institutional foundation scholarships, subsidized and unsubsidized student loans, and Federal Work Study in order to measure the outcomes of each program. Combinations of financial assistance programs as well as students who received no financial assistance were also evaluated.

The population sampled was students at a northeastern Illinois community college. From this group, multiple cohorts were evaluated based on the academic years of 2007-2008, 2008-2009, and 2009-2010 and combined into one sample. The students in the sample had some type of financial assistance or made other payment arrangements due to not meeting the requirements to receive financial aid or elected not to apply for

assistance. Therefore, the sample size of 2,767 included all first-time students within the given academic years. The study was quantitative and data collection came from the college's administrative software system.

The method selected for this dissertation was quasi experimental design. This method was selected because it allowed the researcher to determine the relationships between multiple pre-assigned groups (Gay, Mills, & Airasian, 2012).

The dependent variables for this study were graduation from an associate degree program and GPA. The independent variable was the students funding source of financial aid manipulated into six categories. They were grants, loans, grants and loans, institutional scholarships, student employment, and no financial aid. There was also a combined grouping of students with any type of financial aid that was compared to students with no form of financial aid. The GPA of students was measured at the completion of the first semester of attendance and graduation rate was calculated after no more than three years of enrollment.

Based on the data collection, there were six separate groups analyzed to provide answers to each research question. These groups came from the different types and combinations of financial aid mentioned. To answer research question one, graduation rates were determined by measuring three years out from each cohort year. For example, a first-year student in 2007-2008 would have until the end of the 2009-2010 academic year to graduate with an associate degree to be counted. These data were categorical thus a Chi-square analysis was performed using Bonferroni post hoc to control for Type I error. To answer research question two, a one-way analysis of variance (ANOVA) was used to compare the means for GPA. To answer research question three, students with

any type of financial assistance were collected and compared to students with no financial aid. They were analyzed by independent pairs *t*-test as well as Chi-square analysis to compare the means for GPA and graduation rates, respectively. Data collection was done in cooperation with the community college's Office of Institutional Research and Office of Financial Aid.

### Summary

Financial aid forms a complex structure of many different types of need-based and merit-based aid that affect students at all colleges and universities and span the entire demographic horizon. This investigation examined the different types of federal, state, institutional, employment, and loan programs available to students in order to determine the impact of these programs on student graduation rates and grade point average.



## CHAPTER II

### REVIEW OF THE LITERATURE

#### Introduction

One of the largest barriers that students face when selecting a college is the cost of tuition. Since the passing of the Higher Education Act of 1965 (Kantrowitz, 2013), many different types of financial assistance have been implemented at the federal, state, and institutional level to help reduce the financial burden to students. Some of these programs seem to be extremely effective while others may actually be detrimental to the student. A detailed exploration of the literature will establish a foundation for the purpose of this study.

#### Financial Aid Issues

In recent days, school administrators, financial aid professionals, and taxpayers have become skeptical of certain types of financial aid programs. Reasons for this include increasing debt among students, difficulty in finding employment after graduation, and abuses of the financial aid system. Baime and Mullin (2012) noted that instances of abuse of the federal student financial assistance programs occurred primarily in order to secure financial aid funds rather than to pursue an education. They noted that this happens predominantly at community colleges because of the low tuition rates. A student would enroll, apply for financial aid, and then receive the funds via direct deposit or cash disbursement. After receiving the funds the student would withdraw or not actively seek to complete the courses.

Another issue that has become prevalent among college students is the increased loan burden. Gross (2012) found that the average student debt is roughly the price of a

new car. He noted that overall student debt in the United States topped \$1 trillion, making it higher than credit card debt. Conversely, Cochrane, Szabo-Kubitz, and the Institute for College Access and Success (2011) issued a brief indicating that community colleges that do not offer federal loans actually impede the progress of their students. According to the study, when federal loans are not available, students seek financial assistance through more costly means such as private loans and credit cards.

A report by the Advisory Committee on Student Financial Assistance (2008) found that many students who would receive need-based financial aid do not apply. The two main reasons for not applying were students thought they were not eligible and, even if they were, would still have insufficient funds to pay the college expenses.

The Institute for College Access and Success (2007) uncovered similar findings when researching the issue at California's community colleges. Another study by the Institute for College Access and Success (2010) found that filling out the Free Application for Federal Student Aid (FAFSA) was complicated and time-consuming and, therefore, a barrier to entry. Villarreal (2008) confirmed in his results that financial aid information is important in the college enrollment process. This coincides with the idea that the process is difficult and students rely on financial aid professionals as well as parents to navigate through this system. Lee (2010) found that information about financial aid was readily available to students but they needed to be compelled and motivated to apply. She went on to conclude that students felt they could not attend college without aid but needed persistent support and external pressures to do so.

To add to this research, Solemsaas (2011) researched students who were formerly in foster care and found similar barriers with the financial aid process including difficulty

in accessing their financial aid benefits, lack of knowledge and awareness of different types of financial aid, and the complexity of the system. MacCallum (2008) explored the relationship between financial aid policies and procedures and the enrollment rate, retention, and success of students receiving financial aid. He found that the typical financial aid office is poorly integrated into its institution and the financial aid director does not have appropriate status at the institution. MacCallum suggested that colleges and universities make sure that their financial aid offices are properly staffed and adequate training opportunities exist, reduce the amount of time it takes to process a student's financial aid file, and omit unnecessary verification. In correlation to this research, Byrne (2006) did a retrospective study of the relation of financial aid and student access to higher education. Her results indicated significance in the relationships between institutional policies, practices, and procedures and financial aid awards to students.

McKinney and Roberts (2012) bolstered MacCallum's (2008) research by identifying the characteristics of America's community college financial aid counselors and develop a better understanding of their interactions with students. They found that community college financial aid counselors do not have the time or resources to provide every student with the information and guidance they need to make informed financial decisions about their college education. They also indicated that most community colleges have one financial aid counselor for every 1,000 students, or higher. McKinney and Roberts concluded that financial aid counselors are well positioned to play a leading role in the dissemination of pertinent and timely information so students and parents can make informed decisions about paying for college.

LaManque (2009) examined the variance in knowledge about the college system and its relationship to when the FAFSA is submitted. He hypothesized that students with more knowledge about the college system will apply for financial aid earlier than students with less knowledge. His hypothesis was confirmed in the study. Uncertainty stemming from a lack of information can result in less financial aid awarded and lower student persistence (LaManque). Other complications were encountered with web accessibility (Erickson, Trerise, VanLooy, Lee, & Bruyère, 2009), the wide range of students, including parents, enrolling at community colleges (Perna, Fester, & Walsh, 2010), and the timing with which students choose to apply for aid (Audet, 2010).

Quinze (2009) noted that the financial aid process is a significant part of the overall university experience for low-income students. Her phenomenological study explored the attitudes and experiences toward financial aid as well as anticipated student loan debt. Quinze found that funding college education, college affordability and financial aid, specific institutional aid and processes, types of financial aid opportunities, frustrating application process, and loan repayment and economic impact were the major themes evident from her research. She concluded that financial aid and the process of receiving financial aid is a significant factor in determining success of low-income students.

Similarly, Buyyounouski (2010) explored how low-income students respond to a financial aid guarantee program sponsored by a public institution. She found that the knowledge of the program had a major impact on whether or not low-income students were influenced by the program and whether this influence increased college-going

behaviors. She concluded that institutional programs can potentially be effective in increased access for low-income students if properly informed.

Wood (2011) studied middle-income financial aid recipients' experiences with financial aid and compared them to their low-income peers to determine if there was a difference in the experiences. She found that some middle-income financial aid recipients do experience deprivation relative to their low-income peers and concluded that changes in financial aid may need to occur to facilitate a more equitable experience for all student groups.

As noted, the financial aid system is not without some distinct problems ranging from financial aid fraud to increased loan burden on students to communication of financial aid programs to prospective students. These are just some of the problems that plague a massive distribution of funds made inefficient by regulation and policy.

#### Persistence and Retention

Simmons (2010) noted that student retention is a frequently discussed and commonly studied phenomenon in higher education. Retention is the "ability of an institution to retain a student from admission through graduation" (Seidman, 2005, p. 14). Persistence is interrelated with retention, and conceptualized by Seidman, as the "desire and action of a student to stay within the system of higher education from beginning through degree completion" (p. 14).

The Advisory Committee on Student Financial Assistance (2010) reported to Congress and the Secretary of Education that federal policy must seek to ensure that states and public colleges hold low-income students harmless against increases in cost of attendance by increased state and institutional need-based grant aid. They went on to say

shielding academically qualified low-income students from rising tuition is a national imperative. According to Complete College America (2011), time to graduation becomes a major stumbling block for students because the longer it takes to complete coursework the less likely it is that a student will receive a degree. Hopkins (2013) noted that need-based aid, such as the Pell Grant, should not be tied to graduation rates. This connects the two arguments by indicating that students who attend colleges with greater numbers of low-income students will have lower graduation rates but the policy should not punish these institutions based on these rates. Instead, there should be some type of adjustment made as these students may be attending part-time.

Gross et al. (2007) found that any type of institutional aid, including need-based or merit-based funds, has a positive impact on the persistence of students. Fike and Fike (2008) found that students enrolled in developmental courses tend to persist over their counterparts who do not enroll in developmental courses. Scoggin and Styron (2006) noted that a very low percentage of community college students indicated academic difficulty as a reason for withdrawal. Instead, personal reasons were shown to have the greatest impact on withdrawal. Because personal reasons were such a broad and vague reason for withdrawal, the financial aspect should be researched further.

Similarly, in studying the role of financial aid on college students enrolled in developmental courses, Noonan (2001) wanted to determine if there was a statistically significant difference in the academic progress and retention of students in developmental education who were financial aid recipients compared to their non-aid counterparts. She found that students in developmental courses who were awarded financial aid were more likely to have higher grade point averages, enroll in more total hours, and complete more

total hours than their non-aid peers. While the type of award did not seem to have an impact, Noonan noted that the amount of the aid provided made the difference. She concluded that students who receive financial aid are more likely to be elevated to perform at a higher academic level than their non-aid peers.

The transfer process is also an area of research when it comes to persistence and grade point average (Handy, 2011). Handy noted that students who begin at two-year institutions who desire a bachelor's degree struggle with the realization of their goal. Handy studied the state of Indiana. They are striving to make higher education more accessible, seamless, and cost effective. The partnership transfer program between Indiana University Bloomington (IUB) and Ivy Tech Community College Bloomington called Hoosier Link is a unique program that began in 2006 to enhance transfer student success through co-enrollment of a select group of students (Handy). This research study determined whether or not the Hoosier Link program had a positive impact on transfer student persistence and performance. Handy found that while dependent variables did not show significance for persistence and performance, there was a correlation between students' pre-transfer GPA and post-transfer GPA. An astounding 72% of the Hoosier Link students saw their first term post-transfer GPA dip. Handy concluded that the dip in GPA could be from the transition from one school to another. She noted that these students did recover from their GPA shock. One of the Hoosier Link cohorts persisted better than other IUB transfer students.

Downing (2008) found a significant relationship between the receipt of financial aid and student retention suggesting that financial aid eligibility is a major factor for students. Bynum (2011) studied a group of undocumented students and found similar

results suggesting that financial aid and full-time enrollment positively influenced persistence and success. St. John, Paulsen, and Carter (2005) collected similar results when they found that African Americans were highly sensitive to finances in their college choices and in their persistence decisions. They noted that tuition and student aid played a substantial role in the college choice process while grants and tuition had a substantial and direct influence on persistence.

Wiggan (2007) found that school finance reform and some form of a nationwide scholarship similar to the Hope Scholarship be created to assist low-income families pursue higher education and increase persistence. Kim (2011) examined how state aid policies affect students' postsecondary enrollment depending on their family income and racial and ethnic origin and found that there is a clear and consistent gap in college enrollment for students who are from different income, racial, and ethnic groups and that state financial aid significantly affected students' enrollment probabilities. Kim concluded that low-income students had enrollment propensities that were more likely to change according to the level of state aid.

Murillo (2004) conducted an ethnographic study of the perceptions of eight community college financial aid directors and found that community colleges risk failing to serve the projected increase in low-income students unless changes are made to the financial aid system. She went on to conclude that the low-income student will not persist, and educational enrollment goals will not be met, unless financial aid policies and practices are adjusted at the community college level.

Chen and St. John (2011) found substantial gaps in persistence rates by socio-economic status with high socio-economic status students having greater odds of



persistence than their lower peers. Kruse-Crocker (2008) examined student persistence based on financial aid type and student need level and found that student need level can marginally predict persistence at year one. Wine (2011) found a significant relationship between grant award amounts and retention as well as loan award amounts and retention for financial aid students. She also found a significant negative relationship between amounts of unmet need and retention. Chen and DesJardins (2008) reported similar findings when they studied dropout rates by income level and concluded that lower income students who receive the Pell Grant are less likely to dropout. Wilt (2010) studied resource allocation at community colleges and found that it has a significant impact on graduation rates. He also found that students who receive financial aid have an impact on these resource allocation and graduation rate.

One of the most discussed topics among enrollment management teams, faculty, and administrators is retention. This section detailed some of the different studies that center around retention as it pertains to financial aid. Obviously, financial aid programs can play a vital role in the retention of students to graduation. However, there are many different variables that play into the retention equation.

#### Need-Based Financial Assistance

Titus (2009) examined the relationship between changes in financial aspects of state higher education policies and the production of postsecondary degrees. His study focused on understanding how the attainment of bachelor degrees is influenced by certain financial aspects of state higher education policy. Titus found that specific financial aspects of the state higher education policy are complexly interrelated and influenced by external factors and that state need-based student financial aid responds to increases in

tuition at two-year public institutions. Titus concluded that the findings from his study show that bachelor's degree production is positively influenced by state need-based financial aid and state appropriations to higher education institutions.

Goldrick-Rab, Harris, Kelchen, and Benson (2012) examined the impacts of a private, need-based college financial aid program distributing grants at random among first-year Pell Grant recipients at public universities in Wisconsin. They found that offering the grant increased completion of a full-time credit load and rates of retention to the second year of college and that an increase of \$1000 in total financial aid received during the first year of college was associated with a 2.8% to 4.1% increase in rates of enrollment for the second year. Alon (2011) indicated that if need-based funds granted to affluent students had been diverted to students at the bottom of the income distribution, the gap in first-year persistence would have been closed. He went on to conclude that need-based grants are a potentially effective instrument for raising the college persistence rates of economically disadvantaged students to the level of their more affluent peers.

Kappes (2008) qualitatively examined the experience of low-income students who received complete, non-repayable financial aid packages and the factors that promote or hinder success and persistence. She found two themes that emerged from her research. Perceived institutional familiarity, broad support systems, and a successful institutional match contributed to increased persistence. On the other hand, she found that familial instability, academic distractions, and socio-cultural discomfort and assimilation issues negatively impact college persistence for need-based recipients.

Perna and Steele (2011), studied high school students' perceptions of, and expectation for, financial aid and how these perceptions and expectations affect college-

related behavior. While some (Goldrick-Rab et al., 2012; Noonan, 2001; Titus, 2009) have found the amount of aid to be a determining factor in college success, Perna and Steele found that the importance of considering perceptions and expectations about financial aid were more important than the actual amounts of aid. They noted that knowledge and understanding of aid are related to characteristics of the schools that students attend and characteristics of available aid. This correlates with Kappes (2008) research indicating institutional familiarity. Perna and Steele concluded with the idea that perceptions of, and expectations about, aid may encourage students to engage in other behaviors that promote college access and success, particularly academic preparation for need-based financial aid recipients.

There is great debate regarding the use of need-based funds over that of merit-based funds. Some argue that the majority of financial aid funds should be distributed to low-income students. However, others say that the return on investment is low because lower socioeconomic students have a lesser chance of graduation. This section detailed some of the research when it comes to need-based aid and presents relative information for this study.

#### Merit-Based Assistance and Tuition Discounting

According to Monks (2008), merit-based financial aid awards have become increasingly prevalent in the pricing policies of higher education institutions. In his research, Monks conducted an experiment to estimate the efficacy of merit-based aid awards in achieving the institutional objective of attracting the most academically desirable applicants. He found that merit-based awards have a significant impact on influencing enrollment probabilities among high ability applicants.

In a similar study, Lassila (2010) examined the effects of enrollment decisions based on discounted costs at private institutions. He investigated whether a relationship existed between institutional tuition discounting and overall enrollment, racial or ethnic group enrollment, and enrollment over a period of time. Lassila found that a positive relationship existed between institutional tuition discounting and aggregate enrollment, as well as for enrollment of Black and Hispanic students. He concluded that there was evidence of a positive relationship between increasing the institutional tuition discount and enrollment and is specifically effective in increasing minority enrollment.

Doyle (2010a) indicated that institutions have become more responsive to student academic characteristics over time. Over the same period of time, there has been little change in need-based aid. Institutions of higher education in the United States have moved to financial aid models that greatly favor students with higher ACT or SAT scores. Doyle thought that the shift of aid to models that favor merit over need suggested that institutions of higher education saw a benefit to appropriating institutional money to these students. He went on to note that because of the discrepancy in cost, it is possible that recruiting students with higher test scores ensured that students are more likely to be retained and graduate. Students with lower test scores and lower income are much less likely to be retained from year-to-year, and graduate (Doyle). Therefore, higher education institutions may view the merit-based investment as a long-term approach to retaining students.

In another study conducted by Doyle (2010b), he researched if the rise of merit-based state aid was reducing the amount of need-based state aid. He found that merit-

based aid has had little effect on the funding levels of need-based aid and it appears that both forms of assistance can be implemented without detracting from one another.

Ness (2010) noted this shift of state resources from need-based financial aid to merit-based aid. His research centered on how states determined the initial eligibility criteria for merit aid programs and found that there are a wide variety of policy and procedural steps that are taken within each state. Farrell and Kienzl (2009) examined the effectiveness of non-need, merit-based state scholarship programs and found that they have a significant impact on college enrollment after controlling for state-level factors. They noted that the effect depends on when the program was implemented, who is eligible to receive aid, and how much aid these students are awarded.

In testimony to the Advisory Committee on Student Financial Assistance, Patel and Richburg-Hayes (2011) noted the risk that low-income students and nontraditional students faced of not persisting to complete a degree due to competing priorities, financial pressures, and inadequate preparation for college. They discussed one solution for improving academic success among low-income students is a performance-based scholarship, paid contingent on attaining academic benchmarks.

According to Noel-Levitz (2012), community colleges enroll over one-third of the nation's postsecondary students but the success rates in these colleges are low. In their report, they investigated the relationship between levels of financial aid and student success in Louisiana community colleges. Their findings centered around four themes: 1. As the number of developmental courses in which a student enrolls increases, student success decreases: 2. Pell Grants do not overcome differences in success rates across income levels among students with equivalent academic preparation: 3. The level of

community college students' need met with gift aid is weakly associated with completion: and 4. Higher levels of need met with gift aid are not associated with greater student success for students who took more than one developmental course. Noel-Levitz concluded that financial aid is not an efficient tool to counteract the adverse effects of inadequate academic preparation.

Ware and Patel (2012) conducted a study seeking to evaluate whether performance-based scholarships are effective at improving retention among low-income students. They noted that a great deal was learned about the types of scholarships that work best for low-income students. The performance-based scholarships are an effective supplemental portion of aid that is helpful when combined with other forms of need-based aid.

Ness and Noland (2007) compared the scholarship eligibility rates of Tennessee students to students from Florida, Louisiana, and West Virginia in order to explore the hybrid classification entitled targeted merit aid. Ness and Noland pointed out that merit-based aid programs might have disproportionately excluded low-income students. Therefore, merit-based aid programs should have better targeted the low-income population of students. In 2002, Tennessee started a targeted merit-based scholarship program that awarded students aid based on grade point average or ACT scores. Supplemental awards were also given to students who came from low-income families. The Tennessee program was the only broad-based merit aid program to award larger scholarships to low-income students (Ness & Noland).

Ness and Noland (2007) found that Florida, Louisiana, and West Virginia required a certain grade point average and ACT score to qualify for their scholarships. On

the other hand, Tennessee required a certain grade point average or ACT score to qualify. The percentage of Tennessee students receiving scholarships was nearly double the number found in Florida, Louisiana, or West Virginia. Percentages of African American students who qualified for scholarships in the other three states were less than 20% of total test takers. Percentages of low-income students who qualified for scholarships in the other three states were less than 30% of total test takers. Ness and Noland argued that African American and low-income students could be targeted by broader definitions for state scholarship programs. In fact, if Florida, Louisiana, and West Virginia changed their scholarship requirements to assess grade point average or ACT score, they would see numbers similar to those reported in Tennessee.

Ness and Noland (2007) concluded that differentiation within merit-based scholarship programs makes an important difference. They indicated that targeted merit-based aid could broaden access to poor and minority students or bankrupt the merit-based aid program. In a similar study, Ness and Tucker (2008) found results that indicated that African American and low-income students are more likely to perceive their eligibility for merit-based scholarships as having an impact on their decision to attend college. Hubbard (2013) cited overall approval of the scholarship program and its ability to attract talented students to Tennessee colleges and universities. He also noted that the state even has provisions for low-income households who fall just short of the scholarship.

A local version of merit-based aid stemmed off of some of the merit-based state programs and was implemented in Kalamazoo. Miron, Jones, and Kelaher-Young (2012) hypothesized that the Kalamazoo Promise scholarship program changed the attitudes, goals, and aspirations of students toward post-secondary education. The Kalamazoo

Promise was an effort sponsored by private donors to provide full tuition to any state school for students who graduate from the Kalamazoo school district. The authors conducted an evaluation of the impact of the program, drawing from multiple data sources including student surveys and interviews along with interviews of educators in the school district.

The purpose of the Kalamazoo Promise was to prepare all students for post-secondary education (Miron et al., 2012). It is structured to create a financial incentive for students who perform at a higher academic level. Miron et al. (2012) sought to determine if the Promise changed the attitudes and behaviors of students and educators.

Miron et al. (2012) showed increased aspirations among students after the implementation of the Promise. Female students were more likely than male students to report higher levels of aspiration. Students who did not qualify for free or reduced lunch, along with students whose parents had a college degree, had higher aspirations as well. The level of awareness of the program itself also had an impact on increased aspirations.

Strong relationships in the data existed between students' aspirations and students' perceptions of teacher expectations (Miron et al., 2012). Another statistically significant finding was the relationship between students' aspirations and the teacher-student relationship.

All students interviewed reported at least some positive change in aspirations since the announcement of the Promise. The students were noted to have behavioral changes, including taking more challenging and advanced courses (Miron et al., 2012). The students least affected by the implementation of the Promise were already planning on attending post-secondary education. Andrews, et al. (2009) added to this research by



indicating that the Kalamazoo Promise increased the likelihood that students consider public institutions in Michigan. They also noted that the Kalamazoo Promise especially impacts the college choice set of students from families who earn less than \$50,000 in annual income.

There is a similar state merit-based program in Georgia entitled the HOPE scholarship. Condon, Prince, and Stuckart (2011) examined the history and recent changes to the merit-based program along with interesting consequences resulting from its implementation. They found that the program has thrived and continues to grow because of its role in encouraging students to perform better academically in high school and by increasing enrollment at state institutions of higher education. Zhang (2011) studied the effect of the HOPE scholarship on the field of science, technology, engineering, and mathematics and found that there was a positive effect of the state merit-aid program on degree production from these areas and is consistent with the effect on enrollment and academic quality of students who are attending in-state institutions.

The state of Oklahoma has another such program entitled the Oklahoma Higher Learning Access Program. Mendoza, Mendez, and Malcolm (2009) assessed the effect of financial aid on the persistence of full-time students in associate's degree programs at Oklahoma community colleges. They chose students classified as either first-year or second-year and who were enrolled on a full-time basis.

Mendoza et al. (2009) reported that 8,065 students, or 16.7%, transitioned from first-year to second-year status in one academic year. Ethnicity and income were major factors in college persistence. Students with state grants, federal grants, and student loans were more likely to persist to second-year status than students of similar income and

ethnicity without financial aid. They also noted that students with the merit-based state grant in combination with other types of financial assistance had even greater levels of persistence and concluded that income levels, ethnicity, and financial aid packages interacted in various ways as predictors of community college persistence in Oklahoma. Hybrid programs, such as the Oklahoma state grant, promoted student persistence because it forced students to take an adequate high school curriculum. When combined with other financial aid programs, college persistence was even greater though ethnicity and income moderated the effect.

Ness and Lips (2011) examined the differences in the portfolio of institutional scholarships and the marketing of these awards between campuses with and without state merit aid programs and found that colleges in states with no merit-based state grants had more scholarships that covered the cost of attendance. They noted, in contrast, colleges in states with merit-based grants were able to broaden the offering of scholarships to more students while using the merit-based state grant as a complimentary source of financial aid to cover cost of attendance. Ness and Lips found evidence that colleges in states with merit-based grants have crafted financial aid programs that respond to the state program. The merit-based state aid allowed these colleges to have a greater reach, offer more transparency in the aid that they offered, and marketed the college more effectively.

Curs and Harper (2012) researched whether institutional merit aid has a causal effect on collegiate success as measured by a student's first-year grade point average. The Dean's Scholarship offered monetary awards to students based on a range in grade point average. The higher grade point averages received larger scholarships. They found support for the idea that increased financial aid leads to increased academic performance

as measured through first-year collegiate grade point average. Curs and Harper provided causal evidence linking financial aid and grade point average. Merit-based aid increased academic performance among all college students, including low-income and minority students.

Hillman (2011) analyzed public, four-year, institutional data from 2002 to 2008 and concluded that institutional discounting can be leveraged for revenue generation. However, institutional discounting is only cost effective to 13% of tuition. Any institutional discounting exceeding 13% diminishes revenue returns. Colleges and universities have seen declines in state appropriations, making institutional aid a primary factor in enrollment management (Hillman).

In a case study, Schuh (2000) found that large financial aid awards were necessary in attracting the most talented students and seemed to encourage persistence toward a degree. However, smaller awards given to a larger number of students generated more net revenue but an institution lost some control over the intellectual capital on campus and did not increase retention rate.

Copa (2009) explored the factors that led to the move to include non-need aid in community college institutional financial aid policies. He found that the decision of community colleges to move to more forms of non-need aid included increased access, raised profile of the community colleges, cultural shift with the community college, and for use in strategic goals. Martin-Osorio (2009) studied the effect that these institutional scholarships had on community college students and found that they were more likely to persist than their peers who did not receive aid.

In summary, merit-based aid provides financial incentive for students to perform well in higher education. It is suggested that students who receive merit-based funding are more likely to graduate. However, some believe that students who received merit-based aid would have been successful at college completion regardless of the financial aid. Further, many students who receive merit-based have the means to afford a college education in the first place. Perhaps there is not one correct answer when it comes to the debate on need-based and merit-based financial assistance.

#### The Pell Grant

According to Robinson and Cheston (2012) the need-based Pell Grant began as a way to provide college access to low-income students. They noted that the program's cost has doubled between 2008 and 2010. Robinson and Cheston sought to report on what is known about the Pell Grant to determine whether the program effectively serves the students who receive them and whether taxpayers are getting an acceptable return on their investment of billions of dollars per year. They found that the Pell Grant is somewhat effective in getting low-income students into college, but not effective in helping them to graduate. They also found that 17% of Pell grant money contributes to college's bottom lines with making college more affordable for students. Robinson and Cheston recommended that eligibility requirements be tightened so that only very low-income students receive Pell. They also recommended that there should be minimum academic requirements to receive Pell, limit the number of years a student can receive Pell to four, and require that the program be properly tracked including participation, retention, and graduation rates. According to Robinson and Cheston, this would save

billions in taxpayer dollars each year and halt the program's contribution to college tuition increases.

Rubin (2011) examined the effect of federal Pell Grant eligibility on college enrollment for students who graduated from school in spring 2004 and who had also completed the FAFSA. She hypothesized that students who qualified at the top-end for a Pell Grant had a higher probability of enrolling in college compared to students just above the cutoff.

Rubin (2011) found that barely qualifying for a Pell Grant did not increase the probability that a low-income, on-time high school graduate who completed the FAFSA would enroll in college compared to students just above the cutoff to receive the Pell Grant. Further, federal Pell Grant eligibility had no effect on college enrollment for on-time high school students. Rubin explained that the amount of the Pell Grant a student would receive around the cutoff point is not enough funding to make a difference in enrollment plans of student. Specifically, students just below the cutoff only receive \$400 of Pell, a minimal sum compared to tuition at most institutions. She also found how complex the FAFSA is to complete and suggested this complex federal form deterred low-income students from completing it. Therefore, low-income students that may have qualified for assistance go without funding because of complex forms.

Romano and Millard (2006) wanted to determine why it appeared that so few community college students receive the Pell Grant. They noted that the National Center for Educational Statistics (NCES) data showed only 16.9% of community college students enrolled in credit courses received Pell grants. Romano and Millard examined seven hypotheses that might explain the low rate of Pell recipients. Romano and Millard

merged two data sets from NCES and the Office of Postsecondary Education to collect a final sample of 795 community colleges. They implemented regression analysis on the data sample.

Romano and Millard (2006) made several conclusions after analyzing the data against the seven hypotheses. First, the data from NCES was not accurate due to the definition of a community college. Second, students who already possess a bachelor's degree are not eligible to receive Pell. However, many of these students reenroll at community colleges. Third, tuition was not a factor. Fourth, community colleges have a large percentage of part-time students. The high proportion of part-time students tended to reduce the amount of Pell received at an institution. Fifth, non-matriculated students at community colleges are greater than those of 4-year colleges. In order to receive a Pell grant students must be matriculated. If the five factors above were adjusted to accommodate community colleges, the percentage of Pell recipients would have increased from the NCES recorded 16.9% to 41.9%. Romano and Millard concluded that Pell grant rates are not good indicators of low-income students attending college.

The federal Pell Grant continues to be the main source of grant funding from the federal government. Because it is need-based, the Pell Grant is only available to those at the lowest levels of socio-economic status. The Pell Grant is structured in such a way that many believe it is only available to the unemployed and single parents because the income threshold is so low to receive this grant. However, it is not expected to have any significant change in the near future.

## Student Borrowing

Blow (2013) noted that students are taking on staggering levels of debt to counteract increasing tuition costs and reductions in state and local funding. Caplan-Bricker (2013) reported that student loans are just the beginning as the United States debates over the philosophical disagreement of how much the government should make on its student loan program. Ensign (2012) discussed the new loan repayment option that connects federal loan payments to 10% of discretionary income, and forgives the remaining balance after 20 years. This is just one of the many methods proposed that attempts to research the different efficiencies in loan policies (Dente & Piraino, 2011). Adams and Moore (2007) even noted high-risk health behaviors among students with debt. From whatever angle viewed, student loans could have a major impact on our economy over the next several decades. Clark (2012), however, does offer students some advice on paying for college. The author encouraged students to avoid private student loans over federal loans because the interest rates are higher. Clark also cautioned parents of college students against neglecting to calculate how much you can reasonably repay and cosigning loans for the student.

Student borrowing has long-lasting impact on the financial stability of the student. Wei, Skomsvold, and National Center for Educational Statistics (2011) showed in their research that rampant borrowing continues to increase each decade, thereby, putting students further into debt when they leave college. Others such as Avery and Turner (2012) wanted to know if students borrow too much or not enough. The authors think it is possible that young people today are radically overestimating the economic value of going to college, and that many of them would be better off doing something else with

their time and money. While this varies with the type of school and the intended area of study, Avery and Turner suggested that students be aware of future earning power when taking out loans to avoid excessive debt and default.

Stokes and Wright (2010) researched some alternatives to student loans to assist with financing higher education. One of these alternatives is a Tertiary Education Levy that is based on the premise that higher education students should make a financial contribution to their studies that are based on both the cost of the course and the future income the graduate will earn. This alternative may lead to the belief that borrowed money will not need to be paid back (Stokes & Wright).

England-Siegerdt (2011) used a binary logistic regression to determine which financially needy students are likely to borrow from federal loan programs. Students less likely to borrow were first generation students, females, and students financially dependent on their parents. Policy makers should be mindful of data indicating groups of borrowers such as these. Decreases in other forms of state and federal assistance could drive student loan debt even higher.

Kim (2007) investigated the relationship between undergraduate student loan debt and degree attainment. Kim researched whether the first-year loan amount had an effect on degree attainment for students from different racial or ethnic backgrounds, different parental or personal income levels, and variance among institutional selectivity.

Kim (2007) found that higher education loans had a substantial negative effect on degree completion for low-income students and a modest negative effect for middle-income students. Additionally, higher education loans had a negative effect on degree completion for African-American students compared to their White counterparts. Kim



suggested that students from different socioeconomic backgrounds and racial or ethnic groups have different levels of tolerance for accumulating higher education loan debt.

In England, the 2004 Higher Education Act marked a new method in funding college education. The act deregulated undergraduate tuition and fees, making college cost the same irrespective of family income. As indicated by Callender and Jackson (2008), students must choose a college or university while keeping cost in mind.

Therefore, students and families have become more cost conscious in making enrollment decisions. However, student loan debt is expected to rise. While all income classes are affected by this change, lower income families will be most affected.

Callender and Jackson's (2008) research indicated that financial issues constrain lower social class students' choice of university far more than those from other social classes. The choices a student makes based on college cost will be useful to show recent perspective on loan debt. The United States has had a system like this for many years that places the bulk of college education cost on the student and family. England's move to this system was to avoid financial ruin at the government level.

Li (2008) identified the individual-level and institutional-level predictors of student baccalaureate degree attainment and time to degree completion. In the past few decades, federal financial aid shifted from grant funding aid to student loans. Li sought to compare the effects of different types of financial aid on student degree attainment. Her conceptual framework included institutional-level factors and individual-level factors that led to baccalaureate degree attainment and time to degree completion. The institutional-level factors included the type of institution, selectivity, tuition and fees, and institutional

graduation rate. The individual-level factors included age and gender characteristics, socioeconomic status, academic performance, and type of financial aid received.

Li (2008) found that students' degree attainment was positively associated with their parents' highest educational level, annual family income, SAT score, college cumulative grade point average, selectivity, tuition and fees, and institutional graduation rate but negatively associated with age. She also found that students who attended private institutions were more likely to obtain a degree than their peers enrolled at public institutions. Students who received only grants had a higher probability of degree attainment while students who received only loans had decreased probability of degree attainment. When reviewing results about time to degree completion, Li found that students who were older, whose parents had a higher educational level, came from wealthier families, obtained a higher SAT score, higher grade point average, and attended a private, selective institution were more likely to obtain a degree in a shorter period of time.

Li (2008) found that students who used grants as the only means to finance their college were more likely to obtain their degree than students who used only loans. Similarly, she found that students who used a combination of grants and loans were more likely to obtain a degree than students using only loans. She also indicated that specific types of financial aid did not show significant effects on time to obtain a degree. However, she noted that students who received both grants and loans remained enrolled more than one month longer, on average, than students who received only loans to obtain a degree.

Li (2008) investigated the effects of different types of financial aid packages on the degree attainment of undergraduates in four-year institutions and concluded that loans might not be as effective as grants for assisting undergraduate students in receiving a degree. However, she noted that loans in combination with grants may have provided opportunities for more students to enter and complete a college education, but might not have had as positive an influence on students regarding baccalaureate degree attainment, as did grants.

Simpson et al. (2012) explored risk factors associated with educational debt and the effects of these risk factors on college freshmen and their willingness to incur educational debt. Their primary goal was to examine the relationships between loan knowledge, money management skills, debt tolerance attitudes, and student income potential to their willingness to incur educational debt.

Simpson et al. (2012) found that loan knowledge, money management skills, and debt tolerance attitudes did not affect the role of cost in students' decisions in college choice. Students did not, however, have strong loan knowledge and overestimated their perceived future income. Students with higher estimated personal debt were less willing to incur student loan debt than students with lower estimated personal debt. Simpson et al. indicated students did not want to incur debt, but they have to in order to attend college. They concluded that freshman students lacked personal and general loan knowledge and had unrealistic expectations of future income at graduation.

Gross, Cekic, Hossler, and Hillman (2009) reviewed the literature of research on student loan default conducted between 1978 and 2007, identified 41 of the higher-quality studies, and summarized them. Federal higher education policy has shifted from

grants to loans as the means for providing financial assistance to low-income families for postsecondary education. Due to this shift, there has been an increase in the amount of borrowing at higher education institutions. Gross et al. targeted peer-reviewed journals in the fields of higher education, economics, sociology, and finance to create a systematic template of recurring themes.

Gross et al. (2009) found that students who attended less-than-two-year, proprietary, or community colleges had higher default rates than their peers at four-year or more selective institutions. Students from proprietary or less-than-four-year institutions borrowed more, came from lower-income families, and belonged to racial minority groups. Gross et al. also found that students who enrolled continuously and graduated in eight semesters or less were less likely to default. Gross et al. concluded that the evidence suggested that default rates are not good vehicles for assessing the quality of institutions or of various types of loans. They also concluded that financial aid professionals could not identify students likely to default so they could be made ineligible to borrow.

Dowd and Coury (2006) determined whether subsidized loans affect the persistence of students attending community colleges. They examined the influence of tuition prices and financial aid in the form of grants, loans, and work-study to determine which programs had the most effect on persistence at community colleges.

Dowd and Coury (2006) hypothesized that higher tuition rates would have a negative effect on persistence while tuition subsidies in the form of grants and work-study awards would have a positive effect. They also hypothesized that subsidized and unsubsidized loans would have less positive effect than grants because loans must be

repaid. The effects of borrowing were hypothesized to have greater adverse effect on lower income students compared to higher income students. They found that loans had a negative effect on persistence and no effect on degree attainment. Community college student borrowers had a greater negative assessment of the net benefits of education than that of their non-borrowing peers. Only 139 of the 694 students sampled earned an associate's degree within five years. Because graduation rates were so low, student borrowing at the community college level led to increased indebtedness with a low probability of completion (Dowd & Coury).

As noted in this section, student borrowing is a highly researched topic in the realm of higher education. Student borrowing continues to rise as other financial aid options are not enough to cover college tuition costs. However, the student borrowing system has many flaws that allow students, knowingly or not, to borrow in great excess of tuition resulting in large debt after college.

### Student Employment

Some studies have noted that one of the positive methods of funding the cost of higher education is student employment. On-campus jobs are convenient because they are usually on-campus. Employers are open to atypical schedules and students are able to get relative experience that will assist them when they graduate (Lewis, 2008) and well as enhance learning (Perozzi, 2009). Because of this, college student employment has been steadily increasing. Approximately 80% of all college students are employed while completing an undergraduate education (Riggert, Boyle, Petrosko, Ash, & Rude-Parkins, 2006). Kuh (2010) noted that students take on jobs for many different reasons. Some use it to pay for college expenses while others use it for supplemental income to afford the

newest electronic gadgets. The author noted that not everyone is excited to see students working and this includes professors because of the distraction it causes from their academic studies. That is why many institutions regulate the number of hours a student can work during the semester.

Dundes and Marx (2007) found that 74% of undergraduates work an average of 25.5 hours per week while going to school. They found that students who worked between 10 and 19 hours per week had higher grades and spent more time studying. They suggested that the increase in performance is due to an optimal work-college balance that establishes structure and discipline not achieved by working too few or too many hours. However, students must balance the benefit of organization and efficiency with increased stress and reduced time for socializing (Dundes & Marx).

Similarly, Furr and Elling (2000) surveyed a group of students on their involvement in college, and their employment experiences. They noted in their results that students who worked 30 or more hours per week were less involved with campus activities than students who were not employed or employed for fewer than 30 hours. They also found that students with larger work schedules stated that they believed their work schedule negatively impacted their academic progress. Students who did not work indicated that they had more frequent interactions with faculty and were more likely to remain at that particular college.

Pascarella, Edison, Nora, Hagedorn, and Terenzini (1998) went as far as studying cognitive development and the impact that student employment had on it. They found that cognitive development was not impaired if work hours did not exceed 15 or 20 hours. Perozzi, Rainey, and Wahlquist (2003) did similar work on the effects of student

employment on academic achievement. Pike, Kuh, and Massa-McKinley (2008) examined the relationships among first-year students' employment, engagement, and academic achievement. They found a statistically significant negative relationship between working more than 20 hours per week and grades, even after controlling for students' characteristics and levels of engagement. They also noted that relationships between work and grades revealed that working 20 hours or less on campus was significantly and positively related to grades.

Ford, Bosworth, and Wilson (1995) pointed out that there is a belief that the increase of hours in student employment has detrimental effects for academic performance. They noted that the research that has similar findings is usually confined to a specific institution or a specific group of students. Ford et al. suggested that the current focus on earnings and hours is limiting and that a broader employment profile should be used to understand the real consequences of student employment.

De La Rosa (2012) researched a summer bridge transition program at a public, four-year, urban university and hypothesized that students formed choices about student loans and employment while in the program. According to De La Rosa, low-income students are continually challenged by increased costs and a growing reliance on self-help forms of financial aid, more specifically, student loans and employment. De La Rosa investigated how low-income students determined their financial options as part of their college choice process.

According to De La Rosa (2012), most programs are geared toward improving students' academic and study skills, along with an introduction into college life, although, some contain a financial module as well. De La Rosa suggested that this study would add

to the understanding of how employment and student loan borrowing are viewed from the perspective of low-income students enrolled in a summer transition program.

De La Rosa (2012) investigated the financial information portion of a summer transition program by conducting surveys at the beginning of the program and again at the end of the program. The analysis was on responses to questions regarding financial challenges such as willingness to borrow, estimated work hours, parent financial support, and reasons for working.

De La Rosa (2012) showed changes in week one survey data to week six survey data. Students not willing to borrow a student loan increased from 118 to 171, a 14.1% increase over the length of the bridge program. Students refusing to seek financial support from a parent increased from 104 to 138, a 9.3% increase. Students expecting financial challenges for the first year of college decreased from 177 to 145, an 8.5% decrease. All three of the financial challenge statement changes were statistically significant.

Similarly, students' thoughts on projected work hours also indicated significant change. De La Rosa (2012) noted an increase in the number of students indicating the need to work 16 or more hours each week. Students only expecting to work five hours or less significantly decreased as well. Overall, by the end of the program, 166 students, or 44.3%, surveyed expected to work 16 hours per week or more, an increase of 6.2% compared to the week one surveys.

De La Rosa (2012) also surveyed the reasons students work. Two major reasons for student employment were to pay for college expenses as well as to take care of personal and family obligations. Both of these reasons for work were rated as major



reasons on the week one and week six surveys. However, there was a significant increase in students that indicated extra spending money as a major reason for employment.

De La Rosa (2012) concluded that the results provided support for the hypothesis by indicating a summer transition program can form perceptions and choices about student loans and employment. Class time spent on financial aid information helped to formulate perceptions about paying for college. Understanding this process provided evidence to enhance strategies and practices to advise low-income students in their choices of borrowing and employment.

The size of the sample suggested the impact of this summer bridge program on the student's perceptions of paying for college is somewhat small. However, the findings can be used to justify improving existing programming around these financial aid and college affordability issues. De La Rosa (2012) concluded that student loans and employment may be interconnected and, consequently, students may place different values on each form of assistance.

Martinez, Bilges, Shabazz, Miller, and Elsa-Sofia (2012) examined the difference between resiliency and institutional engagement for low-income, working, first-generation college students. Data were collected from 52 respondents to the Family History Knowledge and College Persistence Survey. The dependent variable indicated whether a student participated in work-study, worked off campus, or was employed both in a work-study and off-campus job. Martinez et al. used an internal consistency estimate to process the survey data and one-way analysis of variance to evaluate the relationship between employment type, resiliency, and institutional engagement.

Martinez et al. (2012) noted a significant difference in means between students employed in work-study and students employed off campus. Greater resiliency was found among students employed off campus, and those who worked both off campus and work-study, than among students employed in work-study alone. Martinez et al. suggested that higher resiliency levels in students who work off campus results in being better able to navigate challenges faced while attending college. Because low-income, first-generation college students were less likely to have parental financial support, it was important for them to maintain either on-campus or off-campus employment. These students exhibited the persistence necessary to earn their degree while balancing their course load and employment.

One of the best ways for students to bridge the financial aid gap is to seek student employment. Working on campus while enrolled in courses is an excellent way to earn money to put towards the cost of college. It is also a convenient form of employment because students do not have to leave campus for most positions. Further, it is a great way to get experience for future employment options. It would be a positive move to increase the funding in this area to allow more students to procure student employment.

### Conclusion

Overall, there are positive and negative effects of each type of financial aid on student persistence and retention. Sometimes the financial aid process itself can be the cause of angst and frustration that hinders entry. However, different forms of need-based and merit-based aid seem to assist student with their academic endeavors. This gives a foundational research overview for this study that will assess the effectiveness of these programs on college grade point average and graduation rates.

## Summary

As evidenced by the literature review in this chapter, it seemed necessary to conduct a study that determined whether or not different forms of financial assistance assisted students to achieve greater graduation rates and higher grade point averages. Chapter three will examine the methodology that was used to conduct this type of research and present the process used to determine which types of aid led to higher graduation rates and grade point averages, if any.

## CHAPTER III

### METHODOLOGY

#### Introduction

By studying the literature available on the different types of financial aid that exists at the federal, state, and institutional levels, one can begin to comprehend the complexity of the different programs and the impact they have on students who seek to obtain a college education. The examination of students who received different types of financial assistance will give insight into such patterns that may exist related to college success.

#### Research Design

The research design was driven by the following research questions. Each was selected to provide a structured approach to gathering data on the college success of students who had different types of financial assistance.

1. What differences exist in graduation rates between students who receive different forms of financial assistance?
2. What differences exist in first semester grade point average between students who receive different forms of financial assistance?
3. What differences exist in graduation rate and grade point average of students with any type of financial aid compared to students with no financial aid?

Because the study involved nominal level of measurement such as graduation rates as well as interval level of measurement such as grade point averages, there were multiple methods and procedures that were used to answer each research question (Salkind, 2011). Graduation rates were determined by the completion date entered into the administrative system in a particular data field. This field was selected in the customized query so that graduation dates would be generated in a list. This process also gathered the field if it was blank indicating no graduation. First semester grade point averages were obtained in identical fashion. The Office of the Registrar in accordance with state and federal law originally entered these data in the campus administrative system. The structure of the research was to test for relationships between groups, without having control of the groups because the participants were pre-assigned. Because of this design, quasi-experimental research was applied (Salkind, 2012).

#### Population

The data was collected from a northeastern Illinois community college. Students selected for this study were first-time students meaning that they had never attended this community college or any other college in the past. There were a total of 2,767 unduplicated student records examined ranging over the academic years of 2007-2008, 2008-2009, and 2009-2010. Of this sample, 46.1% of students were male and 53.9% were female. Also, 68.8% were white, non-Hispanic, 10.9% were Black, and 3.8% were Hispanic.

The student records were separated into six groups based on the type of aid that was received. The first group entitled *grants only* included students who received the need-based Federal Pell Grant or the State of Illinois Monetary Award Program (MAP)

Grant. Students could also receive both grants. The second group entitled *loans only* included students who received a combination of subsidized (need-based) or unsubsidized (non need-based) loans through the William D. Ford Federal Direct Loan Program. The third group entitled *grants and loans* included all students from the second group that also had some type of state or federal grant. The fourth group entitled *no financial aid* included students who did not qualify or use any type of state, federal, or institutional forms of assistance. These students would have paid tuition charges using their own resources. The fifth group entitled *institutional scholarships* included students who received any type of scholarship through the community college's Foundation Office. These scholarships consist of a combination of need-based and merit-based funds. The sixth group entitled *Federal Work Study* included students who were awarded Federal Work Study and also obtained a campus job working up to 20 hours per week. See Table 1 for group names and their corresponding numbers.

Table 1

*Independent Variables by Group Name and Group Number*

<u>Group Number</u>	<u>Group Name</u>
1	Grants Only
2	Loans Only
3	Grants and Loans
4	No Financial Aid
5	Institutional Scholarships
6	Federal Work Study

## Data Collection

For all research questions, data was gathered through a custom query generated by the Office of Financial Aid and the Office of Institutional Research at the aforementioned community college. The researcher guided the data collection project by indicating the different types of student data needed to adequately conduct the study including the financial aid groups to be studied (Table 1), the fields to be obtained by the query, and the sorting of the data for analysis. The researcher began communication with personnel from the Office of Institutional Research in the spring of 2013. This timeframe was used because it provided the researcher with data from previous years that would include graduation rates for three years. After internal review approval was obtained, the Office of Institutional Research began constructing a customized query of the appropriate data fields located within the college's administrative software system with guidance from the Office of Financial Aid. Once complete, the data was exported to three spreadsheets based on academic year. The three spreadsheets were then made available to the researcher who combined all data into one spreadsheet. The data was collected via query and occurred over several weeks.

Once the data was combined into one spreadsheet, the researcher created new columns to quantify the nominal data using a simplistic numbering system where each number stood for a particular piece of nominal data. For example, the query generated the actual dates of graduation for a student who graduated and a blank cell for students who did not graduation. Students who had a graduation date were assigned a numerical value of one while students who did not graduate were assigned a numerical value of zero. Each group was correctly identified and then the data was exported to the statistics

software program known as SPSS. Within SPSS, the researcher was able to conduct statistical procedures to obtain mathematical outcomes to answer each research question.

#### Analytical Methods

Different statistical procedures were used on the groups in Table 1 based on the quasi-experimental design including  $\chi^2$ , *t*-test, and one-way ANOVA. Based on this, the independent variables for this study were the different groups of financial aid. The dependent variables were the graduation rate and the grade point average.

For research question one, a categorical comparison was conducted using  $\chi^2$  analysis. This allowed the researcher to take nominal graduation rate data and assign a value to each student record. A numeric marker of zero indicated that the student did not graduate from an associate degree program within three years. A numeric marker of one was assigned to students who did graduate from an associate degree program within three years. There were a total of 15 permutations of the six groups that were available to the researcher to analyze, shown in Table 2. Bonferroni post hoc analysis was used to prevent a Type I error by adjusting the alpha value from .05 to .003.



Table 2

*Group number comparison analyzed by Chi<sup>2</sup> for research question one*

1 – 2	1 – 3
1 – 4	1 – 5
1 – 6	2 – 3
2 – 4	2 – 5
2 – 6	3 – 4
3 – 5	3 – 6
4 – 5	4 – 6
5 – 6	

For research question two, a one-way ANOVA was used to analyze the first-semester grade point averages. The researcher chose this statistical procedure based on the interval data of the grade point average as well as the comparison of the six financial aid groups.

Research question three was an a priori review of elements located within the first two research questions. First, a *t*-test was used to compare the means of the two independent groups grade point averages. The groups consisted of those with any type of financial aid and those with no form of financial aid. Second,  $\chi^2$  analysis was conducted to analyze graduation rates of the two groups.

#### Limitations

As mentioned, this research study was conducted at one community college in the State of Illinois. The institution is relatively small in size so it was necessary to select data from multiple years to generate a higher power examination. Further, the researcher

for this study selected a first semester grade point average. This may not be the best indicator for community college students' success rates because of the open admission policy of the community college (Akins, 2009).

Another limitation to this study is the narrow focus of grade point average and graduation rate with financial aid. Financial aid is just one of the many factors that contribute to student success (Patel & Rudd, 2012). As observed in the literature review, other variables may interact or contribute to college success in addition to financial aid.

A final limitation of this study was the academic years chosen for data retrieval. The community college was in a trend of extreme growth due to the downturn in the economy. Many people had been laid off or downsized which caused them to return to school to study a different career path or gain further certification to bolster employment opportunities. Because of this, the enrollment numbers at the community college were larger than historical averages.

### Summary

There are many different types of financial aid that students use in order to assist with tuition rates. This research examined six of those groups at a community college located in the state of Illinois in order to determine significance between groups when measuring grade point average and graduation rate. This study should be able to add to the academic body of knowledge that exists in order to aid colleges and universities with promoting student success and enrollment management. If aid deficiencies are detected early it may be possible to assist these students to seek further funding that will keep them enrolled and seeking graduation. Further, the evaluation of student financial aid

packages offered to prospective students could be evaluated and promote greater enrollment rates and yields.

With this methodology, statistical analysis was conducted and results were generated. The findings, conclusions, implications, and recommendations are discussed in the following chapter.

## CHAPTER IV

### FINDINGS AND CONCLUSIONS

#### Introduction

Chapter three outlined the specific methodology for this research design based on three research questions.

1. What differences exist in graduation rates between students who receive different forms of financial assistance?
2. What differences exist in first semester grade point average between students who receive different forms of financial assistance?
3. What differences exist in graduation rate and grade point average of students with any type of financial aid compared to students with no financial aid?

As a quantitative quasi-experimental design, it was necessary to conduct multiple statistical tests to determine if there was any significance in graduation rates or grade point averages among groups of students with different types of financial aid. This chapter will review the findings of the methodology and provide conclusions based on the data.

#### Findings

To answer the first research question,  $\chi^2$  analysis was completed due to the nominal data for graduation rate. Bonferroni post hoc analysis was used to limit the potential for Type I error by dividing the alpha value of .05 by 15 to give an adjusted

alpha of .003. The omnibus calculation showed that there was significance between the different groups of financial aid ( $\chi^2(5, N = 2767) = 351.26, p < .001, \text{Cramer's } V = .356$ ).

There were six groups that comprised the comparison for research question one seen in Table 1. The six groups generated 15 possible interactive comparisons to be studied to confirm significance between groups. These comparisons are listed in Table 2. As mentioned, Bonferroni's post hoc analysis was used with an adjusted alpha value of .003.

Of the 15 possible combinations of the six groups, seven showed significance. The first was between group one and group two ( $\chi^2(1, N = 660) = 28.19, p < .001, \text{Cramer's } V = .207$ ). Group one (Grants Only) had a higher graduation rate than group two (Loans Only). Cramer's V evaluation showed a small effect size indicating a lower relationship between the two variables.

The second was between group one and group four ( $\chi^2(1, N = 2457) = 330.94, p < .001, \text{Cramer's } V = .367$ ). Group one (Grants Only) had a higher graduation rate than group four (No Financial Aid). Cramer's V evaluation showed a medium effect size indicating a moderate relationship between the two variables.

The third was between group one and group five ( $\chi^2(1, N = 742) = 10.72, p = .001, \text{Cramer's } V = .120$ ). Group one (Grants Only) had a higher graduation rate than group five (Institutional Scholarships). Cramer's V evaluation showed a small effect size indicating a lower relationship between the two variables.

The fourth was between group two and group five ( $\chi^2(1, N = 226) = 9.42, p = .002, \text{Cramer's } V = .204$ ). Group five (Institutional Scholarships) had a higher graduation

rate than group two (Loans Only). Cramer's V evaluation showed a small effect size indicating a lower relationship between the two variables.

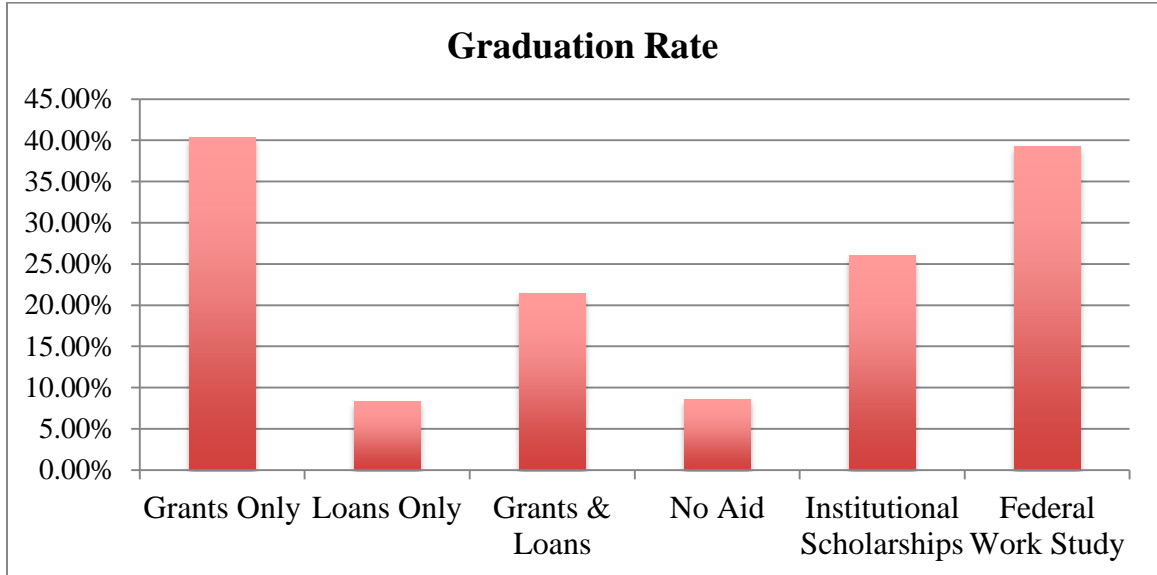
The fifth was between group two and group six ( $\chi^2(1, N = 128) = 17.66, p < .001$ , Cramer's V = .371). Group six (Federal Work Study) had a higher graduation rate than group two (Loans Only). Cramer's V evaluation showed a medium effect size indicating a moderate relationship between the two variables.

The sixth was between group four and group five ( $\chi^2(1, N = 2023) = 47.92, p < .001$ , Cramer's V = .154). Group five (Institutional Scholarships) had a higher graduation rate than group four (No Financial Aid). Cramer's V evaluation showed a small effect size indicating a lower relationship between the two variables.

The seventh was between group four and group six ( $\chi^2(1, N = 1925) = 59.46, p < .001$ , Cramer's V = .176). Group six (Federal Work Study) had a higher graduation rate than group four (No Financial Aid). Cramer's V evaluation showed a small effect size indicating a lower relationship between the two variables.

The graduation rate for each of these groups is displayed in Figure 1. The overall graduation rate for the entire sample from the community college was 17.06%.

Figure 1 *Graduation Rates of Each Financial Aid Group*



The other eight groupings that showed no significance are listed below in Table 3 broken down by group and Chi<sup>2</sup> equation.

Table 3

*X<sup>2</sup> Analysis of Non-Significant Groups*

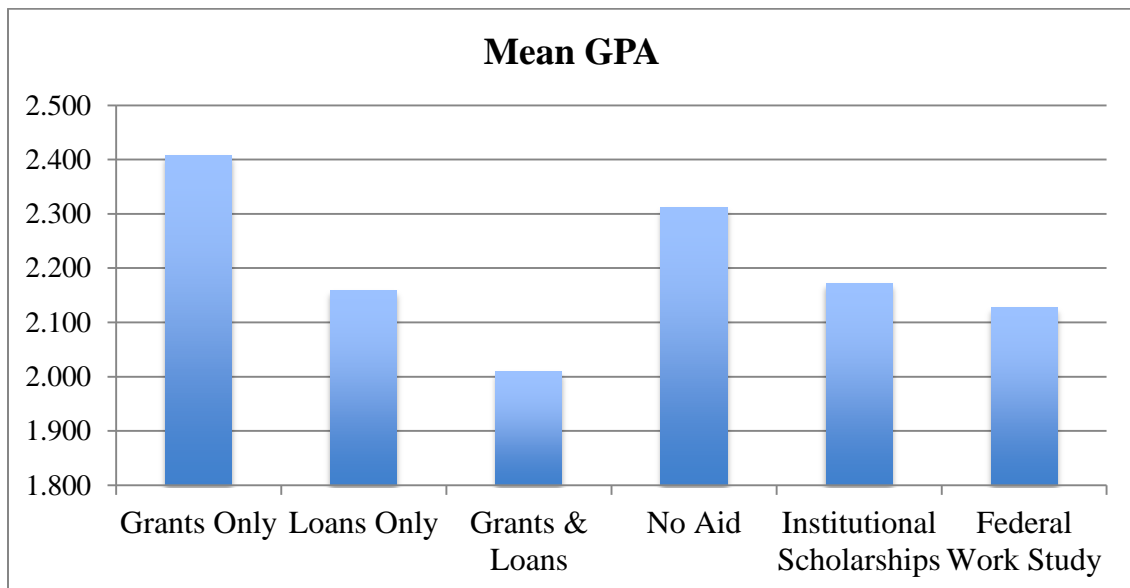
Groups Compared	X <sup>2</sup> Equation
1 and 3	X <sup>2</sup> (1, N = 616) = 3.99, p = .046, Cramer's V = .080
1 and 6	X <sup>2</sup> (1, N = 644) = .022, p = .872, Cramer's V = .006
2 and 3	X <sup>2</sup> (1, N = 100) = 3.27, p = .070, Cramer's V = .181
2 and 4	X <sup>2</sup> (1, N = 1941) = .007, p = .934, Cramer's V = .002
3 and 4	X <sup>2</sup> (1, N = 1897) = 5.64, p = .018, Cramer's V = .055
3 and 5	X <sup>2</sup> (1, N = 182) = .259, p = .611, Cramer's V = .038
3 and 6	X <sup>2</sup> (1, N = 84) = 2.68, p = .102, Cramer's V = .179
5 and 6	X <sup>2</sup> (1, N = 210) = 3.497, p = .061, Cramer's V = .129

Based on the data, it was determined that group one (grants only), group five (institutional scholarships), and group six (Federal Work Study) showed significantly high graduation rates when compared to the other groups, especially groups two and four. Student assistance in the form of grants, institutional scholarships, and Federal Work Study appear to contribute to higher graduation rates among the students who receive

such aid. Students taking only loans or not receiving any financial assistance had the lowest graduation rates.

To answer the second research question, a one-way ANOVA was conducted to review the first semester grade point averages of each financial aid group. It was determined that no significance was observed between the groups based on a first semester GPA ( $F(5, 2761) = 1.42, p = .22, \eta^2 = .003$ ). See Figure 2 for the mean grade point averages of each financial aid group.

Figure 2 Mean Grade Point Averages of Each Financial Aid Group



Due to the variety of circumstances for which a student enrolls at a community college, perhaps first semester grade point average is not a reliable indicator when comparing financial aid and performance. The open enrollment policy of most community colleges produces a vast array of grade point averages.

To answer the third research question, a  $t$ -test and  $\chi^2$  were used. The  $t$ -test was used to measure the grade point average between the group consisting of students with



any type of financial aid and the group of students with no form of financial aid. The group with any type of financial aid ( $M = 2.28$ ,  $SD = 1.36$ ) was strikingly similar to that of the group with no financial aid ( $M = 2.31$ ,  $SD = 1.46$ ). No significance was found when the  $t$ -test was conducted ( $t(2553) = .45$ ,  $p = .65$ ).

The  $\chi^2$  analysis of the graduation rate of the group with any type of financial aid and the group with no financial aid produced significant results ( $\chi^2(1, N = 2555) = 233.41$ ,  $p < .001$ , Cramer's  $V = .302$ ). The graduation rate for the group with any form of financial aid was 33.09% and the group with no financial aid was 8.61%. Cramer's  $V$  evaluation showed a medium effect size indicating a moderate relationship between the two variables. As an a priori comparison to the first two research questions, the third question exhibits similar results and bolsters the findings that grants, institutional scholarships, and Federal Work Study are conducive to assisting students in graduating from this particular community college.

## Conclusions

### Research Question One

Research question one sought to determine if differences exist in graduation rates between students who receive different forms of financial assistance. According to the data derived from  $\chi^2$  analysis on the six different groups of financial aid, it was determined that tests imply a statistical significance for the sample population in the type of aid received and graduation rate, particularly with three groups. According to the data, students who received need-based grants in the form of the Federal Pell Grant or the State of Illinois MAP Grant have a 40.3% graduation rate. This was the highest graduation rate of any group and significant when compared to students who receive loans only,

institutional scholarships, or no form of financial aid. To receive either one of these need-based grants, a student must complete the FAFSA. McKinney and Novak (2013) found similar results when they analyzed the persistence rates of students who completed the FAFSA. They noted the FAFSA completion generated higher persistence rates giving weight to the concept that students with greater financial need do benefit from these programs.

The second highest graduation rates among the different financial aid groups were students who received Federal Work Study. Student employment through the Federal Work Study program has been shown to generate positive results in students including gaining relative work experience (Lewis, 2008), enhancing learning (Perozzi, 2009), and paying for college expenses (Kuh, 2010). Federal Work Study is a need-based program that is run according to campus-based standards. The students in this study not only received Federal Work Study but also were able to secure employment at the community college. During the semester, students are only allowed to work a maximum of 20 hours per week. Working in excess of 20 hours per can have negative effects such as impairment of cognitive function (Pascarella et al., 1998), decrease in classroom and campus life engagement (Pike et al., 2008), and poor academic performance (Ford et al., 1995).

The third highest graduation rate and the final group to show significance was among students who received institutional scholarships. The institutional scholarships at the community college being studied are a combination of need-based and merit-based scholarships. Students who receive these scholarships may also receive other types of aid in addition to the scholarship itself. Similar to other studies, institutional aid has been

shown to have positive effects on grade point average (Curs & Harper, 2012) and improve persistence rates (Gross et al., 2007). It was interesting to find that this study saw similar results with other studies based on institutional aid even though the number of recipients was relatively low ( $n = 154$ ) compared to the total number ( $N = 2767$ ).

The two lowest graduation rates were seen in students who received no financial aid (161 of 1869 students or 8.61%) and students who only received loans (6 of 72 students or 8.33%). Again, similarities abound with existing studies concluding that student borrowing has a negative effect on low-income students (Kim, 2007), manifests itself in higher default rates at community colleges (Gross et al., 2009), and negatively affects persistence (Dowd & Coury, 2006).

#### Research Question Two

Research question two sought to examine the differences in first semester grade point average of students who received different forms of financial assistance. After conducting a one-way ANOVA, there was not enough evidence to suggest statistical significance among this study's sample population in the relationship between financial aid groups and first semester. Otherwise, the results are definitive. This finding may, however, be able to provide valuable information. As seen in research question one, there was significance in graduation rates among the different financial aid groups. Grants, institutional scholarships, and Federal Work Study all contributed to significantly higher graduation rates than did loans or no financial aid. But this is not the case at the beginning of a student's academic endeavor. Data in this study imply that all students finish the first semester in close academic proximity to one another. It is not until one

studies the retention of these students over the course of time that the differences are observed.

It is a possibility that students who continue to borrow semester after semester become concerned about the cumulative amount of loans that must be repaid and drop out. This would be similar to Kim (2007) whose findings indicated that low-income students are negatively affected by borrowing when analyzing degree completion. Also, low-income students are less likely to borrow (England-Siegerdt, 2011) making them vulnerable to the tuition charges that must be financed each semester. Further, community college students are more likely to attend on a part-time basis (Romano & Millard, 2006) making the path to degree completion much longer and less likely to attain.

### Research Question Three

Research question three was an a priori evaluation of the first two research questions by evaluating the differences that exist in graduation rate and grade point average of students with any type of financial aid compared to students with no financial aid. The findings for this question followed the result of research questions one and two. There was significance in the graduation rate as students with any type of aid had a higher rate (227 of 686 students or 33.09%) compared to students with no financial assistance (161 of 1869 students or 8.61%). Again, no significance was found in first semester grade point average. Based on the statistical findings of this study, financial aid may not assist students with higher first semester grade point averages but may contribute to significantly higher graduation rates.

## Implications and Recommendations

It is the wish of the researcher that future studies could build on these findings. This study was based on a relatively small community college. Future studies may want to include larger institutions or select more academic years within the same institution. Furthermore, the community college studied was in an enrollment transition during the years studied that coincided with economic uncertainty at a global level. Because of this economic anomaly, the community college experienced large enrollment increases as people returned to school after being laid off or downsized. Others returned to school for a different degree or certification in order to seek new employment opportunities. Perhaps alternative findings would occur at a different period in time.

Another interesting and worthwhile study would be a replication of this research at state, private, and proprietary institutions. Following this, comparative data could be drawn to determine if similarities or key differences exist between different types of institutions. It is possible that findings may be different especially if compared to private, more selective institutions.

This research separated financial aid into six groups that resulted in the combination of some forms of aid. This structure was done to ensure sample sizes were large enough to draw adequate conclusions. However, further research could study each individual financial aid program and see if other differences exist in graduation rate and grade point average. This could also be extended to include tuition discounting that occurs at many colleges and universities.

As mentioned, there was no statistical significance in the findings between financial aid groups and first semester grade point average. Perhaps differences would

exist if the sample were refined to include only full-time students. This study included both part-time and full-time students. Other key variables may be cumulative grade point average, end of first year grade point average, gender, ethnicity, and socio-economic status.

It is at the behest of the researcher that future studies analyze data representing students who receive no financial aid or students who only receive loans to assist with college tuition. As seen, these students had the lowest graduation rates in this study and appear to be very high risk for not completing. A future study could focus on these groups and test different retention models to try and improve these low graduation rates. Other studies may try some type of financial literacy interventions to make sure students only borrow what is needed and stay focused on academic achievement through interactions with academic advisors while following strict academic plans to ensure completion.

An important implication is that students must be aware that they file the FAFSA in order to be eligible for most forms of financial assistance. It is even becoming prevalent that colleges and universities are requiring the FAFSA for institutional aid (Kantrowitz, 2010). Failure to complete the FAFSA prior to March 1 can result in students missing out on valuable forms of aid that are beneficial in assisting the student financially.

It is also extremely important that colleges and universities ensure that the financial aid departments are adequately staffed, play a primary role in strategic planning, and employ professionals who possess the skills to process and inform students about the financial aid process. It is also the hope of the researcher that the United States Congress

work with the Department of Education to make the rules and regulations that govern financial aid programs as succinct as possible. Lately it seems that regulation upon regulation is added to make an extremely complex labyrinth of bureaucratic red tape that threatens to strangle financial aid professionals and, in turn, students who rely on financial aid.

It also seems critical that colleges and universities, especially community colleges, form retention committees or retention departments to adequately assess the needs of students. Some schools have such programs that allow faculty and staff to submit students who might be at risk. Without such programs, colleges and universities are left guessing as to why students withdraw before completion.

As evidenced by this study, grants, institutional scholarships, and Federal Work Study recipients were observed to have the highest graduation rates. Based on these findings, it is suggested that community colleges seek to increase student employment programs as much as financially feasible. It is also recommended that the community college's offices of financial aid and foundation meet regularly to discuss objectives and strategically plan the use of their resources to provide the maximum amount of aid to as many students as possible. This, in turn, creates a positive message that can be used in recruiting new donors to expand scholarship opportunities to more students.

Financial aid is a complicated process that spans the entire spectrum of our society from the top levels of government down to the lowest socio-economic levels. It is the hope of the researcher that we continue to research this topic to ensure that all students are given an opportunity to succeed at completing a college education so they can accomplish personal objectives and contribute to a greater society.

## REFERENCES

- Adams, T., & Moore, M. (2007). High-risk health and credit behavior among 18- to 25-year-old college students. *Journal of American College Health, 56*(2), 101-108.
- Advisory Committee on Student Financial Assistance. (2008, September). *Apply to succeed: Ensuring community college students benefit from need-based financial aid*. Washington, DC: Author.
- Advisory Committee on Student Financial Assistance. (2010, June). *The rising price of inequality: How inadequate grant aid limits college access and persistence*. Washington, DC: Author.
- Akins, E. (2009). *GED students versus traditional high school students: How do the GED graduates perform after the first semester of attendance at a rural community college?* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Alon, S. (2011). Who benefits most from financial aid? The heterogeneous effect of need-based grants on students' college persistence. *Social Science Quarterly, 92*(3), 807-829. doi:10.1111/j.1540-6237.2011.00793.x
- Andrews, R. J., DesJardins, S., & Ranchhod, V. (2009). The effects of the Kalamazoo Promise on college choice. *Economics of Education Review, 29*(5), 722-737.



- Audet, S. (2010). *The relationship between the timing of the admissions and financial aid application on satisfactory academic progress and retention at a large urban community college* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Avery, C., & Turner, S. (2012). Student loans: Do college students borrow too much – or not enough? *The Journal of Economic Perspectives*, 26(1), 165-192.
- Baime, D. S. & Mullin, C. M. (2012). Preventing abuse in federal student aid: Community college practices. *American Association of Community Colleges*, 1-7.
- Blow, C. M. (2013, March 8). A dangerous ‘new normal’ in college debt. *The New York Times*. Retrieved from [http://www.nytimes.com/2013/03/09/opinion/blow-a-dangerous-new-normal-in-college-debt.html?\\_r=0](http://www.nytimes.com/2013/03/09/opinion/blow-a-dangerous-new-normal-in-college-debt.html?_r=0)
- Buyyounouski, J. H. (2010). *Understanding how low-income students respond to institutional financial aid guarantees: A case study analysis* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Bynum, C. S. (2011). *The relationship between state financial aid and student persistence and success in college: An examination of Hispanic undocumented immigrant students in Texas community colleges* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>

- Byrne, D. K. (2006). *Relationships between financial aid policies, practices, and procedures at Texas public colleges and universities* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Callender, C., & Jackson, J. (2008). Does the fear of debt constrain choice of university and subject of study? *Studies in Higher Education*, 33(4), 405-429. doi:10.1080/03075070802211802
- Caplan-Bricker, N. (2013, July 31). Higher education has bigger problems than student loans. *The New Republic*. Retrieved from <http://www.newrepublic.com/node/114114/print>
- Chen, R., & DesJardins, S. L. (2008). Exploring the effects of financial aid on the gap in student dropout risks by income level. *Research in Higher Education*, 49, 1-18. doi:10.1007/s11162-007-9060-9
- Chen, R., & St. John, E. P. (2011). State financial policies and college student persistence: A national study. *The Journal of Higher Education*, 82(5), 629-660.
- Clark, J. B. (2012). Seven pitfalls to avoid when paying for college. *Kiplinger's Personal Finance*, 52-54.
- Cochrane, D., Szabo-Kubitz, L., & Institute for College Access & Success (2011). Still denied: How community colleges shortchange students by not offering federal loans. Issue Brief. *Project On Student Debt*. Retrieved from [http://projectonstudentdebt.org/files/pub/still\\_denied.pdf](http://projectonstudentdebt.org/files/pub/still_denied.pdf)

- Complete College America (2011). *Time is the enemy: The surprising truth about why today's college students aren't graduating and what needs to change*. Retrieved from [http://www.completecollege.org/docs/Time\\_Is\\_the\\_Enemy\\_Summary.pdf](http://www.completecollege.org/docs/Time_Is_the_Enemy_Summary.pdf)
- Condon, J. V., Prince, L. H., & Stuckart, E. B. (2011). Georgia's HOPE scholarship program after 18 years: Benefits, unintended consequences, and changes. *Journal of Student Financial Aid*, 41(1), 18-27.
- Congressional Budget Office, Nonpartisan Analysis for the U. S. Congress. (2013). *The Pell Grant program: Recent growth and policy options*. Retrieved from <http://www.cbo.gov/publication/44448>
- Copa, G. H. (2009). *Exploring the move to include non-need in community college institutional financial aid policies* (Doctoral dissertation). Retrieved from [http://www.completecollege.org/docs/Time\\_Is\\_the\\_Enemy\\_Summary.pdf](http://www.completecollege.org/docs/Time_Is_the_Enemy_Summary.pdf)
- Crockett, K., Heffron, M., & Schneider, M. (2012). Can financial aid improve student success at Louisiana's community colleges? A study of the potential impact of redistributing state gift aid on the success of Pell Grant recipients. *American Institutes For Research*, 1-13.
- Curs, B. R., & Harper, C. E. (2012). Financial aid and first-year collegiate GPA: A regression discontinuity approach. *The Review of Higher Education*, 35(4), 627-649. doi:10.1353/rhe.2012.0040
- De La Rosa, M. L. (2012). Borrowing and working of low-income students: The impact of a summer transition program. *Journal of Student Financial Aid*, 42(1), 5-15.
- Dente, B., & Piraino, N. (2011). Models for determining the efficiency of student loans policies. *Journal of Higher Education Policy and Management*, 33(4), 375-386.

- Dowd, A. C., & Coury, T. (2006). The effect of loans on the persistence and attainment of community college students. *Research in Higher Education, 47*(1), 33-62. doi:10.1007/s11162-005-8151-8
- Downing, R. C. (2008). *The relationship between financial aid and the retention of first-time community college students* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Doyle, W. R. (2010a). Changes in institutional aid, 1992-2003: The evolving role of merit aid. *Research in Higher Education, 51*, 789-810. doi:10.1007/s11162-010-9177-0
- Doyle, W. R. (2010b). Does merit-based aid "crowd out" need-based aid? *Research in Higher Education, 51*(5), 397-415. doi:10.1007/s11162-010-9166-3
- Dundes, L., & Marx, J. (2007). Balancing work and academics in college: Why do students working 10 to 19 hours per week excel? *Journal of College Student Retention: Research, Theory & Practice, 8*(1), 107-120
- England-Siegerdt, C. (2011). Do loans really expand opportunities for community college students? *Community College Journal of Research & Practice, 35*(1/2), 88-98. doi:10.1080/10668926.2011.525180
- Ensign, R. L. (2012, November 5). A new student-loan program launches. *The Wall Street Journal*. Retrieved from <http://blogs.wsj.com/totalreturn/2012/11/05/a-new-student-loan-program-launches/>
- Erickson, W., Trerise, S., VanLooy, S., Lee, C., & Bruyère, S. (2009). Web accessibility policies and practices at American community colleges. *Community College Journal of Research and Practice, 33*, 405-416. doi:10.1080/10668920802505561

- Farrell, P. L., & Kienzl, G. S. (2009). Are state non-need, merit-based scholarship programs impacting college enrollment? *Education Finance and Policy*, 4(2), 150-174.
- Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the community college. *Community College Review*, 36(2), 68-88.  
doi:10.1177/0091552108320222
- Ford, J., Bosworth, D., & Wilson, R. (1995). Part-time work and full-time higher education. *Studies in Higher Education*, 20(2), 187-202.
- Furr, S. R., & Elling, T. W. (2000). The influence of work on college student development. *NASPA Journal*, 37(2), 454-470
- Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications* (10<sup>th</sup> ed.). Boston, MA: Pearson.
- Goldrick-Rab, S., Harris, D. N., Kelchen, R., & Benson, J. (2012). *Need-based financial aid and college persistence: Experimental evidence from Wisconsin*. (Research Report No. 1393-12). Retrieved from Institute for Research on Poverty website: <http://www.irp.wisc.edu/publications/dps/pdfs/dp139312rev.pdf>
- Gross, J. P. (2012, November 8). How bad is it? *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/views/2012/11/08/how-bad-student-debt-problem-essay>
- Gross, J. P., Cekic, O., Hossler, D., & Hillman, N. (2009). What matters in student loan default: A review of the research literature. *Journal of Student Financial Aid*, 39(1), 19-29.

- Gross, J. P., Hossler, D., & Ziskin, M. (2007). Institutional aid and student persistence: An analysis of the effects of institutional financial aid at public four-year institutions. *Journal of Student Financial Aid*, 37(1), 28-39.
- Handy, L. B. (2011). *A great opportunity: Persistence and performance of hoosier link students* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Hillman, N. W. (2011). Tuition discounting for revenue management. *Research in Higher Education*, 53(3), 263-281.
- Hopkins, K. (2013, August 2). Tying financial aid to graduation rates could hurt low-income students, new findings show. *National Association of Student Financial Aid Administrators*. Retrieved from [http://www.nasfaa.org/Main/orig/2013/Tying\\_Financial\\_Aid\\_To\\_Graduation\\_Rates\\_Could\\_Hurt\\_Low-Income\\_Students,\\_New\\_Findings\\_Show.aspx](http://www.nasfaa.org/Main/orig/2013/Tying_Financial_Aid_To_Graduation_Rates_Could_Hurt_Low-Income_Students,_New_Findings_Show.aspx)
- Hubbard, A. (2013, June). TN report: Most Tennesseans want to limit lottery scholarships. *Murfreesboro Post*. Retrieved from [www.murfreesboropost.com/tn-report-most-tennesseans-want-to-limit-lottery-scholarships-cms-35753-printer](http://www.murfreesboropost.com/tn-report-most-tennesseans-want-to-limit-lottery-scholarships-cms-35753-printer)
- Illinois Student Assistance Commission, College Zone. (2012). Retrieved from <http://www.isac.org/students/during-college/types-of-financial-aid/grants/monetary-award-program.html>
- Institute for College Access and Success. (2007, December). *Green lights and red tape: Improving access to financial aid at California's community colleges*. Washington, DC: Author.

- Institute for College Access and Success. (2010, July). *After the FAFSA: How red tape can prevent eligible students from receiving financial aid*. Washington, DC: Author.
- Kantrowitz, M. (2010). Why do some merit-based scholarships require the FAFSA? *Fastweb*. Retrieved from <http://www.fastweb.com/financial-aid/articles/2481-why-do-some-merit-based-scholarships-require-the-fafsa>
- Kantrowitz, M. (2013). History of student financial aid. *FinAid Page, LLC*. Retrieved from <http://www.finaid.org/educators/history.phtml>
- Kappes, J. (2008). *What money can't buy: An examination of a complete financial aid program for low-income students* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Kim, D. (2007). The effect of loans on students' degree attainment: Differences by student and institution. *Harvard Educational Review*, 77(1), 64-100.
- Kim, J. Y. (2011). *An analysis of the effects of state financial aid policy on the timing of postsecondary enrollment: A focus on income and race differences* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Kruse-Crocker, M. (2008). *Financial aid type and student need level as predictors of undergraduate persistence at the University of Denver* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>

- Kuh, G. D. (2010, November 21). Maybe experience really can be the best teacher. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Maybe-Experience-Really-Can-Be/125433/>
- LaManque, A. (2009). Factors associated with delayed submission of the free application for federal financial aid. *Journal of Applied Research in the Community College*, 17(1), 6-12.
- Lassila, N. E. (2010). The relationship of institutional tuition discounts with enrollment at private, not-for-profit institutions. *Journal of Student Financial Aid*, 40(3), 26-38.
- Lee, K. C. (2010). *Factors inhibiting application for financial aid by low-income students at the University of Hawaii at Manoa* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Lewis, J. (2008) Student workers can learn more on the job. *The Chronicle of Higher Education*, 54(41), A56.
- Li, D. (2008). Degree attainment of undergraduate student borrowers in four-year institutions: A multilevel analysis. *Journal of Student Financial Aid*, 37(3), 5-16.
- MacCallum, M. (2008). Effect of financial aid processing policies on student enrollment, retention, and success. *The Journal of Student Financial Aid*, 37(2), 17-32.
- Martin-Osorio, C. J. (2009). *The impact of financial aid and institutional scholarships on community college students* (Doctoral dissertation). Retrieved from [http://www.completecollege.org/docs/Time\\_Is\\_the\\_Enemy\\_Summary.pdf](http://www.completecollege.org/docs/Time_Is_the_Enemy_Summary.pdf)



- Martinez, E. F., Bilges, D. C., Shabazz, S. T., Miller, R., & Elsa-Sofia, M. (2012). To work or not to work: Student employment, resiliency, and institutional engagement of low-income, first-generation college students. *Journal of Student Financial Aid, 42*(2), 28-39.
- McKinney, L., & Novak, H. (2013). The relationship between FAFSA filing and persistence among first-year community college students. *Community College Review, 41*(1), 63-85.
- McKinney, L., & Roberts, T. (2012). The role of community college financial aid counselors in helping students understand and utilize financial aid. *Community College Journal of Research and Practice, 36*, 761-774.  
doi:10.1080/10668926.2011.585112
- Mendoza, P., Mendez, J. P., & Malcolm, Z. (2009). Financial aid and persistence in community colleges: Assessing the effectiveness of federal and state financial aid programs in Oklahoma. *Community College Review, 37*(2), 112-135.  
doi:10.1177/0091552109348045
- Miron, G., Jones, J. N., & Kelaher-Young, A. J. (2012). The impact of the Kalamazoo Promise on student attitudes, goals, and aspirations. *American Secondary Education, 40*(2), 5-27.
- Monks, J. (2008). The impact of merit-based financial aid on college enrollment: A field experiment. *Economics of Education Review, 28*, 99-106.
- Murillo, V. (2004). *Closing the gaps: Perceptions of financial aid needs in community colleges* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>

- Ness, E. C. (2010). The politics of determining merit aid eligibility criteria: An analysis of the policy process. *The Journal of Higher Education, 81*(1), 33-60.
- Ness, E. C., & Lips, A. J. A. (2011). Marketing merit aid: The response of flagship campuses to state merit aid programs. *Journal of Student Financial Aid, 41*(1), 4-17.
- Ness, E. C., & Noland, B. E. (2007). Targeted merit aid: Implications of the Tennessee education lottery scholarship program. *Journal of Student Financial Aid, 37*(1), 7-17.
- Ness, E. C., & Tucker, R. (2008). Eligibility effects on college access: Under-represented student perceptions on Tennessee's merit aid program. *Research in Higher Education, 49*, 569-588. doi:10.1007/s11162-008-9096-5
- Nguyen, M. (2009). Degreeless in debt: What happens to borrowers who drop out. Charts you can trust. *Education Sector*, 1-8.
- Noel-Levitz. (2012). *Can financial aid improve student success at Louisiana's community colleges? A study of the potential impact of redistributing state gift aid on the success of Pell Grant recipients*. Retrieved from [http://www.air.org/files/AIR\\_LA\\_PELL\\_STUDY\\_2012.pdf](http://www.air.org/files/AIR_LA_PELL_STUDY_2012.pdf)
- Noonan, C. M. (2001). *The role of financial aid in determining the success of community college students enrolled in developmental education courses* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>

- Pascarella, E., Edison, M., Nora, A., Hagedorn, L., & Terenzini, P. (1998). Does work inhibit cognitive development during college? *Educational Evaluation and Policy Analysis, 20*(2), 75-93.
- Patel, R., & Richburg-Hayes, L. (2011). Performance-based scholarship: Emerging finding from a national demonstration. *Manpower Demonstration Research Corporation*. Retrieved from <http://www.mdrc.org/publication/performance-based-scholarships-emerging-findings-national-demonstration>
- Patel, R., & Rudd, T. (2012). Can scholarships alone help students succeed? Lessons from two New York City community colleges. *MDRC*.
- Perozzi, B. (2009). *Enhancing student learning through college employment*. Bloomington, IN: Association of College Unions International.
- Perozzi, B., Rainey, A., & Wahlquist, Z. (2003). A review of the effects of student employment on academic achievement. *The Bulletin of the Association of College Unions International, 71*(5), 15-20.
- Perna, L. W., Fester, R., & Walsh, E. (2010). Exploring the college enrollment of parents: A descriptive analysis. *Journal of Student Financial Aid, 40*(1), 6-16.
- Perna, L. W., & Steele, P. (2011). The role of context in understanding the contributions of financial aid to college opportunity. *Teachers College Record, 113*(5), 895-933.
- Pike, G., Kuh, G., & Massa-McKinley, R. (2008). First-year students' employment, engagement, and academic achievement: Untangling the relationship between work and grades. *NASPA Journal, 45*(4), 560-582.

- Quinn, P. (2012, December). Students discuss impact of pension squeeze on financial aid for higher education. *Illinois Government News Network*. Retrieved from <http://www3.illinois.gov/PressReleases/PrintPressRelease.cfm?SubjectID=25&RecNum=10790>
- Quinze, T. (2009). *Low-income students' experiences and attitudes toward financial aid at a selected Midwest university* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Riggert, S. C., Boyle, M., Petrosko, J. M., Ash, D., & Rude-Parkins, C. (2006). Student employment and higher education: Empiricism and contradiction. *Review of Educational Research*, 76(1), 63-92.
- Robinson, J., & Cheston, D. (2012). Pell grants: Where does all the money go. *John William Pope Center For Higher Education Policy*, 1-20.
- Romano, R. M., & Millard, T. (2006). If community college students are so poor, why do only 16.9% of them receive Pell grants? *Community College Journal of Research and Practice*, 30, 321-337. doi:10.1080/10668920500479226
- Rubin, R. B. (2011). The Pell and the poor: A regression-discontinuity analysis of on-time college enrollment. *Research in Higher Education*, 52, 675-692.  
doi:10.1007/s11162-011-9215-6
- Salkind, N. J. (2011). *Statistics for people who (think they) hate statistics* (4<sup>th</sup> ed.). Los Angeles, CA: Sage.
- Salkind, N. J. (2012). *Exploring research* (8<sup>th</sup> ed.). Boston, MA: Pearson.

- Schuh, J. H. (2000). Measuring the cost effectiveness of financial aid from an institutional perspective: A case study. *National Association of Student Personnel Administrators Journal*, 37(2), 414-427.
- Scoggin, D., & Styron, R. A. (2006). Factors associated with student withdrawal from community college. *The Community College Enterprise*, 12(1), 111-124.
- Seidman, A. (2005). *Minority student retention: Resources for practitioners*. Retrieved from <http://www.ccsr.org/docs/MinorityStudentRetentionResourcesforPractitioners2006.pdf>
- Simmons, L. D. (2010). *Student retention and persistence in higher education: An overview of college student retention and persistence*. Retrieved from <http://voices.yahoo.com/student-retention-persistence-higher-education-6595474.html?cat=4>
- Simpson, L., Smith, R., Taylor, L., & Chadd, J. (2012). College debt: An exploratory study of risk factors among college freshman. *Journal of Student Financial Aid*, 42(1), 16-27.
- Solemsaas, R. (2011). *Navigating the financial aid system in the community college: The lived experience of students formerly in foster care* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>

- St. John, E. P., Paulsen, M. B., & Carter, D. F. (2005). Diversity, college costs, and postsecondary opportunity: An examination of the financial nexus between college choice and persistence for African Americans and whites. *The Journal of Higher Education*, 75(5), 545-569.
- Stokes, A., & Wright, S. (2010). What are the alternatives to student loans in higher education funding? *Contemporary Issues in Education Research*, 3(1), 19-30.
- The Princeton Review (2013). *Need-based aid vs. merit-based aid*. Retrieved from <http://www.princetonreview.com/need-based-merit-based.aspx>
- Titus, M. A. (2009). The production of bachelor's degrees and financial aspects of state higher education policy: A dynamic analysis. *The Journal of Higher Education*, 80(4), 439-468.
- U. S. Department of Education, Federal Student Aid. (2012). *Funding your education: The guide to federal student aid 2012-2013*. Retrieved from <http://studentaid.ed.gov/sites/default/files/2012-13-funding-your-education.pdf>
- Villarreal, P., III., (2008). *Delaying the postsecondary education dream: A discrete-time event history analysis of financial aid information effects on time-to-initial enrollment* (Doctoral dissertation). Retrieved from <http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Ware, M., & Patel, R. (2012). *Does more money matter? An introduction to the performance-based scholarship demonstration in California*. *Manpower Demonstration and Research Corporation*. Retrieved from [http://www.mdrc.org/sites/default/files/policybrief\\_0.pdf](http://www.mdrc.org/sites/default/files/policybrief_0.pdf)

- Wei, C., Skomsvold, P., & National Center for Education Statistics (2011). Borrowing at the maximum: Undergraduate Stafford loan borrowers in 2007-08. *National Center for Education Statistics*, 2012-161, 1-21.
- Wiggan, G. (2007). From opposition to engagement: Lessons from high achieving African American students. *The Urban Review*, 40(4), 317-349.  
doi:10.1007/s11256-007-0067-5
- Wilt, R. W. (2010). *Moderator effect of financial aid on predictors of community college graduation rate* (Doctoral dissertation). Retrieved from  
<http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Wine, E. I. R. (2011). *Financial aid as retention predictor: The relationship of financial aid to retention at a Virginia community college* (Doctoral dissertation). Retrieved from  
<http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Wood, W. V. (2011). *Middle income financial aid recipients' perception of relative deprivation in the distribution of financial aid* (Doctoral dissertation). Retrieved from  
<http://search.proquest.com.proxy.olivet.edu/pqdtft/advanced?accountid=12974>
- Zhang, L. (2011). Does merit-based aid affect degree production in STEM fields? Evidence from Georgia and Florida. *The Journal of Higher Education*, 82(4), 389-415