

AWARDING STATE MERIT-BASED FINANCIAL AID
PROGRAMS: EVALUATING OKLAHOMA'S
ACADEMIC SCHOLARS PROGRAM

By

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CHAPTER I

INTRODUCTION

The Oklahoma State System of Higher Education was created in 1941 to oversee the public higher education system for the state. The administrating agency of the Oklahoma State System of Higher Education is the Oklahoma State Regents for Higher Education (OSRHE). OSRHE serves as the coordinating body for 25 public colleges, 10 constituent agencies, and one higher education center across Oklahoma (OSRHE, 2003). The primary function of the OSRHE is to prescribe academic standards of higher education, determine functions and courses of study at state colleges and universities, grant degrees, recommend to the state Legislature budget allocations for each college and university, recommend proposed fees within limits set by the Legislature, as well as manage 23 scholarships and special programs (OSRHE, 2003). A chancellor serves as the chief executive officer for the OSRHE and reports to a nine member board appointed by the governor and confirmed by the Oklahoma State Senate (OSRHE, 2003).

One of the scholarship programs administered by the Oklahoma State Regents for Higher Education is the Academic Scholars Program, which was Oklahoma's first merit-based financial aid program developed under the leadership of Chancellor Emeritus Hans Brisch. The Academic Scholars Program (ASP) is a college scholarship for academically outstanding students, attending public and private Oklahoma colleges. Oklahoma

residents and non-residents are eligible for this award by being named a National Merit Scholar, National Merit Finalist, or US Presidential Scholar. In addition, Oklahoma residents obtain this award by scoring in the top 99.5% of Oklahoma ACT or SAT test takers. The qualifying score for Oklahoma residents in 2005 was a sum score of 132 on the ACT or a 1550 SAT verbal and math score. Public institutions are allowed to nominate an allotted number of high achieving students as well.

For example, public research universities in Oklahoma are allowed to nominate 80 first-time freshmen each year. These students are admitted into the Academic Scholars Program as Institutional Nominees after being approved by the Oklahoma State Regents for Higher Education. As of 2003, the minimum criteria for Institutional Nominees was a 32 ACT/ SAT equivalent or a 3.9 high school grade point average and class rank in the top 2% for research universities, a 30 ACT/SAT equivalent or a 3.8 high school grade point average and class rank in the top 4% for regional universities, or a 29 ACT/SAT equivalent or a 3.7 high school grade point average and class rank in the top 5% for community colleges. Institutions ranked students based on high standardized test scores, academic history, national awards, financial need, and extracurricular activities.

A student receiving the Academic Scholars Program award is entitled to a tuition waiver at any Oklahoma public institution and a cash stipend up to \$5,500 to help cover the cost of fees, books, and housing. Per program rules (See Appendix A), the scholarship is renewable up to eight semesters as long as the student maintains a 3.25 cumulative grade point average and completes 24 credit hours each academic year. Students are allowed to transfer the scholarship award to any Oklahoma college.

Under Chancellor Emeritus Brisch's leadership, the Academic Scholars Program grew from a mere 300 participants in 1988 to well over 2,000 in 2001 (OSRHE, 2005). This scholarship program eventually became the premier scholarship award for Oklahoma college students. It was also considered one of the highlights of Chancellor Emeritus Brisch's tenure at the Oklahoma State Regents for Higher Education. However, this scholarship received an abundance of negative publicity when a 1999 lawsuit was filed against the Oklahoma State Regents for Higher Education challenging the differences among gender and race qualifying criteria that were established when the scholarship program was developed in 1988. The initial qualifying criteria used different measures based on the race and gender of the awardees. For example, in 1997, the ACT qualifying sum score for Oklahoma African-Americans was 115 compared to 130 for Oklahoma White males (See Appendix B). Ultimately, the gender and race based award system was eliminated from the program and the Institutional Nominee category was created.

Until 2002, funding the Academic Scholars Program was not an issue for the state of Oklahoma. The legislative bill to create the Academic Scholars Program set aside a significant amount of cash in a trust fund for the program. In addition to the trust fund, the scholarship was supported yearly by state appropriations which provided nearly 80% of the amount of money needed for the program. However, the success of the program caused a financial strain for the state of Oklahoma. The original concept of the program was to provide a full scholarship when combined with the tuition waiver at an Oklahoma public college. Because of this, the Academic Scholars Program was often referred to as Oklahoma's full-ride scholarship. In the late-nineties, this concept of Oklahoma's full-

ride scholarship fell short. The cash stipend for the Academic Scholars Program had not increased in almost a decade, while the cost of fees, books, and housing continued to escalate. The Academic Scholars Program was no longer a guaranteed full-ride for Oklahoma college students.

In 2002, the Oklahoma State Regents for Higher Education were forced to rethink the award process of Oklahoma's merit-based financial aid program and changed the scholarship award levels for students participating in the Academic Scholars Program. The award levels for college students in this program were equal until the decision was made to have different award levels for the two qualifying groups. High school students qualify for the Academic Scholars Program automatically or by Institutional Nominee. Automatic Qualifiers, students who are designated as National Merit Scholars, National Merit Finalists, US Presidential Scholars, or Oklahoma residents who scored in the 99.5% of Oklahoma ACT or SAT test takers, continued to receive a stipend up to \$5,500. However, Institutional Nominees, the students nominated for the scholarship based on a lower ACT scores, high school grade point average and class rank, only received a stipend up to \$2,800.

Problem Statement

The intent of the Academic Scholars Program is to retain and attract high achieving academic high school students to Oklahoma colleges, possibly providing a more skilled workforce for the state. Therefore, when funding for the Academic Scholars Program did not keep pace with the number of students in the program, a decision was made to cut the funding of Institutional Nominees almost in half and maintain the award level for Automatic Qualifiers. This decision was backed by Oklahoma Statute, which

permits OSRHE to establish separate award levels for the different qualifying category (Oklahoma State Regents' Academic Scholars Act, 2001).

The underlying belief is that students who automatically qualify for the Academic Scholars Program are more likely to be successful in college. Consequently, funding preference is given to these students. However, research was not conducted to determine which group performs better in college and if funding preference should be given to Automatic Qualifiers or Institutional Nominees. The main problem facing the Academic Scholars Program is the lack of evidence to show which group deserves the most funding. This study examined the issues related to the program and provided data for the Oklahoma State Regents for Higher Education to further evaluate the awarding process of the scholarship.

Background of the Problem

Over the past decade, several states launched merit-based scholarship programs. These state sponsored programs use various qualifying standards. Some states use a set ACT or SAT score, while others use high school grade point average and class rank. These scholarships were designed to assist high achieving students with the cost of tuition, fees, and other related expenses. For example, the Missouri Department of Higher Education administers the Missouri Higher Education Academic "Bright Flight" Scholarship. This is a scholarship open to Missouri residents who score in the state's top 3 percent of ACT and SAT test takers and attend college in Missouri (MDHE, n.d.). This ACT/SAT requirement is similar to one of the Automatic Qualifier requirements of students scoring in the top 1/2 percent of Oklahoma ACT and SAT test takers for the Academic Scholars Program. Students who receive the "Bright Flight" scholarship are

eligible to receive a \$2,000 stipend for up to 10 semesters or completion of a baccalaureate degree as long as the student continues to attend college full-time and make satisfactory academic progress (MDHE, n.d.). A student can only qualify for Missouri's state merit-based financial aid program by ACT or SAT scores.

Another example of a state merit-based financial aid program is the Mississippi Eminent Scholars Grant (MESG). In order for Mississippi residents to be eligible for this scholarship, the student must have a minimum 3.5 high school grade point average and score a 29 on the ACT or 1280 on the SAT (IHL, n.d.). This standard is comparable to the Institutional Nominee requirement of the Academic Scholars Program, which requires a set ACT score or high school grade point average and class rank. Mississippi residents can also qualify for the scholarship by receiving the designation of National Merit Semi-finalist or Finalist and National Achievement Scholars Semi-finalist or Finalist (IHL, n.d.). This is one more feature that is similar to the Academic Scholars Program qualification of National Merit Scholar or Finalist. Students who receive the MESG award are eligible to use up to \$2,500 per year for eight semesters or completion of a baccalaureate degree program (IHL, n.d.). Mississippi students can qualify for the MESG in a variety of ways by using a combination of ACT scores and high school grade point averages as well as offering an equal scholarship to students who are recognized by the National Merit Corporation.

State merit-based financial aid programs generally share the similar concept of offering awards to top achieving high school students who demonstrate potential to succeed academically in college. In the past decades, various standards were used as indicators of college success. The issue of what serves as a better indicator of college

success continues to be debated in higher education circles. The majority of these debates focus on high school grade point averages or standardized test scores. It was not until recently that National Merit designation was tossed into the discussion by the University of California Higher Education System. In a 2005 briefing by the Regents of the University of California, the Board of Admissions and Relations with Schools expressed the following concern regarding National Merit designation as an indicator of academic success in college (p.2).

1. PSAT/NMSQT test was not validated for use in measuring merit.
2. The National Merit Scholarship Program sets a simple cut-off score, which varies by state.
3. Standardized test scores are the sole academic measure used and does not take into consideration other measures of merit.
4. Few students from low-income and underrepresented minority groups receive National Merit designations.

Taking these factors into consideration, state merit-based financial aid administrators need to examine the fairness and adequacy of using National Merit designation as a primary means of awarding scholarships.

Just like the National Merit Scholar Program, the Academic Scholars Program has come under criticism. One of the major issues is whether or not to allow non-resident National Merit Scholars or Institutional Nominees who attend Oklahoma colleges to participate in the program. This is an issue because the Academic Scholars Program receives funding appropriations from the Oklahoma Legislature each year. This has made some Oklahomans wonder whether it is reasonable for resident tax dollars to be

spent on non-resident students, especially during budget shortfalls. Approximately 25% of the students participating in the ASP were non-residents in 2004 (OSRHE, 2005). The Academic Scholars Program was also criticized for the lack of minority and low-income participants. In 2002, less than 14% of the participants were minorities and only 5% were eligible to receive Oklahoma's need-based grant (OSRHE, 2005). This statistic is not a surprise considering it is generally known in higher education that low-income and minority students typically perform lower on standardized tests. In the wake of such criticism, the policy of the Academic Scholars Program needs to be assessed to determine if funding levels of participants coincide with the performance of the participants.

Purpose Statement

The purpose of this study was to examine selected variables and their ability to predict academic success in students who participate in the Oklahoma State Regents for Higher Education Academic Scholars Program. In this study, academic success was defined by maintaining the renewal requirements of a 3.25 cumulative grade point average and completing 24 credit hours annually. The selected variables included qualifying status, ethnicity, and gender. Qualifying status was divided into two populations, Automatic Qualifiers and Institutional Nominees. Students automatically qualified for the Academic Scholars Program by achieving National Merit Scholar/Finalist Awards, US Presidential Scholars Award, or scoring within 99.5% of Oklahoma ACT or SAT test takers. Institutional Nominees were nominated by Oklahoma public institutions using a combination of ACT scores, high school grade point average, and class rank. These variables were used to address the following questions.

Research Questions of the Study

- 1) Is there a relationship between qualifying status and academic success in the Academic Scholars Program?
- 2) Does qualifying status predict performance among students in the Academic Scholars Program?
- 3) Are there differences among the performance by gender in the Academic Scholars Program?
- 4) Are there differences among the performance of ethnic groups in the Academic Scholars Program?

Hypotheses

Listed below were the null hypotheses for this study.

1. There is no significant difference in the performance of Automatic Qualifiers and Institutional Nominees in the Academic Scholarships Program. The independent variable is qualifying status and the dependent variable is performance.
2. There is no significant difference among gender in the performance of students participating in the Academic Scholars Program. The independent variable is gender and the dependent variable is performance.
3. There is no significant difference among ethnic groups in the performance of students participating in the Academic Scholars Program. The independent variable is ethnicity and the dependent variable is performance.

Significance of the Study

The Academic Scholars Program is the highest valued scholarship for students attending Oklahoma colleges. Many Oklahoma colleges use the Academic Scholars

Program as a recruiting tool by packaging the stipend with a partial or full tuition waiver. The expenditure for this scholarship program averages over \$9 millions each year, not including the value of the tuition waiver. Due to the significant price tag, it was time to take a more intense look at how the scholarship program was administered.

The aggregated data collected painted a picture of which students were more successful in the Academic Scholars Program. This research provided a pathway for the Oklahoma State Regents for Higher Education to determine which qualifying status is most successful and should continue to be fully funded. It also addressed the issue of providing state financial aid funds to out-of-state residents. The findings in this study may affect future policy making related to Oklahoma merit-based financial aid programs.

Assumptions

The assumptions of this study were as follows:

1. Students participating in the Academic Scholars Program were capable of succeeding in college.
2. Students participating in the Academic Scholars Program attempted at least 12 credit hours per semester.
3. Students participating in the Academic Scholars Program valued the importance of obtaining a college degree.
4. Data used were accurate.

Limitations

The major limitation in this study was the selected sample group. Data were only taken from students attending public research institutions in Oklahoma. Therefore, it may affect the generalizability of this study to other types of Oklahoma colleges. Also,

the study focused on the 2000-2002 freshmen classes and not the entire history of the program. For the purpose of this study, the terms successful and unsuccessful students only referred to participants maintaining eligibility in the Academic Scholars Program and were not related to overall college persistence or graduation.

This study did not take into account any discrepancies that might have occurred during the data collection process. The data analyzed only included cumulative grade point averages and credit hours earned reported at the beginning of each fall semester. In addition, the study did not include information regarding the performance of college students with similar ACT scores, high school grade point averages, and high school class ranks who did not receive the Academic Scholars Program award as a possible comparison group.

Delimitations

The delimitations of this study were as follows:

1. Participants were students who received the Academic Scholars Program stipend.
2. Participants attended one of the two public research universities in Oklahoma.
3. Participants were evaluated after completing their first, second, and third academic year of college.

Definition of Terms

Academic Success-This term referred to the continuing eligibility requirements of the Academic Scholars Program, which were maintaining a 3.25 cumulative grade point average and completing twenty-four credit hours each academic year.

Academic Year-This term referred to the evaluation period of scholarship participants. Participants were evaluated after the complete of consecutive fall, spring, and summer terms.

Academic Scholars Program (ASP)-This term referred to the merit-based scholarship program administered by the Oklahoma State Regents for Higher Education that was designed to attractive the best and brightest students to Oklahoma colleges.

ACT Qualifiers-This term referred to Oklahoma residents who scored in the top 99.5% of all state ACT test takers.

Automatic Qualifiers (AQ)-This term referred to students who participated in the Academic Scholars Program as ACT Qualifiers, SAT Qualifiers, National Merit Finalists and National Merit Scholars. These participants included Oklahoma resident and non-residents attending Oklahoma colleges.

In-State Resident-This term referred to a student graduating from an Oklahoma high school.

Institutional Nominees (IN)-This term referred to students who participated in the Academic Scholars Program who did not meet the requirements of automatic qualifiers, but have outstanding high school grade point averages and high class ranks. These students were nominated by Oklahoma public colleges. For the class of 2000 and 2001, there were no minimum qualifying criteria established by the Oklahoma State Regents for Higher Education. In 2002, the minimum qualifying criteria was a 30 ACT or 3.9 high school grade point average and Top 5% class rank for research universities.

Merit-Based Financial Aid-This term referred to college financial aid programs that solely used academic achievement in the awarding process.

National Merit Scholars-This term referred to students who received a special designation from the National Merit Corporation.

Out-of-State Resident-This term referred to students attending Oklahoma colleges who did not graduate from an Oklahoma high school.

SAT Qualifiers-This term referred to Oklahoma residents who scored in the top 99.5% of all state SAT test takers.

US Presidential Scholar-This term referred to students who received a special designation from the US Department of Education.

Summary

This study was the first in-depth look at Oklahoma's practice of awarding merit-based financial aid. The Academic Scholars Program is a \$9.5 million scholarship program designed to award the highest achieving Oklahoma high school graduates and attract non-resident students to Oklahoma colleges (OSRHE, 2005). Even though the Academic Scholars Program was more than 15 years old, the question still remained whether the funding levels were appropriately disbursed among the participants.

Chapter II contains a review of the literature summarizing the History of Financial Aid, Merit-Based Financial Aid, Current Trends in Financial Aid, National Merit Scholarship Corporation, Financial Aid in Oklahoma, Profile of Oklahoma College Students, Research from a State Merit-Based Program, Underrepresented Groups and Merit-Based Programs, Predictors of Academic Success in College, and Theory in Financial Aid Policy. Chapter III provides a detailed description of the methodology used in the data collection and data analysis procedures. Chapter IV presents a report of the data and an analysis of the data as well as answers to the research questions. Chapter

V discusses a summary of the findings, conclusions, recommendations for Academic Scholars Program policy, and possible future research.

CHAPTER II

REVIEW OF LITERATURE

Introduction

During the earliest developments of higher education in the United States, student financial aid programs played a key role in education for many students. Student aid programs continue to be a large government budget item. Students received 89.6 billion dollars of assistance for 2001-02 (The College Board, 2002). This dollar amount has increased throughout the last decade. As states continue to spend millions and millions of dollars on financial aid programs, research needs to be conducted to ensure these programs are being properly administered. It is important for financial aid policies to stay current with the development of today's college student. In order for state administrators to know which steps to take in the future, it is important to examine the issues of the past as well as the present.

History of Financial Aid

Financial aid is the means to enable a student to have both access and choice in higher education, regardless of the student's family income level (National Association of Student Financial Aid Administrators (NASFAA), 2001). Financial aid has played an important role in higher education for many decades. The first recorded financial aid in the United States occurred in 1643 at Harvard University by the way of a grant from

Lady Ann Mowlson to provide scholarships to poor students (NASFAA, 2001). This grant propelled the beginning of financial assistance for students attending higher education institutions. Early financial aid came in the form of private donations and college scholarships funds (NASFAA, 2001).

The first type of federal assistance for higher education was the Morrill Act of 1862, which provided land grants and annual appropriations for public colleges (Cohen, 1998). This was the origination of the involvement of the federal government in funding aid programs for higher education. The elevated growth of higher education in American ignited access to new groups in society (Gladieux, 1995). Other federal programs that were established prior to the implementation of institution based programs include the Reserve Officers Training Corps (ROTC) in 1917, National Youth Administration which provided part-time employment to students during the great depression, and the Serviceman's Readjustment Act of 1944 (NASFAA, 2001).

Even though the beginning of financial programs was mainly funded by the federal government, state programs emerged as another important component of the student aid equation. The commitment to state financial aid programs is evident in Oklahoma. For example, the Oklahoma Tuition Aid Grant was established in 1971 and became the states need-based grant for residents with annual expenditures over 20 million dollars. This was followed by the establishment of Oklahoma's other state financial aid programs, the Academic Scholars Program in 1988 and Oklahoma's Promise-OHLAP in 1992.

Merit-Based Financial Aid

Merit-based financial aid is a long time staple in providing students with funds to go to college. Merit-based financial aid is awarded based on students' academic credentials, primarily standardized test scores or grade point averages. Many states have developed programs to reward high academic achieving students. Heller (2002) identified the following motives of state merit-based programs.

- To promote college access and attainment.
- To encourage and/or reward students who work hard academically.
- To stanch the “brain drain” of the best and brightest students and encourage them to attend college in the state.

These programs are considered politically popular, with no sign of losing public support. The popularity of merit-based financial and the limited availability of funds has caused administrators to focus more on such programs and less on income based financial aid (Zahra, 1999).

Even though the primary source of financial aid remains based on income requirements, the amount of merit-based programs has grown exponentially. Funding for merit-based programs has tripled while funding for need-based programs remain stagnant, creating a larger gap between the have and have not (Finken, 2004). This change in focus has caused concern. Opponents of merit-based programs claim awarding scholarships to students regardless of financial need reduces opportunity for the neediest students, typically low-income, non-white students, and helps students who need it the least, middle to upper income, white students (Finken, 2004).

Others disagree and note the benefits of merit-based programs. For example, institutions are able to use these state programs to attract high caliber students in efforts to increase standards and prestige (Longanecker, 2002). Studies also cite benefits for students. Henry, Rubenstien, and Bugler (2004) reported students of a merit-based program completing more credits hours, maintaining higher cumulative grade point averages, and graduating faster than non recipients with similar educational backgrounds.

Current Trends in Financial Aid

Between 1980 and 1997, the number of students enrolled in college increased by 35 percent and the price of college tuition increased by 228 percent (Student Aid News, 2002). This increase in college enrollment and college tuition has caused government officials to make readjustments in student aid programs. Seventy-two percent of students with a family income of less than \$25,000 and 53% of students with a family income of more than \$50,000 received some type of student aid during the 1996-1997 academic year (Student Aid News, 2002). The student aid programs also responded to the demands of the middle-income families in the nineties. The U.S. Congress took advantage of a healthy economy and passed the Taxpayer Relief Act of 1997 to assist middle-income families pay for college (NASFAA, 2001).

As enrollment increases at higher education institutions, the demands on federal and state student aid programs also increase. This has resulted in a large part of the budget for the U.S. Department of Education being dedicated to student aid programs. In 1994-95, 90% of the Department of Education funds for postsecondary education were provided in the form of student financial aid (Gladieux, 1995). This trend of large budget portions going to student aid programs can also be seen on the state level as well. For

fiscal year 2006, scholarships and grants were the second largest budget expense in Oklahoma.

Federal and state government programs continue to maintain a strong commitment to provide assistance to needy students. Even though most low-income students and some middle-income students participate in need-based grant programs, student loans are the largest source of aid for all students regardless of income level (Gladieux, 1995). Many students may be obtaining degrees at the expense of long-term student loan debt. For example, 51% of college graduates in the class of 1992 borrowed money to attend college and had an average of \$10,500 in student loan debt (Choy, 2000).

A movement to require students to be more involved in paying for their education has emerged in the 21st century. Higher education is seen as a privilege in America. Parents are expected to provide some form of financial assistance to students. Along with family assistance, students are expected to contribute in some capacity (NASFAA, 2001). College students are called on to participate in self-help programs through community service. Community service activities are being stressed on college campuses. Therefore, the federal government has placed requirements on Work-Study Programs to include 7% minimums for community service type of employment opportunities (NASFAA, 2001). Community service financial aid programs have emerged at the state level. In 2004, the Oklahoma State Regents for Higher Education launched a community service based scholarship program called Oklahoma Money Matters. The intent of such programs is for students to become invested in their post-secondary costs. However such programs are unable to bridge the financial gap for many

students, leaving traditional state scholarship and grant programs to be Oklahoma's primary sources of student aid programs with a strong focus on merit-based programs.

National Merit Scholarship Corporation

For several decades, the National Merit Scholarship Corporation (NMSC) has recognized top academic achieving high school students. The NMSC is a private, non-profit organization created in 1955 (NMSC, 2004). NMSC provides an avenue for colleges to identify top academic high school students. In the NMSC 2003-04 Annual Report, the president of the organization stated the following goals (p.2):

- Identify and honor exceptionally able U.S High School students and encourage them to pursue rigorous college studies;
- Promote wider and deeper respect for learning in general and for extremely talented individuals in particular;
- Encourage the pursuit of academic excellence at all levels of education; and
- Stimulate increased support for the education of scholastically able students.

The NMSC carries out these goals by partnering with colleges, high schools, and industries throughout the United States.

Several high school students participate in the NMSC competition each year. The competition begins by students taking the PSAT no later than their junior year in high school. From the PSAT results, some students are invited to continue in the competition. High school students can obtain the recognition of Commended Student, Semifinalist, Finalist, or Scholar. Commended Students typically achieve a 96th percentile on the

PSAT, but do not continue in the competition (NMSC, 2004). Semifinalists are selected based on a higher cut off score established for each individual state, which guarantees representation from all 50 states (NMSC, 2004). Semifinalists are then invited to continue on in the competition for scholarship awards. Semifinalists can advance to finalists standing by completing a scholarship application, presenting a high ranking SAT score, and providing a letter of recommendation from a high school official (NMSC, 2004). From finalist standing, students are eligible to receive National Merit Scholarships, Corporate-sponsored scholarships, and college-sponsored scholarships. The 8,258 high school seniors participating in the 2004 competition received \$34.6 million in scholarship awards.

Students recognized by the National Merit Corporation come from various types of high schools. The NMSC 2003-04 Annual Report reported over 50% from suburban high schools, approximately 30% from rural high schools, and about 20% from urban high schools. Sixty-four percent of students graduated from a senior class of 100-499, while a class size of 500 or more accounted for 8% and less than 100 accounted for 28% (NMSC, 2004). Even though the majority of the students graduate from suburban high schools with a class size of 100-499 students, all types of high schools are active participants in the competition.

Though National Merit Scholar Corporation recognition is revered as one of the top prestigious awards for high school students, the equality of the program for underrepresented minority groups and low-income students is often questioned by opponents of standardized tests. One of the pioneers of questioning the issue of equality is a former trustee of the College Board, Patrick Hayaski. Hayaski (2005) believes the

National Merit Scholar competition is severely unfair to African-Americans, Hispanics, low-income students and non-native speakers of English because the competition definition of merit begins with a strict cut-off score on the PSAT. Hayaski estimates 99.7 percent of underrepresented minority groups and low-income students are eliminated by their performance on the standardized test (Hayaski, 2005). An example of the lack of diversity in the scholarship program is the 2004-05 freshman class of the University of California system. This body of students consisted of 3.1% African-Americans, 13.8% Hispanic, and 18 % students from family incomes over \$120, 000 (Jaschik, 2005). However, the make up of National Merit Scholars attending the University of California system was not close to being comparable. The numbers for the same freshman class showed 1% African-American, 2% Hispanic, and 33.8% were from family incomes of more than 120,000.

Under continued scrutiny for lack of diversity in the competition, the NMSC contends the scholarship competition can assist minority groups (Burdman, 2005). The NMSC also administers the National Achievement Scholar competition. This competition is only applicable to African-American high school students. However, the scholarship awards are not as vast. In the 2004 National Achievement Scholar competition, 836 students received awards totally \$2.7 million (NMSC, 2004). Still, some believe the NMSC competition is more than fair to underrepresented minority groups and females. The PSAT includes minority related passages in the reading comprehension section and the verbal scores are counted twice and the math once, which typically favors females (Lee, 1996).

Financial Aid in Oklahoma

In 2004-05, Oklahoma spent over \$45 million dollars on state financial aid programs. The majority of the expenditures were on three programs, Oklahoma Tuition Aid Grant (OTAG), Oklahoma's Promise-OHLAP, and Academic Scholars Program. Each of these programs has different objectives, but has the same common goal of meeting the educational needs of Oklahomans.

For example, OTAG, established in 1971, was the state's first financial aid program. The purpose of OTAG is to assist low-income Oklahoma residents with college cost. The maximum award is \$1,300 for students attending private colleges and \$1,000 for students attending public colleges in Oklahoma. Part-time and full-time undergraduate students are eligible to receive OTAG for up to 5 years equivalent or completion of a baccalaureate degree. OTAG is commonly referred to as the state's need-based financial aid program and helps over 20,000 students each year.

Another Oklahoma financial aid program is Oklahoma's Promise-OHLAP, which was initiated in 1992, is an early awareness scholarship program administered by the Oklahoma State Regents of Higher Education. Like many early awareness programs, the intent of OHLAP is to encourage more students from families with limited income to participate in postsecondary education. The focus of the OHLAP program is to start parents and students thinking about postsecondary education during middle school and early high school. Students are required to sign up for OHLAP in the 8th, 9th, or 10th grades. During high school, students must complete a 17-unit core curriculum. These core curriculum classes are based on college admission requirements and are designed to provide students with the foundation needed to be successful in postsecondary education.

To be eligible for the scholarship, students must graduate from an Oklahoma high school with a 2.5 overall grade point average and a 2.5 grade point average in the 17-unit core curriculum classes. Students graduating from a high school not accredited by the Oklahoma State Board of Education must also score at least a 22 on the ACT. At this time, home-schooled students are not eligible to receive the scholarship. In addition to these academic requirements, all students must also maintain a conscientious conduct of behavior during high school. Students are required to attend high school regularly and refrain from substance abuse and criminal/delinquent acts.

Initially, OHLAP was designed to assist low-income students. As a result, OHLAP has a family income restriction component. The family income of participating students cannot exceed \$50,000, making OHLAP the primary financial aid program for low-to-middle income families in Oklahoma. The family income is only checked at the time of application into the scholarship program. Family income is not considered for continuing eligibility in the scholarship program.

For students who successfully complete the OHLAP requirements upon high school graduation, OHLAP will provide a scholarship award that is equivalent to resident tuition at any public 4-year or 2-year college in Oklahoma. If students choose to attend a private college in Oklahoma, the scholarship award is equivalent to the amount of resident tuition at a comparable public institution. The average scholarship awards for 2004-05 were \$2,581 at 4-year research universities, \$1,937 at 4-year regional universities, and \$1,226 at 2-year community colleges (OSRHE, 2005).

Once in college, students are eligible to receive OHLAP for up to 5 years or completion of a baccalaureate degree. Students must maintain satisfactory academic

progress as determined by the financial aid offices at the attending institutions.

Therefore, there is not a unique minimum college grade point average for students to meet each academic year. Likewise, there are no minimum or maximum enrollment limitations associated with the scholarship. More than 9,000 students benefited from the OHLAP scholarship in 2004-05 totaling almost \$18 million in awards (OSRHE, 2005).

Profile of Oklahoma College Students

The population for the state of Oklahoma is approximately 3.5 million, with the top employment sectors being government, retail, education, and healthcare (US Census, 2006). Forty-six percent of high school graduates graduate from five large, urban counties and 54% from rural areas (OSRHE, 2005). The residents of Oklahoma are 72.9% White, 7.7% African-American, 8.1% Native American, and 6.3% Hispanic (US Census, 2006). In 2004, the state's estimated median income was \$35,634 with 14.6% living below poverty compared to the national average median income of \$43,318 and 12.5% living below poverty (US Census, 2006). The following are characteristics of Oklahoma students obtained from the Oklahoma State Regents for Higher Education 2003-04 Student Data Report.

- 37,688 students graduated from Oklahoma high schools.
- The statewide three-year average college matriculation rate was 57.5%.
- The three-year ACT average was 20.7.
- Eighty-six percent of students attending Oklahoma public colleges were residents.
- Seventy-three percent of students attending Oklahoma public research universities were residents.

- Most of the Oklahoma residents came from three urban counties, Tulsa, Oklahoma, and Cleveland.
- The top five states for non-residents were Texas, Kansas, Arkansas, Missouri, and California.
- 54.3% of Oklahoma college students were females, 45.7% were males.
- Undergraduate full-time students were 71.5% White, 11.7% Native American, 8.6% African-American, 2.9% Hispanic, 2.2% Asian, and 3.1% Non-resident Aliens.
- 40,127 students attend public research universities.
- The first-year persistence rate within public research universities was 80.5%.
- The six-year graduation rate for first-time, full-time within public research universities was 56.8%.
- In 2003-04, public institutions granted 13,767 bachelor degrees.

Research from a State Merit-Based Program

Some journals have published articles about other state financial aid programs, such as Georgia's Helping Outstanding Pupils Educationally (HOPE) scholarship. To qualify for the Georgia HOPE scholarship, a student must be a Georgia resident and graduate from high school with a "B" average in a college preparatory core curriculum (Sridhar, 2001). Georgia students that meet the qualifying criteria are eligible to receive a tuition waiver at Georgia public universities or \$3,000 scholarship awards at Georgia private institutions (Sridhar, 2001). The basis of the scholarship award amounts is also similar to the Academic Scholars Program. Georgia HOPE students are eligible to continue to receive the scholarship until college graduation, as long as the student

maintains a “B” college grade point average. Because Georgia HOPE students must maintain a “B” college grade point average, the retention rate of underrepresented students could conceivably be affected negatively. The minimum college grade point average associated with the continuing eligibility of Academic Scholars Program participants is a 3.25.

The success of the Georgia HOPE scholarship is debated. A study conducted by two economists and a graduate researcher boast that the Georgia HOPE scholarship has caused an 11 percent increase in first-time freshman enrollment at Georgia higher education institutions (Gerhing, 2001). This increase was seen mostly at four-year institutions. The same study also claims that the program has had a significant impact on African-American enrollment by prompting an increased enrollment of 24% at state colleges and universities (Gerhing, 2001). Research also shows a change in education values for Georgia families. Families experienced an improvement in K-12 education and reduction in racial performance disparities (Henry & Rubenstein, 2002).

Even though these numbers are impressive, other findings underscore the reported success. Enrollment numbers at two-year colleges in Georgia have not experienced a measurable increase in enrollment (Wright, 2001). It is believed that an increase in two-year college enrollment is an indicator of increasing access for underrepresented students to postsecondary education. Also, critics of the Georgia HOPE scholarship point out that the increase in first time freshman enrollment occurred during a time when institutions nationwide were reporting record enrollments (Wright, 2001). Claims of Georgia HOPE being for the privileged and majority also surfaced. Various studies concluded the

primary source of increase in Georgia's college going rate were higher-income white students (Wright, 2001).

State budgets are being strained in efforts to continue these support large scale merit-based programs. With such mixed reviews of success, it is important for each state to evaluate the effectiveness of merit-based programs and examine the potential challenges. Some merit-based financial aid programs impacting high school students' decisions are documented. The perception of students taking easier course loads in high schools in order to meet the grade point average requirement or the possibility of grade inflation to increase eligibility are problems facing administrators (Dynarski, 2002). Financial aid policies are not designed to be implemented and not revisited as needs of college students continue to change.

Underrepresented Groups and Merit-Based Programs

Due to the novelty of state merit based financial aid programs, the long-term effects on the enrollment of underrepresented students have not been researched. However, some facts about underrepresented students have been documented. It is commonly believed that underrepresented groups do not frequently participate in merit-based programs. In addition, low-income, underrepresented minorities, and first-generation students continue to perform at lower academic levels in high school, drop out of high school more often, and enroll in postsecondary institutions at lower percentages than white middle to high-income students (George, 2002). Once the underrepresented students enter into the college, the overall performance rates are still lower than white middle-to-high-income students. Underrepresented students are less likely to finish their

degrees and more likely to attend technical, two-year, and community colleges (Zahra, 1999).

It is the hope of state merit based programs to strive for inclusion and assist in changing the patterns of underrepresented students in higher education. Some studies suggest that academic success of underrepresented students depends on their experiences within the education system and the accessibility to assets (George, 2002). The notion of using merit-based financial aid for purposes of equality is challenging for administrators dealing with issues of inclusion and access. Programs in Michigan and Florida showed a strong correlation between family income and student qualification for merit-based financial aid (Heller & Rasmussen, 2002). The higher the family income, the more likely a student will qualify for the state merit-based financial aid program.

Predictors of Academic Success in College

Research is vast on traditional and non-traditional predictors of academic success in college. Traditional predictors of success, like standardized test scores, high school grade point average, and high school curriculum, are often debated in high education circles. In addition, non-traditional predictors, like race, gender and high school size have emerged as hot topics as well.

Lohman (2004) defines the purpose of standardized tests is to assess academic development and predict college success. The use of ACT and SAT scores are standard in higher education. Several studies suggest the use of standardized tests is beneficial to predicting academic success. ACT or SAT scores are strong predictors of academic success in college (Bejar & Blew, 1981). Students who perform well on the ACT or SAT are more likely to do well in college compared to students with lower test scores.

However, everyone does not agree with the prominent reliance of standardized tests.

Slack and Porter (1980) concluded the SAT is not an accurate indicator of performance in college. This is particularly true in minority groups. The SAT has not been an accurate predictor of performance in college for Hispanic students (Gandara & Lopez, 1998).

Instead of relying solely on standardized test scores, colleges should use a formula which includes standardized test scores and high school grade point average as an effective predictor of success in college (Noble, 2004). This concept is extremely important in evaluating minority students and women. Sanford (1982) suggested the best predictor for Black students was high school class rank. Different studies showed a bias of the reliance on ACT and SAT scores against women. Such studies demonstrated a strict reliance on SAT scores to scholarship awards may limit women's ability to participate in merit-based financial aid programs (Ancis & Sedlacek 1997).

Just like traditional predictors, non-traditional predictors also play a critical role in academic success. Gender is the leading non-traditional predictor followed by race (Burton, 1976). Some studies show the variation in gender performance quite differently. A report in Education Digest 1996 described research showing females being more prepared for class activities, more likely to directly go to college from high school, and earning more college degrees than their male classmates. Nevertheless, the same report also showed females are still behind in math and science achievement.

Researchers also believe all high schools are not created equal. Some education professionals believe students from small rural high schools are not as prepared for college as students graduating from larger high schools. Many reasons are behind the idea of inadequacies of small rural schools. One of the main concerns is that small

schools are not able to provide as comprehensive of a curriculum as large schools (Black, 2006). A limited curriculum could lead to less prepared students. Rural schools also face other challenges. Rural schools have high numbers of students participating in free and reduced lunch programs, low reading and math scores, high dropout rates, and low per-pupil expenditures (Johnson & Strange, 2005).

Theory in Financial Aid Policy

The role of financial aid in higher education encompasses both social and economic theories. This concept is accentuated in the purpose of merit based financial aid. The purpose of merit-based financial aid is to reward high achieving students and provide opportunity to students from underrepresented socioeconomic groups (McPherson and Shapiro, 1998). The social theories of financial aid are based on creating equal access to all segments of society, while the economic theories focus on the human investment. Since the inception of the Academic Scholars Program, the purpose remains strong for attracting the best and brightest students to Oklahoma with little concern of assisting needy students.

The focus of rewarding high achieving students is very popular. The thought of students reaping benefits from obtaining a certain level of academic performance is common in awarding financial aid. Therefore, financial aid policy is often developed using the human capital theory. The human capital theory proposes that society receives economic benefit from investments in people (Sweetland, 1996). State merit-based financial aid programs invest in students with hopes to generate a better quality of life for state residents through educational advancements. Becker (1993) states education is the largest investment in human capital. Oklahoma is making an investment in students who

participate in the Academic Scholars Program. However, this investment is not equal between Automatic Qualifiers and Institutional Nominees. Under the human capital theory, the category of students who produce the best results in college should receive the most funding.

Summary

Several states are providing merit-based financial aid programs. The early reviews of these programs are mixed. For example, the Mississippi Eminent Scholars Grant increased the number of high achieving students attending public institutions in Mississippi (Ridgeway, 2001). Other studies point out how unfairly merit-based financial aid programs are awarded. White and Asian students living in Florida and Michigan are far more likely to qualify for state merit-based financial aid programs than African American and Hispanic students (Heller & Rasmussen, 2002). Merit based scholarship programs are valuable assets in providing a pathway for students to strive toward obtaining college degrees. Therefore, it is important to study programs like the Academic Scholars Program to uncover the strengths and weaknesses of such programs. This will ultimately provide beneficial information on developing programs that will not only increase the college going rates of Oklahoma students in higher education institutions, but the college graduation rates as well.

CHAPTER III

METHODOLOGY

Introduction

This study used quantitative research to determine if the qualifying status predicts the academic success of students participating in the Academic Scholars Program. Creswell (2003) states quantitative research questions are best addressed by understanding what factors or variables influence an outcome. The focal hypothesis of this study was that qualifying status does not predict the performance of students in the Academic Scholars Program. This study was longitudinal and used two statistical tests, Analysis of Variance (ANOVA) and Chi-Square frequency tests. Chapter 3 provides information regarding the subjects, the procedures, the measurements, the method for data analysis, and the research questions.

Subjects

The subjects for this study included 1,045 college students attending two public research universities in Oklahoma entering the fall periods of 2000, 2001, and 2002. The 1,045 students represented 100% of the recipients who attempted at least 24 credit hours during their first year of college. The ages of the students ranged from 17-19 years old as incoming freshmen. The students qualified for the Academic Scholars Program as Automatic Qualifiers or Institutional Nominees. Automatic Qualifiers were National

Merit Scholars, National Merit Finalists, or Oklahoma residents scoring in the top 99.5% on the ACT. The qualifying ACT score for 2000 was a sum score of 131, for 2001 a sum score of 132, and for 2002 a sum score of 131. In 2000 and 2001, Institutional Nominees were selected based on high academic achievement as defined by the nominating college. Minimum qualifying criteria for Institutional Nominees was established by the Oklahoma State Regents for Higher Education beginning with the class of 2002, which required Institutional Nominees to have a 30 ACT or 3.9 high school grade point average and Top 5% class rank for research universities.

These students started college the fall following high school graduation and have met the qualifying criteria to participate in the Oklahoma State Regents for Higher Education Academic Scholars Program. Four hundred of these students were considered Institutional Nominees and 645 were considered Automatic Qualifiers. It was determined to use students from the state's two public research institutions because 80 percent of all students participating in the Academic Scholars Program were enrolled at these institutions. The sample groups started in 2000 because this was the first year for the Institutional Nominee category.

The ethnicity of participants is illustrated in Tables 1, 2, and 3. Students were placed into categories of Asian, Black, Hispanic, Native American, White, and Not Reported. This information was obtained from the Oklahoma State Regents for Higher Education Unitized Data System.

TABLE 1

Ethnicity of Participants for the Class of 2000

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Asian	10	3	13
Black	1	20	21
Hispanic	2	24	26
Native American	14	11	25
Not Reported	0	3	3
White	201	61	262
Totals	228	122	350

TABLE 2

Ethnicity of Participants for the Class of 2001

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Asian	7	2	9
Black	1	6	7
Hispanic	1	5	6
Native American	6	4	10
Not Reported	0	0	0
White	161	100	261
Totals	176	117	293

TABLE 3

Ethnicity of Participants for the Class of 2002

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Asian	8	8	16
Black	2	1	3
Hispanic	3	3	6
Native American	9	18	27
Not Reported	1	0	1
White	218	131	349
		Totals	402

The gender of the participants is illustrated in Tables 4, 5, and 6. Students were categorized as either male or female. This information was obtained for the Oklahoma State Regents for Higher Education Academic Scholars Program.

TABLE 4

Gender of Participants for the Class of 2000

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Males	133	53	186
Females	95	69	164
		Total	350

TABLE 5

Gender of Participants for the Class of 2001

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Males	114	68	182
Females	62	49	111
		Total	293

TABLE 6

Gender of Participants for the Class of 2002

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>
	<u>Qualifiers</u>	<u>Nominees</u>	
Males	146	74	220
Females	95	87	182
		Total	402

The residency of participants is described in Tables 7, 8, and 9. Students who were considered Oklahoma residents at the time of college entry were marked as residents. All other students were considered non-residents. This information was obtained from the Oklahoma State Regents for Higher Education Academic Scholars Program.

TABLE 7

Residency of Participants for the Class of 2000

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
Resident	178	87	265	76%
Non-Resident	50	35	85	24%
		Total	350	

TABLE 8

Residency of Participants for the Class of 2001

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
Resident	135	99	234	80%
Non-Resident	41	18	59	20%
		Total	293	

TABLE 9

Residency of Participants for the Class of 2002

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
Resident	145	133	278	69%
Non-Resident	96	28	124	31%
		Total	402	

The high school classification of Oklahoma residents is notated in Tables 10, 11, and 12. Students were classified based on Oklahoma’s high school basketball classification system. Students were placed into categories of 6A, 5A, 4A, 3A, 2A, A, B, and other. 6A high schools were the largest and B high schools were the smallest. The average graduating classes per year were approximately 850 to 275 students for 6A, 275 to 150 students for 5A, 150 to 85 students for 4A, 85 to 65 students for 3A, 65 to 25 students for 2A, 25 to 15 students for A, and less than 15 students for B. The other category refers to schools not participating high school sport classification system, mainly private or specialized high schools. Home schooled students were placed into a separate category.

TABLE 10

High School Classification for Oklahoma Residents for the Class of 2000

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
6A	96	38	135	50.94%
5A	26	15	41	15.47%
4A	18	10	28	10.57%
3A	16	79	25	9.43%
2A	3	5	8	3.02%
A	2	1	3	1.13%
B	0	2	2	0.75%
Other	15	6	21	7.92%
Home School	1	1	2	0.75%
Totals			265	

TABLE 11

High School Classification for Oklahoma Residents for the Class of 2001

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
6A	85	41	126	53.85%
5A	14	16	30	12.82%
4A	10	16	26	11.11%
3A	3	11	14	5.98%
2A	4	4	8	3.42%
A	1	2	3	1.28%
B	3	2	5	2.14%
Other	11	7	18	7.69%
Home School	4	0	4	1.71%
Totals			234	

TABLE 12

High School Classification for Oklahoma Residents for the Class of 2002

	<u>Automatic</u>	<u>Institutional</u>	<u>Total</u>	<u>Percent</u>
	<u>Qualifiers</u>	<u>Nominees</u>		
6A	80	60	140	50.36%
5A	19	19	38	13.67%
4A	11	27	38	13.67%
3A	7	11	18	6.47%
2A	2	7	9	3.24%
A	2	4	6	2.16%
B	4	1	5	1.80%
Other	15	4	19	6.83%
Home School	5	0	5	1.80%
Totals			278	

Procedures

Grade point average and credit hours earned data were gathered from the Oklahoma State Regents for Higher Education Academic Scholars Program after receiving approval from Oklahoma State University Institutional Review Board (Appendix C). The Oklahoma State Regents for Higher Education collected the data every August to assess continuing eligibility requirements. The credit hours earned each academic year were totaled for fall, spring, and summer terms. The grade point average recorded for each student was cumulative.

Students who entered into the Academic Scholars Program and received a scholarship stipend between 2000-02 were tracked through the completion of their third year of college. Grade point average and credit hours earned were not tracked for students who lost scholarship eligibility. All data were stripped of any unique identifiers including names and social security numbers or any other information that could result in subject identification. The data remained protected throughout the study and archived appropriately as described in Creswell 2003.

Measurement

The participants in this study were measured by the continuing eligibility requirements of the Academic Scholars Program. Students were deemed having a successful performance in the Academic Scholars Program if they maintained at least a 3.25 grade point average and completed 24 credit hours during each academic year in college. Students not achieving these standards were deemed having an unsuccessful performance.

Analysis of Data

The data were analyzed using SPSS. Repeated One-Way ANOVAs were used to compare the credit hours earned and grade point average of each variable over a three year period. An ANOVA is a statistical procedure often used to compare two or more groups to determine if there is a difference in outcome (Blaikie, 2003). ANOVA isolates the sources of variability and determines to what degree of an independent variable is a major component (Girden, 1992). Since this study was longitudinal, repeated One-Way ANOVAs were conducted. An alpha level of .05 was used to establish significance. If statistical difference occurred when comparing three or more variables, a Scheffe post

hoc test was used to determine where the difference occurred. A Scheffe's test is widely used and accepted in educational research to compare pairs of means and multifaceted combinations (Shavelson, 1996). In addition to post hoc tests, an Omega Squared value was calculated for any variables showing a statistical difference. The Omega Squared value showed the strength of the association between the variables and the outcomes. Strength was measured by using the scale outlined by Cohen (as cited in Keppel 1991), where an Omega Squared value of .01 or less is a small effect, .06 is a medium effect, and .15 or greater is a large effect.

In order to investigate the relationship between group membership and success in the program, Chi-Square tests were used. Researchers use Chi-square test for counting the number of subjects falling into particular categories (Shavelson, 1996). This study used Chi-square test by placing students into two categories, successful Academic Scholars and unsuccessful Academic Scholars. The categories were divided by qualifying status.

Research Questions

Research Question One

Is there a relationship between qualifying status and academic success in the Academic Scholars Program? Chi-Square tests were conducted to compare students by placing them into two categories, successful Academic Scholars and unsuccessful Academic Scholars over a three year period.

Research Question Two

Does qualifying status predict performance among students in the Academic Scholars Program? This question was analyzed using repeated One-Way ANOVAs by

comparing the grade point average and credit hours earned of Automatic Qualifiers and Institutional Nominees over a three year period.

Research Question Three

Are there differences among the performance by gender in the Academic Scholars Program? To answer this question, repeated One-Way ANOVAs were performed to compare the grade point average and credit hours earned over a three year period for the two gender groups.

Research Question Four

Are there differences among the performance of ethnic groups in the Academic Scholars Program? Repeated One-Way ANOVAs were performed to compare the grade point average and credit hours earned over a three year period for the ethnic groups. Because the program lacked diversity, the most diverse class of participants, the Class of 2000, was analyzed and students were placed into two groups, white and non-white.

Researcher Subjectivity

At the time of study, the researcher was a scholarship coordinator for the Oklahoma State Regents for Higher Education and worked with state financial programs for almost a decade. The researcher continued to work closely with the colleges and students involved in the program while completing the study. In addition, OSRHE values the importance of the Academic Scholars Program and boasts of its value to Oklahoma higher education by attracting the best and the brightest students, especially National Merit Scholars. While the researcher was a strong believer in merit-based financial aid programs and hoped that programs like the Academic Scholars Program were deemed valuable and continued to receive funding in the future, it was the researcher's intention

to always be mindful of potential conflict of interest and present a highly ethical and balanced evaluation of the program.

Summary

The data for this study included 1,045 students who received a cash stipend at a public research institution participating in the Academic Scholars program. Cumulative grade point averages and credit hours earned each academic year were evaluated to determine success in the Academic Scholars Program. Students needed to maintain a 3.25 cumulative grade point average and complete 24 credit hours to maintain eligibility in the program. Students who did not maintain eligibility in the program were no longer tracked. Repeated one-way ANOVAs and Chi-Square tests were conducted to compare the various variables in this study.

CHAPTER IV

FINDINGS

Introduction

The performance of students participating in the Academic Scholars Program was measured by the renewal requirements of the scholarship, 3.25 cumulative grade point average and 24 credit hours earned each academic year. Only students receiving a scholarship stipend were evaluated at the conclusion of each academic year. Students were evaluated over a three period, which included the completion of the freshman, sophomore, and junior years in college. The data presented in this chapter reflects students who entered into Academic Scholars Program between 2000-02 as Automatic Qualifiers or Institutional Nominees and attended public research institutions in Oklahoma.

Demographics of Participants

Who are the students participating in the Academic Scholars Program? This question explores the demographics of the students in the Academic Scholars Program. The class of 2000 was the most diverse and the class of 2001 was the least diverse. Black and Hispanic students had the largest decreases from 6.0% in 2000 to 0.75% in 2002 and 7.43% in 2000 to 1.49% in 2002 respectively. Figures 1-6 display the ethnic proportions of the three classes participating in the study as well as the ethnic proportions of the

2000-02 freshmen classes attending public research institutions in Oklahoma, retrieved from the Integrated Postsecondary Education Data System (IPEDS).

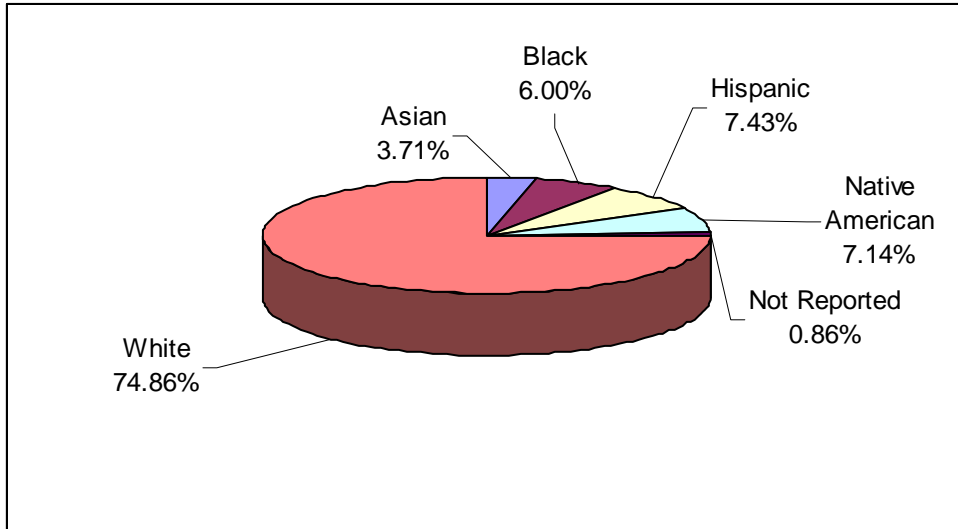


Figure 1. Freshman Class of 2000 Ethnicity of Participants in the Academic Scholars Program (N=350)

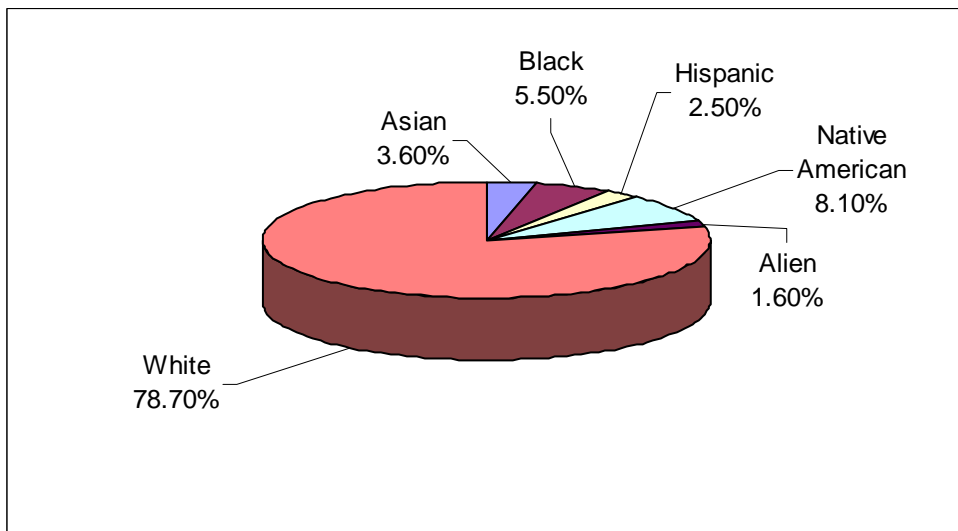


Figure 2. Freshman Class of 2000 Ethnicity of Students Attending Public Research Institutions in Oklahoma (N=6,289)

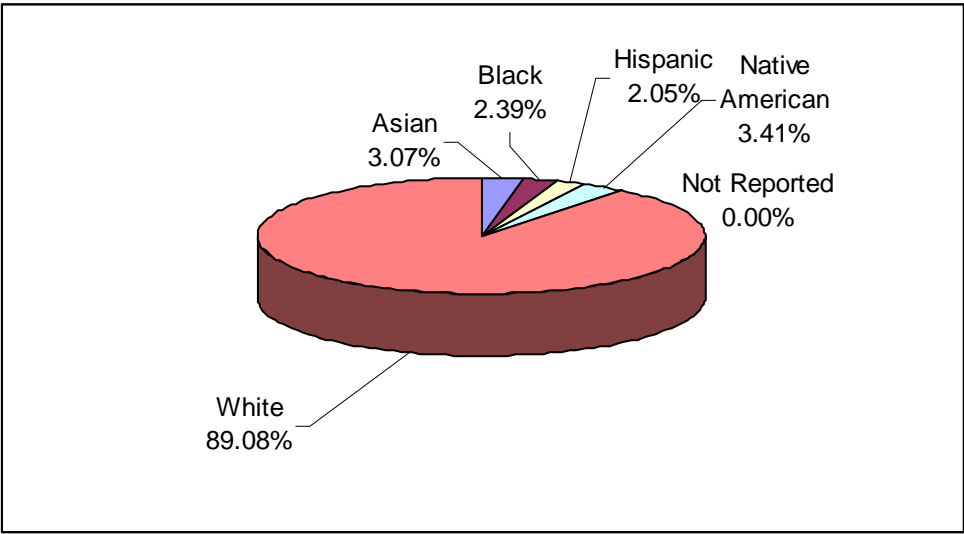


Figure 3. Freshman Class of 2001 Ethnicity of Participants in the Academic Scholars Program (N=293)

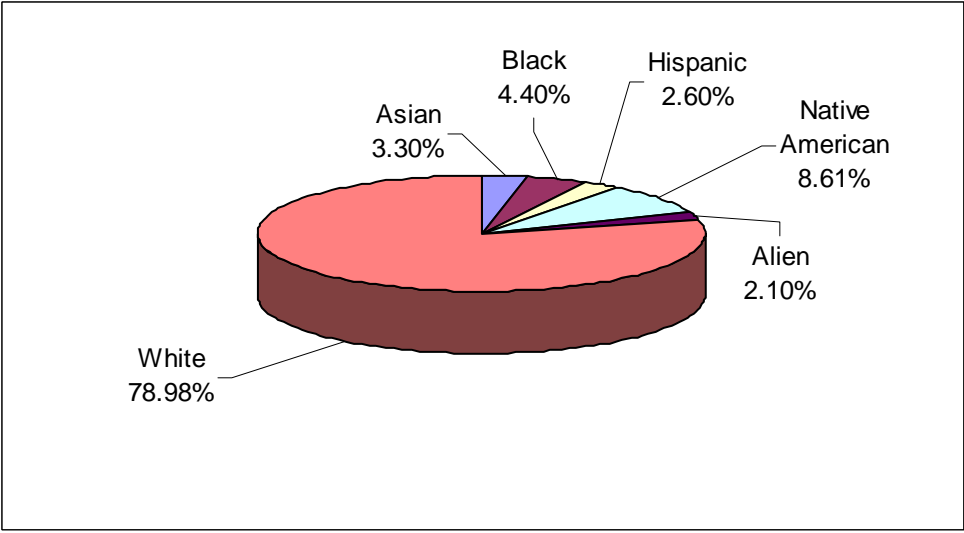


Figure 4. Freshman Class of 2001 Ethnicity of Students Attending Public Research Institutions in Oklahoma (N=6,583)

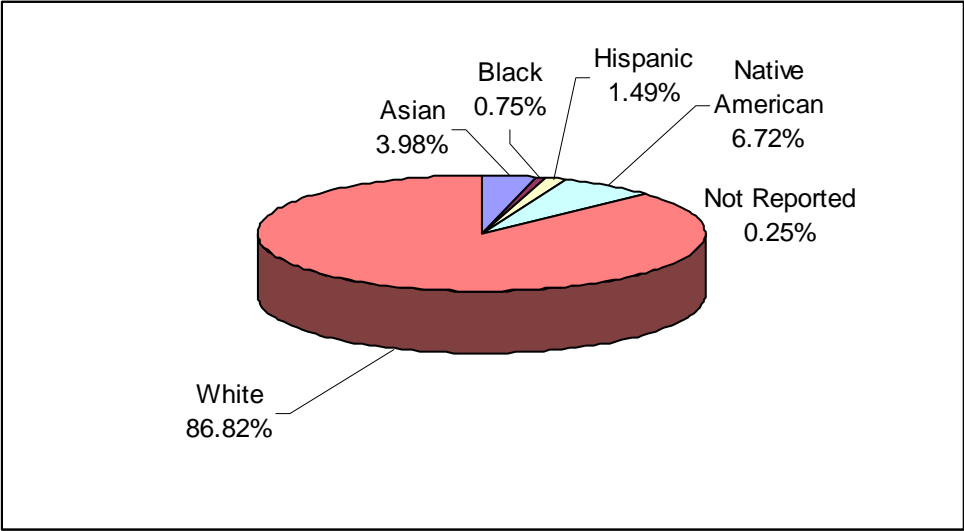


Figure 5. Freshman Class of 2002 Ethnicity of Participants in the Academic Scholars Program (N=402)

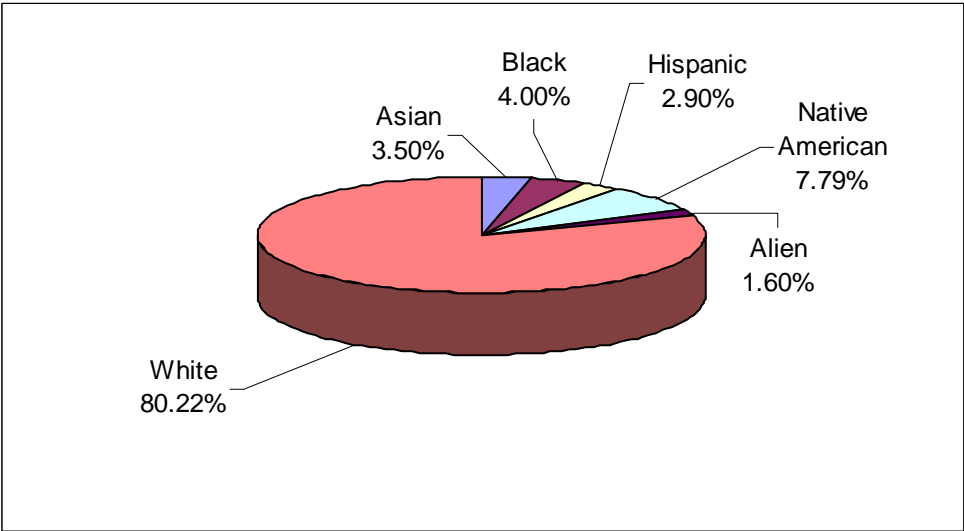


Figure 6. Freshman Class of 2002 Ethnicity of Students Attending Public Research Institutions in Oklahoma (N=6,798)

For all classes participating in the Academic Scholars Program, males outnumbered the females. However, the overall enrollment for freshmen students attending public research institutions in Oklahoma was predominately female. Research shows that the movement of females outnumbering males on college campuses is not unique to Oklahoma. In fact, Oklahoma's gender gap is consistent with the national trend of females going to college and earning degrees at higher rates than males. For example, in 2002, females accounted for 57% of college students (Kingsbury, 2006). Various reasons are given for this gender gap. Nationally, more females graduate from high school and are less likely to be lured directly from high school into the workforce (Kingsbury, 2006).

The gender data for this study is displayed in figures 7-12. The data used for the Academic Scholars Program was obtained from the Academic Scholars Program database. The data used for the public research institutions were attained from IPEDS.

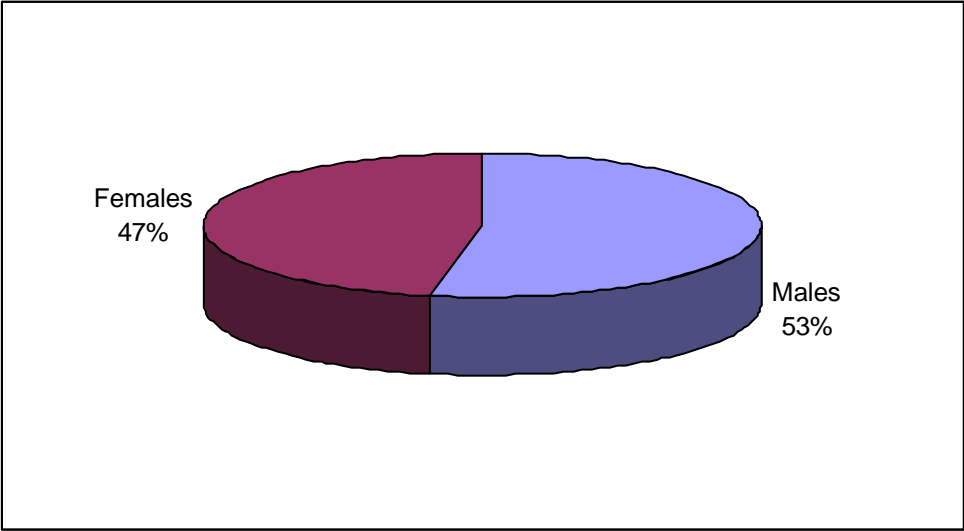


Figure 7. Freshman Class of 2000 Gender of Participants in the Academic Scholars Program (N=350)

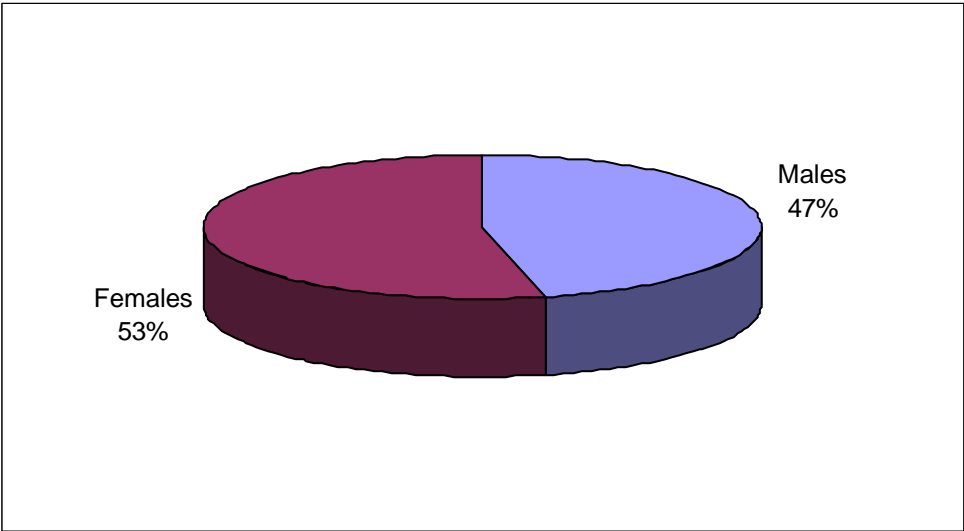


Figure 8. Freshman Class of 2000 Gender of Students Attending Public Research Institutions in Oklahoma (N=6,289)

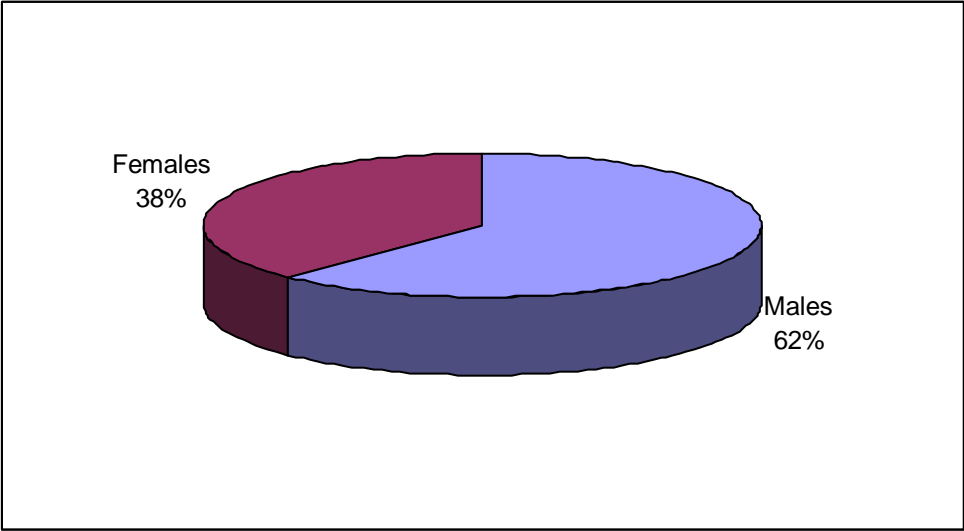


Figure 9. Freshman Class of 2001 Gender of Participants in the Academic Scholars Program (N=293)

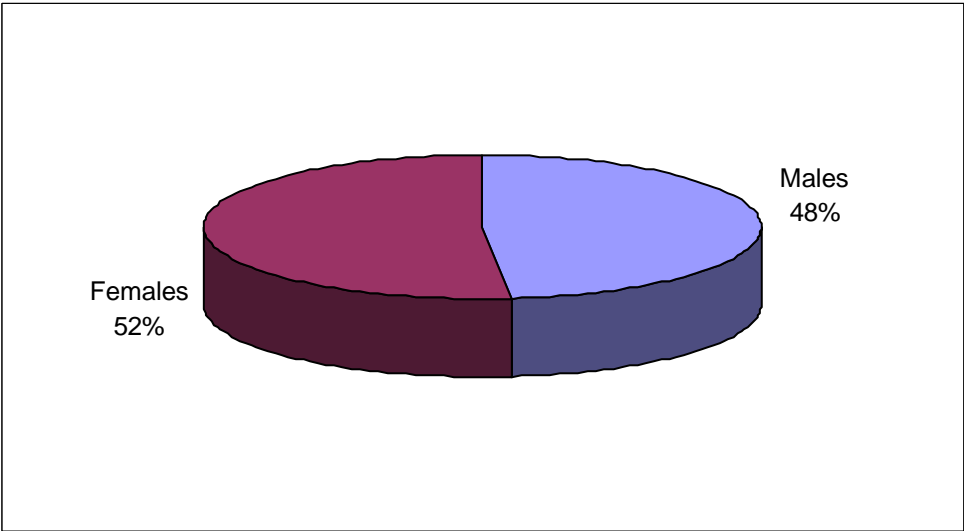


Figure 10. Freshman Class of 2001 Gender of Students Attending Public Research Institutions in Oklahoma (N=6,583)

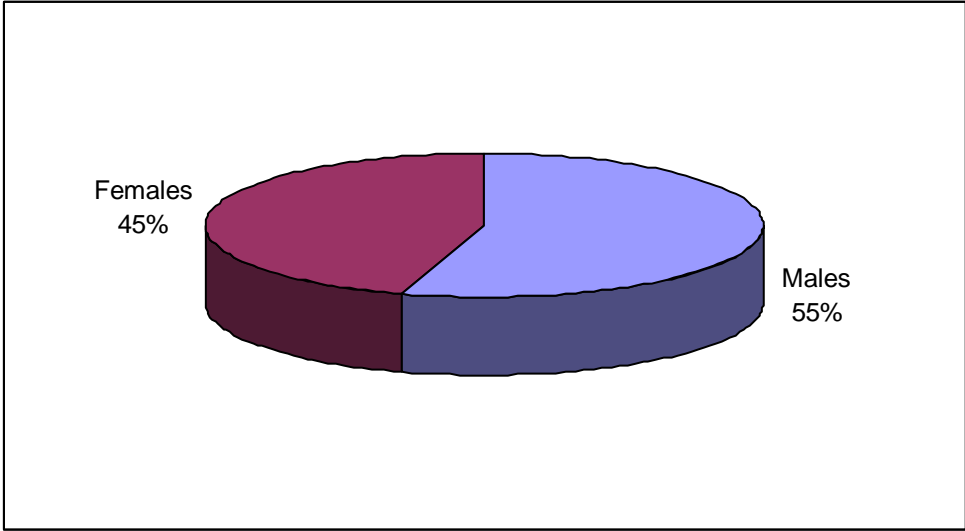


Figure 11. Freshman Class of 2002 Gender of Participants in the Academic Scholars Program (N=402)

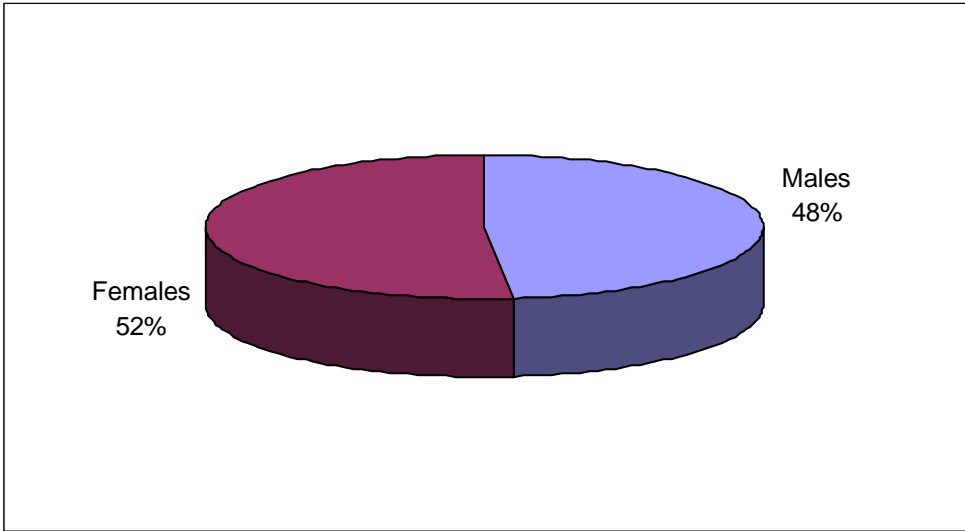


Figure 12. Freshman Class of 2002 Gender of Students Attending Public Research Institutions in Oklahoma (N=6,798)

Research Question One

Is there a relationship between qualifying status and academic success in the Academic Scholars Program? This question compared students who were Automatic Qualifiers to Institutional Nominees. Tables 13-21 display the descriptive statistics for the Class of 2000, 2001, and 2002. The trend for the class of 2000 showed a slight increase in the mean grade point averages for both qualifying groups over the three year period. For the class of 2001 and 2002, the mean grade point average increased slightly between year one and year two, but remained consistent between year two and year three. The mean credit hours earned stayed fairly consistent at roughly 30 hours for each class.

TABLE 13

Class of 2000 Descriptive Statistics for the Qualifying Status Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	228	30.29	3.59
Institutional Nominees	122	31.00	3.60
Total	350	30.54	3.60

TABLE 14

Class of 2000 Descriptive Statistics for the Qualifying Status Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	191	30.72	3.68
Institutional Nominees	104	30.48	3.65
Total	295	30.64	3.67

TABLE 15

Class of 2000 Descriptive Statistics for the Qualifying Status Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	173	29.30	3.90
Institutional Nominees	96	30.51	3.67
Total	269	29.73	3.82

TABLE 16

Class of 2001 Descriptive Statistics for the Qualifying Status Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	176	30.27	3.63
Institutional Nominees	117	29.59	3.66
Total	293	29.99	3.64

TABLE 17

Class of 2001 Descriptive Statistics for the Qualifying Status Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	153	31.40	3.69
Institutional Nominees	109	30.19	3.66
Total	262	30.90	3.68

TABLE 18

Class of 2001 Descriptive Statistics for the Qualifying Status Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	146	29.6	3.70
Institutional Nominees	103	28.62	3.65
Total	249	29.19	3.68

TABLE 19

Class of 2002 Descriptive Statistics for the Qualifying Status Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	241	29.70	3.61
Institutional Nominees	161	30.22	3.74
Total	402	29.91	3.66

TABLE 20

Class of 2002 Descriptive Statistics for the Qualifying Status Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	213	30.77	3.70
Institutional Nominees	151	30.17	3.74
Total	364	30.53	3.72

TABLE 21

Class of 2002 Descriptive Statistics for the Qualifying Status Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
Automatic Qualifiers	202	29.40	3.73
Institutional Nominees	144	31.08	3.72
Total	346	30.10	3.72

A Chi-Square analysis was performed to compare the two qualifying groups by placing the participants into two categories, successful and not successful. Success was defined as maintaining a minimum 3.25 cumulative grade point average and completing at least 24 credit hours per academic year, which are the requirements to maintain eligibility in the Academic Scholars Program. Tables 22-30 show the Chi-Square frequency distributions for the two groups. Not all students who are successful in completing the eligibility requirements of the program continue to the next year due various reasons such as a leave of absence from the program or transferring from the institution.

TABLE 22

Class of 2000 Frequency of Achievement Year 1

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	201	27	228
	Group %	88.2%	11.8%	100.0%
	Category %	65.0%	65.9%	65.1%
	% of Total	57.4%	7.7%	65.1%
Institutional Nominees				
	Count	108	14	122
	Group %	88.5%	11.5%	100.0%
	Category %	35.0%	34.1%	34.9%
	% of Total	30.9%	4.0%	34.9%
Total				
	Count	309	41	350
	Group %	88.3%	11.7%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	88.3%	11.7%	100.0%

TABLE 23

Class of 2000 Frequency of Achievement Year 2

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	170	21	191
	Group %	89.0%	11.0%	100.0%
	Category %	64.2%	70.0%	64.7%
	% of Total	57.6%	7.1%	64.7%
Institutional Nominees				
	Count	95	9	104
	Group %	91.3%	8.7%	100.0%
	Category %	35.8%	30.0%	35.3%
	% of Total	32.2%	3.1%	35.3%
Total				
	Count	265	30	295
	Group %	89.8%	10.2%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	89.8%	10.2%	100.0%

TABLE 24

Class of 2000 Frequency of Achievement Year 3

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	163	10	173
	Group %	94.2%	5.8%	100.0%
	Category %	63.9%	71.4%	64.3%
	% of Total	60.6%	3.7%	64.3%
Institutional Nominees				
	Count	92	4	96
	Group %	95.8%	4.2%	100.0%
	Category %	36.1%	28.6%	35.7%
	% of Total	34.2%	1.5%	35.7%
Total				
	Count	255	14	269
	Group %	94.8%	5.2%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	94.8%	5.2%	100.0%

Chi-Square results for the Class of 2000 year one was $X^2(1) = 0.010$, $p = 0.919$, year two $X^2(1) = 0.404$, $p = 0.525$, and year three was $X^2(1) = 0.326$, $p = 0.568$. Therefore, no statistical significance between qualifying status and success in the Academic Scholars Program was found at any point over the three period.

TABLE 25

Class of 2001 Frequency of Achievement Year 1

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	157	19	176
	Group %	89.2%	10.8%	100.0%
	Category %	58.6%	76.0%	60.1%
	% of Total	53.6%	6.5%	60.1%
Institutional Nominees				
	Count	111	6	117
	Group %	94.9%	5.1%	100.0%
	Category %	41.4%	24.0%	39.9%
	% of Total	37.9%	2.0%	39.9%
Total				
	Count	268	25	293
	Group %	91.5%	8.5%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	91.5%	8.5%	100.0%

TABLE 26

Class of 2001 Frequency of Achievement Year 2

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	144	9	153
	Group %	94.1%	5.9%	100.0%
	Category %	58.5%	56.3%	58.4%
	% of Total	55.0%	3.4%	58.4%
Institutional Nominees				
	Count	102	7	109
	Group %	93.6%	6.4%	100.0%
	Category %	41.5%	43.8%	41.6%
	% of Total	38.9%	4.0%	41.6%
Total				
	Count	246	16	262
	Group %	93.9%	6.1%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	93.9%	6.1%	100.0%

TABLE 27

Class of 2001 Frequency of Achievement Year 3

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	135	12	147
	Group %	91.8%	8.2%	100.0%
	Category %	60.0%	52.2%	59.3%
	% of Total	54.4%	4.8%	59.3%
Institutional Nominees				
	Count	90	11	101
	Group %	89.1%	10.9%	100.0%
	Category %	40.0%	47.8%	40.7%
	% of Total	36.3%	4.4%	40.7%
Total				
	Count	225	23	248
	Group %	90.7%	9.3%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	90.7%	9.3%	100.0%

Chi-Square results for the Class of 2001 year one was $X^2(1) = 2.892$, $p = 0.089$, year two $X^2(1) = 0.032$, $p = 0.857$, and year three was $X^2(1) = 0.529$, $p = 0.467$. Therefore, no statistical significance between qualifying status and success in the Academic Scholars Program was found at any point over the three period.

TABLE 28

Class of 2002 Frequency of Achievement Year 1

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	217	24	241
	Group %	90.0%	10.0%	100.0%
	Category %	58.8%	72.7%	60.0%
	% of Total	54.0%	6.0%	60.0%
Institutional Nominees				
	Count	152	9	161
	Group %	94.4%	5.6%	100.0%
	Category %	41.2%	37.3%	40.0%
	% of Total	37.8%	2.2%	40.0%
Total				
	Count	369	33	402
	Group %	91.8%	8.2%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	91.8%	8.2%	100.0%

TABLE 29

Class of 2002 Frequency of Achievement Year 2

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	200	13	213
	Group %	93.9%	6.1%	100.0%
	Category %	57.8%	72.2%	58.5%
	% of Total	54.9%	3.6%	58.5%
Institutional Nominees				
	Count	146	5	151
	Group %	96.7%	3.3%	100.0%
	Category %	42.2%	27.8%	41.5%
	% of Total	40.1%	1.4%	41.5%
Total				
	Count	346	18	364
	Group %	95.1%	4.9%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	95.1%	4.9%	100.0%

TABLE 30

Class of 2002 Frequency of Achievement Year 3

Qualifying Status		Successful	Not Successful	Total
Automatic Qualifiers				
	Count	192	9	201
	Group %	95.5%	4.5%	100.0%
	Category %	58.7%	52.9%	58.4%
	% of Total	55.8%	2.6%	58.4%
Institutional Nominees				
	Count	135	8	143
	Group %	94.4%	5.6%	100.0%
	Category %	41.3%	47.1%	34.9%
	% of Total	39.2%	2.3%	41.6%
Total				
	Count	327	17	344
	Group %	95.1%	4.9%	100.0%
	Category %	100.0%	100.0%	100.0%
	% of Total	95.1%	4.9%	100.0%

Chi-Square results for the Class of 2002 year one was $X^2(1) = 2.444$, $p = 0.118$, year two $X^2(1) = 1.465$, $p = 0.226$, and year three was $X^2(1) = 0.222$, $p = 0.638$. Therefore, no statistical significance between qualifying status and success in the Academic Scholars Program was found at any point over the three period.

Research Question Two

Does qualifying status predict performance among students in the Academic Scholars Program? To answer this question, One-Way ANOVA was conducted to determine if there was a difference in the cumulative grade point averages and credit hours earned of the two qualifying status groups. The One-Way ANOVA results for the Class of 2000 and 2001 (See Appendix D and E) indicated no statistical difference in grade point average or credit hours earned in the two qualifying status groups. The One-Way ANOVA results for the Class of 2002 (See Appendix F) indicated statistical

difference [$F(1,400)=7.4$; $p=.007$] in grade point average year one and [$F(1,344)=8.26$; $p=.004$] in credit hours earned year three. The Omega Squared value for grade point average year one was 1.56% and for credit hours earned year three was 2.06%, which are both low values for strength effect of the variables. No other statistical differences were found in the class of 2002.

Research Question Three

Are there differences among the performance by gender in the Academic Scholars Program? The One-Way ANOVA results for the Class of 2000 (See Appendix G) indicated no statistical difference in grade point average or credit hours earned among males and females. For the Class of 2001, a statistical significance [$F(1,291)=5.412$; $p=.021$] was found in grade point average year one, [$F(1,260)=4.306$; $p=.039$] year two, and [$F(1,247)=4.771$; $p=.030$] year three (See Appendix H). The Omega Squared value for grade point average year one, year two, and year three were 1.48%, 1.24%, and 1.26% respectively, which are all low values for strength effect of the variables. Per Cohen, in Keppell (1991), all these values demonstrate a small effect.

The Class of 2002 found a statistical significance (See Appendix I) among males and females in credit hours earned year one [$F(1,400)=4.58$; $p=.038$] with an Omega Squared value of less than 1%, grade point average year two [$F(1,362)=15.707$; $p=.000$] with an Omega Squared value of 3.88%, credit hours earned year two [$F(1,262)=6.158$; $p=.014$] with an Omega Squared value of 1.4%, grade point average year three [$F(1,344)=1.1025$; $p=.001$] with an Omega Squared value of less than 1%, and credit hours earned year one [$F(1,344)=14.542$; $p=.000$] with an Omega Squared value of 3.77%. Because the values were less than 6%, all Omega Squared value showed low

strength of variable effect on grade point average and credit hours earned. Tables 31-39 show the means for the two groups.

TABLE 31

Class of 2000 Descriptive Statistics for Female and Male Year 1

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	164	30.68	3.65
Male	186	30.41	3.55
Total	350	30.54	3.60

TABLE 32

Class of 2000 Descriptive Statistics for Female and Male Year 2

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	147	30.84	3.69
Male	148	30.44	3.66
Total	295	30.64	3.67

TABLE 33

Class of 2000 Descriptive Statistics for Female and Male Year 3

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	137	29.38	3.72
Male	132	30.10	3.71
Total	269	29.73	3.72

TABLE 34

Class of 2001 Descriptive Statistics for Female and Male Year 1

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	111	29.37	3.72
Male	182	30.38	3.59
Total	293	29.99	3.64

TABLE 35

Class of 2001 Descriptive Statistics for Female and Male Year 2

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	105	30.79	3.73
Male	157	30.97	3.65
Total	262	30.90	3.68

TABLE 36

Class of 2001 Descriptive Statistics for Female and Male Year 3

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	99	28.98	3.72
Male	150	29.34	3.65
Total	249	29.19	3.68

TABLE 37

Class of 2002 Descriptive Statistics for Female and Male Year 1

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	182	29.45	3.75
Male	220	30.45	3.59
Total	402	29.90	3.66

TABLE 38

Class of 2002 Descriptive Statistics for Female and Male Year 2

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	174	29.98	3.78
Male	190	31.13	3.67
Total	364	30.53	3.72

TABLE 39

Class of 2002 Descriptive Statistics for Female and Male Year 3

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
Female	165	31.24	3.77
Male	181	29.06	3.68
Total	346	30.10	3.72

Research Question Four

Are there differences among the performance of ethnic groups in the Academic Scholars Program? The most diverse class, Class of 2000, was analyzed to address this question. Students were placed into two groups, white students (262) or non-white students (88). The data cells were not large enough for each ethnic group to be analyzed individually. Presented below are the descriptive statistics for these groups. The mean grade point average and credit hours earned were slightly lower for non-white students for all three years.

TABLE 40

Class of 2000 Descriptive Statistics for White and Non-White Year 1

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	262	30.65	3.62
Non-White	88	30.22	3.51
Total	350	30.54	3.60

TABLE 41

Class of 2000 Descriptive Statistics for White and Non-White Year 2

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	225	31.03	3.69
Non-White	70	29.39	3.63
Total	295	30.64	3.67

TABLE 42

Class of 2000 Descriptive Statistics for White and Non-White Year 3

Group	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	208	29.88	3.72
Non-White	61	29.21	3.69
Total	269	29.73	3.72

In the ANOVA summary table (Appendix J), a statistical significance [F(1,293)=5.561; p=.019] was found in the credit hours earned year two with an Omega Squared value of 15.85%. This was the highest Omega Squared value recorded for any of the variables and demonstrated a large effect per Cohen, in Keppel (1991). Over the three period observed, no statistical difference was found in grade point average among the White and Non-White students for the class of 2000.

Class of 2001 and 2002 did not include a sufficient number of Non-White students to evaluate the two groups effectively. Listed below are the descriptive statistics for all three classes divided by each ethnic group. White and Asian students reported the highest mean grade point averages while Black and Hispanic students reported the lowest mean grade point averages. This observation was persistent for all classes over the three year period.

TABLE 43

Class of 2000 Descriptive Statistics for the Ethnic Groups Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	262	30.65	3.62
Hispanic	26	29.12	3.37
Asian	13	32.46	3.77
Native Americans	25	29.92	3.69
Black	21	30.29	3.31
Not Reported	3	32.00	3.54
Total	350	30.54	3.60

TABLE 44

Class of 2000 Descriptive Statistics for the Ethnic Groups Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	225	30.29	3.59
Hispanic	18	30.28	3.55
Asian	12	28.92	3.79
Native Americans	24	29.00	3.65
Black	14	29.00	3.51
Not Reported	2	30.64	3.60
Total	295	30.64	3.67

TABLE 45

Class of 2000 Descriptive Statistics for the Ethnic Groups Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	208	29.88	3.72
Hispanic	15	30.07	3.64
Asian	11	29.55	3.84
Native Americans	23	27.57	3.65
Black	10	31.30	3.66
Not Reported	2	29.50	3.83
Total	269	29.73	3.71

TABLE 46

Class of 2001 Descriptive Statistics for the Ethnic Groups Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	261	29.96	3.63
Hispanic	6	30.3	3.72
Asian	9	31.3	3.94
Native Americans	10	29.4	3.78
Black	7	29.85	3.48
Not Reported	0	0	0
Total	293	29.99	3.64

TABLE 47

Class of 2001 Descriptive Statistics for the Ethnic Groups Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	232	30.88	3.68
Hispanic	6	29.50	3.65
Asian	9	33.00	3.90
Native Americans	9	31.33	3.70
Black	6	29.00	3.33
Not Reported	0	0	0
Total	262	30.90	3.68

TABLE 48

Class of 2001 Descriptive Statistics for the Ethnic Groups Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	222	29.11	3.67
Hispanic	5	28.2	3.78
Asian	9	29.44	3.89
Native Americans	8	29.25	3.65
Black	5	32.20	3.38
Not Reported	0	0	0
Total	249	29.19	3.68

TABLE 49

Class of 2002 Descriptive Statistics for the Ethnic Groups Year 1

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	349	29.78	3.65
Hispanic	6	32.00	3.77
Asian	16	31.06	3.69
Native Americans	27	30.07	3.78
Black	3	32.00	3.42
Not Reported	1	31.000	4.00
Total	402	29.90	3.66

TABLE 50

Class of 2002 Descriptive Statistics for the Ethnic Groups Year 2

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	314	30.44	3.72
Hispanic	6	31.00	3.71
Asian	16	32.31	3.603
Native Americans	24	29.75	3.75
Black	3	33.00	3.46
Not Reported	1	36.00	3.95
Total	364	30.53	3.72

TABLE 51

Class of 2002 Descriptive Statistics for the Ethnic Groups Year 3

Qualifying Status	Number	Mean Credit Hours Earned	Mean Grade Point Average
White	302	30.16	3.73
Hispanic	6	28.50	3.71
Asian	14	33.29	3.57
Native Americans	21	26.81	3.75
Black	2	30.00	3.65
Not Reported	1	44.00	3.97
Total	346	30.10	3.72

Summary

This study included 1,045 students entering into the Academic Scholars Program at public research institution in Oklahoma from 2000-02. Students were either Automatic Qualifiers, which accounted for 645 of the participants, or Institutional Nominees, which accounted for 400. The majority of the students were white males. The ethnicity and gender ratios of students participating in the Academic Scholars Program from 2000-02 at public research institutions in Oklahoma were not proportionate to the ethnicity and gender ratios of students attending those institutions. The class of 2001 was the least diverse and had the lowest percentage of females.

Grade point averages and credit hours earned of students receiving the scholarship award were tracked for three academic years. The results from the Chi-Square tests indicated there was not a difference in the success rates of Automatic Qualifiers and Institutional Nominees participating in the Academic Scholars Program. Students participating in the Academic Scholars Program were deemed successful by maintaining a 3.25 cumulative grade point average and completing at least 24 credit hours each academic year. The results from the ANOVA tests for gender showed that a statistical significance was found for the males and females in the class of 2001 and 2002 with females performing higher. In addition, a statistical significance was found in the ethnic groups for the class of 2000 showing white students performing higher.

CHAPTER V

CONCLUSION

Overview

The purpose of this study was to examine the selected variables of qualifying status, gender, and ethnicity, and their ability to predict academic performance in students who participate in the Oklahoma State Regents for Higher Education Academic Scholars Program. In this study, academic success was defined by maintaining the renewal requirements of a 3.25 cumulative grade point average and completing 24 credit hours annually. The selected variables included qualifying status, ethnicity, and gender. Qualifying status was divided into two groups, Automatic Qualifiers and Institutional Nominees. Students automatically qualified for the Academic Scholars Program by achieving National Merit Scholar/Finalist Awards, US Presidential Scholars Award, or scoring within 99.5% of Oklahoma ACT or SAT test takers. Institutional Nominees were nominated by Oklahoma public institutions using a combination of ACT scores, high school grade point average, and class rank.

The program was redesigned in 1999 as a result of a lawsuit challenging the race and gender based qualifying criteria. For the first three years of the restructured scholarship program, the amounts for both groups were the same. However, this changed in 2003 when the scholarship award for the Institutional Nominees were basically cut in half in half in order to control the escalating cost of the program. The logic behind only

cutting the Institutional Nominees awards was the assumption that Automatic Qualifiers were more merit worthy and deserve to maintain the full scholarship award level. The research conducted in this study was the first in depth analysis of Oklahoma's oldest merit-based scholarship program.

Discussion

The data analyzed in this study yielded the following answers to the presented research questions.

1. Is there a relationship between qualifying status and academic success in the Academic Scholars Program? No statistical difference was found between the success rates of Automatic Qualifiers and Institutional Nominees during the observed period.
2. Does qualifying status predict performance among students in the Academic Scholars Program? A statistical difference was found in grade point average year 1 and credit hours earned year 3 in the class of 2002 with Institutional Nominees performing better than Automatic Qualifiers. Because this was the only occurrence of statistical difference for the 3 classes during the observed period, the differences most likely occurred by chance. Therefore, overall trends suggested no significant difference in the performance of Automatic Qualifiers and Institutional Nominees.
3. Are there differences among the performance by gender in the Academic Scholars Program? For the class of 2001, a statistical difference was found in the grade point average years 1-3 with females outperforming males. A statistical difference was found in credit hours earned years 1-2 and grade point average

years 2-3 for the class of 2002 with females outperforming males in both areas. This data trend suggested females performed better than males in the program during the observed period.

4. Are there differences among the performance of ethnic groups in the Academic Scholars Program? When observing the class of 2000, the only statistical difference was found in year 2 credit hours earned with White students outperforming Non-White students. Because no other statistical differences were found, the overall trends in the data suggested no significant difference was found in the performance of White and Non-White Students and the occurrence described above was most likely due by chance. However, White and Asian students reported higher mean grade point averages than Black and Hispanic students over the observed period.

The findings in the ethnicity of the participants in the Academic Scholars Program were consistent with the review of the literature. Minority groups were less likely to receive the Academic Scholars Program award. These findings were similar to other state merit based financial aid programs. For example, Black students only received 3% of Florida's top merit based scholarships while making up 14.4% of the qualifying test takers and Hispanics only 8.7% of the top awards and made up 13.7% of the qualifying test takers (Selingo, 2001). Of the Black and Hispanic students participating in the Academic Scholars Program, these students were more likely to be Institutional Nominees than Automatic Qualifiers.

Oklahoma residents were eligible to Automatically Qualify for the Academic Scholars Program by scoring in the top 99.5% on the ACT test. During the observed

period, Oklahoma resident ACT test takers were 71.4% White, 6.6% Black, 10.7% Native American, 3.2% Hispanic, 2.4% Asian, and 5.7% Other/Not Reported. However, less than 1% Black and Hispanic and roughly 3% Native American students automatically qualified for the program.

An obvious difference in gender participation was also found in the participants. The percentage of females participating in the Academic Scholars Program was lower for all three classes. However, the enrollment of freshmen at the observed institutions was majority female. The students participating as freshmen in the Academic Scholars Program were 47% females and 53% males in 2000, 38% female and 62% male in 2001, and 45% female and 55% male in 2002. This compared unequally to the percent of females and males freshmen attending public research institutions during the observed period with 53% females and 47% males in 2000, 52% female and 48% male in 2001, and 52% female and 48% males in 2002.

The gender difference in the Academic Scholars Program was not consistent with other research that showed a larger percent of women than men receive merit-based financial aid (McPherson & Schapira, 1998). The lower participation rate of females in the Academic Scholars Program could be due to the preference of using standardized test scores for admission in the program. Therefore, if females do not perform as well on standardized tests as males, admission into the program becomes gender bias.

Oklahoma residents participating in the program were more likely to graduate from urban and suburban high school than rural area high schools. Participants graduating from schools with a class size of 6A, 5A, and 4A accounted for approximately 77% of the total for each of the three years observed. 6A, 5A, and 4A schools typically

are located in non-rural areas. This compares to 68.8% of Oklahoma students attending non-rural secondary schools and 31.2% attending rural secondary school (NCES, 2004). The difference between Academic Scholars Program participation and secondary school enrollment was less than 10%.

This study used One-Way ANOVAs and Chi-Square Tests to analyze the grade point average and credit hours earned of participants in the study. Using an alpha level of .05, the data suggested no statistical significance was found between Automatic Qualifiers and Institutional Nominees participating in the Academic Scholars Program at the public research institutions in Oklahoma for the freshmen classes of 2000, 2001, and 2002. Therefore, qualifying status was not an indicator of performance in the Academic Scholars Program. In fact, the means for each group were very similar (see figures 13-18).

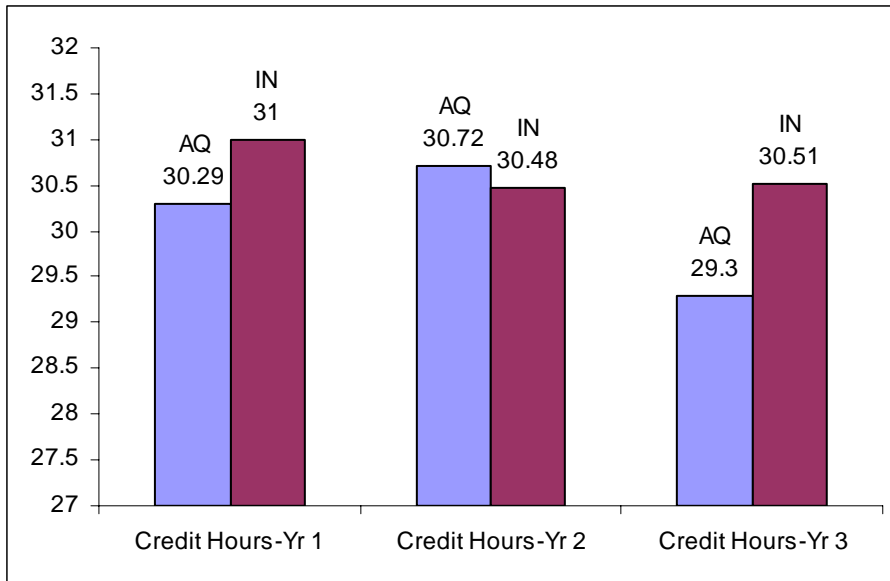


Figure 13

Class of 2000 Means of Credit Hours Earned for the Qualifying Status Years 1-3

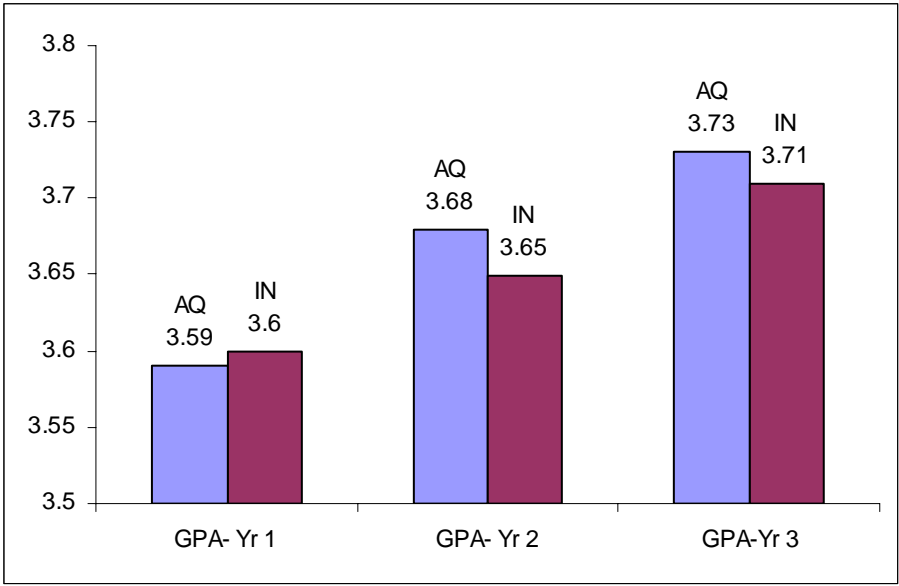


Figure 14

Class of 2000 Means of Grade Point Averages for the Qualifying Status Years 1-3

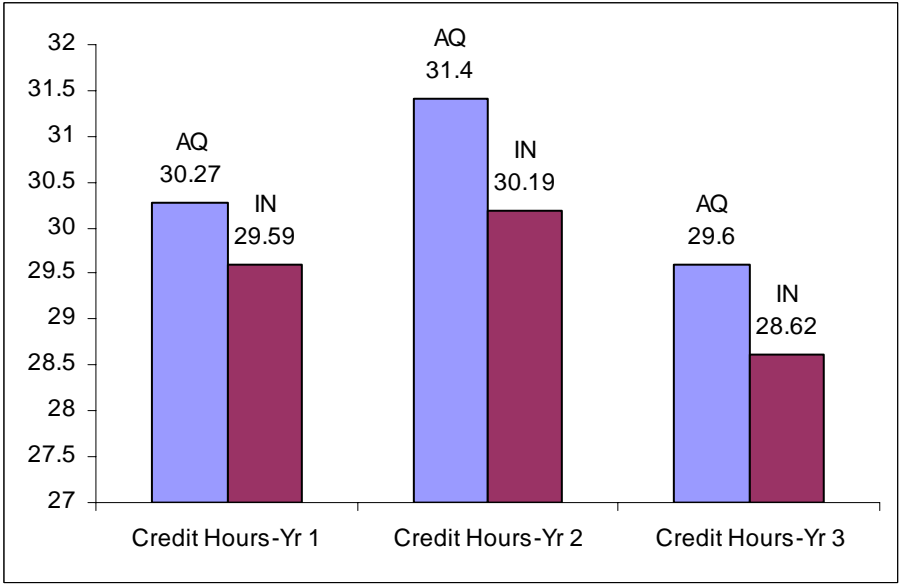


Figure 15

Class of 2001 Means of Credit Hours Earned for the Qualifying Status Years 1-3

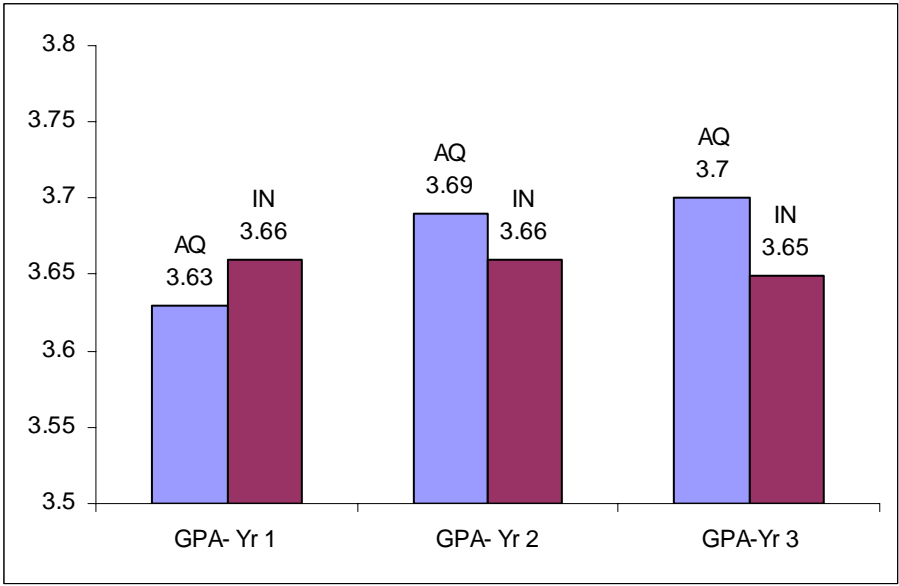


Figure 16

Class of 2001 Means of Grade Point Averages for the Qualifying Status Years 1-3

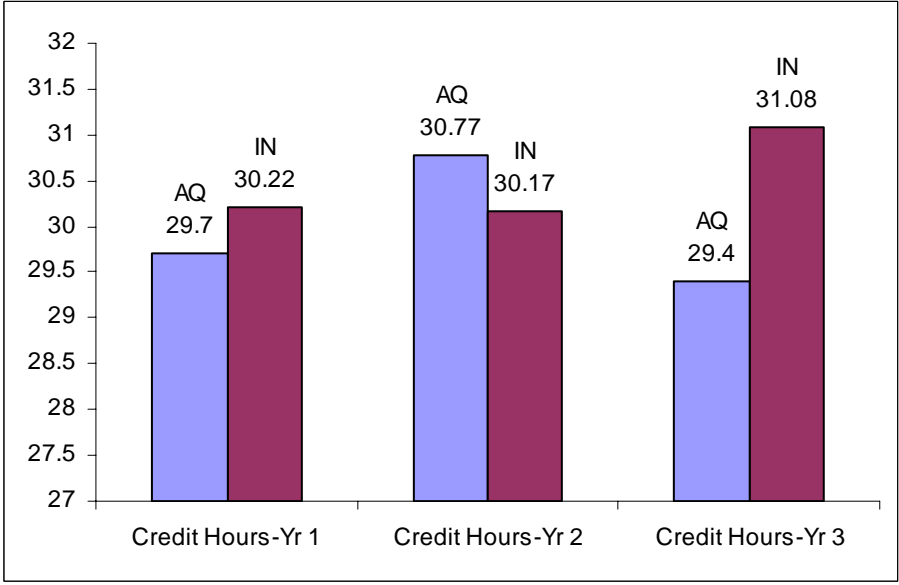


Figure 17

Class of 2002 Means of Credit Hours Earned for the Qualifying Status Years 1-3

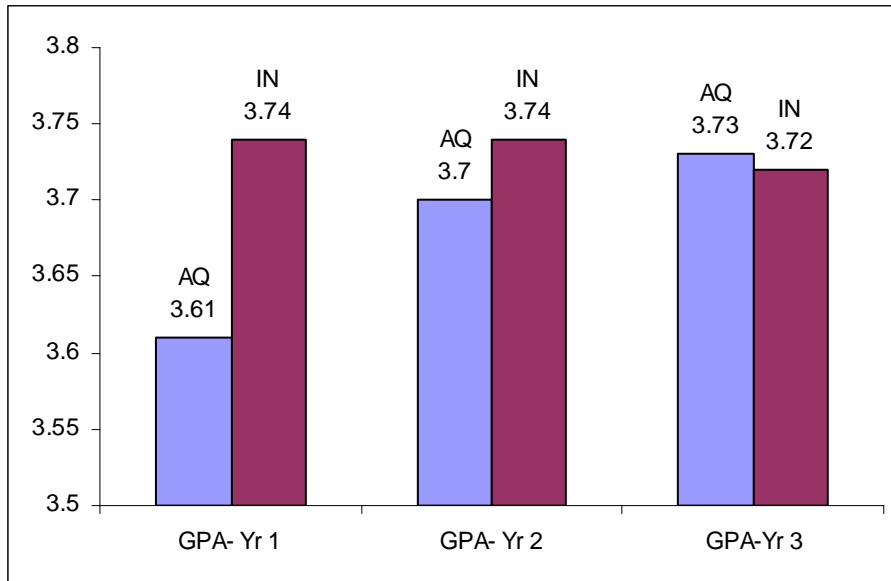


Figure 18

Class of 2002 Means of Grade Point Averages for the Qualifying Status Years 1-3

The trends in the qualifying groups showed the grade point averages increased as the years in the program increased. The increase was most likely due to the less academically achieving students being eliminated from the program in years one and two which is similar in college persistence trends for all students showing an increase in attrition from year one to year two to year three (Habley & Mcclanahan, 2004).

Using alpha level .05, a statistically significant difference ($p=.019$) was found when comparing White students to Non-White students during year two for the class of 2000 regarding the number of credit hours earned. No statistical difference was found in grade point average. In this analysis, White students completed more credit hours than Non-white students. Since this was the only statistical difference found over the three year period, the data suggested race was not a key indicator for performance in the Academic Scholars Program.

However, the data gathered in this study did show females performing higher than males by completing more credit hours each year and obtaining higher grade point averages. At an alpha level of .05, a statistical difference was found among gender in the Class of 2001 for grade point average year one ($p=.021$), grade point average two ($p=.039$) and grade point average year three ($p=.042$), with the females having a higher mean grade point average all three years. The females maintaining a higher mean grade point average was also seen in the Class of 2002 year one ($p=.050$), year two ($p=.000$), and year three ($p=.001$). In addition, a statistical significance was found in the Class of 2002 year one ($p=.038$), year two ($p=.014$), and year three ($p=.000$) showing females earning more credit hours than their male counterparts. The results of this analysis suggested gender was an indicator of performance in the Academic Scholars Program.

Other studies comparing the academic performance of females and males in college show similar results. Research noted females maintaining higher grade point averages than males during college (Zwick, 2002). Males not performing as well in college as their female counterparts was also documented by Bisese and Fabian (2006) who found males to be four times more likely than females students to be placed on academic probation. In addition, a national study using a six year window revealed that 59% of females compared to 53% of males had earned college degrees (Lipka, 2006). Some suggested reasons for female performing better than males include males being tempted by immediate employment opportunities and leaving college, more likely to be dissatisfied and frustrated with instruction, and less likely to use tutoring services (Evelyn, 2002).

Recommendations

This research suggests there was not a statistical significance in the performance of the Automatic Qualifiers and Institutional Nominees in the Academic Scholars Program between 2000-02. During this period, the scholarship levels were the same for both qualifying groups. Starting in 2003, the scholarship awards for Institutional Nominees were almost cut in half due to the underlying belief these students were not as merit worthy as the Automatic Qualifiers.

Because of the conclusions drawn from this study, the policy of the Academic Scholars Program needs to be re-evaluated to consider providing an equal scholarship award to both qualifying groups based on the Human Capital Theory. According to the Human Capital Theory, society should invest in students based on performance. Using the Human Capital Theory as a guide, the administrators of the Academic Scholars Program need to determine if the Automatic Qualifiers were justified in receiving an award almost double of the Institutional Nominees.

It is also recommended the administrators of the Academic Scholars Program investigate reasons for the lack in participation of Black and Hispanic students. The number of Black students participating in the Academic Scholars Program at research institutions dropped from 21 students to only 3 over the three year period observed. Hispanics students also saw a major decrease from 26 to 6. This decrease could be associated with the increase in minimum criteria standards of the program. For other minority groups, Native Americans and Asian Americans, participation remained relatively constant over the observed period.

In 2000, there were no minimum requirements for institutional nominees set by the Oklahoma State Regents for Higher Education. Starting with the class of 2002, minimum criteria standards for institutional nominees were set at a 30 ACT or 3.9 grade point average and top 5% high school class rank and increased to a 32 ACT or 3.9 grade point average and top 2% high school class rank in 2003. This study showed, as the minimum criteria standards for public research institutions increased, the number of minorities decreased. Therefore, the scholarship administrators must consider the impact such higher standards have on Black and Hispanic student participation in the program and reconsider the strict minimum criteria standards that were implemented in 2002. During the first two years of the Institutional Nominee category, the program was most diverse. The diversity was more than likely due to the broad eligibility requirements for admittance to the program.

In order to further address the issue of race inequity in the program, administrators need to discuss the selection process of scholarship recipients with nomination committees of both institutions. These discussions could determine if the scholarship committees are aggressively recruiting from high schools with large minority populations or if any special consideration is given to students from low socioeconomic backgrounds. By targeting high schools with diverse populations and students from low socioeconomic backgrounds, institutions should be able to increase minority access in the Academic Scholars Program.

Another recommendation for program administrators is to establish policy allowing provisions for students who come from non-traditional college going backgrounds, like first generation college students. For example, scholarship committees

should also consider essays, student background information, community involvement, and student interviews. The weighted reliance on standardized test scores does not provide much flexibility to admit students from a non-traditional college going background into the Academic Scholars Program.

Further investigation needs to be done to address the gender bias issue of the program. Even though females attended the two public research institutions in Oklahoma at a higher rate than males and performed better academically than their male counterparts during the observed period of this study, they were less likely than males to receive the scholarship. Policy makers must review the standards set for entrance into to the program and determine if the reliance on standardized test scores and National Merit designation is limiting the number of females eligible to participate in the program. The results of this study suggest the use of standardized test scores or recognitions primarily based on standardized tests are road blocks for highly capable females being admitted into the program.

Future Research

The research presented in the study only focused on the grade point averages, credit hours earned, and success rates of students participating in the Academic Scholars Program at research institutions. Future research should include looking at 5-6 year graduation rates of Automatic Qualifiers and Institutional Nominees. Graduation rates could serve as another measure of success for each group.

Future research involving the Academic Scholar Programs also needs to include the appropriateness of providing out of state residents a scholarship funded by the state of Oklahoma. The main focus should be to determine if non-residents are staying in

Oklahoma after graduating. Typically, non-residents receiving the Academic Scholars Program award are less likely to stay in state after college graduation than residents. For example, seventy-five percent of residents who participated in the Academic Scholars Program and graduated during the 2003-04 academic year remained in Oklahoma one year after graduation compared to forty-eight percent of non-resident students participating in the program (OSRHE, 2005). Within the investment framework of the Human Capital Theory, the state of Oklahoma should provide scholarships to students who are more likely to contribute to Oklahoma after graduation. Another factor when considering this issue is the possibility of using funds to fully award resident Institutional Nominees with the current funds given to non-resident students.

In addition, this study only focused on the two public research institutions in Oklahoma. In order to offer a more detailed examination of the program, a state-wide analysis of the program should be conducted to determine if similar trends are found in regional universities, two-year colleges, and private institutions. A study involving the different types of institutions could also provide information regarding the overall diversity of the program and lack of participation from students attending rural schools in Oklahoma.

Summary

The Academic Scholars Program was established in 1988 to keep the best and brightest students in Oklahoma and attract high achieving students to state institutions. The Academic Scholars Program used National Merit designation, standardized test scores, and high school grade point average and class rank to determine merit. Participants in the Academic Scholars Program are placed into two categories, Automatic

Qualifiers and Institutional Nominees. This study compared the grade point averages, credit hours earned, and scholarship eligibility success rates of both groups.

The results suggested that no statistical significance was found in the performance among the qualifying groups. The success rates for both groups were remarkably high, ranging from 88% to 95% over the three year period. However, the research did suggest the program lacks diversity and found women less likely to receive the scholarship award, a common concern in state merit based financial aid programs. Merit-based financial aid programs play a critical role in financial aid policy and creating access to post secondary education for all students. Therefore, the Academic Scholars Program is a valuable asset to Oklahoma and if properly administered could develop into one of the key components to increasing access.

The Oklahoma State Regents for Higher Education made a strong commitment to the Academic Scholars Program and often boasted of its value to Oklahoma higher education by attracting the best and the brightest students, especially National Merit Scholars. By awarding merit-based scholarships based on strict criteria with the primary focus on standardized test scores, the definition of the best and brightest students is limited. The administrators of the program need to take a complete look at the potential of students, including high school courses completed, community involvement, leadership skills, and individual accomplishments.

REFERENCES

- Ancis, J., & Sedlacek, W. (1997). Predicting the academic achievement of female students using the SAT and noncognitive variables. *College and University*, 72(3), 2-8.
- Anonymous. (1996). Educating females in US schools. *Education Digest*, 61(8), 14.
- Anonymous. (2002). U.S. census data show increase in student aid recipients. *Student Aid News*, 29(22), 4.
- Anonymous. (2002). Studies show higher college costs, more aid. *Student Aid News*, 29(22), 1-2.
- Becker, G. (1993). *Human capital: a theoretical and empirical analysis with special reference to education*. Chicago: The University of Chicago Press.
- Bejar, I., & Blew, E. (1981). Grade inflation and the validity of the scholastic aptitude test. *American Educational Research Journal*, 18(2), 143-156.
- Bisese, S., & Fabian, D. (2006). Sophomore men: the forgotten class, the forgotten gender. *Recruitment & Retention in Higher Education*, 20(4)1-2.
- Black, S. (2006). The right size school. *American School Board Journal*, 193(4), 63-65.
- Burdman, P. (2005). Battling for the best and brightest. *Black Issues in Higher Education*. 22(8), 22-25.
- Burton, G. (1976). Prediction of college grades from selected background factors. *College Student Journal*. 10(1), 10-12.

- Choy, S. (2000). *Debt Burden Four Years After College*. (NCES No. 2000-198)
Washington, DC: U.S. Department of Education.
- Cohen, A. (1998). *The Shaping of American Higher Education*. San Francisco, CA:
Jossey-Bass.
- Creswell, J. (2003). *Research design*. Lincoln, NE: SAGE Publications.
- Dynarski, S. (2002). *The consequences of merit aid* (Report No. JCPR-WP-315).
Chicago, IL: University of Chicago, Joint Center for Poverty Research. (ERIC
Document Reproduction Service No. ED472387)
- Evelyn, J. (2002). Community colleges start to ask. Where are the men. *The Chronicle of
Higher Education*, 48(42), 42.
- Finken, D. (2004). A question of merit. *Black Issues in Higher Education*, 20(15), 32-35.
- Gandra, P., & Lopez, E. (1998). Latino students and college entrance exams: How much
do they really matter. *Hispanic Journal of Behavioral Sciences*, 20(1), 17-22.
- Gerhing, J. (2001). Georgia scholarship keeps students in state. *Education Week*, 20(20),
8.
- George, P. (2002). Barriers to access and success. *Principal Leadership*, 2(9), 23-29.
- Gladieux, L. (1995). Federal student aid policy: a history and an assessment. Retrieved
October 5, 2002, from [http://www.ed.gov/offices/OPE/PPI/FinPostSecEd/
gladieux/html](http://www.ed.gov/offices/OPE/PPI/FinPostSecEd/gladieux/html)
- Habley, W., & Mcclanahan, R. (2004). What works in student retention? *ACT* Retrieved
June 1, 2006 from www.act.org/path/policy/reports/retain.html

- Hayashi, P. (2005). *The merits of the national merit scholars program: Questions and concerns*. Retrieved March 12, 2006, from University of California, Berkeley, Web site: <http://repositories.cdlib.org/cshe/CSHE-6-05>
- Heller, D. (2002). *State merit scholarship programs: An introduction*. In D. Heller & P. Marin (ED). Who should we help? The negative consequences of merit aid scholarships. (pp. 15-24). Retrieved April 3, 2006, from Harvard University, The Civil Right Project, Web site: <http://www.civilrightsproject.harvard.edu/research/meritaid/fullreport.php>
- Heller, D., & Rasmussen, C. (2002). *Merit scholarships and college access: Evidence from Florida and Michigan..* In D. Heller & P. Marin (ED). Who should we help? The negative consequences of merit aid scholarships. (pp. 25-40). Retrieved April 3, 2006, from Harvard University, The Civil Right Project, Web site: <http://www.civilrightsproject.harvard.edu/research/meritaid/fullreport.php>
- Henry, T., & Rubenstein, R. (2002) Paying for grades: Impact of merit-based financial aid on educational quality. *Journal of Policy Analysis and Management*, 21(1), 93-109.
- Henry, T., Rubenstein, R., & Bulger, D. (2004) Is HOPE enough? Impacts of receiving and losing merit-based financial aid. *Educational Policy*, 18(5), 686-709.
- IHL-Mississippi Board of Trustees of State Institutions of Higher Learning. (n.d.). *Mississippi student financial aid: Mississippi eminent scholars grant*. Retrieved October 21, 2005, from <http://www.ihl.state.ms.us/financialaid/mesg.html>
- Jaschik, S. (2005). *Without merit*. Retrieved June 11, 2006, from Insidehighered.com, Web site: <http://www.insidehighered.com/layout/set/print/news/2005/07/14/merit>

- Johnson, J., & Strange, M. (2005). *Why rural matters 2005: the facts about rural education in the 50 states*. Arlington, VA: The Rural and Community Trust.
- Keppel, G. (1991). *Design and analysis*. Upper Saddle River, NJ: Prentice Hall Publications.
- Kingsbury, A. (2006). Admit it: women have a man problem. *U.S. News & World Report*, 141(7), 78-80.
- Lee, K. (1996). Politics over merit. *American Enterprise*, 7(5), 15.
- Lipka, S. (2006). Women finish fast at private college. *Chronicle of Higher Education*, 52(29), 45.
- Lohman, D. (2004). Aptitude for college: The importance of reasoning tests for minority students. In R. Zwick (Ed). *Rethinking the sat: The future of standardized testing in university admissions*. (pp. 41-55). New York: Routledge Falmer.
- Longanecker, D. (2002). Is merit-based student aid really trumping need-based aid? *Change*, March/April, 30-37.
- McPherson, M., & Schapiro, M. (1998). *The student aid game*. Princeton, NJ: Princeton University Press.
- Missouri Department of Higher Education. (n.d.). *Bright flight: Frequently asked questions*. Retrieved November 10, 2005 from <http://www.dhe.mo.gov/fapbrightflight.shtml>
- National Association of Student Financial Aid Administrators (NASFAA). 2001. *NASFAA encyclopedia of student financial aid*. Washington, DC: NASFAA.

- National Center for Education Statistics. (2006) *Integrated Postsecondary Education Data System*. Washington, D.C. : U.S. Department of Education. Retrieved March 23, 2006, from <http://nces.ed.gov/ipeds/>
- National Center for Education Statistics. (2004) *Navigating Resources for Rural Schools (RuralEd)*. Washington, D.C.: U.S. Department of Education. Retrieved July 23, 2006, from http://nces.ed.gov/surveys/RuralEd/TablesHTML/7localerural_nonrural.asp
- National Merit Scholarship Corporation (NMSC). (2004, October). *National Merit Scholarship Corporation Annual Report 2003-04*. Evanston, IL.
- Noble, J. (2004). The effects of using act composite scores and high school averages on college admissions decisions of ethnic groups. In R. Zwick (Ed). *Rethinking the sat: The future of standardized testing in university admissions*. (pp. 303-319). New York: Routledge Falmer.
- Oklahoma State Regents' Academic Scholars Act, Oklahoma Statutes §70.2401-2407 (2001). Retrieved April 11, 2006, from <http://www2.lsb.state.ok.us/os/os%5F70%2D2.rtf>
- Oklahoma State Regents for Higher Education. (2005, November). *Academic Scholars Program (ASP): 2004-05 Year end report*. Oklahoma City, OK.
- Oklahoma State Regents for Higher Education. (2005, December). *Oklahoma Higher Learning Access Program (OHLAP): 2004-05 Year end report*. Oklahoma City, OK.
- Oklahoma State Regents for Higher Education. (2003, October). *Academic Scholars Program (ASP): 2002-03 Year end report*. Oklahoma City, OK.

- Regents of the University of California. (2005, June). *Academic Council resolution on National Merit scholarships*. Oakland, CA.
- Ridgeway, L. (2001). A study of the impact of the Mississippi Eminent Scholars Grant (MESG) program on the enrollment frequency of high ability students at Mississippi colleges and universities. Doctoral dissertation, Auburn University, 2001. (UMI No. 3016107)
- Selingo, J. (2001). Civil-rights groups blast Florida's use of SAT scores in awarding scholarships. *The Chronicle of Higher Education*, 48(17), 18.
- Shavelson, R. (1996). *Statistical reasoning for the behavioral sciences*. Boston: Pearson Publications.
- Sridhar, D. (2001). Postsecondary enrollment effects of merit-based financial aid: Evidence from Georgia's HOPE scholarship program. Doctoral dissertation, The University of Georgia, 2001. (UMI No. 3025399)
- Slack, W., & Porter, D. (1980). The Scholastic Aptitude Test: A critical appraisal. *Harvard Educational Review*, 50(2), 154-175.
- Sweetland, S. (1996). Human capital theory: Foundations of a field of inquiry. *Review of Educational Research*, 66(3), 341-360.
- The College Board. (2002). Trends in college pricing. New York: College Board Publications.
- United States. Census Bureau. (2006). *Statistical Abstract of the United States 2000*. Washington, DC: GPO.
- Wright, S. (2001). Study questions merit of Georgia's popular scholarship program. *Black Issues in Higher Education*, 18(3), 12-13.

Zahra, T. (1999). Can we have college for all? *Dissent*, 46(4), 87-90.

Zwick, R. (2002). *Fair game*. New York: Routledge Felmer.

APPENDICES

Appendix A

SUBCHAPTER 1. ACADEMIC SCHOLARS PROGRAM

610:25-1-1. Purpose

The Oklahoma State Regents Academic Scholars Program was created and funded by the Oklahoma Legislature and is administered by the Oklahoma State Regents as an incentive for students of high academic ability to attend both public and private higher education institutions in Oklahoma. The specific goals are:

- (1) To retain top-ranked students from Oklahoma in Oklahoma colleges and enable these institutions to compete aggressively for top Oklahoma scholars;
- (2) To attract high caliber out-of-state students to attend Oklahoma colleges and universities; and
- (3) To enhance the academic quality in Oklahoma colleges and universities.

610:25-1-2. Definitions [REVOKED]

610:25-1-3. General principles for operation of program

- (a) Recipients of award must attend a regionally or State Regents' accredited public, independent or proprietary higher education institution in Oklahoma.
- (b) The program is designed to adhere to the State Regents' Policy on Social Justice by encouraging all potential applicants to the Oklahoma State Regents' Academic Scholars Program to enter national scholarship competition.
- (c) Concurrently enrolled high school students are not eligible for this program.
- (d) Only SAT and ACT test scores from tests administered on national test dates prior to college entry, excluding concurrently enrolled students and students enrolled for the summer term following high school graduation, will be considered for admission to the program. Qualifying test scores obtained on a national test date after college enrollment are invalid for applying to the program. Partial scores from more than one examination will not be considered.
- (e) A student must enter the program the fall semester immediately after his/her class graduates from high school, except for students admitted under the State Regents' Opportunity Admission Category. The Chancellor may approve exceptions to this requirement for extraordinary circumstances.
- (f) Disability Provision. Provisions contained in this section are consistent with 70 O.S. 1991, Section 2403, as amended, and federal legislation affecting disabled persons. If a person identifies himself or herself as a student with a disability and requests consideration for a scholarship under the Academic Scholars Program by means other than standard testing procedures, the State Regents shall permit the student to be examined under the special testing arrangements provided by either ACT or The College Board provided that he or she meets the qualifications specified by ACT and SAT respectively to be examined. Performance percentile requirements for participation in the Academic Scholars Program remain the same as for other students. Students taking such tests and receiving Academic Scholarship awards will be expected to meet the same retention standards as other students. Special provisions may be considered in determining full-time enrollment for students falling in this category.

610:25-1-4. Eligibility Requirements and Term of Scholarship Award.

- (a) There are five avenues by which to qualify for the Academic Scholars Program. Each is defined below:
 - (1) An Individual Applicant Qualified Student, which shall mean a student who is a resident of the State of Oklahoma whose ACT test score or whose Scholastic Aptitude Test score falls

within the 99.5 to 100.0 percentile levels as administered in the State of Oklahoma and whose grade-point average and/or class rank is exceptional, as determined by the State Regents,

(2) A Presidential Scholar, which shall mean a student selected by the Commission on Presidential Scholars pursuant to the Presidential Scholars Program administered by the United States Department of Education,

(3) A National Merit Scholar, which shall mean a student designated as a National Merit Scholar by the National Merit Scholarship Corporation,

(4) A National Merit Finalist, which shall mean a student designated as a National Merit Finalist by the National Merit Scholarship Corporation.

(5) An Institutional Nominee, which shall mean a student nominated by an institution in The Oklahoma State System of Higher Education whose ACT test score or whose Scholastic Aptitude Test score falls within the 95.0 to 99.49 percentile levels, or who shows exceptional academic achievement as evidenced by factors including but not limited to grade point average, class rank, national awards, scholastic achievements, honors, and who shows exceptional promise based on documentation that may include but not be limited to teacher recommendations, extracurricular activities, and evidence of overcoming economic and social obstacles as determined by the State Regents. The State Regents shall ensure that standards of high academic ability are documented. Scholarship awards to institutional nominees become effective when appropriate documentation is verified by the State Regents.

(A) Effective with the fall 2002 semester, Institutional Nominees are required to meet at least two of the three minimum criteria outlined below to be considered eligible for application as an Institutional Nominee. The Chancellor may approve exceptions to the minimum criteria for applicants who lack class ranking and/or GPA criteria:

(i) Comprehensive universities:

(I) ACT: 30 or SAT equivalent

(II) GPA: 3.9

(III) Class rank: Top 5%

(ii) Regional universities:

(I) ACT: 28 or SAT equivalent

(II) GPA: 3.8

(III) Class rank: Top 10%

(iii) Two-year colleges:

(I) ACT: 27 or SAT equivalent

(II) GPA: 3.7

(III) Class Rank: Top 10%

(B) Effective with the Fall 2003 semester, Institutional Nominees are required to meet at least one of the two minimum criteria outlined below to be considered eligible for application as an Institutional Nominee:

(i) Comprehensive universities:

(I) ACT: 32 or SAT equivalent

(II) GPA 3.9 and Top 2% Class Rank

(ii) Regional universities:

(I) ACT: 30 or SAT equivalent

(II) GPA 3.8 and Top 4% Class Rank

(iii) Two-year colleges:

(I) ACT: 29 or SAT equivalent

(II) GPA 3.7 and Top 5% Class Rank

(C) Students are eligible for consideration as an Institutional Nominee no later than the fall semester immediately following the graduation of their high school class. The Chancellor may approve exceptions to this requirement for extraordinary circumstances.

(D) Institutional Nominees may be Oklahoma residents or nonresidents.

(E) Students receiving the scholarship as an Institutional Nominee of a two-year college are eligible for transfer to a four-year public or private Oklahoma institution after completion of an associate's degree or at least 48 credit hours within their first two academic years at any combination of two-year colleges in the State System. In addition, the Institutional Nominee of a two-year college must attend the nominating institution for the first year.

(F) Students receiving the scholarship as an Institutional Nominee of a four-year university are eligible for transfer to another Oklahoma institution after one year of attendance at the nominating institution.

(G) Students who fail to enroll the first semester upon nomination forfeit their scholarship eligibility unless they are nominated subsequently a second time.

(H) Institutions may not replace students who forfeit their scholarship or are removed from the program due to failure to meet continuing eligibility requirements with another nominee.

(b) Students receiving the scholarship are eligible for eight semesters of scholarship at Oklahoma colleges and universities. Additional semesters of award, up to ten semesters, are available upon approval by the President or appropriate academic officer of the institution and the Chancellor. Additional semesters are intended only for extraordinary circumstances or for undergraduate academic programs that cannot be completed within eight semesters.

610:25-1-5. Criteria for Annual Renewal

(a) Participants awarded a scholarship under the Academic Scholars Program shall maintain a 3.25 cumulative or retention grade-point average. The cumulative grade point average will include all courses attempted in high school for college credit. For the purpose of this policy, a fiscal year begins in the fall semester and continues through the summer term. The cumulative grade-point average will be determined between the summer and fall term.

(b) Participants awarded a scholarship under the Academic Scholars Program must enroll full-time each semester (as defined by the State Regents) for continuation in the program. In this context, "full-time" means a minimum of 12 hours per semester. A total of 24 hours must be earned for the program year to retain eligibility for the next program year. Students who, due to extraordinary circumstances during the semester, drop below the minimum of 12 hours of initial enrollment, must earn 24 credit hours for the program year to retain eligibility for the next program year. Students will not be eligible for summer support if they have not earned 24 semester credit hours in the preceding two regular semesters. Students who receive support for the summer semester must earn six hours of credit in order to be eligible for support in the fall semester. The six hours of enrollment required for summer support may consist of a combination of summer and intersession enrollment. Awards made for the summer term will count as one-half of a semester used in the program and will be in the amount of one-half of a semester award.

(c) In order to receive a payment for enrollment in a summer term, the student must submit the summer term application to the State Regents' office by the specified deadline.

(d) Credit by examination, the practice of granting students credit for passing tests based on the subject matter of college courses in which they have not enrolled, audited courses and correspondence courses will not be considered toward meeting the full-time enrollment requirement or the requirement to earn 24 hours for the program year.

(e) A student beginning in the program for the first time in the summer must have achieved a 3.25 cumulative grade-point average at the end of the one year and the summer. The student is not required to meet the 3.25 grade-point average at the end of the first summer.

610:25-1-6. Reinstatement; leave of absence

(a) A student who fails to meet the continued eligibility requirements will be removed from the program without academic scholarship assistance. A student may be reinstated to the program:

- (1) If the student achieves a 3.25 cumulative grade-point average at the end of the following fall or spring semester or summer term; or
 - (2) If the student in the following fall or spring semester remedies the credit-hour deficiency by earning 12 credit hours in addition to the number of hours by which the student is deficient; or if the student earns the deficient credits in the following summer term.
 - (3) If the student is deficient in the number of credit hours earned for the academic year due to a grade of Incomplete, the student will be eligible for the following fall award if the Incomplete is remedied by a deadline determined by the State Regents.
- (b) A student who is removed from the program may petition to the State Regents for reinstatement into the program. Reinstatement will only occur when the circumstance is covered in this policy or under unusual and compelling circumstances as determined by the State Regents. Scholarship assistance will not be awarded to students who fail to meet continuing eligibility requirements. Any semesters during which the student receives no award due to grade-point average or credit hour deficiency will be subtracted from the available semesters on the program. Likewise, any period of enrollment, except intersession and summer terms, for which the student does not accept a scholarship award will be subtracted from the available semesters in the program.
- (c) A student may be reinstated only one time and has one year to remedy the grade-point- average or credit-hour deficiency. Maintaining eligibility and familiarity with State Regents' and institutional policy is the responsibility of the student.
- (d) Participants may take a leave of absence from the program for a period of time during which the student is not enrolled, unless the student is studying abroad. Participants may either take a leave of absence or request scholarship assistance for study abroad. Program recipients who elect to study abroad with scholarship assistance are required to meet all enrollment and grade point average requirements as specified in this policy for students attending Oklahoma colleges and universities. Leaves of absence may not be used to remedy grade-point-average or credit hour deficiency.

610:25-1-7. Fiscal aspects of program

- (a) **Award limits.** Academic Scholarship awards to qualified nonresident students attending Oklahoma institutions shall not exceed 25 percent of the greater of the number of awards of the preceding year or the amount of the previous year's funding for certified awards for the program.
- (b) **Additional aid.** Students receiving this scholarship may also receive additional state-supported financial aid, but not in excess of the student's cost of attendance as determined by the institution consistent with regulations for federal financial aid. Likewise, a student may enhance the Academic Scholars award by accepting grants and scholarships from private sources.
- (c) **Funding priorities.** The Oklahoma State Regents will, as soon as fiscally feasible, set aside in the Oklahoma State Regents' Academic Trust funds for the full scholarship commitment. Funding priority will be given first to prior years' recipients, and secondly, to any students applying for the scholarship for the first-time. For first-time students, priority will be given to Individual Applicant Qualified Students, Presidential Scholars, National Merit Scholars, and National Merit Finalists, and secondly, to Institutional Nominees.
- (d) **Amount of Scholarship.** The program shall provide participants a scholarship in an amount not to exceed the average costs of tuition and other fees, room and board, and required textbooks or materials for undergraduate and graduate study for students attending regionally accredited public institutions of higher education in Oklahoma.
- (1) The institution shall provide the student a tuition waiver that, when combined with the scholarship award, will meet the costs described in paragraph (d) above.
 - (2) Students who do not meet the continuing eligibility requirements for the scholarship may be eligible for the tuition waiver if they meet the standard tuition waiver criteria determined by the institution.
 - (3) Transfer students are eligible for the same level of tuition waiver as all other Academic Scholars.

(4) Institutions may elect to award nonresident students a resident and/or nonresident tuition waiver.

(e) **Payment of funds.** Funds made available to students as part of the Oklahoma State Regents Academic Scholars Program shall be paid directly to the institution in which the student is enrolled, in trust for the student, and on the student's behalf and shall contain appropriate restrictions and conditions that such monies are expended only for the purposes authorized by the State Statute authorizing this program.

(f) **Private institutions.** For students attending private Oklahoma institutions, the award amount will be the same as the student attending a similar type of public institution as defined by the State Regents.

610:25-1-8. Requirements for graduate and professional study

The requirements for graduate and professional-study participants in the Academic Scholars Program are as follows:

(1) Eligible participants moving from undergraduate to graduate or professional schools shall have achieved a cumulative grade-point average of 3.25 and earned at least 24 credit hours, unless provided for in paragraph five of this section, during the preceding year of undergraduate school enrollment.

(2) Post-baccalaureate students must be enrolled in a degree program at graduate/professional schools and are required to meet the academic standards in effect at the graduate or professional school.

(3) The dean of the graduate college/professional school or his/her designee will certify to the State Regents' office that the student is enrolled full time and making satisfactory progress at the outset of each academic year as defined in 610:25-1-6(a)

(4) The number of awards a graduate/professional student may receive while doing graduate/professional study shall be determined by the unused portion of the-award entitlement. A student may take no more than a one-year leave of absence between completion of undergraduate work and enrollment in a graduate or professional program.

(5) Students who require less than 12 credit hours for graduation purposes during the last semester of undergraduate enrollment may request payment of their scholarship in the amount of ½ semester award for at least six hours of enrollment. The term will count as ½ semester used in the program.

Appendix B

Oklahoma State Regents for Higher Education
ACADEMIC SCHOLARS PROGRAM
Qualifying Criteria for Fall 1997

- ◆ According to Oklahoma law, an Oklahoma resident may qualify as a State Regents' Academic Scholar by scoring at the 99.5 to 100.0 percentile levels on the ACT or SAT, "... provided, that the percentile levels shall be referenced to the student population as a whole and separately for the following subdivisions of the population: Male, Female, Black non-Hispanic, Native American, Hispanic, Asian-Pacific Islander, and White non-Hispanic..."(70 O.S.1991, § 2403).
- ◆ The student must enter the Academic Scholars Program at an Oklahoma college or university as a first-time freshman or transfer student from an out-of-state institution within 27 months of his/her high school graduation date.
- ◆ The student must meet the ACT and SAT qualifying criteria stated below prior to college entry and within 27 months of his/her high school graduation date.
- ◆ Only ACT and SAT scores from a **single national test date** will be considered.

Oklahoma Residents:

	<i>ACT</i> <i>Qualifying Criteria</i>	<i>SAT</i> <i>Qualifying Criteria</i>
All Students	130 or greater	1470 or greater
Male	130 or greater	1470 or greater
Female	128 or greater	1450 or greater
Black-Non-Hispanic	115 or greater	1320 or greater
Native American	126 or greater	1420 or greater
Hispanic	125 or greater	1390 or greater
Asian-Pacific Islander	130 or greater	1470 or greater
White-Non-Hispanic	130 or greater	1470 or greater

Oklahoma Residents and Nonresidents:

Qualifying By Nationally Recognized Awards

National Merit Scholar
National Merit Finalist
National Achievement Scholar
National Achievement Finalist
National Hispanic Scholar
National Hispanic Honorable Mention Awardee
Presidential Scholar

Appendix C

IRB Form

Oklahoma State University Institutional Review Board

Date: Friday, March 24, 2006
IRB Application No ED06114
Proposal Title: Awarding State Merit-Based Financial Aid Programs: Evaluating Oklahoma's Academic Scholars Program

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 3/23/2007

Principal Investigator(s)

Alicia Dianne Harris
14200 N. May 1513
Okla. City, OK 73134

Bert Jacobson
204 Willard
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 415 Whitehurst (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Sue C. Jacobs, Chair
Institutional Review Board

Appendix D

ANOVA Summary Tables

Class of 2000 Analysis of Variance for Qualifying Status Variables and Credit Hours

Earned and Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	41.556	1	41.556	1.301	.255
	Within Groups	11111.461	348	31.929		
	Total	11153.017	349			
GPA-Yr 1	Between Groups	.002671	1	.002671	.011	.971
	Within Groups	85.257	348	.245		
	Total	85.259	349			
Credit HRS-Yr 2	Between Groups	3.935	1	3.935	.149	.699
	Within Groups	7714.255	293	26.329		
	Total	7718.190	294			
GPA-Yr 2	Between Groups	.06047	1	.06047	.599	.400
	Within Groups	29.592	293	.101		
	Total	29.652	294			
Credit HRS-Yr 3	Between Groups	90.369	1	90.369	2.560	.111
	Within Groups	9424.360	267	35.297		
	Total	9514.729	268			
GPA-Yr 3	Between Groups	3.300	1	3.300	1.086	.298
	Within Groups	811.364	267	3.039		
	Total	814.664	268			

Appendix E

ANOVA Summary Tables

Class of 2001 Analysis of Variance for Qualifying Status Variables and Credit Hours

Earned and Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	32.240	1	32.240	1.221	.270
	Within Groups	7686.757	291	26.415		
	Total	7718.997	292			
GPA-Yr 1	Between Groups	.07029	1	.07029	.320	.572
	Within Groups	63.883	291	.220		
	Total	63.953	292			
Credit HRS-Yr 2	Between Groups	92.584	1	92.584	3.621	.058
	Within Groups	6647.634	260	25.568		
	Total	6740.218	261			
GPA-Yr 2	Between Groups	.07414	1	.07414	.839	.360
	Within Groups	22.967	260	.08833		
	Total	23.041	261			
Credit HRS-Yr 3	Between Groups	57.677	1	57.677	1.942	.165
	Within Groups	7305.033	246	29.695		
	Total	7362.710	247			
GPA-Yr 3	Between Groups	.185	1	.185	2.513	.114
	Within Groups	18.203	247	.07370		
	Total	18.388	248			

Appendix F

ANOVA Summary Tables

Class of 2002 Analysis of Variance for Qualifying Status Variables and Credit Hours

Earned and Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	25.999	1	25.999	1.188	.276
	Within Groups	8729.946	400	21.880		
	Total	8755.945	401			
GPA-Yr 1	Between Groups	1.464	1	1.464	7.40	.007
	Within Groups	79.143	400	.198		
	Total	80.607	401			
Credit HRS-Yr 2	Between Groups	31.173	1	31.173	1.579	.210
	Within Groups	7144.934	362	19.737		
	Total	7176.107	363			
GPA-Yr 2	Between Groups	.113	1	.113	1.504	.221
	Within Groups	27.254	362	.07529		
	Total	27.367	363			
Credit HRS-Yr 3	Between Groups	237.376	1	237.376	8.260	.004
	Within Groups	9886.477	344	28.740		
	Total	10123.853	345			
GPA-Yr 3	Between Groups	.005784	1	.005784	.086	.769
	Within Groups	23.097	344	.06714		
	Total	23.102	345			

Appendix G

ANOVA Summary Tables

Class of 2000 Analysis of Variance for Gender Variables and Credit Hours Earned and

Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	6.559	1	6.559	.205	.651
	Within Groups	11146.458	348	32.030		
	Total	11153.017	349			
GPA-Yr 1	Between Groups	.938	1	.938	3.870	.050
	Within Groups	84.322	348	.242		
	Total	85.259	349			
Credit HRS-Yr 2	Between Groups	11.655	1	11.655	.443	.506
	Within Groups	7706.534	293	26.302		
	Total	7718.190	294			
GPA-Yr 2	Between Groups	.06044	1	.06044	.598	.440
	Within Groups	29.592	293	.101		
	Total	29.652	294			
Credit HRS-Yr 3	Between Groups	34.746	1	34.746	.979	.323
	Within Groups	9479.982	267	35.506		
	Total	9514.729	268			
GPA-Yr 3	Between Groups	3.321	1	3.321	1.093	.297
	Within Groups	811.343	267	3.039		
	Total	814.664	268			

Appendix H

ANOVA Summary Tables

Class of 2001 Analysis of Variance for Gender Variables and Credit Hours Earned and

Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	70.300	1	70.300	2.675	.103
	Within Groups	7648.697	291	26.284		
	Total	7718.997	292			
GPA-Yr 1	Between Groups	1.168	1	1.168	5.412	.021
	Within Groups	62.785	291	.216		
	Total	63.953	292			
Credit HRS-Yr 2	Between Groups	1.986	1	1.986	.077	.782
	Within Groups	6738.231	260	25.916		
	Total	6740.218	261			
GPA-Yr 2	Between Groups	.375	1	.375	4.306	.039
	Within Groups	22.666	260	.08718		
	Total	23.041	261			
Credit HRS-Yr 3	Between Groups	7.529	1	7.529	.252	.616
	Within Groups	7355.181	247	29.899		
	Total	7362.710	248			
GPA-Yr 3	Between Groups	.306	1	.306	4.178	.042
	Within Groups	18.082	247	.07321		
	Total	18.388	248			

Appendix I

ANOVA Summary Tables

Class of 2002 Analysis of Variance for Gender Variables and Credit Hours Earned and

Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	94.438	1	94.438	4.350	.038
	Within Groups	8661.508	400	21.708		
	Total	8755.945	401			
GPA-Yr 1	Between Groups	2.427	1	2.427	12.415	.050
	Within Groups	78.181	400	.195		
	Total	80.607	401			
Credit HRS-Yr 2	Between Groups	120.030	1	120.030	6.158	.014
	Within Groups	7056.076	362	19.492		
	Total	7176.107	363			
GPA-Yr 2	Between Groups	1.138	1	1.138	15.707	.000
	Within Groups	26.229	362	.07246		
	Total	27.367	363			
Credit HRS-Yr 3	Between Groups	410.623	1	410.623	14.542	.000
	Within Groups	9713.229	344	28.236		
	Total	10123.853	345			
GPA-Yr 3	Between Groups	.717	1	.717	11.025	.001
	Within Groups	22.385	344	.06507		
	Total	23.102	345			

Appendix J

ANOVA Summary Tables

Class of 2000 Analysis of Variance for Ethnicity Variables and Credit Hours Earned and

Grade Point Average Years 1-3

	<u>Source</u>	<u>SS</u>	<u>D.F.</u>	<u>M.S.</u>	<u>F</u>	<u>S</u>
Credit HRS-Yr 1	Between Groups	12.131	1	12.131	.379	.539
	Within Groups	11140.866	348	32.014		
	Total	11153.017	349			
GPA-Yr 1	Between Groups	.814	1	.814	3.355	.068
	Within Groups	84.445	348	.243		
	Total	85.259	349			
Credit HRS-Yr 2	Between Groups	143.764	1	143.764	5.561	.019
	Within Groups	7574.426	293	25.851		
	Total	7718.190	294			
GPA-Yr 2	Between Groups	.206	1	.206	2.055	.153
	Within Groups	29.446	293	.100		
	Total	29.652	294			
Credit HRS-Yr 3	Between Groups	21.268	1	21.268	.598	.440
	Within Groups	9493.460	267	35.556		
	Total	9514.729	268			
GPA-Yr 3	Between Groups	.05337	1	.05337	.797	.373
	Within Groups	17.891	263	.06701		
	Total	17.945	268			

VITA

Alicia Dianne Harris

Candidate for the Degree of

Doctor of Education

Thesis: AWARDING STATE MERIT-BASED FINANCIAL AID PROGRAMS:
EVALUATING OKLAHOMA'S ACADEMIC SCHOLARS PROGRAM

Major Field: Higher Education Administration

Education:

Master of Education 1999
University of Central Oklahoma, Edmond, OK

Bachelor of Science 1995
University of Oklahoma, Norman, OK

Experience:

Scholarship Coordinator 2001 to Present
Oklahoma State Regents for Higher Education
Oklahoma City, OK

Client Relations Specialist 1999 to 2001
Oklahoma Guaranteed Student Loan Program
Oklahoma City, OK

Lead Default Prevention Specialist 1996 to 1999
Oklahoma Guaranteed Student Loan Program
Oklahoma City, OK

Professional Memberships:

National College Savings Plan
Oklahoma Association of Student Financial Aid Administrators

Name: Alicia Dianne Harris

Date of Degree: December, 2006

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: AWARDING STATE MERIT-BASED FINANCIAL AID PROGRAMS:
EVALUATING OKLAHOMA'S ACADEMIC SCHOLARS PROGRAM

Pages in Study: 110

Candidate for the Degree of Doctor of Education

Major Field: Higher Education Administration

Scope and Method of Study:

The purpose of this study was to examine selected variables and their ability to predict academic success in students who participate in the Oklahoma State Regents for Higher Education Academic Scholars Program. In this study, academic success was defined by maintaining the renewal requirements of a 3.25 cumulative grade point average and completing 24 credit hours annually. The selected variables included qualifying status, ethnicity, and gender. Qualifying status was divided into two populations, Automatic Qualifiers and Institutional Nominees. Students automatically qualified for the Academic Scholars Program by achieving National Merit Scholar/Finalist Awards, US Presidential Scholars Award, or scoring within 99.5% of Oklahoma ACT or SAT test takers. Institutional Nominees were nominated by Oklahoma public institutions using a combination of ACT scores, high school grade point average, and class rank.

Findings and Conclusions:

The results suggested that no statistical significance was found in the performance among the qualifying groups. The success rates for both groups were remarkably high, ranging from 88% to 95% over the three year period. However, the research did suggest the program lacks diversity and found women less likely to receive the scholarship award, a common concern in state merit based financial aid programs.

ADVISER'S APPROVAL: _____