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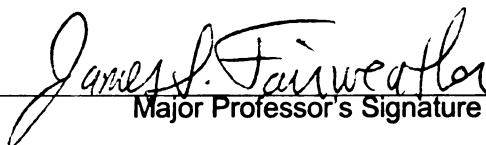
AN EVALUATION OF THE EFFECTIVENESS OF STATE
NON-NEEDS MERIT-BASED SCHOLARSHIP PROGRAMS

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PATRICIA LYNN FARRELL

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of the requirements for the

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Education


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**AN EVALUATION OF THE EFFECTIVENESS OF STATE NON-NEEDS MERIT-
BASED SCHOLARSHIP PROGRAMS**

VOLUME I

By

Patricia Lynn Farrell

A DISSERTATION

**Submitted to
Michigan State University
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ABSTRACT

An Evaluation of the Effectiveness of State Non-Needs Merit-Based Scholarship Programs

By

Patricia Lynn Farrell

Higher education has become the threshold for access to good jobs for individuals and in turn is the future of a strong state economy (ACSFA, 2001; Carnevale & Fry, 2001). To balance the interests of society and higher education, states have been exploring ways to provide access, keep their brightest students in state for college, and encourage and reward students who work hard academically (Heller, 2002; Linn, 1998; Longanecker, 2002; Parsons, 1997). One mechanism to achieve these goals is merit-based scholarship programs. Since the 1990's, twelve states have created non-needs merit-based scholarship programs. Little research has been conducted to determine one way or the other that the programs meet the needs of their states as laid out by the state laws for the programs (Heller, 1997). Despite the lack of data, the allure of merit scholarships is growing in the twenty-first century amongst legislators and the general public in many states (Krueger, 2001).

The purpose of this study was to determine the effectiveness of the 12 state non-needs merit-based scholarship programs based on the following program goals: a) rewarding students for their academic achievements, b) encouraging students to attend higher education, and c) encouraging students to attend college in state. Data analyses include descriptive statistics, t-tests, analysis of variance, and cross section regression. The data analyzed included state and federal data, specifically demographic information

on high school graduates, merit-scholarship recipients, school districts, and first-time freshmen. My goal was to obtain and provide data that would aid policy makers and researchers in understanding the possible impact the programs have in each of the 12 states.

The findings illustrate that the non-needs merit-based scholarship programs are having minimal impact on high school achievement, college participation, college choice, and keeping students in state for college. Other key findings were that the financial amount of the scholarship affects whether or not students stay in state for college, and receiving the scholarship influences where students enroll in college. Where students are from within the state and their ethnicity also affects whether or not they receive the scholarship.

The programs are still young and with the changing tide in state budgets, student demographics, high school accountability, and financial aid programs, in-depth evaluations on the effectiveness and impact of the programs needs to occur. This study has laid the foundation for future studies on each state's program. It will be interesting to see whether or not the allure of the non-needs merit-based scholarship programs continue and how they will evolve during the early part of the twenty-first century.

DEDICATION

This dissertation is dedicated to my parents, Bob and Betty Farrell. I thank them for their unconditional love, support, and guidance. They also instilled within me the importance of education within my life; the commitment to helping others without asking for anything in return; and the dedication to improving life within the community.

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CHAPTER 1—INTRODUCTION

Statement of Problem

The growth of public higher educational institutions in the United States began in the first half of the nineteenth century. The nation's higher education system was pragmatically developed to meet the needs of an emerging society. Since then, it has experienced constant change. Higher education standards have risen over time, and public demand has escalated (Campbell and Eckerman, 1964). Presently, Americans are worried about their ability to pay for college. Although they are being persuaded that a college education provides the only hope of a secure economic future, they are focused on obtaining the best possible education at the lowest possible price (McPherson & Schapiro, 1998). Thus, the system has become characterized as "market driven," and public policy has played and continues to play a major role in driving market competition (Richardson, Jr., Bracco, Callan, & Finney, 1999).

The federal government continues offering a grant-based system, but a loan-based system has become the dominant form of aid since the 1980s. State government appropriations for both student aid and higher education institutions have increased; however, the increases have not been enough to keep institutions from raising tuition costs in order to maintain services or programs. The result is that the share of family income has increased to pay for college. This combination has driven the market competition, especially with a record number of students attending college (Carnevale & Fry, 2001; Gladieux, 1995; Mumper, 1996; Orfield, 2002). Therefore, the federal government's goal of universal access is further away than it has been in decades. The enrollment gap between upper- and lower-income students has expanded, and the focus

of government financial assistance has shifted from the most needy students to middle- and upper-income students (Mumper, 1996; Orfield, 2002). The federal government estimates that the growth in traditional college-age population between 2000-2015 will exceed 16%. This new cohort will be more ethnically diverse with 80% being non-White and almost 50% Hispanic. Among the minority students, 45% will be from low-income families (Advisory Committee on Financial Assistance (ACSFA, 2001).

The goal of state policymakers is to attain public priorities by balancing the interests of higher education with broader societal concerns (Richardson, Jr., Bracco, Callan, & Finney, 1999). Higher education has become the threshold for access to good jobs for individuals and in turn is the future of a strong state economy (Carnevale & Fry, 2001; ACSFA, 2001). To balance the interests of society and higher education, the states have been exploring ways to provide access, keep their brightest students in-state for college, and encourage and reward students who work hard academically (Heller, 2002; Linn, 1998; Parsons, 1997).

One mechanism to achieve these goals is state-based non-needs merit-based scholarship programs. Since the 1990s, twelve states have created non-needs merit-based scholarship programs. The states want to reward students who work hard academically and to keep the brightest students in state for college. Georgia was the first state to offer non-needs merit scholarships in 1993. Since 1997 twelve more states have followed. In 1999 alone, the states spent \$709.4 million for approximately 320,000 students (Selingo, 1999). As of 2002, the states offering merit-based scholarship programs utilized four primary sources of revenue, including state lotteries, general state revenues, land leases, and the national tobacco settlement. Each state's merit-based scholarship programs

reward students for academic performance. However, the states vary on: a) how **academic** performance is determined during high school and/or college, b) how students **can use** the scholarships (public vs. private institutions), and c) the type of scholarship (**lump** sum, tuition, or tuition plus fees).

The champions of the state merit scholarships claim that the programs keep their **brightest** students in-state for college, and allow institutions to draw from and admit a **broader** range of students. This effort increases diversity and access (ECS, 2001). Yet, **Georgia** is the only state with a program that has been in place long enough to make such **claims**. Consequently, little research has been conducted to determine one way or the **other** that the programs meet the needs of their states as laid out by the state laws for the **programs** (Heller, 1997), or whether the programs can be structured in a manner that **better** meets the needs of low-income and minority students (Heller, 2002).

Critics argue that these merit-based scholarship programs are not helping the students they were set-up to serve (ECS, 2001; Creech, 1998). Of the few studies conducted thus far, Heller and Rasmussen (2001) found that the Florida and Michigan merit-based scholarship programs benefited students from high schools that had a higher college-participation rate before implementation of the program. They also state, "...college access among lower income students will suffer. Merit scholarships are likely to exacerbate, rather than help remedy, college enrollment gaps in the United States" (p. 21-22). In a report to the Harvard Civil Rights Project, Marin (2002) asserts that federal and state "policymakers have lost the focus of expanding access to higher education and have replaced it, albeit indirectly, with increasing inequity" (p. 113). Despite these

criticisms and the lack of data, the allure of merit scholarships is growing in the twenty-**first century** among legislators and the general public in many states (ECS, 2001).

Purpose and Research Questions

The purpose of this study was to determine the effectiveness of the state non-**needs** merit-based scholarship programs based on the following program goals: a) **rewarding** students for their academic achievements, b) encouraging students to attend **higher** education, and c) encouraging students to attend college in-state. In addition, **policy** and economic implications were analyzed based on the objectives of the state's **non-needs** based merit scholarship programs. This study addressed the following four **research** questions:

1. Which students receive merit-based scholarship awards in each state, and do these recipients fit the scholarship program goals?
2. How do scholarship recipients compare with the population of high school graduates in each state?
3. What is the relationship between the disbursement of state merit-based scholarship awards and students' college choice patterns?
4. Do scholarship award recipients stay in state instead of going to out-of-state institutions?

Overview of Dissertation

The remainder of Chapter 1 consists of definitions of terms, significance of the study, limitations and assumptions of this policy analysis. Chapter 2 includes a literature review of relevant theoretical perspectives and research findings. The literature review begins with the history of United States student financial aid, including state merit-based

scholarship programs. The literature review concludes with relevant research on access, **college** choice, and persistence. Chapter 3 introduces the methodology for conducting **the policy** analysis of the state non-needs merit-based scholarship programs. In Chapter **4, I** present each state's demographic trends for high school graduates and scholarship **recipients**. Then, I answer research questions 1 and 2 in Chapter 5, and the findings for **research** questions 3 and 4 in Chapter 6. Lastly, Chapter 7 includes discussion and **implications** from the findings in Chapters 5 and 6.

Definition of Terms

Some of the terms used in this study are defined for clarity and to ensure a **common** understanding for the context:

Access. Students are not denied the opportunity to attend some kind of **postsecondary** institution by reason of inability to pay (McPherson and Schapiro, 1998).

Background. A person's experience relative to ethnicity, gender, age, marital status, employment, education, dependent status, and number of dependents.

Cohort. A group of students who attend high school together from ninth through twelfth grade and who graduate together.

College Choice. Students are given an equitable menu of alternative colleges from which they can pick the institution that best fits their needs (McPherson and Schapiro, 1998).

Common Core Data (CCD). CCD is a comprehensive, annual, national statistical database of information concerning all public elementary and secondary schools and school districts. CCD is part of the U.S. Department National Center for Educational Statistics (NCES).

Completers. High school students who complete the twelfth grade with diploma or certificate.

Control. Describes whether a higher education institution is public, private non-profit, or private for-profit.

Cost of Education. The total out-of-pocket costs a student will incur while attending a college. It includes tuition, fees, books, and living costs.

Dependent Student. A student who is reliant on the financial support from parent(s), spouse, or guardians.

Ethnicity. Of or relating to a sizable group of people sharing a common and distinctive racial, national, religious, linguistic, or cultural heritage.

First-Time Freshmen. First-time first-year degree seeking students are those students who have never attended a postsecondary institution (NCES IPEDS, 2002).

Financial Aid. Any type of student aid other than family support or self-help used in assisting or deferring the cost of college. Typically this includes grants, scholarships, loans, and work-study.

Fixed-Cost. The cost which institutions set that cannot be changed by an individual. Students have no control over this cost.

GPA. High school or college grade point average.

Independent Student. A student who is reliant on his or her own financial support for his or her cost of education.

Integrated Postsecondary Education Database System (IPEDS). IPEDS is the U.S. Department of Education NCES source for gathering and dispersing postsecondary data

Level. Describes whether a higher education institution provide four-year, two-year, or technical level degrees.

Merit-Based Scholarships. State based scholarships to students who have demonstrated high academic achievement in high school and/or college.

Metropolitan Status Area. U.S. Census Bureau and NCES have created three metropolitan status classifications for state school districts: (1) Central city of a metropolitan status area; (2) Serves a metropolitan status area by not primarily its central city; and (3) Does not serve a metropolitan status area. For this study, the classifications have been reworded to: (1) central city, (2) suburban area, and (3) rural area.

National Center for Education Statistics (NCES). NCES is the primary U.S. Department of Education unit for gathering and dispersing educational data.

Policy Research. A type of applied research and analysis to help make decisions.

Poverty. U.S. Census Bureau calculates the percentage of people in poverty under 18 years of age by school district. For this study, three poverty levels were determined for each state school district: Low—Below 15%; Medium—15 to 29%, and High—30% or above.

Price. The student's total cost of attendance minus the financial aid received by the student; often referred to as net price.

Private School Universe Survey (PPS). NCES gathers private school data by survey in the odd years, including estimated number of high school graduates.

Proprietary Institution. A private for-profit institution.

Public Institution. A higher education institution supported by public funds through taxation and controlled by publicly elected or appointed education officials.

Regular Diploma Graduates. High school graduates receiving a diploma for their completion of their academic studies. This does not include students who received a GED or certificate of completion.

Socioeconomic Status. Relative rank of people with respect to social position and prestige, usually measured by criteria such as education, occupation, and income.

Title IV Aid. The federal student aid provided through Title IV of the Higher Education Act of 1965. This includes the Pell Grant, Supplemental Education Opportunity Grant (SEOG), State Student Incentive Grant (SSIG), and College Work-Study.

Title IV Institutions. Higher education institutions recognized by the Federal government as provided Title IV aid, and are included in the NCES IPEDS database.

Significance

State non-needs merit-based scholarship programs are fairly new; little research has been conducted on them. The goal of this study was to obtain and provide data that would aid policy makers and researchers in understanding the possible impact the programs have in each of the 12 states. The studies on merit-scholarship programs thus far have used economic frameworks and have focused on access and college choice, specifically of minorities and low-income students. This study sheds light on the efficacy of the 12 state scholarship programs based on each states' program goals, which are part of the new focus in higher education financial aid. Therefore, the findings from this policy study provide "pragmatic, action-oriented recommendations" for policy makers and researchers (Majchrzak, 1984, p. 12).

Aggregate data were used for each of the states, including high school, college, and scholarship recipient data. The global effect of the programs was studied for the breadth, instead of depth of one or two programs. The goal was to analyze the main interaction of the effects of the programs, in other words, the efficacy of the programs at the state level.

Lastly, because each of the 12 states have different program objectives and criteria for awards, the findings may not be generalizable to other states.

Limitations

The limitations encountered in this study were:

- a) State data—the twelve states that offer non-needs merit-based scholarship programs provided access to their K-12 data at different levels, including a) access to the data, b) types of data (e.g., ethnicity), and c) first date the data were available. In addition, I found that the state K-12 data did not always match the NCES CCD data even though the states reported their data to NCES. As result, I used the NCES CCD data to insure consistency across the states. However, the NCES CCD data were only available through 2001. In addition, NCES started collecting student data by gender in 1998 and ethnicity in 1995.
- b) High school college-going data—the data for first-time degree-seeking freshmen was obtained from NCES IPEDS. The data were only available through 2000 for each state's residence migration of first-time freshmen. This limited my ability to answer research question two, comparing state high school graduate data to state merit-based scholarship program

recipients because seven of the 12 states started their programs in 1998 or later.

- c) **State merit-based program data**—the twelve state scholarship programs were not consistent in the data they collected and tracked for each recipient (e.g., gender and ethnicity, school district information, and college choice). In addition, the state programs provided the data differently, including aggregate versus individual scholarship recipient data, and cumulative data versus data on recipients by each year. In Chapter 3, I discuss in detail the data available by state on scholarship recipients.

CHAPTER 2—LITERATURE REVIEW

Introduction

The literature review includes the history of financial aid, research on financial aid, and research on state merit-based financial aid programs. The first portion outlines the history of financial aid in the United States, including federal and state programs. Next, research on financial aid programs through the lens of economic and sociological theories is presented. In the last portion I lay out research on state merit-based programs along with a justification for the evaluation to be conducted.

History of Financial Aid within the United States

Financial aid for students to attend higher education institutions has existed in the United States since the colonial era. The earliest scholarships were awarded by institutions, and were often based on the academic merit of students with little consideration given to financial need (Hauptman, 1990). The federal government became active in higher education in the early 1800s when the Union provided land for state colleges west of the Appalachian Mountains. At the same time, states began opening institutions and providing financial support to regional colleges to keep students in state (Lucas, 1994). In the mid- and late-1800s, the federal government continued providing support for higher education by passing the Morrill Acts, which allowed for creation of land-grant institutions in addition to expanding educational opportunities. In the 1900s, the federal and state governments began offering student financial aid with the goal of access to the masses. In the next several pages, I present a brief history on the federal government's role in financial aid for higher education throughout the 1900s,

followed by the state's role. Lastly, I describe the state non-needs merit-based **scholarship** programs in detail.

Federal Financial Aid Programs

In the 1940s, the federal government passed the GI Bill. The government wanted **to ensure** that veterans had the opportunity to enroll in higher education and to have **opportunities** equal to their peers whose lives had not been interrupted by military duty. **In** the 1950s, the benefits of the GI Bill were extended, broadening access to higher **education** for the masses (Callen, 2001; Mumper, 1996). However, enrollment in higher **education** increased only slightly from 2.6 million in the 1940s to 3.0 million in the late **1950s** (Hansen and Stampen, 1989).

In the 1960s, with the Russians challenging with Sputnik, the federal government **developed** large-scale aid to education programs (Gladieux and King, 1999). The Higher Education Act of 1965 was passed, which was the most extensive sweep of social **legislation** incorporating the proceedings of the 1960s, including the Kennedy legacy, the **civil** rights movement, and the Johnson administration's War on Poverty. Through Title **IV** of the 1965 Act, the federal government made the commitment to higher education **equity** for needy students. Title IV included need-tested grants, student support **programs**, college work-study, and the Guaranteed Student Loan (GSL) program. GSL **was** created to ease the cash-flow problems of middle-income students (Gladieux, 1995; **Parsons**, 1997).

During the Nixon era in the 1970s, explosive growth in financial aid occurred **(Brinkman, 2000)**. The federal government established the need to determine eligibility **for** undergraduate scholarships, which led to the Educational Opportunity Grant

(precursor to the Pell Grant). As part of the reauthorization of the Higher Education Act of 1972, the State Student Incentive Grant (SSIG) program was created, which provided matching federal funds to states that funded their own scholarship programs. Most of the state scholarship funds were awarded based on financial need (McPherson and Schapiro, 1998). The 1972 Act also established the Student Loan Marketing Association (Sallie Mae) as a publicly contracted private corporation to increase the availability of the Guaranteed Student Loan program (Fraas, 1990). The 1976 re-authorization of the Higher Education Act provided federal incentives for states to establish loan guarantee agencies (Parsons, 1997).

The demands to expand financial aid for middle-income students continued. The reauthorization of the Higher Education Act of 1980 expanded criteria for need-tested aid, while protecting the Guaranteed Student Loan from measures of limiting eligibility, decreasing subsidies, or controlling swelling federal costs (Voorhees, 1995). During the 1980s federal grant support declined, as did the overall purchasing power of financial aid. The use of loans to pay for college grew significantly. The federal government reintroduced needs-based eligibility criteria along with a five percent origination fee in part to address this change. Nevertheless, grant support decreased. Since entitlement became popular with the middle class, loans were established as the most resistant form of aid (Gladieux, 1995; Mumper, 1996).

In the 1990s, loans continued to be the focus of federal financial aid. In 1992, an unsubsidized loan option was created that did not limit loan awards by financial need. In 1993, Congress passed President Clinton's Student Loan Reform Act, which allowed flexibility in how borrowers repaid their loans (Gladieux, 1995).

This pattern of declining real funding for grants tied to rapid growth in subsidized **loans** seems not to reflect a planned policy shift. Instead it reflects the working out of **budgetary** forces. Grants are a form of discretionary funding and its decline reflects the **impact** of the general squeeze on the federal budget. By contrast, guaranteed loans are an **entitlement** and are not affected in the same way in the short run by budget disputes (McPherson & Schaprio, 1997).

In summary, American higher education over the last century has evolved from an **elitist**, to a meritocratic, to the current egalitarian ideal (Jackson and Weathersby, 1975). **The** evolution of the role of student financial aid in higher education “has been shaped **over** the past four decades by a powerful governing vision of a pricing-plus-aid system **that** would eliminate ability to pay for college as a factor in college choice. Although that **vision** has never come close to realization...it has had an important role in shaping the **programs**, both government and institutional, that currently exist” (McPherson & Schapiro, 1996, p. 5).

State Financial Aid

In 1862, the federal government passed the Morrill Land Grant Act, which **provided** a foundation for the establishment of new state higher education institutions and **encouraged** states to play an active role in the support of the institutions. The state’s role **was** to provide supplemental support in expanding higher education to a larger number of **the** population thereby producing educational capital within households (McMahon, 1974).

Through the mid-1900s, individual institutions provided the main form of student **financial** aid. As mentioned earlier, in the 1940s the federal government began offering

financial aid to World War II veterans. In the 1950s, states became involved in financial **aid** when they began offering mainly merit-based scholarships during a time when public **higher** education institutions required little or no tuition (McMahon, 1974).

State financial aid programs were created and regulated at the macro-policy level, **encompassing** the power of the executive and legislative branches. The state government **has** the authority to determine state higher education budgets, lay out appropriations to **institutions**, regulate and guide higher education, and authorize direct state support to **students**. Relevant policy elements include the state's political culture and traditions, as **well** as demographic and economic factors that effect higher education, government, and **the** market. The goal is to attain public priorities by balancing the interests of higher **education** with broader societal concerns. Public policy has played, and continues to **play**, a major role in driving market competition with the students as consumers (Richardson, Jr., Bracco, Callan, & Finney, 1999).

In financing higher education, state policymakers have three basic financing **methods**: 1) allocation of taxpayer funds to publicly supported state institutions, 2) setting **of** tuition prices at public institutions, either directly by the state or indirectly through the **institution**, and 3) funding levels and rules for determining eligibility and award size for **state-funded** financial aid programs (Hauptman, 2001). Currently, a high priority among **the** states is fiscal support of student financial aid programs. Undergraduate students **remain** the major focus of these aid programs (Schmidt, 2002).

Public higher education institutions historically have relied on state government **as** the main source of revenue with tuition providing a smaller source of income. In **1979-80**, state governments contributed 45% of revenue to public higher education

institutions, mainly through direct support. By 1992-93 that share had fallen to 35% (McPherson and Schapiro, 1996). In the 1990s, the decline in direct state support to **institutions** resulted in increasing public sector tuition, especially at four-year institutions. **Middle-income** affordability became a powerful political influence when policy makers **altered** their focus from low-income students and access toward students whose **attendance** was already assured (ACSFA, 2001).

During the 1990s, merit-based programs were revitalized. As of 2001 over two-thirds of the states offered some type of merit-based financial aid programs (Hauptman, 2001). The increase in merit-based financial aid programs was a sudden shift in state **public** policy; a shift from concentrating on serving the most economically disadvantaged **through** need-based financial aid to rewarding and alluring exceptional students through **merit-based** financial aid. The reasons that state governments implemented merit-based **financial** aid were to promote high academic achievement, and to attract and keep the **best** and the brightest in state for college (Longanecker, 2002).

The Advisory Committee on Student Financial Assistance (2001) argues that **these** policy shifts have produced a significant change for low-income students and for **society**. For students, the consequence has been financial barriers higher in constant **dollars** than three decades ago. For society, concentrating on affordability and merit **directs** financial resources to those who would attend college anyway and are already **heavily** subsidized. They claim that these policies are not only inequitable but also **economically** inefficient.

In 1999-2001, 55% of undergraduates (about 9.2 million) received some type of **financial** aid, averaging \$6,265 per student including both federal and state aid (NCES,

2001). Currently, one issue overshadowing state financial aid programs is the states' economic picture, especially the states that rely on general fund revenues to fund the scholarship programs. The National Center for Public Policy and Higher Education (NCPPE) predicted that state revenues would not increase as fast as personal income. This trend has put burdens on families to pay more in college costs, which has added pressure on politicians to lower college costs and to provide more government support offsetting college costs (Lovell, 2000; McPherson and Schapiro, 1977). On the other hand, states are facing resistance to increasing taxes while dealing with increased costs in financing medical care, K-12 education, prisons, and other priority items. State revenues will not be able to maintain current service levels for higher education, and the huge revenue increase in financial aid programs that has taken place in the late 1990s will have to be scaled back. The shortfall as a percent of baseline revenue in an eight-year fiscal projection is -3.8 for the United States (NCPPE, 2000).

Even with hard economic times, states have continued pumping large sums of money into college student financial aid programs. In the 2000-01 academic year, state spending on grants and scholarships rose by 14.5% to \$4.68 billion. This was the largest increase reported to the National Association of State Student Grant and Aid Programs (NASSGAP) in more than two decades (NASSGAP, 2001).

State Merit-Based Scholarship Programs

The driving force in the recent increase in financial aid spending is the rapid growth of academic non-needs merit-based scholarship programs. Between 1994-95 and 1999-2000 state merit-based aid increased by an astounding 109%. States awarded \$1.14 billion in non-need based aid in 2000-01, an increase of approximately 23%, or \$215

million more than the previous year. Need-based aid dispersed by the states rose 11.9% or \$3.54 billion in 2000-01. Not all non-needs based financial aid is based on academic merit; however, merit-based scholarships accounted for most of the non-need based aid. Up to now, increases in merit-based aid have not resulted in decreases in support for the need-based financial aid for students (Longanecker, 2002). Need-based aid saw an increase of \$777 million in five-years ending in fiscal year 2000, which exceeded \$491 million in merit-based financial aid (Heller, 2002).

States' reasoning for offering merit-based scholarship programs is that it will keep high achieving academic high school students in state to attend one of the state public institutions and in some states, private institutions. Keeping the best and the brightest students in state to attend college depends on different conditions in the state, including the extent of participation in higher education within the state and a family's economic status (Longanecker, 2002). Longanecker (2002) presents Georgia as an example of a state that had low higher education participation rates prior to the implementation of the HOPE scholarship program. The HOPE scholarship program was implemented in 1993. After five years Georgia saw an increase in higher education participation even among middle-income students. Whereas, Minnesota already had high participation in college amongst high- and middle-income students, and thus, did not consider implementing a merit-based scholarship program because it would not increase participation.

Another goal of non-needs merit-based scholarship programs is to retain the best and the brightest graduates after college. States make this scholarship program investment because they assume these students, as graduates, will stay and contribute to the economy and help develop a high quality workforce. However, research confirms

that better-educated people are more mobile (Longanecker, 2002). Also, “state policy makers have only a modest capacity to influence the human capital levels of their population by investing in higher education degree outputs” (Longanecker, 2002, p. 35).

The merit-based scholarship program goals are “not substantially different from the social and economic benefit rationale associated with need-based aid; it is just a bit more targeted and perhaps a bit lazier and crass, because it focuses on those most likely to succeed rather than on those most in need of support to succeed” (Longanecker, 2002, p. 34). Access to higher education has been the focus of policy makers in previous decades. Now merit and middle-income affordability have begun to replace access in state priorities.

The cost of higher education has climbed steadily as a percentage of family income, which has caused a steep rise in unmet need for low-and middle-income students (ACSFA, 2001). Recently, numerous states have announced budget cuts, which in some cases have led to double-digit tuition increases and decreases in need-based aid programs. The political popularity of recent expansion in state merit-based aid programs may protect these programs from cuts as the need-based programs are decreased, which will further intensify the decline of support for low-income students. The merit-based scholarship programs are committed to students who would have otherwise enrolled in college (ACSFA, 2002). In “Access Denied,” ACSFA states that “those high school graduates who are highly and very highly qualified, those with low unmet need attend a four-year college at a rate 43% higher than their counterparts with high unmet need—67% versus 47%” (2001, p. 5). Therefore, one could argue that the merit-based

scholarship programs assist students who are highly qualified with high unmet need with enrolling in higher education.

In the current political culture, non-needs merit-based scholarship programs will continue to be part of the financial aid framework. In 2002, 38 states offered merit-based scholarship programs. Of the 38 state programs, 12 offered specifically non-needs merit-based scholarship programs, and 10 of those were created since 1997 (Krueger, 2001, Selingo, 2001).

Table 1 displays the twelve states offering non-needs merit-based scholarships to in-state residents. The states utilize four primary sources of revenue for the scholarship: state lotteries(5 states), general state revenues(4 states), land leases(1 state), and national tobacco settlement(2 states). The state programs differ in: a) eligibility for scholarships, b) type of scholarships, c) extra scholarship benefits (e.g., books, fees), d) type of institution (e.g., private, vocational, public two- or four-year), and e) length of scholarship (e.g., degree, number of credits or years). A few facts about the 12 states:

- a) Eight states are located in the South, one is located in the upper Midwest, and three states are located in the West.**
- b) Six of the states have projected growth in traditional college-age population by 10% or more—Alaska, Florida, Georgia, Nevada, New Mexico, and South Carolina (Callan, 2000).**
- c) Seven of the twelve states received below a C average for preparation of students for higher education—Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, and West Virginia (Callan, 2002).**

- d) All but two states received a D or F on higher education—Alaska, Florida, Georgia, Louisiana, Michigan, Mississippi, Missouri, Nevada, South Carolina, and West Virginia (Callan, 2002).
- e) Only Michigan received a B+ for higher education benefits. The other 11 states received C or below averages.

Table 1

State Merit-Based Scholarship Programs

State	Merit Fund & Law		Year	Program Objectives	Eligibility Criteria to Receive Award	Scholarship
	State	Fund				
Alaska		Land lease Interest	1998	To provide an incentive for Alaska's middle and high school students to achieve excellence, to nourish efforts of schools to provide high quality education, and to encourage the top high school graduates in Alaska to attend the University of Alaska.	Top 10% of the graduating seniors from Alaska high schools as determined by each high school.	4 years Tuition (\$11,000) at one of the University of Alaska system schools. Private: None
Florida	Bright Futures Scholarship	State Lottery 240.40201-40209	1997	To reward Florida students for their academic achievements during high school by providing funding for them to pursue postsecondary educational and career goals in Florida.	FAS: 3.5 weighted GPA on courses that include 15 credits of college preparatory academic courses. <ul style="list-style-type: none"> • 4 English (3 with substantial writing) • 3 Mathematics (Algebra I and above) • 3 Natural Sciences (2 with substantial lab) • 3 Social Science • 2 Foreign Language (in the same language) 75 hours of community service; Best composite score of SAT = 1270 or ACT = 28	FAS: Public: 4 years Tuition (\$1,504 per semester) + \$300 Fees + \$300 books. Can attend ½ time. Private: Fixed award amount based on 100% of the avg. tuition & fees covered at a comparable Florida public institution. FMS and FGVS: \$911 per semester (\$576 for 2-year students) cover 75%

State	Merit Fund & Law		Year	Program Objectives	Eligibility Criteria to Receive Award		Scholarship
Florida Bright Futures Scholarship					FMS: 3.0 GPA in college-preparatory courses; Best composite score of ACT = 20 or SAT = 970 FGSVS: 3.0 GPA from 15 core credits, a 3.5 unweighted GPA in minimum 3 vocational credits in one vocational program; SAT = 440 verbal/math or ACT = 17 English, 18 Reading or 19 in Math.	of tuition and fees at public institutions, and a fixed amount for private institutions.	
Georgia HOPE Scholarship	State Lottery	1993		To increase academic achievement, to keep the best and brightest students in Georgia, and to expand educational opportunities beyond high school to all Georgians.	3.0 GPA in college preparatory curriculum or 3.2 GPA in technical preparatory curriculum	4 years Tuition + Fees + \$150 Books Can attend 1/2 time.	
	20-3-519				Non-Traditional Students who graduated from h.s. prior to 1993, can apply for freshman year with 3.0 GPA.	Private: \$3,000 per academic year	

Merit Fund & Law		Program Objectives		Eligibility Criteria to Receive Award		Scholarship
State	Year					
Kentucky	1999	To encourage Kentucky students to achieve academically in high school so they can earn scholarships for college or technical school. The better students do in high school, the more they will earn toward college scholarships. And students who complete their college studies have a better opportunity to achieve their career goals and improve their standard of living. Education really does pay!		Amount awarded dependent on GPA and ACT scores. (Range \$161-1,000)		Public & Private: Can use scholarship at any participating accredited institution for up to 4-years varying scholarship by GPA.
Educational Excellence Scholarship	State Lottery					
	SB21, 1998					
	Revised Statutes 164					
Louisiana	1998	Education is the doorway to a productive and satisfying life for the citizens of Louisiana and is an essential ingredient for a healthy economy and stable work force in the State. Financial assistance is the key that will unlock that doorway		Tech: 2.5 GPA in core curriculum; ACT = 19 Opportunity: 2.5 GPA in core curriculum; ACT = 23 or SAT = 940 (based on previous year's state avg.); File a FAFSA Performance: 3.5 GPA in core curriculum; ACT = 23 Honors: 3.5 in core curriculum; ACT = 27		ALL: 4 years Tuition + Fees. Private: None Performance: \$400 stipend per semester. Honors: \$800 stipend per semester.
TOPS Awards	State General Fund					
1) Tech						
2) Opportunity						
3) Performance						
4) Honors						

Submarine Shop

Popularity of vacuum for Rectifier & Sound

Program of Directives

Year

Academy of Arts

State

State	Merit Fund & Law		Year	Program Objectives	Eligibility Criteria to Receive Award		Scholarship
Michigan MEAP Award	National		2000	To reward student achievement as measured by the Michigan Educational Assessment Program (MEAP) tests. The award is to be used for educational expenses at approved postsecondary institutions.	Take the MEAP high school tests in mathematics, reading, science, and writing. Students must score at Level 1 (exceeded Michigan standards) or Level 2 (met Michigan standards) on these four tests and meet all other eligibility requirements.	\$2,500 scholarship lump sum for in-state approved institutions. \$1,000 for out-of-state institutions.	
	Tobacco Settlement						
	Act 94 1998						
	Document 390.1457						
					For a student who takes all four of the above tests, meets or exceeds state standards on at least two, and meets all other requirements there are two alternate ways to qualify:		
					Alternate A: The student also scores in the 75th percentile or above on the ACT or SAT.		
					Alternate B: The student also achieves qualifying scores on the ACT Work Keys job skills assessment tests as determined by the Michigan Merit Award Board.		
					Note: Under both <i>Alternates</i> , the student must take all four of the above-specified MEAP subject tests and achieve Level 1 or Level 2 on at least two.		

State	Merit Fund & Law		Year	Program Objectives	Eligibility Criteria to Receive Award	
	State	Fund			Scholarship	Scholarship
Mississippi Eminent Scholar's Grant	State General Fund		1996	To help high achieving students attend college in state.	3.5 GPA after a minimum of seven semesters in high school; ACT = 29	Eligible Mississippi Institution: 4 years Scholarship up to \$2,500 per year for tuition + fees + books.
Missouri Bright Flight Scholarship	State General Fund		1997	To encourage top-ranked high school seniors to attend approved Missouri postsecondary schools.	Composite score on the ACT or SAT in the top three percentile.	4 years \$2,000 per year at Missouri institutions.
Nevada Millennium Scholarship	National Tobacco Settlement		1999	To get students to be successful in the completion of a rigorous program of study at a Nevada high school.	3.0 GPA on high school credit granting courses and pass all areas of Nevada High School Proficiency Exam.	Public: \$80/credit up to \$10,000 or 120 credits Private: \$80/credit up to \$10,000 or 120 credits—eligible independent institution.
New Mexico Lottery Scholarship	State Lottery	NRS 396.911	1997	To provide graduating New Mexico high school seniors with a level of financial support needed to continue education at the college level.	All N.M. students who are residents are eligible after graduation. Scholarship is disbursed when student enrolls in 2 nd semester of college, and has a 2.5 GPA	4 years Tuition Private: None

State	Merit Fund & Law	Year	Program Objectives	Eligibility Criteria to Receive Award		Scholarship
South Carolina LIFE	State General Fund	1998	To increase access to higher education; improve employability of South Carolina students; provide incentives to students to be better prepared for college; and to encourage students to graduate from college on time.	Meet 2 of 3 requirements:	<ul style="list-style-type: none">• Earn a 3.0 cumulative GPA on a 4.0 scale.• Or ACT = 24 or SAT = 1100, or• Rank in the top thirty percent of the graduating class.	Public: 4 years up to \$4700/yr + \$300 Book Private: 4-year independent institution funding for cost-of-attendance up to \$4700, plus a \$300 book allowance.
West Virginia Promise Scholarship (Providing Real Opportunities for Maximizing In-state Student Excellence)	State Lottery	2002	To increase educational opportunities and to build a competitive West Virginia workforce.	3.0 GPA in the core and overall coursework; ACT = 21 or SAT = 1000		Public: 4 years Tuition Private: Full tuition up to \$2709.

Research on Financial Aid Programs

Financial aid programs have been analyzed through different economic and sociological theories. The first portion of this section begins with studies using economic frameworks to analyze higher education access, college choice, and persistence. The second portion presents studies using a sociological perspective, followed by studies using a combined economic-sociological perspective. This policy study evaluates the 12 state merit-based scholarship programs according to program goals, which are primarily to reward high school and college academic achievement, and keep the best and brightest students in state to attend college. The financial aid literature presented here will help frame and explain the findings of the study. The last portion of this section presents research conducted thus far on state merit-based scholarship programs.

Economic Theoretical Framework Studies

From an economist's perspective, the fundamental argument for higher education is simply that the intellect of young adults is a vital resource that must be developed if the nation is to realize its fullest potential (Campbell and Eckerman, 1964). In this section, the economic theories for analyzing higher education access and enrollment are defined. Then, I discuss the research using these theories on student access by income, ethnicity, and student demand.

Human Capital

The fundamental economic theory for the study of individuals acquiring skills and knowledge is the model of human capital. Human capital is comparable to physical capital, which includes all useful physical assets used in the production of goods and services. When new capital is formed, economists say that "investment" takes place.

Investment is the task of committing resources to the production of producer goods rather than consumer goods. Capital assets have finite working lives and yield over their productive lifetimes, a stream of earnings equivalent to their contribution to the value of output produced. Their marginal productivity is equal to their wages (Bowen, 1977).

Human capital “consists of the acquired energy, motivation, skills, and knowledge possessed by human beings, which can be harnessed over a period of time to the task of producing goods and services” (Bowen, 1977, p. 362). Individuals will spend time and money on more education when they judge the present value of expected future benefits from the investment exceeds the cost, or when the expected rate of return exceeds the prevailing interest rate (Becker, 1993; Schultz, 1963). Investments in physical and human capital are similar. Both investment processes create income-producing assets that can be employed to raise the volume or quality of goods and services. Both sets of investment decisions presumably are made after careful consideration of alternative investment opportunities. Both are expected to yield maximum returns after adjusting for the degree of risk involved. In addition, both kinds of investments produce capital assets that are durable, in the sense of possessing relatively long, though finite, productive life spans. Both require maintenance expenditures to keep the assets in working order.

Investment in Higher Education

McMahon (1974) analyzed the decisions to invest in human educational capital by private households because much of the investment in higher education is financed and decided by families and students. Families and students invest in higher education while giving consideration to the return flows of income and non-monetary satisfaction expected in future periods. The major sources of fluctuation and growth of investment in

higher education by students and families are: a) real disposable income reflecting the growing, but fluctuating ability of families to finance investment in human capital, b) young adults as a percent of the population, a major source of new investment opportunities and significantly related to investment (especially at public institutions), and c) increasing stocks of higher educational capital in the society.

Theorists see college-going behavior as an investment in the acquisition of human capital, whereby students expect in the long run to get back more than they spend. Research consistently has demonstrated that all else being equal, higher levels of costs, resulting from less aid or greater tuition and other costs, tend to reduce the likelihood of such investments and enrollment (W.E. Becker 1992; Manski & Wise, 1983; Paulsen, 1998).

Currently, higher education is being shaped by the trend of rising economic value of undergraduate education, which is reflected in the widening earnings gap between high school and college education (McPherson and Schapiro, 1996). The economic benefits of a higher education are substantial when analyzed in the aggregate. However, from 1970 to 1980, the gap between the mean earnings of a male college graduate and a male high school graduate dropped from 45% to 42%. Some researchers suggested that the market for male college graduates was saturated and that a college education was no longer a sound investment. For females, the wage gap between college and high school graduates remained at 85% in 1980. But by 1992, male college graduates earned almost 78 percent more, and females earned approximately 50% more than high school graduates, respectively. The benefits are more pronounced when analyzed by the age of the worker as illustrated when comparing a 45-54 year old male college graduate earning a median

annual income of \$51,515 to a 25-34 male college graduate earning \$33,763, to a 45-54 male high school graduate earning \$29,657 (Mumper, 1996). Women, as mentioned, earned less than their male counterparts, but the earnings of a woman college graduate versus high school graduate were substantially different. In 1992, a 45-54 year old woman college graduate median income was \$32,159 compared to a 45-54 year old woman high school graduate earning \$16,093, and a 25-34 women college graduate earning \$26,134.

The rates at which young people enroll in college have risen in the 1990s despite the decline in affordability. In recent years there has been substantial growth in the costs to students for attending college, even after allowing for the intents of financial aid. These cost increases are prevalent across all types of higher institutions and family income levels of students. Increasingly, access and college choice seem to be affected by finances (McPherson, & Schapiro, 1996).

Access

From an economic perspective, access to higher education is defined as not denying the students the opportunity to attend some kind of postsecondary institution by reason of inability to pay (McPherson and Schapiro, 1998).

Analyzing the relationship between financial aid and enrollment in public higher education is a more complex undertaking than looking just at tuition. If one assumes that financial aid is nothing more than a discount to the posted tuition price, then students should react similarly to the same-sized increase in financial aid or cut in tuition because both would result in the same net cost to the student. Unfortunately for policy makers, this behavior does not appear to be the case. One issue is that financial aid is not a

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singular entity. It incorporates many different forms of student aid (e.g., grants, loans, tuition remission, and work study). The net cost paid by the student who receives a \$1,000 grant is different than that of a student receiving a \$1,000 subsidized loan. It also seems that students are not always logical economic actors. They respond differently to various forms of financial aid and tuition changes even if the economic value of each is the same (Heller, 1997).

Costs to students for attending college have increased even after allowing for financial aid. McPherson & Schapiro (1996) state that the cost increases are widespread across different types of institutions and family incomes. Utilizing controlled econometric analysis of time-series data, they found that enrollment for students from lower income families was significantly affected by financial aid. Increases in net costs over time leads to decreases in enrollment rates for lower income students, especially at four-year institutions. Only 13.5% of lower-income students compared with 40 percent of upper-income students attend a four-year college: “The magnitude of the coefficient on net cost implies that for lower income students a \$150 net cost increase, expressed in 1993-94 dollars, results in a 1.6% decline in enrollment for that income group. A consensus in the econometric literature is that a \$150 increase in net cost reduces enrollment by 1.8%” (p. 15). As for middle- and upper-income students, the shift of financial aid to the families does not deter enrollment (McPherson & Schapiro, 1996).

The 1980 High School and Beyond sophomores (NCES) cohort was analyzed to determine the effects of tuition and financial grant aid increases on college enrollment decisions. For low-income students, enrollment response to a \$100 increase in grant aid was over twice the response to a \$100 decrease in the tuition price. Low-income

students' enrollment response was over twice as large as the grant and tuition sensitivity of high-income students (St. John, 1990). There is a positive relationship in the gap between low- and high-income students enrollment rates by state and the rates of growth in public tuition (Kane, 1995; McPherson & Schapiro, 1996). Kane (1995) notes that the gap in enrollment rates between students from the lowest income quartile and those from the other three quartiles grew by 12 percentage points between 1980 and 1993 (p. 6).

In the 2001 Federal study, "Access Denied," ACSFA (2001) found that despite the period of national prosperity there are increasing numbers of academically prepared, low-income students who are limited in their ability to access and persist in college because of significant financial obstacles. In other words, increases in net costs for low-income students adversely affected their access to higher education. The committee determined that college participation overall did not change over three decades. Participation of students who are academically prepared and who are from families earning below \$25,000 a year continue to lag behind families earning above \$75,000 by 32 percentage points.

In the early 1970s the federal government implemented the Basic Educational Opportunity Grant (BEOG). Hansen (1983) studied the impact of the BEOG program on access to higher education. Using the U.S. Census Current Population Survey (CPS) to compare enrollment rates before and after implementation of the program, Hansen found little improvement in the relative enrollment rates of low-income students after implementation of the program. Heller (1997) examined data compiled by National Center for Educational Statistics on higher education institutions and the students attending those institutions (NCES), and confirmed Hansen's findings. Both Hansen and

Heller concluded that the greater availability of student financial aid targeted primarily towards students from low-income families did little, if anything, to increase access. Possible explanations for their conclusions were: a) aid may have not been targeted enough towards low-income students, b) amount and size of aid were not large enough to change the participation behavior of low-income students, c) enrollment rates of low-income students may have been lower if aid was not available, d) findings may be the effect of data and methodology problems, and e) low-income students may be unaware of financial aid rules and programs (Hansen, 1983; Heller, 1997; Kane, 1995).

Kane (1995) found that the gap between the enrollment rate of Whites and those of Blacks and Hispanics increased between 1980 and 1993, which is consistent with the lower average socioeconomic status of Blacks and Hispanics. In 1994 dollars, Heller's (1997) study found \$160 increase in tuition resulted in an enrollment effect that ranged from a decrease of .8% for White students to 7.1% for Asian Americans at all public institutions. Heller (1997) and Shapiro (2000) subsequently established that minority and low-income students tend to be more price responsive than White or middle- and upper-income students.

College Choice

In the United States, equity is important when it comes to students having a choice to attend higher education and what type of higher education institution they choose to attend. College choice is defined as when students are given an equitable menu from which they can pick the institution that best fits their needs (McPherson and Schapiro, 1998). Student choices about enrolling in higher education can be influenced by financial aid (Leslie and Brinkman, 1988). Student aid packages affect choices

regarding which college to attend, decisions to persist, and choices of majors (Paulsen & St. John, 1997).

Economists view college choice as a form of investment decision making or net-benefit maximizing behavior that is rational for students “who can expect in the long run to get back more than they must spend” (Jackson, 1978, p. 549). St. John and Starkey (1996) found support for the assumption about the relationship between college cost and enrollment decisions. Students respond to a set of prices and financial support rather than to a single net price when choosing their college. Student price responses can vary as a result of changes in prices and other factors.

The range of higher education alternatives available to students appears to be quite sharply constrained by their incomes under existing arrangements (McPherson and Schapiro, 1996). The combined impact of tuition increases and restrictions of federal financial aid may be reducing the relative ability of lower-income students to gain access to institutions other than community colleges. According to McPherson and Schapiro (1998), in the 1990s there was an increasing stratification of public higher education by income groups. In addition, these researchers found in their study of NCES NPSAS data that higher education costs were not the sole factor in enrollment rates. Forty-one percent of upper income students attend a university (private or public) compared with only 13.5% of lower income students. In addition, 47.3% of lower income students attended public two-year colleges, while only 13.9% of upper income students were enrolled in a two-year college. According to McPherson and Shapiro, “These findings raise doubts about some common impressions concerning ‘middle income melt’. There is no evidence in our data of a redistribution of middle income students from either private

universities or private four-year colleges” (1996, p. 27). McPherson and Schapiro (1996) go on to assert that the big change has been a sharp decline in the portion of middle income students at public two-year institutions, which has been offset by growth in the portion of middle income students at public four-year institutions.

ACSFA goes one step further and maintains that the “excessive levels of unmet need for low-income students will mean that they will have to abandon their plans for full-time, on-campus attendance, and attend part-time, work long hours, and borrow heavily. Although motivated by financial consideration, students make choices that lower the probability of their persistence and degree completion significantly” (2001, p. v).

Currently the United States is experiencing a high population of high school students, which will peak around 2008 (ASFCA, 2002). Enrollments in higher education are at an all-time high. More Black and Hispanics are attending college and receiving degrees than ever before (Nettles, Perna, and Freeman, 1999). Between the mid-1980s and mid-1990s, the number of Blacks and Hispanic undergraduates enrolled in higher education institutions nationwide increased by 32% and 98%, respectively, while the number of White undergraduates increased by just 1.0% (Nettles and Perna, 1997). Despite this progress, in 1997, Blacks and Hispanics were underrepresented among both undergraduates (at 11.2% and 10.1%, respectively) relative to their representation in the traditional college-age population (14.3% and 13.7%) (Perna, 2000).

Policy makers need to be concerned about the lower college enrollment rates of Blacks and Hispanics because they are less likely to realize the range of benefits associated with attending college and earning at least a bachelor’s degree, which will

adversely affect lifetime earnings (Perna, 2000). In their studies of higher education access and college choice, McPherson and Schapiro found that “existing financing systems may be much less successful in providing a suitable higher education experience for many disadvantaged students” (1996, p. 19).

This portion of the literature review presented the economic perspective on why higher education is vital to the United States economic picture and how individuals make decisions on investing in higher education. Using econometric models, researchers found inequities to access and college choice by socioeconomic status and ethnicity. Through an economist’s eyes, those inequities will stifle the future economic picture for the United States. Understanding this perspective is beneficial for understanding investment in higher education and college choice, which is fundamental to non-needs merit scholarship programs. As illustrated in this portion of the literature review, there is little research focusing on middle- and higher-income students. Most of the research concentrates on low-income and minority students. The state non-needs merit scholarship programs primarily focus on high-achieving high school students who may come from low-, middle- or upper-income families. This policy study will analyze the students who accept the scholarships and determine where they attend college. Lastly, the missing part in economic frameworks is the environmental factors that influence access, college choice and persistence, which are core to the sociological theories discussed in the next section.

Sociological Theoretical Framework Studies

The sociological perspective provides a concrete understanding of college enrollment, student persistence and educational attainment. This section lays out

sociological theories on higher education, and looks at studies based on educational attainment and cultural/social capital models. These models do not focus primarily on the economics of investing in higher education but on the less tangible goals, such as developing students' independence of judgment, critical thinking, creativity, and freedom from irrational prejudice. Some of the relevant variables in the models include family, school, grades, test scores, curriculum, location, friends, teachers, living on or off campus, social/professional groups, and work.

The influences of the less tangible goals of higher education can have long lasting beneficial effects, and are the foundations of the functioning of a democratic society (Campbell & Eckerman, 1964). The 1947 President's Commission on Higher Education asserted, "The first goal in education for democracy is the full, rounded, and continuing development of the person...To liberate and perfect the intrinsic powers of every citizen is the central purpose of democracy, and its furtherance of individual self-realization is its greatest glory" (Bowen, 1977, p. 39). Bowen (1977) cites six examples of having college-educated people in society: 1) greater openness to change itself with understanding, appreciation, and willingness to change within the society, 2) involvement and leadership in public affairs, 3) greater social responsibility towards people and environment, 4) efficiency and growth of economy that may benefit society at large, 5) greater understanding of international issues and importance of communication, and 6) style of life, tastes, and behavior patterns may be diffused throughout society through imitation or emulation.

From their compilation of 2,600 studies on college students, Pascarella and Terenzini (1991) provided evidence that college has a positive direct impact, both short-

and long-term, on a student's working life. The impacts include better working conditions and benefits, investment decisions and health, and lower rates of unemployment. College also affects an individual's cognitive development, self-image, and psychological well-being.

Access

From a sociologist's perspective, access means higher education is readily and broadly accessible to persons of a wide range of abilities, academic qualification, circumstances, and ages (Bowen, 1977; Rendon, 1998). The efforts to achieve access have changed over the past fifty years because of societal needs and political pressures. In the 1940s, veterans of World War II were the focus of access policies. Recently the emphasis has been upon women, minorities, and low socioeconomic status individuals (Nettles, Perna, & Millett, 1998). Non-needs based aid programs suggest a shift toward the middle- and upper-income students even though most state programs focus on high-achieving high school students. Fundamental to many educational attainment models are socioeconomic and family background variables, which include parent's education, occupations and financial contribution to education; family income; academic ability; and individual aspirations. The models analyzed for college choice are status attainment, social capital, and cultural capital.

College Choice

Students go through a three-stage process in college choice. It starts with a predisposition of attending college in grades 7-9, followed by accumulating and assimilating information in searching for a short list of colleges, and ends with applying and enrolling in college (Alexander & Eckland, 1975; Cabrera and La Nasa, 2000; Sewell

& Hauser, 1975; St. John, Paulsen, & Starkey, 1996). Researchers have consistently found several influential factors in the college search and choice phases: parent's education, size of college, location, academic program, reputation, prestige, selectivity, alumni, the student's peers, friends and guidance counselors, and availability of financial aid and the total costs of expenses (Hossler, Schmit & Vesper, 1999; St. John, 1990).

Academic achievement remains one of the most important determinants for all students of whether or not and where they go to college (Adelman, 1999). Personal, social, and financial outcomes are other determinants of college going. These factors influence the development and distribution of status in society (Alexander & Eckland, 1975; Hearn, 1991; Sewell & Hauser, 1976). Sociologists consider aspirations or predispositions about educational attainment an important component of the status attainment process. Systematic relationships exist within socioeconomic classes by achievement, and between income and college selectivity (Hearn, 1991). Students' expectations play a major role in college placement. They are sometimes the single strongest predictor of college attendance (Hearn, 1988).

For high school students who choose to go to college, academic achievement, social class background, and high school experience will shape how they perceive their opportunities. No student sees the opportunity of going to college in its entirety. Instead, a student imagines schools that he or she judges "right" or "appropriate" or schools where he or she will feel comfortable (McDonough, 1997). Furthermore, students' and parents' perceptions, attitudes, and knowledge regarding college attendance take on different shapes for different social classes and races as early as the tenth grade, and produce differences in family college planning. (Hearn, 1984; McDonough, 1997).

Parents' education level has a positive impact on a student's likelihood of enrollment, a stronger effect on enrollment plans than student ability or income level (Hossler and Maple, 1993; Kohn, Manski, and Mundel, 1976). Other significant background factors include the level of parental encouragement (Hossler, Braxton, and Coopersmith, 1997) and students' own expectations about the college decision (Borus and Carpenter, 1984). Jackson (1988) concludes that test scores, grades, taking part in a college preparatory program, and attending a school with many college-going peers are the student attributes most important for college enrollment.

Social and cultural capital have been used to describe the ways in which knowledge and information about college, as well as the value placed on obtaining a college education, may influence college enrollment decisions. Social capital may incorporate information-sharing channels and networks as well as social norms, values, and expected behaviors (Perna, 2000). Cultural capital is the system of factors that defines an individual's class status (Perna, 2000). Members of the dominant class hold the most economically and symbolically valued kinds of cultural capital (McDonough, 1977): "Individuals who lack the required cultural capital may 1) lower their education aspirations or self-selection out of particular situations because they do not know the particular cultural norms, 2) over perform to compensate for their less-valued cultural resources, or 3) receive fewer rewards for their educational investment" (Perna, 2000, p. 74).

In her research of the 1994 National Education Longitudinal Study, Perna (2000) concluded that four-year college enrollment rates are similar for Hispanics and Whites after controlling for differences in costs, benefits, ability, and social and cultural capital.

In other words, the lower enrollment rate for Hispanics is attributable to their lower levels of the types of capital required for college enrollment (e.g., test scores, curricular program, and educational expectations). A second conclusion was that social and cultural capital is an important contributor to the four-year college enrollment decision for Blacks, Hispanics, and Whites. To Blacks and Hispanics, social and cultural capital is as important as academic ability. Finally, Perna's results provided further support that financial aid alone is not sufficient to increase college access. Grants are unrelated to college enrollments among all three groups. Loans reduce the probability of Blacks enrolling in college after controlling for gender, sex, costs, benefits, ability, and social and cultural capital.

Educational Attainment

Since the early 1900s, sociologists have been interested in educational attainment and its impacts on social and occupational mobility. However, it was only in the 1960s that educational attainment, as a determinant of an individual's place in the social hierarchy, became as a sociological research topic (Alexander & Eckland, 1975; Sewell & Hauser, 1975). The sociological perspective on educational attainment provides a wider lens for viewing the influence of family background, parental education, family income, academic ability, and aspirations on persistence.

Policy makers should be concerned about the lower college enrollment rates of Blacks and Hispanics because they are less likely to realize the range of benefits associated with attending college and earning at least a bachelor's degree. These benefits include a more fulfilling work environment, better health, longer life, more informed purchases, and greater participation in cultural events (Perna, 2000).

In analyzing the influences to educational attainment, Adelman (1999) found that a high school curriculum of high academic intensity and quality had the greatest impact on degree completion. High school curriculum had far more impact on educational attainment for Blacks and Latino students than any other pre-college indicator of academic resources (GPA, curriculum, test scores). Lastly, the impact for Black and Latino students was much greater than it was for White students (Adelman, 1999).

Nettles, Perna & Millett (1998) studied national databases and found that only 17.7% of those who began their postsecondary education in a community college in 1989-90 had earned an associate's degree at any institution by 1994. An additional 6.4% had earned a bachelor's degree. Less than one-half, or 46.1%, of freshmen who were seeking bachelor's degrees completed a bachelor's degree within five years of their initial enrollment.

Using the NCES High School and Beyond 1981-1993 and National Longitudinal Study of the High School Class of 1972 databases, Adelman (1995) analyzed course-taking and educational attainment. He found that the odds were 7 out of 8 for a student to complete a bachelor's degree by 30 years of age if the student entered a four-year college directly from high school and completed 60 credits. He also found the average time to earn a bachelor's degree by age of 30 increased by 7.0%, or to 4.84 calendar years, with a standard deviation of 1.55 years. In addition, women were both the majority of participants and attained the most degrees.

In summary, the sociological perspective portrays the goals of higher education as improving an individual's social commitment, working conditions and benefits, and health. In turn, educated individuals will improve the sociological conditions for their

children because parent's education and influence affect a student's decisions about going to college. Research on access, college choice, and educational attainment need to be continued, especially with the changing ethnic make-up and socioeconomic stratification of the United States.

Financial Nexus Framework Studies

In the 1990s, a new student-choice construct was created based on the experiences of students and the influence of financial aid on their college choice and persistence (Paulsen & St. John, 2002). The new approach combined the factors in sociological models with those from human capital theory to model the influences of choice behavior within each stage of the college choice process (St. John, Paulsen, & Starkey, 1996).

The financial nexus framework focuses on how students make situated educational choices based on their own circumstances. This framework offers a new lens and perspective on the influence of costs (tuition, housing, food and other living costs) and financial aid (grants, loans & work study) on the enrollment patterns and behaviors of college students (Paulsen & St. John, 2002, Paulsen & St. John, 1997; & St. John, Paulsen, & Starkey, 1996).

Financial nexus may apply to a range of college choice-persistence interactions:

- a) the economic reasons (cost benefit) for choosing a college could shape the ways students subsequently answer to financial factors related to attendance, b) the academic or social reasons for choosing a college could influence the way students assimilate academically or socially, c) the college location and financial reasons for choosing a college could impact college affordability, and d) all these sets of reasons could, in

combination, represent the elements required for the creation of a financial impact model (Paulsen & St. John, 1997).

The student higher education process includes formation of aspirations, the decision and opportunity to attend, choice of college, choice of major, and persistence to graduation. These choices are influenced by family background, environmental and educational experiences, and policy-related factors, including postsecondary information, student aid, tuition costs, and debt forgiveness (Paulsen & St. John, 1997).

Many of today's potential students have limited mobility, choice, and financial means. Social and cultural capital or habits help shape the ways that students frame and make educational choices (Paulsen & St. John, 2002).

In testing their model, St. John, Paulsen, & Starkey (1996) found that student background has a direct impact on within-year persistence, but also interacts with the influence of student choice, college experience, and living costs. They found a) choosing a college for low tuition was negatively associated with persistence, b) high-achieving students stopped out apparently influenced by financial constraints, integration processes (social and academic aspects), or a combination of the two, and c) living costs had a substantial direct impact on persistence.

In their study of the NPSAS 1987 database using the financial-nexus model, Paulsen and St. John (2002) suggest a much more complex relationship between social class and educational attainment. This new model reveals some interesting ways in which our postsecondary system may serve as a medium for both the perpetuation and reversal of historical patterns of class reproduction in society. First, cross-class comparisons of descriptive statistics about educational attainment revealed that lower-

income students are less likely than higher-income students to attend private colleges, 4-year colleges, attend full-time, or live on campus. Second, logistic regression models showed that women who live in poverty were less likely than men to maintain continuous enrollment, a finding not evident for working or middle-class groups. Third, poor people with nontraditional precollege educational experiences or those with no high-school degrees and GEDs were more likely to persist than those with high school degrees. Fourth, the analyses of the choice persistence nexus by social class produced interesting findings about the role of race and ethnicity in educational choice. Blacks in the poor and working classes-but not in middle or upper-income groups were more likely to persist than their White peers. Poor Asians Americans were less likely than other race (mostly White) students to persist. Fifth, cross-class comparisons of descriptive statistics about educational attainment revealed that poor and working-class students were more likely than middle and upper income students to earn A grades, but aspired to substantially lower levels of postsecondary educational attainment.

Mbadugha (2001) also used the NPSAS 1997 database to examine persistence of community college students as they negotiated the financial nexus between college choice and persistence. The findings indicate: a) college choice has significant effects on persistence, b) financial variables are significant on college choice, c) tuition-sensitivity for full-time community college students is considerable, d) loan amounts increase the likelihood of persistence for traditional, full-time students, e) traditional age students are most sensitive to living costs, and f) Latino students are less likely than Whites to persist.

In sum, the financial-nexus model combines economic and sociological frameworks, which can aid both researchers and policy makers in understanding the

complicated system of access, college choice, and persistence. In the proposed study, my objective is to analyze the demographics of the students who receive the non-needs merit-scholarships as well as their college choice patterns and persistence through to educational attainment. None of the 12 states that offer non-needs merit-based scholarship program collects the variables required to use the financial nexus model. Using the available state data I make every attempt to analyze college choice and persistence by the various demographic variables, which will aid in understanding the impact of these scholarship programs based on the states' program goals.

Research on State Merit-Based Scholarship Programs.

Because state merit-based scholarship programs are so new, few studies have been conducted on the 12 state programs. Georgia, Florida, Michigan, and New Mexico are the only states that have had studies conducted on their programs. Georgia has made some changes to their merit-based program because of the research findings.

Dynarski studied Georgia's HOPE Scholarship using the U.S. Census October Current Population Survey and NCES Integrated Postsecondary Education Data System. She then compared Georgia to a comparison group of southern states. To understand the impact of the HOPE scholarship she used a human capital model to study attendance, college choice, and persistence based on the program's eligibility criteria. She found that HOPE is clearly designed for middle- and high-income families. Approximately 80% of HOPE funds go to those students who would have gone to college in the absence of the scholarship. Students are more likely to attend college in state, and attendance rates at Georgia's higher education institutions increased 7-7.9 percentage points for 18-to-19 year olds for the period 1989-1997. Enrollment of Black students appeared unaffected by

the HOPE Scholarship (2000), but they were much more likely to attend a four-year than a two-year institution (Dynarski, 2002).

The purported belief of HOPE and the other state non-needs based scholarship programs are to encourage students who are on the margin to attend college. Students on the margin for attending a two-year college supposedly will be pushed to attend a four-year college by driving down the relative costs by receiving the scholarship. Lastly, the scholarship will keep those who are set on attending college in state. Dynarski (2000) found that the Georgia HOPE scholarship did encourage students to attend four-year versus two-years and to stay in state for college.

The Michigan Merit Scholarship Program is based on the scores of the Michigan Educational Assessment Program (MEAP) test taken during the senior year in high school. If a student scores a Level 1 or 2 on this high-stakes test, the student will receive a lump-sum scholarship for college. According to Michigan legislation, 390.1457, the merit scholarship board “is to increase access to postsecondary education and reward Michigan high school graduates who have demonstrated academic achievement” (1999). “Access” is not defined. Policy makers assumed that providing aid available to high achieving students to increase their college attendance was also increasing access. The MEAP merit award web-site states that the program’s objective is to award students for academic achievement based on their MEAP scores (2001). The web-site does not use the word “access.”

When Heller and Shapiro studied the Michigan program, they found that “there is a clear relationship between race, gender, school poverty level, and the probability of qualifying for the Michigan Merit Award Scholarship” (p. 18). They go on to state that if

Michigan wants to increase college access within the state, it needs to focus the scholarships on students whose college enrollment decisions would most be influenced by the awarding of state grant aid (2000). However, the researchers never defined “access.” Their research variables included race and socioeconomic status, which are based on their literature review. As mentioned earlier in this chapter, “access” has been defined differently over the years by various disciplines. It appears that the Michigan policy makers and researchers defined “access” differently.

Heller and Rasmussen (2001) studied Michigan and Florida’s programs, and found a strong relationship between a student’s socioeconomic characteristics and the community where he/she attends school with the rates at which students qualify for the merit scholarships. Minorities, Blacks and Hispanics qualify for the scholarships at rates well below that of Whites and Asian American students. Overall, Michigan’s statewide college participation average is 73%. Thirty-seven percent of those participating qualified for the scholarship. In Florida, 50% of the high school students on the average participate in college. Of those, 21% qualified for the scholarship. Florida’s legislature created the program to reward academic achievement for students with high grade point averages for a set curriculum, and high ACT or SAT scores. Based on the researchers’ findings, little is known about the impact of these two state scholarship programs on keeping their high achievers in state for college and where these students go to college.

Another study of the Georgia HOPE program analyzed the program impacts on enrollment at Georgia institutions. The number of students enrolling in four-year and private Georgia institutions increased, and many students who would have gone to out-of-state institutions stayed in state. SAT scores for Georgia’s freshmen rose 50 points by

1998, even with the national average, mainly because of a the shift in college attendance patterns. In addition, four-year persistence increased; however, community college enrollments did not change: “Overall, the primary role of the scholarship has been to influence where, not whether high-school students attend college, but only a small fraction of HOPE expenditures affects college-going behavior at all” (Cornwell and Mustard, 2002, p. 71).

The New Mexico Lottery Scholarship was created by the legislature to provide New Mexico students support to continue their academic studies. Bander and Ganderton (2003) studied the program using institutional and student data to understand its impacts on enrollment, academic achievement, and retention. Between fall 1998 and spring 2001, the program benefited 13,980 students in the amount of \$40.5 million in tuition. Students may enroll in any public two- or four-year institution. The researchers conducted a natural experiment. Students who were eligible for the scholarship comprised the treatment group. Students who could not receive the scholarship because they graduated from high school before the program began comprised the control group. Using IPEDS data, Bander and Ganderton compared enrollment rates before and after 1998 for New Mexico, Arizona, and Colorado. They found that New Mexico had a 16% increase from the pre-program mean, which meant students stayed in state for college. They also found that students shifted from enrolling in two-year to four-year institutions. The New Mexico Lottery Scholarship Program is different from the other 12 state programs because students do not receive the scholarship until they have completed their first-semester as a full-time student and received a minimum GPA of 2.5. Only 62% of the women and 51% of men earned the scholarship indicating that a large number of students

failed to maintain a 2.5 GPA or failed to enroll continuously. Student demographics illustrate that 44% of Hispanic men and nearly 66% Black and Native American men received the scholarship. Lastly, they found that over 70% of the students enrolling came from families with incomes of \$40,000 or more (Binder and Ganderton, 2002).

Conclusion

As illustrated, the Federal and state governments have changed their role in financial aid throughout the history of higher education within the United States. During the 1990s, several states have created non-needs merit-based scholarship programs to aid top achieving high school students in their pursuit of higher education. However, there is little research determining one way or the other that non-needs based merit scholarship programs meet the needs of their states as laid out by the state laws for the programs (Heller, 1997), or whether the programs can be structured in a manner that better meets the needs of low-income and minority students (Heller, 2002).

The purpose of this policy study was to determine if non-needs merit-based scholarship programs achieve what the states set out to create, specifically rewarding high achieving students and keeping these students in state for college. As illustrated through the literature review, little research focuses on high achieving or middle- and higher-income students. Most of the research focuses on low-income and minority students.

This study also analyzed policy and economic implications addressing the objectives of the state's non-needs based merit scholarship programs. This required: a) an understanding of the issues, b) an understanding of the environment including interrelationships of forces and structures within the environment, c) a scan of the

environment to look for important interactions between people, resources, and organizations, and d) a focused examination of factors affecting implementation (Gill and Saunders, 1997).

CHAPTER 3—METHODOLOGY

Introduction

Policy research is a type of applied research and analysis to help make decisions. This policy study analyzed the efficacy of the 12 states that offer non-needs merit scholarship programs. This required: a) an understanding of the issues, b) an understanding of the environment including interrelationships of forces and structures within the environment, c) a scan of the environment to look for important interactions between people, resources, and organizations, and d) a focused examination of factors affecting implementation (Gill and Saunders, 1997). This chapter includes the research design and method of analyses, including population for the study and data availability by research question.

Research Questions

This study addresses the following four research questions to analyze the efficacy of the 12 state policies creating non-needs merit-based scholarship programs.

1. Which students receive merit-based scholarship awards in each state, and do these recipients fit the scholarship program goals?
2. How do scholarship recipients compare with the population of high school graduates in each state?
3. What is the relationship between the disbursement of state merit-based scholarship awards and students' college choice?
4. Do scholarship award recipients stay in state instead of going to out-of-state institutions?

Research Design

To analyze the effectiveness of state programs, the data analyses included descriptive statistics, t-tests, analyses of variance (ANOVAs), and regression models. The analyses were conducted at the state level. The study involved a two-part design including state demographic profiles in the first part and a cross-state regression analyses in the second part.

To answer research questions one and two, I created demographic profiles with the unit of analysis being each one of the 12 states. Data were gathered for each state starting two to three-years before the program was implemented up through fall 2000 or 2001. By analyzing the data prior to the program being implemented and afterwards, I was able to describe the trends for each state based on the objectives of the program. Data were obtained from state and federal governments.

Eleven of the 12 state programs a) encourage students to do well in high school, b) encourage the high achieving students to attend college in-state, and c) offer students an opportunity to pursue educational and career goals. New Mexico is the only state that does not award scholarships based on high achievement in high school. The New Mexico program bases its scholarship on college achievement after the first semester, and the goal is to offer educational and career opportunities past high school. The state program categories are:

1. Encourage high achievement in high school, keep high-achieving students in-state to attend college, and offer educational and career opportunities past high school
 - a. Alaska – top 10% of high school class
 - b. Georgia – high school GPA (grade point average)

- c. Kentucky – high school GPA and ACT/SAT scores
- d. Louisiana – high school GPA and ACT/SAT scores
- e. Michigan – statewide assessment test score or SAT score
- f. Mississippi – high school GPA and ACT/SAT scores
- g. Nevada – high school GPA
- h. South Carolina – combination of top 10%, ACT/SAT and GPA
- i. West Virginia – high school GPA and ACT/SAT scores
- j. Florida – high school GPA and ACT/SAT scores
- k. Missouri – SAT/ACT scores

2. Offer educational and career opportunities past high school

- a. New Mexico – first-semester college GPA

The state demographic profiles laid the foundation for understanding the state high school and college demographics, and the nature of the non-needs merit-based scholarship program. The second part of this study involved cross-state regression analyses, analyzing the efficacy of the state non-needs merit-based scholarship programs. A regression model was created and used to study whether or not the 12 state merit-based scholarship programs had an overall impact on college participation, college migration, and college choice patterns over time when compared to the other 38 states plus Washington, D.C.

Population & Data Gathering

Thus far no other study has analyzed all twelve states to determine whether or not the non-needs merit-based scholarship programs achieve what the states set out to accomplish. To answer research questions one and two, the population consisted of the 12 states that provide non-needs merit-based scholarship programs.

To answer research questions three and four, a regression model was created and used to analyze state college participation rates and college choice patterns. I used state high school graduate and college enrollment data for the 50 states plus Washington, D.C. for the regression analyses. The college enrollment data were downloaded to the program, Statistical Package for the Social Sciences (SPSS)© 11.01, for analysis. Nine of the 12 states implemented their program between 1997-1999. To insure consistency across the 12 states, 1996 and 2000 first-time degree-seeking freshmen data were used for the regression analyses. I downloaded the data on “residence and migration of first-time freshmen” for each state. Therefore, the data obtained were for the state’s first-time freshmen who graduated within the previous 12 months, and included where they chose to enroll in higher education by state, by type of institution (four-year, two-year, or technical) and control of institution (public, private, or proprietary).

Federal and State Data

The national, state, school district, and postsecondary education data were obtained from the following sources: The National Center for Education Statistics (NCES) databases, U.S. Census Bureau, U.S. Department of Labor, ACT, Inc., and The College Board. Table 2 lists the data source and information acquired from the source.

Table 2

Federal and State Data

Data Source	Data Collected
NCES Common Core Data (CCD)	<p>State and school district data for each one of the 12 states:</p> <ul style="list-style-type: none"> Public high school graduates Ninth and twelfth grade enrollments Ethnicity of Graduates (available from 1995 and beyond) Gender of Graduates (available from 1998 and beyond)
NCES CCD and U.S. Census Bureau	<p>The metropolitan status for each of the 12 state's school districts.</p> <p>Metropolitan Statistical Area (MSA) status:</p> <ol style="list-style-type: none"> 1. Central city of an MSA (city) 2. Serves an MSA but not primarily its central city (suburban area) 3. Does not serve a MSA (rural area)
NCES Private School Universe Survey (PSS)	<p>The number of estimated private high school graduates for each one of the 12 states. NCES cautions users of the survey data, gathered every two years, about interpreting the state data since the samples were not designed to represent the states. The data are gathered in the odd years and were available through 2001.</p>
NCES Integrated Postsecondary Education Data System (IPEDS)	<p>For the 50 states plus Washington, D.C., data obtained included:</p> <p>Name, control (i.e., private, public or proprietary) and level (4-year, 2-year, technical) of postsecondary institutions.</p> <p>Number of high school graduates who graduated within 12 months and enrolled in college by control and type of postsecondary institution.</p> <p>Data are only collected in the even years for "residency of first-time freshmen who graduated within the past twelve months." The latest publicly available IPEDS was Fall 2000.</p>

U.S. Census Bureau	State and County Income and Poverty Estimates (SAIPE) by school district for people under 18. SAIPE determined the poverty levels for the years, 1995, 1997, and 1999. For this study, three poverty levels were determined each one of the 12 state's school districts using the SAIPE data: Low—below 15% Medium—15-29% High—30% or above.
U.S. Department of Labor	State unemployment rates for the year 2000.
ACT, Inc.	ACT mean test scores for the nation and the 12 states.
The College Board	SAT composite mean test scores for the nation and the 12 states.

Non-Needs Merit Scholarship Program Data

State merit-scholarship program data were gathered by working with each of the 12 states program officers, higher education commissions, or state departments that oversee the state scholarship programs.

In November 2002, I sent an e-mail followed by a formal letter to each state introducing myself, explaining the purpose of my study, explaining that I was pursuing Michigan State University human subject approval (UCRIHS), and asking about the type of data maintained and available on their scholarship recipients (see Appendix A for UCRIHS documents; Appendix B for state contact information; and Appendix C for correspondence).

Upon approval of my dissertation proposal by my committee and approval of my research by the University Committee on Research Involving Human Subjects (UCRIHS) in February 2002, I contacted the respective state representative requesting recipient data

at the aggregate level by each year the program had been in place. This process was handled through e-mail, mail, or telephone. The process was different for each state depending on the responses received from the November 2002 correspondence. A few of the states maintain sophisticated databases (Florida, Kentucky, Louisiana, Michigan, Nevada, and New Mexico) and were able to download and provide the data to me by spreadsheets or documents. Other states compile comprehensive annual reports (Alaska, Georgia, Kentucky) that were provided to me. Lastly, a couple of states maintain a web-site where reports and data can be obtained (Missouri and South Carolina).

Generally, states sent the data via e-mail, fax or mail within a few weeks. For some states I had to follow-up several times, including a Freedom of Information Act (FOIA) request (Michigan and New Mexico). For different reasons I had to wait up to six to eight months to obtain the data (e.g., legislative sessions, one-man operation, complex information technology system, staff turnover).

In Table 3, I list the twelve states that offer non-needs merit-based scholarship programs and the data each state provided on the scholarship recipients. The data listed in the table were used in answering research questions one and two.

Table 3

State Non-Needs Merit-Based Scholarship Program Data

State	Data Source and Content
Alaska, 1998	<p>University of Alaska Statewide Budget & Institutional Research:</p> <p>1999-2002 Aggregate number of public and private high school graduates eligible and enrolled by school district by year.</p> <p>Aggregate number of enrolled scholarship recipients by ethnicity and gender by year.</p> <p>Aggregate number of college choice for first-time freshmen scholarship recipients by year.</p>
Florida, 1997	<p>Florida Bright Futures Scholarship Program:</p> <p>1997-2002 Aggregate number of public and private high school graduates eligible by school district and type of scholarship by year.</p> <p>1998-2001 Aggregate number of graduates eligible by gender and ethnicity by year.</p> <p>Aggregate number of recipients enrolled in higher education by institution by year.</p>
Georgia, 1993	<p>Georgia Student Finance Commission:</p> <p>1993-2000 Cumulative number of scholarship/grant recipients enrolled in college.</p> <p>1997-2000 Number of students eligible by year.</p> <p>1993-2000 College choice patterns of scholarship/grant recipients by cumulative number.</p> <p>Home school district metropolitan status and poverty levels of scholarship recipients by cumulative number.</p>
Kentucky, 1999	<p>Kentucky Higher Education Assistance Authority (KHEAA):</p> <p>1999-2001 Number of graduates eligible and number of scholarship recipients enrolled in college by year.</p> <p>College choice patterns of the scholars by year.</p> <p>Home school district metropolitan status and poverty levels of scholars by year.</p>

State	Data Source and Content
Louisiana, 1998	Louisiana Board of Regents Planning and Research: 1998-2002 Number of recipients by type of award by year. College choice patterns of recipients by year.
Michigan, 2000	Michigan Department of Treasury: 2000-2002 Number of graduates eligible and number of scholarship recipients enrolled in college by year. Gender and ethnicity of scholarships recipients by year. Home school district metropolitan and poverty levels by year. College choice patterns of scholarship recipients by year.
Mississippi, 1996	Board of Trustees of State Institutions of Higher Learning: 1996-2002 Cumulative number of Eminent Scholars Grant recipients. 2000-2002 College choice patterns of scholarship recipients.
Missouri, 1997	Missouri Department of Higher Education: 1997-2002 Number of scholarship recipients. College choice patterns of scholarship recipients by year.
Nevada, 1999	Office of the State Treasurer, Nevada Millennium Scholarship Program: 2000-2002 Number of eligible high school graduates and number of scholarship recipients enrolled by year. Home location by school district of scholarship recipients by year. College choice patterns of scholarship recipients by year.
South Carolina, 1998	South Carolina Commission on Higher Education: 1998-2002 Number of scholarship recipients. 1998-2000 Number of scholarship recipients by ethnicity. Home location of scholarship recipients. 1998-2001 College choice patterns of scholarship recipients.

State	Data Source and Content
West Virginia, 2002	West Virginia Higher Education Policy Commission: 2002 Number of scholarship recipients. Adjusted household income of scholarship recipients. College choice patterns of scholarship recipients.

Methods of Analysis

This part explains the methods of analysis by each research question.

Research Question One

Which students receive merit-based scholarship awards in each state, and do these recipients fit the scholarship program goals?

The first question was answered using descriptive statistics on each state's data starting at least two-years prior to program implementation. This approach provided a demographic profile for each state's high school graduate population, including their college going patterns, and the high school graduates receiving the scholarship. Each state's profile, including high school and scholarship recipients' demographic trends, is presented in Chapter 4. The findings and discussion for research question one is presented in Chapter 5. Each state's demographic profile in Chapter 4 includes:

- 1) State General Description: A general picture was created of each state's population of students who graduated, including:
 - a) Ninth and twelfth grade cohort graduation numbers and percentages, graduates by ethnicity and gender, and home school district metropolitan status—data obtained from NCES CCD.

- b) Home school district poverty level—data obtained from U.S. Census Bureau
 - c) SAT and ACT scores—data obtained from The College Board and ACT, Inc.
 - d) College participation and college choice by high school graduates—data obtained from NCES IPEDS.
- 2) State Merit Scholarship Recipients: The focus was on the merit-scholarship recipients. I developed a profile describing this portion of the high school graduate population. The depth of the description depended on data availability by each state, and the demographic profile possibly included recipient data by ethnicity, gender, home school district metropolitan status and poverty level, and college choice.

Research Question Two

How do scholarship recipients compare with the population of high school graduates in each state, and has this pattern changed over time?

The findings for this question further describe the demographics of the students who received the scholarships compared to the total state high school graduate population. It also determines whether or not there was a difference between the population of the high school graduates and the merit scholarship recipients.

To answer research question two, t-tests or analysis of variance (ANOVA) were used to analyze the data starting the year the scholarship program was implemented. The last data point was the year 2000 or 2001 data.

The analyses were not conducted for every state because the date of program implementation was after 1999 (Michigan, West Virginia) or the merit-scholarship

program recipient data were not available (Mississippi). Depending on scholarship recipient data availability, the analyses involved the number of students receiving the scholarship and type of student (by ethnicity, gender, socioeconomic status, rural vs. suburban, and ACT/SAT scores). Once again, the data used were from NCES CCD, NCES IPEDS, and U.S. Census Bureau. Research question two is answered in Chapter 5.

Research Question Three

What is the relationship between the disbursement of state merit-based awards and students' college choice patterns within the state?

A regression model was created and used to answer this question. Using NCES IPEDS data, I ran regression analyses across the 50 states plus Washington, D.C. to understand the impact of the scholarship program on the students' college choice patterns within the state. Each state was an observation, and the dependent variable was college enrollment in 2000 analyzed three different ways. From NCES, I downloaded each state's "residence and migration of first-time degree seeking freshmen who graduated within the past 12 months," which were available for even years from IPEDS. The year 2000 IPEDS Data were used because this was the latest year the data were available for public use.

The independent variables in the regression model were 1996 first-time freshmen college enrollment and 2000 state unemployment rate. In addition, the model included a dummy variable—non-needs merit-based scholarship program state (yes = 1). 1996 IPEDS Data were used as the base year for all states since 10 of the 12 non-needs merit-based scholarship programs started after 1996. The other two states, Georgia (1993) and

Mississippi (1996), were included in the analyses, but because of lack of data across states a third point in time (1992) was not studied.

Research on college choice illustrates that economic and social variables effect high school graduates' college choice patterns. Heller (1997), Leslie & Brinkman (1988), McPherson & Schapiro (1996) and others have found that family income, financial aid, and area of country effect access and college choice patterns. In addition, studies on merit-scholarship programs (Binder, Ganderton, and Hutchens, 2002; Dynarski, 2000) found that shifts occurred in college choice patterns in states that offered non-needs merit-based scholarship programs. The shifts included freshmen staying in-state for college and choosing four-year institutions over other higher education institutions.

This research question took into account state unemployment rates and whether or not the state non-needs merit-based scholarship programs affected college choice patterns between 1996 and 2000. State Census Bureau region and state needs-based grant aid were also included as independent variables in the initial regression analyses; however, there was a high correlation between the variables. I kept the state unemployment variable because it explained more of the variability in the model than the other two variables.

The prediction is that the state non-needs merit-based programs positively effect college participation while state unemployment rates will negatively effect college participation.

The regression model is:

$$P_s(t2) = a + bP_s(t1) + cM + dU_s + e$$

P = Distribution of students in state (s) by higher education institution

t1 = IPEDS 1996 residence and migration of first-time degree seeking freshmen who graduated within the past 12 months data

t2 = IPEDS 2000 residence and migration of first-time degree seeking freshmen who graduated within the past 12 months data

M = State offers non-needs merit-based scholarship program—dummy variable: 1 = Yes

U = Unemployment rate in state (s) in 2000

e = error rate

I began by using the regression model to analyze college-going rates by state. I determined the ratio of first-time degree-seeking freshmen choosing to enroll in higher education institutions to the number of high school graduates for each state and for the years, 1996 and 2000. The regression analysis answered whether or not college participation rates increased taking into account whether or not the state offered a non-needs merit-based scholarship program and the predictor variables.

I then used the regression model to study in-state college choice patterns. The variables for 1996 and 2000 college enrollment were manipulated two different ways to study in-state college choice patterns. The two college choice ratios explored through the regression model included:

- a) Ratio of first-time degree-seeking freshmen attending public in-state four-year institutions to total in-state first-time degree-seeking freshmen. (Example: In

1996, 41,750 first-time Florida freshmen enrolled in college, and 15,693 of them chose to attend Florida public 4-year institutions. Ratio = .3759). This ratio, when analyzed through the regression model, examined whether or not in-state college-going freshmen chose public 4-year institutions over other higher education institutions in 2000 taking into account the economic predictor variables and whether or not the state offered a non-needs merit-based scholarship program.

b) Ratio of first-time degree-seeking freshmen attending Carnegie

Research/Extensive, Research/Intensive, Masters I, and Masters II institutions relative to total in-state first-time degree-seeking freshmen. (Example: In 1996, 41,750 first-time Florida freshmen chose to attend in-state institutions, and 7,736 of them chose to attend Carnegie classified institutions. Ratio = .1853). This ratio, when analyzed through the regression model, determined whether or not in-state college-going freshmen chose these Carnegie classified 4-year institutions over other higher education institutions in 2000 taking into account the economic predictor variables and whether or not the state offered a non-needs merit-based scholarship program.

Research Question Four

Do scholarship recipients stay in-state for college instead of going to out-of-state institutions?

The same regression model used to answer research question three was used to answer this question. Using NCES IPEDS data, I ran a regression analysis across the 50 states plus Washington, D.C. to understand the impact of the scholarship programs on the propensity of student to remain in-state for college. Each state was an observation, and

the dependent variable was college enrollment in 2000. I downloaded each state's "residence and migration of first-time degree seeking freshmen who graduated within the past 12 months," which were available for even years, 1996 and 2000. Then I recalculated the state first-time degree-seeking freshmen data into the needed independent and dependent variables as discussed below. The regression model used is:

$$R_s(t2) = a + bR_s(t1) + cM + dU_s + e$$

R = College enrollment by first-time freshmen staying in-state for college (s)

$t1$ = IPEDS 1996 residence and migration of first-time degree seeking freshmen who graduated within the past 12 months data

$t2$ = IPEDS 2000 residence and migration of first-time degree seeking freshmen who graduated within the past 12 months data

M = Merit scholarship program—dummy variable: 1 = Yes

U = Unemployment rate in state (s) in 2000

e = error rate

Ten of the state non-needs merit-based scholarship programs with the explicit goal of keeping their high-achieving students in-state to attend college are:

- a. Alaska (1998)
- b. Florida (1997)
- c. Georgia (1993)
- d. Kentucky (1999)
- e. Louisiana (1998)
- f. Mississippi (1996)
- g. Missouri (1997)
- h. Nevada (1999)
- i. South Carolina (1998)

j. West Virginia (2002)

The research on Georgia and New Mexico's scholarship programs found that scholarship recipients chose to stay in-state for college and chose four-year institutions over other higher education institutions (Binder, Ganderton, and Hutchens, 2002, and Dynarski, 2000). The economic predictor variables may also impact whether or not college-going students stay in-state or chose four-year institutions.

The prediction is that the state non-needs merit-based programs positively impact in-state college enrollment while state unemployment rates will negatively impact out-of-state college participation.

I used the regression model to study in-state college enrollment versus going to out-of-state institutions. The variables for 1996 and 2000 college enrollment were manipulated two different ways to study in-state college enrollment:

- a) Ratio of first-time degree-seeking freshmen choosing in-state higher education institutions to the number of high school graduates. This ratio, when analyzed through the regression model, addressed changes in in-state college participation rates in 2000 taking into account the predictor variables and whether or not the state offered a non-needs merit-based scholarship program.
- b) Ratio of first-time degree-seeking freshmen leaving the state for 4-year institutions to the state's first-time degree-seeking freshmen attending 4-year institutions, both in-state and out-of-state. (Example: In 1996, 8,004 first-time freshmen left Florida to attend four-year institutions, and 28,070 first-time Florida freshmen attending four-year institutions either in-state or out-of-

state. Ratio = .2852). This ratio takes into account only first-time freshmen choosing four-year institutions, both in-state or out-of-state.

Conclusion

This chapter laid out the methodology for studying the 12 states that offer non-needs merit-based scholarship programs. In Chapter 4, I present each state's demographic profile for high school graduates and scholarship recipients. Chapter 5 details and discusses the demographic trends for research questions one and two. In Chapter 6, I provide information and discuss the findings for research questions three and four. Lastly, in Chapter 7 I discuss the findings, draw conclusions, and make recommendations for further research.

CHAPTER 4—STATE DEMOGRAPHIC PROFILES

Introduction

In this chapter, I provide demographic profiles for each non-needs merit-based scholarship state's high school graduates and scholarship recipients. The demographic profile establishes a foundation for understanding the high school graduates and merit scholarship recipients for each state during the 1990s. In Chapter 5 I present results for research questions one and two by state, along with a discussion of the results.

State Scholarship Recipients

The purpose of this study was to determine the effectiveness of the state non-needs merit-based scholarship programs based on the following program goals: a) rewarding students for their academic achievements, b) encouraging students to attend higher education, and c) encouraging students to attend college in-state. Aggregate data on each state's a) high school students, b) college-going students, and c) scholarship program recipients were used to answer the questions.

I start the chapter by describing national demographic information for high school graduates and college-going first-time freshmen. Then, I present the demographic data for each state that offers non-needs merit-based scholarship program, starting with the oldest scholarship program and concluding with the newest scholarship program as of 2002. The order of the state profiles:

- 1) Georgia—1993
- 2) Mississippi—1996

- 3) Florida—1997
- 4) Missouri—1997
- 5) New Mexico—1998
- 6) South Carolina—1998
- 7) Louisiana—1998
- 8) Alaska—1999
- 9) Kentucky—1999
- 10) Nevada—1999
- 11) Michigan—2000, and
- 12) West Virginia—2002.

First, I present a general picture of each state's high school graduate population, including numbers and percentages by race, gender, and school district metropolitan status and poverty level. Then, I provide demographic information on the state's college-going first-time freshmen, including SAT or ACT scores, college participation, and college choice. The starting point in time was three to four-years prior to implementation of the scholarship program through 2000 or 2001.

Then within each state's profile, I describe the recipients of the merit scholarships. Each state's recipient data varied and thus, the recipient demographic information may or may not have included gender, race, school district poverty and metropolitan status, and college choice.

United States Statistics

First, I provide national demographic data to establish a baseline and to help understand the data I present for each one of the 12 states. Included in the national

demographics are high school graduation trends, ACT and SAT mean scores, college-going rates, school choice, and poverty levels.

The percentage of high school graduates when compared to the population of 17-years old slightly decreased during the 1990s. In 1990-91, 72.9% of the 17-year old population graduated and by 2000, 69.9% graduated from high school with a regular diploma. In addition, public versus private high school graduates varied little during 1990s as 89.7% of twelfth graders graduated from public high school in 1991 and 90.1% in 2000 (NCES, 2001).

The national mean scores for the ACT and SAT have fluctuated little between 1993 and 2000 (see Table 4). In 1994, the national ACT mean was 20.8 and in 2000 the mean ACT score was a 21.0. The composite national SAT mean did increase by 16-points, from 1003 in 1993 to 1019 in 2000.

Table 4

National ACT and SAT Mean Scores

Year	National Mean Scores	
	ACT	SAT Composite
1993	N/A	1003
1994	20.8	1003
1995	20.8	1010
1996	20.9	1013
1997	21.0	1016
1998	21.0	997
1999	21.0	1016
2000	21.0	1019

College enrollment remains at nearly historic highs, reflecting higher college enrollment rates for first-time freshmen from high school, older age groups, and women.

The ratio of college enrollment to the population for states is affected by the proportion of a state's population in the traditional college age, and by the migration of college students from state to state, as well as by a variety of policy measures such as the physical and financial accessibility of higher education (Postsecondary Org., 2003).

In 1990, 59.9% of high school completers enrolled in college and by 2000, the percentage increased to 63.3%. Of those enrolling in college, 61.5% were White high school completers in 1990, which increased to 64.0% by 2000. Lagging behind were Blacks and Hispanics. In 1990, 46.3% and 47.3% percent of Blacks and Hispanics enrolled in college. By 2000, the percentage of Blacks and Hispanics enrolling in college rose; however, it was still lagging behind White enrollment. In 2000, 56.2% of Blacks and 53.0% of Hispanics enrolled in college after completing high school (NCES, 2001).

The National Center for Education Statistics works with the U.S. Census Bureau calculating metropolitan status and poverty levels for each school district in the United States. For each of the 12 states, the metropolitan status and poverty levels were calculated for each school district and the high school graduates. In 2000, one in six students were from a central city, and 1 in 10 were from rural areas. Between 1995 and 1999, the poverty levels for people under 18 within the United States were within the medium poverty category for this study (15-29%).

Georgia

Georgia's Helping Outstanding Pupils Educationally (HOPE) Scholarship Program, which was implemented in 1993, is the original merit-based scholarship program in the United States. In the first part of the section I describe the Georgia high

school population starting one year before the HOPE program was implemented, 1992, through the year 2000. The demographic information includes graduate data by ninth and twelfth grade cohort, gender and ethnicity, school district metropolitan statuses and poverty levels, and participation in higher education, including college choice. I present a demographic picture of the HOPE Scholarship recipients, including eligible and enrolled recipients by home school district metropolitan status and poverty levels, and by college choice patterns.

Georgia High School Graduates

High School Graduation Rates

Georgia's population increased 26.4% between 1990 and 2000 (U.S. Census Bureau, 2000). The number of ninth graders increased 21.5% between 1992 and 2000, but the percentage of ninth graders who graduated from high school dropped from 63.7% to 52.3% during that time (see Table 5). Even though the percentage of students dropping out between ninth and twelfth grades increased, the raw number of twelfth graders and graduates increased. Lastly, the number of non-public high school graduates increased from 4,636 in 1992 to 6,819 in 2000.

Table 5

Georgia High School Regular Diploma Graduates

Year	Number of		Percentage of Graduates by		Number of
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	Estimated Non-Public High School Graduates
1992	62,922	57,742	63.65	91.77	4,636
1993^a	63,646	57,602	61.54	90.50	-
1994	62,704	56,356	59.39	89.88	5,630
1996	63,736	57,827	56.53	90.73	5,783
1998	69,355	58,396	51.15	84.20	5,715
2000	72,351	62,563	52.30	86.47	6,819

- NCES PPS data is available only in even years. ^a 1993 was the year the Georgia HOPE Scholarship Program was implemented.

Graduation Rates by Ethnicity

Between the years 1993 to 2000 (data for 1992 were not available), four of five the ethnic groups experienced an increase in the number of graduates. Native American high school graduates numbered 83 in 1993 and 82 in 2000. The percentage distribution of high school graduates by ethnicity shifted slightly between 1993 and 2000. Table 6 illustrates a slight decrease in the percentage of White and Black graduates. In 1993, 64.4% or 37,078 of the public high school graduates were White. In 2000, 63.0% or 39,353 of the graduates were White. Similarly, 32.9% or 18,938 of the 1993 Georgia public high school graduates were Black and in 2000, 31.7% or 19,795 of the graduates were Black. During the same time, Hispanics and Asians slightly increased from .9% to 2.1% and 1.7% to 3.2%, respectively.

Table 6

Georgia's Public High School Graduates by Ethnicity

Year	Percentage Distribution of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1993 ^{a, b}	64.37	32.88	.94	.14	1.67
1994	63.50	33.34	1.17	.12	1.87
1996 ^c	63.50	32.94	1.41	.12	2.03
1998	63.96	31.70	1.66	.12	2.56
2000	62.97	31.67	2.05	.13	3.18

^a Data obtained from Georgia Department of Education. ^b 1993 was the year the Georgia HOPE Scholarship Program was implemented. ^c Data obtained from NCES CCD.

Graduation Rates by Gender

Data on the gender of Georgia's public high school graduates were not available until 1998 from either the Georgia Department of Education or NCES CCD. In both 1998 and 2000, female graduates slightly outnumbered male graduates (see Table 7). In 1998, 31,139 or 53.2% of the graduates were female and in 2000, 33,195 or 53.9% of the graduates were female.

Table 7

Georgia's Public High School Graduates by Gender

Year	Percentage of Graduates by Gender	
	Male	Female
1998	46.79	53.21
2000	46.94	53.06

- Data prior to 1998 were not available from NCES CCD or Georgia Department of Education until 1998.

Graduates by School District Metropolitan Status

Georgia has 180 school districts. Previous to 1994, data were not available on graduates by school districts. As shown in Table 8, in 1994 and 1996 forty-four of the districts were located in suburban areas, producing 54.3% and 52.0% of the graduates, respectively. In 1998, the U.S. Census Bureau redistricted two districts from rural to suburban areas resulting in 46 school districts being labeled as suburban. This resulted in a slight shift in the percentage distribution of graduates from rural to suburban school districts. The number of central city school districts stayed at five and graduated less than 10 percent of Georgia's high school graduating class. In 2000, two school districts were changed from suburban to central city and this resulted in 13.4% of the graduates coming from the seven central city school districts. 56.4% of the high school graduates were from suburban school districts.

Table 8

Georgia Public High School Graduates by Metropolitan Status Area

Year	Percentage of Graduates by School District Metro Status		
	City	Suburban	Rural
1994 ^{a, b}	11.08	54.30	34.62
1996 ^c	10.09	52.00	37.91
1998 ^d	9.54	57.66	32.80
2000 ^e	13.27	56.39	30.34

^a 1993 high school graduate data by school district is unavailable, and 1994 data obtained from Georgia Department of Education.

^b Obtained from NCES CCD in conjunction with 1995 U.S. Census Bureau. The number of: City = 5, Suburban = 44, Rural = 131.

^c Percentages may not add up to 100.00% due to non-reporting issues.

^d Obtained from NCES CCD in conjunction with 1997 U.S. Census Bureau. The number of: City = 5, Suburban = 46, Rural = 129.

^e Obtained from NCES CCD in conjunction with 1999 U.S. Census Bureau. The number of: City = 7, Suburban = 44, Rural = 129.

Graduates by School District Poverty Level

In the mid-1990s, Georgia's poverty level for people under 18 years of age was 26.5%. By the end of the decade the level dropped to 18.3%. Both of these poverty percentages were classified as medium poverty school district percentages for this study (15-29%).

Between 1996 and 2000, the number of school districts with high poverty levels dropped from 78 to 37 school districts. As a result, the percentage and number of graduates coming from high poverty school districts dropped from 25.9% to 8.3% or from 16,129 to 5,206 graduates, respectively (see Table 9). The number of low poverty school districts (below 15%) more than doubled between 1994 and 2000. Sixteen low poverty school districts in 1996 graduated 32.4% or 18,254 students. By 2000, 37 low poverty school districts graduated 45.2% or 28,257 students.

Table 9

Georgia High School Graduates by School District Poverty Levels

Year	Percentage of Graduates by School Districts Poverty Levels ^a		
	High	Medium	Low
1994 ^b	24.47	44.03	31.50
1996	24.41	40.56	32.32
1998 ^c	18.17	47.60	34.23
2000 ^d	8.32	46.51	45.17

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 1995 U.S. Census Bureau statistics. The number of: High = 64, Medium = 99, and Low = 17.

^c 1997 U.S. Census Bureau statistics. The number of: High = 71, Medium = 94, and Low = 15.

^d 1999 U.S. Census Bureau statistics. The number of: High = 37, Medium = 106, and Low = 37.

College-Going High School Graduates

During the 1990s, Georgia students scored on average below the national mean scores on the ACT and SAT. As shown in Table 10, between 1992 and 2000 SAT composite mean scores were between 43 and 54 points below the national average; the ACT mean scores were between .5 and 1.2 below the national averages.

Table 10

Georgia Students' College Preparation Tests

Year	ACT Mean	SAT Composite Mean
1992	20.4	948
1993	20.4	949
1994	20.3	948
1996	20.3	961
1998	20.2	968
2000	19.9	974

Between the years 1992 and 2000, the number and percentage of Georgia high school graduates attending college increased by 19.3%. As shown in Table 11 and Figure 1, the overwhelming majority of graduates stay in-state for college. The number of first-time Georgia freshmen staying in-state for college increased throughout the 1990s although the percentage distribution dropped from a high of 84.1% in 1994 to 82.1% in 2000. The number of Georgia graduates staying in-state for college went from 27,569 in 1992 to 30,718 in 1994, to 34,893 in 2000.

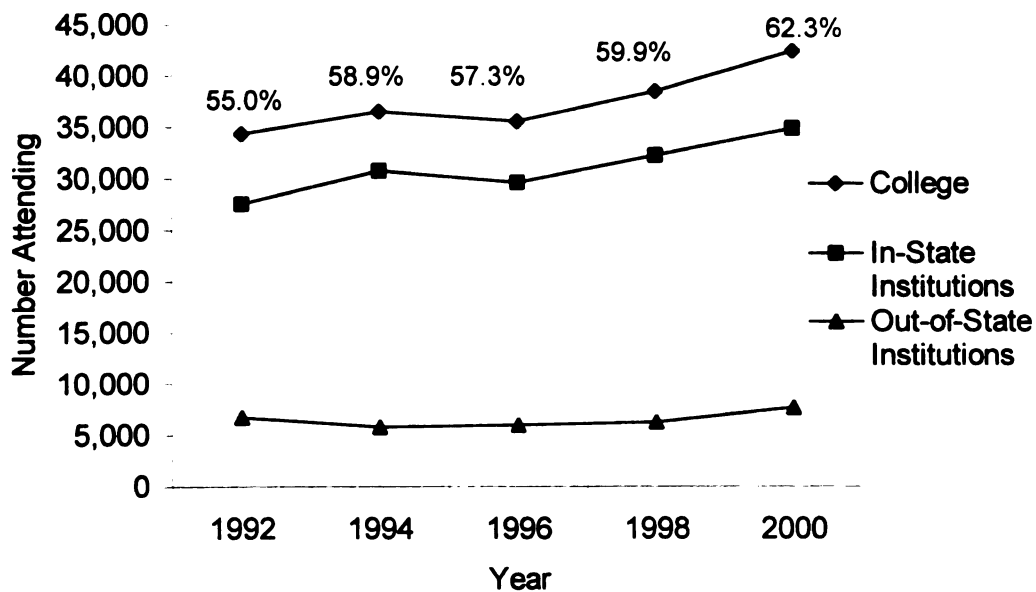
The number of graduates leaving Georgia for college dropped from 6,729 in 1992 to 5,790 in 1994, the year after the Georgia HOPE scholarship program was implemented. After 1994, the number of first-time Georgia freshmen attending out-of-state colleges started increasing. By 2000, 17.9% or 7,606 left Georgia for college.

Table 11

Georgia High School Graduates Attending College

Year	Number of		Percentage of Graduates		
	Total Estimated High School Graduates	Graduates Attending College	Attending College	Attending In-State Colleges	Attending Out-of- State Colleges
1992	62,378	34,298	54.98	80.38	19.62
1993	-	-	-	-	-
1994	61,986	36,508	58.90	84.14	15.86
1996	62,054	35,565	57.31	83.35	16.65
1998	64,240	38,500	59.93	83.86	16.14
2000	69,382	42,499	61.25	82.10	17.90

- Data are not available for odd years from NCES IPEDS.

Figure 1. Georgia high school graduates attending college.

College Choice

Georgia's first-time freshmen college choice patterns shifted throughout the 1990s. With the exception of private two-year colleges, all Georgia higher education institutions experienced an increase in the number of first-time Georgia freshmen. Table 12 shows the percentage distribution and Figure 2 illustrates the raw numbers of Georgia first-time freshmen college choice patterns.

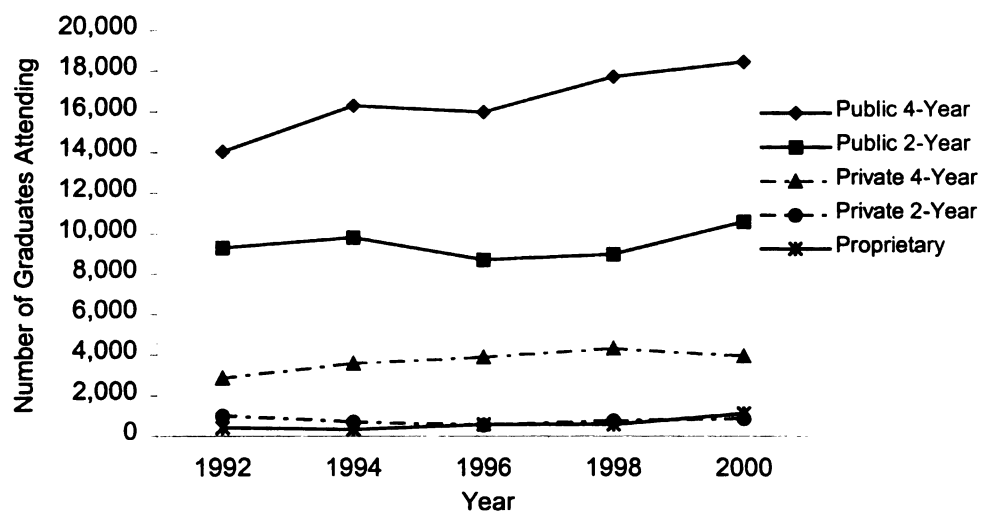
The number of Georgia first-time freshmen attending public four-year institutions increased from 14,011 in 1992 to 18,430 in 2000. In 1994, the University of Georgia and Georgia Southern University enrolled 19.8% and 15.4% of the first-time freshmen, respectively. In 2000, the University of Georgia enrolled 19.8% and Georgia Southern University enrolled 13.4% of the first-time freshmen.

Public two-year institutions and technical colleges experienced a shift in enrollments. The number and percentage of first-time freshmen attending public two-year institutions dropped from 7,044 or 25.6% in 1992 to 5,819 or 16.7% in 2000. Public technical colleges experienced an increase in first-time freshmen from 2,248 or 8.2% in 1992 to 4,754 or 13.6% in 2000. The percentage of Georgia first-time freshmen attending private institutions stayed fairly consistent throughout the 1990s. Lastly, proprietary institutions expanded educational opportunities within Georgia during the 1990s. In 1992, 1.5% or 413 first-time freshmen chose proprietary institutions. By 2000, 3.2% or 1,098 first-time freshmen chose proprietary institutions.

Table 12

Georgia First-Time Freshmen In-State College Choice Patterns

Year	Distribution of First-Time Georgia Freshmen Attending					
	Number Attending In-State Colleges	Public Four- Year Institutions	Public Two- Year Institutions	Public Technical Institutions	Private Four-Year Institutions	Proprietary Institutions
1992	27,569	50.82	25.55	8.15	10.37	1.50
1993	-	-	-	-	-	-
1994	30,718	53.04	23.35	8.54	11.69	1.06
1996	29,644	53.87	20.39	8.90	13.04	1.95
1998	32,287	54.87	20.72	7.06	13.32	1.72
2000	34,893	52.82	16.68	13.63	11.28	3.15

Figure 2 . Georgia first-time freshmen in-state college choice patterns.

Georgia HOPE Scholarship Program

The Georgia Helping Outstanding Pupils Educationally (HOPE) Scholarship (Georgia Statutes 20-3-519 and 20-3-519.2) was created to aid outstanding high school graduates pursue an associate or baccalaureate degree at an eligible Georgia postsecondary institution. Other goals of the HOPE Scholarship are to keep the best and brightest students in Georgia, and to expand educational opportunities beyond high school to all Georgians. The HOPE Scholarship Program is funded through a state lottery.

The HOPE program consists of two types of awards, the merit-based HOPE Scholarship and the HOPE Grant. To be eligible for the merit-based HOPE Scholarship, a student must:

1. Graduate from an approved high school while meeting curriculum requirements including a 3.0 in college preparatory curriculum or a 3.2 in technical preparatory curriculum.
2. Receive the GED diploma award by the state of Georgia.
3. Complete a home study program meeting state requirements, and then earning a cumulative 3.0 GPA after taking 45 quarter or 30 semester hours at a postsecondary institution. The scholarship will be retroactive.
4. Graduate from a non-eligible high school, and then earning a cumulative 3.0 GPA after taking 45 quarter or 30 semester hours at a postsecondary institution. The scholarship will be retroactive.
5. Graduate from high school prior to 1993, non-traditional students can apply for scholarship after freshman year with 3.0.

Eligible Scholarship recipients can receive up to four years of tuition, fees, and a set allowance for books at public higher education institutions. Tuition for the 2001-02 year was approximately \$3,500 at the state's flagship institutions. In 1996, recipients could use the scholarship at private higher education institutions. They would receive \$3,000 per academic year for tuition. Recipients can attend as part- or full-time students.

The HOPE Grant does not have high school GPA eligibility requirements. It can be used towards non-degree programs. HOPE Grant recipients mainly choose Georgia technical colleges for their programs of study. The grant pays for tuition and mandatory fees leading to a certificate or diploma.

The Georgia Student Finance Commission (GSFC) provided the HOPE data. The scholarship and grant data were not separated out for the two programs. Therefore, I did not include HOPE recipients who chose Georgia technical colleges in this study because the majority of students choosing technical colleges were HOPE Grant recipients.

Hope Recipients

In the program's first year 25,530 recipients took advantage of the HOPE Scholarship and enrolled in Georgia higher education institutions. Table 13 shows the increase in the cumulative total of HOPE scholarship recipients. By 2000, a total of 86,348 graduates accepted the HOPE Scholarship and enrolled in the University of Georgia System or in private higher education institutions.

Table 13

Cumulative Number of Georgia HOPE Scholarship Recipients

Year	Enrolled HOPE Scholarship Recipients ^a
1993	25,530
1994	56,765
1995	74,579
1996	74,522
1997	76,221
1998	77,501
1999	80,411
2000	86,348

^a Unduplicated headcount.

School District Metropolitan Status for HOPE Recipients

HOPE Scholarship recipients were primarily from school districts located in suburban and rural areas. As explained in Table 14, the percentage of recipients from the 131 rural school districts was 33.4% in 1994 and 31.2% in 1996. In 1998, the number of rural school districts decreased to 129 when two districts were reestablished as suburban. In 1998 and 2000, 28.5% and 27.1% of the Scholarship recipients were from one of the 129 rural districts. The number of central city school districts was five for the years 1994 through 1998; these districts produced less than 10% of the HOPE Scholarship recipients. In 2000, two suburban school districts were changed to city school districts; 13.5% of the HOPE recipients were from the seven central city school districts

Table 14

Georgia HOPE Scholarship Recipients by School District Metropolitan Status ^a

Year	Percentage of Recipients by School District Metro Status		
	City	Suburban	Rural
1994 ^b	9.41 ^c	53.14	33.41
1996	9.84	58.07	31.19
1998 ^d	9.68	61.01	28.51
2000 ^e	13.47	58.73	27.13

^a 22 Georgia School Districts showed no HOPE recipients or was a result of non-reporting by students.

^b Obtained from NCES CCD in conjunction with 1995 U.S. Census Bureau. The number of: City = 5, Suburban = 44, and Rural = 131.

^c Percentages may not add up to 100.00% due to non-reporting issues.

^d Obtained from NCES CCD in conjunction with 1997 U.S. Census Bureau. The number of: City = 5, Suburban = 46, and Rural = 129.

^e Obtained from NCES CCD in conjunction with 1999 U.S. Census Bureau. The number of: City = 7, Suburban = 44, and Rural = 129.

School District Poverty Levels for HOPE Recipients

U.S. Census Bureau poverty levels for people under 18 were used to explain the school districts' poverty levels. As shown in Table 15, the number of Georgia school districts with high poverty levels shifted from 64 in 1994 and 1996, to 71 in 1998 and then to 37 in 2000. This resulted in a decrease in the percentage of HOPE recipients from high poverty school districts. In 1994, 17.8% or 10,098 of the recipients were from high poverty districts and by 2000, 4.0% or 3,417 were from the 37 high poverty districts. Whereas in 1994, 33.6% or 19,082 of the HOPE recipients were from one of the 16 low poverty school districts and by 2000, 49.5% or 42,738 of the cumulative number of HOPE recipients were from low poverty school districts.

Table 15

Georgia HOPE Scholarship Recipients by Home School Districts Poverty Level ^a

Year	Percentage of Recipients by School District Poverty Level ^b		
	High	Medium	Low
1994 ^{c, d}	17.78	44.56	33.62
1996	16.15	44.76	38.19
1998 ^e	10.53	49.54	39.13
2000 ^f	3.96	45.88	49.50

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 22 Georgia School Districts showed no HOPE recipients or students did not report home location.

^c Percentages may not add up to 100.00% due to non-reporting by students.

^d 1995 U.S. Census Bureau statistics used for both 1994 and 1996 data. The number of: High = 64, Medium = 99, and Low = 17.

^e 1997 U.S. Census Bureau statistics. The number of: High = 71, Medium = 94, and Low = 15.

^f 1999 U.S. Census Bureau statistics. The number of: High = 37, Medium = 106, and Low = 37.

College Choice

Since the beginning of the HOPE program, public four-year institutions and technical colleges, and private four- and two-year institutions experienced considerable enrollment changes because of the HOPE Scholarship/Grant Program. As illustrated in Table 16 and Figure 3, the cumulative number of Scholarship recipients choosing public four-year institutions increased from 30.4% or 7,869 in 1993 to 65.6% or 63,297 in 2000. In 1994, 25.8% of the aggregate number of HOPE Scholarship recipients chose University of Georgia and 11.0% enrolled in Georgia Southern University. The percentages changed little by 2000 when 25.4% and 10.3% of the Scholarship recipients chose University of Georgia and Georgia Southern University, respectively.

Private institutions, including proprietary institutions, experienced a decrease in the percentage of HOPE Scholarship recipients. In 1993, 38.5% or 9,974 of the recipients chose private four-year institutions. By 2000 a total of 13,045 or 13.1% of

HOPE recipients enrolled in private four-year institutions. Lastly, private two-year colleges experienced over a fifty percent drop in the number of HOPE Scholarship recipients from the years 1993 to 2000.

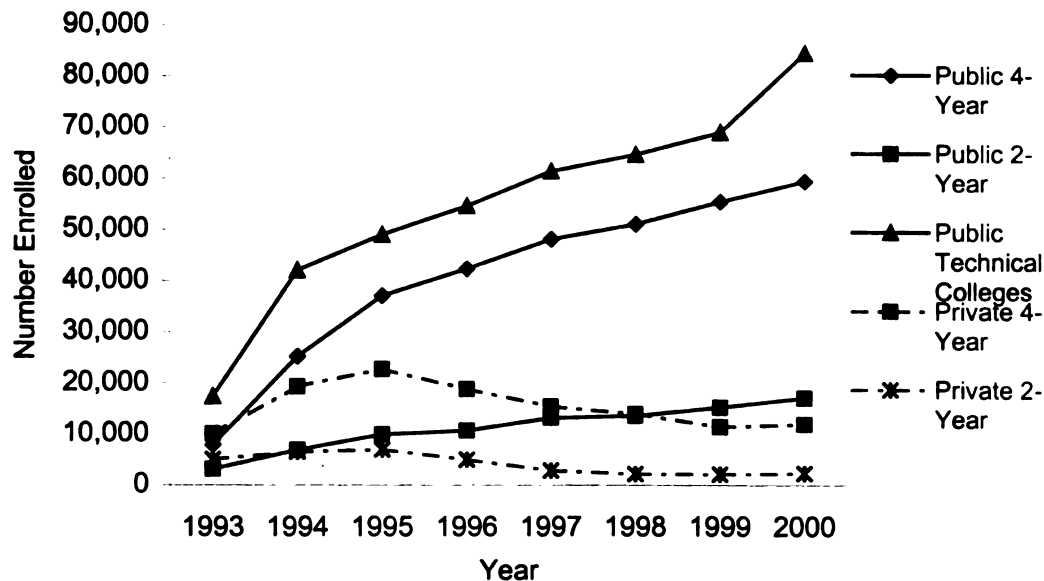
Table 16

Distribution of the Cumulative Percentage of Georgia HOPE Scholarship/Grant Recipients Enrolled in Georgia Higher Education Institutions

Year	Percentage of Scholars Enrolled in			
	Public Four-Year Institutions	Public Two-Year Institutions	Private Four-Year Institutions	Private Two-Year Institutions
1993	30.38	11.91	38.51	19.20
1994	43.58	11.81	33.39	11.23
1995	48.42	12.90	29.66	9.02
1996	55.24	13.88	24.56	6.45
1997	60.51	16.57	19.38	3.53
1998	63.22	16.86	17.23	2.69
1999	65.87	18.14	13.54	2.45
2000	65.59	18.82	13.12	2.47

HOPE Grant recipients enrolled in one of 34 public technical colleges. In 1993, 17,369 HOPE Grant recipients enrolled. By 2000, 104,792 of the cumulative number of HOPE recipients enrolled.

Figure 3. Distribution of the cumulative numbers of HOPE scholarship/grant recipients enrolled in Georgia higher education institutions.



Mississippi

The Mississippi Legislature authorized the Mississippi Eminent Scholars Grant (MESG) in 1995. Its purpose is to help top achieving high school graduates attend college. In first part of this section I provide a demographic profile of the Mississippi high school graduates since 1994, or two years prior to the beginning of MESG, through the year 2000. The demographic information includes numbers and percentage of graduates by ninth and twelfth grade cohort, gender and ethnicity, school district metropolitan statuses and poverty levels, and participation in higher education and college choice. In the second part of this section, I describe the college choice patterns of Mississippi Eminent Scholar recipients.

Mississippi High School Graduates

Graduation Rates

Mississippi's population grew 10.5% between 1990 and 2000. The percentage of high school graduates grew 1.7% between 1991 and 2000. The number and percentage of twelfth graders graduating from Mississippi public high schools increased from 88.7% or 23,212 in 1994 to 91.8% or 24,323 in 2000 (see Table 17). Even though the number of graduates increased, the percentage of graduates by ninth grade cohort decreased from 62.0% in 1994 to 56.2% in 2000. The estimated number of private high school graduates went from a high of 4,007 graduates in 1996, the first year of MESG, to a low of 3,649 graduates in 2000.

Table 17

Mississippi High School Regular Diploma Graduates

Year	Number of		Percentage of Graduates by		Number of Estimated Non-Public High School
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	
1994	26,156	23,212	62.00	88.74	3,901
1996	25,741	23,036	56.77	89.49	4,007
1998	26,788	24,502	56.41	91.47	3,742
2000	26,500	24,323	56.18	91.78	3,649

Graduation Rates by Ethnicity

The data on the ethnicity of Mississippi public high school graduates show that the graduates were primarily White or Black (data for 1994 were not available). As shown in Table 18, 51.5% or 11,856 of the graduates were White and 47.8% or 11,005 were Black in 1996. By 2000, 51.8% or 12,681 of the graduates were White and 47.0% or 11,332 were Black. Hispanic, Native American, and Asian public high school

graduates made up only .26% of the graduating class in 1996 and 1.24% of the graduating class in 2000.

Table 18

Distribution of Mississippi Public High School Graduates by Ethnicity ^a

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	51.47	47.77	.17	.08	.01
1998	51.80	47.30	.21	.11	.58
2000	52.29	46.76	.23	.09	.63

^a Data were not available from NCES CCD prior to 1995.

Graduation Rates by Gender

The distribution of Mississippi public high school graduates by gender illustrated a higher percentage of female to male graduates for all years of this study, 1994 to 2000. The number of female high school graduates was 12,502 in 1994 and 13,330 in 2000 (see Table 19).

Table 19

Distribution Percentage of Mississippi Public High School Graduates by Gender

Year	Percentage of Graduates by Gender	
	Male	Female
1994	46.14	53.86
1996	45.23	54.75
1998	45.47	54.43
2000	44.67	54.80

Graduates by School District Metropolitan Status

Mississippi has 155 public school districts. Graduate data by school district were not available until 1995 from either NCES CCD or Mississippi Department of Education. Between 1996 and 2000, public high school graduates were primarily from rural school districts (see Table 20). In 1996, the percentage of graduates from the 129 rural school districts was 66.4%. Then one school district was reclassified from rural to suburban. In 1998 and 2000, the 128 rural school districts graduated 66.2% and 65.5%, respectively. In 1996, the 21 suburban school districts graduated 24.0% of the students. By 2000 the 22 suburban school districts graduated 28.3% of the twelfth graders. Lastly, in 1996 and 2000 the five central city school districts graduated 9.1% and 10.2% of the twelfth graders, respectively.

Table 20

Mississippi Public High School Graduates by School District Metropolitan Status Area^a

Year	Percentage of Graduates by School District Metro Status		
	Central City	Suburban	Rural
1996 ^b	9.07	23.97	66.37
1998 ^c	10.78	23.02	66.20
2000	10.15	28.34	65.52

^a Data were not available from NCES CCD.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1995. The number of school districts located in: City = 5, Suburban = 21, and Rural = 129.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1997 and 1999. The number of school districts located in: City = 5, Suburban = 22, and Rural = 128.

Graduates by School District Poverty Level

The percentage of Mississippi residents under age 18 below the poverty level was 30.2% in 1995, 24.1% in 1997, and 26.1% in 1999. For this study, the 1995 poverty level

was placed in the high poverty level (see Table 21). In 1996, 37.6% of the Mississippi public high school graduates were from one of the 73 high poverty school districts. In 1998, the number of school districts in the high poverty level dropped to 30 and so did the percentage and number of graduates from those districts. In 2000 the number of school districts classified as having high poverty level increased to 50 and the number and percentage of graduates from those districts increased to 8,539 and 35.2%.

The majority of the public high school graduates were from medium poverty school districts between the years 1996 and 2000. In 1996 the 64 medium poverty school districts produced 52.6% of the graduates. Then in 1998, the number of medium school districts increased to 99, and 69.2% or 16,192 of the graduates were from those 99 school districts. Then in 2000 several school districts were reclassified, leaving 84 school districts as medium school districts. The 84 districts graduated 44.3% or 10,738 of the students in 2000.

Even though the number of school districts classified as having low poverty dropped from a high of 19 in 1998 to 14 in 2000, the percentage of graduates increased. In 1996, only 9.8% of the public high school graduates were from low poverty school districts. By 2000, 20.5% of the graduates were from one of the 14 low poverty school districts.

Table 21

Mississippi Public High School Graduates by School District Poverty Levels^{a, b, c}

Distribution of Graduates by School District by Poverty Level			
Year	High	Medium	Low
1996^d	37.60	52.61	9.79
1998 ^e	12.89	69.23	17.88
2000 ^f	35.24	44.31	20.45

^a Data were not available from NCES CCD.^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.^c U.S. Census Bureau did not provide poverty level data for seven school districts.^d Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995. The number of school districts by poverty level: Low = 11, Medium = 64, and High = 73.^e Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997. The number of school districts by poverty level: Low = 19, Medium = 99, and High = 30.^f Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1999. The number of school districts by poverty level: Low = 14, Medium = 84, and High = 50.*College-Going High School Graduates*

Mississippi students preparing to attend college scored below the national ACT and above the national SAT composite mean scores (see Table 22). In 1994, Mississippi students averaged 18.7 on the ACT while the nation's ACT mean was 20.8. By 2000, Mississippi students averaged an 18.6 ACT and students across the United States averaged a 20.8 ACT. The story is different for the SAT composite mean. In 1994, Mississippi students scored 102 points above the national mean. By 2002, Mississippi students scored 76 points above the national average.

Table 22

College Preparation Test Scores for Mississippi Students

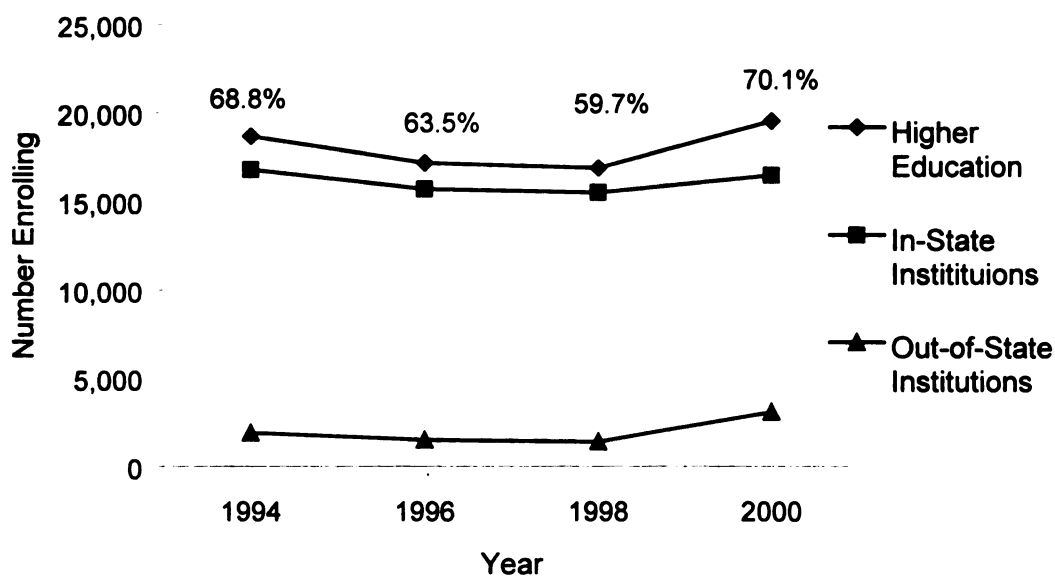
Year	ACT Mean	SAT Composite Mean
1994	18.7	1105
1996	18.8	1126
1998	18.7	1111
2000	18.7	1111

Between 1994 and 1998, the percentage of first-time Mississippi freshmen dropped from 68.8% to 59.7% (see Table 23 and Figure 4). In 1996, the year the Mississippi Eminent Scholarship Grant program was implemented, 63.4% of the high school graduates went on to attend college within 12 months of graduation. Of the 17,159 attending college in 1996, 91.4% or 15,680 chose to stay in-state for college. By 2000, the percentage and number of first-time freshmen jumped to a record high of 70.1% or 19,514. The number of first-time freshmen staying in-state for college increased to 16,455; however, the percentage of freshmen staying in-state decreased to 84.3%. In the same year, a record number of the first-time freshmen left Mississippi to attend college.

Table 23

Mississippi High School Graduates Attending College

Year	Number of		Percentage Attending		
	Estimated	Attending	Higher	In-State	Out-of-State
	High	Higher	Education	Institutions	Institutions
	School	Education	Education		
	Graduates	Institutions	Institutions		
1994	27,113	18,654	68.80	89.94	10.06
1996	27,039	17,159	63.46	91.38	8.62
1998	28,219	16,859	59.74	91.87	8.13
2000	27,843	19,514	70.09	84.32	15.68

Figure 4. Mississippi high school graduates attending college.*College Choice*

The distribution of first-time Mississippi freshmen attending in-state higher education institutions fluctuated little during the years, 1994 and 2000. As seen in Table

24 and Figure 5, in 1994 64.5% or 10,826 of the students chose public two-year institutions and 28.9% chose public four-year institutions. By 2000, 61.9% or 10,181 of the students chose public two-year institutions and 30.7% chose four-year public institutions.

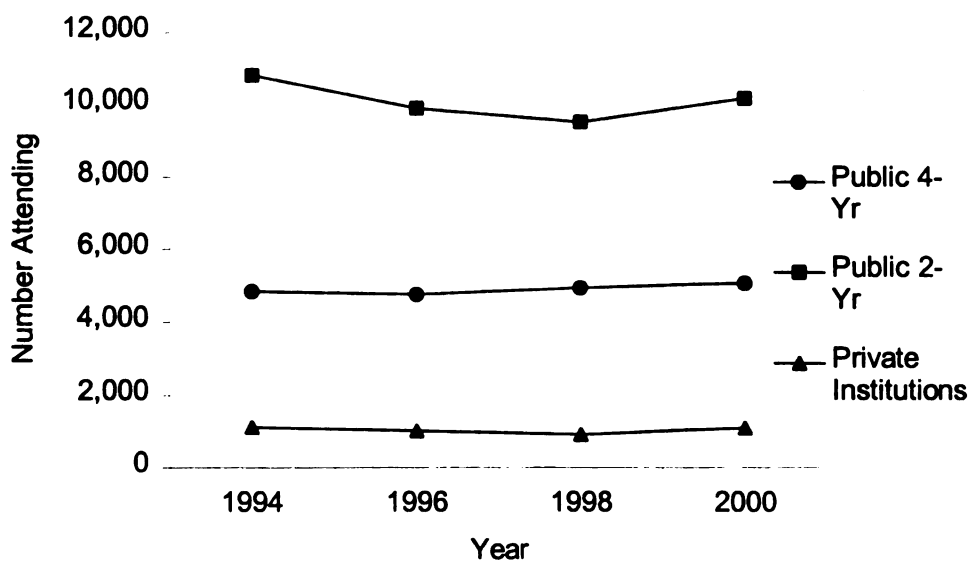
Table 24

Mississippi First-Time Freshmen In-State College Choice Patterns

Year	Number of First-Time Freshmen Attending	Percentage of First-Time Freshmen Attending ^a		
		Public Four- Year Institutions	Public Two- Year Institutions	Private Institutions
1994	16,777	28.28	64.53	6.61
1996	15,680	30.41	63.11	6.49
1998	15,489	31.91	61.46	5.83
2000	16,455	30.73	61.87	6.54

^a Proprietary institutions were not included because the percentage of first-time degree-seeking students attending proprietary institutions was below 1.00 percent.

Figure 5. Mississippi first-time freshmen in-state college choice patterns.



Mississippi Eminent Scholars

The Mississippi Legislature authorized the Mississippi Eminent Scholars Grant (MESG) in 1995. In 1996 the Mississippi Post-Secondary Education Financial Assistance Board began providing financial assistance to high achieving students to attend college. A student needs to have a 3.5 GPA after a minimum of seven semesters in high school and score a 29 or above on the ACT to qualify for the scholarship. A scholarship recipient may attend an eligible Mississippi postsecondary institution, receiving a 4-year scholarship up to \$2,500 per year for tuition, fees, and books.

The Mississippi Post-Secondary Education Financial Assistance Board only provided data on the number of recipients for the years 1996 to 1999. For the years 2000-2002, the Board provided data on the control and type of institution for the cumulative number of scholarship recipients.

The number of the scholarship recipients in the first-year of the program was 310 (see Table 25). By 2002, there was a total of 1,639 Eminent Scholars.

In 2000, 72.7% or 1,174 of the recipients chose to attend public four-year institutions and 20.7% or 335 recipients enrolled in public two-year institutions. By 2002, the percentage of recipients enrolled in public four-year institutions increased to 74.4% percent and the percentage enrolled in public two-year institutions dropped to 18.6%. Lastly, the percentage of MESG recipients enrolled in private four-year institutions ranged from 6.6% in 2000 to 7.0% in 2002.

Table 25

Mississippi Eminent Scholars Grant Recipients

Year	Cumulative Number of Recipients	Percentage of Scholars Enrolled in		
		Public Four- Year Institutions	Public Two- Year Institutions	Private Four- Year Institutions
1996	310	-	-	-
1997	697	-	-	-
1998	1,098	-	-	-
1999	1,459	-	-	-
2000	1,616	72.65	20.73	6.62
2001	1,729	74.96	19.14	5.90
2002	1,639	74.44	18.61	6.96

- Data were not available from Mississippi Post-Secondary Education Financial Assistance Board.

Florida

Florida's Bright Futures Scholarship Program has functioned since 1997. The program was created to recognize Florida high school graduates for their high academic achievement. In this section, I first describe the Florida high school graduate population before and after program implementation was created, starting in 1994 through 2002. The demographic profile includes high school graduate data by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan statuses, and participation in higher education and college choice. Second, I present a profile of Bright Futures Scholarship recipients, including eligible and enrolled recipients by gender and ethnicity, school district poverty levels and metropolitan statuses, and college choice patterns.

Florida High School Graduates

Graduation Rates

Between 1990 and 2000, Florida's population increased by 23.5 percent (U.S. Census Bureau, 2000). During the years of this study, 1994-2002, Florida experienced a 22.7% increase in the number of high school graduates. Between 1997, the year the Florida Bright Futures Scholars Program was implemented, and 2002, Florida experienced a 19.2% increase in twelfth graders and an 18.8% increase in the number of graduates. Despite the increase in the number of twelfth graders and regular diploma graduates, the percentage of the ninth grade cohort for those graduating classes continuously dropped (see Table 26). Fifty-six percent of the ninth grade cohort graduated in 1997, and 53.1% of the ninth grade cohort graduated in 2002.

Table 26

Florida High School Regular Diploma Graduates.

Year	Number of		Percentage of		Number of
	Twelfth Graders	Graduates – Regular Diploma	Ninth Grade Cohort	Twelfth Grade Enrollment	Estimated Non-Public High School
1994 ^a	100,646	88,032	59.32	87.47	9,820
1996	99,519	89,242	57.81	89.67	10,087
1997	105,469	92,430	56.03	87.64	-
1998	108,366	95,539	55.34	88.33	11,125
2000	116,259	102,621	53.06	88.15	12,866
2002 ^b	130,563	113,836	53.08	87.19	-

^a NCES PPS gathers non-public high school graduate data in even years. 2002 data were not currently available. ^a Data provided by National Center for Educational Statistics (NCES). ^b Data provided by Florida Department of Education.

Graduation Rates by Ethnicity

The number of Florida public high school graduates by the five ethnic groups increased during the 1990s. As seen in Table 27, the distribution of graduates across the ethnic groups illustrates a percentage decrease in White and Black graduates. In 1996, 61,252 or 62.5% of the public high school graduates were White. In 2002, the number of White graduates increased to 67,720, but the percentage of White graduates decreased to 59.5%. The percentage of Hispanic graduates increased considerably from 13.9% or 13,644 in 1996 to 16.8% or 17,943 in 2002.

Table 27

Distribution of Florida's Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Asian	Native American
1996 ^a	62.45	20.73	13.91	2.69	.22
1997	61.32	21.37	14.32	2.79	.20
1998	61.16	21.15	14.66	2.79	.24
2000	59.61	21.26	16.16	2.72	.26
2002 ^b	59.49	19.88	16.81	2.89	.25

^a Data from NCES were not available before 1995. ^b Data obtained by Florida Dept. of Education.

Graduation Rates by Gender

As shown in Table 28, the percentage of female graduates has exceeded the percentage of male graduates during the seven years of this study. Female graduates increased slightly, 52.7% or 47,050 in 1996 to 53.3% or 60,644 in 2002. The number of males exceeded the number of females in the ninth grade, however the number of females

outnumber males by the twelfth grade. In 1998 and 2001, 47.2% and 46.7% of the ninth grade cohort were female, respectively.

Table 28

Percentage Distribution of Florida's Public High School Graduates by Gender

Year	Percentage of Graduates by Gender	
	Male	Female
1996 ^a	47.28	52.72
1997	47.26	52.74
1998	47.03	52.97
2000	46.54	53.44
2002 ^b	46.73	53.27

^a Data obtained from NCES CCD. ^b Data provided by Florida Department of Education

Graduates by School District Metropolitan Status

Florida has sixty-eight public school districts. In 1996, 75.5% of the public high school graduates were from one of Florida's 47 rural school districts. Shown in Table 29, the number of school districts located in rural areas decreased to 31 and graduated less than eight percent of the students in 1998. The majority of the graduates were from one of the 33 suburban school districts. In 1998, 83.4% of the 95,716 high school graduates were from suburban school districts. By 2002, 84.3% of the 102,479 graduates were from 34 suburban school districts. The number of central city school districts was four between 1998 and 2002, and approximately eight and a half percent of the graduates were from those four school districts.

Table 29

Florida Public High School Graduates by School District Metropolitan Status^{a, b}

Year	Percentage of Graduates by Metro Status		
	City	Suburban	Rural
1996 ^c	9.25	17.01	75.49
1998 ^d	8.60	83.42	7.98
2000 ^e	8.39	83.66	7.66
2002	8.30	84.31	7.37

- Data not gathered. ^a Data unavailable from NCES CCD for school districts prior to 1995.

^b Percentages may not add up to 100.00% due to non-reporting by students or school districts.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995. The number of school districts by: City = 9, Suburban = 12, and Rural = 47.

^d Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997. The number of school districts by: City = 4, Suburban = 33, and Rural = 31.

^e Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1999. The number of school districts by: City = 4, Suburban = 34, and Rural = 30.

Graduates by School District Poverty Level

Florida's overall poverty level has hovered right above the national level for the years 1996 to 2000. In 1997, Florida's poverty level for people under 18 years of age was 21.8%. By 1999, the poverty level for people under 18 years of age decreased to 18.5%.

In 1996, 61 of the 68 school districts were located in low poverty areas. The other seven school districts were located in medium poverty areas. As seen in Table 30, almost 90% of the public high school graduates were from the low poverty school districts. Then in 1998, the number of low poverty school districts decreased to six, and 8.9% of the high school graduates were from those six districts. Seven school districts were reclassified from medium to high poverty, and the 55 medium poverty districts graduated 89.6% of the graduates.

By 2000, the number of high poverty school districts dropped to one, and less than one percent of the graduates were from that one district in 2000 and 2002. The number of medium poverty level school districts also dropped from 55 to 48, but the percentage of graduates increased to 53.3% or 54,629 of 102,479 graduates. Lastly, the percentage of graduates from the 18 low poverty school districts jumped to 46.3% and 46.8% in 2000 and 2002, respectively.

Table 30

Florida Public High School Graduates by School District Poverty Levels^{a, b}

Year	Percentage of Graduates by Poverty Level		
	High	Medium	Low
1996 ^c	.00	10.13	89.87
1998 ^d	1.46	89.63	8.91
2000 ^e	.10	53.31	46.30
2002	.10	53.13	46.77

- Data not gathered. ^a Data not available for school districts from NCES CCD prior to 1995.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^c 1995 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 0, Medium = 7, and Low = 61.

^d 1997 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 7, Medium = 55, and Low = 6.

^e 1999 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 1, Medium = 49, and Low = 18.

College-Going High School Graduates

The ACT and SAT mean scores for Florida students were below the national mean scores for the seven years examined in this study. As shown in Table 31, the high ACT mean for Florida students was in 1998, the year after the Bright Futures Scholarship program was implemented. The 20.8 ACT mean was .2 points lower than the national mean. The high SAT composite mean score for Florida students was also in 1998. The national composite SAT mean was 997 for that year.

Table 31***College Preparation Test Scores for Florida Students***

Year	ACT Mean	SAT Composite Mean
1994	20.8	982
1996	20.6	994
1997	20.7	997
1998	20.8	1001
2000	20.6	998
2002	20.4	995

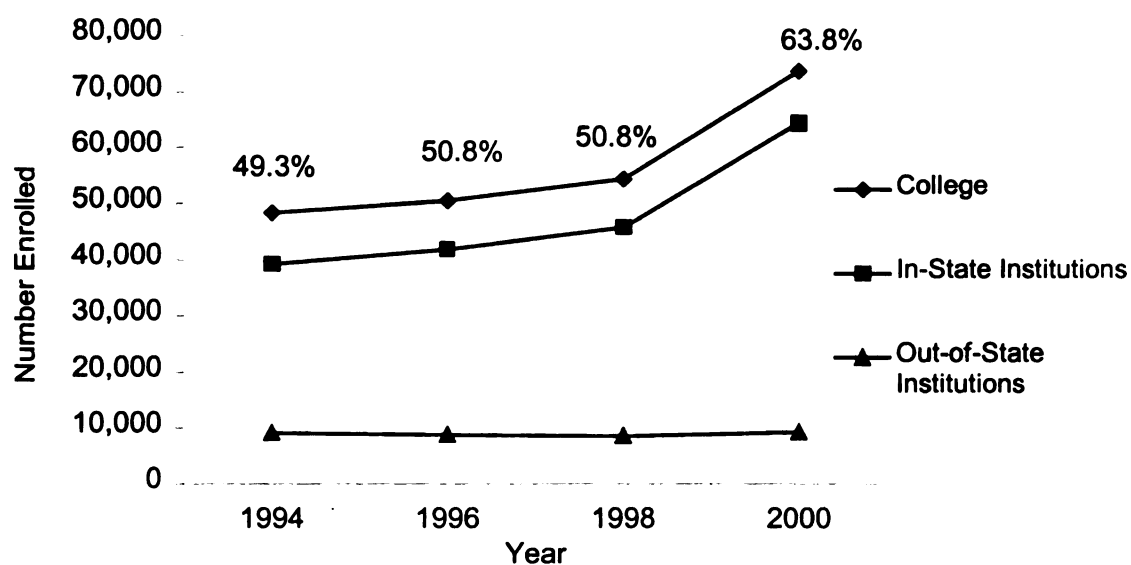
Despite the lower percentage of ninth and twelfth grade cohort graduating from high school, the percentage of the graduates attending college increased from 49.3% in 1994 to 63.8% in 2000. This equated to 25,351 more first-time Florida freshmen participating in college. The percentage of first-time Florida freshmen staying in-state for college also increased from 81.2% in 1994 to 87.4% in 2000 (see Table 32 and Figure 6). And the percentage of students leaving the state for college decreased from 18.8% in 1994 to 12.6% by 2000. High school graduates leaving Florida to attend college numbered 9,084 in 1994 and 8,604 in 1998. The out-of-state enrollment number increased slightly to 9,268 in 2000.

Table 32

Florida High School Graduates Attending College

Year	Number of Graduates ^a		Percentage		
	Estimated Public & Private High School	Attending College	Graduates Attending College	Attending In-State Colleges	Leaving Florida for Out-of-State Colleges
1994	97,848	48,283	49.34	81.19	18.81
1996	99,329	50,490	50.83	82.69	17.31
1998	106,841	54,280	50.80	84.15	15.85
2000	115,345	73,634	63.84	87.41	12.59

^a Data were not available from NCES IPEDS. [†] Data obtained from NCES Integrated Postsecondary Education Database System (IPEDS). Data currently available through 2000.

Figure 6 . Florida high school graduates attending college.*College Choice*

The percentage of first-time freshmen attending Florida institutions increased 39.1% between 1994 and 2000, resulting in 25,167 more first-time freshmen students.

As shown in Table 33 and Figure 7, their college choice patterns varied slightly over the years with the greatest increase in first-time freshmen attending proprietary institutions. The number of proprietary institutions in Florida increased during the late 1990s. As a result, the institutions have drawn students away from attending other public or private institutions. The number of first-time freshmen attending all five types of higher education institutions increased between 1994 and 2000. The percentage of first-time freshmen choosing public two-year institutions decreased 7.8% between 1994-2000, while the percentage of freshmen attending public four-year institutions increased by 2.5%. Private four-year institutions also experienced a slight decrease in first-time Florida freshmen enrollment, 1.9% over the eight years.

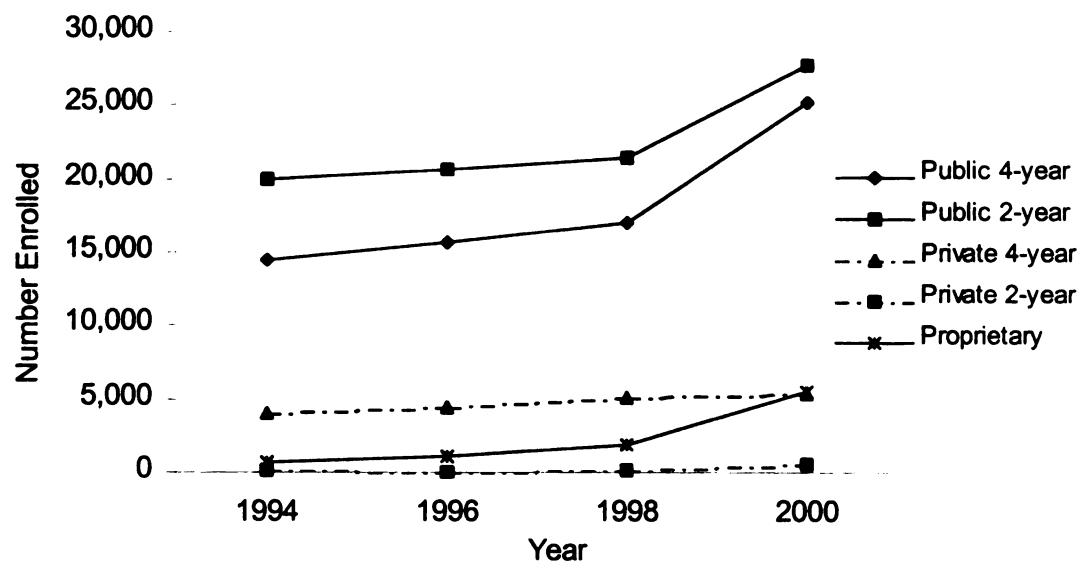
The number of 1994 first-time Florida freshmen attending public four-year institutions was 14,401. Of that number, 62.1% chose one of three universities. First-time freshmen chose the University of Florida (27.9%), Florida State University (20.4%), and the University of Central Florida (13.8%). By 2000, 58.7% of the first-time freshmen chose either the University of Florida (23.7%), Florida State University (18.0%), or University of Central Florida (17.0%).

Table 33

Florida First-Time Freshmen In-State College Choice Patterns

Year	Percentage of First-Time Florida Freshmen Attending Florida Institutions				
	Total Number	Public	Public	Private	Proprietary
		Four-Year	Two-Year	Four-Year	
1994	39,199	36.74	50.87	10.33	1.84
1996	41,750	37.59	49.26	10.47	2.67
1997	-	-	-	-	-
1998	45,676	37.36	46.83	11.19	4.23
2000	64,366	39.20	43.05	8.40	8.58

- Data were not available from NCES IPEDS.

Figure 7. Florida first-time freshmen in-state college choice patterns.*Florida Bright Futures Scholarship Program*

The Florida Bright Futures Scholarship Program was established in 1997. Statute 1009.53 reads that the Bright Futures Scholarship Program is to reward any Florida high

school graduate “who merits recognition of high academic achievement and who enrolls in a degree program, certificate program, or applied technology program at an eligible Florida public or private postsecondary education institution within three years of graduation from high school” (Bright Futures Scholarship Program web-site, 2002).

For each dollar spent on a Florida lottery ticket, six cents goes to the Bright Futures Scholarship Program. The Department of Education administers the scholarship program, and the Department of Education Bright Futures Scholarship Program office provided the data for this study.

The scholarship program has a three-tier award system based on a student’s high school academic achievement and college entrance tests: Academic, Medallion, and Gold Seal. Students must apply for the program. The Academic Scholarship requires a 3.5 weighted high school GPA, including 15 credits of college preparatory courses. In addition, the student had to serve the community for a minimum of 75 hours, and score a 1270 SAT or 28 ACT. Academic scholarship recipients receive up to four-years tuition at a public institution and \$300 per semester for college-related expenses, and 100% tuition at a private in-state institution that is comparable to a Florida public institution. Recipients have to maintain a 3.0 GPA while in college and enroll at least half-time.

The Medallion Scholarship requires a 3.0 weighted GPA in high school, 15 credits of college preparatory courses, and a score of 970 on the SAT or 20 on the ACT. The Gold Seal Vocational Scholarship requires a 3.0 weighted GPA, 15.5 core credits required for high school graduation, and a 3.5 unweighted GPA in a minimum of 3 vocational credits. In addition, an eligible student must earn a minimum score on each subsection of the CPT, SAT or ACT. For both the Medallion and Gold Seal scholarships,

recipients receive the equivalent of 75% of the cost of tuition and fees at a public postsecondary institution. Recipients of the Medallion or Gold Seal who choose to attend a private institution can receive a fixed award amount based on 75% of the average tuition covered at a comparable public institution.

Bright Futures Scholarship Recipients

The percentage of eligible scholarship recipients enrolling in Florida higher education institutions has been greater than eighty percent for the first six years of the program. In the first year of the Florida Bright Futures Program, 86.8% of the eligible recipients enrolled in higher education (see Table 34). Between 1997 and 2000 the percentage of recipients who accepted the scholarship and enrolled in Florida institutions decreased from 86.8% to 81.9%. However, the number of scholarship recipients enrolled between 1997 and 2000 increased from 23,749 to 32,318.

Table 34

Florida Bright Futures Scholarship Program Recipients

Year	Total Number of			Recipients Enrolled	Percentage of Total Recipients Enrolled
	High School Graduates Eligible	Public High School Graduates Eligible	Private High School Graduates Eligible		
1997	30,512	27,367	3,145	23,749	86.78
1998	30,564	27,618	3,598	25,407	83.13
2000	39,485	33,753	5,732	32,318	81.85
2002	43,308	36,878	6,430	-	-

- Data were unavailable for 2002.

Gender and Ethnicity of Bright Futures Recipients

Cumulative data was provided from the Bright Futures Scholarship Program on eligible and enrolled scholarship recipients' gender and ethnicity. I ran t-tests to determine if there were differences between gender and ethnicity of eligible recipients to enrolled recipients. No significant differences were found.

Over sixty-one percent of the eligible and enrolled scholarship recipients were female. As shown in Table 35, this percentage did not change between 1998 and 2001.

Table 35

Gender of Eligible and Enrolled Bright Future Scholarship Recipients

Year	Percentage of Eligible		Percentage of Enrolled ^a	
	Male	Female	Male	Female
1997	-	-	-	-
1998	38.39	61.61	38.04	61.94
2000	38.40	61.41	38.17	61.72
2001	38.47	61.20	38.51	61.25

- Data were not available. ^a Percentages may not add up 100% because of non-reporting of scholarship recipients.

The percentage of eligible Bright Futures recipients whose ethnicity is White has varied little, ranging from 76.4% in 1998 to 74.2% in 2001 (see Table 36). In 2000, 6.8% of the total number of eligible recipients were Black, and 6.9% of the total number of recipients enrolled were Black. In 1998, 9.9% of the eligible recipients were Hispanic and 10.1% of the enrolled recipients were Hispanic. These percentages increased slightly by 2001. In 2001, 11.1% of the Hispanic graduates were eligible for the scholarships, and 11.3% accepted the scholarship.

Table 36

Ethnicity of Eligible Bright Future Scholarship Recipients

		Percentage by Race ^a				
		White	Black	Hispanic	Asian	Other
1997		-	-	-	-	-
1998						
	Eligible	76.44	6.43	9.94	5.04	2.17
	Enrolled	76.26	6.74	10.11	4.99	1.90
2000						
	Eligible	74.43	6.80	10.76	4.64	3.37
	Enrolled	74.38	6.91	10.91	4.69	3.11
2001						
	Eligible	74.18	6.69	11.13	4.55	3.45
	Enrolled	73.94	6.87	11.34	4.58	3.27

^a Percentages do not total 100 percent due to non-reporting from students. - Data were not available.

The number of eligible public high school students increased from 27,367 in 1997 to 36,878 in 2002 (see Table 37). This translates to 29.6% of the public high school graduating class eligible for the Bright Futures scholarship in 1997 and 32.4% in 2002. The percentage of Gold Seal Scholarship recipients dropped 82.1% from 1997 to 2002. In addition, the percentage of Academic Scholarship eligible recipients dropped 8.5% from 1997 to 2002, while the percentage of Medallion Scholarship eligible recipients increased 61.4%.

Table 37

Florida Public High School Graduates Eligible for Bright Futures Scholarships ^a

Year	Number of	Percentage of			
	Public High School Eligible Students	Eligible Public High School Graduates	Academic Scholarship	Medallion Scholarship	Gold Seal Scholarship
1997	27,367	29.61	29.52	39.47	31.01
1998	27,418	28.85	30.34	59.62	9.86
2000	33,753	32.94	19.50	73.41	7.10
2002	36,878	32.40	20.04	75.84	4.12

^a Data for enrolled scholarship recipients by school district is not available from the Florida Bright Futures Scholarship Program.

The percentage of scholarship recipients coming from private high schools increased 51.2% between 1997 and 2002 (see Table 38). In 1997, 56.7% or 1,784 of the private high school graduates were eligible for the Medallion Scholarship and 43.2% or 1,360 were eligible for the Academic Scholarship. By 2002, the percentage and number of private high school graduates eligible for the Medallion Scholarship increased to 72.7% or 4,675.

Table 38

Florida Private High School Graduates Eligible for Bright Futures Scholarships

Year	Number of Eligible Students	Percentage of			
		Eligible Private High School Graduates	Academic Scholarship	Medallion Scholarship	Gold Seal Scholarship
1997	3,145	-	43.24	56.72	.03
1998	3,598	32.34	32.10	67.87	.03
2000	5,732	44.55	26.69	73.13	.23
2002	6,430	-	27.11	72.71	.19

- Data not available from NCES PPS for the even years.

School District Metropolitan Status of Eligible Bright Futures Recipients

The home locations of eligible scholarship recipients were similar to where the public high school graduates were from for the years of this study. As shown in Table 39, eligible scholarship recipients were primarily from one of the 33 suburban school districts during the past five years of the program. In 1998, 8.0% of the eligible recipients were from rural and 8.4% were from central city school districts. By 2002, eligible recipients from rural and central city school districts changed slightly to 6.3% and 11.0%, respectively.

Table 39

*Eligible Florida Bright Futures Scholarship Recipients by School District
Metropolitan Status ^a*

Year	Percentage of Recipients by School District Metropolitan Status ^b		
	City ^b (n = 4)	Suburban (n = 33)	Rural (n = 31)
1997	-	-	-
1998 ^c	8.36	83.33	8.01
2000	8.44	83.94	7.27
2002	11.01	82.73	6.26

- Data were not available. ^a Data for enrolled scholarship recipients by school districts is not available by the Florida Bright Futures Scholarship Program. ^b 1997 U.S. Census Bureau statistics. ^c Percentages may not add up to 100.00% due to non-reporting by students.

School District Poverty Levels of Eligible Bright Futures Recipients

In 1998, over 87% of the eligible recipients were from one of the 55 medium poverty level school districts (see Table 40). In 2000, the number of school districts within each poverty category shifted causing a big change in the percentage of graduates from medium and low poverty school districts. Over 48% of the eligible recipients were from one of the 49 medium poverty school districts, and 51.6% of the eligible recipients were from one of the 18 low poverty school districts.

Table 40

Eligible Florida Bright Futures Scholarship Recipients by School District Poverty Levels

Year	Percentage of Recipients by School District Poverty Level ^a		
	High ^b	Medium	Low
1997	-	-	-
1998	.01	87.80	10.83
2000 ^c	.00	48.35	51.24
2002	.00	48.34	51.60

- Data were not available.

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 1997 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 7, Medium = 55, and Low = 6.

^c 1999 U.S. Census Bureau statistics. The number of school districts by: High = 1, Medium = 49, and Low = 18.

College Choice

The distribution of scholarship recipients has slightly moved away from two-year public institutions towards public four-year institutions. In 1998, 66.7% or 38,312 of the scholarship recipients chose public four-year institutions (see Table 41). Seventy-one percent of the 38,213 recipients chose one of three universities: University of Florida (38.1%), Florida State University (18.0%), and University of Central Florida (14.6%). By 2001 the percentage of scholarship recipients enrolled in public four-year institutions increased to 71.1% or 71,331. The percentage of recipients attending the three flagship universities decreased to 66.8%: University of Florida (31.1%), Florida State University (17.9%), and University of Central Florida (17.8%).

In 1998, 22.2% or 12,874 of the scholarship recipients chose public two-year institutions. By 2001, 17.9% or 18,027 chose these institutions. Lastly, less than one percent of the scholarship recipients chose private two-year or proprietary institutions.

Table 41

Cumulative Number of Bright Futures Scholarship Recipients Enrolled in Florida Postsecondary Institutions

Year	Cumulative Number Enrolled in College	Percentage of Scholars Enrolled in			
		Public Four-Year	Public Two-Year	Private Four-Year	Private Two-Year
1997	-	-	-	-	-
1998	57,436	66.70	22.24	10.74	.15
1999	73,003	68.92	20.27	10.52	.12
2000	92,202	69.56	19.88	10.31	.10
2001	100,267	71.14	17.88	10.71	.13

- Data were not available.

Missouri

The Missouri Bright Flight Scholarship program was implemented in 1997. The program was created to encourage top-ranked high school seniors to stay in Missouri for their higher education studies. In the first part of this section, I present a demographic profile describing Missouri's high school graduates since 1994, or three years prior to the beginning of the Bright Flight Scholarship program, and through 2001. The demographic information includes number and percentage of graduates by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan statuses, and participation in higher education and college choice. Second, I describe the Bright Flight Scholarship recipients by the number and percentage of eligible and enrolled recipients, and their college choice patterns.

Missouri High School Graduates

Graduation Rates

Missouri's population grew 9.3% between 1990 and 2000, and the percentage of high school graduates grew 13.9% between 1991 and 2001. The number of twelfth graders, and public and non-public high school graduates also increased during this time. As seen in Table 42, the percentage of the graduates by ninth and twelfth grade cohorts decreased between 1994 and 2000. In 2001 the percentage of graduates by ninth and twelfth grade cohorts rose again. The percentage of ninth grade cohort graduating was 73.2% in 1994, 67.2% in 1997, and 72.0% in 2001. In 1994, 92.8% or 46,566 of the public high school twelfth graders graduated. By 2001, the percentage of twelfth graders graduating increased to 93.7% and the number of graduates increased to 54,099.

Table 42

Missouri Public High School Graduates

Year	Number of Public High School		Percentage of Public High School Graduates by		Estimated Non-Public High School Graduates
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	
1994	50,195	46,566	73.21	92.77	5,839
1996	54,488	50,227	67.27	89.29	5,998
1997	55,673	51,921	67.23	90.22	-
1998	56,165	52,354	70.17	92.44	6,214
2000	58,103	54,099	70.26	90.87	6,851
2001	57,727	54,099	71.98	93.72	-

- Data for non-public high school graduates from NCES PPS were not available for odd years.

Graduation Rates by Ethnicity

The number of graduates by each of the five ethnic groups increased between 1996 and 2001 (1994 data were not available). As seen in Table 43, the number and percentage of White public high school graduates was 87.4% or 42,496 and 84.4% or 45,716, respectively. The percentage and number of Black graduates were 11.9% or 5,345 and 12.6% or 6,824 in 1996 and 2001, respectively.

Table 43

Missouri Public High School Graduates by Ethnicity^a

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	87.34	10.99	.97	.18	1.25
1997	86.58	11.60	.96	.21	1.28
1998	85.83	12.02	.03	.23	1.23
2000	84.97	12.77	1.12	.20	1.27
2001	84.42	12.66	1.22	.23	1.57

^a Data for ethnicity of graduates were not available from NCES CCD prior to 1995.

Graduation Rates by Gender

Between 1998 and 2001, the distribution of public high school graduates by gender was 49% male and 51% female (see Table 44).

Table 44

Missouri Public High School Graduates Gender^a

Year	Percentage of Graduates by Gender	
	Male	Female
1998	48.81	51.20
2000	49.03	50.96
2001	49.55	50.45

^a Data were not available from NCES CCD until 1998.

Graduates by School District Metropolitan Status

Missouri has 554 school districts. In 1996, 8.3% of the graduates were from one of the 24 central city school districts in 1996. As shown in Table 45, suburban and rural school districts numbered 124 and 376, and 49.8% and 38.3% of the 1996 graduates were from those school districts, respectively.

In 1998, the school districts were reclassified. Ten were classified as being in central cities, 129 as being in suburban areas, and 385 as being in rural areas. Almost 49% or 25,413 of the public high school graduates were from suburban school districts and 35.2% or 18,293 graduates were from rural school districts. A few school districts were again reclassified in 2000. The 12 central city school districts graduated 8,563 or 16.2%, and the 138 suburban school districts graduated 26,118 or 49.5%.

Table 45

Missouri Public High School Graduates by School District Metropolitan Status^{a,b}

Year	Percentage of Graduates by Metro Status		
	City	Suburban	Rural
1996 ^b	22.33	39.60	38.07
1998 ^c	15.82	48.95	35.23
2000 ^d	16.22	49.47	34.31

^a Data for public high school graduates by school districts were not available until 1995.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1995. Number of school districts by Metro Status: City = 24, Suburban = 124, and Rural = 376.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1997. Number of school districts by Metro Status: City = 10, Suburban = 129, and Rural = 385.

^d Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1999. Number of school districts by Metro Status: City = 12, Suburban = 138, and Rural = 374.

Graduates by School District Poverty Level

In 1995, the poverty level for Missouri people under age 18 was 19.8%. By 1999, this percentage dropped to 16.7%. The school district poverty levels for people under age 18 were categorized as medium poverty for this study.

In 1996, 49.8% of the graduates were from one of the 175 low poverty school districts (see Table 46). Sixty-four school districts were located in high poverty areas, and 10.7% of the public high school graduated from those school districts. In 1998, the number of high and low poverty school districts decreased. The percentage of graduates from the 33 high poverty school districts was 5.2%; 52.7% or 27,352 of the public high school graduates resided from the 158 low poverty school districts. In 2000 the number of high and medium poverty level school districts decreased while the number of low poverty districts increased to 183. The percentage and number of graduates from the low poverty school districts increased to 55.0% or 29,061.

Table 46

Missouri Public High School Graduates by School District Poverty Level ^a

Year	Percentage of Graduates by Poverty Level		
	High	Medium	Low
1996 ^b	10.69	35.03	49.82
1998 ^c	5.23	42.09	52.68
2000 ^d	5.31	39.65	55.04

^a Data for public high school graduates by school districts was not available until 1995.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995. The number of school districts by poverty level: High = 64, Medium = 285, and Low = 175.

^d Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997. The number of school districts by poverty level: High = 33, Medium = 333, and Low = 158.

^e Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1999. The number of school districts by poverty level: High = 32, Medium = 309, and Low = 183.

College-Going High School Graduates

Missouri students scored higher than the national averages for both the ACT and SAT between the years, 1994 and 2002. In 1994, the national ACT mean was 20.8 and Missouri students' ACT mean score was 21.2. As shown in Table 47, Missouri students' ACT mean score stayed above 21.5 from 1997 to 2000. As for the SAT, Missouri students scored at least 100 points above the national composite mean score. In 1994, Missouri students scored a mean score of 1114 on their SAT. By 2002, Missouri students raised their composite mean score to 1154.

Table 47

College Preparation Test Scores for Missouri Students

Year	ACT Mean	SAT Composite Mean
1994	21.2	1114
1996	21.4	1139
1997	21.5	1135
1998	21.5	1143
2000	21.6	1149
2001	21.4	1154

Between 1994 and 2000, Missouri experienced an 18.7% increase in the number of first-time Missouri freshmen attending higher education within 12 months of high school graduation (see Table 48 or Figure 8). The year before the Bright Flight Scholarship was implemented, 50.2% or 27,517 high school graduates went on to attend college. By 2000, 54.7% or 32,646 high school graduates attended college. Even though the number of Missouri high school graduates attending college increased, the distribution of students attending in-state or out-of-state institutions changed little between 1994 and 2000. In 1994, 18.0% or 4,773 of the first-time Missouri freshmen

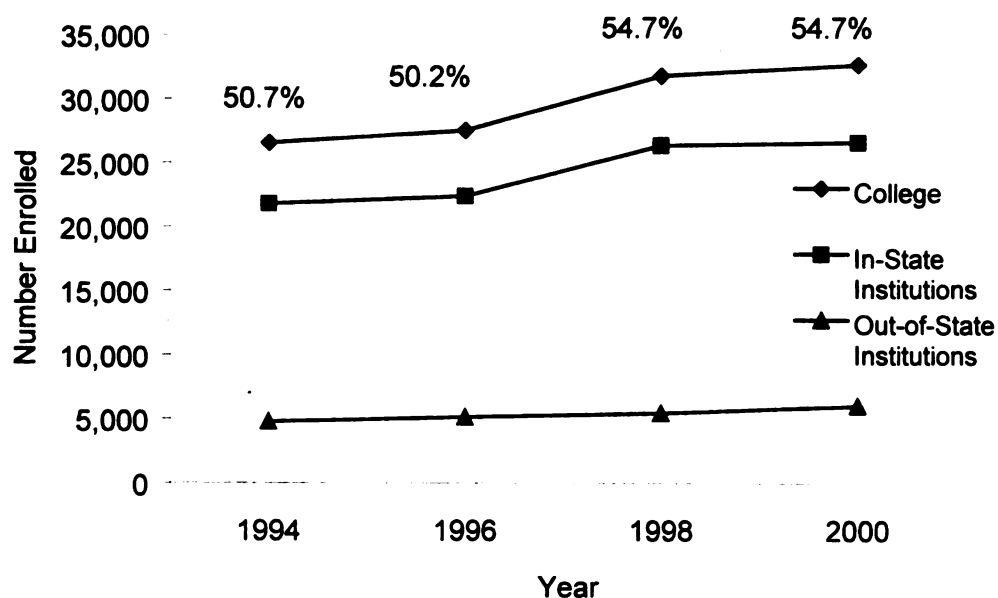
chose to leave the state for higher education. By 2000, 18.5% or 6,035 of the first-time freshmen attended out-of-state institutions.

Table 48

Missouri High School Graduates Attending College

Year	Number of		Percentage of Graduates Attending		
	Total Estimated High School Graduates	Graduates Attending College	Higher Education Institutions	In-State Institutions	Out-of-State Institutions
1994	52,405	26,549	50.66	82.02	17.98
1996	54,868	27,517	50.15	81.35	18.65
1997	-	-	-	-	-
1998	58,135	31,802	54.70	82.89	17.11
2000	59,647	32,646	54.73	81.51	18.49

Figure 8. Missouri high school graduates attending college.



College Choice

During the years 1994 to 2000, all of Missouri's higher education institutions experienced an increase in Missouri first-time freshmen enrollment. As seen in Table 49 and Figure 9, the college choice patterns for first-time Missouri freshmen changed over the seven years.

In 1994, public four-year institutions enrolled 12,167 or 55.9% of Missouri's first-time freshmen. By 2000, the percentage of freshmen attending public four-year institutions decreased to 47.7% even though the number slightly increased to 12,698. In 1994, of the 12,167 first-time freshmen choosing public four-year institutions, 42.6% decided to attend the University of Missouri-Columbia (22.5%) or Southwest Missouri State (20.1%). By 2000, 24.6% chose the University of Missouri-Columbia and 16.7% chose Southwest Missouri State.

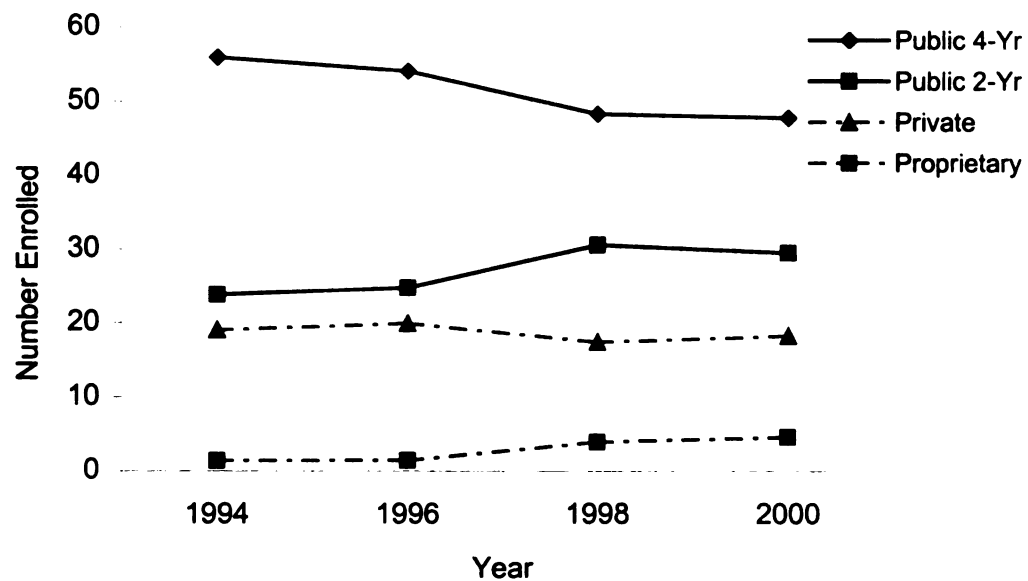
Public two-year and proprietary institutions experienced the largest percentage increase. First-time freshmen attending public two-year institutions in 1994 and 2000 were 23.8% or 5,175 and 29.5% or 7,847, respectively. As for enrollment in proprietary institutions, 299 or 1.4% of first-time freshmen enrolled in proprietary institutions in 1994. By 2000, 1,221 or 4.6% of the freshmen enrolled in proprietary institutions.

Table 49

Missouri First-time Freshmen In-State College Choice Patterns

Year	Number Attending	Percent of Graduates Attending Missouri			
		Public Four-Year Institutions	Public Two-Year Institutions	Private Institutions	Proprietary Institutions
1994	21,776	55.87	23.76	18.99	1.37
1996	22,386	54.00	24.70	19.88	1.42
1997	-	-	-	-	-
1998	26,361	48.22	30.51	17.36	3.91
2000	26,611	47.72	29.49	18.21	4.59

- Data were not available for odd years from NCES IPEDS

Figure 9. Missouri first-time freshmen in-state college choice patterns.*Missouri Bright Flight Scholarship Program*

The Missouri Bright Flight Scholarship Program was implemented in 1997, encouraging top-ranked high school seniors to stay in-state for their higher education

studies. Scholarship recipients receive \$2,000 per year for up to four years to complete their degree. A student has to have a SAT or ACT composite score in the top three percentile of all Missouri students to be eligible for the scholarship.

Bright Flight Scholarship Recipients

In 1998 and 2000, 12.9% and 13.6% of Missouri high school graduates accepted the scholarship and enrolled in Missouri higher education institutions. As shown in Table 50, these percentages translate to 7,522 and 8,104 scholarship recipients. The ratio of scholarship recipients to Missouri first-time freshmen was almost one to three, or 28.5% in 1998 and 30.5% in 2000.

Table 50

Missouri Bright Flight Scholarship Recipients to Missouri First-Time Freshmen

Year	Number of Scholarship Recipients Enrolled	Total Estimated Number of High School Graduates	Percentage of Scholarship Recipients to High School Graduates	Number of Missouri Graduates Attending Missouri Institutions	Percentage of Scholarship Recipients to Missouri First-Time Freshmen
1997	6,855	-	-	-	-
1998	7,522	58,135	12.94	26,361	28.53
2000	8,104	59,647	13.59	26,611	30.45

- Data were not available from NCES IPEDS.

College Choice

Since the start of the program, Bright Flight Scholarship recipients have overwhelmingly chosen to attend four-year public institutions. As shown in Table 51 and Figure 10, 77.7% or 5,326 of the 1997 scholarship recipients chose to attend public four-year institutions. Forty-percent or 2,152 of the scholarship recipients chose to attend the University of Missouri-Columbia. In 2002, 77.6% or 6,395 of recipients chose to attend

public four-year institutions. Thirty-nine percent or 2,552 of the scholarship recipients chose to attend the University of Missouri-Columbia.

Private four-year institutions were the next choice of recipients. In 1997 and 2002, 20.5% or 1,402 and 20.4% or 1,678 chose private four-year institutions, respectively.

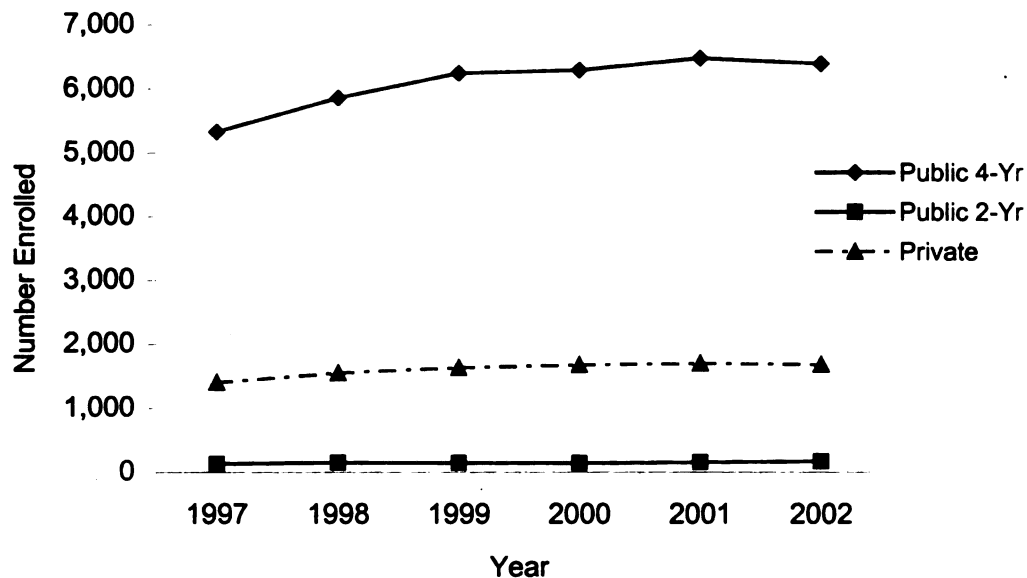
Table 51

Cumulative Bright Flight Scholarship Recipients Enrolled in Missouri Higher Education Institutions ^a

Year	Percentage of Scholars Enrolled in			
	Public Four-Year Institutions	Public Two-Year Institutions	Public Technical Institutions	Private Four-Year Institutions
1997	77.67	1.85	.03	20.45
1998	77.56	1.96	.01	20.47
1999	77.86	1.80	.01	20.33
2000	77.65	1.72	.01	20.62
2001	77.78	1.85	.02	20.34
2002	77.62	2.00	.01	20.37

^a Data provided by Missouri Department of Higher Education.

Figure 10 . Cumulative number of Missouri scholarship recipients enrolled in Missouri higher education institutions.



New Mexico

The New Mexico Lottery Success Scholarship was implemented in 1998. The scholarship was created by the New Mexico Legislature as a means of providing high school graduates with a level of financial support needed to continue education at the college level.

In the first part of this section I provide a demographic profile of the New Mexico high school graduates since 1996, or three years prior to the beginning of the New Mexico Lottery Success Scholarship program, through 2000. The demographic information includes numbers and percentage of graduates by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan statuses, and

participation in higher education and college choice. Second, I describe the percentage and number of New Mexico Lottery Success Scholarship recipients by enrollment, ethnicity, county poverty and metropolitan status, and college choice.

New Mexico High School Graduates

Graduation Rates

Between 1990 and 2000 New Mexico's population grew 20.1%, while the percentage public high school graduates increased 17.2%. Between 1994 and 2000 the number of graduates by ninth and twelfth grade cohorts rose; however, the percentage decreased. As seen in Table 52, 75.0% or 14,892 of the ninth grade cohort graduated in 1994. By 2000, 63.3% or 18,303 of the ninth grade cohort graduated from public high school. Yet, the percentage of twelfth graders graduating increased from 88.8% in 1994 to 96.6% in 2000. Lastly, the number of non-public high school graduates dropped from 1,029 in 1994 to 840 in 1998, the first-year of the scholarship program, but then increased to 1,361 in 2000.

Table 52

New Mexico High School Graduates

Year	Number of Public High School		Percentage of Public High School Graduates by		Estimated Non-Public High School Graduates
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth	
				Grade Enrollment	
1994	16,767	14,892	74.97	88.82	1,029
1996	17,078	15,402	70.32	90.19	1,057
1998	18,080	16,529	63.33	91.42	840
2000	18,941	18,303	63.34	96.63	1,361

Graduation Rates by Ethnicity

Between 1996 and 2000 the number of New Mexico public high school graduates by the five ethnic groups increased. In addition, the percentage distribution among the five ethnic groups stayed fairly consistent (see Table 53). The 1996 high school graduating class consisted of 7,031 White, 40.4% Hispanic, and 1,524 Native American students. In 2000, the distribution of the graduating class was 8,018 White, 7,704 Hispanic, and 1,940 Native American.

Table 53

New Mexico Public High School Graduates by Ethnicity^a

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	45.65	2.55	40.35	10.30	1.55
1998	43.98	2.14	42.85	9.65	1.38
2000	43.84	2.30	42.12	10.61	1.14

^aData were not available prior to 1995 on ethnicity of graduates from NCES CCD.

Graduation Rates by Gender

In 1998 and 2000, the gender of New Mexico graduates was over fifty percent female (see Table 54). The number of female graduates was 8,579 and 9,336 in 1998 and 2000, respectively.

Table 54

New Mexico Public High School Graduates by Gender^a

Year	Percentage of Graduates by Gender	
	Male	Female
1998	48.10	51.90
2000	48.96	51.04

^aData were not available for the years, 1994 to 1997, from NCES CCD.

Graduates by County Metropolitan Status

New Mexico has 33 counties. New Mexico counties were used rather than school districts to describe the home location of high school graduates because Lottery Success Scholarship recipient data were provided by county. Two New Mexico counties were considered central city, four as suburban, and 27 as rural. The distribution of high school graduates across the three types of metropolitan areas stayed fairly consistent over the five years of this study (see Table 55). In 1996, 51.2% or 8,033 of the public high school graduating class were from rural counties, and 32.2% or 5,052 were from one of the two central city counties. By 2000, the percent of public high school graduates from central city counties decreased to 29.4%, while the percent of graduates from suburban counties increased to 20.0%.

Table 55

New Mexico Public High School Graduates by County Metropolitan Status^{a, b}

Year	Percentage of Graduates by County Metro Status		
	City (n = 2)	Suburban (n = 4)	Rural (n = 27)
1996	32.18	16.66	51.16
1998	34.72	16.39	48.89
2000	29.39	19.95	50.66

^a There were between 1 to 4 school districts within each of the 33 counties. The Mode was used if there were more than two school districts within the county. ^b Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997 and 1999.

Graduates by School District Poverty Level

The percentage of New Mexicans under age 18 in poverty was 32.7% in 1995, 27.5% in 1997 and 26.4% in 1999. Within the three broad categories of poverty

established for this study, the 1995 percentage fell into the high poverty level, and the 1997 and 1999 percentages fell within the medium poverty level category.

As seen in Table 56, 21 counties were established as having high poverty, while 12 were established as having medium poverty in 1995. The percentage of high school graduates from either high or medium poverty counties were 51.2% and 48.8%, respectively. In 1997, two of the medium poverty counties were reestablished as low poverty counties. In 1998, 7.3% or 1,205 of the public high school graduates were from one of those two counties. One low poverty county was located in an suburban area and the other was located in a central city. In addition, 62.0% or 10,249 of the 1998 public high school graduating class resided from one of the 15 medium poverty level counties.

Using the 1999 U.S. Census statistics for the 2000 graduating class, there was another slight shift in poverty levels for six counties. Only one county, Los Alamos, was established as low poverty and 289 public high school graduates were from Los Alamos. Only 10 counties were considered having high poverty, and those counties graduated 3,896 or 21.3% of the 2000 class. Lastly, 22 of the counties were established as having medium poverty levels and over 77.1% of the New Mexico graduating class were from those counties.

Table 56

New Mexico Public High School Graduates by County Poverty Levels^{a, b}

Year	Percentage of Graduates by County Poverty Level		
	High	Medium	Low
1996 ^c	51.20	48.80	0.00
1998^d	30.70	62.01	7.29
2000 ^e	21.30	77.12	1.58

^a There are between 1 to 4 school districts within the 33 counties so the poverty levels may not reflect accurately upon the individual school district. If there were two or more districts within a county, the Mean was used for the poverty level.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^c 1995 U.S. Census Bureau statistics. The number of counties by poverty level were: High = 21, Medium = 12, and Low = 0.

^d 1997 U.S. Census Bureau statistics. The number of counties by poverty level were: High = 15, Medium = 16, and Low = 2.

^e 1999 U.S. Census Bureau statistics. The number of counties by poverty level were: High = 10, Medium = 22, and Low = 1.

College-Going High School Graduates

Since 1994, New Mexico students preparing for college have consistently scored lower on their ACT than the national mean while scoring higher on the SAT than the national composite mean. In 1994, New Mexico students averaged a 20.0 ACT, while the national mean was 20.8 (see Table 57). In 2000, New Mexico students averaged a 20.1 on the ACT while the national mean was a 21.0. In comparison, New Mexico students' SAT composite means were 1096 in 1994 and 1094 in 2000, while the SAT national composite means were 1003 and 1019, respectively.

Table 57

New Mexico College Preparation Test Scores

Year	ACT Mean	SAT Composite Mean
1994	20.0	1096
1996	20.2	1102
1998	20.1	1105
2000	20.1	1092

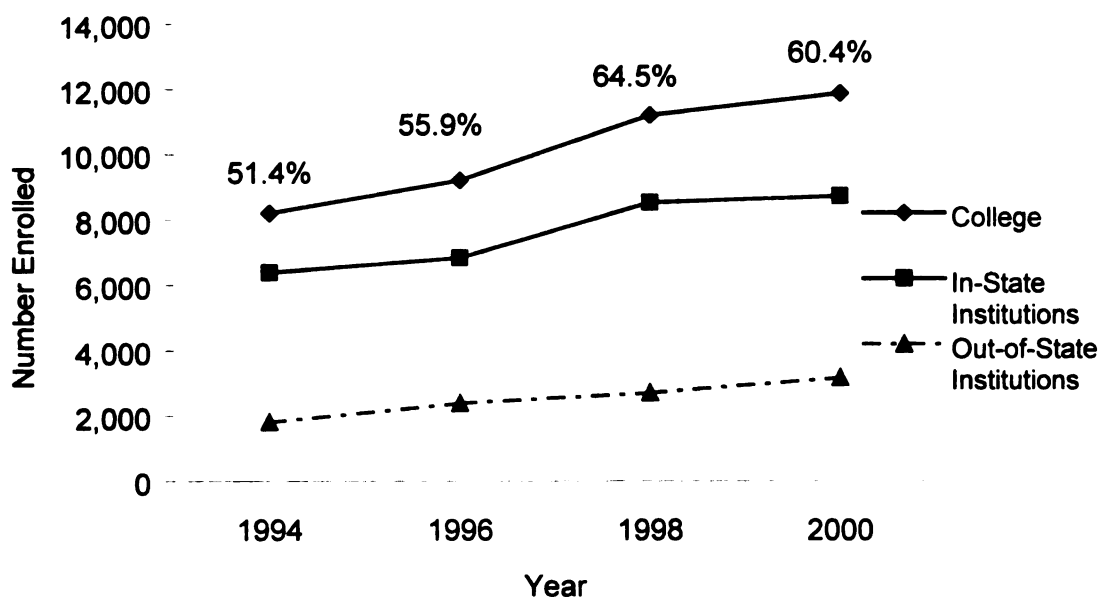
New Mexico high school graduates attending college increased from 51.4% or 8,185 in 1994 to 60.4% or 11,872 in 2000 (see Table 58 and Figure 11). In 1994, 77.9% or 6,376 of the graduates stayed in-state for college. The number of graduates attending in-state institutions continued to increase despite the percentages decreasing from 75.0% in 1998 to 73.4% in 2000. In addition, the number of graduates leaving New Mexico for college increased from 1,809 in 1994 to 2,690 in 1998 and then, 3,157 in 2000.

Table 58

New Mexico High School Graduates Attending Higher Education

Year	Number of		Percentage of Graduates Attending		
	Estimated High School Graduates	Graduates Attending College	Higher Education	In-State Colleges	Out-of-State Colleges
1994	15,921	8,185	51.41	77.90	22.10
1996	16,459	9,195	55.87	74.16	25.84
1998	17,369	11,201	64.49	75.98	24.02
2000	19,652	11,872	60.41	73.41	26.59

Figure 11. New Mexico high school graduates attending higher education.



College Choice

In 1994, over 54% of the 6,376 first-time New Mexico freshmen chose to attend public four-year institutions, but two years later, 48.4% of the freshmen chose to attend one of the six public four-year institutions. In 1994, 73.8% of the freshmen enrolled in public four-year institutions, 38.3% chose the University of New Mexico and 35.5% chose New Mexico State University. First-time freshmen choosing the University of New Mexico (48.4%) and New Mexico State University (31.2%) increased in 2000 to 79.6%.

As seen in Table 59 and Figure 12, 3,367 or 49.4% of the 1996 freshmen chose two-year public institutions. In 1998, the year the Lottery Scholarship was implemented, New Mexico higher education institutions experienced a 19.9% increase in first-time freshmen. A higher percentage chose public four-year over two-year institutions. By 2000, the number of freshmen enrolling in New Mexico institutions continued to

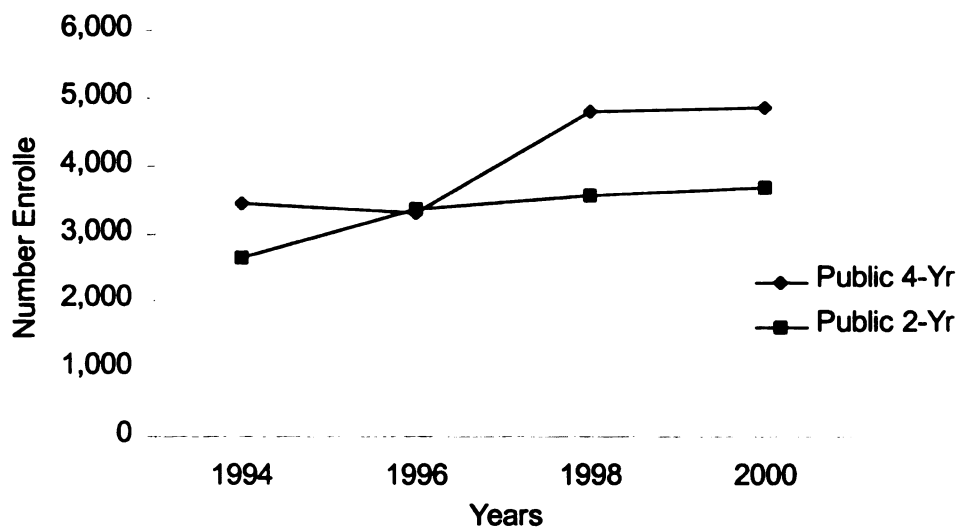
increase, and both public four- and two-year institutions continued experiencing enrollment increases.

Table 59

New Mexico First-time Freshmen In-State College Choice Patterns

Year	Number	Percentage of First-Time Freshmen Attending New			
	Attending	Mexico			
	New	Public Four-	Public Two-	Private	Proprietary
	Mexico	Year	Year	Institutions	Institutions
	Institutions	Institutions	Institutions		
1994	6,376	54.16	41.53	1.07	3.25
1996	6,819	48.42	49.38	.72	1.48
1998	8,511	56.22	41.70	1.20	.88
2000	8,715	55.56	42.02	.68	1.73

Figure 12. New Mexico first-time freshmen in-state college choice patterns.



New Mexico Lottery Success Scholarship

The New Mexico Lottery Success Scholarship was implemented in 1998 as a means of providing New Mexico high school graduates with a level of financial support

needed to continue their education at the college level. The funding for the scholarship comes from the New Mexico lottery, which was created in 1995 to aid pre-school through higher education institutions and students. All New Mexico students who are residents are eligible for the scholarship after graduation. The scholarship pays for tuition at New Mexico public higher education institutions, and is disbursed when a student enrolls in their second semester of college. To be eligible for the scholarship, a student has to obtain a 2.5 GPA in their first-semester of college. Scholarship recipients must maintain a 2.5 GPA and enroll full-time throughout their degree program

Public higher education institutions offer tuition scholarships to students for their first semester of college as a bridge to the Lottery Success Scholarship. A New Mexico high school graduate may be eligible for the one-semester Opportunity Scholarship if he or she has achieved a 3.0 or higher high school GPA, and at specified higher education institutions he or she must have scored a certain ACT/SAT score.

Lottery Success Scholarship Recipients and College Choice

In the first year of the program, 5,472 students received the Lottery Success Scholarship after successfully receiving a 2.5 GPA in their first semester of college. As seen in Table 60, the cumulative number of scholarship recipients by 2002 were 12,739.

Table 60

New Mexico Lottery Success Scholarship Recipients

Year	Number of Lottery Scholars
1998	5,452
1999	8,876
2000	11,793
2001	11,767
2002	12,739

In 1998, 71.9% of the 5,472 scholarship recipients enrolled in four-year institutions. Of the 3,618 recipients, 45.6% or 1,650 enrolled in the University of New Mexico and 35.4% or 1,279 enrolled in New Mexico State University. By 2002, 79.9% of the cumulative number of scholarship recipients were enrolled in four-year institutions. Of the 10,161 cumulative recipients enrolled in four-year institutions, 39.8% or 5,067 enrolled in the University of New Mexico and 27.6% or 3,511 enrolled in New Mexico State University.

Over twenty-eight percent of the scholarship recipients chose to attend two-year institutions in 1998. By 2002, this percentage decreased to 20.2% or 2,578 of the cumulative total of scholarship recipients (see Table 61 or Figure 12).

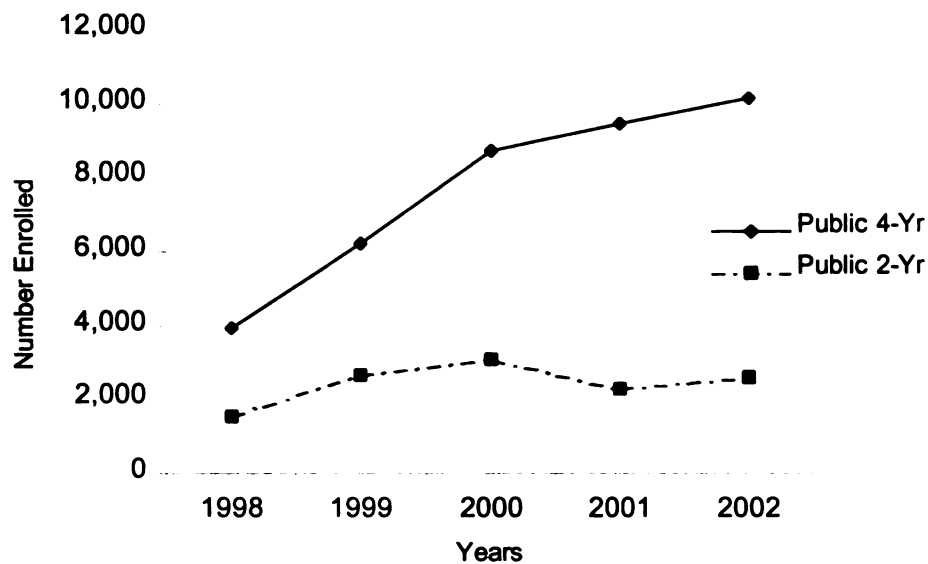
Table 61

Cumulative Percentage of Lottery Success Scholarship Recipients Enrolled in New Mexico Public Higher Education Institutions^a

Year	Percentage of Scholars Enrolled in			
	University of New Mexico	New Mexico State University	Other Public 4-Year Institutions	Public Two- Year Institutions
1998	23.46	30.26	18.21	28.06
1999	25.06	32.80	12.28	29.87
2000	25.96	35.31	12.57	26.17
2001	27.32	40.51	12.54	19.62
2002	27.56	39.78	12.43	20.24

^a Recipient enrollment is reported on an individual basis, by year and institution. Possible discrepancies may have occurred because a recipient may have enrolled in two institutions simultaneously or transferred within the year.

Figure 13. Cumulative number of Lottery Success Scholarship recipients enrolled in New Mexico public higher education institutions.



Scholars by Ethnicity

As shown in Table 62, the percentage of the cumulative Lottery Success Scholarship recipients by ethnicity changed little since 1998. In the first year of the program the recipients were 50.9% White, 39.4% Hispanic, and 4.4% Native American. By 2002, 40.5% were White, 29.7% were Hispanic, and 3.6% were Native American. It is important to note that in 2002, approximately 12.0% of the scholarship recipients failed to report their ethnicity.

Table 62

New Mexico Lottery Success Scholarship Recipients by Ethnicity

<i>Year</i>	Percentage of					
	White	Black	Hispanic	Native American	Asian	Not Reported
1998	50.92	1.44	39.44	4.38	2.28	1.54
2000	50.80	1.42	39.52	4.37	2.47	1.42
2002	40.54	1.54	39.74	3.60	2.46	12.11

Scholar Recipients' Home County by Metropolitan Status

In the first year of the program, 44.1% or 1,932 scholarship recipients were from rural counties (see Table 63). By 2002, the cumulative percentage of rural scholarship recipients dropped to 38.3% or 4,861 of the 12,681 recipients. The cumulative percentage of recipients from central city or suburban counties rose to 38.6% and 21.4%, respectively, in 2002.

Table 63

New Mexico Lottery Success Scholarship Recipients by County Metropolitan Status^{a, b, c}

<i>Year</i>	Percentage of Recipients by County Metro Status		
	City (n = 2)	Suburban (n = 4)	Rural (n = 27)
1998	35.69	19.38	44.10
2000	35.82	20.33	42.98
2002	38.64	21.41	38.34

^a Metro Status Codes were obtained from NCES CCD. ^b Percentages may not add up to 100.00% due to non-reporting by students. ^c There were between 1 to 4 school districts within each of the 33 counties. The Mode was used if there were more than two school districts within the county.

Poverty Levels for Scholars by County

In 1998, 10.0% or 504 of the scholarship recipients were from one of two low poverty counties, Los Alamos or Santa Fe. In 2000, Los Alamos was the only low

poverty county, and the cumulative number of scholarship recipients were 228. The majority of the scholarship recipients were from counties with medium poverty levels (see Table 64). Sixteen counties in 1998 were established as having between 15-29 percent poverty for people under 18 years of age, and 3,425 recipients were from those counties. By 2002, 22 counties were established as having medium poverty, and the cumulative total of scholarship recipients from those 22 counties were 9,986 or 78.8%. Lastly, the percentage of recipients from the ten high poverty counties in 2002 was 17.6% totaling 2,436 Scholars.

Table 64

New Mexico Lottery Success Scholarship Recipients by County Poverty Levels^{a, b}

	Percentage of Recipients by County Poverty Level		
	High	Medium	Low
1998^c	25.92	63.27	9.98
2000 ^d	17.58	79.60	1.95
2002	17.58	78.77	2.04

^a There were between 1 to 4 school districts within the 33 counties so the poverty levels may not reflect accurately upon the individual school district. If there were two or more districts within a county, the Mean was used for the poverty level.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^c 1997 U.S. Census Poverty Levels. The number of counties by poverty level: High = 15, Medium = 16, and Low = 2.

^d 1999 U.S. Census Poverty Levels. The number of counties by poverty level: High = 10, Medium = 22, and Low = 1.

South Carolina

The South Carolina General Assembly implemented the Legislative Incentives for Future Excellence (LIFE) Scholarship Program in 1998. The LIFE Scholarship is to increase access to higher education; provide incentives to students to be better prepared

for college; to encourage students to graduate from college on time; and improve employability of South Carolina graduates.

In the first part of this section, I provide a demographic profile of the South Carolina high school graduate population before and after program implementation, starting in 1994 through 2000. The demographic information includes number and percentages of high school graduates by ninth and twelfth grade cohort, home county poverty levels and metropolitan statuses, and participation in higher education and college choice. South Carolina did not disclose public high school graduate data by gender or ethnicity for the years of this study. Second, I present a demographic profile of South Carolina LIFE Scholarship recipients, including eligible and enrolled recipients by ethnicity, school district metropolitan status and poverty levels, and college choice.

South Carolina High School Graduates

Graduation Rates

South Carolina's population grew 15.1% between 1990 and 2000. Between 1994 and 2000, public high school graduates increased 3.7%, from 30,603 to 31,617. Despite the small increase in the number of high school graduates, the percentage of graduates by ninth and twelfth grade cohorts decreased during the same time period (see Table 65). In 1994, 57.5% or 30,603 of the ninth grade cohort graduated from public high schools. By 2000, the percentage dropped to 51.0%. Lastly, the estimated number of non-public high school graduates increased from 2,383 in 1994 to 2,915 in 2000.

Table 65

South Carolina High School Graduates

Year	Number of Public High School		Percentage of Public High School Graduates by		Estimated
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	Non-Public High School Graduates
1994	33,949	30,603	57.48	90.14	2,383
1996	34,800	30,313	54.37	87.11	2,448
1998	36,576	31,951	53.20	87.36	2,418
2000	36,471	31,617	51.03	86.69	2,915

Home County Metropolitan Status of Graduates

South Carolina has 88 public school districts located in the 46 counties. Counties were used to describe the home location of high school graduates because the LIFE Scholarship recipient data provided were by county of origin. The percentage of high school graduates from the 29 rural counties was consistent between 1996 and 2000. In 1996, 35.3% or 9,579 and in 2000, 29.4% or 9,279 graduates were from rural school districts. In 1996, 16 counties were classified as suburban areas and one county was classified as a central city. Shown in Table 66, high school graduates from suburban and central city counties were 60.3% and 8.7%, respectively. Then in 1998, one suburban county was reclassified as a central city area. The two central city counties graduated 9.3% and 11.9% in 1998 and 2000, respectively. Once again, the majority of the high school graduates were from suburban counties, 54.4% in 1998 and 58.8% in 2000.

Table 66

South Carolina Public High School Graduates by County Metropolitan Status ^a

Year	Percentage of Graduates by Metro Status		
	City	Suburban	Rural
1996 ^b	8.67	60.26	31.07
1998	9.26	54.40	35.34
2000 ^c	11.90	58.76	29.35

^a Data on public high school graduates by school district were not available until 1995 from NCES CCD. There were between 1 to 78 school districts within each of the 46 counties. The Mode of the Metropolitan statuses was used if there were more than two school districts within the county.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995 and 1997. The number of school districts by metro status: City = 1, Suburban = 16, and Rural = 29.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1999. The number of school districts by metro status: City = 2, Suburban = 15, and Rural = 29.

Graduates by Home County Poverty Level

South Carolina's poverty level for people under 18 years of age was 26.1% in 1995, 25.6% in 1997, and 20.6% in 1999. For this study, these three poverty level percentages were classified as medium (15-29%). In 1996, 15 of the 46 counties were located in medium poverty areas, and 64.0% or 19,726 of the public high school graduates were from those medium poverty counties (see Table 67). Even though the number of medium poverty school districts increased to 35 by 2000, the percentage and number of graduates dropped to 54.2% or 17,140. The number of low poverty level counties increased from three in 1996 to nine in 2000. Public high school graduates from these counties were 20.7% or 4,724 in 1996 to 44.7% or 14,123 in 2000. Lastly, the number of school districts located in high poverty areas decreased from 15 in 1996 to two in 2000. In 2000, 353 public high school graduates from these districts.

Table 67

South Carolina Public High School Graduates by County Poverty Levels^{a, b}

Year	Percentage of Graduates by Poverty Level		
	High	Medium	Low
1996 ^c	15.32	63.99	20.69
1998^d	11.25	66.46	22.28
2000 ^e	1.12	54.21	44.67

^a There are between 1 to 8 school districts within the 46 counties so the poverty levels may not reflect accurately upon the individual school district. If there were two or more districts within a county, the Mean was used for the poverty level.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau. Data were not available from NCES CCD for school districts until 1995. Poverty levels for this study were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^c 1995 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 15, Medium = 28, and Low = 3.

^d 1997 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 6, Medium = 37, and Low = 3.

^e 1999 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 2, Medium = 35, and Low = 9.

College-Going High School Graduates

The ACT and SAT mean scores for South Carolina students were below the national mean scores throughout the seven years examined in this study. As shown in Table 68, South Carolina students scored a mean 19.1 on the ACT, 1.7 below the national ACT mean. Again in 2000, South Carolina students scored 1.7 below the national ACT mean of 21.0. South Carolina students scored 57 points below the national SAT composite mean in 1994. By 2000, the students narrowed the SAT composite mean difference to 43 points.

Table 68

South Carolina College Preparation Test Scores

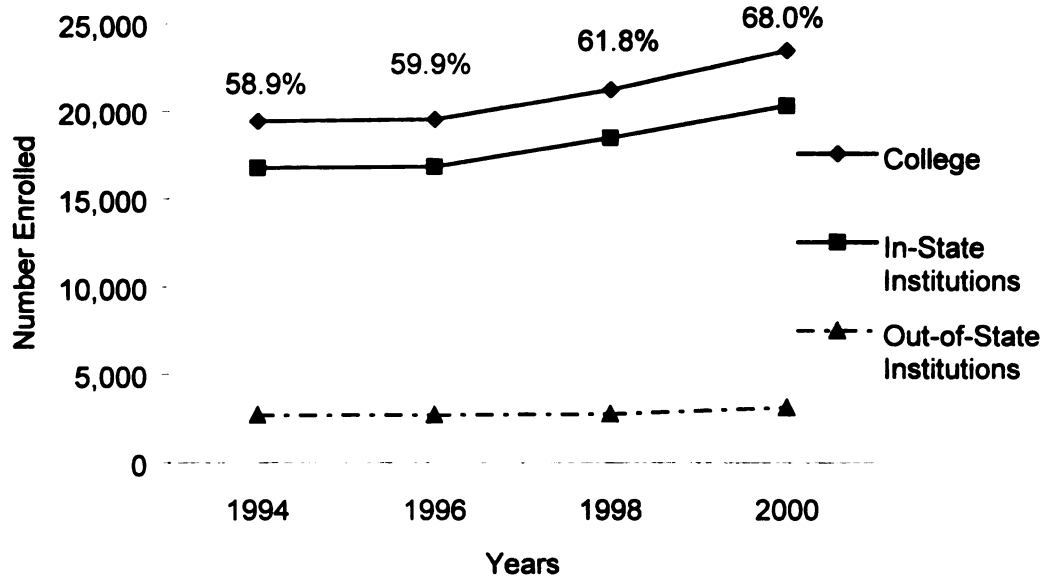
Year	ACT Mean	SAT Composite Mean
1994	19.1	946
1996	19.1	954
1998	19.0	951
2000	19.3	976

The percentage of high school graduates attending college increased 17.2% between 1994 and 2000, although the percentage of public high school graduates increased only 3.7% during the same time period. The number and percentage of South Carolina high school graduates attending college within 12 months upon high school graduation increased from 19,433 or 58.9% to 23,482 or 68.0% (see Table 69 and Figure 14). In 1994, 86.2% or 16,758 high school graduates chose to attend in-state higher education institutions. By 2000, this number increased slightly to 20,356 or 86.7%. The percentage of high school graduates leaving South Carolina for college decreased slightly over the seven years; however, the number increased from 2,675 in 1994 to 3,126 in 2000.

Table 69

South Carolina High School Graduates Attending College

Year	Number of Graduates		Percentage of Graduates Attending		
	Estimated Public & Private High School	Attending College	College	In-State Colleges	Out-of- State Colleges
1994	32,986	19,433	58.91	86.23	13.77
1996	32,630	19,546	59.90	86.22	13.78
1998	34,369	21,253	61.84	87.01	12.99
2000	34,532	23,482	68.00	86.69	13.31

Figure 14. South Carolina high school graduates attending college.*College Choice*

The percentage of South Carolina first-time freshmen attending in-state institutions increased 17.7% between 1994 and 2000. As shown in Table 70 and Figure

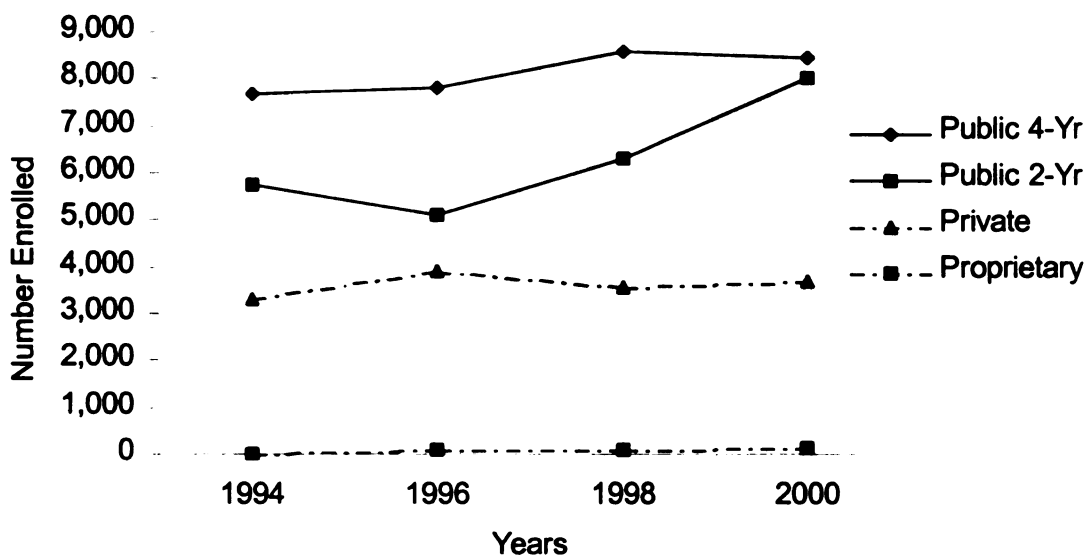
15, their college choice patterns shifted over the seven years of this study. In 1994, 45.9% or 7,684 of South Carolina's first-time freshmen chose public four-institutions. Of the 7,684 first-time freshmen choosing public four-year institutions, 21.9% chose University of South Carolina at Aiken and 20.1% chose Clemson University. The highest enrollment for public four-year institutions was in 1998 when 46.3% or 8,566 first-time freshmen enrolled in public four-year institutions. In 2000, the enrollment in the public four-year institutions decreased to 41.5% or 8,454. However, University of South Carolina at Aiken and Clemson University experienced slight increases in enrollment, 21.5% and 23.1%, respectively

In 1996, public two-year and private institutions experienced a switch in enrollment numbers and percentages. Except for 1996, public two-year institutions experienced an increase in enrollments from 5,753 or 34.3% in 1994 to 8,011 or 39.4%. Between 1996 and 1996, private institutions experienced an increase from 3,321 to 3,893, respectively. By 2000, first-time freshmen enrollment in private institutions decreased to 3,666.

Table 70

South Carolina First-Time Freshmen In-State College Going Patterns

Year	Number of Graduates Attending College in South Carolina	Percentage of Graduates Attending South Carolina			
		Public Four- Year Institutions	Public Two- Year Institutions	Private Institutions	Proprietary Institutions
1994	16,758	45.85	34.33	19.82	.00
1996	16,852	46.27	30.17	23.10	.46
1998	18,493	46.32	34.05	19.25	.36
2000	20,356	41.53	39.35	18.01	1.11

Figure 15. South Carolina first-time freshmen in-state college choice patterns.*South Carolina LIFE Scholarship Program*

In 1998, the South Carolina General Assembly passed ACT 418, creating the Legislative Incentives for Future Excellence (LIFE) Scholarship Program. The LIFE Scholarship Program goals are to provide incentives to students to be better prepared for

college; increase access to higher education; encourage students to graduate from college on time; and improve employability of South Carolina students.

To qualify for the LIFE Scholarship, a high school graduate must meet two of three requirements: a) earn a 3.0 cumulative GPA on a 4.0 scale, b) score a 24 on the ACT or 1100 on the SAT, and/or c) rank in the top thirty percent of their graduating class. All scholarship recipients receive a \$300 book allowance. Recipients can use the scholarship at approved South Carolina institutions, and scholarship funding by institution: a) public four-year institution—four years up to \$4,700 per year, b) public four-year or technical institution—cost-of-tuition for thirty credit hours, c) private four-year independent institution funding for cost-of-attendance up \$4700 (maximum average cost-of-tuition at a state 4-year institution), and d) private two-year institution—maximum cost of attendance at a public institution.

The South Carolina Commission on Higher Education provided the LIFE Scholarship data. In 1998, 17.5% of South Carolina high school graduates received the LIFE Scholarship. As shown in Table 71, the number of first-time LIFE Scholarship recipients increased each year from 6,003 in 1998 to 9,772 in 2002.

Table 71

South Carolina LIFE Scholarship Recipients

Year	Number of Total Estimated High School Graduates	Number of LIFE Scholars First-Time Freshmen	Ratio of LIFE Scholars-First- Time Freshmen to High School Graduates
1998	34,369	6,003	17.47
1999	-	5,957	-
2000	34,532	6,202	17.96
2001	-	7,107	-
2002	-	9,772	-

- NCES PPS does not provide data for private high school graduates in odd years, and data were not available from NCES CCD for 2002.

Ethnicity of LIFE Scholarship Recipients

In 1998 and 2000, LIFE Scholarship recipients were predominantly White (see Table 72). Over 83 percent or 11,914 and 81.6% or 13,491 of the recipients were White, respectively. And Black graduates receiving the scholarship numbered 1,869 or 13.1% and 1,931 or 11.7%. Hispanic, Native American, and Asian LIFE recipients comprised less than 3.0% of scholarship recipients.

Table 72

South Carolina LIFE Scholarship Recipients by Ethnicity^a

	Percentage					
	White	Black	Hispanic	Native American	Asian	Other
1998	83.36	13.08	.73	.17	1.91	
2000	81.64	11.69	.96	.17	1.82	3.73

^aPercentage distributions of LIFE Scholarship recipients by ethnicity were based on aggregate numbers of recipients.

Home County Metropolitan Status for LIFE Recipients

In 1998, 60.7% or 6,858 of the LIFE Scholarship recipients were from the 16 suburban counties (see Table 73). The one central city county, Greenville, produced 10.8% or 1,224 of LIFE recipients. The 29 of the rural counties produced 27.2% of the LIFE recipients. In 2000, 16.7% or 1,034 of the first-time LIFE recipients did not disclose their home location and therefore, the percentages in Table are biased.

Table 73

South Carolina LIFE Scholarship Recipients by Home County Metropolitan Status ^a

Year	Percentage of Recipients by Metro Status		
	City	Suburban	Rural
1998^b	10.83	60.66	27.15
2000 ^{c, d}	12.46	50.23	20.64

^a Percentages may not add up to 100.00% due to non-reporting by students.

Home County Poverty Levels for LIFE Recipients

In 1998, the majority of the LIFE Scholarship recipients were from medium poverty counties (see Table 74). Seventy-eight percent or 8,818 recipients were from the 37 medium poverty counties, while 17.9% or 2,028 were from the three low poverty counties and 2.7% or 305 were from the six high poverty counties.

In 2000, several of the county's poverty levels were reclassified. As a result, the number and percentages of LIFE recipients from low poverty school districts increased to 39.9%, while those from high and medium poverty school districts decreased. In addition, 16.7% or 1,034 LIFE recipients did not state their home location and therefore, the data were biased.

Table 74

South Carolina LIFE Scholarship Recipients by Home County Poverty Levels^{a, b}

	Percentage of Recipients by Poverty Levels		
	High	Medium	Low
1998 ^c	2.70	78.00	17.94
2000 ^{d, e}	.55	42.86	39.92

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level classifications were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b Percentages may not add up to 100.00% due to non-reporting by students.

^c 1997 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 6, Medium = 37, and Low = 3.

^d 1999 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 2, Medium = 35, and Low = 9.

^e In 2000, students not reporting was 16.67%.

LIFE Recipients College Choice Patterns

The number of LIFE recipients increased from 6,003 in 1998 to 7,107 in 2001.

As seen in Table 75 and Figure 16, LIFE recipients primarily chose public four-year institutions. In 1998, 3,861 or 64.8% chose South Carolina public four-year institutions. By 2001, the number of LIFE recipients choosing public four-year institutions increased to 4,682, but the percentage decreased slightly to 60.4%. LIFE recipients mainly chose one of two four-year institutions to attend: Clemson University—30.5% in 1998 and 26.2% in 2001, and University of South Carolina-Aiken—28.1% in 1998 and 31.8% in 2001.

The number and percentage of LIFE recipients attending public two-year institutions increased over the four years. In 1998, public two-year and technical colleges enrolled 211 and 751 LIFE recipients, respectively. The percentage of LIFE recipients attending both public two-year and technical colleges increased to 21.0% in 2001, equating to 346 and 1,284 students.

Private four-year higher education institutions experienced a slight increase in LIFE recipients over the four years. In 1998, 1,090 or 18.3% of LIFE recipients chose private four-year institutions. By 2001, 1,285 or 16.6% chose private four-year institutions.

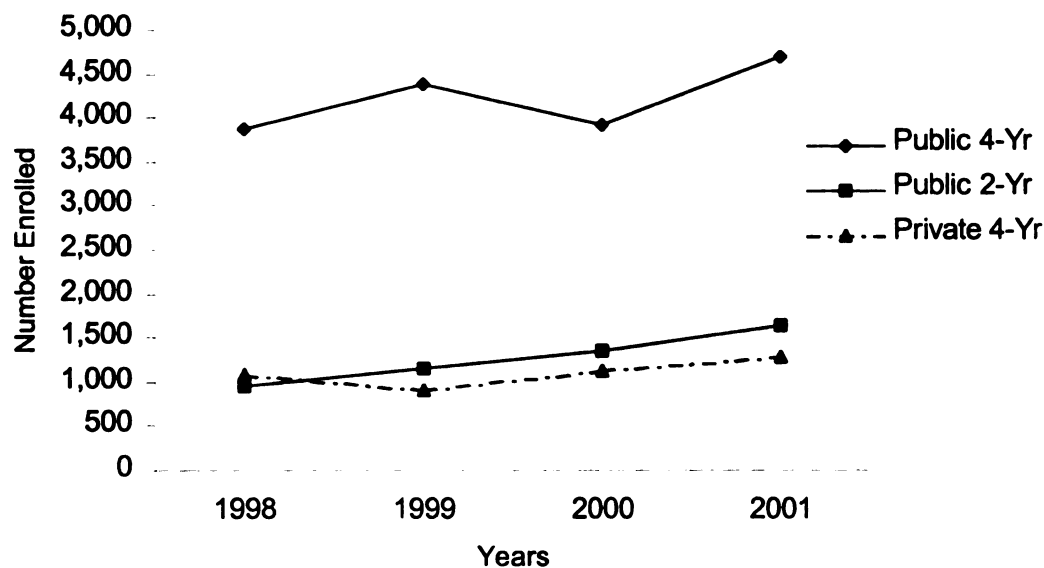
Table 75

First-Time Freshmen LIFE Scholarship Recipients Enrolled in South Carolina Higher Education Institutions

Year	Percentage of Scholars Enrolled in			
	Public Four-Year Institutions	Public Two-Year Institutions ^a	Private Four-Year Institutions	Private Two-Year Institutions
1998	64.81	16.15	18.30	.74
1999	63.61	18.71	15.19	.00
2000	60.75	20.93	17.45	.87
2001	60.43	21.04	16.58	1.95

^aPublic technical college numbers were included in public two-year institution numbers.

Figure 16. First-time freshmen LIFE scholarship recipients enrolled in South Carolina higher education institutions.



Louisiana

The Louisiana Tuition Opportunity Program for Students (TOPS) was implemented in 1998, and offers financial assistance to high achieving students for college. The Louisiana Legislature's underlying reason for the creating TOPS was for Louisiana to have an educated work force enabling the state to prosper in the global market of the future.

In this section, I first provide a demographic profile of the Louisiana high school graduate population before and after program implementation was created, starting in 1994 through 2000. The high school graduate demographic information includes ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and

metropolitan statuses, and participation in higher education and college choice. Second, I present a profile of Louisiana TOPS recipients, including eligible and enrolled recipients, and recipient's college choice patterns.

Louisiana High School Graduates

Graduation Rates

Louisiana's population grew 5.9% between 1990 and 2000. During the same time, the percentage of public high school graduates grew 13.5%. Even though the number of graduates increased between 1994 and 2000, Table 76 shows that the percentage of graduates by ninth grade cohort decreased during the same time. The percentage of twelfth graders graduating stayed consistent as 91.6% or 36,480 graduated in 1994 and 90.5% or 38,430 graduated in 2000. The number of graduates from non-public high schools has stayed fairly consistent, 7,844 in 1994 and 7,939 in 1998. The highest number of non-public high school graduates was in 2000, two years after the implementation of the TOPS program.

Table 76

Louisiana High School Graduates

Year	Number of		Percentage of Graduates		Number of Estimated Non-Public High School Graduates
	Twelfth Graders	Graduates – Regular Diploma	Ninth Grade Cohort	Twelfth Grade Enrollment	
1994	39,826	36,480	61.25	91.60	7,844
1996	40,663	36,495	57.98	89.75	8,058
1998	41,527	38,030	55.11	91.03	7,939
2000	42,344	38,430	56.07	90.48	8,716

Graduation Rates by Ethnicity

As shown in Table 77, White and Black public high school graduates comprised over 96% of the graduating class for the years 1994 to 2000. The number of White graduates stayed fairly consistent over the seven years. The number and percentage of White graduates in 1994 were 59.7% or 21,778 and in 2000 were 57.1% or 21,873. The number and percentage of Black graduates increased over the seven years as 37.8% or 13,803 graduated in 1994 and 39.3% or 15,046 graduated in 2000. The number and percentage of Hispanics, Native Americans and Asians graduating from high school have been increasing slightly over the seven years of this study.

Table 77

Louisiana Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1994 ^a	59.70	37.84	1.11	.35	1.77
1996 ^b	57.78	38.83	1.19	.44	1.76
1998	58.15	38.37	1.37	.47	1.65
2000	57.09	39.27	1.33	.54	1.77

^a Data provided by Louisiana Department of Education. ^b Data provided by NCES CCD.

Graduation Rates by Gender

Data on the gender of Louisiana high school graduates were only available from NCES CCD starting in 1998. As shown in Table 78, the percentage of female graduates outnumbered male graduates for both years. In 1998 and 2000, female graduates numbered 20,735 or 54.5% and 20,666 or 53.8%, respectively.

Table 78

Louisiana's Public High School Graduates by Gender

Year	Percentage of Graduates by Gender ^a	
	Male	Female
1998	45.48	54.52
2000	46.22	53.78

^a Data unavailable for years 1994-1997 from NCES CCD.

Graduates by School District Metropolitan Status

Louisiana has 66 public school districts. Twenty of the school districts were located in suburban areas, and those districts graduated 45.3% and 45.4% of the public high school students in 1994 and 2000, respectively. Table 79 shows that the remaining graduates were split between the six central city and the 40 rural school districts. Between 1994 and 2000, there was little change in the numbers or percentages of graduates by metropolitan status. Central city and rural school districts graduated approximately 55% of the students.

Table 79

Louisiana Public High School Graduates by Metropolitan Status

Year	Percentage of Graduates by School District Metro Status		
	City (n = 6)	Suburban (n = 20)	Rural (n = 40)
1994 ^a	30.30	45.29	24.41
1996 ^b	28.50	44.00	27.50
1998^c	30.10	44.38	24.60
2000	29.37	45.44	24.90

^a Obtained from Louisiana Department of Education. ^b Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995, 1997 and 1999. ^c Percentages may not add up to 100.00%.

Graduates by School District Poverty Levels

For the years 1994 and 1996, Louisiana's poverty level for people under age 18 was 30.7%. Thirty-one school districts were located in high poverty areas and graduated 35.5% and 37.2% of the graduates in 1994 and 1996, respectively. Then, the poverty level dropped slightly in 1998 to 26.0%. As shown in Table 80, approximately 70% of the graduates were from the 44 medium poverty level school districts. The number of high poverty school districts dropped to 21 and 20.4% of the graduates were from those districts. Lastly in 2000, the percentage of Louisiana people under age 18 in poverty was 26.4%. The 44 medium poverty school districts graduated 73.9% and the 21 high poverty level school districts graduated 21.0% of Louisiana's twelfth graders.

Table 80

Poverty Levels by School District of Louisiana Public High School Graduates^a

Year	Percentage of Graduates by School District Poverty Level		
	High	Medium	Low
1994 ^b	35.48	61.19	3.33
1996	37.18	58.33	4.49
1998^c	20.38	74.14	4.56
2000	21.03	73.89	4.79

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories were: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 1995 U.S. Census Bureau statistics. School district data obtained from Louisiana Department of Education. The number of school districts by poverty level: High = 31, Medium = 34, and Low = 1.

^c 1997 and 1999 U.S. Census Bureau statistics. The number of school districts by poverty level: High = 21, Medium = 44, and Low = 1.

College-Going High School Graduates

Louisiana high school students scored lower than the national mean score for the ACT between 1994 and 2002. In 1994, the national ACT average was 20.8 and

Louisiana's mean was 19.4. In 2002, the national mean was 20.8 and Louisiana's mean was 19.6 (see Table 81). On the other hand, Louisiana students scored higher on their SAT than the national mean. In 1994, the national composite mean was 1003 and Louisiana's mean was an 1105. In 2002, the national composite mean was a 1020 and Louisiana's mean was an 1120.

Table 81

Louisiana College Preparation Test Scores

Year	ACT Mean	SAT Composite Mean
1994	19.4	1105
1996	19.4	1109
1998	19.5	1120
2000	19.6	1120
2002	19.6	1120

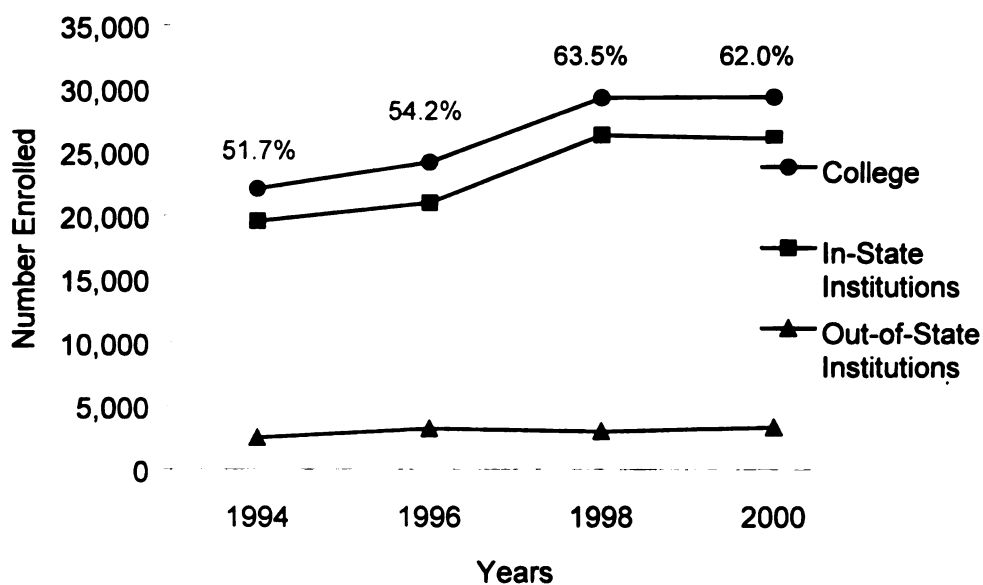
The number of Louisiana high school graduates attending college has increased since 1994 when 51.7% of the students went on to college. In 1998, the year the TOPS program was implemented, graduates attending college reached a high of 63.5% or 29,206. By 2000, 62.0% or 29,251 high school graduates continued with their postsecondary studies.

As seen in Table 82 and Figure 17, there has been some fluctuation between 1994 and 2000 as to high school graduates staying in or leaving Louisiana for college. In 1994, 88.5% or 19,519 stayed in-state, whereas, in the first year of the TOPS program, 89.9% or 26,254 graduates stayed in Louisiana for their studies. By 2000, the number and percentage of high school graduates staying in Louisiana dropped to 88.8% or 25,987.

Table 82

Louisiana High School Graduates Attending College

Year	Number of Graduates		Percentage of Graduates Attending		
	Total Estimate	Attending College	College	In-State Institutions	Out-of-State Institutions
1994	42,666	22,058	51.70	88.49	11.20
1996	44,525	24,121	54.17	86.82	13.18
1998	45,969	29,206	63.53	89.89	10.11
2000	47,146	29,251	62.04	88.84	11.16

Figure 17. Louisiana high school graduates attending college.*College Choice*

The number of high school graduates attending college in Louisiana increased between 1994 and 2000. During the seven years, the college choice patterns of first-time freshmen have shifted between public four- and two-year institutions (see Table 83 and Figure 18). In 1994, 79.1% or 15,437 of the Louisiana first-time freshmen attended in-state four-year public institutions and 12.7% or 2,469 attended public two-year

institutions. In the first-year of the program, public four-year institutions experienced an increase in enrollment to 19,036, but four-year institutions only enrolled 72.5% of the first-time Louisiana freshmen. Public two-year institution enrollment increased to 17.8% or 4,659. By 2000, public four- and two-year institutions experienced a decrease in enrollment to 71.9% or 18,688 and 17.0% or 4,407, respectively.

The two flagship public four-year institutions first-time Louisiana freshmen chose were Louisiana State University (LSU) and the University of Louisiana at Lafayette (UofL). In 1996, LSU and UofL enrolled 20.2% and 13.4% of first-time Louisiana freshmen. In 2000, the percentage of first-time freshmen choosing LSU increased to 24.0% and UofL decreased to 10.7%.

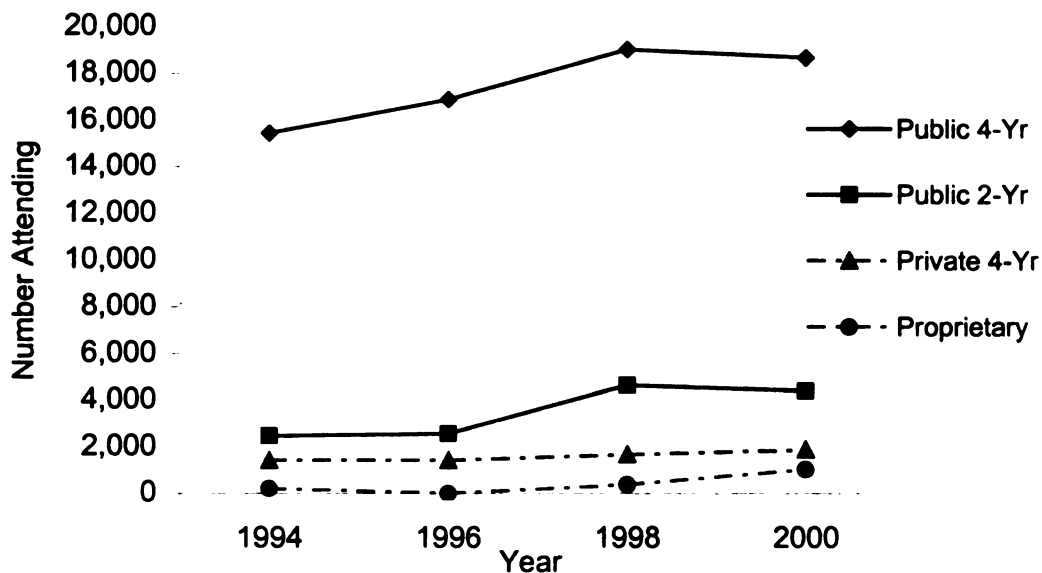
Private four-year institutions experienced a similar shift in enrollments as 7.2% of the incoming class in 1994, 6.3% in 1998 and 7.2% in 2000. The other type of institution that experienced increasing enrollments was proprietary institutions. In 1996, proprietary institutions enrolled 376 or .02% of the incoming class. By 2000, the number of first-time Louisiana freshmen attending proprietary institutions increased to 1,024 or 3.9%.

Table 83

Louisiana First-Time Freshmen In-State College Choice Patterns^a

Year	Number of Graduates Attending College in Louisiana	Percentage of Graduates Attending			
		Public Four- Year Institutions	Public Two- Year Institutions	Private Four-Year Institutions	Proprietary Institutions
1994	19,519	79.09	12.65	7.22	1.05
1996	20,941	80.60	12.25	6.77	.02
1998	26,254	72.51	17.75	6.32	1.43
2000	25,987	71.91	16.96	7.19	3.94

^a Private two-year institutions are not represented in the table because the enrollment percentage was .30 or below.

Figure 18. Louisiana first-time freshmen in-state college choice patterns.*Louisiana Tuition Opportunity Program*

The Louisiana Tuition Opportunity Program for Students (TOPS) was implemented in 1998. The purpose of TOPS is to a) financially assist students who are academically prepared to continue their education at a Louisiana postsecondary

institution, b) encourage academic excellence, and c) provide incentives for students to pursue postsecondary education in Louisiana. The end goal of TOPS is for Louisiana to have an educated work force enabling the state to prosper in the global market of the future. The data available for this study from the Louisiana Board of Regents were cumulative number of recipients by type of TOPS award, and recipients' college choice by type of TOPS awards.

There are four award levels for TOPS and eligibility is determined by ACT score and GPA on the core curriculum. All four scholarships provide four years tuition and fees at a Louisiana public higher education institution. The highest award is Honors and a high school graduate must score a 27 on the ACT and obtain a 3.5 GPA. In addition, Honors recipients receive an \$800 stipend per semester. The second level is Performance and high school graduate must score a 23 on the ACT and obtain a 3.5 GPA. Performance recipients receive a \$400 stipend per semester. The third level is the Opportunity scholarship, and a high school graduate must obtain a 20 ACT (based on previous year's state mean) and a 2.5 GPA. The fourth level award is the Technical scholarship and to be eligible for this scholarship a graduate must obtain a 19 ACT and a 2.5 GPA.

TOPS Recipients

In the first year of the program, 23,509 of Louisiana TOPS award recipients enrolled in college. Over 70 percent or 16,569 of the first-time scholarship recipients qualified for the Opportunity Scholarship. Students receiving the Performance Scholarship comprised 21.8% of the scholarship recipients. Honors students, who scored

at least a 27 on their ACT and had a 3.5 GPA in a core curriculum, comprised 7.7% of the scholarship recipients.

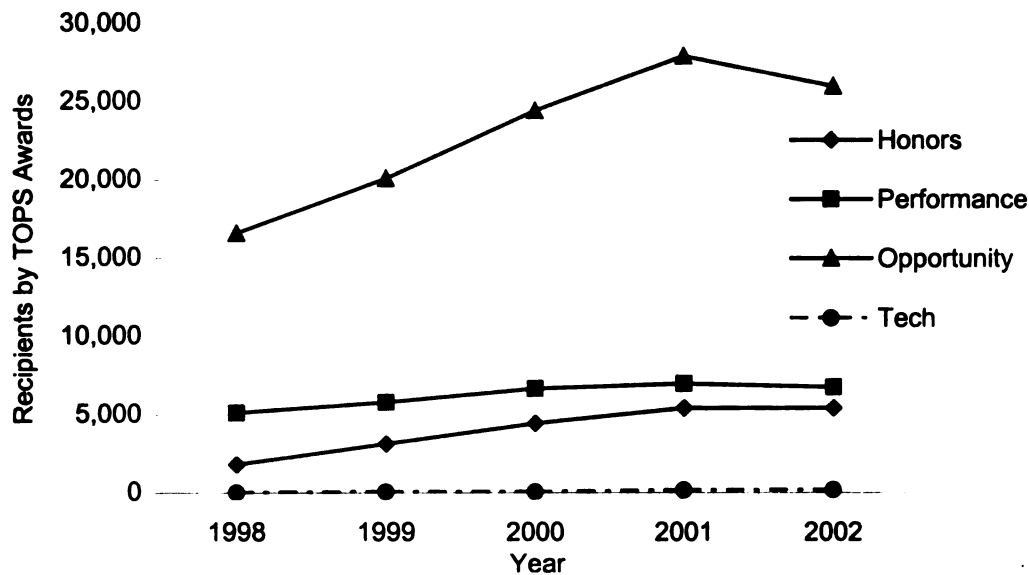
By 2002, high school graduates receiving the TOPS Opportunity Scholarship comprised 67.8% of the cumulative total of scholarship recipients enrolled in Louisiana higher education institutions (see Table 84 and Figure 19). Performance award recipients, who have to have a 23 on their ACT and a 3.5 GPA, decreased to 17.6% or 6,733. On the other hand, Honors award recipients increased to 14.1% or 5,403.

Table 84

Cumulative Percentage of Louisiana TOPS Recipients by Award

Year	Cumulative Number of Recipients Enrolled	Percentage of Recipients			
		Honors	Performance	Opportunity	Tech
1998	23,509	7.71	21.76	70.61	.10
1999	29,046	10.79	19.94	69.21	.18
2000	35,555	12.46	18.72	68.77	.17
2001	40,431	13.38	17.25	69.11	.40
2002	38,279	14.12	17.60	67.84	.50

Figure 19. Cumulative number of Louisiana TOPS recipients by award level.



College Choice

In the next several paragraphs, college choice patterns of TOPS recipients are described. First, college choice patterns for all TOP recipients will be described followed by each scholarship level, starting with TOPS Honor recipients. TOPS Technical Scholarship recipients will not be discussed because of their low numbers (.5% of the recipients in 2002).

Overall, TOPS recipients have chosen primarily to attend public four-year institutions. Table 85 shows that in 1998, 89.3% or 20,981 of the recipients chose to attend a public four-year public institution. Of those 20,981 recipients, 7,842 or 37.4% chose to attend the University of Louisiana-Baton Rouge. By 2002, 87.8% or 33,608 of the total number of recipients chose a four-year public institution. The cumulative number of TOPS recipients attending Louisiana-Baton Rouge increased to 12,837 or 38.2%. The recipients choosing a private four-year institution ranged from 9.2% or 2,158 students in 1998 to 9.8% or 3,722 students in 2002.

Table 85

Cumulative Distribution Percentage of Louisiana TOPS Recipients Enrolled in Louisiana Postsecondary Institutions

Year	Total Percentage of Scholars Enrolled in			
	Public Four-Year Institutions	Public Two-Year Institutions	Private Four-Year Institutions	Private Two-Year Institutions
1998	89.25	1.42	9.19	.14
2000	88.13	1.50	10.07	.30
2002	87.80	2.00	9.75	.48

Louisiana TOPS Honors recipients are the highest academic achieving students in Louisiana. As shown in Table 86, Honor recipients predominantly enrolled in public four-year institutions. Beginning in 1998, 1,495 or 90.8% enrolled in public four-year institutions. By 2000, the cumulative number increased to 4,406 or 89.5% in 2002. The University of Louisiana-Baton Rouge enrolled the highest number of Honor recipients, 881 in 1998 and 2,032 in 2002.

Over ten percent of the Honor recipients chose private four-institutions. In the first of the year program, the number of recipients enrolled was 1,215. Five years later, the cumulative number enrolled in private four-year institutions was 2,026.

Table 86

Cumulative Percentage of Louisiana TOPS Honors Recipients Enrolled in Louisiana Postsecondary Institutions

Year	Percentage of Honors Scholars Enrolled in			
	Public Four- Year Institutions	Public Two- Year Institutions	Private Four- Year Institutions	Private Two- Year Institutions
1998	90.78	1.73	7.33	.16
2000	89.38	1.85	8.39	.39
2002	89.53	2.05	7.81	.61

The Performance scholarship is the second TOPS level, requiring a 23 ACT and 3.5 GPA. Performance recipients comprised 17.6% of the cumulative number of TOPS recipients in 2002. These recipients followed the Honor recipients and primarily enrolled in four-year public institutions (see Table 87). Of the 5,107 Performance scholarship recipients in 1998, 82.6% or 4,444 enrolled in public four-year and 17.4% or 629 enrolled in private four-year institutions. In 2002, the cumulative number of Performance scholarship recipients numbered 6,733, and 18.2% or 5,967 of them enrolled in public four-year institutions.

Table 87

Cumulative Percentage of Louisiana TOPS Performance Recipients Enrolled in Louisiana Postsecondary Institutions

Year	Total Percentage of Performance Scholars Enrolled in			
	Public Four-Year Institutions	Public Two-Year Institutions	Private Four-Year Institutions	Private Two-Year Institutions
1998	82.64	.00	17.36	.00
2000	81.07	.05	18.82	.07
2002	81.55	.17	18.18	.11

The largest TOPS scholarship group was the Opportunity scholarship recipients, comprising 70.6% and 67.8% of scholarship recipients in 1998 and 2002, respectively. To receive the Opportunity scholarship, a high school graduate must score a 20 on their ACT and have a 2.5 GPA on a core curriculum. As seen in Table 88, Opportunity award recipients also primarily enroll in public four-year institutions. In the first-year of the program, 87.0% enrolled in four-year public institutions. By 2002, 88.6% enrolled in four-year institutions. Over 32% of the cumulative number of recipients enrolled in the University of Louisiana-Baton Rouge. Private four-year institutions enrolled over ten percent of the remaining scholarship recipients, while public and private two-year institutions enrolled less than one percent.

Table 88

Cumulative Percentage of Louisiana TOPS Opportunity Recipients Enrolled in Louisiana Postsecondary Institutions

	Total Percentage of Opportunity Scholars Enrolled in			
	Public Four- Year Institutions	Public Two- Year Institutions	Private Four- Year Institutions	Private Two- Year Institutions
1998	87.02	.53	12.32	.14
2000	89.01	.36	10.53	.11
2002	88.62	.48	10.59	.31

Alaska

The University of Alaska System, which encompasses all Alaska public higher education institutions, implemented the Alaska Scholars program in 1999. The goals of the Alaska Scholars program are to encourage middle and high school students to achieve academic excellence, to promote K-12 schools to provide quality education, and encourage students to stay in Alaska for college.

The first part of this section I provide a demographic profile of the Alaska's high school graduates since 1996, or three years prior to the beginning of Alaska Scholars program. The demographic information includes numbers and percentage of graduates by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan statuses, higher education participation, and college choice. Second, I profile the Alaska Scholar recipients by gender and ethnicity, school district poverty and metropolitan statuses, and college choice. Lastly, I compare Scholars to Alaska's

population of high school graduates for gender and ethnicity, school district poverty and metropolitan statuses, and college choice.

Alaska High School Graduates

Graduation Rates

The number of twelfth graders in the Alaska public school system increased 14.7% between 1996 and 2002, while the number of public high school graduates increased 13.3%. As illustrated in Table 89, the number of graduates peaked in 1999 as 6,862 students graduated from Alaska public high school. But at the same time, the percentage of twelfth graders completing and receiving their diploma was at a five year low. The percentage of graduates by ninth grade cohort dropped from 65.5% in 1996 to 60.7% in 2002. However, the number of twelfth graders graduating increased from 6,018 in 1996 to 6,945 in 2002.

Between 1996 and 2000, there was a shift between non-public and public high school graduates. In 1996, 219 non-public high school students graduated and by 1998 161 graduated from non-public high schools. In 2000, the number of non-public high school graduates rose again to 245.

Table 89

Alaska High School Graduates

Year	Number of		Percentage of Graduates b		Number of
	Twelfth Graders	Graduates – Regular Diploma	Ninth Grade Cohort	Twelfth Grade Enrollment	Estimated Non-Public High School
1996	7,111	6,133	66.76	86.25	219
1998	7,771	6,862	68.99	88.30	161
1999	8,403	6,665	64.94	79.32	-
2000	7,968	6,812	64.14	85.49	245

- NCES Private School Survey data were available only for even years.

Graduates by Ethnicity

The number of Alaska public high school graduates for each one of the five ethnic groups increased over the seven years (see Table 90). Native American/Alaska Native and White students comprised over 87 percent of the public high school graduating classes for the years 1996 to 2000. In 1996, 4,254 of the graduates were White, 1,151 were Native American/Alaska Native, and 328 Asian. By 2000, 4,678 of the graduates were White, 1,286 were Native American/Alaska Native, and 429 were Asian.

Table 90

Alaska Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	69.31	4.15	2.44	18.75	5.34
1998	70.34	4.16	2.27	17.85	5.38
1999	69.23	3.71	2.80	19.02	5.25
2000	68.49	3.60	2.80	18.83	6.28

Graduation Rates by Gender

The data to explain public high school graduates by gender was only available for the years, 1998 to 2000, from NCES CCD. The percentage of public high school graduates by gender for those three years were roughly fifty percent female and fifty percent male (see Table 91). In 1998 and 2000, 3,234 and 3,405 of the public high school graduates were male, respectively.

Table 91

Percentage Distribution of Alaska Public High School Graduates by Gender^a

Year	Percentage of Graduates by Gender	
	Male	Female
1998	50.05	49.95
1999	49.77	49.48
2000	49.06	50.41

^a Data were not available from NCES CCD prior to 1998.

Graduates by School District Metropolitan Status

Alaska has 54 public school districts, and the number of graduates by school district ranged from single-digits to several hundred. In 1996, the Anchorage School District was the only suburban area and 38.9% or 2,341 of the graduates were from Anchorage (see Table 92). In 1998, the Anchorage and Iditarod school districts were reclassified as metropolitan and suburban areas, respectively. Between 1998 and 2000, Anchorage continued to produce over 35 percent of the public high school graduates. Over 60 percent of the remaining graduates were from one of the 49 rural school districts, equating to 4,134 graduates in 1998 and 4,280 graduates in 2000.

Table 92

Alaska Public High School Graduates by School District Metropolitan Status

Year	Percentage of Graduates by School District Metro Status ^a		
	Central City	Suburban	Rural
1996 ^b	.00	38.90	61.10
1998 ^c	35.53	.00	63.97
1999^d	38.04	.03	61.69
2000	35.02	.04	64.22

^a U.S. Census Bureau did not provide poverty level data for 3 school districts.

^b NCES CCD and U.S. Census Bureau statistics from 1995. The number of school districts in: Central City = 0, Suburban = 1, and Rural = 49.

^c NCES CCD and U.S. Census Bureau statistics from 1997. The number of school districts in: Central City = 1, Suburban = 0, and Rural = 49.

^d NCES CCD and U.S. Census Bureau statistics from 1999. The number of school districts in: Central City = 1, Suburban = 1, and Rural = 49.

Graduates by School District Poverty Level

The poverty estimate for people under age 18 in Alaska was 14.7% in 1996. This percentage increased slightly to 20.6% in 1998 and then decreased to 13.3% in 2000.

Forty-eight of the 54 school districts were located in low (below 15% poverty) or medium (15-29% poverty) poverty status areas. According to the 1999 U.S. Census records, Anchorage, which is the only metro area in the state, was one of 31 school districts with low poverty status. As seen in Table 93, approximately 90% of the public high school graduates were from low poverty school districts for the years 1996 to 2000.

Table 93

Alaska Public High School Graduates by School District Poverty Levels

Year	Percentage of High School Graduates from ^a		
	Low Poverty	Medium Poverty	High Poverty
1996 ^{b,c}	88.95	3.61	7.21
1998 ^d	86.69	5.46	6.16
1999^e	89.51	8.73	.46
2000	90.67	8.55	.33

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b U.S. Census Bureau did not assign a poverty level for five school districts.

^c 1995 U.S. Census Bureau statistics (50 districts classified). The number of school districts by poverty level: High = 10, Medium = 8, and Low = 32.

^d 1997 U.S. Census Bureau statistics (52 districts classified). The number of school districts by poverty level: High = 12, Medium = 14, and Low = 26.

^e 1999 U.S. Census Bureau statistics. The number of school districts by: High = 1, Medium = 17, and Low = 31.

College-Going High School Graduates

Alaska students have scored higher than the national mean for the ACT and SAT for the years examined in this study. As shown in Table 94, the lowest SAT composite score was in 1999, the year the Alaska Scholars program was implemented.

Table 94

Alaska College Preparation Test Scores

Year	ACT Mean	SAT Composite Mean
1996	20.9	1044
1998	21.3	1041
1999	21.1	1030
2000	21.3	1034

The number of Alaskan high school graduates attending higher education institutions increased 10.9% from 1998 to 2000 (see Table 95 and Figure 20). In addition, the number of graduates staying home and attending in-state higher education

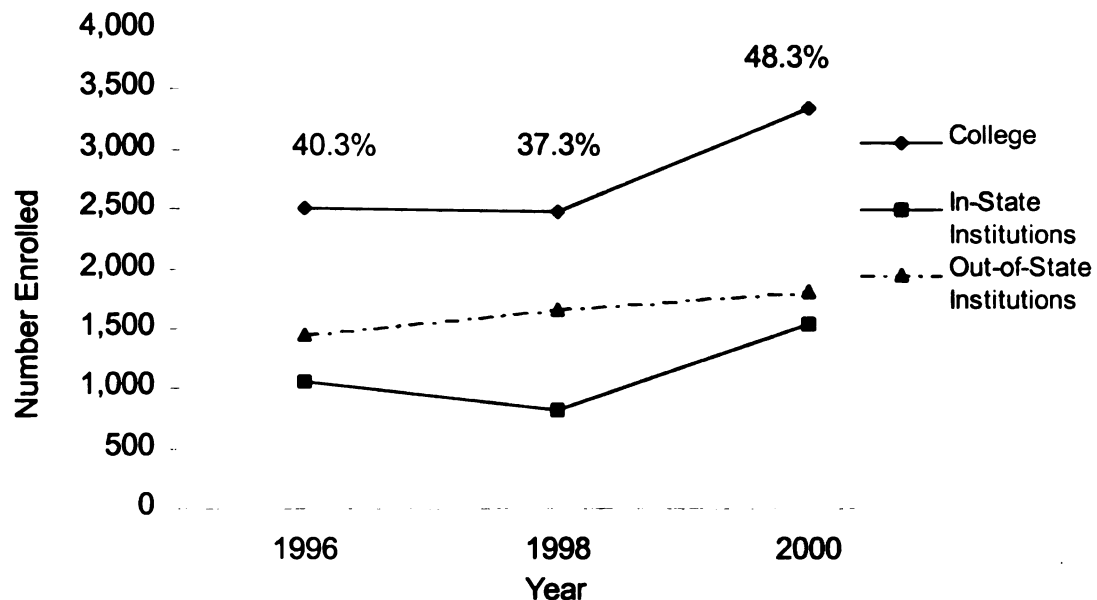
institutions increased 46.5%. The number of graduates leaving Alaska for college also increased during this time, but the percentage distribution of graduates attending out-of-state decreased. In 1998, 33.2% or 877 of the graduates stayed in-state for college. By 2000, 45.9% or 1,618 of the graduates attended Alaska institutions. Whereas, 66.8% or 1,652 of Alaskan high school graduates left the state for college in 1998, and 54.1% or 1,803 attended out-of-state institutions in 2000.

Table 95

Alaska High School Graduates Attending College^a

Year	Number of		Percentage of Graduates Attending		
	Estimated				
	High	Graduates		In-State	Out-of-State
	School	Attending		Colleges	Colleges
	Graduates	College	College		
1996	6,237	2,503	40.13	42.03	57.97
1998	6,623	2,472	37.32	33.17	66.83
2000	6,910	3,335	48.26	45.94	54.06

Figure 20. Alaska high school graduates attending college.



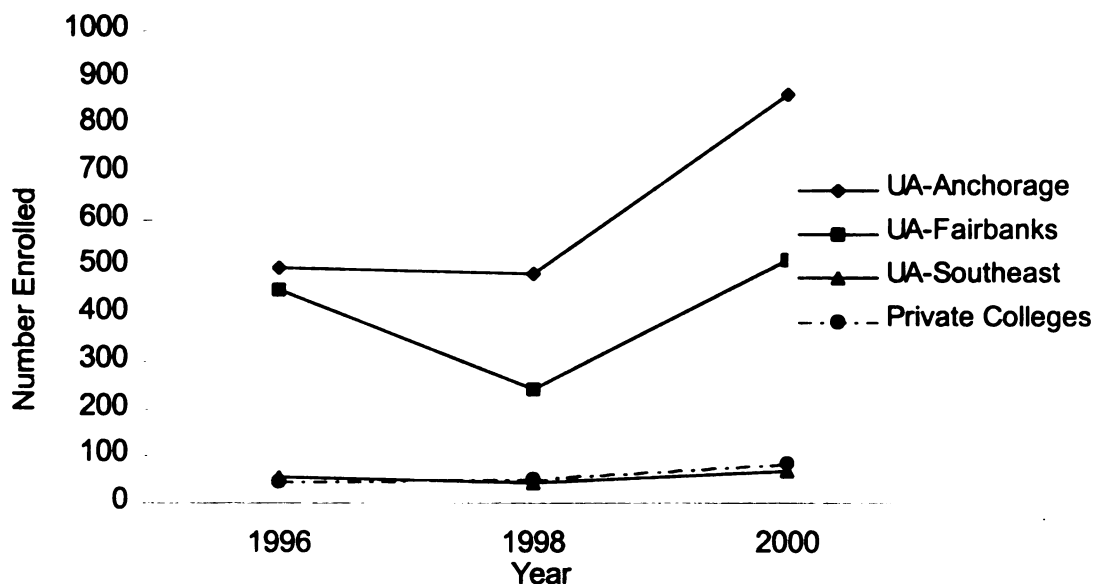
College Choice

First-time freshmen staying in-state for college primarily chose one of the University of Alaska System institutions. As shown in Table 96 and Figure 21, the University of Alaska-Anchorage was the primary college of choice for first-time Alaska freshmen. Anchorage experienced an increase in first-time Alaska freshmen, from 497 or 47.2% in 1996 to 863 or 56.3% in 2000. During the same time period, the percentage of first-time freshmen attending UA-Fairbanks dropped from 43.1% to 33.6%. Forty-seven (4.3%) first-time freshmen attended private institutions in 1996. This number increased to 86 (5.3%) by 2000.

Table 96

Alaska First-Time Freshmen In-State College Choice Patterns

Year	Number of Graduates Attending College in Alaska	Percentage of Graduates Attending			
		UA- Anchorage	UA- Fairbanks	UA- Southeast	Private Colleges
1996	1,052	47.24	43.06	5.23	4.28
1998	820	59.27	29.39	5.24	5.75
2000	1,532	56.33	33.55	4.50	5.32

Figure 21. Alaska first-time freshmen in-state college choice patterns.*Alaska Merit Scholarship*

The University of Alaska System consists of all public four- and two-year higher education institutions in the state. There are three main universities within the System—Anchorage, Fairbanks, and Southeast—and the other four- and two-year colleges report to one of the three universities. The University of Alaska Scholars program was created

in 1999 to encourage middle and high school students to achieve excellence, to promote schools to provide quality education, and encourage students to stay in-state for college. Land lease interest funds the scholarship, and the President of the University of Alaska System oversees the scholarship program (UofAlaska, 2002). The University of Alaska Office of Institutional Research provided the Alaska Scholars' data.

Recipients of the scholarship are determined by their high school ranking; the student must be in the top 10% of his or her graduating class. The first Alaska high school graduates participating in the program were from the class of 1999. Upon enrolling full-time in one of the University of Alaska system colleges, a Scholar must maintain satisfactory progress. A Scholar receives up to four-years of tuition (\$11,000 maximum) depending on type of institution and degree program.

Scholar Numbers

As the number of public high school graduates increased so did the number of students eligible for the scholarship. As seen in Table 97, eligible Scholars enrolling in college during the first year of the program was 33.4%. By 2001 the percentage of Scholars enrolled in a University of Alaska institution increased to 41.4%.

Table 97

Eligible and Enrolled Alaska Scholars

Year	Number of		
	Students Eligible for		Percentage Enrolled
	Scholarship	Scholars Enrolled	
1999	811	271	33.42
2000	881	352	39.95
2001	897	371	41.36
2002	920	363	39.46

A paired t-test was conducted to determine whether or not there were significant differences between eligible and enrolled Scholars for the years, 1999 to 2002. Statistically significant differences were found. Table 98 shows that there were a higher number of eligible Scholars ($M = 877.25$) than enrolled Scholars ($M = 339.25$, $t = 76.727$, $p < .001$).

Table 98

Paired T-Tests for Eligible and Enrolled Alaska Scholars

	M	<i>t</i>	<i>df</i>	<i>p</i>
Eligible	877.25	76.727	3	.000**
Enrolled Scholars	339.25			

*** $p < .001$

School District Metropolitan Status for Scholars

Scholars from the only metropolitan school district, Anchorage, ranged from 3.4% to 3.6% of the high school graduate class (see Table 99). The Anchorage Scholars comprised 33.6% of the cumulative Scholars in 1999. By 2002, the percentage of Anchorage Scholars dropped to 23.1%. It is important to note that over 14% of the Scholars did not state their home location in 2001 and 2002, which affected both the metropolitan and poverty area demographics.

Table 99

Alaska Scholars by Home School District Metropolitan Status

Year	Percentage of Scholars by School District Metro Status ^a		
	Central City (n = 1)	Suburban (n = 1)	Rural (n = 49)
1999	33.58	.74	65.68
2000	22.73	.85	76.42
2002 ^b	23.14	.28	60.06

^a U.S. Census Bureau did not provide metropolitan status data for three school districts. ^b The percentage of Scholars not reporting home location was over 14% in 2001 and 2002.

School District Poverty Levels for Scholars

The percentage of Scholars from low poverty school districts in 1999 was similar to the public high school graduating class (89.6%). But then the percentage of Scholars from low poverty school districts dropped to a low of 66.7% in 2002 (see Table 100). On the other hand, the percentage of Scholars from medium poverty areas rose from 9.6% in 1999 to 15.2% in 2002.

Table 100

Alaska Scholars by Home School District Poverty Level

Year	Percentage of Scholars by School District Poverty Level ^{a, b}	
	Low Poverty (n = 31)	Medium Poverty (n = 17)
1999	86.72	9.59
2000	84.94	14.49
2002 ^c	66.67	15.15

^a The percentage of Scholars not reporting home location was over 14% in 2001 and 2002. ^b The poverty categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower. ^c U.S. Census Bureau did not provide poverty level data for 5 school districts.

Scholars by Gender

The percentage of male or female public high school graduates for the years 1998 to 2000 was almost split in half. The statistics were different for the Scholars. Table 101 shows that the percentage of male Scholars was less than 35% and the percentage of women Scholars was over 65%. In 1999, 182 of the 271 Alaskan scholar recipients were female. In 2002, 721 of the 1,066 cumulative Alaskan scholar recipients were female.

Table 101

Alaska Scholars by Gender

Year	Alaska Scholar Cumulative Total	Distribution Percentage of Cumulative Total	
		Male	Female
1999	271	32.59	67.16
2000	556	34.89	65.11
2001	829	34.98	65.02
2002	1,066	32.36	67.64

Scholars by Ethnicity

For the years of this study, at least six percent of the Scholars either did not state their ethnicity or they stated they did not fit into the other five categories (see Table 102). In 1999, 68.9% of the high school graduates were White and 66.7% of the Scholars were White. There was a higher percentage of Native American/Alaska Native high school graduates (19.0%) than Scholars (16.3%). In addition, the percentage of Black and Hispanic Scholars were lower than high school graduates.

Table 102

Distribution Percentage of Cumulative Alaska Scholars by Ethnicity

Year	Percentage by Ethnicity for Cumulative Total of Scholars					
	White	Black	Hispanic	Native American	Asian	Other
1999	66.67	.74	1.48	16.29	7.04	7.78
2000	65.47	1.08	1.44	18.53	5.22	8.26
2001	65.98	1.21	2.29	17.25	4.58	8.69
2002	67.54	1.22	1.69	18.86	4.50	6.19

Scholars' College Preparation Tests

Scholarship recipients scored higher than all potential Alaska college-going students on the ACT and SAT. In 1999, the Alaska Scholars scored 1.0 and 93 points above the ACT and SAT national means, and .9 and 79 points above the Alaska high school population ACT and SAT means, respectively (see Table 103). Scholars continued scoring above the national and state ACT and SAT mean scores for the years 2000 to 2002.

Table 103

Alaskan Scholars ACT and SAT Scores.

Year	ACT Mean	SAT Composite Mean
1999	22	1109
2000	22	1130
2001	22	1106
2002	23	1117

Scholars' College Choice

In the first year of the program, 56.1% or 152 Scholars enrolled in UA-Anchorage. By 2002, Scholars enrolling for the first-time in UA-Anchorage increased to

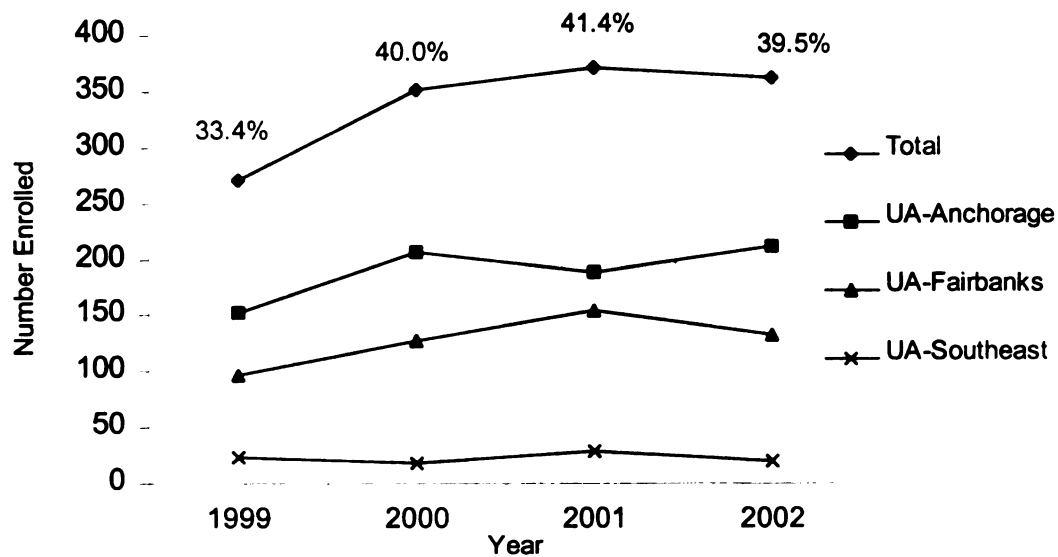
58.4% or 212. As illustrated in Table 104 and Figure 22, enrollment in UA-Fairbanks stayed fairly consistent over the first four years of the program. But, the number of Scholars attending UA-Southeast dropped slightly from 23 to 19 Scholars.

Table 104

Alaska Scholars College Choice Patterns

Year	Percentage Enrolled in University of Alaska-			
	Total	Anchorage	Fairbanks	Southeast
1999	271	56.09	35.42	8.49
2000	352	58.52	36.36	5.11
2001	371	50.67	41.78	7.55
2002	363	58.40	36.36	5.23

Figure 22. Alaska Scholars college choice patterns.



Kentucky

In fiscal year 1999, Senate Bill 21 established the Kentucky Educational Excellence Scholarship (KEES). The goal of KEES is to encourage Kentucky students to excel in high school. The Kentucky Legislature assumes that if students pursue and complete their college studies they will achieve their career goals and improve their standard of living.

In the first part of this section, I describe the Kentucky high school graduate population before and after the program was created, starting in 1994, through 2000. The demographic information includes high school graduate data by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan status, and participation in higher education and college choice. Second, I present a picture of KEES recipients, including eligible and enrolled recipients by number enrolled, home school district metropolitan status and poverty level, and college choice.

Kentucky High School Graduates.

Graduation Rates

The number of Kentucky twelfth graders stayed steady for the five years of this study, 36,597 in 1996 to 36,775 in 2000. In 1996, the percentage of twelfth graders graduating was 94.3%. In 1999, the year the Kentucky Educational Excellence Scholarship program was implemented, there was a spike in the percentage of graduates by twelfth grade to 98.5%. By 2000, the percentage of twelfth graders graduating dropped back to down to 94.0%.

Between 1996 and 2000, the percentage of high school graduates by ninth grade cohort decreased from 68.0% to 64.7% (see Table 105). The number of graduates by ninth grade cohort increased from 53,819 in 1996 to 55,989 in 2000. Lastly, the number of non-public high school graduates rose 24.2 percent from 3,029 in 1996 to 3,997 in 2000.

Table 105

Kentucky High School Graduates

Year	Number of		Percentage of Graduates by		Number of Graduates Estimated Non-Public High School
	Twelfth Graders	Graduates – Regular Diploma	Ninth Grade Cohort	Twelfth Grade Enrollment	
1996	38,797	36,597	68.00	94.33	3,029
1998	40,153	37,222	66.76	92.70	3,546
1999	37,698	37,129	65.63	98.49	-
2000	39,111	36,775	65.68	94.03	3,997

- NCES PPS does not provide non-public high school graduate data in odd years.

Graduation Rates by Ethnicity

The percentage and number of public high school graduates by ethnicity held steady over the five years of this study. As seen in Table 106, the ethnicity of Kentucky public high school graduates was primarily White between 1996 and 2000. In 1996, 32,955 of the 38,797 public high school graduates were White. By 2000, 89.6% or 32,938 of the graduates were White. Black high school graduates comprised 8.2% or 2,989 of the 1996 graduating class. In 1996, 1.9% or 697 of Kentucky's public high school graduates were Hispanic, Native American, and Asian high school graduates. By

2000, little had changed as Hispanic, Native American, and Asian graduates comprised 2.0% or 711 of the public high school graduating class.

Table 106

Kentucky's Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	89.94	8.16	.39	.80	.71
1998	90.17	8.07	.46	.70	.60
1999	90.36	8.14	.24	.68	.57
2000	90.12	7.94	.54	.75	.65

Graduation Rates by Gender

The percentage and number of female and male public high school graduates also kept steady between 1996 and 2000 (see Table 107). In 1996, 50.5% or 18,469 of the graduates were female. In 2000, 51.6% or 18,985 of the graduates were female.

Table 107

Gender of Kentucky's Public High School Graduates

Year	Percentage of Graduates by Gender	
	Male	Female
1996 ^a	49.55	50.45
1998 ^b	48.46	51.54
1999	48.26	51.74
2000	48.45	51.55

^a Data obtained from Kentucky Department of Education. ^b Data obtained from NCES CCD.

Graduates by School District Metropolitan Status

Kentucky has 176 public school districts. Kentucky's public high school graduates were mainly from rural school districts. Of the 176 school districts, 135 were rural in 1996 and 134 were rural in 1998. As shown in Table 108, high school graduates from rural school districts numbered 21,334 in 1996, and 20,998 in 2000.

In 1998, U.S. Census Bureau reclassified six school districts from suburban to central cities, and one district from rural to suburban. Previously, there were no central city school districts. The percentage and number of high school graduates from central city school districts were 10.1% or 3,772 in 1998 and 10.1% or 3,736 in 2000. Because of the reclassification of school districts by metropolitan status, the number of suburban school districts decreased and as a result, the number and percentage of high school graduates from suburban school districts decreased. In 1996, 5,263 or 41.7% of public high school graduates were from the 41 suburban school districts. In 2000, 12,041 or 32.7% of the graduates were from the 36 suburban school districts.

Table 108

Kentucky's Public High School Graduates by School District Metro Status ^a

Year	Percentage of Graduates by School District Metro Status		
	Central City	Suburban	Rural
1996 ^b	0.00	41.71	58.29
1998 ^c	10.13	33.20	56.67
1999	9.87	33.16	56.83
2000	10.14	32.69	57.01

^a Percentages may not add up to 100.00% due to non-reporting by students or school districts.

^b Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995. The number of school districts by metro status were: City = 0, Suburban = 41, and Rural = 135.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997 and 1999. The number of school districts by metro status were: City = 6, Suburban = 36, and Rural = 134.

Graduates by School District Poverty Level

In 1995, Kentucky's poverty level was 27.0% for people under 18 years of age, which was a medium poverty classification for this study. The majority of graduates were from medium poverty school districts (see Table 109). In 1996, 58.8% or 21,534 of the high school graduates were from the 88 medium poverty level school districts. Sixty-six of the public school districts were classified as having high poverty, and 25.5% or 9,323 of the high school graduates were from those school districts. The remaining students, 15.7% or 5,740, were from the 22 low poverty school districts.

In 1998 the poverty level for people in Kentucky under 18 years of age dropped to 23.1%, which was still in the medium poverty category. Almost 66 percent or 24,410 of the graduates were from the 99 medium classified poverty level school districts. The number of high and low poverty level school districts decreased to 54 and 18, and those districts graduated 5,621 and 7,191 students, respectively.

In 1999, the poverty level dropped again for people under 18 in Kentucky to 20.2%. The number of school districts in high and low poverty areas changed considerably in 1999. The number of low poverty school districts increased to 46 and the number of high and medium poverty school districts decreased to 31 and 94, respectively. The percentage of graduates from low poverty districts rose to 48.5% in 1999 and 48.9% in 2000. High school graduates from high poverty school districts decreased to 10.9% or 4,069 in 1999 and 11.2% or 4,129 in 2000.

Table 109

Kentucky Public High School Graduates by School District Poverty Levels ^a

Year	Percentage of Graduates by School District Poverty Level		
	High	Medium	Low
1996 ^b	25.47	58.84	15.68
1998 ^c	15.10	65.58	19.32
1999^d	10.94	40.40	48.51
2000	11.21	39.77	48.87

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 1995 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 66, Medium = 88, and Low = 22.

^c 1997 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 54, Medium = 99, and Low = 18.

^d 1999 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 31, Medium = 94, and Low = 46.

College-Going High School Graduates

For the five years of this study, Kentucky high school students scored above the national composite mean scores on the SAT, but scored slightly lower than the national mean on the ACT. As shown in Table 110, Kentucky students' SAT composite mean score in 1996 was a 1093 and the national mean was 1013. In 2000, Kentucky students' SAT composite mean was 1098 while the national mean was 1019. Kentucky students' ACT was .8 and .9 below the national ACT mean in 1996 and 2000, respectively.

Table 110

Kentucky College Preparation Test Scores

Year	ACT Mean	SAT Composite Mean
1996	20.1	1093
1998	20.2	1097
1999	20.1	1094
2000	20.1	1098

The percentage of Kentucky high school graduates attending college rose from 52.7% in 1996 to 62.1% in 2000. First-time Kentucky freshmen attending in-state colleges increased from 19,272 in 1998, the year before the Kentucky Educational Excellence Scholarship program was implemented, 22,234 students in 2000. As shown in Table 111, the percentage of first-time freshmen leaving Kentucky for college dropped from a high of 13.8% in 1998 to 12.3% in 2000. However, the numbers show that there has been an increase in graduates leaving Kentucky for college (see Figure 23). In 1996, 2,773 high school graduates left Kentucky for college. By 2000, 3,123 high school graduates left the state to attend college.

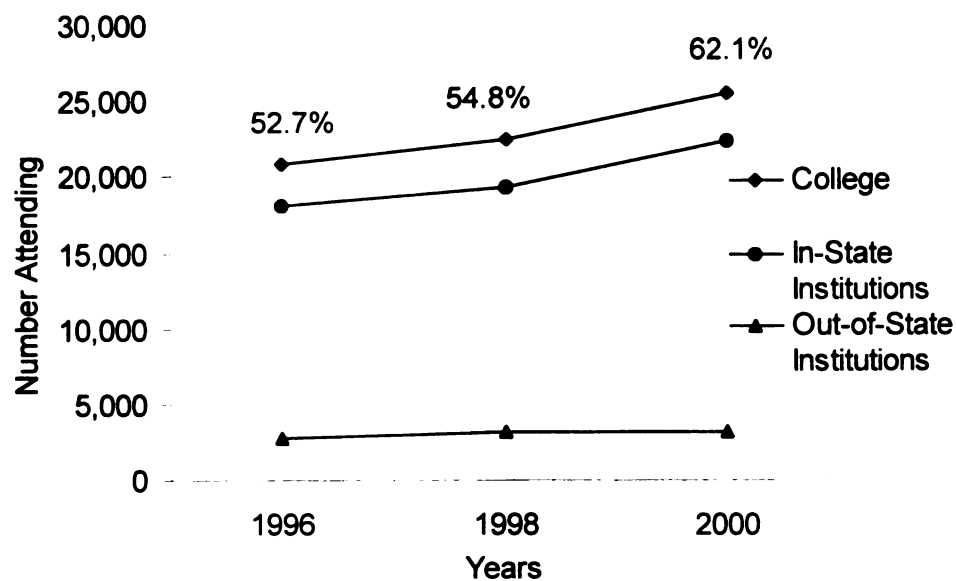
Table 111

Kentucky High School Graduates Attending College

Year	Number of High School		Percentage of Graduates Attending		
	Estimated Total of Graduates	Graduates Attending College	College	In-State Colleges	Out-of-State Colleges
1996	39,670	20,892	52.66	86.73	13.27
1998	40,816	22,360	54.78	86.19	13.81
1999	-	-	-	-	-
2000	40,828	25,357	62.11	87.68	12.32

- Data were not available from NCES IPEDS.

Figure 23. Kentucky high school graduates attending college.



College Choice

Between 1996 and 2000, all Kentucky higher education institutions experienced an increase in the enrollment of first-time Kentucky freshmen (see Table 112 and Figure 24). Four-year public institutions experienced an 8.1% increase while public two-year experienced a 31.4% increase. In 1996, 53.5% or 9,700 of Kentucky's first-time freshmen enrolled in public four-year institutions while 29.6% or 5,364 attended public two-year institutions. By 2000, the percentage distribution of public four-year college freshmen dropped to 47.6% while freshmen attending two-year public institutions increased to 35.2%. However, the numbers show that both public four-year and two-year institutions experienced enrollment increases. In 2000, 10,578 first-time freshmen attended public four-year and 7,821 first-time freshmen enrolled in public two-year institutions. Between 1996 and 2000, the number of proprietary institutions in Kentucky increased from seven to 37. As a result, enrollment of first-time Kentucky freshmen in proprietary institutions increased from 270 in 1996 to 787 in 2000.

Of the 9,700 first-time freshmen choosing public four-year institutions in 1996, 19.8% chose to enroll in the University of Kentucky and 16.3% chose to attend the University of Louisville. Then in 2000, 21.0% of the 10,578 first-time freshmen chose to enroll in the University of Kentucky and 18.9% chose to attend the University of Louisville.

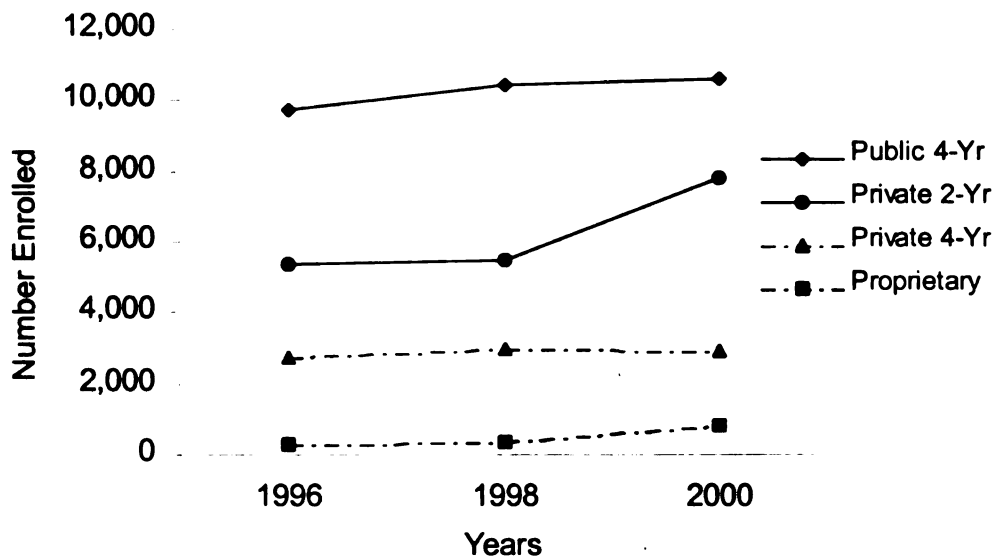
Table 112

Kentucky First-Time Freshmen In-State College Choice Patterns

Percentage of First-Time Kentucky Freshmen Attending Kentucky						
Year	Number of Graduates Attending College in Kentucky					
		Public Four-Year Institution	Public Two-Year Institution	Private Four-Year Institution	Private Two-Year Institution	Proprie- tary Institution
1996	18,119	53.53	29.60	15.07	.30	1.49
1998	19,272	54.10	28.37	15.33	.42	1.78
1999	-	-	-	-	-	-
2000	22,234	47.58	35.18	13.13	.57	2.51

- Data were not available from NCES IPEDS in the odd years.

Figure 24. Kentucky first-time freshmen in-state college choice patterns.



Kentucky Educational Excellence Scholarship

The Kentucky Educational Excellence Scholarship (KEES) was established in fiscal year 1999 through Senate Bill 21. The goal of KEES is to encourage Kentucky students to get the most from high school by studying hard and making good grades. The Kentucky Legislature believes that if students pursue and complete their college studies then they will have a better opportunity to achieve their career goals and improve their standard of living. A portion of the net profits from the state lottery is set aside for the scholarship. Kentucky Higher Education Assistance Authority provided the KEES data.

Eligibility for KEES is based on a yearly GPA beginning the freshman year of high school. The GPA is based on a required high school graduation curriculum, and students must take at least five courses a year from this required subject list. Bonus awards are given based on ACT or SAT score. Scholarship recipients can earn from \$125 to \$500 a year based on their GPA, and the bonus awards range from \$21 to \$300 in 1999, and \$36 to \$500 thereafter. The maximum amount students can earn each year of

high school is \$2,500, which is then sent each year to the higher education institution they are enrolled.

KEES scholarship recipients must attend an eligible public or private Kentucky postsecondary institution. Recipients may enroll part-time, and must maintain a 3.0 GPA if they want to renew their full scholarship each year.

KEES Recipients

In the first year of the Educational Excellence Scholarship 29,760 students qualified for the base award and 20,640 qualified for the bonus awards. The 1999 graduates earned their scholarship starting in 1995-96, while the class of 2001 earned their scholarship starting in 1997-98. As seen in Table 113, the number of eligible high school graduates increased for both the scholarship and bonus awards.

Table 113

Kentucky High School Graduates Eligible for Educational Excellence Scholarship and Number Enrolled

Year	Number of		Cumulative Number of Scholarship Recipients Enrolled
	Eligible High School Students	Bonus Awards	
1999	29,760	20,640	-
2000 ^a	33,370	21,960	18,210
2001	33,640	22,470	31,140

^a Data were unavailable. ^a Number was unduplicated headcount in 2000-2001 and 2001-2002.

College Choice

In 2000 and 2001, over 53 percent of Kentucky Educational Excellent Scholarship recipients enrolled in public four-year institutions (see Table 114). Recipients attending

public two-year institutions were 29.8% and 29.3% in 2000 and 2001, respectively.

Private four-year institutions also served scholars, enrolling 13.9% in 2000 and 14.2% in 2001. The percentages were based on cumulative numbers of KEES recipients.

Table 114

Cumulative Percentage of Kentucky Scholarship Recipients Enrolled in Kentucky Postsecondary Institutions.

Year	Percentage of Scholars Enrolled in				
	Public Four- Year Institutions	Public Two- Year Institutions	Private Four- Year Institutions	Private Two- Year Institutions	Proprietary Institutions
1999	-	-	-	-	-
2000 ^a	53.81	29.75	13.91	.38	2.15
2001 ^b	53.40	29.32	14.19	.47	2.62

^a Data were unavailable. ^b In 2000, 410 KEES recipients attended more than one institution. ^c In 2001, 510 KEES recipients attended more than one institution.

KEES Recipients Home School District Metropolitan Status

Over fifty-three percent of the recipients were from one of the 134 rural school districts since the program was implemented. Suburban high school graduates comprised approximately 36 percent of the scholarship recipients. The other ten percent of scholarship recipients were from one of the six central city school districts. As seen in Table 115, the percentage of recipients from the three metropolitan status areas varied little between 1999, when the program was implemented, and 2002.

Table 115

Kentucky Scholarship Recipients by Home School District Metropolitan Status^{a, b}

	Percentage of Recipients by School District Metro Status		
	Central City	Suburban	Rural
	(n = 6)	(n = 36)	(n = 134)
1999	10.46	35.78	53.34
2000	10.10	35.77	52.91
2001	10.75	37.25	52.01
2002	10.90	36.80	52.30

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997.

^b Percentages may not add up to 100.00% due to non-reporting by students.

KEES Recipients Home School District Poverty Level

The majority of KEES recipients reside in low poverty school districts (see Table 116). In the first year of the program, 54.2% of the recipients were from the 46 low poverty school districts, whereas only 10.1% were from the 31 high poverty school districts. The other 94 school districts were established as having medium poverty for people under 18, and 35.3% of the recipients were from those medium poverty school districts. In 2002 the percentages were similar, 52.4% of KEES recipients were from school districts with low poverty, 10.2% were from high poverty school districts, and 36.8% were from medium poverty school districts.

Table 116

Kentucky's Scholarship Recipients by Home School District Poverty Level^{a, b}

Year	Percentage of Recipients by School District Poverty Level		
	High (n = 31)	Medium (n = 94)	Low (n = 46)
1999	10.07	35.34	54.18
2000	10.50	38.20	50.87
2001	10.42	37.84	51.74
2002	10.21	36.77	52.35

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau in 1999. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

Nevada

Nevada Statute 396.911 established the Nevada Millennium Scholarship for the 2000 school year. The goals of the program are to motivate students to be successful in the achievement of a rigorous program of study in high school, and to encourage students to enroll in and graduate from an eligible Nevada higher education institution.

The first part of this section I provide a demographic profile of Nevada's high school graduates since 1996, or four years prior to the beginning of the Nevada Millennium Scholarship, through 2000. The demographic information includes numbers and percentage of graduates by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan status, participation in higher education, and college choice. Second, I describe the Nevada Millennium recipients by school district metropolitan status and poverty level, and college choice.

Nevada High School Graduates

Graduation Rates

Between 1990 and 2000, Nevada's population grew 66.3%. Between 1991 and 2000, the number of public high school graduates increased 45.8%. Over the five years of this study, the number of high school graduates increased from 10,038 in 1996 to 14,551 in 2000. As shown in Table 117, the percentage of public high school graduates by ninth grade cohort was 78.4% and by twelfth grade cohort was 87.9%. However, the percentage of graduates in 2000 by ninth and twelfth grade cohort decreased to 71.8% and 82.3%, respectively.

Table 117

Nevada High School Graduates

Year	Number of Public High School		Percentage of Public High School Graduates by		Estimated Non-Public High School Graduates
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	
1996	14,143	10,038	78.37	87.85	664
1998	15,782	13,052	74.35	88.02	439
2000	18,319	14,551	71.83	82.97	639

Graduation Rates by Ethnicity

All five ethnic groups experienced an increase in the number of high school graduates between 1996 and 2000 (see Table 118). In 1996, 74.5% or 8,467 of the public high school graduates in Nevada were White, followed by 11.2% or 1,272 Hispanic graduates. By 2000, the distribution shifted slightly as the percentage of White graduates decreased while the percentage of Black, Hispanic, and Asian graduates increased. In

O, the Nevada public high school graduating class comprised of 10,299 White, 1,265 Black, 1,863 Hispanic, 204 Native American, and 920 Asian students.

Table 118

Nevada Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	74.53	8.22	11.20	1.64	5.47
1998	72.00	8.09	12.59	1.65	5.67
2000	70.78	8.69	12.80	1.40	6.32

Graduates by Gender

The data available on gender of high school graduates was not available from NCES until 1998. In 1998 and 2000, a higher percentage of females graduated from Nevada public high schools. As shown in Table 119, 50.9% or 6,642 of the graduates were female in 1998. Two years later, 51.2% or 7,363 of the public high school graduates were female.

Table 119

Nevada Public High School Graduates by Gender^a

Year	Percentage of Graduates by Gender	
	Male	Female
1998	47.12	50.89
2000	49.40	50.60

^a Data were not available until 1998 from NCES CCD.

Graduates by School District Metropolitan Status

Nevada's sixteen school districts were primarily located in rural areas, but the majority of public high school graduates were from one of the three suburban school

districts (see Table 120). In 1996, 63.7% of the graduates were from suburban areas. Twelve districts were located in rural areas and 19.0% of the graduates were from those districts. The only central city school district, which includes the city of Reno, graduated 17.3% students in 1996. The distribution of high school graduates was fairly similar in 1998 as 17.0% of the graduates resided in the only central city school district, 63.9% were from suburban school districts, and 19.1% were from rural school districts.

Table 120.

Nevada Public High School Graduates by Metropolitan Status Area ^a

Year	Percentage of Graduates by School District Metro Status		
	Central City (n = 1)	Suburban (n = 3)	Rural (n = 12)
1996	17.35	63.68	18.97
1998	17.80	62.70	19.50
2000	16.97	63.91	19.12

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997 and 1999.

Graduates by School District Poverty Level

The percentage of Nevada people under age 18 in poverty was 10.2% in 1995, 13.1% in 1997 and 13.3% in 1999. These three poverty levels are considered low poverty for this study (0-15%). As shown in Table 121, all school districts were classified as low poverty in 1996. In 1998, 4 of the 16 school districts were reclassified to medium poverty areas (16-29%) and 3.8% or 500 of the graduates were from the four school districts. Then in 2000, one more district was reclassified as having medium poverty. The five medium poverty school districts graduated 5.8% of the 2000 high school graduating class. Four of those five medium poverty school districts were located in rural areas.

Table 121***Nevada Public High School Graduates by School District Poverty Level ^a***

Year	Percentage of Graduates by School District Poverty Level	
	Medium	Low
1996^b	0.0	100.00
1998^c	3.83	96.17
2000^d	5.84	94.16

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower

^b 1995 U.S. Census Bureau poverty level data. The number of school districts by poverty level were: High: n = 0, Medium: n = 0, and Low: n = 16.

^c 1997 U.S. Census Bureau poverty level data. The number of school districts by poverty level were: High: n = 0, Medium: n = 4, and Low: n = 12.

^d 1999 U.S. Census Bureau poverty level data. The number of school districts by poverty level were: High: n = 0, Medium: n = 5, and Low: n = 11.

College-Going High School Graduates

In 1996, Nevada students scored a 21.2 ACT mean and 1015 SAT composite mean, while the national averages were 20.9 and 1013, respectively. In 2000, Nevada students scored slightly higher on both the ACT and SAT (see Table 122). Nevada students scored a 21.5 ACT mean and a 1027 SAT composite mean while the national averages were a 21.0 ACT mean and a 1019 SAT composite mean.

Table 122***Nevada College Preparation Test Scores***

Year	ACT Mean	SAT Composite Mean
1996	21.2	1015
1998	21.4	1023
2000	21.5	1027

Between 1996 and 2000, the percentage of Nevada high school graduates increased 29.5%. During the same time, the percentage of high school graduates

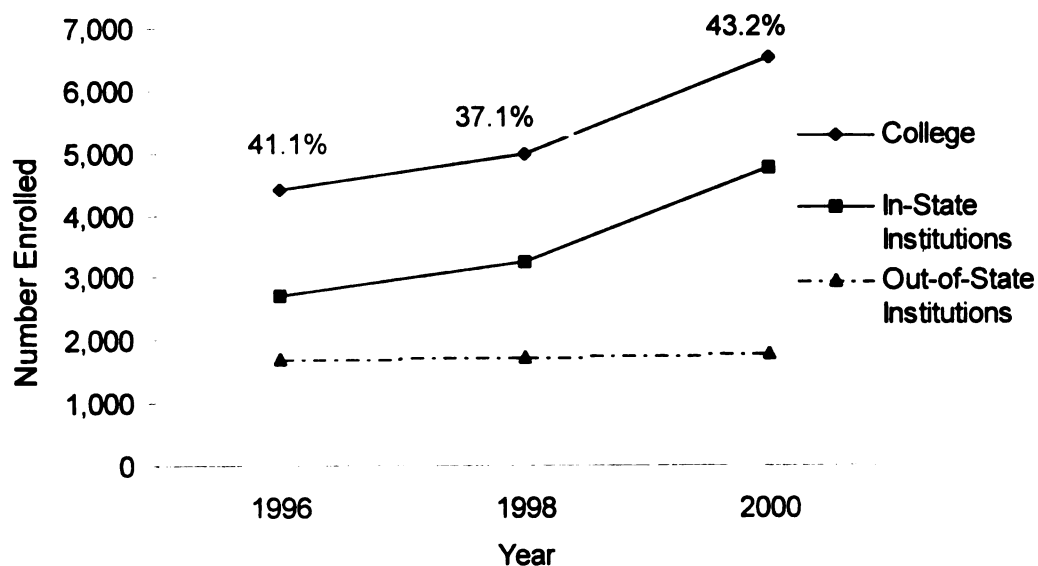
enrolling in college increased by 32.9%. In 1996, 61.3% of those attending college chose to stay in-state and the other 38.7% left Nevada for college (see Table 123 and Figure 25). By 2000, 72.8% of the 6,555 graduates attending college chose to stay in-state and 27.2% or 1,784 decided to leave the state for college.

Table 123

Nevada High School Graduates Attending College

Year	Number of		Percentage of Graduates Attending		
	High School Graduates	Graduates Attending College	Higher Education Institutions	In-State Institutions	Out-of-State Institutions
1996	10,702	4,399	41.10	61.29	38.71
1998	13,491	5,002	37.08	65.17	34.83
2000	15,190	6,555	43.15	72.78	27.22

Figure 25. Nevada high school graduates attending college.



College Choice

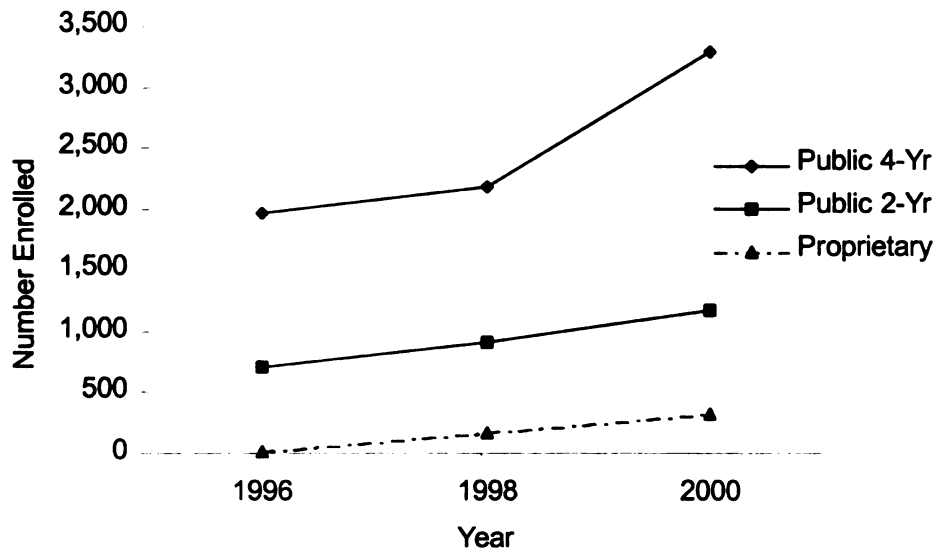
In 1996, only 27 of the 2,696 first-time Nevada freshmen did not choose to attend either a public four-year or two-year institution. As seen in Table 124 and Figure 26, 73.0% or 1,968 chose public four-year institutions in 1996. By 2000, 2,075 more first-time freshmen were attending college, and 68.8% or 3,283 chose public four-year institutions. Despite a decrease in the percentage distribution of first-time freshmen attending public two-year institutions, the number increased from 701 in 1996 to 1,169 in 2000. Lastly, the number and percentage of first-time freshmen enrolling in proprietary institutions increased significantly between 1996 and 2000.

Table 124

Nevada First-time Freshmen In-State College Choice Patterns

Year	Number of Graduates Attending College in Nevada	Percentage of Graduates Attending Nevada			
		Public Four- Year Institutions	Public Two- Year Institutions	Private Institutions	Proprietary Institutions
1996	2,696	73.00	26.00	.30	.70
1998	3,260	66.78	27.64	.21	5.37
2000	4,771	68.81	24.50	.06	6.62

Figure 26. Nevada first-time freshmen in-state college choice patterns.



Nevada Millennium Scholarship

The Nevada Millennium Scholarship was implemented in the 2000 school year (NRS 396.911). The goals of Millennium Scholarship are to encourage students to be successful in the completion of a rigorous program of study at a Nevada high school, and enroll in and graduate from an eligible Nevada higher education institution. Scholarship funding is supported through the tobacco manufacturer's settlements with the states, and the Nevada State Treasurer oversees the program. The University and Community College System of Nevada adopted the policy guidelines for program administration.

To receive the scholarship, a Nevada high school graduate must pass all areas of the Nevada High School Proficiency Exam, have a 3.0 GPA on high school credit granting courses, and be a Nevada resident for at least two years of high school. The scholarship pays 40-80 dollars a credit depending on type of institution and level of

student. The maximum amount is \$10,000 or eight academic semesters, or 120 credit hours at an independent institution. A scholarship recipient must enroll in an eligible Nevada public or private institution. To maintain the scholarship, a recipient must enroll in at least six credits at a community college or 12 credit hours at a four-year institution; enroll in a program of study leading to a certificate or degree; maintain a 2.0 GPA, and satisfactory progress established by institution.

Scholarship Recipients

Almost half of Nevada's high school graduates were eligible for the Nevada Millennium Scholarship in 2000 and 2001 (see Table 125). In 2000, 50.3% of Nevada high school graduates were eligible, and 29.29% or 4,267 enrolled in Nevada higher education institutions. The number of high school graduates eligible for the Millennium scholarship increased to 8,028 in 2002.

Table 125

Nevada Millennium Scholarship Recipients

Year	Number of Graduates Eligible for Millennium	Ratio of Eligible Scholarship Recipients to High School Graduates	Cumulative Number of Millennium Scholars Enrolled
2000	7,320	50.25	4,267
2001	7,930	52.09	8,078
2002	8,028	-	11,668

- Number of Nevada Public High School Graduates were not available.

School District Metropolitan Status for Scholars

A slightly higher percentage of Millennium Scholarship recipients are from the central city school district (see Table 126). In 2000, 20.3% or 864 of the Millennium Scholarship recipients were from Washoe, the only central city school district. Fifty-

seven percent of the Washoe school district graduates were eligible for the scholarship, and thirty-five percent of the Washoe school district recipients enrolled in college. Three of the 16 school districts were located in suburban areas, and 62.6% and 60.5% of the Millennium Scholarship recipients were from suburban school districts in 2000 and 2002, respectively. And in 2000, 17.2% or 733 of the recipients were from rural areas.

Table 126
Nevada Millennium Scholarship Recipients by School District Metropolitan ^a

Year	Percentage of Recipients by School District Metro Status		
	Central City	Suburban	Rural
	(n = 1)	(n = 3)	(n = 12)
2000	20.25	62.57	17.18
2002	21.91	60.46	17.62

School District Poverty Levels for Scholars

In both 2000 and 2002, over 95 percent of the Millennium Scholarship recipients resided from school districts with low poverty levels (see Table 127). In 2000, only 203 of the recipients resided in one of five school districts with medium poverty levels. By 2002, the cumulative number of scholarship recipients from medium poverty school districts was 500.

Table 127

Nevada Millennium Scholarship Recipients by School District Poverty Levels

Year	Percentage of	
	Medium (n = 5)	Low (n = 11)
2000	4.76	95.24
2002	4.29	95.71

▪ Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

Scholars' College Choice

Of the 4,267 Millennium Scholarship recipients in 2000, 69.5% or 2,967 chose public one of the two four-year Nevada institutions and the other 30.5% or 1,300 chose one of four public two-year institutions. The distribution changed little between 2000 and 2002 (see Table 128). By 2002, 7,898 or 67.7% of the cumulative scholarship recipients enrolled in public four-year institutions.

Table 128

Nevada Millennium Scholarship Recipients College Choice Patterns

	Percentage of Scholars Enrolled in	
	Public Four-Year Institutions	Public Two-Year Institutions
2000	69.53	30.47
2001	67.78	32.14
2002	67.69	32.31

Michigan

The Michigan Educational Assistance Program (MEAP) Merit Award was implemented in 2000. The goals of the Merit Award are to reward Michigan high school graduates who have demonstrated academic achievement and provide access to higher education.

In the first part of this section, I present the demographic profile of the Michigan high school graduate population before and after program implementation, starting in 1996 through 2000. The demographic information includes high school graduate data by ninth and twelfth grade cohort, gender and ethnicity, school district poverty levels and metropolitan statuses, and participation in higher education and college choice. Second, I present a profile of the MEAP Merit Award recipients, including eligible and enrolled recipients by gender and ethnicity, school district poverty levels and metropolitan statuses, and college choice.

Michigan High School Graduates

High School Graduation Rates

Between 1990 and 2000 Michigan's population grew 6.9% while the percentage of public high school graduates grew 12.2%. As shown in Table 129, in 1996 94.4% or 89,695 twelfth graders graduated and in 2000, 95.4% or 96,515 twelfth graders graduated from high school. In addition, the numbers and percentage of graduates by ninth grade cohort increased from 73.0% in 1996 to 73.7% in 2001. Lastly, the number of non-public high school graduates kept steady between 1996 and 2000.

Table 129

Michigan High School Graduation Rates

Year	Number of		Percentage of Graduates by		Number of Estimated Non-Public High School Graduates
	Twelfth Graders	Regular Diploma	Ninth Grade Cohort	Twelfth Grade Cohort	
1996	95,028	89,695	73.00	94.39	9,168
1998	99,665	94,125	73.32	94.44	8,886
2000	101,145	96,515	73.71	95.42	9,114

- NCES PSS only provides estimated non-public high school graduate data in even years.

Graduates by Ethnicity

The ethnicity of Michigan public high school graduates was predominantly White between 1996 and 2000. As shown in Table 130, 74.04% or 72,324 of the high school graduates were White in 1996. By 2000, to 82.4% or 80,470 of the graduates were White. In 1996, 10.8% or 10,550 of the high school graduates were Black. By 2000, 12.4% or 12,108 of the graduates were Black. The percentage and number of Hispanic and Asian public high school graduates also increased between 1996 and 2000. Native American graduates dropped from 1,019 in 1996 to 872 in 2000.

Table 130

Distribution of Michigan Public High School Graduates by Ethnicity^a

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native American	Asian
1996	74.04	10.80	1.85	1.04	1.47
1998	78.57	11.96	1.93	.86	1.62
2000	82.38	12.40	2.24	.89	2.09

^a Percentages may not end up to 100.00% due to non-reporting.

Graduates by Gender

Michigan Department of Education did not report the gender of public high school graduates to NCES until 1999. The percentage distribution of graduates by gender was almost split in half for the years, 1999 and 2000 (see Table). Female graduates comprised 49.3% and 47.7% of the public high school graduating class in 1999 and 2000, respectively.

Table 131

Distribution of Michigan Public High School Graduates by Gender

Percentage of Graduates by Gender			
Year	Male	Female	Unknown
1999	47.05	49.31	3.64
2000	44.50	47.70	7.80^a

^a Detroit and Lansing Public School District did not provide graduate data by gender.

Graduates by School District Metropolitan Status

Michigan has 556 school districts. In 1996, 46 school districts were located in central city, 255 in suburban, and 255 in rural areas (see Table 132). But, in 1998 the U.S. Census Bureau reconfigured several of the school districts. The number of central city and rural school districts dropped to 21 and 221, respectively, and suburban school districts increased to 290.

In 1996, 54.9% percent of the public high school graduates were from one of the 255 suburban school districts. This percentage rose to 61.9% in 2000 when the number of suburban school districts increased from 255 to 290. Central city high school graduates comprised 15.6% of the total graduating class in 1998. This percentage dropped in 2000 to 7.3%, because Detroit and Lansing school districts, which are located

in central cities, did not report number of graduates. By 2000, 70.4% of the graduates were from the 290 suburban school districts.

Table 132

Michigan Public High School Graduates by School District Metropolitan Status^e

Year	Percentage of Graduates by School District Metro Status		
	Central City	Suburban	Rural
1996 ^{a, b}	22.29	54.93	11.60
1998 ^c	15.64	61.98	21.61
2000^d	7.34	70.41	22.25

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1995. The number of school districts by metro status were: City = 46, Suburban = 255, and Rural = 255.

^b Only 532 Michigan school districts reported high school graduates.

^c Obtained from NCES CCD in conjunction with U.S. Census Bureau from 1997. The number of school districts by metro status were: City = 21, Suburban = 290, and Rural = 221.

^d Detroit and Lansing Public Schools did not report their graduating class for 2000.

^e Data does not include Charter Schools or ISDs

Graduates by School District Poverty Level

In 1996, the percentage of Michigan people under age 18 in poverty was 14.5%, which was classified as low poverty for this study. Two years later, the statewide poverty average for people under 18 rose to 18.0%, or medium poverty. Then, in 1999 the percentage dropped to back to low poverty with a 14.2% rate.

In the years 1996 and 1998, Michigan public high school graduates were predominantly from low poverty school districts (see Table 133). In 1996, 337 of the 556 school districts were located in low poverty areas, and over 65 percent of the public high school graduates were from one of those 337 districts. Then in 1998, 408 school districts were located in low poverty areas and again, 64.0% percent of the Michigan graduates were from one of those school districts. High poverty school districts numbered 28 in

1996 and 11 in 1998 and 2000. The high poverty level school districts graduated 11.3% in 1996, 12.0% in 1998, and 2.3% in 2000.

For the school year 2000, Detroit and Lansing Public School Districts did not report the number of graduates and therefore, the distribution percentages are skewed. As a result, the percentage of the graduates from the 105 medium poverty school districts, not including Detroit and Lansing, was 14.3%.

Table 133

Michigan Public High School Students by School District Poverty Level^{a, f}

Year	Percentage of Graduates by School District Poverty Level		
	High	Medium	Low
1996 ^b	11.28	22.98	65.74
1998 ^c	12.04	24.01	63.95
2000^{d, e}	2.33	14.33	83.34

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b 1995 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 28, Medium = 191, and Low = 337.

^c 1997 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 11, Medium = 104, and Low = 409.

^d 1999 U.S. Census Bureau statistics. The number of school districts by poverty level were: High = 11, Medium = 105, and Low = 408.

^e Detroit and Lansing Public School Districts did not provide high school graduate numbers, and both are considered medium poverty level school districts in 1999.

^f Data does not include Charter Schools or ISDs.

College-Going High School Graduates

Michigan high school students scored higher than the national ACT and SAT averages between 1996 and 2001. In 1996, Michigan's ACT mean was 21.1 and as seen in Table 134, the national ACT mean was 20.9. In 2000, the Michigan ACT mean was 21.3, which was .3 points above the national mean score. In addition, the national SAT composite mean was 1013 in 1996 and 1019 in 2000. Michigan scored on the average 109 and 107 points higher.

Table 134

Michigan College Preparation Test Scores

Year	ACT Mean	SAT Composite Mean
1996	21.1	1122
1998	21.3	1127
2000	21.3	1126
2001	21.3	1133

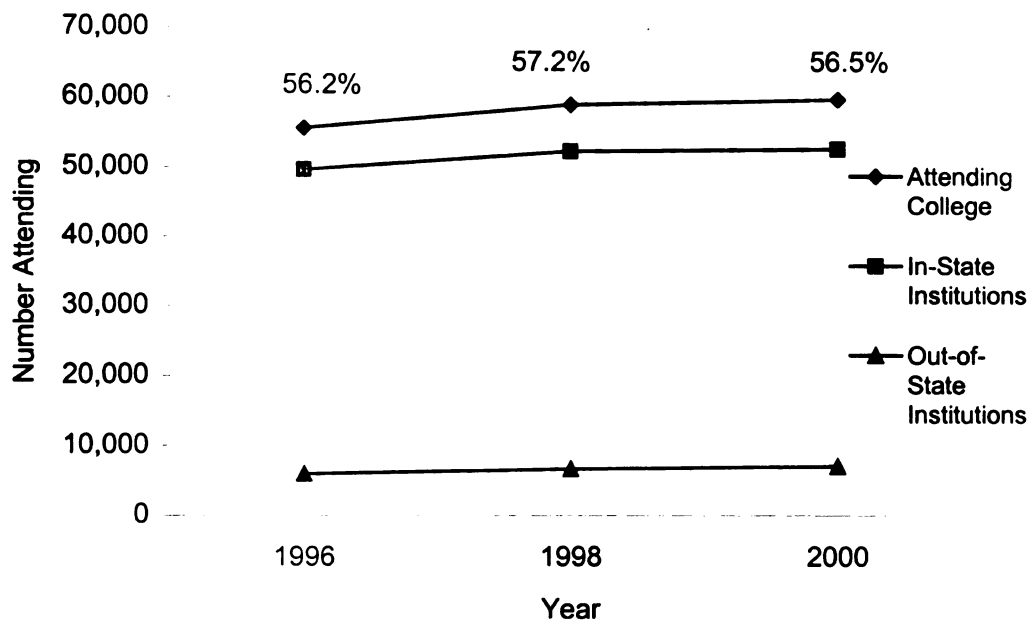
The percentage of Michigan high school graduates attending college and staying in-state for college held steady during the late 1990s. The number of high school graduates attending college increased from 55,551 in 1996 to 59,674 in 2000 (see Table 135 and Figure 27). The percentage of Michigan graduates leaving the state for college slowly rose from 10.7% or 5,940 in 1996 to 11.8% or 7,060 in 2000.

Table 135

Michigan High School Graduates Attending College

Year	Number of		Percentage Attending		
	Total				
	Estimated of	Graduates			
	High School	Attending		In-State	Out-of-
	Graduates	College	College	Colleges	State
					Colleges
1996	98,863	55,551	56.19	89.31	10.69
1998	103,011	58,918	57.20	88.72	11.28
2000	105,629	59,674	56.49	88.17	11.83

Figure 27. Michigan high school graduates attending college.



College Choice

The college choice patterns of Michigan first-time freshmen varied over the five years of this study (see Table 136 and Figure 28). In 1996, 27,247 of freshmen chose public four-year, 14,678 chose public two-year, and 7,654 chose private four-year institutions. In 2000, the number and percentage attending public four-year institutions decreased slightly to 27,185. This decrease was the result of the University of Michigan-Ann Arbor not reporting the number of 2000 first-time freshmen to IPEDS. On the other hand, the number and percentage attending public two-year, private four-year, and proprietary institutions experienced increased to 15,423, 8,530, and 1,446, respectively.

First-time Michigan freshmen primarily chose four of the 15 institutions in 1996: Michigan State University—23.3%, University of Michigan-Ann Arbor—11.4%, Western Michigan University—10.6%, or Central Michigan University—9.6%. In 2000,

first-time Michigan mainly chose: Michigan State University—23.0%, Western Michigan University—14.7%, Central Michigan University—12.4%, and Grand Valley State University—9.9%.

Table 136

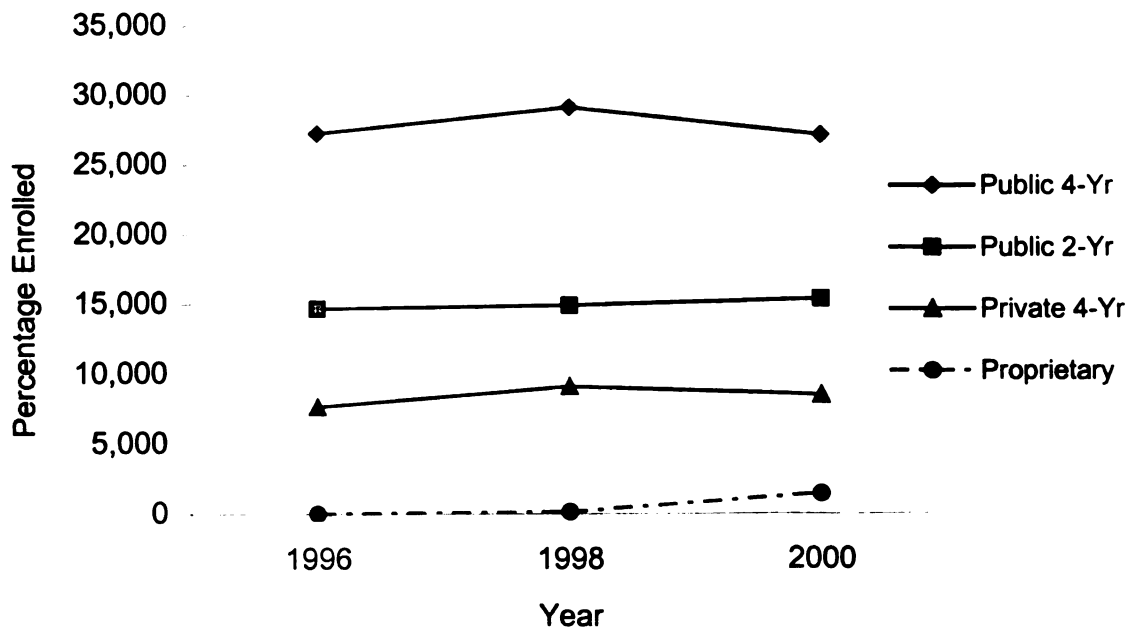
Michigan First-Time Freshmen In-State College Choice Patterns^a

Year	Number of Graduates Attending College in Michigan	Percentage of Graduates Attending Michigan			
		Public Four-Year Institutions	Public Two-Year Institutions	Private Four-Year Institutions	Proprietary Institutions
1996	49,611	54.92	29.59	15.43	.02
1998	52,273	55.75	28.56	17.43	.25
2000	52,614	51.67 ^b	29.31	16.21	2.75

^a Private two-year institutions were not shown because enrollment was below .10 percent in 2000.

^b University of Michigan-Ann Arbor did not report 2000 first-time freshmen enrollment to NCES IPEDS.

Figure 28. Michigan first-time freshmen in-state college choice patterns.



Michigan Merit Award Scholarship

The Michigan Merit Award Scholarship was created in 1999 and implemented in 2000. The purpose is to increase access to postsecondary education and reward Michigan high school graduates who have demonstrated academic achievement through the Michigan Educational Assessment Program (MEAP). The Michigan Merit Award is administered by the Michigan Department of Treasury, and funding is attained from the Michigan Tobacco Settlement.

To qualify for a Merit Award, a student must take the MEAP high school tests in mathematics, reading, science, and writing, and score a Level 1 (exceeded Michigan standards) or Level 2 (met Michigan standards) on the four tests and meet all other eligibility requirements. If a student takes all four of the MEAP tests and meets or exceeds state standards on at least two, they can also qualify by his or her ACT or SAT score, or ACT Work Keys job skills assessment tests.

For the years 2000 to 2002, award recipients received a \$2,500 lump sum payment or two payments paid in consecutive school years. Starting in 2003, recipients receive \$2,500 paid over two consecutive school years. Merit Award recipients can use the \$2,500 at an approved Michigan postsecondary institution. If the award recipient decides to attend college out-of-state, then the he or she will receive \$1,000 to attend that college. Thus far, scholarship recipients have used the awards at United States military institutions according to the data provided by the Michigan Department of Treasury. The Department of Treasury provided the Merit Award recipient data for the years 2000 through 2002.

Merit Award Recipients

High school graduates who are eligible must apply for the Merit Award. The percentage and number of eligible scholarship students, including public and private high school graduates, increased since the program was implemented. However, the number of students accepting the scholarship and enrolling in postsecondary institutions decreased over the three years (see Table 137). In the first-year of the program, 45.6% of Michigan high school graduates were eligible for the Merit Award. Of those eligible, 93.2% of enrolled in college. By 2002, 52.2% of Michigan high school graduates were eligible for the award, but only 76.2% of the students eligible for the Merit Award went on to enroll in college.

Table 137

Eligible and Enrolled Michigan Merit Award Recipients

Year	Number of Students		Percentage of Merit
	Eligible	Enrolling	Award Recipients Enrolling to Number of Eligible Students
2000	43,179	40,240	93.19
2001	48,671	44,382	91.19
2002	51,733	39,471	76.24

As shown in Table 138, the percentage and number of public high school graduates eligible for the Merit Award increased between 2000 and 2002. Approximately 40.8% of the 2000 graduating class were eligible and by 2002, 46.6% of the 2002 public high school graduating class were eligible for the Merit Award.

Table 138

Michigan Merit Award by Public High School Recipients

Year	Number of Graduates Eligible	Number of Public High School Graduates	Percentage of Eligible Merit Award Recipients to Graduates
2000	36,741	94,698	40.83
2001	43,537	99,227	43.88
2002	46,212	99,100	46.63

Merit Award Eligibility by Ethnicity

The state government relies on students to self-disclose their ethnicity on their application. As a result, the 2000 data does not represent the ethnicity of the 36,741 eligible award students. In addition, graduates are able to check a ethnicity category called “other”. As shown in Table 139, in 2000 the “other” category comprised 21.8% of the eligible students. The 2001 and 2002 percentage and number distribution of eligible graduates by ethnicity were more representative. Eligible Merit Award recipients comprised of over 84 percent White and less than four percent Black graduates. Hispanic, Native American and Asian graduates comprised 4.8% and 5.5% of the eligible graduates in 2001 and 2002, respectively.

Table 139

Ethnicity of High School Graduates Eligible Michigan Merit Award^a

Year	Percentage Ethnicity					
	White	Black	Hispanic	Native American	Asian	Other
2000	71.25	2.83	1.36	.52	2.29	21.75^b
2001	85.12	3.66	1.43	.82	2.50	6.47
2002	84.41	3.75	1.56	.58	3.31	6.39

^a Based on cumulative number for ethnicity of eligible Michigan Merit awardees. ^b Other category includes non-respondents.

Merit Award Eligibility by Gender

The distribution of eligible Merit Award graduates by gender illustrates that females comprised the majority of eligible recipients. Table 140, shows females comprising at least 54.2% of the 36,741 eligible recipients in 2000 and 54.0% of the 46,212 eligible recipients in 2002.

Table 140

Gender of High School Graduate Eligible for Merit Award^{a, b}

Year	Percentage of Graduates by Gender	
	Male	Female
2000	45.20	54.21
2001	46.79	52.44
2002	45.45	53.97

^a Percentages do not add up to 100% because of students not disclosing gender. ^b Based on cumulative number for gender of eligible Michigan MAEP scholarship awardees.

School District Metropolitan Status for Merit Award recipients

Eligible Merit Award recipients were predominantly from suburban public school districts. In the first year of the program, 74.8% or 31,549 of the eligible public high school graduates were from one of the 290 suburban school districts. The percentage of

suburban eligible graduates dropped slightly in 2002, while the percentage of eligible rural graduates increased to 22.6% or 10,455. As seen in Table 141, the 21 central city school districts produced approximately 10% of the eligible graduates.

Table 141

Michigan Public High School Eligible Merit Award Recipients by School District Metropolitan Status^{a, b}

Year	Percentage of Recipients by School District Metro Status		
	Central City (n = 21)	Suburban (n = 290)	Rural (n = 220)
2000	10.40	74.77	14.83
2001	9.32	67.47	23.21
2002	9.10	68.27	22.62

^a Obtained from NCES CCD in conjunction with 1999 U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b Data does not include Charter Schools or ISDs.

School District Poverty Levels for Merit Award recipients

Four hundred and eight of the 556 school districts were categorized as being located in low poverty areas (below 15% for people under the age 18). Eighty-three percent or 30,488 of the eligible recipients were from the low poverty school districts in 2000 (see Table 142). Sixteen percent of the eligible recipients were from medium poverty school districts. The number of eligible public high school graduates from the three poverty levels increased by 2002. Students eligible for the award from low poverty school districts numbered 39,962 or 86.5%, and from medium poverty school districts numbered 5,984 or 12.9%.

Table 142

Michigan Public High School Eligible Merit Award Recipients by School District Poverty Level^{a, b, c}

Year	Percentage of Recipients by School Districts Poverty Level		
	High (n = 11)	Medium (n = 105)	Low (n = 408)
2000	.88	15.79	82.98
2001	.83	13.16	86.01
2002	.95	12.57	86.48

^a Obtained from NCES CCD in conjunction with 1999 U.S. Census Bureau data. The poverty level categories were: High = 30% or great, Medium = 16-29%, and Low = 15% or lower.

^b U.S. Census Bureau did not provide poverty data for three school districts.

^c Data does not include Charter Schools or ISDs.

College Choice Patterns of Merit Award Recipients

In 2000 and 2001, Merit Award recipients primarily chose to attend public four-year institutions. In 2000, 62.0% or 24,956 enrolled in Michigan public four-year institutions and 25.8% or 10,375 enrolled in public two-year institutions (see Table 143 and Figure 29). By 2002, recipients chose public two-year institutions over public four-year institutions. Sixty-percent of the recipients enrolled in public four-year while 41.5% or 16,359 enrolled in public two-year institutions. Since the inception of the Merit program, private four-year institutions enrolled approximately 12% of the Merit Award recipients. In 2000, 41 recipients used the award at United State military academies. This number increased to 55 and 59 in 2001 and 2002, respectively.

Of the 24,957 Merit Award recipients choosing public four-year institutions in 1996, 21.8% chose Michigan State University, 12.3% chose Western Michigan University, 11.9% chose University of Michigan-Ann Arbor, and 11.3% chose Central Michigan University. Even though the percentage of scholarship recipients choosing public four-year institutions decreased to 45.1% in 2002, the four institutions that enroll

the majority of Merit Award recipients experienced an increase in enrollment. Of the 17,809 scholarship recipients in 2002, 29.0% chose Michigan State University, 17.1% chose Western Michigan University, 16.7% chose University of Michigan-Ann Arbor, and 14.9% chose Central Michigan University.

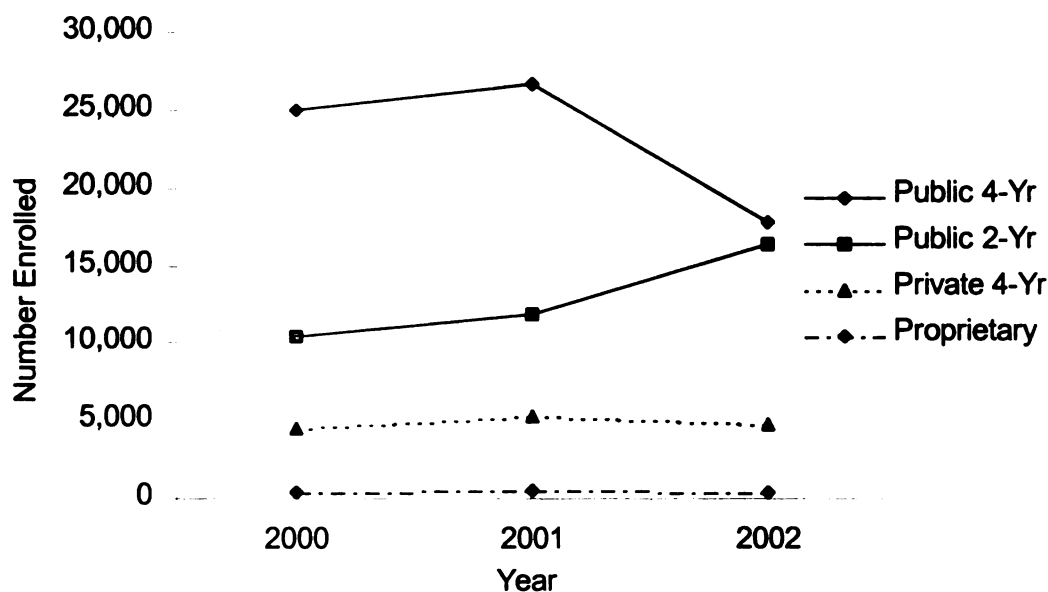
Table 143

Michigan Merit Award Recipients' College Choice Patterns

Percentage of Scholars Enrolled in					
	Public Four- Year Institutions	Public Two- Year Institutions	Private Four- Year Institutions	Proprietary Institutions	Out of State Institutions ^a
2000	62.02	25.78	11.22	.89	.10
2001	60.14	26.66	11.92	1.16	.12
2002	45.12	41.45	12.15	1.14	.15

^a Out-of-state institutions were United States military academies.

Figure 29. Michigan Merit Award recipients' college choice patterns.



West Virginia

The West Virginia Legislature created the Providing Real Opportunities for Maximizing In-State Student Excellence (PROMISE) Scholarship program in 2002. The goals of PROMISE program are to increase educational opportunities and to build a competitive West Virginia workforce.

In the first part of this section, I provide a demographic profile of West Virginia 's high school graduate population starting in 1998 through 2000. West Virginia's PROMISE Scholarship program was not implemented until 2002, so the data provided creates a foundation for later year's analysis. The demographic information includes number and percentages of high school graduates by ninth and twelfth grade cohort, school district poverty levels and metropolitan status, participation in higher education, and college choice. Second, I describe West Virginia's PROMISE Scholarship recipients for the first year of the program, including eligible and enrolled recipients by household income level, school district metropolitan status and poverty levels, and college choice.

West Virginia High School Graduates

Graduation Rates

West Virginia's population grew .8% between 1990 and 2000. The percentage of twelfth graders receiving diplomas increased from 92.5% in 1998 to 93.5% in 2002. However, the number of twelfth graders decreased. As a result, the number of public high school graduates decreased from 20,130 in 1998 to 17,147 in 2002 (see Table 144). The number of ninth graders also decreased between 1998 and 2002. And, the

percentage of ninth graders completing high school decreased from 80.1% in 1998 to 73.5% in 2002.

Table 144

West Virginia High School Graduates

Year	Number of Public High School		Percentage of Public High School Graduates by		Estimated Non-Public High School Graduates
	Twelfth Graders	Graduates	Ninth Grade Cohort	Twelfth Grade Enrollment	
1998 ^a	21,765	20,130	80.14	92.49	713
2000	20,982	19,437	81.41	92.64	883
2002^b	18,336	17,147	73.50	93.52	-

- Data were not available yet for 2002 from NCES PPS. ^a Data obtained from NCES CCD. ^b Data provided by West Virginia Department of Education.

Ethnicity of Public High School Graduates

West Virginia public high school graduates were predominantly White. In 1998, 95.7% or 19,268 of the 20,130 graduates were White. And in 2000, 95.3% or 18,529 of the graduates were White. As shown in Table 145, Black graduates were a distant second numbering 667 in 1998 and 678 in 2000. The percentage of Hispanic, Native American, and Asian graduates were below .6%.

Table 145

West Virginia Public High School Graduates by Ethnicity

Year	Percentage of Graduates by Ethnicity				
	White	Black	Hispanic	Native	Asian
				American	
1998	95.56	3.31	.35	.16	.58
2000	95.33	3.49	.38	.12	.69

West Virginia Public High School Graduates by Gender

As seen in Table 146, the percentage and number of graduates by gender were almost split equally between male and female. In 1998, 10,098 of the 20,130 public high school graduates were female. And in 2000, 9,695 of the 19,437 of the public high school graduates were female.

Table 146

West Virginia Public High School Graduates by Gender

Year	Percentage of Graduates by Gender	
	Male	Female
1998	49.92	50.08
2000	50.12	49.88

Graduates by School District Metropolitan Status

West Virginia has 55 public school districts. According to the U.S. Census Bureau, three school districts were located in central cities, 10 in suburban and 42 in rural areas in 1998 and 2000. As shown in Table 147, public high school graduates from rural school districts were 56.7% or 11,416 and 55.7% or 10,827, respectively. The 10 suburban school districts graduated 31.8% or 6,395 and 32.9% or 6,386 in 1998 and 2000, respectively. Central city school districts numbered three, and over 11 percent of the graduates were from one of the three school districts.

Table 147

West Virginia Public High School Graduates by School District Metropolitan Status^{a, b}

Year	Percentage of Graduates by School District Metro Status		
	Central City (n = 3)	Suburban (n = 10)	Rural (n = 42)
1998	11.47	31.77	56.71
2000	11.40	32.85	55.70

^a 1997 and 1999 U.S. Census Bureau statistics in conjunction with NCES CCD.

^b Percentages do not total 100.00% because of graduate numbers from West Virginia School for the Deaf & Blind, which did not have a metropolitan status assigned to it (10 graduates in 1998 and 8 graduates in 2000).

Graduates by School District Poverty Levels

In 1999, the poverty level for people in West Virginia under 18 years of age was 23.2%, which was established as a medium poverty category for this study. Forty-two school districts were classified as having medium poverty. These school districts graduated 79.0% and 78.6% of public high school students in 1998 and 2000, respectively. As shown in Table 148, the remaining graduates were from the eight high or seven low poverty school districts.

Table 148

West Virginia Public High School Graduates by School District Poverty Levels^{a, b}

Year	Percentage of Graduates by School District Poverty Level		
	High (n = 8)	Medium (n = 42)	Low (n = 7)
1998	11.85	79.04	9.07
2000	11.30	78.62	10.04

^a Obtained from NCES CCD in conjunction with U.S. Census Bureau. The poverty level categories: High = 30% or greater, Medium = 16-29%, and Low = 15% or lower.

^b Percentages do not total 100.00% because West Virginia School for the Deaf & Blind is listed as a school district and did not have a poverty level assigned to it by the U.S. Census.

College-Going High School Graduates

West Virginia students scored below the national mean for the ACT and above the national mean for the SAT between 1998 and 2000. In 1998, the national ACT mean was 21.0 and West Virginia students' mean score was a 20.1 (see Table 149). The national ACT mean was the same in 2000, and West Virginia students increased their mean score by .1. On the other hand, the national SAT composite means were 997 and 1019, and West Virginia students' means were 1032 and 1037, respectively.

Table 149

West Virginia College Preparation Test Scores

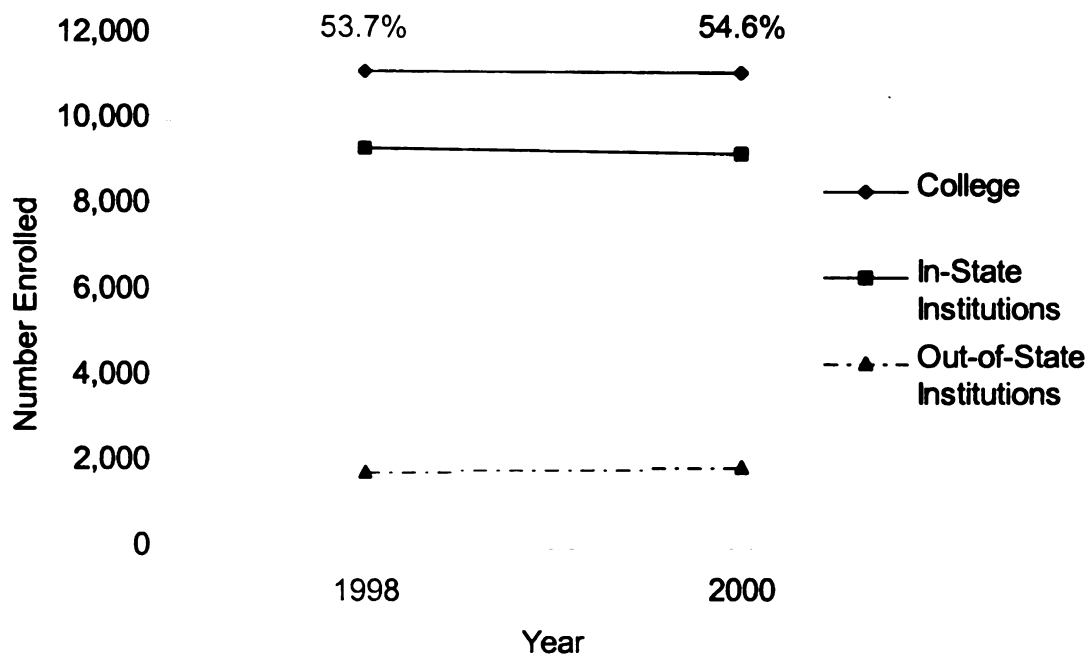
	ACT Mean	SAT Composite Mean
1998	20.1	1032
2000	20.2	1037

The number of West Virginia high school graduates decreased from 20,843 in 1998 to 20,320 in 2000. During the same time period, the number of high school graduates choosing to attend college also decreased; however, the percentage of graduates attending college increased from 53.7% to 54.6% (see Table 150 or Figure 30). In 1998, 83.8% or 9,378 of the high school graduates chose to stay in-state for college, while 16.2% or 1,814 decided to leave West Virginia for college. But in 2000, a lower percentage and number stayed in-state for college, 82.9% or 9,204, while the graduates leaving the state for college increased to 17.1% or 1,897.

Table 150

West Virginia High School Graduates Attending College

Year	Number of Graduates		Percentage of Graduates Attending		
	Public & Private High School	Attending College	College	In-State Colleges	Out-of-State Colleges
1998	20,843	11,192	53.70	83.79	16.21
2000	20,320	11,101	54.63	82.91	17.09

Figure 30. West Virginia high school graduates attending college.*College Choice*

Between 1998 and 2000, the distribution of West Virginia first-time freshmen shifted slightly from public and private institutions to proprietary institutions (see Table 151 and Figure 31). In 1998, public four-year institutions enrolled 7,501, public two-year institutions enrolled 828, and private institutions enrolled 915 first-time freshmen.

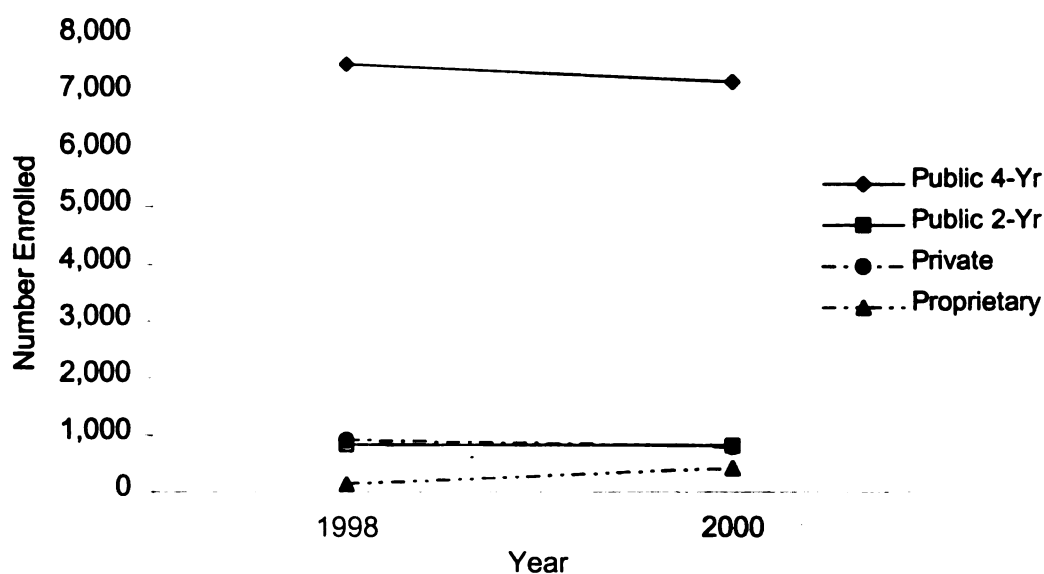
Then, in 2000 fewer first-time West Virginia freshmen chose to attend public and private institutions. Public four-year institutions enrolled 7,197, public two-year institutions enrolled 805, and private institutions enrolled 784 first-time freshmen. Proprietary institutions experienced the only increase in the percentage and number of first-time freshmen, from 1.4% or 134 to 4.5% or 418.

Table 151

West Virginia First-Time Freshmen College Choice Patterns

Year	Number of Graduates Attending College in West Virginia	Percentage of Graduates Attending West Virginia			
		Public Four-Year Institutions	Public Two-Year Institutions	Private Institutions	Proprietary Institutions
1998	9,378	79.99	8.83	9.76	1.43
2000	9,204	78.19	8.75	8.52	4.54

Figure 31. West Virginia first-time freshmen college choice patterns.



West Virginia Promise Scholarship

The West Virginia Legislature created the Providing Real Opportunities for Maximizing In-State Student Excellence (PROMISE) Scholarship program in 2002. The goal of program is to increase educational opportunities and to build a competitive West Virginia workforce. In the initial year of the scholarship program, nearly 3,500 recipients enrolled in West Virginia public or private higher education institutions. Governor Bob Wise stated:

The PROMISE Scholarship will make attending college in West Virginia more affordable and accessible for many outstanding students. More qualified students will be able to attend post secondary educational institutions to gain the knowledge and skills needed to secure jobs. Our educated work force will attract new businesses and that will spur our economy. Many of our best and brightest students leave the state to pursue academic opportunities elsewhere and are less likely to return to West Virginia to begin their careers. We need these students to become part of our work force. The PROMISE Scholarship will help keep talented students in the Mountain State (Wise, 2002).

To be eligible for the PROMISE Scholarship, a student must have a 3.0 GPA on a core and overall curriculum, and score a 21 on the ACT or a 1000 on the SAT. A scholarship recipient receives up to four-years tuition at a West Virginia public higher education institution, or up to \$2,709 or full tuition at a West Virginia private institution.

The West Virginia Higher Education Policy Commission provided the PROMISE Scholarship data. In the first year of the program, 17.2% or 3,488 of West Virginia high

school graduates qualified for the PROMISE Scholarship and enrolled in a West Virginia higher education institution. The ACT and SAT mean scores for scholarship recipients were 24 and 1136, respectively.

The highest percentage of scholarship recipients were from families with greater than \$75,000 adjusted income. According to the U.S. Census Bureau, the West Virginia average median income between 2000 and 2002 was \$30,072. In 2002, 31.5% or of the recipients were from homes with greater than \$75,000 adjusted annual income. Over twenty-seven percent were from homes with adjusted household incomes of \$50,000 to \$74,999. The other 41.4% or were from homes with adjusted household income of \$49,999 or less.

In the first year of the program, 77.2% or 2,691 of the PROMISE Scholarship recipients chose to attend public four-year institutions. Almost 12 percent or 429 of the recipients chose private four-year institutions, and 10.6% or 368 chose public two-year institutions.

AN EVALUATION OF THE EFFECTIVENESS OF STATE NON-NEEDS MERIT-
BASED SCHOLARSHIP PROGRAMS

VOLUME II

By

Patricia Lynn Farrell

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CHAPTER 5—RESEARCH QUESTIONS 1 AND 2

Introduction

In Chapter 4, I provided demographic profiles for the 12 states' high school graduates, scholarship recipients, and college-going first-time freshmen. The demographic data established an understanding of each state's high school graduates, college-going first-time freshmen, and merit scholarship recipients during the 1990s.

In this chapter I answer research questions one and two: 1) Which students receive merit-based scholarship awards in each state, and do these recipients fit the scholarship program goals? 2) How do scholarship recipients compare with the population of high school graduates in each state, and has this pattern changed over time?

To answer research questions one and two, I use the state demographic data presented in Chapter 4. Each state is a unit of analysis. The order of this chapter is the same as in Chapter 4, by state according to the year the state implemented their non-needs merit-based scholarship program:

- 1) Georgia—1993
- 2) Mississippi—1996
- 3) Florida—1997
- 4) Missouri—1997
- 5) New Mexico—1997
- 6) South Carolina—1998
- 7) Louisiana—1998
- 8) Alaska—1999
- 9) Kentucky—1999

- 10) Nevada—1999
- 11) Michigan—2000
- 12) West Virginia—2002

Georgia

In the first part of this section, I answer research questions one and two for Georgia's Helping Outstanding Pupils Educationally (HOPE) Scholarship Program. First, I examine which high school graduates receive the Georgia HOPE Scholarship based on program goals. Next I answer research question two, comparing scholarship recipients to the Georgia high school graduate population for home school district metropolitan status and poverty levels, and for college choice patterns. Lastly, I discuss the findings for the two research questions.

Research Question One

Georgia's HOPE Scholarship Program, which was implemented in 1993, was created to aid outstanding academically high school graduates pursue higher education, keep the best and brightest students in Georgia for college, and expand educational opportunities beyond high school to all Georgians. Which students receive the HOPE Scholarship and do the recipients match the Georgia HOPE goals?

One of the HOPE Scholarship Program goals is to aide outstanding academically high school graduates pursue higher education. The HOPE Scholarship Program eligibility requirement is a 3.0 GPA in a college preparatory curriculum. In 1994, approximately 84% of Georgia students reported a B (3.0) or better high school GPA. By 2000, almost 88% reported having a B or better high school GPA (Henry & Rubenstein,

2002). In 2000 alone, 38,378 students were eligible for the HOPE Scholarship program. In the same year, Georgia high schools graduated 69,382 students. Approximately 55% of the 2000 high school graduating class was eligible for the HOPE Scholarship. If high school GPA were the only consideration for rewarding outstanding academic high school graduates, then the HOPE Scholarship is meeting the goal. The scholarship rewards high school graduates obtaining between an A and B GPA (3.0) in a college prep curriculum.

However, during the 1990s, high school students continuing through to high school graduation has been decreasing. In 1992, the percentage of graduates by ninth grade cohort was 63.7%. In 1993, the first-year of the program, the percentage of graduates by ninth grade cohort was 61.5%. By 2000, the percentage dropped to 52.3%. Although the number of high school graduates increased from 57,602 in 1993 to 62,563 in 2000, the percentage of graduates by twelfth grade cohort also decreased during the 1990s. In 1992, the percentage of graduates by twelfth grade cohort was 91.8%. In 1993 the percentage dropped to 90.5%. By 2000, the percentage was 86.5%.

A second goal of the HOPE Scholarship Program is to keep the best and brightest students in Georgia for college. The data from NCES IPEDS shows that there has been an inverted bell curve for first-time freshmen leaving Georgia for college. In 1992, 19.6% or 6,729 of Georgia's first-time freshmen left the state to attend college. One year after implementation of the HOPE Scholarship Program, the percentage dropped to 15.9%. Since 1994, the percentage and number of Georgia first-time freshmen leaving the state for college slightly increased from 16.7% or 5,921 in 1996 to 17.9% or 7,606 in 2000.

The third goal of the HOPE Scholarship Program is to offer educational opportunities beyond high school for Georgia students. HOPE recipients can choose either public or private institutions and receive full tuition at public institutions and \$3,000 a year at private institutions. In 1994, 53.0% of Georgia first-time freshmen and 43.6% of HOPE Scholarship recipients primarily chose public four-year institutions. During the 1990s, the percentage of Georgia first-time freshmen attending public four-year institutions stayed fairly consistent, but the percentage of HOPE Scholarship recipients choosing public four-year institutions increased to 65.6%. On the other hand, 33.4% of HOPE Scholarship recipients and 11.7% of Georgia first-time freshmen chose private four-year institutions in 1994. By 2000, only 13.1% of the HOPE Scholarship recipients chose private four-year institutions.

Research Question Two

In this part I compare the HOPE Scholarship recipients with the population of high school graduates over time. The data available to describe and analyze Georgia's high school graduates and scholarship/grant recipients include poverty and metropolitan status of home school districts, and college choice patterns. I analyzed even years, 1994 to 2000, because of data availability from NCES CCD and IPEDS.

First, I compared the demographics of Georgia high school graduates to the HOPE recipients by their home school district for the even years, 1994 to 2000. I ran analysis of variance (ANOVA) tests to look for differences between high school graduates to HOPE recipients by metropolitan status and poverty levels. No significant differences were found between Georgia's high school graduate population and HOPE Scholarship recipients for either home school district metropolitan status or poverty level.

Second, I analyzed the college choice patterns using an ANOVA for the years 1994 to 2000. The percentage distribution data were used to answer this question because the HOPE Scholarship data provided were cumulative rather than broken out by each year. No statistically significant differences were found for college choice patterns between Georgia's first-time freshmen and HOPE Scholarship recipients.

Discussion

Georgia was innovative in 1993 when the state legislature developed and implemented the first state non-needs merit-based scholarship program in the U.S. Some of the characteristics internal to Georgia that drove the creation of the HOPE Program were economic, political, and educational issues. Georgia wanted to find ways to stimulate students to do their best academically in high school, including taking a college prep curriculum. In addition, the state legislature wanted to find a way to keep the state's top academic students from leaving the state for college. This large-scale effort was innovative because it did not focus on improving education through schools and teachers but on students to improve their own education.

The HOPE Scholarship Program is fairly lenient in its eligibility requirements (3.0 GPA in a high school college preparatory curriculum) and thus, is closer to being egalitarian than meritocratic for state grant-based financial aid models. Adelman (1999) found that high school academic achievement remains one of the most important determinants for all students of whether or not and where they go to college. In 2000 alone, 38,378 students were eligible for the HOPE Scholarship.

Henry and Rubenstein (2002) state that merit-scholarship programs represent a relatively untested area of improving the quality of education. Instead of focusing the

efforts to improve education on the schools or teachers, the HOPE Scholarship Program focuses on student achievement. The student has to take the courses and achieve a 3.0 GPA in order to be eligible for the scholarship. Thus, the program could be focusing so much on grades that students play the system and learning does not occur (Cornwell, Lee, and Mustard, 2003).

The HOPE Scholarship Program discounts college tuition for a student qualifying for the Scholarship. Students choosing to attend a public institution receive free tuition throughout their degree program if they maintain a 3.0 GPA. The HOPE Scholarship provides full tuition plus fees and a book allowance. The scholarship offers an opportunity for students to choose amongst different educational opportunities, including four- and two-year and private and public institutions. Public colleges also view low tuitions as advantageous because it gives the institutions an advantage in the competition with private schools for the best students (Mumper, 1998).

Georgia's HOPE Scholarship Program is one of the few state scholarship programs that has been studied. Using IPEDS data, Dynarski (2000) found that the scholarship encouraged students to attend four-year institutions. Her study ended in 1997. I found that HOPE recipients increasingly chose to attend public four-year colleges between 1992 and 2000. HOPE Scholarship recipients attending private four-year institutions decreased. It may be that HOPE recipients chose not to attend private institutions because the \$3,000 HOPE Scholarship for private institutions did not go as far in covering tuition as it did in the early 1990s.

Dynarski's (2000) study of the HOPE Scholarship Program found that students were more likely to attend college in-state. In this study, I used NCES IPEDS data for

the years 1992 through 2000. Despite the tuition discounting and educational opportunities, more first-time freshmen leave the state for college, including 68.2% attending neighboring states' higher education institutions. At the same time, the percentage of high school graduates leaving the state has declined somewhat since the start of the HOPE program. This study did not look further into the students who left by parental income, academic achievement, or where they choose to attend college.

Lastly, Dynarski (2000) also found that the HOPE Scholarship is clearly designed for middle and high-income families. She used the U.S. Census October CPS to calculate income levels, and NCES IPEDS and University of Georgia System for college choice data. She did not use Georgia Student Finance Commission Hope Scholarship recipient data. For this study, I used NCES CCD and U.S. Census Bureau poverty levels for people under 18 by school district. I classified the school districts by three broad poverty levels and in my analysis I found no significant differences between Georgia's high school graduate population and HOPE Scholarship recipients.

Mississippi

In this section, I answer research questions one and two for Mississippi Eminent Scholars Grant (MESG) program. First, I examine which high school graduates receive the MESG based on the goals of the MESG program. Next, I answer research question two, comparing Eminent Scholar Grant recipients to the Mississippi high school graduate population. Lastly, I discuss the findings for the two research questions.

Research Question One

The purpose of the Mississippi Eminent Scholars Grant (MESG) program is to provide financial assistance to high achieving students so they can attend in-state higher

education institutions. Which students receive the grant and do the grant recipients meet the goals of the MESG program?

One of the goals of the Eminent Scholars Grant program is to reward high achieving high school graduates. A high school graduate has to have a 3.5 GPA after a minimum of seven semesters in high school and a 29 on the ACT. In 1996, the ACT mean for Mississippi students was an 18.8. In 2000, the ACT mean was an 18.7.

In the first-year of the program, 1.98% or 310 of the 15,680 first-time freshmen received the MESG and enrolled in Mississippi higher education institutions. The cumulative number of Eminent Scholars in 2000 and 2002 were 1,616 and 1,639, respectively. The eligibility requirements for MESG are rigorous, and few Mississippi high school graduates have the high school credentials to obtain the grant.

Another goal of the MESG program is to provide financial assistance to the Eminent Scholars Grant recipients so they will have access to Mississippi higher education institutions. Pre-MESG, 10.1% of the high school graduates left Mississippi for college. The year MESG was implemented, the percentage lowered to 8.6%. But, by 2000 the percentage of high school graduates leaving the state for college reversed to 15.7%. The MESG recipients primarily chose to attend public four-year institutions. Approximately 73% of the MESG chose public four-year institutions, while 31% of Mississippi first-time freshmen chose public four-year institutions.

Research Question Two

In this part I tried to compare the Eminent Scholars Grant recipients with the population of high school graduates over time. However, research question number two cannot be answered because Mississippi Post-Secondary Education Financial Assistance

Board did not provide enough data to compare the scholarship recipients to high school graduate population.

The data provided on the Mississippi Eminent Scholars were for college choice for the years 2000 to 2002. The data provided by NCES IPEDS on Mississippi first-time freshmen enrollment were available through the year 2000. In 2000, 61.9% of Mississippi first-time freshmen chose public two-year institutions, while 20.7% of the Eminent Scholarship recipients enrolled in public two-year institutions. The majority, or 72.7%, of Eminent Scholars Grant recipients chose public four-year institutions.

Discussion

Mississippi implemented its Eminent Scholars Grant program three years after Georgia implemented its well-known HOPE Scholarship Program and a year before Florida implemented its Bright Futures Scholarship Program. The diffusion of the HOPE Scholarship Program amongst the Southern states occurred because the states saw the positive impact HOPE was having on college participation and college choice patterns. The implementation of the program came during a time when Mississippi was struggling with significant poverty levels, poor college preparation results, and low college participation rates.

In 1994, or pre-MESG, Mississippi was experiencing over 30% poverty for people under 18 years of age, decreasing high school graduation rates by ninth grade cohort, and high school students not succeeding in math, science, and reading. Even though the number of high school graduates slightly increased since the implementation of MESG, the percentage of graduates by ninth grade cohort continued to drop. In 1994, 62.0% of the ninth graders graduated. By 2000, the percentage of graduates by ninth

grade cohort dropped to 56.2%. Mississippi was given a “D” grade for college preparation based on high school completion rates and curriculum, and advanced placement and college entrance exams (Callan, 2000).

The Eminent Scholars Grant has stringent eligibility requirements, based on high school GPA and ACT score. MESG provides up to \$2,500 per year for tuitions, fees, and books for four years. Keeping the best and brightest in-state for college depends on different conditions, including the extent of participation in higher education, a family’s economic status, and educational opportunities (Longanecker, 2002). In 1995-96, average tuition, fees, and books at a Mississippi public institution were \$2,352. By 2000, the average was \$2,689 (SREB, 2002). Between 1998 and 2000, the percentage of high school graduates leaving Mississippi for college increased from 8.1% to 15.7%. Of the 3,059 first-time Mississippi freshmen attending out-of-state institutions, 84.4% attended higher education institutions in neighboring states. These data are inconclusive on which students leave and why they left Mississippi for those institutions.

Mississippi Post-Secondary Education Financial Assistance Board provided little information about the MESG recipients. The MESG is a true merit scholarship program because of its stringent academic eligibility requirements. If Mississippi wants to keep its best and brightest students in-state for college, the state needs to analyze how it can improve higher education and career opportunities after college graduation. In addition, the Financial Assistance Board should review the amount of financial assistance provided because the \$2,500 may not be incentive enough to keep the best and brightest in-state for college.

Florida

In the first part of this section, I answer research questions one and two for Florida Bright Futures Scholarship Program. First, I describe which high school graduates receive the Bright Futures Scholarship based on the program goals. Next I answer research question two, comparing Bright Futures Scholarship recipients to the Florida high school graduate population. Lastly, I discuss the findings for the two research questions.

Research Question One

The Florida Bright Futures Scholarship Program was established in 1997. The scholarship program was created to reward any Florida high school graduate “who merits recognition of high academic achievement and who enrolls in a degree program, certificate program, or applied technology program at an eligible Florida public or private postsecondary education institution within three years of graduation from high school” (Florida Bright Futures Scholarship Program web-site, 2002). Which high school graduates receive the Bright Futures Scholarship?

The scholarship program has a three-tier award system based on high school academic achievement and college entrance tests: Academic, Medallion, and Gold Seal. In 1998, 28.6% of Florida’s high school graduating class was eligible for one of the three scholarships. Two years later, 34.2% of the high school graduating class was eligible for the Bright Futures Scholarship Program.

To be eligible for the Academic Scholarship, a student must have a 3.5 weighted high school GPA, including 15 credits of college preparatory courses. In addition, the student must have served the community for a minimum of 75 hours, and scored a 1270

SAT or 28 ACT. In 1997, 8.7% of the public high school graduates were eligible for the Academic Scholarship. In 2002, 6.5% of the public high school graduates were eligible for the Academic Scholarship. In 1998 and 2000, 10.4% and 11.9% of the private high school graduates were eligible, respectively. Approximately 80% of eligible graduates accepted the Academic Scholarship and enrolled in Florida higher education institutions.

To be eligible for the Medallion Scholarship, a student has to have a 3.0 weighted high school GPA and a 970 on the SAT or 20 on the ACT. In 1997, 11.7% of the public high school graduates were eligible for the Medallion Scholarship. By 2002, this percentage increased to 24.6%. The percentage of eligible private high school graduates ranged from 22.0% in 1998 to 32.6% in 2000.

Since program implementation, the number and percentage of high school graduates enrolling in college and staying in-state for college has increased. The percentage of graduates enrolling in college increased from 50.8% in 1998 to 63.8% in 2000. Graduates staying in-state for college increased from 82.7% in 1998 to 87.4%.

However, the high school graduation rates during the 1990s did not increase. In 1997, 56.0% of the freshmen cohort graduated. By 2002, 53.1% of the ninth grade cohort graduated from public high schools. The percentage of twelfth graders graduating from high school stayed fairly consistent for the six years of this study (88%).

The Bright Futures Scholarship Program rewards high school graduates for their high school GPA, and ACT or SAT score. The Academic Scholarship is a true merit-scholarship program because of its stringent academic eligibility requirements. The Medallion and Gold Seal Scholarships are equitable because they allow access to higher education for high school graduates who did not meet the Academic Scholarship

requirements or who want to pursue technical careers. In addition, the scholarship recipients do have the opportunity to enroll in different types of higher education institutions within Florida.

Research Question Two

In this section I compare the Bright Futures Scholarship recipients with the population of high school graduates over time. The data available to describe and analyze Florida's high school graduates and scholarship recipients include gender and ethnicity, poverty and metropolitan status of home school districts, and college choice patterns. I found differences between Bright Futures recipients and high school graduate population in gender, ethnicity, and college choice patterns.

Gender

First, I compared the gender data of Florida public high school graduate population and public high school eligible scholarship recipients between the years 1998 and 2001. Using a paired t-test, I found statistically significant differences for both males and females (see Table 152). For the years 1998 and 2000, more female graduates were eligible for the Bright Futures Scholarship ($M = .6183, t = -33.50, p < .05$) than the percentage of female high school graduates ($M = .5312$). In contrast, the percentage of male public high school graduates ($M = .4688, t = 40.814, p < .05$) exceeded the percentage of eligible male scholarship recipients ($M = .3815$).

Table 152

Gender Comparison of Florida Public High School Graduates and Eligible Scholarship Recipients between 1998 and 2001

	M	<i>t</i>	<i>df</i>	<i>p</i>
Females				
H.S. Graduates	.5312	-33.50	1	.019*
Scholarship Recipients	.6183			
Male				
H.S. Graduates	.4688	40.814	1	.016*
Scholarship Recipients	.3815			

* $p < .05$

Ethnicity

As shown in Table 153, I found statistically significant differences ($p < .05$) between the White, Black, Hispanic, and Asian public high school graduate population and Bright Futures scholarship recipients for the years 1998 to 2001. Native American students were not included in the analysis because of their low high school graduation percentages. The percentage of White ($M = .7508$) and Asian ($M = .0472$) eligible Bright Futures Scholarship recipients exceeded the percentage of White ($M = .6031$, $t = -75.305$, $p < .001$) and Asian ($M = -9.514$, $t = -9.514$, $p < .01$) public high school graduates. On the other hand, there were higher percentages of Black ($M = .2097$) and Hispanic ($M =$

.1552) public high school graduates than Black ($M = .0665$, $t = 58.043$, $p < .001$) and Hispanic ($M = .1050$, $t = 34.785$, $p < .001$) eligible Bright Futures Scholarship recipients.

Table 153

Comparison of Ethnicity of Florida Public High School Graduates and Eligible Scholarship Recipients between 1998 and 2001

	M	<i>t</i>	<i>df</i>	<i>p</i>
White				
H.S. Graduates	.6031	-75.305	3	.000***
Scholarship Recipients	.7508			
Black				
H.S. Graduates	.2097	58.043	2	.000***
Scholarship Recipients	.0665			
Hispanic				
H.S. Graduates	.1552	34.785	3	.000***
Scholarship Recipients	.1050			
Asian				
H.S. Graduates	.0282	-9.514	3	.001**
Scholarship Recipients	.0472			

*** $p < .001$. ** $p < .01$.

College Choice

A paired t-test was used to look at the college choice patterns for the years 1998 and 2000. I found statistically significant differences between high school graduates and Bright Futures scholarship recipients and whether or not they attended public four- or two-years institutions (see Table 154 and Figure 32). Bright Futures scholarship recipients primarily chose public four-year institutions ($M = .3828$, $t = -58.529$, $p < .05$) while non-scholars chose public two-year institutions ($M = .4494$, $t = 33.634$, $p < .05$). No significant differences were found for private four-year institutions. Private two-year and proprietary institutions were not analyzed because of the small enrollment data.

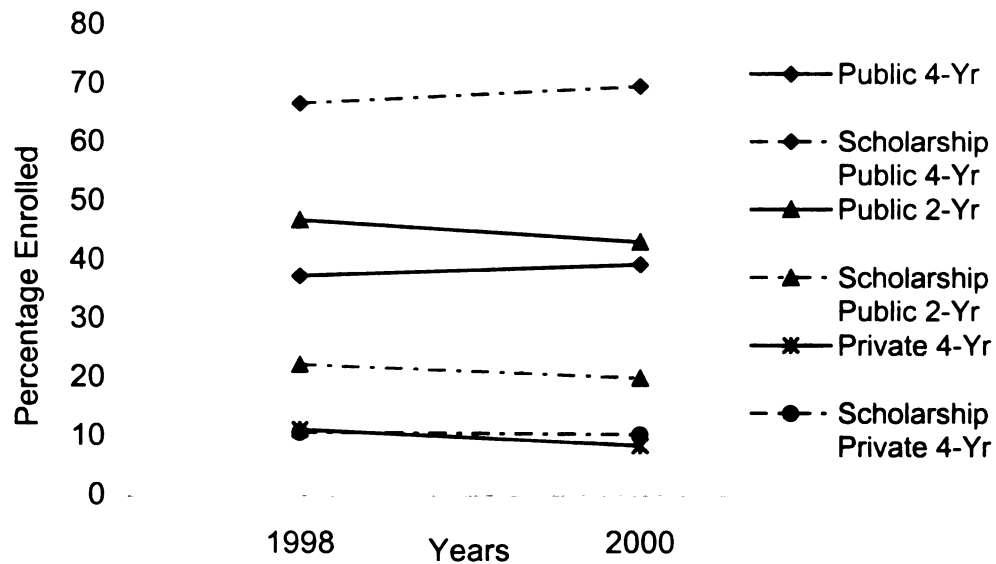
Table 154

Comparison of College Choice of Florida Graduates and Eligible Scholarship Recipients for 1998 and 2000

	M	t	df	p
4-Year Public				
First-time Freshmen	.3828	-58.529	1	.011*
Scholarship	.6813			
2-Year Public				
First-time Freshmen	.4494	33.634	1	.019*
Scholarship	.2106			
4-Year Private				
First-time Freshmen	.1053	-.619	1	.647
Scholarship	.0980			

* $p < .05$

Figure 32. Florida first-time freshmen and Bright Futures Scholarship recipients college choice patterns.



School District Demographics

School district poverty levels and metropolitan status data were available for the years 1998, 2000, and 2002. First, I conducted an analysis of variance (ANOVA) comparing the high school graduate population to the scholarship recipients for their home school district poverty level. Next I conducted an ANOVA comparing the high school graduation population to the scholarship recipients for their home school district metropolitan status. No differences were found when comparing school district poverty levels or metropolitan status of Florida high school graduate population to Bright Futures Scholarship recipients.

Discussion

In 1996, the Florida Legislature created the Bright Futures Scholarship Program. Florida's neighboring state, Georgia, influenced Florida's decision for creating the scholarship program. The diffusion of the HOPE Scholarship Program occurred because Mississippi and Florida saw the positive impact the HOPE Program was having on college participation and college choice patterns. The implementation of the Bright Futures Program came during a time when Florida was experiencing poor college participation, high costs to attend college, and average educational benefits (Callan, 2002).

First, Florida students took more of the required high school courses required to qualify for a scholarship, and more rigorous courses overall. The largest gain occurred among minority students but not necessarily low-income students. The percentage of high school graduates taking required Bright Futures courses increased from 54% in 1997 to 65% in 2001. Scholarship recipients are awarded for taking a college preparatory and rigorous high school curriculum, including college preparatory courses. The high school students have an option of taking standard or advanced courses (i.e., Advanced Placement, honors, dual enrollment). In 1997, 62% of the graduates took one of these more difficult courses. By 2001, 64% had taken one of these courses (OPPAGA, 2003, p. 6); however, SAT, ACT and College Placement test scores of students actually declined from 1996 to 2000.

The Bright Futures Scholarship Program rewards high school graduates for their high school GPA, and ACT or SAT score. In 1998, 28.6% of Florida's high school

graduating class was eligible for one of the three scholarships. Two years later, the percentage increased to 34.2%.

The Academic Scholarship is a true merit scholarship program because of its stringent academic eligibility requirements. The Medallion and Gold Seal Scholarships are equitable, because they are allowing access to higher education for high school graduates who did not meet the Academic Scholarship requirements or who want to pursue technical careers.

Second, since the early 1990s the number and percentage of high school graduates enrolling in college and staying in-state for college has increased. The percentage of graduates enrolling in college increased from 49.3% in 1996 to 63.8% in 2000. Graduates staying in-state for college increased from 81.2% in 1996 to 87.4%. However, the data provided and results are inconclusive for whether or not the program keeps the best and brightest in-state for college.

Third, the fundamental argument for insuring higher education opportunities from an economist's perspective is simply that the intellect of young adults is a vital resource that must be developed if the state is to realize its fullest potential (Campbell and Eckerman, 1964). Florida is making a determined effort to invest in the students who are academically achieving in high school. Regardless, Florida's ninth grade cohort graduating from high school dropped from 56.0% in 1997 to 53.1% in 2002. So many factors, including sociological and economic, can affect whether a student graduates from high school or not. Research shows that students start predisposing of attending college in grades 7-9. If Florida wants a highly educated population, then the state must analyze

how it can reach out and work with the students most likely to dropout (Alexander & Eckland, 1975; Cabrera and La Nasa, 2000; Sewell & Hauser, 1975).

For example, high school students must know early on the eligibility rules for the Bright Futures Scholarship. A student must submit a Florida Financial Aid Application, earn a certain GPA in required classes, and obtain a required test score on the SAT or ACT to qualify for the scholarship. Thus, working with school district administrators, teachers, students, and parents starting in middle school is important.

In addition, there are differences in the percentages of public high school graduates and eligible scholarship recipients by ethnicity. I found that a higher percentage of White and Asian high school graduates receive the scholarship than Black and Hispanic graduates. These were the same findings that Heller and Rasmussen found in 2001. However, Heller and Rasmussen found that there was a strong relationship between the income levels in the communities in which students attended high school, and the probability that those students would earn a scholarship. In this study, I did not find any significant differences between high school graduates and scholarship recipients for home school district poverty level or metropolitan status. Heller & Rasmussen based their income level on the proportion of students qualifying for free lunch by five quintiles, whereas I used poverty levels for people under 18 years of age by school district separated into three categories.

Fourth, the students receiving the Bright Futures Scholarship have the choice to choose amongst different postsecondary educational opportunities within Florida. McPherson and Schapiro (1996) found that the range of higher education alternatives available to students appear to be quite sharply constrained by their incomes. The

Academic Scholarship provides full tuition and a book stipend for up to 4-years at a public institution and full tuition at a private institution. The Medallion and Gold Seal Scholarship recipients receive 75% of full tuition and fees at a public and 75% of full tuition at a private institution. The findings from this study illustrate that the scholarship recipients chose public four-year institutions over the other types of higher education institutions.

Lastly, Florida experienced an 18.8% increase in the number of high school graduates between the first year of the scholarship program and 2002. It is forecasted that Florida will experience a 26.4% increase in high school graduates between 2000 and 2010 (Callan, 2002). Florida has made strides in improving college preparation and access to higher education. Florida still needs to analyze how it can help students through high school, taking into consideration both economic and sociological perspectives. Heller (2003) states that merit programs are at the mercy of state fiscal conditions and priorities as established by lawmakers. Florida's merit program is funded through a state lottery, and there is concern that Florida cannot continue to afford funding the program because of the demand of eligible high school graduates for the scholarship. Thus, Florida is reexamining whether eligibility requirements should be tightened. The popularity of the scholarship program, especially among more politically influential constituents, has largely rebuffed these efforts.

Missouri

In this section, I answer research questions one and two for Missouri's Bright Flight Scholarship Program. First, I describe which high school graduates receive the Bright Flight Scholarship based on the goals of the program. Next, I answer research

question two, comparing Bright Flight recipients to the Missouri high school graduate population. Lastly, I discuss the findings for the two research questions.

Research Question One

The Missouri Bright Flight Scholarship program was implemented in 1997, encouraging top-ranked high school seniors to stay in-state for their higher education studies. Recipients can use the scholarship at Missouri public and private higher education institutions. To be eligible for the Bright Flight Scholarship, a student has to have a SAT or ACT composite score in the top three percentile of all Missouri students taking the tests. Which students receive the scholarship and do the recipients match the goals of the Bright Flight Scholarship Program?

The only merit requirement to receive the Bright Flight Scholarship is to have a SAT or ACT composite score in the top three percentile of all Missouri students taking the test. Missouri students scored above the national means on the SAT and ACT for the years of this study. Scoring in the top three percentile seems stringent; however, the number of Missouri high school graduates qualifying for the scholarship is impressive. In 1998, 28.5% of the high school graduates received the scholarship. By 2000, 30.5% of the graduates received the scholarship.

In 1996, the year prior to the program's implementation, only one out of every two high school graduates attended college. By 2000, 54.7% of the graduates chose to attend college. However, the percentage of high school graduates staying in-state for college stayed consistent at approximately 82% during the 1990s. In 1996, 81.4% Missouri high school graduates stayed home for college. By 2000, 81.5% high school graduates stayed in Missouri for college.

During the years of the scholarship program, the percentage of public high school graduates by ninth and twelfth grade cohorts increased. The graduation rate of ninth grade cohorts increased from 67.2% in 1997 to 72.0% in 2001. Even more impressive are the graduation rates of twelfth graders, increasing from 90.2% in 1997 to 93.7% in 2001.

The scholarship recipients have a choice in attending different Missouri higher education institutions. They receive \$2,000 a year towards their degree, which does not cover the price of tuition at public four-year institutions. Between 1997 and 2002, scholarship recipients primarily chose public four-year institutions or private four-year institutions.

Research Question Two

In this part, I answer research question two, comparing the scholarship recipients with the population of high school graduates. The findings further describe the demographics of the students receiving the scholarships compared to the total Missouri high school graduate population. The only data available was on their college choice patterns.

I conducted a paired t-test to analyze college choice patterns between Missouri first-time freshmen and Bright Flight Scholarship recipients. As shown in Table 155 and Figure 33, there was a significant difference between first-time freshmen and scholarship recipients in choosing public four-year institutions ($t = -100.458, p < .01$). For the two years analyzed, Bright Flight Scholarship recipients chose public four-year institutions ($M = .7760$) more often than Missouri first-time freshmen ($M = .4797$), who were more likely to chose public two-year institutions. Even though the statistics were not

significant, Missouri first-time freshmen chose to attend public two-year and proprietary institutions more than did Bright Flight Scholarship recipients. Scholarship recipients chose private institutions at a higher percentage than first-time freshmen.

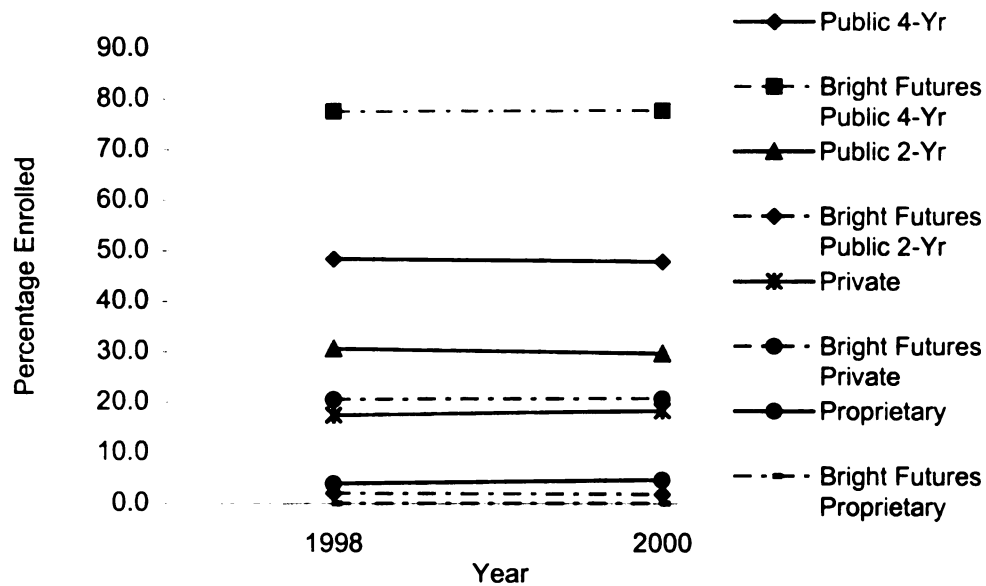
Table 155

Comparison of College Choice Patterns between Missouri First-Time Freshmen and Bright Flight Scholarship Recipients

	M	df	t	p
Public 4-Year				
First-Time Freshmen	.4797			
Bright Flight	.7760	1	-100.458	.006**
Public 2-year				
First-Time Freshmen	.3000			
Bright Flight	.0634	1	4.838	.130
Private Institutions				
First-Time Freshmen	.1778			
Bright Flight	.2055	1	-7.886	.080
Proprietary				
First-Time Freshmen	.0425			
Bright Flight	.0001	1	12.471	.051

** $p < .01$

Figure 33. Missouri first-time freshmen and Bright Flight Scholarship recipients college choice patterns.



Discussion

Implemented in 1997, the Missouri Bright Flight Scholarship program's purpose is to encourage top-ranked high school seniors to stay in-state for their higher education studies. Missouri's demographic profiles for high school graduates and Bright Flight Scholarship recipients present contradictory trends. From 1997 to 2000, the percentage of public high school graduates increased. In addition, the percentage of graduates attending college increased. The number of Bright Flight Scholarships recipients also increased. On the other hand, the percentage of Missouri graduates attending out-of-state institutions increased.

Missouri received a B- grade for college preparation of students. This grade includes graduation rates, college entrance exams, and math, science and writing

proficiencies (Callan, 2002). Missouri students scored above the national means for both ACT and SAT, and the ACT or SAT score is the only eligibility requirement for the Bright Flight Scholarship. Approximately 28-31% of the high school graduates qualify for the Bright Flight Scholarship by scoring in the top three percentile for all Missouri students taking the ACT or SAT.

Either the financial amount of the scholarship or higher educational opportunities in Missouri may not meet the needs or academic requirements of the student. Callan (2002) gave Missouri a D grade for higher education affordability. Since the scholarship program was implemented, participation in higher education increased. Longanecker (2002) states that keeping the best and brightest students in state to attend college depends on different conditions in the state, including the extent of participation in higher education within the state and a family's economic status. During the late 1990s, between 85 and 90 percent of the school districts were located in medium or low poverty areas (less than 30% poverty for people under 18 years of age). The amount of the Bright Flight Scholarship may not be enough to keep the top achieving first-time freshmen in Missouri for college. The Bright Flight Scholarship is \$2,000 per year for tuition, which discounts the tuition price at the higher education institution.

The title of the scholarship, Bright Flight, illustrates that Missouri's goal is to keep the top achieving high school graduates in-state for college. The percentage of high school graduates leaving Missouri for college remained stable; the raw number increased during the years of this study. The first-time freshmen data were inconclusive on whether or not the best and brightest students were leaving the state for college. Lastly,

there was little evidence on which students were receiving the scholarship, including home location, ethnicity, gender, or family socioeconomic status.

New Mexico

In this section, I answer research questions one and two for New Mexico's Lottery Success Scholarship Program. First, I describe which high school graduates receive the Lottery Success Scholarship Program based on the program goals. Next, I answer research question two, comparing scholarship recipients to the New Mexico high school graduate population. Lastly, I discuss the findings for the two research questions.

Research Question One

The New Mexico Legislature created the Lottery Success Scholarship to provide New Mexico high school graduates with a level of financial support needed to continue their education at the college level. The goals of the Lottery Success Scholarship do not focus on rewarding high school academic achievement or keeping the best and brightest in-state for college. Which students receive the Lottery Success Scholarship?

Eligibility for the New Mexico Lottery Success Scholarship is different from the other eleven state scholarship programs. To receive the scholarship, students must enroll full-time in a public higher education institution and obtain a 2.5 GPA in their first semester. Therefore, no matter how well students did during high school academically they start with a clean slate when taking classes in the public higher education institution they were accepted. In addition, there are no curriculum eligibility requirements for them during that first-semester of college.

The scholarship program was implemented in 1998. In 1994, the college participation rate for New Mexico high school graduates was 51.4%. In first year of the

program, 64.5% of high school graduates went on to attend college. By 2000, 60.4% of New Mexico high school graduates enrolled in college. Between 1994 and 2000, the percentage of the graduates attending in-state institutions decreased from 77.9% to 73.4%. The percentage of high school graduates leaving the state for college steadily increased over the six years.

During the 1990s, public four- and two-year institution enrollments shifted. In 1994, 49.4% of New Mexico first-time freshmen chose public two-year institutions and 48.4% chose public four-year institutions. By 2000, 55.6% of first-time freshmen chose public four-year institutions and 42.0% chose public two-year institutions.

The number and percentage of New Mexico high school graduates participating in higher education has increased during the 1990s. The goal of the scholarship program is to offer full tuition to eligible students to pursue a higher education degree at a public institution. Since the students do not receive the scholarship until after their first semester in college, the increase in college participation may be biased because IPEDS data are collected in the fall semesters and there maybe a high dropout rate of first-time freshmen after the first fall semester. Binder, Gander and Hutchens (2002) found that retention rates declined significantly for all students during the first year of college, especially for Hispanics and Whites.

Research Question Two

In this part, I compare the scholarship recipients with the population of high school graduates. The findings further describe the demographics of the students who are receiving the scholarships compared to the total New Mexico high school graduate population. The data available to describe and analyze New Mexico's high school

graduates and scholarship recipients included ethnicity, school districts' poverty and metropolitan status, and college choice. Statistically significant differences were found between the high school graduate population and Lottery Scholarship recipients for ethnicity and college choice patterns.

First, no significant differences were found in comparing the percentages of New Mexico high school graduates and Lottery Success Scholarship recipients by their home counties' metropolitan status or poverty level. The reason could be that there are one to four school districts in each county, and poverty levels varied within each county.

Second, a paired t-test was conducted to look for differences between New Mexico high school graduates and Lottery Success Scholarship recipients by ethnicity. As shown in Table 156, there were statistically significant differences in which students receive the Lottery Success Scholarships. There were a higher percentage of Black, Hispanic, and Native American high school graduates than there were Black, Hispanic, and Native American Lottery Success Scholarship recipients ($p < .01$). On the other hand, a greater percentage of Asians received the Lottery Success Scholarship than the percentage of Asian high school graduates.

Table 156

Comparison of Ethnicity of New Mexico Public High School Graduates and Lottery Success Scholarship Recipients between 1998 and 2001

	M	<i>t</i>	<i>df</i>	<i>p</i>
White				
H.S. Graduates	.4331	-1.431	3	.248
Scholarship Recipients	.4728			
Black				
H.S. Graduates	.0221	11.003	3	.002**
Scholarship Recipients	.0146			
Hispanic				
H.S. Graduates	.4299	7.846	3	.004**
Scholarship Recipients	.3949			
Native American				
H.S. Graduates	.1016	11.858	3	.001**
Scholarship Recipients	.0431			
Asian				
H.S. Graduates	.0133	-10.394	3	.002**
Scholarship Recipients	.0244			

** $p < .01$.

Third, significant differences were found when comparing college choice patterns of first-time New Mexico freshmen and Lottery Success Scholarship recipients ($p < .05$).

As shown in Table 157, Lottery Success Scholarship recipients chose public four-year institutions ($M = .7289$, $t = -13.329$, $p < .05$) at a higher rate than New Mexico first-time freshmen ($M = .5589$). On the other hand, New Mexico first-time freshmen ($M = .4186$, $t = 13.344$, $p < .05$) chose public two-year institutions at higher percentage than scholarship recipients ($M = .2712$).

Table 157

Comparison of College Choice of New Mexico Public High School Graduates and Eligible Scholarship Recipients for 1998 and 2000

	M	t	df	p
Public 4-Year				
H.S. Graduates	.5589	-13.329	1	.048*
Scholarship Recipients	.7289			
Public 2-Year				
H.S. Graduates	.4186	13.344	1	.048*
Scholarship Recipients	.2712			

* $p < .05$.

Discussion

The New Mexico Legislature created a statewide lottery system in 1995 to aid P-16 education. In 1998, the Lottery Success Scholarship was implemented providing tuition to New Mexico college students attending New Mexico public higher education institutions and maintaining a 2.5 GPA. Students become eligible for the scholarship

during their first-semester of college, and the scholarship provides full tuition through degree completion or four-years.

Academic achievement remains one of the most important determinants for all students on whether or not they attend college and where they go to college (Adelman, 1999). New Mexico received a D- grade for college preparation (Callan, 2002). The data provided were ambiguous as to which students are receiving the Lottery Success Scholarship. How did the scholarship recipients do academically in high school? What courses did they take in college to become eligible for the scholarship (e.g., remedial, difficulty of courses)?

As a merit scholarship, eligibility for the Lottery Success Scholarship is lenient. The scholarship does not reward high academic achievement, instead requiring average achievement (2.5 GPA) in college. The eligibility criteria may lead to grade inflation, or may tempt students to take less-demanding courses or hours (Binder, Ganderton, & Hutchens, 2002; Dynarski, 2000).

Between 1996 and 2000, the percentage of twelfth graders graduating from public high school increased from 90.2% to 96.6%. However, the ninth grade cohort graduation rates decreased from 70.3% to 63.3%. Less than 60% of Hispanic, Native American, and Black ninth graders graduated from high school.

The range of higher education alternatives available to students appears to be quite sharply constrained by their incomes under existing arrangements (McPherson and Schapiro, 1996). For a state of 1.83 million people, there are several public higher education opportunities (U.S. Census Bureau, 2000). The University of New Mexico (UNM) and New Mexico State University (NMSU) are located in the only two central

city counties. In addition, these two counties were also classified as having medium poverty for people under 18 years of age. These two public four-year institutions enrolled over 44 percent of first-time freshmen in 2000. Of the 2002 scholarship recipients, 39.1% were from the counties that UNM and NMSU are located. In addition, 67.3% of the scholarship recipients enrolled in UNM or NMSU.

In the only study on the Lottery Success Scholarship program thus far, it was found that New Mexico experienced a 16% increase in the number of graduates participating in college before and after program implementation. Binder, Ganderton, and Hutchens also found that there was a shift in enrollments from public two-year to public four-year institutions (2002). Their conclusion was that more students were staying in-state for college. In this study, I found that the percentage of high school graduates going on to enroll in college increased, while the percentage of students leaving New Mexico for college remained the same.

Binder, Ganderton, and Hutchens (2002) found that Hispanic, Black and Native American males receive the Lottery Success Scholarship less than female and White students. The findings from this study also indicate that fewer Hispanic, Black, and Native American students receive the Lottery Success Scholarship. Binder and colleagues also discovered that the retention rate from first to second semester declined significantly for all students, especially Hispanics and Whites.

Supporters of merit scholarships argue that it increases human capital by improving the effort of students to get good grades in high school, enroll in college, and hopefully remain in state after graduation (Heller, 2003). The data from this study are inconclusive to whether or not the Lottery Success Scholarship encourage students to

perform better in high school, including taking college preparation curriculum, or if students persist in obtaining their college degree. Lastly, if New Mexico wants to increase its human capital, the state first needs to evaluate why students are not completing high school and look into ways of ensuring student success in high school. Second, it is essential that the state along with the higher education institutions analyze ways of helping students be successful in college, including non-financial resources such as mentoring, tutoring, and support networks. Lastly, New Mexico needs to insure that there are job opportunities for students once they graduate from college.

South Carolina

In this section, I answer research questions one and two for South Carolina's LIFE Scholarship Program. First, I describe which students receive the LIFE Scholarship based on the program goals. Next, I answer research question two, comparing scholarship recipients to the South Carolina high school graduate population. Lastly, I discuss the findings for the two research questions.

Research Question One

The South Carolina General Assembly implemented the Legislative Incentives for Future Excellence (LIFE) Scholarship Program in 1998. The LIFE Scholarship is meant to increase access to higher education; provide incentives to students to be better prepared for college; to encourage students to graduate from college on time; and improve employability of South Carolina graduates. This study did not analyze the last two goals, encouraging students to graduate from college on time and improving employability of South Carolina graduates.

One of the LIFE Scholarship Program goals is to provide access to college. In 1996, 59.9% of high school graduates participated in college. In the first-year of the program the percentage and number of first-time freshmen increased to 61.8%. By 2000, 68.0% high graduates went onto to attend college. LIFE Scholarship recipients made up 17.5% and 18.0% of South Carolina first-time freshmen in 1998 and 2000, respectively. Since its inception, the number of first-time LIFE Scholarship recipients increased from 6,003 in 1998 to 9,772 in 2002. However, the percentage of high school graduates staying in-state for college changed less than one percent between 1994 and 2000.

Another goal of the LIFE Scholarship Program is to provide incentives to be better prepared for college. The eligibility requirements are fairly lenient. A high school graduate must meet two of three requirements: a) earn a 3.0 cumulative GPA on a 4.0 scale, b) score a 24 on the ACT or 1100 on the SAT, and/or c) rank in the top thirty percent of their graduating class. ACT and SAT scores for South Carolina students were below the national mean averages for the years of this study. The lack of data provided on curriculum taken in high school, ACT/SAT scores, or rank of student in high school graduating class makes it difficult to present a profile of the LIFE Scholarship recipients.

However, the South Carolina high school graduation rates have been decreasing during the late 1990s. The percentage of ninth and twelfth grade cohort graduating decreased between 1994 and 2000. Ninth grade cohort graduation rates went from 57.5% in 1994 to 51.0% in 2000. The twelfth grade cohort decreased from 90.1% in 1994 to 86.7% in 2000.

Research Question Two

In this part, I answer research question two comparing the population of South Carolina high school graduates to South Carolina LIFE Scholarship recipients. The data available to describe and analyze South Carolina's high school graduates and scholarship recipients was college choice. Home county's metropolitan statuses and poverty levels for graduates and LIFE recipients were not analyzed because 16.7% of the LIFE Scholarship recipients did not report home location in 2000.

College choice patterns of South Carolina public high school graduates and LIFE Scholarship recipients were compared for 1998 and 2000. As shown in Table 158, the paired t-test found significant differences for public two-year institutions ($t = 14.066, p < .05$). South Carolina freshmen were more likely to choose public two-year institutions ($M = .3670$), including technical colleges, at higher rate than LIFE recipients ($M = .1743$).

A lower percentage of first-time freshmen chose public four-year institutions ($M = .4393$) than LIFE recipients ($M = .6421$). Even though the difference is not significant at the .05 level, it is important to show the difference in enrollments in public four-year institutions by first-time South Carolina freshmen and LIFE Scholarship recipients. See Figure 34 for another view of college choice patterns for South Carolina first-time freshmen and LIFE recipients.

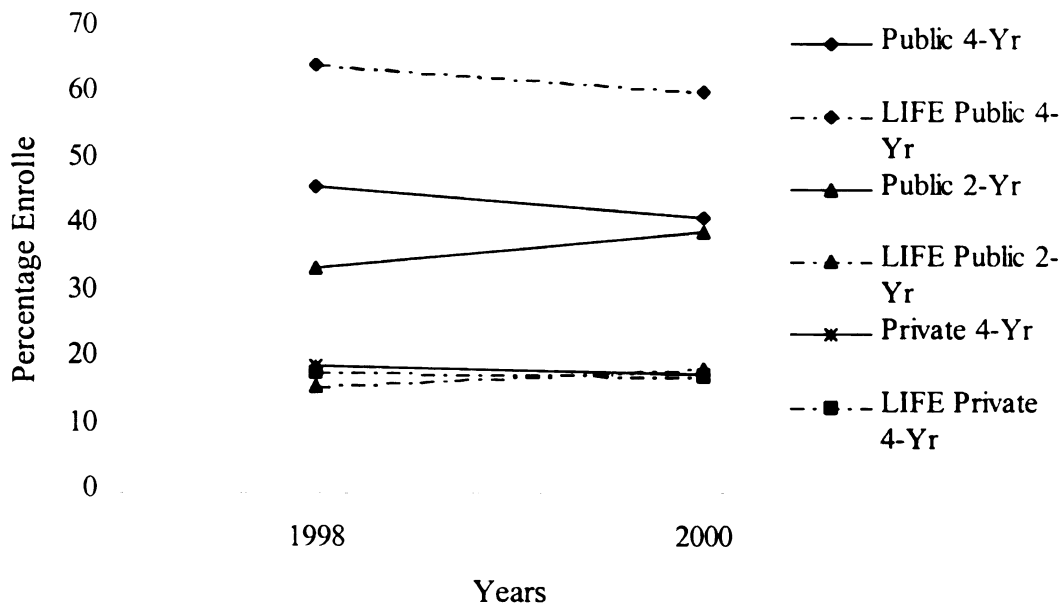
Table 158

*Comparison of College Choice of South Carolina First-Time Freshmen and LIFE
Scholarship Recipients for 1998 and 2000*

	M	<i>t</i>	<i>df</i>	<i>p</i>
<hr/> Public 4-Year				
First-Time Freshmen	.4393	-11.301	1	.056
Scholarship Recipients	.6421			
<hr/> Public 2-Year				
First-Time Freshmen	.3670	14.066	1	.045*
Scholarship Recipients	.1743			
<hr/> Private 4-Year				
First-Time Freshmen	.1863	2.016	1	.293
Scholarship Recipients	.1675			
<hr/>				

* $p < .05$

Figure 34. South Carolina first-time freshmen and LIFE Scholarship recipients college choice patterns.



Discussion

South Carolina implemented the Legislative Incentives for Future Excellence (LIFE) Scholarship Program the same year as Louisiana, and one to five years after Georgia, Florida, and Mississippi implemented their merit scholarship programs. Regional diffusion models emphasize the influence of nearby states, assuming that states copy their neighbors when confronted with policy problems (Berry & Berry, 1990). South Carolina was encountering many of the same challenges as the other southern states, including poor college preparation, college participation, and losing their best and brightest to other states for college, which adversely affects on the state economies and their desire to increase human capital (Callan, 2002; Dynarski, 2002; and McPherson & Schapiro, 1998).

Access to higher education has been the focus of policy makers in previous decades. Now merit and middle-income affordability have begun to replace access in state priorities (Longanecker, 2002). One of South Carolina LIFE Scholarship program goals is to increase access. From the economic perspective, access to higher education is defined as not denying students the opportunity to attend some kind of postsecondary institution by reason of inability to pay (McPherson and Schapiro, 1998). South Carolina is increasing access to higher education according to the economic perspective. In 1996, 59.9% of high school graduates participated in college. By 2000, 68.0% high school graduates went onto to attend college. In addition, the number of first-time LIFE Scholarship recipients increased over the five years of this study. The LIFE Scholarship includes merit requirements that award average academic achievement and meets middle-income affordability. The program discounts tuition and fees at South Carolina institutions so scholarship recipients have more educational opportunities to choose from than if they had to rely on other financial resources for college.

According to the sociological perspective, access means higher education is readily and broadly accessible to persons of a wide range of abilities, academic qualification, circumstances, and ages (Bowen, 1977; Rendon, 1998). The focus in the late 20th century and early 21st century is access for minorities, women, and low socioeconomic status individuals (Nettles, Perna, & Millett, 1998). The evidence provided by South Carolina was inconclusive in answering whether or not access was fulfilled from the sociological perspective.

One of the General Assembly's goals for LIFE was to provide incentives to students to be better prepared for college. The LIFE Scholarship is egalitarian versus

meritocratic because its eligibility requirements are based on three fairly reasonable avenues to receiving the scholarship rather than one restrictive avenue.

Between 1994 and 2000, the percentage of first-time freshmen leaving South Carolina for college stayed fairly consistent at 13-14%. In 2000, approximately 42 percent of the first-time South Carolina freshmen attending out-of-state institutions, attended institutions in the neighboring states, Georgia or North Carolina. Researchers have consistently found several influential factors in the college search and choice phases: parent's education, size of college, location, academic program, reputation, prestige, selectivity, alumni, the student's peers, friends and guidance counselors, and availability of financial aid and the total costs of expenses (Hossler, Schmit & Vesper, 1999; St. John, 1990). The first-time freshmen leaving South Carolina for neighboring states' higher education institutions may be choosing those institutions because of location, social norms, or legacy. Thus, if South Carolina believes these are their best and brightest students and wants to retain them for college, then the state needs to evaluate what would keep these students from leaving the state to attend college in neighboring states.

Students receiving the LIFE scholarship have the opportunity to choose amongst different educational opportunities within South Carolina. LIFE Scholarship students primarily chose to attend public four-year institutions, while first-time freshmen chose public four-year slightly over public two-year institutions. The percentage South Carolina freshmen attending private four-year institutions stayed steady between 1994 and 2000.

To improve the employability of South Carolina students, South Carolina not only should focus its efforts on keeping the best and brightest in state, but also on high school graduation rates. The intellect of young adults is a vital resource that must be developed if the nation is to realize its fullest potential (Campbell and Eckerman, 1964). When young, educated residents migrate out of state, the home state loses the best and brightest residents and the skills necessary for global competitiveness and economic development (Gottlieb, 2001). In addition to trying to keep the best and brightest in-state for college, South Carolina should focus its efforts on getting students to graduate from high school to ensure an educated workforce that participates in the democratic process, aids in economic development, has greater social responsibility towards people and the environment, and maintains healthy lifestyles (Bowen, 1977).

Louisiana

In the first part of this section, I answer research questions one and two for Louisiana's Tuition Opportunity Program for Students (TOPS) Scholarship Program. First, I describe which high school graduates receive the Louisiana TOPS Scholarship based on the goals of the program. Next I answer research question two, comparing scholarship recipients to the Louisiana high school graduate population for home school district metropolitan status and poverty levels, and for college choice patterns. Lastly, I discuss the findings for the two research questions.

Research Question One

The purpose of TOPS is to encourage academic achievement in high school and college, and to financially assist students to continue their education at a Louisiana

postsecondary institution. The end goal of TOPS is for Louisiana to have an educated work force enabling the state to prosper in the global market of the future. Which students receive TOPS scholarships?

To be eligible for TOPS, a high school graduate must obtain a certain ACT score and GPA on a core curriculum. There are four scholarship levels. One of the TOPS goals is to encourage academic excellence. The Honors is the highest award. To be eligible a student has to have a 3.5 GPA and 27 ACT. In 1998, 1,813 or 7.7% of the recipients were awarded the Honors Scholarship. By 2002, 5,403 of the cumulative number of TOPS recipients were Honors Scholars. The percentage distribution of TOPS recipients shows that the percentage of Honors recipients increased between 1998 and 2002. To qualify for the next level award, Performance, a student must have a 3.5 GPA and 23 ACT. In 1998 and 2002, almost 22% and 17.6% of the TOPS recipients received the Performance Scholarship, respectively. The majority of high school graduates received the Opportunity Scholarship, which requires a 2.5 GPA and 20 ACT. TOPS is not biased when awarding academic achievement. There is a merit component to the scholarship but there are four award levels so average academic performers can receive the Opportunity Scholarship. The ACT criteria for the Opportunity is a 20; the ACT mean score for Louisiana students in 2000 and 2002 was a 19.6. In 2002, over 67 percent of the number of TOPS scholarship recipients were Opportunity award recipients.

TOPS was created because Louisiana saw the scholarship as one way to develop an educated work force. This route puts the responsibility on the students instead of focusing completely on the school or teachers. The percentage of high school graduates

by ninth grade cohort decreased from 61.3% in 1994 to 56.1% in 2000. High school graduation rates by twelfth graders has held steady at about 90 percent.

The percentage of high school graduates enrolling in college pre- and post-program increased from 54.2% to 62.0%. High school graduates attending Louisiana higher education institutions went from 86.8% in 1996 to 88.8% in 2000. Pre-program, 13.2% of Louisiana high school graduates left the state for college. In 1998, the first-year of the program, high school graduates leaving Louisiana for college decreased to 10.1% in 1998. However, the tides switched by 2000 as 11.2% of the graduates left Louisiana for college.

Research Question Two

In this part I answer research question two, comparing the scholarship recipients with the population of high school graduates. The analysis involved the college choice data, which were the only data provided for the Louisiana TOPS recipients.

Table 159 presents the results of a paired t-test comparing college choice patterns of Louisiana first-time freshmen to Louisiana TOPS recipients. For the years 1998 and 2000, TOPS recipients ($M = .8869$) chose four-year public institutions at a statistically significantly higher percentage than first-time freshmen ($M = .7221$, $t = -63.385$, $p < .05$). First-time freshmen ($M = .1736$) chose public two-year institutions at a significantly higher percentage than TOP recipients ($M = .0146$, $t = 36.540$, $p < .05$). In addition, TOPS recipients were more likely ($M = .0963$, $t = -575.00$, $p < .01$) than first-time freshmen ($M = .0676$) to attend four-year private institutions. The college choice patterns of first-time freshmen and TOPS recipients can also be seen in Figure 35.

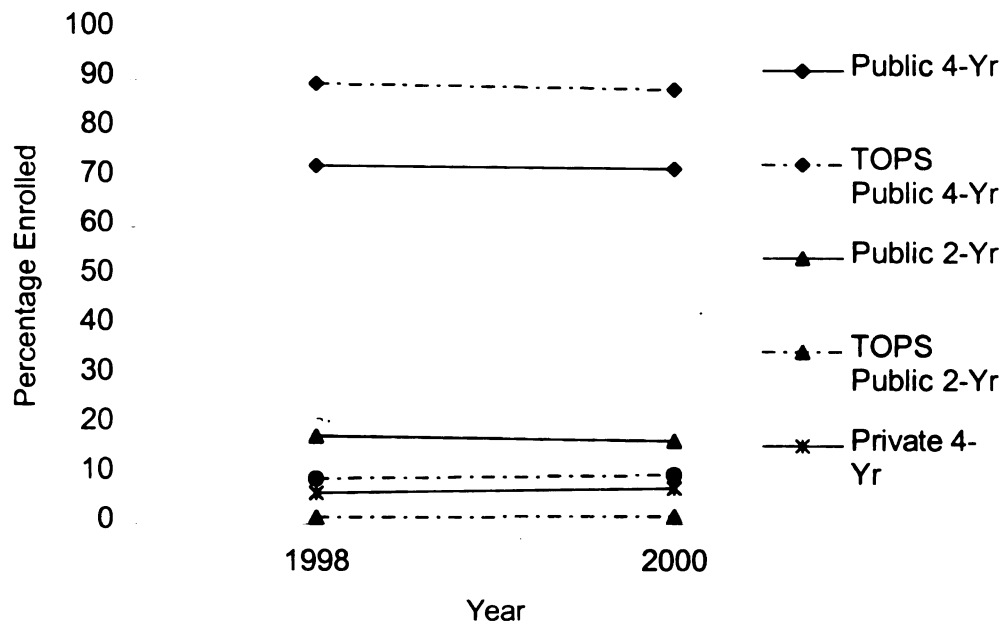
Table 159

Comparison of College Choice Patterns of Louisiana First-Time Freshmen and TOPS Recipients

	M	df	t	p
<hr/> Four Year Public <hr/>				
First-Time Freshmen	.7221	1	-63.385	.010*
TOPS Recipients	.8869	1		
<hr/> Two Year Public <hr/>				
First-Time Freshmen	.1736	1	36.540	.017*
TOPS Recipients	.0146	1		
<hr/> Four Year Private <hr/>				
First-Time Freshmen	.0676	1	-575.00	.001**
TOPS Recipients	.0963	1		
<hr/> Two Year Private <hr/>				
First-Time Freshmen	.0269	1	2.098	.283
TOPS Recipients	.0022	1		

** p < .01. * p < .05.

Figure 35. Louisiana first-time freshmen and TOPS recipients college choice patterns.



Discussion

The Louisiana Tuition Opportunity Program for Students (TOPS) was implemented in 1998. The purpose of TOPS is to encourage academic excellence, and provide incentives for students to pursue postsecondary education in Louisiana. The end goal of TOPS is for Louisiana to have an educated work force enabling the state to prosper in the global market of the future.

Louisiana implemented their TOPS scholarship program the same year as South Carolina, and one to five years after Georgia, Florida, and Mississippi implemented their merit scholarship programs. Regional diffusion models emphasize the influence of nearby states, assuming that states copy their neighbors when confronted with policy problems (Berry & Berry, 1990). Louisiana was encountering many of the same

challenges as the other southern states, including losing their best and brightest to other states for college, which puts an effect on the state economies and their desire to increase human capital (Dynarski, 2002; McPherson & Schapiro, 1998). In addition, Louisiana received an F grade for preparation of students for higher education, and D grades in higher education affordability and completion (Callan, 2002).

One of the TOPS goals is to encourage academic excellence. There is a merit component to the scholarship but there are four TOPS award levels so more average students can still receive a scholarship. The minimum eligibility requirements for the Opportunity are a 20 on the ACT and a 2.5 GPA on the core curriculum. The mean ACT score for Louisiana students in 1998 and 2002 was a 19.6. In 2002, over 67 percent of the number of enrolled TOPS scholarship recipients were Opportunity award recipients. The percentage of enrolled TOP scholarship recipients receiving the Honors award steadily increased from 7.7% in 1998 to 14.1% in 2002. To receive the TOPS Honors scholarship, a student must obtain a 27 on the ACT and a 3.5 GPA. The Honors award is a true merit award because it rewards for a high GPA on a college preparation curriculum and a high ACT score.

The core curriculum for the Honors, Performance, and Opportunity award levels includes 16.5 units of advanced mathematics, foreign language, history, fine arts, and science. Louisiana puts the ownership of education into the hands of the student instead of the school or teacher. If the school does not offer a core course(s) for eligibility, it is the responsibility of the student to find and take the course through distance learning or correspondence. However, students may work with the state program office to substitute similar courses. The financial gap is all too often a preparation gap as well. Those from

low-income backgrounds are less likely to enroll and disproportionately likely to require remedial assistance if they do enroll. Improvement of public K-12 schools, particularly those serving communities sending the fewest students to college, will be a critical task. Addressing the preparation gap will entail the deliberate and active participation of higher education (Callan, 2001, p. 95).

Another goal of TOPS is to provide financial aid for students meeting the eligibility requirements to pursue postsecondary education. TOPS recipients have chosen public and private four-year institutions at statistically significant higher percentages than first-time Louisiana freshmen. First-time freshmen have primarily chosen to attend public two-year institutions at statistically significant higher percentages than TOPS recipients.

The percentage of high school graduates enrolling in college increased by about eight percent during the period of study. The percentage of high school graduates attending Louisiana higher education institutions increased about 2 percent to 88.8%. Pre-program, 13.2% of Louisiana high school graduates left the state for college. In 1998, the first year of the program, high school graduates leaving Louisiana for college decreased to 10.1%. By 2000, the percentage had increased to 11.2%. Approximately 40 percent chose to attend higher education institutions in neighboring states.

Increases in net costs over time leads to decreases in enrollment rates for lower income students, especially at four-year institutions. As for middle- and upper-income students, the shift of financial aid to the families does not deter enrollment (McPherson & Schapiro, 1996). Louisiana Board of Regents did not provide data on home school district for TOPS recipients so analyses could not be conducted on metropolitan status or

poverty level. Louisiana's public higher education tuition costs have increased 8.7% compared to 20.5% nationwide between 1995 and 1999 (SREB, 2002). The range of higher education alternatives available to students appears to be quite sharply constrained by their incomes under existing conditions. Upper income students attend a university while lower income students attend public two-year colleges (McPherson and Schapiro, 1996). First-time Louisiana freshmen have increasingly chosen public two-year institutions over public four-year and private four-year institutions.

In summary, Louisiana has experienced a substantial increase in the percentage of high school graduates attending college during the last half of the 1990s. Despite the increase in college participation rates, high school graduation rates by ninth grade cohort have decreased. Thus, to attain an educated workforce the state needs to reevaluate how to stimulate students through high school graduation, improve college academic preparation, and increase college completion.

Alaska

In the first part of this section, I answer research questions one and two for the University of Alaska's Scholars Program. First, I describe which high school graduates receive the scholarship according to the program goals. Next I answer research question two, comparing scholarship recipients to the Alaska high school graduate population for gender and ethnicity, and home school districts' poverty level and metropolitan status. Lastly, I discuss the findings for the two research questions.

Research Question One

The University of Alaska Scholars Program was implemented in 1999 to encourage middle and high school students to achieve excellence, promote schools to provide quality education, and encourage students to stay in Alaska for college. A student must be in the top 10% of his or her high school graduating class. Scholars can choose to attend any of the University of Alaska System institutions. Which students receive the Alaska merit scholarship?

One of the goals of the Alaska Scholars Program is to encourage students to achieve excellence in high school. The only eligibility requirement for the Alaska Scholars is for students to be in the top ten percent of their high school graduating class. Alaska students scored higher than the national ACT and SAT mean scores during the years of this study. The Alaska Scholar recipients scored even higher on the ACT and SAT.

Another Alaska Scholar goal is to encourage students to stay in Alaska for college. Since the scholarship was implemented, the percentage of high school graduates attending college increased from 37.3% in 1998 to 48.3% in 2000. In addition, students staying in Alaska for college increased from 33.2% in 1998 to 45.9% in 2000. The percentage of graduates leaving Alaska decreased from 65.5% in 1998 to 52.7% in 2000.

Between 1999 and 2002, there were statistically significant differences between the percentage of high school graduates eligible for the Alaska Scholarship and the percentage of enrolled Alaska Scholars. The ratio of eligible Scholars ($M = 877.25$) to enrolled Scholars ($M = 339.25$, $t = 76.727$ $p < .001$) was about 2.5 to 1.0.

During the years of this study the percentage of high school graduates attending college increased; however, the percentage of first-time freshmen is still below 50 percent. In addition, a larger percentage of high school graduates stayed in-state for college although the absolute number of students going to college out-of-state increased.

Research Question Two

In this part I answer research question number two comparing the scholarship recipients with the population of high school graduates. The data available to describe and analyze Alaska's high school graduates and scholarship recipients included gender and ethnicity, and home school districts' poverty and metropolitan status. I found statistically significant differences between the high school graduate population and scholarship recipients for gender and ethnicity.

First, I compared the gender of Alaska Scholars with the high school graduate population using paired t-tests. As shown in Table 160, there was a statistically significant higher percentage of female Scholars ($M = .6576$) than female high school graduates ($M = .4977$, $t = -127.886$, $p < .000$). Conversely, there was a statistically significant lower percentage of male Scholars ($M = .4942$, $t = 8.921$, $p < .000$) than male high school graduates ($M = .3415$).

Table 160

Comparison by Gender of Alaska Public High School Graduates and Alaska Scholars

	M	t	df	p
Male				
H.S. Graduates	.4942	8.921	2	.012*
Scholars	.3415			
Female				
H.S. Graduates	.4977	-127.886	2	.000***
Scholars	.6576			

*** $p < .001$. * $p < .05$.

I found statistically significant differences between graduates and Scholars for White and Black students. As shown in Table 161, there were a higher percentage of White ($M = .6935$) and Black ($M = .0382$) public high school graduates than White and Black Scholars ($M = .6604$, $t = 8.232$, $p < .05$ and $M = .0101$, $t = 9.042$, $p < .05$, respectively). The findings may be biased because six to eight percent of Alaska Scholars do not report their ethnicity each year.

Table 161

Comparison by Ethnicity of Alaska Public High School Graduates and Alaska Scholars

	M	t	df	P
White				
H.S. Graduates	.6935	8.232	2	.014*
Scholars	.6604			
Black				
H.S. Graduates	.0382	9.042	2	.012*
Scholars	.0101			
Hispanic				
H.S. Graduates	.0262	3.545	2	.071
Scholars	.0174			
Native American				
H.S. Graduates	.1857	3.361	2	.078
Scholars	.1736			
Asian				
H.S. Graduates	.0564	.024	2	.983
Scholars	.0561			

* $p < .05$.

Lastly, no significant differences were found in the comparison between Alaska high school graduates and Scholars school districts' metropolitan or poverty statuses.

Discussion

There has never been a more important time than now for Alaska to preserve its investment in its youth by increasing opportunities for young Alaskans to attend college in their own state.

The UA Scholars Program is designed to help reduce the number of Alaska's high school graduates who leave the state for education and jobs elsewhere. Years from now when we look back at Alaska's progress, I have no doubt that historians, economists, and politicians will point to the UA Scholars Program as the turning point for our state. This Program will mark the exact moment that Alaska made a conscious decision to take charge of its own destiny.

-- Mark Hamilton, President of University of Alaska System

In addition to keeping high school graduates in Alaska for college, the University of Alaska Scholars Program was implemented in 1999 to encourage middle and high school students to achieve excellence and to promote schools to provide quality education. The top ten percent of each high school's graduating class qualifies for the scholarship.

One of the goals is to encourage high achievement in high school. Supporters of merit scholarship claim that students exert more efforts in their studies in college in order to maintain their scholarship. This phenomenon could also be the case for high school students, or at least that is what the University of Alaska Systems hopes. But, Cornwell, Lee and Mustard state that merit-based scholarships often result in too much focus on grades and gaming the system, not learning (2003). Alaska did receive an A grade for

college preparation of high school students (Callan, 2002), and Alaska Scholars scored above the national means and Alaska high school population on the ACT and SAT. The only qualifier for the scholarship is to be in the top ten percent of the high school graduating class. An entire high school graduating class could be high achievers but only 10 percent receive the scholarship. Or perhaps only three percent of the graduating class is high achievers but 10 percent receive the scholarship.

Another one of the goals is to keep students in-state for college. Like many of the southern states that created merit-based scholarship programs to keep their best and brightest in-state for college, Alaska is trying to do the same. Keeping the best and brightest students in-state to attend college depends on different conditions in the state, including the extent of participation in higher education within the state and a family's economic status (Longanecker, 2002). Between 1998, the year before the Alaska Scholars was implemented, and 2000, the college participation percentage increased 25.9%. In 2000, the percentage of Alaska high school graduates attending college was 48.3% while the United States average was 63.3%. However, the number of high school graduates leaving the state for college increased from 1,652 in 1998 to 1,803 in 2000 although the relative percentage of students attending college out-of-state declined.

College choice is defined as students being given an equitable menu from which they can pick the institution that best fit their needs (McPherson and Schapiro, 1998). Student choices about enrolling higher education can be influenced by financial aid (Leslie and Brinkman, 1988). Alaska students choosing to stay in-state for college have 17 University of Alaska institutions, including four-year and two-year institutions, to select from. Outside of the UA System, students can choose one of three private four-

year institutions, one private two-year institution, and two proprietary institutions. Approximately five percent of first-time freshmen choose the private or proprietary institutions. Approximately 90 percent of Alaska high school graduates are from school districts in low poverty areas. Thus, one would assume that financial resources would not impact college enrollment or college choice.

Almost 57 percent of the first-time freshmen leaving Alaska enrolled in higher education institutions located in the Western United States. Alaska is a member of the Western Interstate Commission on Higher Education (WICHE), which offers educational exchange programs for undergraduate students. Alaska first-time freshmen can enroll in one of the 15 WICHE states designated higher education institutions at a discounted out-of-state tuition cost. Some of the Alaska first-time freshmen take advantage of this program and attend institutions that may better fit their educational or social needs.

This study found that approximately one out of every three eligible UA Scholars accepted the scholarship and enrolled in a University of Alaska institution. Parents' education level has a positive effect on a student's likelihood of enrollment and a stronger effect on enrollment plans than student ability or income level (Hossler and Maple, 1993; Kohn, Manski, and Mundel, 1976). In addition, test scores, grades, taking part in a college preparatory program, and attending a school with many college-going peers are important student attributes for college enrollment (Jackson, 1988). Although this study did not focus on these variables in studying the effectiveness of the Alaska Scholars program, they may affect completing high school, being in the top 10 percent of the graduating class, or enrolling in college.

The University of Alaska System brings life-long economic benefits to the people of Alaska. According to an economic impact study, the University of Alaska graduates earn about twice as much as individuals without a college degree. “This increased earnings power, multiplied by the number of Alaskans holding degrees from the University of Alaska saves Alaska businesses recruiting and relocation costs and provides a more stable workforce” (McDowell Group, 1998, p.3). On average, 79% of baccalaureate degree recipients resided in Alaska one year after graduation and 68% resided in Alaska five years after graduation (UA in Review, 2002).

In summary, the Alaska Scholarship Program awards high school graduates that do well in high school, but the eligibility requirements do not focus on an academic curriculum. The data on who receives the scholarships are vague. This study illustrates that the scholarship recipients were primarily female, and fairly similar to the high school graduate population for ethnicity, and home school district metropolitan status and poverty level. However, the evidence provided does not give a profile of scholarship recipients’ high school curriculum or college course taking first-semester (e.g., remedial courses) or persistence in college. In addition, the data do not profile the students not accepting the scholarship or students leaving the state for college. The data illustrate that more high school graduates were pursuing college in 2000, including a higher percentage of high school graduates accepting the scholarship.

Kentucky

In the first part of this section, I answer research questions one and two for the Kentucky Educational Excellence Scholarship (KEES). First, I describe which high school graduates receive KEES based on the program goals as established by the state

legislature. Next, I answer research question two, comparing scholarship recipients to the Kentucky high school graduate population for home school districts' metropolitan status and poverty levels. Lastly, I discuss the findings for the two research questions.

Research Question One

KEES was implemented in 1999. The goal of KEES is to encourage Kentucky students to get the most from high school by studying hard and getting good grades and enroll in Kentucky higher education institutions. The Kentucky Legislature believes that students who complete their college studies will have a better opportunity to achieve their career goals and improve their standard of living. Which students receive the Educational Excellence Scholarship?

One of the KEES goals is to encourage students to study hard and get good grades in high school. Eligibility for KEES is based on a required curriculum GPA and the award begins accruing the freshman year of high school. The average GPA for eligible KEES freshmen through seniors was a 3.30. A bonus award is also available, based on a student's ACT or SAT score. Kentucky students scored below the national composite ACT mean for the years of this study. In 2000, Kentucky students' median ACT score was a 20.1.

If a student receives the award each of the four years at the minimum 2.5 GPA and scores the Kentucky median on the ACT, then the student receives a total of \$814 per year for college. If a student receives the award each year at the maximum 4.0 GPA and scores a 28 on the ACT, then the student receives a total of \$2,500 per year for college. In 2000, approximately 85 percent of high school graduates were eligible for the

Educational Excellence Scholarship. In addition, 60 percent of the graduates received the bonus award.

Between 1996 and 2000, the percentage of Kentucky high school graduates enrolling in college increased from 53.7% to 62.1%. When it came to choosing a higher education institution, first-time freshmen and KEES first-time freshmen primarily chose to enroll in public Kentucky four-year institutions. In 2000, 47.6% and 53.8% of Kentucky first-time freshmen and KEES recipients enrolled in public four-year institutions, respectively. Whereas, the enrollment in public two-year institutions flip-flopped as 35.2% and 29.8% of Kentucky first-time freshmen and KEES recipients enrolled in two-year institutions, respectively. Over 13 percent of Kentucky and KEES recipients enrolled in private four-year institutions. Lastly, the percentage of high school graduates leaving Kentucky for college decreased between 1998 and 2000; however, the number of the students leaving the state for college increased slightly. Over 61 percent of the graduates leaving the state for college enrolled in neighboring states' higher education institutions.

The ultimate purpose of KEES is to increase human capital within Kentucky by encouraging students to complete their college studies. In the year KEES was implemented only 34.5% of Kentucky's college-going students graduated from public higher education institutions (SREB, 2001). This study did not investigate college persistence. KEES started awarding high school achievement in 1999. The first four-year KEES awards were presented to the 2003 high school graduating class.

Research Question Two

In this part, I further describe the demographics of the students who received the Kentucky Educational Excellence Scholarship compared to the Kentucky high school graduate population. Because KEES was established in 1999, the only available data for both populations included home school districts metropolitan statuses and poverty levels.

A paired t-test was used to compare the home location of eligible KEES recipients to public high school graduate population for the years 1999 to 2001 (see Table 162). First, I compared the data on home school district metropolitan status. A significant difference was found between the percentage of high school graduates and Kentucky scholarship recipients from suburban school districts. A higher percentage of KEES recipients ($M = .3627$) were from suburban school districts than the high school graduate population ($M = .3332$, $t = -18.134$, $p < .05$). No significant differences were found between the high school population and KEES recipients for either central city or rural school districts.

Table 162

Comparison of Home Location Metropolitan Status of Kentucky Public High School Graduates and KEES Recipients between 1999 and 2001.

	M	t	df	p
Central City				
H.S. Graduates	.1008	-1.789	2	.216
Scholarship Recipients	.1044			
Urban				
H.S. Graduates	.3332	-18.134	2	.003**
Scholarship Recipients	.3627			
Rural				
H.S. Graduates	.5545	2.359	2	.142
Scholarship Recipients	.5211			

** $p < .01$.

Next, I compared the data for poverty levels of home school districts for Kentucky's public high school graduate population and KEES recipients for the three poverty levels. No statistically significant differences were found.

Discussion

The Kentucky Legislature was able to observe and evaluate other southern states' merit-scholarship programs before implementing their own scholarship program. In 1999, the Kentucky Educational Excellence Scholarship was born. The program is unique because students start accruing the scholarship their freshmen year of high school. It is based on a required curriculum GPA. In addition, bonus financial awards are given for their ACT score based on a sliding scale. The issues that led to the creation of KEES were poor college preparation, low college participation, loss of first-time freshmen to out of state institutions, and low college completion rates (Callan, 2002; SREB, 2001).

It is based on a required curriculum GPA. In addition, bonus financial awards are given for their ACT score based on a sliding scale. The issues that led to the creation of KEES were poor college preparation, low college participation, loss of first-time freshmen to out of state institutions, and low college completion rates (Callan, 2002; SREB, 2001). The fundamental purpose of KEES is to increase the human capital of Kentucky citizens and the Kentucky Legislature views KEES as one route to fulfilling this purpose.

The goal of KEES is to promote Kentucky students to excel academically in high school. Varied award amounts are given each year of high school based on a required college preparation curriculum and a sliding GPA scale. Approximately 85 percent of the high school graduates were eligible for the award; a student may qualify for the award for one or all four years of high school. Therefore, the amounts of awards vary from less than \$200 for one year to \$2,500 for all four years. In addition, the basis for the bonus award is the ACT score. The award amount is based on a sliding scale, \$36 per college academic year for a 15 ACT to \$500 per college academic year for a 28 ACT. Even though the scholarship is based on merit, the scholarship is egalitarian. The scholarship rewards one to four years of high school achievement without penalizing students for not doing well academically in one or more of the other years.

The legislature hopes that KEES entices students to study hard and make good grades, which could be the case. But, the program could be focusing so much on grades that students play the system and learning does not occur (Cornwell, Lee, and Mustard, 2003). Even though the increments of dollar awards vary \$25 for each .10% increase in GPA, students may play the system to receive better grades and the result is grade inflation.

The percentage of Kentucky high school graduates attending college increased 17.6% for the years of this study. The graduates' college choice patterns changed slightly between 1996 and 2000. In 1996, 53.5% chose public 4-year, 47.6% chose public 2-year, and 15.1% chose private 4-year institutions. By 2000, a lower percentage of high school graduates chose public or private 4-year institutions. Of the graduates attending in-state institutions, 47.6% chose 4-year public, 35.2% chose 2-year public, and 13.1% chose private 4-year institutions.

KEES recipients chose public four-year institutions at a higher rate than Kentucky first-time freshmen. The KEES scholarship is discounting tuition to public four-year institution, resulting in a higher percentage of KEES recipients attending those institutions. The majority of KEES recipients were from low poverty school districts and therefore, college costs may not have influenced their college choice patterns. In 2001, tuition and fees at a public four-year Kentucky institution ranged from \$1,353 to \$1,977 per year, while tuition and fees at a public two-year institution ranged from \$725 to \$1,042 (Kentucky Council on Postsecondary Education, 2002).

An underlying goal of KEES is to keep the best and brightest in-state for college. The percentage of first-time freshmen staying in state for college increased overall since the implementation of KEES, although the raw numbers of "leavers" increased. In the late 1990s, over 12 percent of Kentucky first-time freshmen left the state for college. Approximately 61 percent of the first-time freshmen attended a higher education institution in a neighboring state. More importantly, according to a Kentucky policy study students who leave Kentucky for college were among the best prepared academically for college (Kentucky Long-Term Policy Research Center, 2001). There

are several influential factors in the college search and choice phases for first-time freshmen: parent's education, size of college, location, academic program, reputation, prestige, selectivity, alumni, the student's peers, friends and guidance counselors, availability of financial aid, and the total costs of expenses (Hossler, Schmit & Vesper, 1999; St. John, 1990). The first-time freshmen leaving Kentucky for neighboring states' higher education institutions may be choosing those institutions because of location, social norms, or family legacy at the institution. Thus, if Kentucky believes these are their best and brightest students and wants to retain them for college, then the state needs to evaluate what would keep these students from leaving the state for college.

The fundamental goal of KEES is to increase the human capital of Kentucky residents. The first KEES college graduates were in 2001 for recipients attending two-year institutions and 2003 for recipients attending four-year institutions. In 1999, Kentucky had a 34.5% graduation rate at public higher education institutions (SREB, 2001). One of the Kentucky Legislature's beliefs in creating KEES is that if students complete their college studies then they would have a better opportunity to achieve their career goals and improve their standard of living. This study did not analyze persistence rates of college graduation, but further studies need to be conducted to see if KEES is meeting this Kentucky Legislature's goal.

An underlying assumption of the Kentucky Legislature is that by offering the scholarship to all high school students starting in the ninth grade the scholarship would entice the students to graduate from high school. The percentage of graduates by ninth grade cohort decreased during the years of this study. Only one of out of every two Hispanic and 59.0% of Black ninth graders, while 67.0% of White ninth graders

graduated from high school. Therefore, to increase the standard of living, economic competitiveness, and skills and knowledge of the residents, Kentucky needs to investigate ways to improve both college completion rates and high school graduation rates.

In summary, Kentucky needs to evaluate how the state can impact those students who do not graduate from high school to pursue their high school degree. In addition, Kentucky should keep an eye on possible grade inflation within high school, and understand why first-time freshmen leave the state for neighboring states' higher education institutions. Lastly, KEES award system is complex because it starts tracking and awarding students during their freshmen year of high school. Longitudinal studies are needed to investigate whether or not KEES is having an effect on high school achievement, college participation and completion, and first-time freshmen migration to other states for college.

Nevada

In the first part of this section, I answer research questions one and two for the Nevada Millennium Scholarship. First, I describe which high school graduates receive the Millennium Scholarship based on the goals as established by the state legislature. Next I answer research question two, comparing scholarship recipients to the Nevada high school graduate population for home school districts' metropolitan status and poverty levels. Lastly, I discuss the findings for the two research questions.

Research Question One

The Nevada Millennium Scholarship program was implemented in 2000. The goals of the program are to motivate students to achieve in a demanding program of study

in high school, and to encourage students to enroll in and graduate from an eligible Nevada higher education institution. Which students receive the Millennium Scholarship?

One of the Millennium Scholarship program goals is to motivate students to achieve in a demanding program of study in high school. To qualify for the Millennium Scholarship, students must pass all areas of the Nevada High School Proficiency Exam and have a 3.0 GPA on high school credit granting courses. Nevada public school students have to pass the twelfth grade proficiency exam on writing, reading, and math to receive a high school diploma. Students may retake the exam multiple times. In 2000, 83.0% of the twelfth grade cohort graduated from high school, and 50.3% of the graduates were eligible for the Millennium Scholarship. In 2000, the percentage of seniors by school district not receiving their high school diploma for failing the proficiency exam ranged from 0.0% to 7.3%. A high percentage of twelfth graders not passing the exam were from Clark School District where Las Vegas is located (Nevada Department of Education, 2002).

The second goal of the Millennium Scholarship program is to encourage students to enroll in and graduate from an eligible Nevada higher education institution. Even though the number of high school graduates attending college increased by 33% between 1996 and 2000, only 43.2% of high school graduates enrolled in college in 2000. Graduates staying in-state increased from 61.3% in 1996 to 72.8% in 2000. Only 58.3% of the eligible scholarship recipients enrolled in college in 2000 or the first year of the program. Millennium Scholarship recipients comprised 65.1% of Nevada's first-time freshmen, and 89.1% of first-time freshmen staying in-state for college.

Research Question Two

In this part, I answer research question two, comparing the scholarship recipients to the population of high school graduates. Because the Nevada Millennium Scholarship program was implemented in 2000, I was unable to conduct any type of analyses. However, I provide a description of Nevada public high school graduates and Millennium Scholarship recipients by their home school district and college choice.

As shown in Table 163, the percentage of Millennium Scholarship recipients from the one central city school district exceeds the percentage of public high school graduates from that school district. In 2000 and 2001, 20.3% and 21.9% of the Millennium Scholarship recipients were from the one central city school district. The highest percentage of high school graduates and Millennium Scholarship recipients were from the three suburban school districts. A smaller number of scholarship recipients relative to high school graduates were from the three suburban school districts.

Table 163

*Comparison of Nevada Public High School Graduates and Millennium
Scholarship Recipients by School District Metropolitan Status ^a*

	Percentage by School District Metro Status		
	Central City	Suburban	Rural
	(n = 1)	(n = 3)	(n = 12)
2000			
High School Graduates	16.97	63.91	19.12
Millennium Scholarship Recipients	20.25	60.45	17.62
2001			
High School Graduates	17.57	65.06	17.36
Millennium Scholarship Recipients	21.91	60.46	17.62

A higher percentage of Millennium Scholarship recipients were from low poverty school districts than public high school graduates. As shown in Table 164, over 95 percent of the Millennium Scholarship recipients were from the 11 low poverty school districts, 94 percent of high school graduates were from those districts.

Table 164

*Comparison of Nevada Public High School Graduates and Millennium
Scholarship Recipients by School District Poverty Levels ^a*

	Percentage by School District Poverty Level	
	Medium	Low
2000		
High School Graduates	5.84	94.16
Millennium Scholarship Recipients	4.76	95.24
2001		
High School Graduates	5.10	94.90
Millennium Scholarship Recipients	4.44	95.60

Nevada has two public four-year institutions. In 2000, the two institutions enrolled 68.8% of Nevada's first-time freshmen and 69.5% of the Millennium Scholarship recipients. The University of Nevada-Las Vegas enrolled 1,564 first-time Nevada freshmen, and 1,453 or 92.9% were Millennium Scholarship recipients. Whereas, the University of Nevada-Reno enrolled 1,582 first-time Nevada freshmen, and 89.1% or 1,410 were Millennium scholarship recipients. In contrast, public two-year institutions enrolled 24.5% of Nevada's first-time freshmen and 30.0% of the scholarship recipients.

Discussion

The Nevada Millennium Scholarship program was implemented in 2000. The goals of the program are to motivate students to be successful in the achievement of a rigorous program of study in high school, and to encourage students to enroll in and graduate from an eligible Nevada higher education institution. Nevada is expected to experience a 75.1% increase in the number of high school graduates between 1999-2010. The state received a D grade for preparation of high school students for college and an F grade for college completion (Callan, 2002).

Because Nevada's demographics are changing drastically, the state is looking for ways to stimulate high school and college achievement. Even though the program is having an effect, the state needs to continue evaluating how to stimulate high school graduation. The percentage of high school students graduating increased over thirty-one percent between 1996 and 2000. However, the percentage of graduates by ninth and twelfth grade cohorts decreased during the same time period. A critical issue is that less than 60 percent of Black and 47 percent of Hispanic ninth graders achieve high school graduation. Perna (2000) concluded that policymakers need to be concerned about the lower college enrollment rates of Blacks and Hispanics because they are less likely to realize the range of benefits associated with attending college and earning at least a bachelor's degree, which will adversely effect lifetime earnings. In addition, the benefits include better working conditions and benefits, investment decisions and health, and lower rates of unemployment (Pascarella and Terenzini, 1991).

One in every two Nevada high school graduates were eligible for the Millennium Scholarship. However, only fifty-eight percent of the eligible scholarship recipients

enrolled in college. In a survey of 2002 Millennium recipients, slightly more than half (58%) stated they would not have been able to attend college without the scholarship (UNR Center for Applied Research, 2003).

Nevada students have few choices for college in state. The percentage of first-time freshmen leaving Nevada for college decreased to below 30 percent in the year the Millennium Scholarship was implemented. Of the first-time freshmen attending out-of-state institutions, 56 percent of the first-time freshmen leaving Nevada enrolled in neighboring states higher education institutions. Nevada is a member of the Western Interstate Commission on Higher Education (WICHE), which offers educational exchange programs for undergraduate students. Nevada first-time freshmen can enroll in one of the 15 WICHE states designated higher education institutions at a discounted out-of-state tuition cost. Some of the Nevada first-time freshmen take advantage of this program and attend institutions that may fit their educational, economic, or social needs.

There is little evidence on the Millennium Scholarship because it was only implemented in 2000. The data on older merit-scholarship programs illustrate that there is an inverted bell curve on the impact of the scholarship programs on college participation and whether or not students stay in-state to attend college. The Millennium Scholarship is stricter than some of the other states on eligibility requirements, including high school GPA and passing the Nevada Proficiency Exams. The scholarship is one way for the Nevada Legislature to encourage high school achievement, and college participation and completion. The scholarship puts ownership of doing well in the students' hands instead of putting more pressure on the school district or teachers for improving student achievement. However, the Millennium Scholarship eligibility

requirements could lead the school districts and teachers to teaching to the proficiency exam or inflating grades.

In summary, to increase the human capital, and improve college preparation and educational benefits of its residents Nevada needs to focus its attention on its middle and high school students. The number of high school graduates are expected to increase 75 percent during the first decade of the twenty-first century, but this percentage does not take into account the large number of students who do not complete high school. In addition, many Nevada high school graduates leave the state for college. Therefore, Nevada also needs to evaluate which students are leaving Nevada for college and explore other ways to keep those students in-state for college.

Michigan

In the first part of this section, I answer research questions one and two for the Michigan Merit Award. First, I describe which high school graduates receive the Merit Award based on the goals as established by the state legislature. Next I answer research question two, comparing scholarship recipients to the Michigan high school graduate population for home school districts' metropolitan status and poverty levels. Lastly, I discuss the findings for the two research questions.

Research Question One

The purpose of the Michigan Merit Award is to increase access to postsecondary education and reward Michigan high school graduates who have demonstrated academic achievement through the Michigan Educational Assessment Program (MEAP). Which students receive the Merit Award?

First, I looked into the high school graduates and Merit Award recipients by high school graduation rates, ethnicity, gender, and home school districts. Between 1990 and 2000, the percentage of public high school graduates grew 12.2%. In 2000, the first year of the program, graduates by ninth and twelfth grade cohorts were at a high of 73.7% and 95.4%, respectively. Graduation rates by ninth grade cohort of Whites was 76.5%, Blacks was 44.7%, Hispanics was 54.8%, and Native Americans was 55.7%. The proportion of White and Asian Merit Award recipients were higher than White and Asian public high school graduates. The proportion of Black, Hispanic, and Native American Merit Award recipients were lower than Black, Hispanic, and Native American public high school graduates.

In addition, the proportion of female Merit Award recipients was higher than female public high school graduates. The percentage of high school graduates who were female was 49.3%, and the percentage of eligible award recipients who were female was 54.2%. Thus, fewer male high school graduates were eligible for the Merit Award than there were high school graduates.

The percentage of public high school graduates and Merit Award recipients from central cities in 2001 were 14.6% and 10.4%, respectively. More Merit Award recipients were from suburban school districts than central city or rural high school districts. Sixty-four percent of the high school graduates were from one of the 290 suburban school districts. Of all graduates eligible for the Merit Award, 74.8% were from suburban school districts. In addition, 21.1% of the graduates were from rural school districts and of the eligible Merit Award recipients, 14.8% were from rural school districts.

Second, I explored college participation and choice patterns. Between 1998 and 2000, the percentage of high school graduates attending college decreased from 57.2% to 56.5%. The number and percentage of high school graduates leaving Michigan to attend college increased in 2000. Of the 7,060 students attending out-of-state institutions, 41.5% attended institutions in Indiana, Ohio, or Illinois.

The number of students accepting the Merit Award and enrolling in college has decreased since the program's inception. Between 2000 and 2002, the number of Merit Award recipients enrolling in college decreased from 40,240 to 39,471. The ratio of Merit Award recipients enrolling to eligible students decreased from 93.2% to 76.2%.

In 2000 public four-year institutions enrolled the majority of Michigan high school graduates and Merit Award recipients. More Merit Award recipients chose public four-year than public two-year institutions. Public four-year institutions enrolled 51.7% of Michigan's first-time freshmen and 62.0% of the Merit Award recipients. In contrast, public two-year institutions enrolled 29.3% of Michigan's first-time freshmen and 25.8% of the Merit Award recipients. Lastly, 16.2% of first-time freshmen and 12.2% of Merit Award recipients chose private four-year institutions.

Research Question Two

Research question two was not answered because the Michigan Merit Award was implemented in 2000, and because of unreliable data. The 2000 high school graduation data were skewed—the numbers of graduates from two of the central city school districts, Detroit and Lansing, were not reported to NCES CCD. In addition, the NCES IPEDS first-time freshmen data were only publicly available through 2000.

Discussion

The Michigan Merit Award Scholarship was implemented in 2000. It is a financial incentive for students to exceed on the four MEAP tests. The stated goal of the Merit Award is to encourage access to higher education. Per the economic perspective, access to higher education is defined as not denying students the opportunity to attend some kind of postsecondary institution by reason of inability to pay (McPherson and Schapiro, 1998). According to the sociological perspective, access means higher education is readily and broadly accessible to persons of a wide range of abilities, academic qualification, circumstances and ages (Bowens, 1977; Rendon, 1998). The focus in the late 20th century and early 21st century is access for minorities, women, and low socioeconomic status individuals (Nettles, Perna, & Millett, 1998).

Several of the state non-needs merit-scholarship programs provide full tuition through degree completion. The Michigan Merit Award is different because it provides a one- or two-year \$2,500 award. Michigan received a D grade for college affordability, and one of the variables included family ability to pay for college (Callan, 2002). The cost of higher education has climbed steadily as a percentage of family income, which has caused a steep rise in unmet need for low- and middle-income students (ACSFA, 2001).

The award resulted in more Merit Award recipients than first-time freshmen choosing to enroll in four-year public institutions. The award discounts tuition for recipients for their first-year of college. However, the number of students accepting the Merit Award and enrolling in college decreased since the program's inception. The

\$2,500 one-time Merit Award may not provide enough of an incentive to attend college (Heller and Rogers, 2003).

According to Heller & Schapiro (2000), “There is a clear relationship between race, gender, school poverty level, and the probability of qualifying for the Michigan Merit Award Scholarship” (p. 18). This study found that a higher proportion of White and Asian high school graduates were eligible for the Merit Award compared to Black, Hispanic, and Native American graduates. In addition, a higher proportion of public high school graduates from suburban and low poverty school districts were eligible for the award. The ability to pay for college by household income has become a powerful influence when policy makers altered their focus from low-income students and access toward students whose attendance was already assured (ASFCA, 2001).

In conclusion, the Merit Award is awarding students who achieve on the four MEAP tests, and is providing a financial incentive to attend Michigan higher education institutions. The award positively affects certain graduates by ethnicity, in addition to graduates from suburban and low poverty school districts. Longitudinal research is needed to determine the effect of the Merit Award on recipient’s persistence and completion of college.

West Virginia

In the first part of this section, I answer research questions one and two for the West Virginia PROMISE Scholarship. First, I describe which high school graduates are receiving the PROMISE Scholarship based on the goals as established by the state legislature. Next I answer research question two, comparing scholarship recipients to the

West Virginia high school graduate population for home school districts' metropolitan status and poverty levels. Lastly, I discuss the findings for the two research questions.

Research Question One

The West Virginia Legislature created and implemented the Providing Real Opportunities for Maximizing In-State Student Excellence (PROMISE) Scholarship Program in 2002. The goals of PROMISE are to increase educational opportunities and to build a competitive West Virginia workforce. Which students receive the PROMISE Scholarship?

West Virginia is the only merit-based state that experienced a decrease in the number of high school students during the late 1990s and early 2000s. Thus, the number of high school graduates decreased. The percentage of graduates by ninth grade cohort also decreased from 80.1% in 1998 to 73.5% in 2000. The percentage of twelfth graders receiving diplomas increased to 93.5%.

Eligibility for the PROMISE Scholarship consists of a 3.0 GPA on a high school core and overall curriculum, and a 21 ACT or a 1000 SAT score. In the late 1990s, West Virginia students averaged below a 21 on their ACT and above a 1030 on their SAT. Seventeen percent of the 2002 high school graduating class was eligible for the PROMISE Scholarship. The ACT and SAT mean scores for scholarship recipients were 24 and 1136, respectively.

In 2000, West Virginia had 58 higher education institutions, including 11 4-year public, five 2-year public, and 11 technical institutions. The other thirty-one institutions were either private or proprietary. In 2000, approximately 55 percent of the high school graduates enrolled in college, and 17 percent attended out-of-state higher education

institutions. Of the 1,897 first-time freshmen leaving West Virginia for college, 66.3% attended higher education institutions in neighboring states. A higher percentage of West Virginia first-time freshmen chose public four-year institutions, while a higher percentage of PROMISE scholarship recipients enrolled in private four-year institutions.

In summary, one can assume that the West Virginia PROMISE Scholarship is a true merit scholarship because less than twenty percent of the high school graduating class receives the scholarship. However, the data provided did not state the number of high school graduates eligible for the PROMISE scholarship. Thus, perhaps there are a higher number of eligible graduates, and they either did not enroll in college or decided to attend an out-of-state institution. West Virginia does offer a significant number of higher education opportunities when compared to the number of high school graduates or residents (1.8 million).

Research Question Two

Research question two was not analyzed and answered because the West Virginia PROMISE Scholarship was implemented in 2002.

Discussion

Like many of the other merit-scholarship states, West Virginia was looking for ways to stimulate high school excellence and keep their best and brightest in-state for college. These two areas were critical for West Virginia to address because West Virginia was the only merit state that was experiencing a decrease in the number of high school students. As a result, the West Virginia Legislature created the Providing Real Opportunities for Maximizing In-State Student Excellence (PROMISE) Scholarship

program. The goals of PROMISE are to increase educational opportunities, keep students in-state for college, and build a competitive West Virginia workforce.

PROMISE Scholarship recipients receive up to full tuition at either a West Virginia public or private higher education institution. West Virginia received an F grade for affordability of higher education, meaning that there is higher unmet financial need for college (Callan, 2002). According to the U.S. Census Bureau, the median income for West Virginia residents was \$30,072 between 2000 and 2002. Over 58 percent of PROMISE Scholarship recipients were from homes that had an adjusted income of \$50,000 or more. Thus, the PROMISE Scholarship is disproportionately assisting higher income students. The scholarship is discounting tuition to the students who are eligible. Access to higher education has been the focus of policy makers in previous decades. Now merit and middle-income affordability have begun to replace access in state priorities (Longanecker, 2002).

In summary, the PROMISE scholarship puts the ownership of excelling in high school, graduating from high school, and enrolling and persisting in college in the students' hands instead of putting the burden on the school districts or teachers. The GPA eligibility requirement will need to be monitored by the state because the scholarship could pressure teachers to inflate grades. In addition, the data are inconclusive on whether or not the non-eligible scholarship graduates did not receive a 3.0 GPA or 21 ACT score. Lastly, West Virginia received an F grade for benefits upon college completion (Callan, 2002) so further studies need to be conducted to determine if West Virginia and the PROMISE Scholarship are able to improve students' college completion rates.

Conclusion

In this chapter I answered research questions one and two for each state's non-needs merit-based scholarship program. In this section of the chapter, I provide a summary of the 12 states, specifically answering research questions one and two.

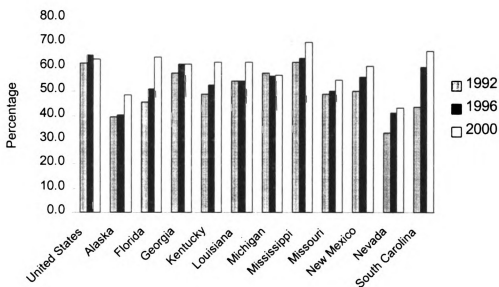
Research Question One

Based on the broad objectives for offering non-needs merit-based scholarships I describe each state's demographic trends (see Table 165). The broad objectives are rewarding high school academic achievement, increasing participation in higher education, offering different types of postsecondary education opportunities, and keeping high school graduates in-state for college.

One broad objective for offering a non-needs merit-based scholarship program is that the state wants to reward students for their high school academic achievement. Mississippi and Missouri have the strictest academic eligibility requirements, rewarding excellence through college preparation test scores and/or high school GPAs. As a result, Mississippi and Missouri have the fewest number of non-needs merit-based scholarship recipients. The other states reward superior and average academic achievement, taking into account GPA, college preparation test scores, state examinations, and/or high school class rank. Georgia rewards high school graduates for achieving a B average, while Florida, Louisiana, and Kentucky reward graduates on a sliding academic achievement scale. Alaska is the only state determining high school academic achievement by students' high school graduating class ranking. Lastly, New Mexico does not base its scholarship on high school achievement but on college achievement.

A second broad goal for offering non-needs merit-based scholarships is to increase in-state college participation after high school graduation. In all states except Michigan, participation in higher education increased during the last half of the 1990s. Michigan's higher education participation rate stayed flat at 56 percent. Within the United States, 61.7% of the 1992 high school graduates enrolled in college and by 2000, the percentage increased to 63.3% (NCES, 2001). The largest increases in college participation rates during the last half of 1990s were in Florida (14.5%), Louisiana (10.3%), Kentucky (9.4%), South Carolina (9.1%), New Mexico (9.0%), Alaska (8.1%), and Georgia (6.3%). Only Florida, Mississippi and South Carolina have higher college participate rates than the U.S. average in 2000 (see Figure 36).

Figure 36. Percentage of high school graduates attending college. ⁽¹⁾



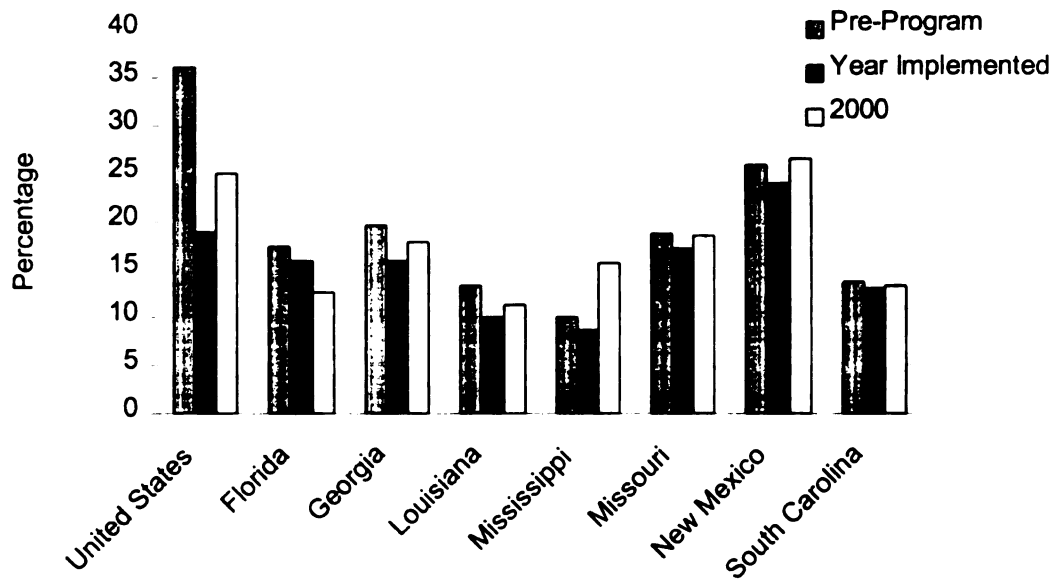
⁽¹⁾ West Virginia was not included because its merit scholarship program was implemented in 2002.

A third broad goal is for the scholarship recipients to have a choice amongst different postsecondary educational opportunities within the state. New Mexico and

Alaska are the only states that require scholarship recipients to enroll in public higher education institutions. In several of the states, scholarship recipients chose four-year public and private institutions over two-year public colleges. In addition, scholarship recipients are taking advantage of proprietary institutions, which have increased during the 1990s.

Lastly, some of the states are still grappling with losing first-time freshmen to out-of-state institutions. Therefore, a fourth broad goal for offering the scholarships is to keep students in-state for college. In 1992, 36 percent of the students across the United States left their home state for college. By 2000, this percentage dropped to 25 percent. During the late 1990s, Georgia, Mississippi, New Mexico, and Michigan experienced slight increases in the percentage of first-time freshmen leaving the state for college, while Missouri and South Carolina experienced no changes (see Figure 37). Missouri, Mississippi, and Michigan do not offer full tuition merit scholarships.

Figure 37. Percentage of first-time freshmen leaving the state for college pre- and post-program implementation. ⁽¹⁾



⁽¹⁾ States that implemented non-needs merit-based scholarship programs starting in 1999 were not included because there were not enough data points (Alaska, Kentucky, Michigan Nevada, West Virginia).

Table 165

Summary of State Demographic Trends Based on Broad Non-Needs Merit-Based Scholarship Program Goals

State	Scholarship Eligibility Requirements	Postsecondary Education		Choice Amongst Different		First-Time Freshmen Staying In-State for College
		Enrollment after High School Graduation		Postsecondary Educational Opportunities		
United States		• 1992—61.7%	1990	• 1992—64%		
		• 1996—65.0%	• 4-yr Public—32.2%	• 1996—81%		
		• 2000—63.3%	• 4-yr Private—17.7%	• 2000—75%		
			• 2-yr Public—46.1%			
			1996			
			• 4-yr Public—33.8%			
			• 4-yr Private—19.4%			
			• 2-yr Public—44.1%			
			2000			
			• 4-yr Public—34.7%			
Georgia (1993)	• 3.0 GPA in college prep. curriculum	• 1992—54.98%	Scholars chose primarily Private/Public 4-year Institutions	• 1992—80.4%		
	• 2000—~55% eligible	• 2000—61.25%		• 1994—84.1%		
				• 2000—82.1%		
	• 3.5 GPA & 29 ACT	• 1996—63.5%		• 1994—89.4%		
	• 2002—1,639 Scholars	• 2000—70.1%	Scholars chose Public 4-year Institutions	• 1996—91.4%		
Mississippi (1996)				• 2000—84.3%		

State	Scholarship Eligibility Requirements	Postsecondary Education		Choice Amongst Different		First-Time Freshmen	
		Enrollment after High School Graduation	Opportunities	Postsecondary Educational	Staying In-State for College		
Florida (1997)	<ul style="list-style-type: none">3-tier award system based on GPA and SAT/ACT (and community service)1998—28.6% eligible2000—34.2% eligible1997—54.0% took required courses2001—65% took required courses	<ul style="list-style-type: none">1998—50.8%2000—63.8%	Scholars primarily chose Public 4-year Institutions	<ul style="list-style-type: none">1998—82.7%2000—87.4%			
Missouri (1997)	<ul style="list-style-type: none">ACT/SAT in top 3% of Missouri test takers1998—28.5% recipients2000—30.5% recipients	<ul style="list-style-type: none">1996—50.7%2000—54.7%	Scholars primarily chose Public and Private 4-year Institutions	<ul style="list-style-type: none">1996—81.4%2000—81.5%			
New Mexico (1997)	<ul style="list-style-type: none">Rewards college achievement2.5 GPA	<ul style="list-style-type: none">51.4% in 199464.5% in 199860.4% in 2000	Scholars can only choose amongst Public Institutions—primarily chose 4-year institutions.	<ul style="list-style-type: none">1996—74.2%1998—76.0%2000—73.4%			

State	Scholarship Eligibility	Postsecondary Education		Choice Amongst Different	First-Time Freshmen
	Requirements	Enrollment after High School Graduation	Postsecondary Educational Opportunities	Staying In-State for College	
South Carolina (1998)	<ul style="list-style-type: none">• 2 of 3 requirements—3.0 GPA, 24 ACT or 1100 SAT, top 30% of class• 2000—18.0% of high school graduates were Scholars	<ul style="list-style-type: none">• 1996—59.9%• 1998—61.8%• 2000—68.0%	Primarily chose Public 4-year Institutions	<ul style="list-style-type: none">• 1996—86.2%• 1998—87.0%• 2000—86.7%	
Louisiana (1998)	<ul style="list-style-type: none">• 4 tier award system based on ACT score and GPA	<ul style="list-style-type: none">• 1996—86.8%• 2000—88.8%	Scholars primarily chose Public 4-year Institutions	<ul style="list-style-type: none">• 1996—86.2%• 1998—87.0%• 2000—86.7%	
Alaska (1998)	<ul style="list-style-type: none">• Top 10% of graduating class• Higher than national ACT/SAT mean scores• 1 out of 3 eligible accept and enroll in UA	<ul style="list-style-type: none">• 1998—37.3%• 2000—48.3%	Scholars can only choose amongst University of Alaska System Institutions—primarily chose 4-year institutions	<ul style="list-style-type: none">• 1996—42.0%• 2000—45.9%	
Kentucky (1999)	<ul style="list-style-type: none">• GPA based on curriculum starting in 9th grade• ACT bonus award—60% received bonus	<ul style="list-style-type: none">• 1996—53.7%• 2000—62.1%	Scholars primarily chose Public 4-year Institutions.	<ul style="list-style-type: none">• 1998—86.2%• 2000—87.7%	

State	Scholarship Eligibility Requirements	Postsecondary Education		Choice Amongst Different		First-Time Freshmen Staying In-State for College
		Enrollment after High School Graduation	Postsecondary Educational Opportunities			
Nevada (1999)	<ul style="list-style-type: none"> • 3.0 GPA and pass high school proficiency exam • 2000—50.3% eligible, ~58% enrolled 	<ul style="list-style-type: none"> • 1998—37.1% • 2000—43.2% 		<ul style="list-style-type: none"> • 1998—65.2% • 2000—72.8% 		
Michigan (2000)	<ul style="list-style-type: none"> • MEAP test score 	<ul style="list-style-type: none"> • 1998—57.2% • 2000—56.5% 	<ul style="list-style-type: none"> • Primarily 4-year public—62.0% in 2000 	<ul style="list-style-type: none"> • 1998—88.7% • 2000—88.2% 		
West Virginia (2002)	<ul style="list-style-type: none"> • 3.0 GPA on core/overall curriculum and 21 ACT or 1000 SAT 	<ul style="list-style-type: none"> • 2000—54.6% 		<ul style="list-style-type: none"> • 2000—82.9% 		

Research Question Two

Next I analyzed how the scholarship recipients compare with the population of high school graduates in each state, and whether or not this pattern has changed over time. As seen in Table 166, the five categories in which I was able to obtain data were ethnicity, gender, school district metropolitan status and poverty level, and college choice patterns. South Carolina did not report the ethnicity and gender of high school graduates for the years of this study. In addition, two of Michigan's central city school districts did not report high school graduate data for the year 2000. Table 166 also shows that several states did not gather or provide scholarship recipient data for several of the categories.

Florida and Alaska were the only two states that provided gender data for scholarship recipients. In both states, I found a statistically significant higher percentage of female high school graduates receiving the scholarships than female high school graduates. I also found a statistically significant lower percentage of male high school graduates receiving the scholarships than male high school graduates.

Florida, New Mexico, and Alaska were the only states that I was able to compare ethnicity of the high school graduate population to the scholarship recipients. A statistically significant higher percentage of Florida White and Asian high school graduates received the Bright Futures Scholarships than Black, Hispanic, and Native American graduates. In New Mexico, Asians were the only ethnic group receiving the Lottery Success Scholarship at a statistically significant higher percentage than there were Asian first-time freshmen. A significantly lower percentage of Black, Hispanic, and Native American first-time freshmen receive the Lottery Success Scholarship. In Alaska,

a statistically significant lower percentage of White and Black high school graduates accepted the Alaska Scholarship and enrolled in a public higher education institution.

Table 166

Summary of Comparison of State Non-Needs Merit Scholars and State High School Population Showing Significant Differences for Scholarship Recipients ⁽¹⁾

	School			
	Gender	Ethnicity	District	School
			Metropolitan	District
			Status	Poverty Level
Georgia	NA ⁽²⁾	NA	Non-Significant	Non-Significant
Mississippi	NA	NA	NA	NA
Florida	Significant > Female < Male	Significant > White < Black < Hispanic > Asian	Non-Significant	Non-Significant
Missouri	NA	NA	NA	NA
New Mexico	NA	Significant < Black < Hispanic < N. American Indian > Asian	Non-Significant	Non-Significant
South Carolina	NA	NA	NA	NA
Louisiana	NA	NA	NA	NA
Alaska	Significant > Female < Male	Significant < White < Black	Non-Significant	Non-Significant
Kentucky	NA	NA	Significant > Suburban	No

Nevada	NA	NA	Non-Significant	Significant > Low Poverty < Medium Poverty
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⁽¹⁾ Data were not available for either the state high school graduate population (South Carolina and Michigan) or scholarship recipients. Kentucky provided individual recipient data for ethnicity and gender, but because of time constraints, I was unable to analyze the data. West Virginia was not included because the program was only implemented in 2002.

⁽²⁾ NA means that the data was unavailable for analyses.

As seen in Table 167, college choice patterns between high school graduates and scholarship recipients were significantly different for all southern states except Georgia. I found that scholarship recipients primarily chose to attend four-year institutions, both private and public, over two year public higher education institutions.

Table 167

Comparison of State Non-Needs Merit Scholars to State High School Population for College Choice Patterns Showing Significant Differences for Scholarship Recipients. ⁽¹⁾

State	College Choice
Georgia	Non-Significant
Mississippi	Significant > 4-year Public
Florida	Significant > 4-year Public < 2-year Public
Missouri	Significant > 4-year Public
New Mexico	Significant > 4-year Public < 2-year Public
South Carolina	Significant < 2-year Public
Louisiana	Significant > 4-year Public < 2-year Public > 4-year Private
Alaska	NA

⁽¹⁾ Kentucky, Michigan, Nevada, and West Virginia were not included because the programs were only implemented in 2002.

NA means that the data was unavailable for analyses.

Chapter 5 answered Research Questions 1 and 2, providing evidence for each state's merit scholarship program. Research Questions 1 and 2 addressed the nature of the programs and the demographic trends occurring in each state. In addition, a foundation was laid for answering Research Questions 3 and 4, analyzing all 50 states plus Washington, D.C. to determine the impact of the state merit scholarship programs.

The regression models analyzed state college participation, college choice patterns, and migration of students for college. I answer Research Questions 3 and 4 in the next chapter.

CHAPTER 6—RESEARCH QUESTIONS 3 AND 4

Introduction

In this chapter, I answer research questions three and four by reporting the results from cross-state regression analyses. The regression models were created to study whether or not the state merit-based scholarship programs had an impact on college participation, and college choice and migration patterns when compared to states without such programs. With an understanding of each state's college participation, college choice patterns, and merit-scholarship recipients from Chapter 4, the regression analyses determine whether or not the programs are effective when compared to the other 38 states and Washington, D.C.

Research Question 3

What is the relationship between the disbursement of state merit-based scholarship awards and students' college choice, and has this pattern changed over time?

A regression model was used to analyze college participation and college choice across the 50 states and Washington, D.C. over time. Each state was an observation, and the 12 states that offer merit-based scholarship programs were coded using a dummy variable. The dependent variable was computed using each state's 2000 IPEDS "residence and migration of first-time degree seeking freshmen who graduated within the past 12 months" data. The independent variables for each state included 1996 IPEDS "residence and migration of first-time degree seeking freshmen who graduated within the

past 12 months” data, CCD state high school graduate data, and 2000 state unemployment rate.

I began by using the regression model to analyze college participation rates of high school graduates, or first-time freshmen, by state. I then used the regression model to study in-state college choice patterns at public four-year, and Carnegie Research/Extensive Research/Intensive, Masters I, and Master II institutions.

College Participation by High School Graduates

I began by studying whether or not the state non-needs merit-based scholarship programs have an effect on college participation of state high school graduates relative to the number of state high school graduates. I determined the ratio of first-time degree-seeking freshmen choosing to enroll in higher education institutions to the number of high school graduates for each state and for the years, 1996 and 2000. The regression model examined college participation rates between 1996 and 2000, taking into account the predictor variables and whether the state offered a non-needs merit-based scholarship program.

Table 168 shows the results from testing the partial regression coefficients for the independent variables. Two variables were found statistically significant in predicting 2000 participation in higher education institutions: 1996 first-time freshmen enrolling in higher education institutions ($Beta = .788$, $t(47) = 6.871$, $p < .01$) and whether or not the state offered a non-needs merit-based scholarship program ($Beta = 4.221E-02$, $t(47) = 2.187$, $p < .05$). The other independent variable, 2000 state unemployment, was found to be almost significant ($Beta = -1.606$, $t(47) = -1.918$, $p < 1.0$).

The state merit-based scholarship variable was significant and positive, indicating that states having merit-scholarship programs have experienced an increase in college participation. Between 1996 and 2000, the impact of having a state non-needs merit-based scholarship programs in place was an increase in college participation by .4%. At the 95% confidence level, the upper and lower bounds were .003 and to .081, respectively. Thus, the effect on college participation for a state implementing a non-needs merit-based scholarship programs would be between .003% and .081%.

Table 168

Model Coefficients for College Participation by High School Graduates (N = 51)

Model	Beta	t
(Constant)	.202	2.666
1996 College Participation by High School Graduates	.788	6.871***
State Offers Non-Needs Merit-Based Scholarship Program	4.221E-02	2.187*
2000 State Unemployment Rate	-1.606	-1.918
R^2	.535	
$F(3, 47)$	18.048***	

*** $p < .001$. * $p < .05$.

First-Time Freshmen Attending In-State Public 4-Year Institutions

I studied whether or not the state non-needs merit-based scholarship programs had an effect on first-time freshmen attending public in-state four-year institutions. I

determined the ratio of first-time degree-seeking freshmen attending public in-state four-year institutions to total in-state first-time degree-seeking freshmen for each state (Example: In 1996, 41,750 first-time Florida freshmen enrolled in college, and 15,693 of them chose to attend Florida public 4-year institutions. Ratio = .3759). This ratio, when analyzed through the regression model, examined whether or not non-needs-based merit scholarship programs influenced in-state college-going freshmen chose public 4-year institutions over other higher education institutions in 2000 taking into account the economic predictor variables.

Table 169 shows the results from testing the partial regression coefficients, or independent variables. Two variables were found significant in predicting 2000 enrollment in in-state public 4-year higher education institutions: 1996 first-time freshmen attending in-state public 4-year higher education institutions ($Beta = .953$, $t(47) = 17.597$, $p < .001$) and whether or not the state offered a non-needs merit-based scholarship program ($Beta = .2.163E-02$, $t(47) = 2.674$, $p < .05$). The state merit-based scholarship variable was positive and significant at the $p < .05$ level. Thus, having a state non-needs merit-scholarship program had a positive effect on in-state public four-year institution enrollment. The impact of having a state non-needs merit-based scholarship program on in-state public 4-year institution enrollment was .2% between 1996 and 2000. At the 95% confidence level, the interval ranged from .005% and to .038%. Thus, the effect on implementing a state non-needs merit-based scholarship program meant a percentage increase between .005 and .038 increase in public 4-year institution enrollment.

Table 169

Model Coefficients for First-Time Freshmen Attending In-State Public 4-Year Institutions (N = 51)

Model	Beta	t
(Constant)	1.356E-02	.705
1996 First-Time Freshmen Attending		
In-State 4-Year Institutions	.953	17.597***
State Offers Non-Needs Merit-Based		
Scholarship Program	2.163E-02	2.674*
2000 State Unemployment Rate	-.125	-.353
R^2	.882	
$F(3, 47)$	117.428	

*** $p < .001$. * $p < .05$.

First-Time Freshmen Attending In-State Carnegie Research & Masters Institutions

Lastly, I studied whether or not the state non-needs merit-based scholarship programs had an impact on first-time freshmen attending in-state Carnegie classified Research/Extensive, Research/Intensive, Masters I, and Masters II institutions, that is, graduate-level universities, relative to other 4- and 2-year colleges. I determined the ratio of first-time degree-seeking freshmen attending Carnegie Research/Extensive, Research/Intensive, Masters I, and Masters II institutions relative to total in-state first-time degree-seeking freshmen. (Example: In 1996, 41,750 first-time Florida freshmen

chose to attend in-state institutions, and 7,736 of them chose to attend Carnegie classified institutions. Ratio = .1853). This ratio, when analyzed through the regression model, determined whether or not non-needs merit-based scholarship programs influenced in-state college-going freshmen chose these Carnegie classified 4-year institutions over other higher education institutions in 2000 taking into account the economic predictor variables.

Table 170 shows the results from testing the partial regression coefficients, or independent variables. The only variable found significant in predicting 2000 enrollment in Carnegie Research and Masters higher education institutions was 1996 first-time freshmen attending Carnegie Research and Masters higher education institutions ($Beta = .829$, $t(47) = .829$, $p < .01$). The dummy variable, whether or not the state offered a non-needs merit-based scholarship program, was found almost significant ($Beta = 2.350E-02$, $t(47) = 1.849$, $p < .10$). The state merit-based scholarship variable was positive, indicating that this effect on in-state Carnegie research and master's institution enrollment between 1996 and 2000 was positive but quite modest.

Table 170

*Model Coefficients for First-Time Freshmen Attending In-State Carnegie
Research & Masters Institutions (N = 51)*

Model	Beta	t
(Constant)	3.599E-02	1.172
1996 First-Time Freshmen Attending Carnegie Research or Masters Institutions	.829	9.607***
State Offers Non-Needs Merit-Based Scholarship Program	2.350E-02	1.849
2000 State Unemployment Rate	-8.175E-02	-.145
R^2	.680	
$F(3, 47)$	33.257	

*** $p < .001$.

Research Question 4

The same regression model used to answer research question three was used to answer this question. Using NCES IPEDS data, I ran a regression analysis across the 50 states plus Washington, D.C. to understand the impact of the scholarship programs on the propensity of students to remain in-state for college. Each state was an observation, and the regression model was used to analyze first-time freshmen attending a) in-state higher

education institutions relative to the number of state high school graduates and b) out-of-state four-year institutions relative to all four-year institution attendees.

Previous research on Georgia and New Mexico's scholarship programs found that scholarship recipients chose to stay in-state for college and chose four-year institutions over other higher education institutions (Binder, Ganderton, and Hutchens, 2002, and Dynarski, 2000). The economic predictor variables may also impact whether or not college-going students stay in-state or chose four-year institutions.

First-Time Freshmen Attending In-State Institutions

First, I analyzed whether or not the state non-needs merit-based scholarship programs had an effect on first-time freshmen choosing to stay in-state for college. The regression model examined whether or not in-state college participation rates increased between 1996 and 2000, taking into account the predictor variables and whether the state offered a non-needs merit-based scholarship program. The 2000 dependent variable and 1996 independent variable ratios were first-time degree-seeking freshmen choosing in-state higher education institutions relative to the number of high school graduates.

Table 171 shows the results from testing the partial regression coefficients, or independent variables. Three variables were found significant in predicting 2000 enrollment in in-state higher education institutions: 1996 first-time freshmen attending in-state higher education institutions ($Beta = .950$, $t(47) = 17.460$, $p < .001$), whether or not state offered a non-needs merit-based scholarship program ($Beta = 5.416E-02$, $t(47) = 2.859$, $p < .01$), and 2000 state unemployment rate ($Beta = -2.009$, $t(47) = -2.417$, $p < .05$). The state merit-based scholarship variable was positive and significant at the $p < .01$ level, indicating that the scholarship program had an effect on in-state college

enrollment. The effect of having a state non-needs merit-based scholarship program increased in-state college participation by .5% between 1996 and 2000. At the 95% confidence level, the upper and lower bounds were .016% and to .092%, respectively. The state unemployment rate variable was negative and significant at the $p < .05$ level, indicating that higher state employment (or lower state unemployment) had a negative effect on in-state college enrollment by two percent.

Table 171

Model Coefficients for First-Time Freshmen Attending College In-State (N = 51)

Model	Beta	T
(Constant)	9.575E-02	1.823
1996 First-Time Freshmen Attending		
In-State Colleges	.950	17.460***
State Offers Non-Needs Merit-Based		
Scholarship Program	5.416E-02	2.859**
2000 State Unemployment Rate	-2.009	-2.417*
R^2	.875	
$F(3, 47)$	109.894***	

*** $p < .001$. ** $p < .01$. * $p < .05$.

First-Time Freshmen Attending Out-of-State Four-Year Institutions Relative to All Four-Year Institution Attendees

Next I studied whether or not the state non-needs merit-based scholarship programs had an effect on first-time freshmen leaving the state for four-year institutions relative to the state's first-time freshmen attending four-year institutions, both in-state and out-of-state. This was another way of examining out-of-state 4-year college participation rates between 1996 and 2000, taking into account whether or not the state offered a non-needs merit-based scholarship program and the predictor variables. I calculated the ratio for first-time degree-seeking freshmen leaving the state for 4-year institutions to the state's first-time degree-seeking freshmen attending 4-year institutions, both in-state and out-of-state. (Example: In 1996, 8,004 first-time freshmen left Florida to attend four-year institutions, and 28,070 first-time Florida freshmen attending four-year institutions either in-state or out-of-state. Ratio = .2852). This ratio took into account only first-time freshmen choosing four-year institutions, both in-state or out-of-state.

Table 172 shows the results from testing the partial regression coefficients, or independent variables. Two variables were found significant in predicting 2000 enrollment in out-of-state four-year higher education institutions: 1996 first-time freshmen attending out-of-state four-year higher education institutions ($Beta = .982$, $t(47) = 28.828$, $p < .001$), and whether or not a state offers a non-needs merit-based scholarship program ($Beta = -3.396E-02$, $t(47) = -2.706$, $p < .01$). The state merit-based scholarship variable was significant and negative indicating that the scholarship program tended to reduce out-of-state four-year institution enrollment when compared to total in-

state and out-of-state four-year institution enrollment in 2000. The size of the effect on out-of-state enrollment for the states that offer non-needs merit-based scholarship programs was -.3%. At the 95% confidence level, the lower level was -.059% and the upper level was -.009%.

Table 172

Model Coefficients for First-Time Freshmen Attending Out-of-State Four-Year Institutions Relative to All Four-Year Institution Attendees (N = 51)

Model	Beta	T
(Constant)	2.246E-03	.097
1996 First-Time Freshmen Leaving for 4-Year Institutions To All 4- Year Attendees	.982	28.828***
State Offers Non-Needs Merit-Based Scholarship Program	-3.396E-02	-2.706**
2000 State Unemployment Rate	.338	.620
R^2	.950	
$F(3, 47)$	299.331	

*** $p < .001$. ** $p < .01$.

Discussion

During the late 1990s, implementation of state non-needs merit-based scholarship programs had significant, positive but minimal impact on college participation, in-state

college enrollments, and four-year public institution enrollments. The findings from the regression analyses illustrate that there was a positive relationship between a state offering a non-needs merit-based scholarship program and students' college participation and choice. However, the effect size of the state non-needs merit-scholarship variable on college participation, in-state college enrollments, and four-year public and private institution enrollment were quite small .

College Participation

The merit-based scholarship programs were found to have a positive relationship on college participation. Longanecker (2002) asserts that keeping the best and brightest students in state to attend college depends on different conditions in the state, including the extent of participation in higher education within the state and a family's economic status. He cites Georgia as an example of a state that had low higher participation rates prior to the implementation of the HOPE Scholarship Program. The HOPE Scholarship Program was implemented in 1993. After five years Georgia saw an increase in higher education participation. The largest increases in college participation rates during the last half of 1990s were in Florida (14.5%), Louisiana (10.3%), Kentucky (9.4%), South Carolina (9.1%), New Mexico (9.0%), Alaska (8.1%), and Georgia (6.3%). Only Florida, Mississippi and South Carolina had higher college participation rates than the U.S. average in 2000. In 2000, 63.3% of the high school graduates in the United States enrolled in college (The National Center for Public Policy and Higher Education (NCPPE, 2001).

The state non-needs merit-based scholarship effect was significant and positive, indicating that the states implementing non-needs merit-scholarship programs

experienced a small positive effect on college participation. However, the effect of offering a state non-needs merit-based scholarship program was an increase in college participation by .4%.

College Choice

Research conducted on Georgia's and New Mexico's merit scholarship program found that a shift occurred in the college choice patterns since the merit scholarship programs were implemented. One of the shifts included first-time freshmen choosing to attend public four-year institutions over other higher education institutions (Binder, Ganderton, and Hutchens, 2002; and Dynarski, 2000, 2002). I also found a significant difference between the disbursements of state non-needs merit-based scholarships and college choice. The state merit-based scholarship effect was positive and significant at the $p < .05$ level for public four-year institution enrollment. Although the state scholarship variable was significant, the impact of having a state non-needs merit-based scholarship program on public 4-year institution enrollment was only .2% between 1996 and 2000. Three of the states—Michigan, Mississippi, and Missouri—do not offer full tuition scholarships. These states did not experience increases in public four-year institution enrollment by in-state first-time freshmen.

The rates at which young people enroll in college have risen in the 1990s despite the decline in affordability. In recent years substantial growth has occurred in the costs to students for attending college, even after allowing for the effects of financial aid. These cost increases are prevalent across all types of higher institutions and family income levels of students. Increasingly, access and college choice seem to be affected by finances (McPherson, & Schapiro, 1996). The non-needs merit-based scholarship states

are discounting tuition and fees to attend college and thus, offering students different educational opportunities that they may not have had without the scholarship.

In-State vs. Out-of-State College Choice

To answer research question four, I analyzed whether or not the state merit-based scholarship programs had an effect on first-time freshmen staying in-state rather than attending out-of-state institutions, and whether or not the scholarship programs had an effect on four-year out-of-state institutions' enrollments. First, the regression results indicated a positive relationship between a state offering a non-needs merit-based scholarship program and in-state college enrollment. Although the state merit scholarship program effect was significant at $p < .01$, the effect of the programs on first-time freshmen staying in-state for college between 1996 and 2000 was only .5%.

Second, the regression results indicate a negative relationship between the disbursement of merit scholarships and out-of-state four-year college enrollment when compared to all four-year college enrollments for first-time freshmen. Thus, if a state offered a merit-based scholarship program, then the state had a significant possibility for experiencing increased in-state college enrollments. The state merit scholarship program was significant at $p < .01$; however, the effect on out-of-state four-year college enrollment between 1996 and 2000 was only -.3%.

The state unemployment rate variable was also found to be significant for the regression analysis, first-time freshmen attending college in-state, indicating that the state unemployment rate had a negative effect on in-state college enrollment in the 50 states and Washington D.C. In 2000, the national state unemployment rate was 3.9% compared to 5.9% in 1996. Therefore, fluctuation and participation in higher education, including

enrollment in out-of-state institutions, could be caused by the real disposable income of families to finance investment in human capital (McMahon, 1974).

In conclusion, state non-needs merit scholarship programs had a small, positive effect on college participation, in-state college enrollment, and four-year public institution enrollment between 1996 and 2000. Nine of the 12 states implemented the scholarship programs between 1997 and 2000, and two of the other states implemented the scholarship programs between 1993 and 1996. Therefore, time will tell if the state scholarship programs have a higher or lower impact on college participation and in-state college enrollment.

In the next chapter, I discuss conclusions for this state policy study, including implications and recommendations for policy makers and further research.

CHAPTER 7—CONCLUSION

Introduction

The purpose of this policy study was to determine the effectiveness of the state non-needs merit-based scholarship programs based on the following program goals: a) rewarding students for their academic achievements, b) encouraging students to pursue higher education, and c) keeping students in-state for college. In this chapter I discuss the findings for research questions one through four. The first section of the chapter examines the three primary program goals of non-needs merit-based scholarship programs. I also address other issues related to the state non-needs merit-based scholarship programs. In the second section, I offer recommendations regarding merit scholarship program policy, in addition to suggestions for future research.

Discussion

Rewarding High School Achievement

Supporters of merit scholarships argue that the programs increase human capital by rewarding the effort of students to get good grades in high school (Heller, 2003). Eleven of the 12 states define and establish excellence in high school academics differently. New Mexico is the only state that bases its Lottery Success Scholarship eligibility requirements on college achievement. Findings from this study illustrate that the high school meritocratic eligibility requirements range from average to superior academic achievement.

Eight of the 12 states require high school GPA as part of the eligibility requirements for merit scholarship. Georgia, the original non-needs merit-based scholarship program state, uses high school GPA as the only eligibility requirement for

the HOPE Scholarship. High school GPA eligibility requirements range from a merit 3.5 GPA to an average 2.5 GPA. Four of the states, Georgia, Florida, Louisiana, and West Virginia, require core or college preparatory courses. The other states that utilize high school GPA as an eligibility requirement (Kentucky, Mississippi, Nevada, and South Carolina) require only a minimum GPA on a non-specified curriculum.

The diffusion of the HOPE Scholarship Program occurred across the states, especially the south, because of the perceived positive effect of the HOPE Scholarship Program on college participation. The other states, however, decided to add other eligibility requirement(s), including a minimum SAT or ACT score, rank in the top 30 percent of the high school graduating class, and/or a minimum score on the state proficiency exam.

The ACT and SAT are intended to assess high school general education development and skills needed for academic success (ACT and The College Board, 2003). The states range from requiring rigorous test scores, such as Mississippi requiring a 29 ACT, to lenient test scores, such as Florida requiring a 20 ACT for the Medallion Scholarship and West Virginia requiring a 21 ACT. In 2000, the national mean ACT score was a 21. Predictions of first-year college achievement based on both high school GPA and ACT score were more accurate than those based on high school GPA or ACT score alone (Noble and Sawyer, 2002).

Michigan and Nevada use the merit scholarship as an incentive for students to do well on the state educational assessment or proficiency exams. On the other hand, the Alaska Scholars criterion for high school achievement is a top 10 percent ranking within each high school's graduating class. Critics argue that these types of incentives are

biased towards school districts in middle to wealthy areas where student resources (e.g., tutoring, instructional systems, teacher development) are more abundant than in rural or inner city and/or high poverty areas. In Alaska, the numbers of graduates range from less than 10 to more than 2,000 by school district. Thus, how does the University of Alaska System know if the top 10 percent of the graduating class are either high or mediocre academic achievers?

Instead of the states focusing the efforts to improve education in the high schools or better preparing teachers, the state merit scholarship programs focus on student achievement (Henry and Rubenstein, 2002). The student has to take the courses and achieve a minimum GPA or rank in the top percentile of their graduating class to be eligible for the scholarship. Consequently, the programs could be focusing so much on grades that the student plays the system and learning does not occur (Cornwell, Lee, and Mustard, 2003).

The individual state merit scholarship program descriptive analyses illustrate that high school graduates are achieving academically at least to the minimum point of receiving the scholarships. However, because of the distinct eligibility requirements, the rates at which high school graduates are eligible for these programs range from approximately two percent to over 50 percent of the high school graduating class. The study did find that in several of the merit scholarship states that the mean ACT or SAT scores for scholarship recipients were higher than the mean ACT or SAT for the population. When does the definition of merit scholarship depart from being based on high academic achievement to mediocre academic achievement, or moving from meritocratic to egalitarian?

High school academic achievement remains one of the most important factors determining whether or not and where students go to college (Adelman, 1999). Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, and South Carolina received a C or below grade for college preparation (Callan, 2002). St. John and colleagues found that receiving poor grades during the freshmen year seems to increase the likelihood of dropping out of college. An assumption is that some students still participate in college with inadequate academic preparation. High schools and colleges need to work together developing more cohesive strategies for preparing students academically. High schools are responsible for preparing students before college, while higher education institutions are responsible for supporting and helping the students they admit (St. John, Musoba, and Simmons, 2003). This study did not analyze high school or college courses taken by the merit scholars. For example, did merit scholarship recipients take less academic intensive high school courses to insure meeting the minimum requirements to become eligible for the scholarship? Did the high school curriculum prepare them for success in postsecondary education? Lastly, did the merit scholarship recipients have to take remedial courses during their freshmen year of college?

Henry and Rubenstein (2002) state that merit-scholarship programs represent a relatively untested area of improving the quality of education. Overall, the evidence from this study cannot answer whether or not the states are encouraging and improving the quality of education in high school. Nevertheless, if a goal of the state is to increase its human capital, then the state needs to evaluate how it can assist high school students through to high school graduation and prepare them for postsecondary education. In the states requiring a specific GPA or test score for scholarship eligibility, it is essential that

school districts and/or teachers are not teaching to the high-stakes test or inflating grades for students. The states and higher education community also need to work closely with the secondary school system on educating students, teachers, and parents about college preparation. In addition, the state K-12 and higher education community need to work together on academic preparation of students. Lastly, policy makers need to study their definition of merit, and then reevaluate the scholarship eligibility requirements to insure quality high school academics and adequate college preparation.

Encouraging Students to Pursue Higher Education

Another key objective for merit-scholarship programs is to encourage greater participation in college. In 1999, 63.3% of recent United States high school graduates went on to enroll in college. By 2012, college enrollment is projected to increase approximately 15 percent (NCPPE, 2001).

College Participation

In this study, I found a small increased probability of college participation in the states offering non-needs merit-based scholarship when compared to the other 38 states and Washington, D.C. All 12 states experienced an increase in college participation rates during the late 1990s. The largest pre- and post-program implementation increases were in Florida (14.5%), Louisiana (10.3%), Kentucky (9.4%), South Carolina (9.1%), New Mexico (9.0%), Alaska (8.1%), and Georgia (6.3%). The findings from this study illustrate that the non-needs merit-based scholarship programs offer students an opportunity to participate in college, and choose amongst different educational opportunities, including four- and two-year public, private, and proprietary institutions. As of 2000, the effect of having a non-needs merit-based scholarship program was a .4%

increase in college participation. In 2000, the national college participate rate was 63.3% (NCPPE, 2001). In 2000, Florida, Mississippi, and South Carolina were the only merit scholarship states experiencing college participation rates above the national average.

From an economic perspective, access to higher education is defined as providing students the opportunity to attend some kind of postsecondary institution despite an inability to pay (McPherson and Schapiro, 1998). Nine of the 12 states allow students to pursue education at either public or private higher education institutions. The other three states, Alaska, Louisiana, and New Mexico, require scholarship recipients to attend a public higher education institution. States established the scholarship programs as a way to discount higher education tuition for the students who meet the merit eligibility requirements. All but Kentucky and New Mexico received D or F grades for college affordability, taking into account family ability to pay for college (Callan, 2002). McPherson and Schapiro (1996) found that increases in net costs over time leads to decreases in enrollment rates for lower income students, especially at four-year institutions. As for middle- and upper-income students, the shift of financial aid to the families does not deter enrollment.

From a sociological perspective, access means higher education is readily and broadly accessible to persons of a wide range of abilities, academic qualifications, circumstances, and ages (Bowen, 1977; Rendon, 1998). The focus in the late 20th century and early 21st century has been access for minorities, women, and low socioeconomic status individuals (Nettles, Perna, & Millett, 1998).

Studies thus far have concluded that the merit scholarship programs are enhancing access for students who would probably have attended college anyway. Dynarski (2002)

found that the Georgia HOPE Scholarship is clearly designed for middle- and high-income families. Approximately 80 percent of HOPE funds go to those students who would have gone to college in the absence of the scholarship. Heller and Shapiro (2000) found in their study of Michigan “a clear relationship between race, gender, school poverty level, and the probability of qualifying for the Michigan Merit Award Scholarship” (p. 18). They discovered that students from suburban and low poverty schools were more likely to receive the Michigan Merit Award than students from central city or rural, and high or middle poverty schools. They also found that more White and Asian high school graduates receive the Merit Award than Black, Hispanic, and Native American graduates. In a comparison study of Michigan and Florida’s programs, Heller and Rasmussen (2001) established a strong relationship between students’ socioeconomic characteristics and the community where they attend school with the rates at which students qualify for the Merit Awards. Minorities, Blacks and Hispanics, qualify for the scholarships at rates well below that of Whites and Asian American students.

In this study, I found statistically significant differences between the high school graduate population and scholarship recipients for ethnicity, gender, home location, or socioeconomic status for Michigan, Alaska, Florida, New Mexico, and South Carolina. I found that the Michigan Merit Award does not impact the percentage of high school graduates attending college, but is more likely to be attained by White and Asian students. In addition, the Merit Award is disproportionately attained by high school graduates from suburban and low poverty school districts. In Alaska, more female high school graduates accept the Alaska Scholarship and enroll in college than male high school graduates, and fewer White and Black high school graduates accept the

scholarship and enroll in college. In Florida, a significantly higher percentage of females, White and Asian high school graduates become Bright Futures Scholarship recipients than male, Black, and Hispanic graduates. As for New Mexico, a lower rate of Black, Hispanic, and Native American first-time freshmen receive the Lottery Scholarship. Lastly, I discovered that participation in higher education for South Carolina high school graduates increased significantly, especially for students from low and medium poverty, and suburban and central city school districts.

College Choice

Equity is important when it comes to students having a choice to pursue higher education and the type of postsecondary institution they choose to attend. College choice is defined as when students are given an equitable menu from which they can pick the institution that best fits their needs (McPherson and Schapiro, 1998). The non-needs merit-scholarship program states offer scholarship recipients an opportunity to choose among a variety of higher education institutions, depending on the student's ability, interests, location, social and cultural, and socioeconomic status. Paulsen and St. John (2002) found that certain variables influence higher education enrollment patterns, including gender, high-school attainment, ethnicity, academic achievement, and postsecondary aspirations across the income groups. Social class is far more complex than is communicated by hierarchical variables like socioeconomic status.

McPherson and Schapiro (1996) state that the role of financial aid "has been shaped over the past four decades by a powerful vision of a pricing plus aid system that would eliminate the ability to pay for college as a factor in college choice" (p. 5). They found that college choice seems to be affected by parental finances (1996). In this study,

I found a small increased probability of enrollment in public four-year institutions by scholarship recipients than high school graduates in the merit scholarship states when compared to the other 38 states and Washington, D.C. The impact on in-state public 4-year institution enrollment was .2% between 1996 and 2000.

There may be a substantial socioeconomic inequity in who secures access to the selective higher education institutions. Astin and Oseguera (2004) stated that the inequities have increased recently, despite the growth and development of corrective efforts such as student financial aid, affirmative action, and outreach programs. Today, American higher education institutions are more socioeconomically stratified today than at any time in the past 30 years. The states with greatest differences in enrollment between high school graduates and scholarship recipients in public and private four-year institutions are in Florida, Georgia, Kentucky, Louisiana, Michigan, Mississippi, Missouri, New Mexico, and South Carolina (see Table 173).

Table 173

Public and Private 4-Year Higher Education Institution Enrollment

State	4-Year Higher Education Institution Enrollment in 2000			
	Scholarship Recipients		First-Time Freshmen	
	Public	Private	Public	Private
Florida	71.4	10.7	36.7	8.4
Georgia	65.6	13.1	52.8	11.3
Kentucky	53.8	13.9	47.6	13.1
Louisiana	88.1	9.8	71.9	7.2
Michigan	62.0	11.2	51.7	16.2
Mississippi	74.4	7.0	30.7	6.5
Missouri	77.6	20.4	47.7	18.2
New Mexico	79.8	-	55.6	.7
South Carolina	60.8	16.6	41.5	18.0

Even though more students are choosing to attend public 4-year institutions in the merit program states, are the students prepared academically for a 4-year institution? As in the case of New Mexico, the University of New Mexico faced over crowdedness when the Lottery Scholarship Program was implemented. Thus, are 4-year institutions going to have to review their eligibility requirements for acceptance? And will this result in an increased issue of access for minority and low-income students especially since college enrollment is expected to increase 12% by 2012?

Even though the merit scholarship program states are experiencing increased participation in college, several of these states are encountering issues with access, both economic and sociological, and college choice. This study's findings indicate that minority, urban/rural, and high poverty students, were not receiving the scholarships at

the same rate as other students. Marin (2002) asserts that federal and state “policymakers have lost the focus of expanding access to higher education and have replaced it, albeit indirectly, with increasing inequity” (p. 113). Whether or not the goal of the state is to increase its human capital with the merit-scholarship program, state policymakers need to reevaluate the goals of the program and eligibility requirements. If this does not occur, the lasting effect will not only be a more stratified statewide higher education system but also a more stratified economic and social system.

Keeping Students In-State for College

The last key objective for the non-needs merit-based scholarship programs is to keep the best and brightest students in-state for college. The assumption of policy makers is that the best and brightest will graduate from college and stay in-state and increase the state’s human capital. A statistically significant positive relationship was found between the 12 states offering non-needs merit-based scholarship programs and in-state college enrollment when compared to the other 38 states and Washington, D.C. The effect of having a scholarship program increased in-state college participation by a modest .5% between 1996 and 2000. The states with the highest enrollment rate increases at in-state higher education institutions were Florida (6.2%), Louisiana (4.9%), Alaska (3.9%), and Nevada (11.5%). Keeping the high academic achieving students in state to attend college depends on different conditions in the state, including the extent of participation in higher education within the state and a family’s economic status (Longanecker, 2002). For states implementing programs prior to 1999, the rate of high school graduates leaving the state for college dropped the year of program implementation but by 2000 increased slightly except for Florida.

Researchers have consistently found several influential factors in the college search and choice phases: parent's education, size of college, location, academic program, reputation, prestige, selectivity, alumni, the student's peers, friends and guidance counselors, and availability of financial aid and the total costs of expenses (Hossler, Schmit & Vesper, 1999; St. John, 1990). I found that in choosing out-of-state institutions, the majority of first-time freshmen chose higher education institutions in neighboring states. In addition, the amount of the scholarship funding or educational opportunities within the state may not be enough to keep the best and brightest in-state for college. Missouri, Mississippi, and Michigan do not offer full tuition merit scholarships. These three states have experienced increases in the rate in which high school graduates leave the state for college. The Alaska, Kentucky, Nevada, and West Virginia merit-programs are too young to establish whether or not the programs are having impact on in-state enrollment over time.

States make this scholarship program investment because they assume these students, as graduates, will stay and help develop a high quality workforce needed for global competitiveness and economic development (Gotlieb, 2001; Longanecker, 2002). However, research confirms that better-educated people are more mobile. Also, "state policy makers have only a modest capacity to influence the human capital levels of their population by investing in higher education degree outputs" (Longanecker, 2002, p. 35). Students leave their state to attend college elsewhere because the other state provides relatively attractive higher education opportunities. In addition, some states find importing first-time freshmen to be a highly profitable business that enriches the state and higher education institutions (Postsecondary Education Opportunity, 2002). Given the

variety of countervailing forces upon keeping students in-state for college, over time the states offering full-tuition non-needs merit-based scholarship programs are experiencing a small impact on keeping students in-state for college.

Other Issues Related to the Non-Needs Merit-Based Scholarship Programs

Three other issues require attention regarding state non-needs merit-based scholarship programs and the development of human capital within the states. The issues include high school dropout rates, college preparation, and scholarship funding.

High School Dropouts

Supporters of merit scholarships argue that the programs increase human capital by improving the effort of students to get good grades in high school (Heller, 2003). The national high school graduation rate was 91.8% in 2000 for twelfth graders receiving their diplomas (NCES, 2002). Six of the states with non-needs merit-based programs experienced below 91.8% graduation rates in 2000: Georgia (86.5%), Florida (87.2%), South Carolina (86.7%), Louisiana (90.5%), Alaska (85.5%), and Nevada (83.0%). During the last half of the 1990s all but Michigan and West Virginia experienced a decrease in the percentage of high school graduates by ninth grade cohort. As of 2000, approximately one out of every two ninth graders graduated with a regular diploma in five of the merit scholarship states, including Georgia (52.3%), Mississippi (56.2%), Florida (53.1%), South Carolina (51.0%), and Louisiana (56.1%). Michigan, Missouri, Nevada, and West Virginia were the only merit states that graduated a higher percentage of ninth grade cohorts than the national average.

During the late 1990s, the high school graduation rate for Black, Hispanic, and Native American students were lower than for White and Asian students. For this study,

only Alaska, Florida, Georgia, Michigan, and New Mexico provided ethnicity data for scholarship recipients. I found that a lower percentage of Black and Hispanic students were eligible for the merit awards than White or Asian students. Only in Alaska were Native American/American Eskimo students eligible for the merit scholarships at a higher rate than there were Native American/American Eskimo high school graduates.

Seven of the merit scholarship states are members of the Southern Regional Education Board (SREB). The SREB declares that despite the considerable gains during the 1990s, educational reform has not improved student achievement as much as expected or needed. The Board states that too many students still drop out of high school, little progress has been made in closing achievement gaps for all groups of students, fewer students go to college, and too few students and parents know what they need to do to prepare adequately for college (SREB, 2002).

With the No Child Left Behind (NCLB) Act and high stakes testing in place, studies show that more minority and disadvantaged students drop out because of poor academic preparation and skills (Orfield, Losen, Wald, & Swanson, 2004). States that do not evaluate and work on improving high school graduation rates will continue facing social and human capital issues. Some of the issues will include poverty, health care, economic development, and access to higher education.

Preparing Students

The number of high school graduates is projected to increase nine percent between 2000 to 2012. Florida and Nevada are projected to experience a 25% or greater increase in high school graduates, and Georgia a 15-25% increase. The number of high school graduates from Louisiana, Missouri, Mississippi, New Mexico, and West Virginia

are projected to decrease. The other merit scholarship states are projected to experience less than 15% increase in high school graduates (NCES, 2002).

Students go through a three-stage process in college choice. It starts with a predisposition toward attending college in grades 7-9, followed by accumulating and assimilating information in searching for a short list of colleges, and ends with applying and enrolling in college (Alexander & Eckland, 1975; Cabrera and La Nasa, 2000; Sewell & Hauser, 1975; St. John, Paulsen, & Starkey, 1996). If policy makers want to improve the economic and social development within the state and continue utilizing merit-scholarship programs, then they need to work with parents and students prior to ninth grade. In addition to educating the parents and students about college preparation, admissions, and financial aid, the state and schools need to evaluate and employ programs that will help students through high school graduation. The states also need to insure that all schools have equal opportunities in offering college preparatory courses, resources, and services to students. Disconnected educational systems and other barriers are undermining the aspirations of high school students and higher education opportunities. Parents should be involved early in the process for thinking of and considering higher education opportunities. This conversation could include different educational opportunities, college preparatory requirements, and financial aid opportunities (Venezia, Kirst, & Antonio, 2000).

Instead of the states focusing on the efforts to improve education through the schools or teachers, the merit scholarship programs focus on student achievement (Henry and Rubenstein, 2002). Students have to take the courses and achieve a minimum GPA in order to be eligible for the scholarship. Consequently, the programs could be focusing

so much on grades that the student plays the system and learning does not occur (Cornwell, Lee, and Mustard, 2003). What is academic merit? Now that a number of state merit scholarship programs have been in place for several years, the states need to analyze the entire system, including high school completion, college preparation, college choice, college course taking, college matriculation, and job attainment. In addition, the policy makers need to analyze the different areas by ethnicity, gender, home location, and socio-economic status.

Scholarship Funding

Historically, state government and public colleges have shared a common interest in keeping public tuition low. States benefited from the economic and social development, which accrued from increased participation in higher education. States saw low tuitions as the most direct way to increase the levels of participation in public high education. Public colleges also saw low tuitions as advantageous. It gave them an advantage in the competition with private schools for the best students and allowed them to attract large numbers of first-generation students who might otherwise not have attended college. The resulting increase in participation, in turn, fueled economic development and generated new revenues for state governments. More recently, however, rising costs and falling revenues have squeezed the budgets of both state governments and public colleges. The state budgets are being squeezed by multiple priorities, causing significant strain for many states, including K-12 education, Medicaid, corrections and welfare. Different views of how best to respond to this fiscal stress are the natural result of the different constituencies that each serve (Mumper, 2000; Selingo, 2003).

The states fund the non-needs merit-based scholarship programs differently, including using state lottery funds, general funds, national tobacco litigation settlement, and land-lease funds. Merit programs are at the mercy of state fiscal conditions and priorities as established by the policymakers. The merit programs continue to grow at rates constrained only by the demand for them and the ability of students to meet the merit criteria. Concerns about funding sources and demand for scholarships have driven some states—Florida, Louisiana, and New Mexico—to examine whether eligibility should be tightened. But the popularity of the programs, especially among more politically influential constituents, has largely deflected these efforts (Heller, 2003). Merit-based scholarship program states that rely on state general funds to fund the programs include Louisiana, Mississippi, Missouri, and South Carolina. The states relying on lotteries to fund the scholarship programs include Florida, Georgia, Kentucky, New Mexico, and West Virginia. Michigan and Nevada rely on the national tobacco manufacturer's settlement with the states and Alaska counts on land lease interest to fund the scholarship programs.

Other State Programs

Several states already offer merit scholarships that include a need-based component. The latest state to offer a merit-scholarship program is Tennessee. In May 2003, the Tennessee General Assembly approved creating a merit-scholarship program that includes a need component. The eligibility requirements are based on high school college core and overall courses GPA, and ACT or SAT. In creating the scholarship program, the committees studied other merit-scholarship programs, including Georgia,

and heard from policy analysts and researchers about the impact of the other state merit scholarship programs (Tennessee Higher Education Commission, 2003).

Indiana Twenty-first Century Scholars Program has been in operation for over 13 years. The program is unique among states pursuing merit-based scholarship programs. The Indiana program has five key components, including working with students in seventh or eighth grade, providing tutoring, mentoring, and other support services for students, setting minimal merit criteria for students to strive for during high school, providing up to eight semesters of full tuition at any Indiana public institutions, and restricting program to students who are in need of financial assistance for college (Heller, 2003). An evaluation of the program indicated that the Twenty-first Century Scholars Program has encouraged academic preparation and college enrollment (St. John, Musoba, Simmons, & Chung, 2002). The Indiana Twenty-first Century Scholars Program provides a method to correct for the state's bias to provide larger awards to more academically able students: "In theory, providing high aid to students who take more college preparatory courses could influence more high school students to take college prep courses. However, on a practical level, there are problems with this logic: not all high schools offer ample college preparation courses. In addition, less-prepared students need more time for their courses, and low-income students may be less aware of college admissions requirements or of the differential in the state grant program" (St. John, Musoba, and Simmons, 2003, p. 119).

Conclusion

As shown in this study, states struggle on how to meet the needs of diverse constituencies. Higher education has become the threshold for access to good jobs for

individuals and in turn is the future of a strong state economy (Carnevale & Fry, 2001; ACSFA, 2001). In addition, higher education has a positive direct impact, both short- and long-term, on a student's working life. The consequences of a college education include better working conditions and benefits, investment decisions and health, and lower rates of unemployment (Pascarella and Terenzini, 1991). Overall, the non-needs merit-based scholarship programs have a small positive effect on increasing college participation and keeping students in-state for college. But the verdict is still out on whether or not the programs are effective in keeping the best and the brightest in-state for college.

Academic achievement remains one of the most important determinants for all students of whether or not and where they go to college (Adelman, 1999). Personal, social, and financial outcomes are other determinants of college going behaviors (Alexander & Eckland, 1975; Hearn, 1991; Sewell & Hauser, 1976). One issue is that the states are encountering increased dropout rates of high school students, especially amongst minority students. The verdict is also out on whether or not high school students are achieving academically. Improvement of public K-12 schools, particularly those serving communities sending the fewest students to college, will be a critical task. Addressing the preparation gap will entail the deliberate and active participation of the higher education community (Callan, 2001).

This study illustrates that the non-needs merit-based scholarship programs have a statistically significant though minimal impact on college participation and in-state college attendance rates. The long-term prognosis is uncertain, however, because the majority of the programs only started in the late 1990s. Several of the states are below

national higher education participation rates. Three states that do not offer full tuition scholarships have not experienced increased rates for college participation or students staying in-state for college.

College participation depends on the conditions within the state, including college participation and family income (Longanecker, 2002). Research has shown that socioeconomic status, home location, gender, ethnicity, and high school achievement affect college participation rates. In states where college participation rates were low, such as Alaska, Florida, Kentucky, Nevada, and South Carolina, scholarship or incentive programs are beneficial and needed. In order to change access to higher education within these and other states, programs such as Indiana Twenty-First Scholars Program need to be considered. The Indiana program begins in middle school with students working with tutors, learning about college preparation, receiving mentoring, and having to accomplish achievement goals based on a commitment by parents and students. Thus, the parents, teachers, school district, and higher education institutions are invested in the student's learning.

It is critical for states to consider including a financial need component into the merit scholarship program eligibility requirements. States need to invest more financial resources into middle and high schools located in high poverty and minority areas to alleviate the unlevelled playing field for disadvantage students. The investments needed within the secondary school system include academic resources (e.g., teachers, technology, advanced courses) and social resources (e.g., career and personal counseling, tutoring). In addition, states need to evaluate the entire state system when creating a

college scholarship program including K-16 education, economic development, health and human services.

Taking into consideration this study's findings on high school graduation rates, access to higher education, and college choice patterns, my recommendation would be that states redirect funding to resources (e.g., technological, social) to aid high school students, especially minority and low-income, through to graduation; include a financial need component into the non-needs merit-based scholarship programs; work closer with middle school students, families, teachers and administrators about college access and preparation; and require higher education institutions to work closely with school districts on college access and preparation.

Further Research

Taking into account previous research and this study's findings and discussion, I propose that states and policy analysts research or evaluate high school curriculums and dropout issues, higher education access, out-of-state higher education participation, and state economic impact. Even though the recommendations are listed individually, the topics or issues are interdependent. For example, if the state's goal for the merit scholarship program is to increase the state's human capital, then the state needs to understand a) why students dropout prior to high school graduation, b) dropout during college, c) leave the state for college, and d) leave the state after receiving their degree. The states also need to consider the state's social capital and how it affects dropout and college participation rates. Specific recommendations by topic include conducting:

High School

- 1) Analysis on high school academic achievement and curriculum, answering the question: Are the scholarship recipients actually achieving academically in high school and are they prepared for college courses?
- 2) Research on ninth and twelfth grade cohort dropouts by ethnicity and gender. If the state is striving to increase human capital and educational attainment, then research on high school curriculum and high school dropouts needs to occur.

Higher Education

- 3) Research on how the merit programs have impacted the in-state higher education institutions, including selectivity, financial aid offerings, living quarters, degree programs, class sizes, etc.
- 4) Research in states that offer non-needs merit-based scholarship programs and needs-based financial aid: How well are the two types of programs working, especially when it comes to access and college choice.
- 5) Research on proprietary institutions. Proprietary institutions are growing significantly and first-time freshmen are taking advantage of these institutions. How are these institutions affecting enrollment in other state higher education institutions, what are the programs of study, and how does the completion in these institutions impact state human capital?
- 6) Further analysis on first-time freshmen attending out-of-state institutions by a) state, b) control and level of higher education institution, c) family income,

and d) reasons for students attending out-of-state institutions (e.g., legacy, special degree program).

State Economic Impact

- 7) Economic and social impact studies within the 12 states, analyzing the direct and indirect impacts of offering the non-needs merit scholarship program. An overarching goal of the scholarship programs is encourage students to attend and graduate from college in order to contribute to the state's human capital. Thus, are the non-needs merit-based scholarship programs impacting the state's economic and social capital? What else does the state need to consider and employ to insure high economic and social capital (e.g., better economic development, health and human services).
- 8) Longitudinal studies on the merit scholarship recipients, and completion of college, degree programs, and type of employment and where employed.

Conclusion

In conclusion, the purpose of this policy study was to determine if non-needs merit-based scholarship programs achieve what the states set out to create, specifically rewarding high achieving students, increasing college participation, and keeping these students in state for college. My goal was to obtain and provide data that would aid policy makers and researchers in understanding the possible impact the programs have in each of the 12 states. The global impact of the programs was studied for the breadth, instead of depth of one or two programs.

The findings illustrate that the non-needs merit-based scholarship programs have a statistically significant though small positive impact on high school achievement,

college participation, college choice, and keeping students in state for college. Other key findings were that the financial amount of the scholarship affects whether or not students stay in-state for college, and receiving the scholarship influences where students enroll in college. Where students are from within the state, their family's socioeconomic status and ethnicity also affects whether or not they receive the scholarship.

The programs are still young and with the changing tide in state budgets, student demographics, high school accountability, and financial aid programs, in-depth evaluations on the effectiveness and impact of the programs needs to occur. This study has laid the foundation for future studies on each state's program. It will be interesting to see whether or not the allure of the non-needs merit-based scholarship programs continue and how they will evolve during the early part of the twenty-first century.

Appendix A

University Committee on Research Involving Human Subject Documents

**MICHIGAN STATE
UNIVERSITY**

November 12, 2003

TO: James FAIRWEATHER
416 Erickson Hall
MSU

RE: IRB # 03-129 CATEGORY: 1-4 EXEMPT

RENEWAL APPROVAL DATE: November 11, 2003

EXPIRATION DATE: October 11, 2004

TITLE: EVALUATION OF STATE NON-NEEDS MERIT-SCHOLARSHIP PROGRAMS

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS APPROVED THIS PROJECT'S RENEWAL.

RENEWALS: UCRIHS approval is valid until the expiration date listed above. Projects continuing beyond this date must be renewed with the renewal form. A maximum of four such expedited renewals are possible. Investigators wishing to continue a project beyond that time need to submit a 5-year renewal application for complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please include a revision form with the renewal. To revise an approved protocol at any other time during the year, send your written request with an attached revision cover sheet to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.



OFFICE OF
**RESEARCH
ETHICS AND
STANDARDS**

University Committee on
Research Involving
Human Subjects

Michigan State University
202 Olds Hall
East Lansing, MI
48824

517/355-2180
FAX: 517/432-4503

Web: www.msu.edu/user/ucrihs
E-Mail: ucrihs@msu.edu

If we can be of further assistance, please contact us at 517 355-2180 or via email:
UCRIHS@msu.edu.

Sincerely,

A handwritten signature in dark ink, appearing to read "Peter Vasilenko".

Peter Vasilenko, Ph.D.
UCRIHS Chair

PV: jm

cc: Patricia Farrell
409 Ag Hall

Appendix B

State Merit Scholarship Program Contact Information

STATE MERIT SCHOLARSHIP PROGRAM CONTACT INFORMATION

State Merit-Based Scholarship Program			
State	Offices	Location	Contact Person
Alaska	University of Alaska Statewide Budget & Institutional Research	http://www.alaska.edu/oh/index.html	Juli Gillispie, Institutional Research Manager Gillispie@alaska.edu
Florida	Florida Bright Futures Scholarship Program	http://www.firn.edu/doe/osfa/	JoAnn McGonagill, Director of Initial Eligibility Joann.McGonaligill@fl.doe.org
Georgia	Georgia Student Finance Commission	http://www.gsfc.org	Charlene McGrath CHARLENE@mail.gsfc.state.ga.us Bob Lahl, Technical Analyst, RCL@mail.gsfc.state.ga.us
Kentucky	Kentucky Higher Education Assistance Authority (KHEAA)	http://www.kheaa.com	Dr. Melvin Letteer, mletteer@kheaa.com
Louisiana			Theresa Hay, Assistant Commissioner for Planning and Research Louisiana Board of Regents thay@bormail.regents.state.la.us
Michigan	Michigan Department of Treasury	http://treas-secure.state.mi.us/meritaward/meritindex.htm	Julie Croll Chief Deputy Treasurer P.O. Box 30716 Lansing, MI 48909
Mississippi	Mississippi Board of Trustees of State Institutions of Higher Learning	http://www.ihl.state.ms.us	Peggy Sledge sfa@ihl.state.ms.us Dr. M. Baxter mbaxter@ihl.state.ms.us

State Merit-Based Scholarship Program			
State	Offices	Location	Contact Person
Missouri	Missouri Department of Higher Education	http://www.cbhe.state.mo.us	Dan Peterson Dan.Peterson@MOCBHE.GOV
Nevada	Office of the State Treasurer, Nevada Millennium Scholarship Program	http://millennium.state.nv.us	Susan K. Moore, Ed.D., Executive Director Skmoore@nevadatreasurer.com
New Mexico	New Mexico Higher Education Commission.	http://www.nmche.org	Paul Landrum plandrum@che.state.nm.us
South Carolina	South Carolina Commission on Higher Education	http://www.che400.state.sc.us/web/Student/LIFE/	Bichevia Green Bgreen@che.sc.gov
West Virginia	West Virginia Higher Education Policy Commission	http://www.promisescholarships.org/	Robert Morgenstern morgenstern@HEPC.WVNET.EDU

Appendix C

State Merit Scholarship Program Contact Correspondence

Dear ____:

My name is Patricia Farrell, and I am a doctoral candidate Higher, Adult, and Lifelong Education at Michigan State University. My dissertation is on state merit-based scholarship programs, specifically college choice and persistence of students who are awarded these scholarships. As one of 13 states that offer non-needs merit-based scholarship programs, I am writing to request your assistance.

I am working on obtaining approval from MSU's Institutional Review Board to conduct the research, but in order to obtain their approval; I need to notify them in detail the data I am analyzing and how I am gaining access to the data. I hope you are willing and able to assist me. If I should contact someone else regarding the data, please let me know. The information I am requesting:

1. The bill number that presents the goals and objectives of the program.
2. My goal is to work with individual student data on the below listed variables for each year the program has been in effect, in addition to 1-2 years before the program started. If that goal is unable to be met, then I am hoping to analyze state aggregate data.
 - a. Do you gather this data on a yearly (calendar or academic) basis? If not, how do you collect this data?
 - b. Do you gather data on individual students? Do you make this individual student data available for research? Or do you only make statewide aggregate data available?
 - c. Do you have the data on students from before the program started?
3. Please instruct me on the procedures on how I gain access to the data or reports.
 - a. Merit-based scholarship awards—for each year offered
 - i. Overall, number of students receiving awards
 - ii. By Ethnicity
 - iii. Gender
 - iv. Age
 - v. Marital Status
 - vi. Employment
 - vii. Family Income
 - viii. Mother's Education
 - ix. Higher School Degree or GED
 - x. Status (Independent or Dependent)
 - xi. Do they receive other financial aid:
 1. Grants
 2. Scholarships
 3. Loans
 4. Work-study
 - xii. Student:
 1. High School GPA

2. Aspirations (e.g., vocational, bachelor's, advanced)
 3. SAT or ACT
 4. High School Curriculum (college-bound, etc.)
- ii. Where students attended school
 1. Private or Public
 2. Type of School
 3. On-Campus
 - iii. Year in College

Thank you for your time, and I look forward to hearing from you.

My contact information is: pfarrell@msu.edu or 517-882-1278. My adviser is Dr. James Fairweather, fairwea4@msu.edu.

Thank you again for your help.
Patricia L. Farrell

U.S. Postal Service Letter to State Programs

518 North Dexter Drive
Lansing, Michigan 48910
November 10, 2002

State Merit Scholarship Program Contact
Address
City, State Zip Code

Dear _____:

My name is Patricia Farrell, and I am a doctoral candidate in Higher, Adult, and Lifelong Education at Michigan State University (MSU). My dissertation is on state merit-based scholarship programs, specifically analyzing college choice and persistence of students who are awarded these scholarships. As one of 13 states that offer non-needs merit-based scholarship programs, I am writing to request your assistance. I sent an e-mail to your office approximately a week ago requesting your assistance, and I wanted to follow-up formally since I had not heard from you.

My interest in this topic comes from growing up in New Mexico and understanding the need for access, not only the traditional students but all individuals. My father was one of the founders of the UNM-Valencia Branch, and this past April I flew back to study the organizational transformation that have taken place since Alice Letteney took over as executive director. I never realized the impact the college has had on the communities, and I was truly inspired and awestruck by Alice and the other faculty and staff—they have dedicated themselves to the development of the community and the college. Upon reflection, I truly understood why I am pursuing my doctorate in education.

My goal is to work in the area of higher education policy, and I have been in contact with David Longanecker regarding my research, especially since he has written so much on student financial aid programs. I will be working with him closer once I obtain further information from the 13 states on their program's data.

I am working on obtaining approval from MSU's Institutional Review Board to conduct the research, but in order to obtain their approval; I need to notify them in detail the data I am analyzing and how I am gaining access to the data. I hope you are willing and able to assist me. If I should contact someone else regarding the data, please let me know. The information I am requesting:

1. The bill number that presents the goals and objectives of the program.
2. My goal is to work with individual student data on the below listed variables for each year the program has been in effect, in addition to 1-2 years before the program started. If that goal is unable to be met, then I am hoping to analyze state aggregate data for each year.

- a. Do you gather this data on a yearly (calendar or academic) basis? If not, how do you collect this data?
- b. Do you gather data on individual students? Do you make this individual student data available for research? Or do you only make statewide aggregate data available?
- c. Do you have the data on students from before the program started?
- 3. Please instruct me on the procedures on how I gain access to the data or reports.
- 4. The variables either by individual state or by state aggregate:
 - a. Merit-based scholarship awards—for each year offered
 - i. Overall, number of students receiving awards
 - ii. By Ethnicity
 - iii. Gender
 - iv. Age
 - v. Marital Status
 - vi. Employment
 - vii. Family Income
 - viii. Mother's Education
 - ix. Higher School Degree or GED
 - x. Status (Independent or Dependent)
 - xi. Do they receive other financial aid:
 - 1. Grants
 - 2. Scholarships
 - 3. Loans
 - 4. Work-study
 - xii. Student:
 - 1. High School GPA
 - 2. Aspirations (e.g., vocational, bachelor's, advanced)
 - 3. SAT or ACT
 - 4. High School Curriculum (college-bound, etc.)
 - ii. Where students attended school
 - 1. Private or Public
 - 2. Type of School
 - 3. On-Campus
 - iii. Year in College
 - iv. If applicable, number of years student has received scholarship

Thank you for your time, and I look forward to hearing from you.

My contact information is: pfarrell@msu.edu or 517-882-1278. My adviser is Dr. James Fairweather, fairwea4@msu.edu, College of Education, Michigan State University.

Thank you again for your help.
Sincerely,

Patricia L. Farrell

References

REFERENCES

- ACT, Inc. (2004). *The ACT in general*. Retrieved March 1, 2004 from <http://www.act.org/aap/faq/index.html>
- Adelman, C. (1999). *Answers in the tool box. Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, D.C., National Institution on Postsecondary Education Libraries, and Lifelong Learning. (ERIC Document Reproduction Service No. ED431363).
- Adelman, C. (1995). *The new college course map and transcript files: Changes in course-taking and achievement, 1972-1993. Based on the postsecondary records from two national longitudinal studies..* Washington, D.C., National Institution on Postsecondary Education Libraries, and Lifelong Learning. (ERIC Document Reproduction Service No. ED456721).
- Akerhielm, K., & Berger, J., Hooker, M., & Wise, D. (1998). *Factors related to college enrollment. Final report*. Mathtech, Inc., Princeton, NJ. (ERIC Document Reproduction Service No. ED421053).
- Alexander, K.L. & Eckland, B.K. (1975). Basic attainment processes: A replication and extension. *Sociology of Education*, 48(4), 457-495.
- Advisory Committee on Student Financial Assistance (June, 2002). *Empty promises: The myth of college access in America..* A Report of the Advisory Committee on Student Financial Assistance. Washington, D.C. Retrieved September 10, 2002, from <http://www.ed.gov/offices/AC/ACSFA/access.html>
- Advisory Committee on Student Financial Assistance (2001). *Access denied: Restoring the nation's commitment to equal educational opportunity*. A Report of the Advisory Committee on Student Financial Assistance. Washington, D.C. (ERIC Document Reproduction Service No. ED453770).
- Astin, A.W., & Oseguera, L. (2004, Spring). The declining "equity" of American higher education. *The Review of Higher Education*, 27(3), 321-342.
- Bean, J.P. (1982). Conceptual models of student attrition: How theory can help the institutional researcher. In E. Pascarella (Ed.), *New Directions for Institutional Researcher: Studying Study Attrition* No. 36. San Francisco: Jossey-Bass Publishers.
- Becker, G. (1993). *Human capital: A theoretical and empirical analysis with special reference to education*. (3rd ed.). Chicago: The University of Chicago Press.

- Becker, W.E. (1992). Why go to college? The value of an investment in higher education. In W.E. Becker and D.R. Lewis (Eds.), *The Economics of American higher education*. Boston: Kluwer Academic Publishers.
- Binder, M., Ganderton, P.T., Hutchens, K. (2002). Incentive effects of New Mexico's merit-based state scholarship program: Who responds and how? In D.E. Heller & P. Marin (Eds.) *Who Should We Help? The negative social consequences of merit scholarships*. The Civil Rights Project, Harvard University. Retrieved September 1, 2003, from <http://www.law.harvard.edu/civilrights>
- Blau, & Duncan (1967). *The American occupational structure*. New York: Wiley.
- Borus, M.E., & Carpenter, S.A. (1984). Factors associated with college attendance of high school seniors. *Economics of Education Review*, 3(3), 169-76.
- Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karbel and A.H. Halsey (Eds.) *Power and Ideology in Education*, 487-511. New York: Oxford University Press.
- Bowen, H.R. (1977). *Investment in learning: The individual and social value of American Higher Education*. San Francisco: Jossey-Bass Publishers.
- Breneman, D.W. (2002, June 14). For colleges, this is not just another recession. *The Chronicle of Higher Education*. Retrieved June 15, 2002, from <http://www.chronicle.com>
- Brewer, F.B. (1996). *Retention-attrition in the nineties*. *ERIC Digest*. ERIC Clearinghouse for Community Colleges, Los Angeles, CA. (ERIC Document Reproduction Service No. ED393510).
- Brinkman, P.T. (2000, Summer). The economics of higher education: Focus on cost. In M.F. Middaugh (Eds.), *Analyzing costs in higher education: What institutional researchers need to know*. *New Directions for Institutional Research No. 106*. San Francisco: Jossey-Bass Publishers, 5-17.
- Cabrera, A.F. & La Nasa, S.M. (2000, Fall). Understanding the college-choice process. In A.F. Cabrera & S.M. LaNasa (Eds.), *Understanding the college choice of disadvantaged students*. *New Directions for Institutional Research No. 107*. San Francisco: Jossey-Bass Publishers.
- Callan, P.M. (2002). *Measuring Up 2002: The state-by-state report card for higher education*. National Center for Public Policy and Higher Education. Retrieved February 3, 2002, from <http://measuringup.highereducation.org/2002/repothome.htm>

- Callan, P.M. (2001). Reframing access and opportunity: Problematic state and federal higher education policy in the 1990s. In D.E. Heller (Ed.) *The states and public higher education policy: Affordability, access, and accountability*. Baltimore: The John Hopkins University Press.
- Callan, P.M. (2000). *Measuring Up 2000: The state-by-state report card for higher education*. National Center for Public Policy and Higher Education. Retrieved February 3, 2002, from <http://measuringup2000.highereducation.org/Introduction.cfm>
- Campbell, A., & Eckerman, W.C. (1964). *Public concepts of the values and costs of higher education. Monograph No. 37*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, The University of Michigan.
- Campbell, D.T., & Stanley, J.C. (1963). *Experimental and quasi-experimental designs for research*. Boston: Houghton Mifflin Company.
- Carnegie Foundation (2000). *Classification of institutions of higher education*. Retrieved September 5, 2004 from <http://www.carnegiefoundation.org>.
- Carnevale, A.P., & Fry, R.A. (2001). *Economics, demography and the future of higher education policy*. National Governor's Association. Retrieved February 3, 2002, from <http://www.nga.org/cda/files/HIGHEREDDEMOECON.pdf>
- Catsiapis, G. (February, 1987). A model of educational investment decisions. *The Review of Economics and Statistics*, 69(1), 33-41.
- College Board, The (2004). *About SAT*. Retrieved March 1, 2004 from <http://www.collegeboard.com/student/testing/sat/about/SATI.html>
- Cornwell, C. & Mustard, D.B. (2002). Race and the effects of Georgia's HOPE Scholarship. In D.E. Heller & P. Marin (Eds.) *Who should we help? The negative social consequences of merit scholarships*. The Civil Rights Project, Harvard University. Retrieved September 1, 2003, from <http://www.law.harvard.edu/civilrights>
- Creech, J.D. (1998). *State-funded merit scholarship programs: Why are they popular? Can they increase participation in higher education? 1998 Benchmark series*. (ERIC Document Reproduction Service No. ED426653).
- Dynarski, S. (2000). Hope for whom? Financial aid for the middle class and its impact on college attendance. *National Tax Journal*, LIII, 53(3, 2), 629-661.
- Dynarski, S. (2002). The consequences of merit aid. *National Bureau of Economic Research Working Paper*. (ERIC Document Reproduction Service No. ED472387).

- Florida Department of Education (1997). *Florida Bright Future Scholarship Program*. Retrieved March 15, 2002 from <http://www.firn.edu/doe/brfutures/home0072.htm>
- Florida Office of Program Policy Analysis and Government Accountability (OPPAGA) (2003, February). *OPPAGA program review: Bright futures contributes to improved college preparation, affordability, and enrollment*. Retrieved August 14, 2003, from <http://www.oppaga.state.fl.us/>
- Fraas, C. (1990). *Guaranteed student loans: Defaults*. Washington, D.C.: Congressional Research Service.
- Georgia Student Finance Commission (2002). *Georgia HOPE Scholarship Program*. Retrieved March 15, 2002 from <http://www.gsfc.org/HOPE/Index.cfm>
- Gill, J.I., & Saunders, L. (1997). Conducting policy analysis in higher education. In L.F. Goodchild; C.D. Lovell; E.R. Hines; and J.I. Gills (Eds.), *Public policy and higher education*, 225-235. Needham Heights, MA: Simon and Schuster Custom Publishing.
- Gladieux, L.E. (1995). Federal student aid policy: A history and an assessment. *Financing postsecondary education: The federal role*. Washington, D.C.: Center for Education and Statistics.
- Gladieux, L.E. & King, (1999). The federal government and higher education. In P.G. Altbach, R.O. Berdahl, & P.J. Gumpert (Eds.) *American higher education in the twenty-first century: Social, political, and economic challenges*. Baltimore: The John Hopkins University Press.
- Hansen, W.L. (1983). Impact of student financial aid on access. In J. Froomkin (Ed.) *The Crisis in Higher Education*. New York: Academy of Political Science, 84-96.
- Hansen, W.L., & Stampen, J.O. (1989). The financial squeeze on higher education institutions and students: Balancing quality and access in the financing of higher education. *Journal of Education Finance*, 15(1), 3-20.
- Hauptman, A.M. (1990). *The tuition dilemma: Assessing new ways to pay for college*. Washington, D.C.: The Brookings Institute.
- Hauptman, A.M. (2001). Reforming the ways in which states finance higher education. In D. Heller (Ed.) *The states and public higher education policy: Affordability, access, and accountability*. Baltimore: The John Hopkins University Press.
- Hearn, J.C. (1984). The relative roles of academic, ascribed, and socioeconomic characteristics in college destinations. *Sociology of Education*, 57, 22-30.

- Hearn, J.C. (1988). Attendance at higher-cost colleges: Ascribed, socioeconomic, and academic influences on student enrollment patterns. *Economics of education review*, 7(1), 65-76.
- Hearn, J.C. (1991). Academic and nonacademic influences on the college destinations of 1980 high school graduates. *Sociology of Education*, 64(3), 158-171.
- Heller, D.E. (Nov/Dec., 1997). Student price response in higher education. *The Journal of Higher Education*, 68(6), 624-59. Retrieved August, 2001 from http://www.personal.psu.edu/faculty/d/e/deh29/papers/papers_index.html
- Heller, D.E. (1999). The effects of tuition and state financial aid on public college enrollment. *The Review of Higher Education*, 21(1), 65-89.
- Heller, D.E. (2002). State merit scholarship programs: An introduction. In D.E. Heller & P. Marin (Eds.) *Who should we help? The negative social consequences of merit scholarships*. The Civil Rights Projects, Harvard University. Retrieved September 1, 2002, from <http://www.law.harvard.edu/civilrights>
- Heller, D.E. (June 2002). *State governance and higher education outcomes*. Paper presented at the Cornell Higher Education Research Institute Conference. Ithaca, NY. Retrieved August 2002 from http://www.personal.psu.edu/faculty/d/e/deh29/papers/papers_index.html
- Heller, D. E. (2002, July/August). Is merit-based student aid really trumping need based aid? Another view. *Change*, 6-8.
- Heller, D.E., & Rasmussen, C.J. (2001, November). *Do merit scholarships promote college access? Evidence from two states*. Paper presented at the Annual Conference of the Association for the Study of Higher Education, Richmond, VA. Retrieved March 9, 2002 from http://www.personal.psu.edu/faculty/d/e/deh29/papers/papers_index.html
- Heller, D.E., & Rogers, K.R. (2003, November). *Merit scholarships and incentives for academic performance*. Paper presented at the Annual Conference of the Association for the Study of Higher Education, Portland, OR. Retrieved November 15, 2003 from <http://35.8.168.242/paperdepot/paperdepot.htm>
- Heller, D.E., & Shapiro, D.T. (2000, November 16-19). *High-stakes testing and state financial aid: Evidence from Michigan*. Paper presented at the Annual Meeting of the Association for the Study of Higher Education, Sacramento, CA. (ERIC Document Reproduction Service No. ED448638).

- Henry, G.T., & Rubenstein, R. (2002, August 28). *Merit aid and educational reform: Impacts of Georgia's HOPE Scholarship Program*. New Directions and Strategies in Merit Based Aid presented at the National Governors Association: Charleston, West Virginia.
- Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore: The John Hopkins University Press.
- Jackson, G.A. (1978). Financial aid and student enrollment. *Journal of Higher Education*, 49, 548-574.
- Jackson, G.A. (1988). Did college choice change during the seventies? *Economics of education review*, 7(1), 15-28.
- Jackson, G.A., & Weathersby, G.B. (1975). Individual demand for higher education: A review and analysis of recent empirical studies. *Journal of Higher Education*, 46(6), 623-652.
- Kane, T.J. (1995). *Rising public college tuition and college entry: How well do public subsidies promote access to college?* (No. 5164) Cambridge, MA: National Bureau of Economic Research Working Paper Series.
- Kentucky Council on Postsecondary Education (2002). *Kentucky 2000-2001 tuition and fees*. Retrieved March 15, 2004 from http://www.cpe.state.ky.us/keyind/www/going2/2001_02_TuitionFees1.pdf
- Kentucky Department of Education (2002). *Briefing packet: Nonacademic data 1993 to 2001 region and state totals*. Retrieved July 15, 2003 from <http://www.education.ky.gov/NR/rdonlyres/ecd3n42zl56lbnrv6ztkne6sk5vru6js7vew4dvilgspb2bsftw3lq7o3sq2kx5w5iew36hr75h5jwlvrvwreketm6ia/Nonacademic+Release+2001.pdf>
- Kentucky Higher Education Assistance Authority (1997). *Kentucky Educational Excellence Scholarship*. Retrieved March 15, 2002 from <http://www.kheaa.com/keeshome.html>
- Kentucky Higher Education Assistance Authority (1999). *1999 KHEAA annual report*. Obtained from KHEAA: Frankfort, Kentucky. www.kheaa.com
- Kentucky Higher Education Assistance Authority (2000). *2000 KHEAA annual report*. Obtained from KHEAA: Frankfort, Kentucky. www.kheaa.com
- Kentucky Higher Education Assistance Authority (2001). *2001 KHEAA annual report*. Obtained from KHEAA: Frankfort, Kentucky. www.kheaa.com

- Kentucky Long-Term Policy Research Center (2001, June). Kentucky's Brain Drain Unplugged. *Policy notes on issues of importance to Kentucky's future*. Retrieved February 5, 2004 from http://www.kltprc.net/policynotes/pn0003_brain_drain_unplugged.pdf
- Kohn, M.G., Manski, C., & Mundel, D. (1976, Fall). An empirical investigation of factors influencing college-going behavior. *Annals of Economic and Social Measure*, 5(4), 391-419.
- Krueger, C. (2001). *Merit scholarships*. Denver, CO: Education Commission of the States. Retrieved September 30, 2002 from http://www.ecs.org/html/Document_noID.asp?chouseid=2711
- Leslie, L.L., & Brinkman, P.T. (1988). *The economic value of higher education*. San Francisco: Jossey-Bass Publishers.
- Linn, D. (1998). *State scholarship programs to assist and retain postsecondary students*. National Governor's Association. Retrieved March 1, 2002, from http://www.nga.org/center/divisions/1,1188,C_ISSUE_BRIEF^D_1005,00.html
- Longanecker, D. (2002, March/April). Is merit-based student aid really trumping need-based aid? *Change*, 30-37.
- Longanecker, D. (2002, July/August). Is merit-based student aid really trumping need-based aid? David Longanecker responds. *Change*, 6-8.
- Louisiana Student Financial Assistance Commission. *Louisiana TOPS Program*. <https://osfantweb.osfa.state.la.us/TOPSPort.nsf/>
- Lovell, C.D. (2000). Past and future pressures and issues of higher education: State perspectives. In J. Losco & B.L. Fife (Eds.) *Higher education in transition: The challenges of the new millennium*. Westport, CT: Bergin & Garvey.
- Lucas, C.J. (1994). *America higher education: A history*. New York: St. Martin's Press.
- Majchrzak, A. (1984). *Methods for policy research*. Applied Social Research Methods Series, Volume 3. Newbury Park, CA: Sage Publications.
- Malizio, A.G., (2001, July). National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999-2000. *Postsecondary Education: Education Statistics Quarterly*. National Center for Education Statistics. NCES 2001-209
- Manski, C.F., & Wise, D.A. (1983). *College choice in America*. Cambridge, MA: Harvard University Press.

- Marin, P. (2002). Merit scholarships and the outlook for equal opportunity in higher education. In D.E. Heller and P. Marin (eds.) *Who should we help? The negative social consequences of merit scholarships*. The Civil Rights Projects, Harvard University. Retrieved September 1, 2003, from <http://www.law.harvard.edu/civilrights>
- Mbadugha, L.N. (2001). *The financial nexus between college choice and persistence for community college students: A financial impact model*. Doctoral dissertation, University of New Orleans. (ERIC Document Reproduction Service No. ED459884).
- McDonough, P.M. (1997). *Choosing college: How social class and schools structure opportunity*. Albany: State University of New York Press.
- McDowell Group (2003). *1998 economic impact report: The impact of the University of Alaska*. Retrieved February 1, 2004 from <http://www.alaska.edu/state/reports/impact/impact.html>
- McMahon, W.W. (1974). *Investment in higher education*. Lexington, MA: Lexington Books.
- McPherson, M.S., & Schapiro, M.O. (Jan. 1996). *Are we keeping college affordable? Student aid, access, and choice in American higher education*. (Discussion Paper No. 34). Williams Project on the Economics of Higher Education. Denison Gatehouse, Williams College. Williamston, MA.
- McPherson, M.S., & Schapiro, M.O. (June, 1997). *Financing undergraduate education: Designing national policies*. (Discussion Paper No. 43). Williams Project on the Economics of Higher Education. Denison Gatehouse, Williams College. Williamstown, MA.
- McPherson, M.S., & Shapiro, M.O. (1998). *The student aid game: Meeting need and rewarding talent in American higher education*. Consortium for Policy Research in Education. Madison, WI. Princeton, NJ: Princeton University Press.
- Michigan Department of Treasury (1999). *Michigan Educational Assessment Program Merit Award*. Retrieved March 15, 2002 from <http://www.meritaward.state.mi.us/mma/merit.htm>
- Mississippi Office of Student Financial Aid (1996). *Mississippi Eminent Scholars Grant*. Retrieved March 15, 2001 from <http://www.ihl.state.ms.us/financialaid/default.asp>
- Missouri Department of Higher Education (1997). *Missouri Higher Education Bright Flight Scholarship Program*. Retrieved March 15, 2002 from <http://www.cbhe.state.mo.us/mostars/heasp.htm>

- Mumper, M. (1996). *Removing college price barriers: What government has done and why it hasn't worked*. Albany: State University of New York Press.
- Mumper, M. (1998). State efforts to keep public colleges affordable in the face of fiscal stress. In J.C. Smart (Ed.) *Higher education: Handbook of theory and research, Volume XIII*. New York: Agathon Press, 148-180.
- Murtaugh, P.A., Burns, L.D., & Schuster, J. (1999). Predicting the retention of university students. *Research in Higher Education*, 40(3), 355-371.
- NASSGAP (1995). *Annual NASSGAP 26th Survey Report. National Association of State Student Grant and Aid Programs*. Retrieved November 25, 2003, from <http://www.nassgap.org/researchsurveys/default.htm>
- NASSGAP (1997). *Annual NASSGAP 28th Survey Report. National Association of State Student Grant and Aid Programs*. Retrieved June 3, 2002, from <http://www.nassgap.org/researchsurveys/default.htm>
- NASSGAP (1999). *Annual NASSGAP 30th Survey Report. National Association of State Student Grant and Aid Programs*. Retrieved June 3, 2002, from <http://www.nassgap.org/researchsurveys/default.htm>
- NASSGAP (2001). *Annual NASSGAP 31st Survey Report. National Association of State Student Grant and Aid Programs*. Retrieved June 3, 2002, from <http://www.nassgap.org/researchsurveys/default.htm>
- National Center for Education Statistics (2001, July). *National postsecondary student aid study: financial aid estimates for 1999-2000*. (NCES 2001-209). Washington, D.C.: Office of Educational Research and Improvement, U.S. Department of Education. Retrieved from <http://www.nces.ed.gov/>
- National Center for Education Statistics (2002, July). *Projections of education statistics to 2012*. (31st ed). (NCES 2002-030). Office of Educational Research and Improvement, U.S. Department of Education. Retrieved from <http://www.nces.ed.gov/>
- National Center for Education Statistics (2002). *Projection of education statistics to 2012: Thirty-first edition*. Washington, D.C.: Office of Educational Research and Improvement, U.S. Department of Education. Retrieved from <http://www.nces.ed.gov/>

- National Center for Public Policy and Higher Education (2000, February). State Shortfalls Predicted Despite Current Fiscal Prosperity. *NCPPE Policy Briefs*. Retrieved February 5, 2002 from http://www.highereducation.org/reports/policyalert/pa_state_spending/pa_state_spending.shtml
- National Center for Public Policy and Higher Education (2001, May). College opportunity varies greatly by state: How does your state compare in higher education? *Policy Alert*. Retrieved February, 2002 from <http://www.highereducation.org/pa/>
- Nettles, M.T., & Perna, L.W. (1997). *The African American education data book: The transition from school to college and school to work, Volume 3*. Fairfax, VA: Frederick D. Patterson Research Institute.
- Nettles, M.T., Perna, L.W., & Millett, C.M. (1998). *Reconceptualizing access in postsecondary education and its ramifications for data systems: Report of the panel on access, September 9, 1997*. Washington, D.C.: National Center for Education Statistics. (ERIC Document Reproduction Service No. ED424827).
- Nevada State Treasurer (1999). *Nevada Millennium Scholarship*. Retrieved March 15, 2001 from <http://www.nevadatreasurer.com/millennium/>
- New Mexico Commission on Higher Education (1997). *Lottery Success Scholarship Program*. Retrieved March 15, 2002 from <http://www.nmche.org>
- Noble, J., & Sawyer, R. (2002, June 2-5). *Accuracy of high school grades and college admissions test scores for predicting different levels of academic achievement in college*. AIR 2002 Forum Paper. Paper presented at the Annual Meeting of the Association for Institutional Research. Toronto, Ontario, Canada. (ERIC Document Reproduction Service No. ED473070).
- Nora, A., & Cabrera, A.F. (1996, March-April). The role of perceptions in prejudice and discrimination and the adjustment of minority students to college. *Journal of Higher Education*, 67(2), 119-148.
- Orfield, G. (2002). Foreword. In D.E. Heller and P. Marin (eds.) *Who should we help? The negative social consequences of merit scholarships*. The Civil Rights Projects, Harvard University. Retrieved September 1, 2003, from <http://www.law.harvard.edu/civilrights>, xi-xii.
- Orfield, G., Losen, D., Wald, J., & Swanson, C.B. (2004). Losing our future: How minority youth are being left behind by the graduation rate crisis. The Civil Rights Project at Harvard University; The Urban Institute; Advocates for Children of New York; and The Civil Society Institute. Retrieved April 20, 2004 at http://www.urban.org/UploadedPDF/410936_LosingOurFuture.pdf

- Parsons, M.D. (1997). *Power and politics: Federal higher education policymaking in the 1990's*. Albany: State University of New York Press.
- Pascarella, E.T., & Terenzini, P.T. (1991). *How college affects students*. San Francisco: Jossey-Bass Publishers.
- Paulsen, M.B. (1998). Recent research on the economics of attending college: Returns on investment and responsiveness to price. *Research in Higher Education*, 39(4), 471-489.
- Paulsen, M.B. & St. John, E.P. (1997). The financial nexus between college choice and persistence. In R. Voorhees (Ed.), *Researching student financial aid, New Directions for Institutional Research No. 95*. San Francisco: Jossey-Bass Publishers, 65-82.
- Paulsen, M.B. & St. John E.P. (March/April 2002). Social class and college costs: Examining the financial Nexus between college choice and persistence. *The Journal of Higher Education*, 73(2), 189-236.
- Perna, L.W. (2000). Racial and ethnic group differences in college enrollment decisions. In A.F. Cabrera & S.M. La Nasa (Eds.) *Understanding the college choice of disadvantaged students No. 107. New Directions for Institutional Research*. San Francisco: Jossey-Bass Publishers, 65-83.
- Postsecondary Education Opportunity (2002, October). *Interstate migration of college freshmen, 1986 to 2000, No. 124*. Retrieved August 13, 2003 from <http://www.postsecondary.org>
- Rendon, L.I. (1998). Access in democracy: Narrowing the opportunity gap. *Reconceptualizing access in postsecondary education and its ramifications for data systems: Report of the panel on access*. Washington, D.C.: National Center for Education Statistics.
- Richardson, R.C., Jr., Bracco, K.R., Callan, P.M., and Finney, J.E. (1999). *Designing state higher education systems for a new century*. Series on Higher Education American Council on Education. Oryx Press.
- Schmidt, P. (2002, April 26). State spending on student aid has surged in recent years, study finds. *The Chronicle of Higher Education*. Retrieved May 3, 2002 from <http://www.chronicle.com>
- Schultz, T.W. (1963). *The economic value of education*. New York: Columbia University Press.

- Selingo, J. (1999, April 16). Seeking dollars to further their dreams, scholarship supporters push for lotteries. *The Chronicle of Higher Education*. Retrieved February 15, 2001 from <http://www.chronicle.com>
- Selingo, J. (2001, January 19). Questioning the merit of merit scholarships. *The Chronicle of Higher Education*. Retrieved February 15, 2001 from <http://www.chronicle.com>
- Selingo, J. (2003, February 28). The disappearing state in public higher education: When the recession ends, appropriations may not rebound. *The Chronicle of Higher Education*. Retrieved September 13, 2003 from <http://www.chronicle.com>.
- Sewell, W.H., & Hauser, R.M. (1975). *Education, occupation, and earnings: Achievement in the early career*. New York: Academic Press.
- Sewell, W.H., & Shah, V.P. (1975). Social class, parental encouragement, and educational aspirations. *American Journal of Sociology*, 73(5), 559-572.
- Somers, P., & St. John, E.P. (1997). Interpreting price response in enrollment decisions: A comparative institutional study. *Journal of Student Financial Aid*, 27(3), 15-36.
- South Carolina Commission on Higher Education (1998). *Legislative for Future Excellence (LIFE) Scholarship Program*. Retrieved March 15, 2002 from <http://www.che400.state.sc.us/web/Student/LIFE/LIFE%20home.html>
- Southern Regional Education Board (2001, March). SREB graduation rates vary by state and type of college. *SREB Fact Book Bulletin*. Retrieved March 3, 2004 from <http://www.sreb.org>
- Southern Regional Education Board (2002). *Postsecondary education tuition during the 1990s*. Retrieved January 15, 2004 from <http://www.sreb.org>
- Southern Regional Education Board (2002). *Student Readiness for College: Connecting State Policies*. Atlanta, GA. Retrieved January 30, 2004 from <http://www.sreb.org/main/HigherEd/readiness/readinessindex.asp>
- St. John, E.P. (1990). Price response in enrollment decisions: An analysis of high school and beyond sophomore cohort. *Research in Higher Education*, 31(2), 161-176.
- St. John, E.P. (1991). What really influences minority attendance? Sequential analyses of the high school and beyond sophomore cohort. *Research in Higher Education*, 32(2), 141-158.
- St. John, E.P. (2000). The impact of student aid on recruitment and retention: What the research indicates. *New Directions for Student Services*, No. 89, 61-75.

- St. John, E. P., & Starkey, J.B. (2003, Fall). Keeping the promise: The impact of Indiana's twenty-first century scholars program. *The Review of Higher Education*, 27(1), 103-123.
- St. John, E. P., Paulsen, M.P., & Starkey, J.B. (1996). The nexus between college choice and persistence. *Research in higher education*, 37(2), 175-200.
- St. John, E. P., & Starkey, J.B. (1995). An alternative to net price: Assessing the influence of prices and subsidies on within-year persistence. *Journal of Higher Education*, 66(2), 156-186.
- Stafford, K.L., Lundstedt, S.B., & Lynn, Jr., A.D. (1984). Social and economic factors affecting participation in higher education. *Journal of Higher Education*, 55(5), 590-608.
- Tennessee Higher Education Commission (2003). *Tennessee education lottery scholarship program: Criteria and guidelines*. Obtained from Tennessee Higher Education Commission, <http://www.thec.edu>
- United States Census Bureau (2002). Three-year-average median household income by state: 2000-20002. Retrieved January 27, 2004 from <http://www.census.gov/hhes/income/income02/statemhi.html>
- United States Census Bureau (1999). *State and County Income and Poverty Estimates (SAIPE)*. Retrieved July 15, 2003 from <http://www.census.gov/hhes/www/saipe/schooltoc.html>
- United States Census Bureau (1997). *State and County Income and Poverty Estimates (SAIPE)*. Retrieved July 15, 2003 from <http://www.census.gov/hhes/www/saipe/schooltoc.html>
- United States Census Bureau (1995). *State and County Income and Poverty Estimates (SAIPE)*. Retrieved July 15, 2003 from <http://www.census.gov/hhes/www/saipe/schooltoc.html>
- United States Department of Labor (2003, February). *State and regional unemployment, 2002 annual averages*. Retrieved November 25, 2003 from <http://www.bls.gov/lau>
- United States Department of Labor (2000). *Unemployment rates for states: annual average ranking*. Retrieved November 25, 2003 from <http://www.bls.gov/>
- University of Alaska (2001). *University of Alaska Scholars*. Retrieved March 3, 2002, from <http://www.alaska.edu/scholars>.

- University of Alaska Office of Institutional Research (1999). *UA in review 1998*. Retrieved from http://www.alaska.edu/swoir/publications/uar_docs/main.xml
- University of Alaska Office of Institutional Research (2000). *UA in review 1999*. Retrieved from http://www.alaska.edu/swoir/publications/uar_docs/main.xml
- University of Alaska Office of Institutional Research (2001). *UA in review 2000*. Retrieved from http://www.alaska.edu/swoir/publications/uar_docs/main.xml
- University of Alaska Office of Institutional Research (2002). *UA in review 2001*. Retrieved from http://www.alaska.edu/swoir/publications/uar_docs/main.xml
- University of Alaska Office of Institutional Research (2003). *UA in review 2002*. Retrieved from http://www.alaska.edu/swoir/publications/uar_docs/main.xml
- University of Nevada-Reno Center for Applied Research (2003, March). *Millennium scholarship baseline study*. Retrieved February 15, 2004 from <http://www.nevadatreasurer.com/millennium/>
- Venezia, A., Kirst, M.W., & Antonio, A.L. (2000). Betraying the college dream: How disconnected K-12 and postsecondary education systems undermine student aspirations. Stanford University's Bridge Project. Retrieved November 23, 2003 from <http://bridgeproject.standard.edu>
- Voorhees, R.A. (1997). Financial aid and persistence: Do the federal campus-based aid programs make a difference? *Journal of student financial aid*, 15, 21-30.
- West Virginia Higher Education Policy Commission (2002). *Providing Real Opportunity for Maximizing In-State Student Excellence (PROMISE)*. Retrieved March 15, 2002 from <http://www.promisescholarships.org/>

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