The Dissertation Committee for Eva Maria Garza-Nyer
certifies that this is the approved version of the following dissertation:

# EVALUATING THE IMPACT OF THE

# HISPANIC SCHOLARSHIP CONSORTIUM

Committee:

_____
John E. Roueche, Supervisor

_____
Walter Bumphus

_____
Lucio Calzada

_____
Norma Cantu

_____
Richard Reddick

**EVALUATING THE IMPACT OF THE**

**HISPANIC SCHOLARSHIP CONSORTIUM**


by

Eva Maria Garza-Nyer, B.A.; M.Ed.


**Dissertation**

Presented to the faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy


The University of Texas at Austin

December 2010

Acknowledgements

First, I would like to thank my family, especially my husband, Adam, who has provided much of the support through this doctoral experience. My mother in law, Genie, your time was invaluable; thank you for your feedback and instruction. Most importantly, my parents, who served as the model for endurance, I appreciate your faith and belief in my success. To all, your love, patience, and understanding made this process possible.

I thank my dissertation committee who guided me through the last two and a half years. Dr. John Roueche, mentor and dissertation chair, your wisdom and leadership have served as a model throughout my graduate experience. Dr. Bumphus, and Dr. Reddick, whose wisdom and guidance has introduced me to a new level of critical thinking. Dr. Calzada, my supervisor at Austin High, thank you for allowing me to have a flexible work schedule and for your supportive words during rough times. Dr. Cantu, I share your passion in working towards educational equity for all racial groups.

Outside my committee, I am blessed to be a recipient of HSC's scholarship. Marisa Limon's assistance in collecting data and organizing focus groups was an essential part of this research process. I am so grateful for your willingness to support me through this program.

All my peers in Block 64, especially Erika Glaser, thank you for your ears, your

time, and your support. Blockers from 63 through 65, especially Mia Leggett and

Annesa Cheek, who have also provided me with the inspiration to continue

advocating for a population that is poorly represented in higher education.

EVALUATING THE IMPACT OF THE

HISPANIC SCHOLARSHIP CONSORTIUM

Eva Maria Garza-Nyer, Ph.D.

The University of Texas at Austin, 2010

Supervisor: John E. Roueche

This study examines the Hispanic Scholarship Consortium (HSC), a scholarship program in Central Texas that serves Hispanic college students. This study analyses trends in awarding and persisting with the program. A better understanding of what influences persistence rates can help scholarship programs in implementing policies to increase college completion rates. The findings can assist programs identify needed changes to improve scholarship application and award processes. These results can also help programs assist scholars during their college careers by identifying at-risk students early on and developing supportive practices to promote student persistence. Additionally, scholarship organizations can utilize metrics to identify long-term trends among their scholarship recipients for ongoing program evaluation and enhancement.

This mixed method study utilizes both quantitative and qualitative research methods by analyzing student focus group data along with HSC program data. Quantitative analysis is used to determine predictors of persistence in the HSC

program. The qualitative analysis results are used to find themes regarding students' perception of HSC offerings. The study focuses on college students who receive scholarships from the HSC. It examines the relationship between persistence in HSC with student factors such as high school and college grade point average (GPA), gender, college major, college type, first generation status, low-income status, citizenship, high school graduates from schools with more than 35% free and reduced lunch (F&RL) population, and scholarship award amount. Additionally, it examines the relationship between scholarship award amount and student factors.

Ultimately, this study provides insights for best practices in scholarship programs. The findings will contribute to a better understanding of scholarship programs and their potential for influencing persistence and college graduation rates. The knowledge gained should not only benefit HSC, but also provide recommendations for other scholarship programs and possibly a state supported initiative.

**Table of Contents**

## List of Tables

## List of Figures

**Chapter 1**
*Introduction and Framework for the Study*

Latinos are the fastest-growing segment of the nation's labor force.
Strengthening the Latino workforce is not only a national imperative but also a Texas
priority, given that one in three workers will be Latino by 2050 (U.S. Bureau of Labor
Statistics, 2008). The Latino population in Texas is expected to become a majority of
the state's residents by 2020 (Combs, 2008). Unfortunately, Latinos have the lowest
high school and college completion rates of any racial or ethnic group (Fry, 2004) and
represent the majority of Texas adults' aged 25 to 64 with less than a high school
education (Combs, 2008). In 2008 only 67.1% of Latino workers in America
completed high school or postsecondary education, compared to 92.5% of White
workers and 88.2% of Black workers (U.S. Bureau of the Census, 2008). The
disparity between Texas' two largest populations (White and Hispanic) is among the
largest of any state (National Center for Higher Education Management Systems,
n.d.). Educational attainment and skill levels are vital to maintaining a competitive
edge in today's labor market. If the state maintains status quo or decreases
educational attainment, Texas' personal income per capita will decline relative to
other states which will also have a negative impact on the tax base. In an effort to
improve the tax base, Hispanics need to acquire better paying jobs. Unfortunately,
lack of educational credentials and occupational skills threaten to inhibit Latinos from
accessing jobs, contributing to an economic challenge for Texas.

1

*Statement of the Problem*

The future productivity of Texas' labor force depends on the state's ability to engage the Hispanic population and provide educational support to young people who will play a vital role in the labor market force. A distinct competitive disadvantage is the educational attainment of Texans; with 79% of the population completing high school, Texas presently lags behind all states, other than Mississippi, in most measures of educational attainment (U.S. Census, 2008). Educational differences explain much of the wage gap between Latino and non-Hispanic Whites (U.S. Department of Education, Council of Economic Advisors, 2000). Many public and privately funded initiatives in Texas, such as College Forward, Con Mi Madre, Upward Bound, and Advancement Via Individual Attainment (AVID), strive to improve the educational attainment levels of the Latino population; however lack of analysis of these programs prevents the establishment of best practices in order to replicate high performing programs and success strategies throughout the state.

The proportion of Texans enrolled in higher education increased from 5% in fall 2000 to 5.4% in fall 2008 (Texas Higher Education Coordinating Board, 2009).

Figure 1: THECB Progress Report 2009

Hispanic
Enrollment



Hispanic Enrollment Growth at Public and Independent Institutions Since Fall 2000

Year
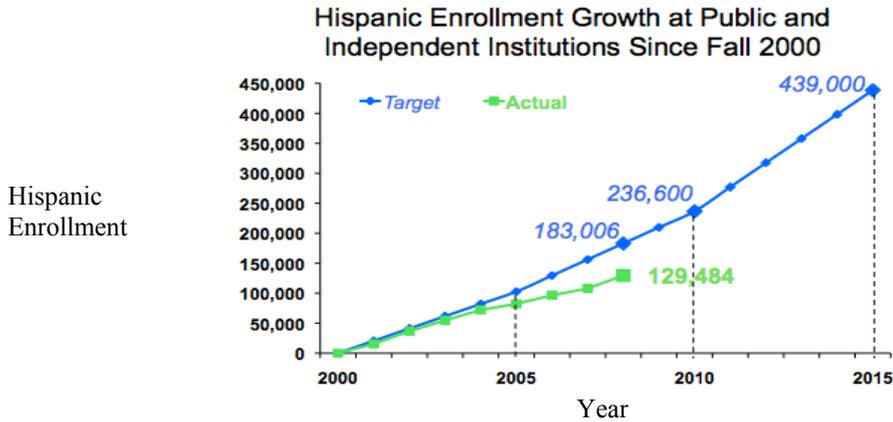
Source: THECB Progress Report 2009

Although the state is moving in the right direction, more efforts must be made to increase student success in college, specifically among the Hispanic population. According to the Texas Higher Education Coordinating Board (THECB, 2009) participation in higher education of this segment grew from 3.7% of the population in fall 2000 to 4% in fall 2008. Texas started the *Closing the Gaps* campaign in October 2000 in an effort to close educational gaps within Texas and between Texas and other leading states by focusing on the critical areas of participation, success, excellence, and research (THECB, 2008). To reach the *Closing the Gaps* 2015 target of 5.7%, an additional 310,000 Hispanic students must enroll in college. Achieving this goal is especially difficult given the Hispanic high school dropout rate. As evidenced in Figure 1, the Hispanic enrollment target is failing to meet goals set by the THECB. Although the upward trend is helpful, the overall population growth of this segment

has substantially increased and is projected to grow from 9 million in 2008 to 11.8 million by 2015 (THECB, 2009).

Hispanic college participation rates are key to meeting the state's educational goal. However, it is important to note the issue also lies with secondary education. High school graduation rates are an indication of whether or not the public school system is successfully educating students. Unfortunately, too few Hispanics graduate from Texas high schools. According to NCES (2010) data, Texas had an average graduation rate of 73% compared to the national rate of 74%; however the true problem lies in the disaggregation of data by race. As noted in Table 1, Hispanic graduation rates fail to mirror the White and Asian population (AEE, 2009).

Table 1: Texas High School Graduation Rates by Race (Class of 2008)

| | Texas | Nation |
|---|---|---|
| **All Students** | 73% | 74% |
| **White** | 81% | 81% |
| **Black** | 65% | 61% |
| **Hispanic** | 65% | 63% |
| **Asian** | 98% | 91% |
| **Native American** | 80% | 64% |

Source: National Center for Education Statistics 2010

In 2009, nearly 133,200 students failed to graduate from Texas' high schools, which equates to a loss of $34.6 billion in lifetime earnings (AEE, 2009). Moreover, Texas would save $1.6 billion in health care costs over the lifetimes of each class of dropouts, had they earned their diploma (AEE, 2009).

The benefits of higher education are both financial and nonmonetary for individuals as well as the society in which they reside. According to the College Board (2007), there is a positive correlation between education level and income regardless of race or gender. Although many college students forgo income while in college, the earnings benefit is large enough for college graduates to recoup income forgone during their years enrolled in a post-secondary institution. Nonmonetary rewards include better health and greater opportunities for the next generation. Societal benefits include lower unemployment and poverty rates. Moreover, college educated constituents have lower smoking rates, healthier lifestyles, and are less likely to depend on social safety-net programs, decreasing the demand on public budgets (College Board, 2007). Given the positive impact of higher education on society, racial gaps in completion are of great significance and efforts to reduce the chasms must be carefully yet quickly implemented to ensure a competitive economic future.

Studies of college success among the Hispanic population have traditionally focused on how some come to participate and why others never attempt to try. Research analyzing higher education trends appears to be more concerned with understanding the forces that impact students' educational choices, rather than focusing on reasons this segment of the college population fail to succeed at the same rate of their peers. The literature supports that funding and financial aid are primary concerns of minority students (Clayton, 1993). Unfortunately, the growing trend for

universities and states to use merit rather than need-based aid adds to the barriers Hispanic students face (Heller, 2000). One such example started in 1993 when Georgia created a merit-based award program called HOPE (Helping Outstanding Pupils Educationally). This scholarship and grant program rewards students with financial assistance in degree and certificate programs at eligible Georgia postsecondary schools. Studies reveal this scholarship program has had a detrimental impact on the number of low-income students attending college (Redd, 2003).

The HOPE scholarship data indicate that students of color encompass the majority of Georgia's low-income families. Furthermore, the findings suggest low-income enrollment declined although the scholarship covers tuition, fees and a book stipend for students who qualify based on strong high school academic standing grade point averages (GPA) 3.0+ (Santiago & Brown, 2004). While state funded merit aid programs have often accomplished the goal of encouraging top-notch high school students to attend local colleges and making college more affordable for state residents, they have been criticized for disproportionately favoring higher-income students over those from low-income backgrounds, and doing relatively little to encourage students who might not otherwise have gone to college to do so.

Florida's Bright Futures scholarship is the nation's second largest, state funded, merit-aid program, that provides full-tuition scholarships at public colleges and comparably sized grants to private institutions for students who achieve certain minimum GPAs in high school. The program requires recipients to keep their college

GPAs at certain minimum levels to sustain their awards. Hu (2008) examined the distribution of enrollments in various college disciplines before and after Bright Futures took effect in 1997 and found that two years before Bright Futures, 47.5% of students who enrolled in degree programs at Florida's public colleges did so in science, technology, engineering or mathematics (STEM) disciplines (Lederman, 2008). However, two years after Bright Futures, only 38.5% did, and the numbers appeared to still be dropping (Hu, 2008; Lederman, 2008). One possible explanation for this decline is the GPA maintenance requirement. By choosing different majors, students may have sought to improve their college grades in order to qualify for, or increase the size of, their merit awards. If this is true, merit-based financial aid using college GPA as a criterion for renewal could provide disincentives for students to choose degree programs in science and engineering, which are generally seen as more difficult.

Another study shows Hispanic students qualify for need-based grants at a higher rate than their White peers (Heller, 2000). As Texas moves closer to modifying its current need-based aid program, the Texas Grant, by moving towards a merit-based program, the future of low-income, Hispanic students may be at risk. Individuals from lower income families are often unwilling to borrow money for college (Millet & MacKenzie, 1996). Moreover, college success rates significantly decline for students relying on sources of aid such as loans, in comparison to those receiving grants or scholarships (Nevarez, 2001). A finding in support of need-based

aid is Millet and MacKenzie's (1996) study that found Hispanics rely predominantly

on grant aid, illustrating the need for scholarship programs that support disadvantaged

students.

Research strongly supports the need for financially assisting Hispanic college

students. Realizing the importance of helping this population, the Hispanic

Scholarship Consortium (HSC) was created in 2004 by Dr. David B. Garcia to

facilitate cooperation among Central Texas organizations dedicated to the

advancement of Hispanics in education. HSC benefactors and member organizations

include:

- Austin Capital Area Community Leadership Council
- Austin Community College Eastview Campus Counseling and Academic Advising
- Austin Central Texas Chapter of the National Association of Hispanic Nurses
- Dolores Church Fiesta de Independencia Foundation
- David Garza & John Hogg
- Greater Austin Hispanic Chamber of Commerce
- Hispanic Bar Association of Austin Charitable Foundation
- Hispanic Physicians Association
- Hispanic Women's Network of Texas- Austin Chapter
- Hispanic Partnership at Applied Materials
- Jovenes Episcopales College Scholarship Fund
- Latinitas Magazine
- LULAC Council #650
- St. Edward's University
- Ben M. Sifuentes
- Society of Mexican American Engineers & Scientists
- Young Hispanic Professional Austin Association (YHPAA)
- Villa Esperanza
- Manuel & Jane Zuniga (HSC, n.d.)

Through financial assistance and mentoring, HSC helps Hispanic students succeed in college. From scholarships, to college counseling, and career development services, HSC's member and partner organizations offer its scholars the chance to pursue the first step of their dreams by attaining a college education. Since 2005, HSC has collaboratively awarded $538,850 in scholarships by partnering with benefactors and member organizations, positively influencing the lives of over 140 participants. The HSC scholarship program provides dedicated students with sizeable annual scholarship awards ranging between $1,000 and $5,000. In a strategic effort to increase college graduation rates, scholarships with HSC are renewable as long as students maintain full-time status and earn a minimum cumulative 2.8 GPA.

HSC goes beyond its monetary awards by developing tomorrow's leaders today. HSC Scholars participate in an annual, three-day, Scholar Leadership Conference where community leaders teach participants leadership skills, effective communication skills, time and financial management, strengthen professional networks, and develop future philanthropists. Additionally, HSC Scholars receive support through regular communication and access to resources such as mentors, internships, and community service opportunities.

*Purpose of the Study*

Efforts to help the fastest growing segment of the population persist and succeed in college are critical to Texas' economic competitiveness. This study

focuses on Hispanic college students who participate in the HSC scholarship program. The study examines how factors such as GPA, gender, college, first generation college going status, low-income status, citizenship, high school grad with >35% F&RL population, and major relate to persistence in HSC. The relationship between scholarship award amount and student factors is also examined. Additionally, the study utilizes student focus groups to identify what students believe to be most helpful as they navigate through college. Understanding the relationship between award amount, persistence rates and student factors will assist the scholarship organization in recognizing trends among recipients in order to refine the award process. Furthermore, these findings can help HSC develop programs to assist their recipients in college success by identifying at-risk students early on and developing supportive programs to promote college persistence leading to college completion.

*Research Questions*

The purpose for this study is to explore the impact of the HSC scholarship program. To explore this goal, the following questions were asked:

1. Do student factors influence HSC award amounts?

2. What are the best predictors of program persistence among HSC scholars?

3. How do HSC students describe the HSC program experience?

*Methodology*

This study uses a non-experimental research design since no controlled or experimental groups were applied. A mixed-methods research design is applied in order to answer three research questions. Descriptive and inferential statistics are used to examine HSC awarding patterns persistence rates, to answer research questions 1 and 2. Research question 3 uses focus group analysis to allow students to discuss their experiences as an HSC scholar. A mixed-methods study provides the opportunity to further delve into explaining human research from multiple perspectives while considering how methods inform the analysis and ultimately the results (Greene & Caracelli, 2003). The goal of a mixed methods study is to draw on the strengths and minimize the weakness of both types of research (Connelly, 2009).

*Definition of Terms*

Hispanic/ Latino*:* It is important to understand that the definition of Hispanic varies widely. Hispanic defines a region of origin, not a person's race (Lahle, 2009). For the purpose of this study, the terms Hispanic and Latino will refer to students who are descendants of early immigrants from Mexico; recent immigrants and their descendants from Spanish speaking countries. The U.S. Census Bureau (2009) disaggregates the data by state and county:

| Persons of Hispanic or Latino origin: | 36.9% Texas | 32.9% Travis County |
| --- | --- | --- |

Low-Income: <$33,000 family gross annual income for family of four (HSC definition according to U.S. Department of Health Poverty Guidelines, 150% of the federal definition of poverty). The U.S. Census Bureau (2009) disaggregates the data by state and county:

| Persons below poverty level: | 15.8% Texas | 14.4% Travis County |
|---|---|---|

First Generation: neither parent completed a bachelor's degree (HSC definition).

Financial Aid: financial assistance intended to aid students in reaching their educational goals. This assistance may come in a variety of forms such as grants, scholarships, work-study and/or loan programs (Mumper, 1996).

Grant Aid: a pure financial subsidy for college students that does not need to be repaid (FinAid, n.d.).

Merit-Aid: a financial award tied to academic, athletic, or another skill (Ehrenberg, 2007).

Need-Based Aid: a financial award tied to family income (FinAid, n.d.).

Loans: financial aid that must be repaid (Ehrenberg, 2007).

Persistence: student progress from semester to semester (Leppel, 2005). For this study, persistence refers to student participation with HSC from semester to semester. It is important to note, student withdraw from HSC does not indicate student withdraw from college.

*Delimitations*

This study focuses on one scholarship program HSC. The HSC program, based in Austin, Texas, strives to serve the local community by providing financial assistance coupled with mentoring for college students. The majority of HSC scholars are from central Texas high schools, or are attending local institutions. The main focus of this study is to determine the best predictors for college success (measured by persistence in the HSC program) among HSC participants. This study will only evaluate college success predictors among HSC students and will not analyze success predictors in other scholarship programs.

*Limitations*

Data provided for this study is a secondary data set that was not created specifically for this study but is the best information available from HSC records. The population for the study is small, with 142 undergraduate HSC scholars. Moreover, students represent multiple high schools, universities, and majors. For this reason, it is often difficult to compare them to one another, since several factors impact the variables measured in the study. For example, high schools use different GPA scales; so a 3.5 out of 4.0 at one school has a different meaning compared to a 3.5 out of 5.0 at another high school. For this reason, high school GPAs were normalized. Additionally, majors are not created equal. For instance, a student studying engineering may have a lower GPA than one studying sociology, but the rigor may differ. So the best analysis would examine the full context of the student's situation.

13

HSC data was collected through mid year and end of year surveys, however not all questions required responses. For this reason, several student factors are missing data as some students opted to not answer the question.

Another limitation of this study is each cohort is comprised of students at different points in their college process. For example, in the first two cohorts, a few students were not first year students. If the population size were larger, this factor may not impact the data as strongly.

*Significance of the Study*

Ultimately, this study provides insights for best practices in scholarship programs. The findings will contribute to a better understanding of scholarship programs and their potential for influencing college persistence and graduation rates. The knowledge gained should not only benefit HSC, but also provide recommendations for other scholarship programs and possibly a state supported initiative.

*Summary*

A college education is key for sustaining economic growth as well as promoting individual quality of life. Unfortunately, the Hispanic population in Texas has the lowest college completion rates of any racial or ethnic group despite representing the majority of Texas adults ages 25-64. Since the Hispanic population is the fastest growing minority group, educating this sector is essential to the economic future of the state. In light of increasing concern over Hispanic college enrollment and

completion, it is important to understand what factors influence students as they

attempt to earn a college degree. In an effort to ensure current programs supporting

this population are successful, this study examines a scholarship program for Central

Texas Hispanic students. Relevant literature of scholarship programs will be

addressed in Chapter 2.

**Chapter 2**

*Review of the Literature*

The United States ranks tenth in the world in college attainment and is one of the few developed countries where a less-educated generation is replacing an older, more educated age group (Badolato, 2010). A wide range of literature exists describing the barriers students experience when working towards a college degree. This summary of research focuses specifically on scholarship programs that strive to assist Hispanic college students as they attain their higher educational goals. It is important to consider this research within the general context of educational trends, policy and finance, as well as theoretical frameworks about what influences college students as they work toward completion.

*Educational Trends & Economic Impact*

Increasing educational achievement for Latinos will improve the livelihood and earning power of this group and will have an impact on the economic future of Texas. Hispanics are the youngest ethnic group in America with a median age of 27.2, and 45% of Latinos are younger than the age of 18 (U.S. Department of Commerce, U.S. Bureau of the Census, 2004). Increasing college graduation rates among Latinos will lead to better-paying jobs for more individuals, resulting in an increase in tax revenues. Higher levels of education are associated with stronger income, increased tax revenues, reduced crime and incarceration rates, and better health (Sorenson,

16

Brewer, Carroll, & Bryton, 2003). College completion also creates an increase in disposable income for Latino consumers, which will help fuel future economic growth.

Despite findings that support the importance of higher education, a study by the Advisory Committee on Student Financial Aid (2006) found low-income students enroll in four-year institutions at about half the rate of their comparably qualified high-income peers. Participation of low-income youth in postsecondary education continues to lag far behind that of their middle-and upper-income peers. Large gaps still persist in college entry rates, with discrepancies between low-income families (below $25,000) and high-income families (above $75,000) as wide as those that existed three decades ago (Advisory Committee on Student Financial Aid, 2006). Similarly, Perna and Titus (2002) found nearly one-half (49%) of low-income high school graduates did not enroll in higher education the fall after graduation, compared to 7% of high-income graduates. Raising the academic achievement of minority students to that of their White counterparts would help reduce poverty and labor shortages (Carnevale & Fry, 2000).

Latino enrollment at colleges and universities in Texas would need to almost double by 2015 to meet the Texas Higher Education Coordinating Board's (THECB) higher education goals as outlined in *Closing the Gaps by 2015: The Texas Higher Education Plan*. THECB's goals are a daunting challenge in light of high dropout rates, poverty and other problems facing the fastest-growing segment of the

population. The THECB reported Latinos and African-Americans accounted for 54%

of the population aged 15 to 34 in 2007, but only 39% of the state's higher education

students in the fall of 2007 (Texas Higher Education Coordinating Board, 2008).

Texas is not the only state that should work to change these trends; it should be a

national imperative. Doubling the national rate of Latinos with a college degree by

2010 could yield a $7.6 billion increase in tax revenue over the lifetime of these

college graduates, and generate at least $14 billion in disposable income for savings,

investment, and economic stimulus (HSF, 2009).

College degree attainment opens the door to economic and social opportunity

but many barriers prevent college access and success. Unless Texas increases the

average educational attainment levels of its non-White populations, the state's future

labor force will be less educated than today's (Combs, 2008). According to the

Commissioner of The Texas Higher Education Coordinating Board, Raymund

Paredes, "There's a growing awareness that unless we significantly improve Latino

educational attainment, Texas is going to decline even further in its educational

attainment compared to other states and in its capacity for economic development and

economic competitiveness" as quoted in Haurwitz (2009).

*Policy*

President Obama established a goal of making the United States the highest

ranked country in the proportion of residents with college degrees or certificates

(Lederman, 2009). In order to meet this goal, Texas would have to award 938,525

degrees and certificates, an additional 14,220 awards (National Center for Higher Education Management Systems, n.d.a.). Fortunately, Texas started its campaign to achieve this goal in October 2000, with the adoption of THECB's statewide college campaign, *Closing the Gaps by 2015: The Texas Higher Education Plan*. The goal is to close educational gaps within Texas and between Texas and other leading states by focusing on the critical areas of participation, success, excellence, and research (THECB, 2008). The state's goals for higher educational attainment include having a 5.7% increase of each major ethnic and racial group to enroll in college by 2015. To reach this target of 5.7%, colleges will need to enroll another 310,000 Latino students, a daunting task given their high dropout rates in high school and economic disadvantages. Although state leaders acknowledge this educational challenge, Texas' spending on kindergarten-12th grade education ranks 42nd in the nation (Gándara & Contreras, 2009). How can Texas address this issue if legislative funding cannot support initiatives to focus on the Latino educational attainment problem?

If Texas improves the educational attainment of Latino residents, the state will have the right ingredients for a strong economic future. According to THECB, 61% of students who were seventh graders in 1995 graduated from high school on time by 2001, and only 18% earned a college degree or certificate by spring 2006 (Combs, 2008). This is an especially critical time to develop a strong college culture on secondary school campuses since the U.S. Department of Education (2006) projects that 80% of the fastest growing jobs in the future will require some postsecondary

education.

The advantage of educating Latinos not only helps the individual but also benefits the community. Individuals benefit from increased earnings, while the state will enjoy greater economic performance through productivity gains and tax revenues. Additionally, higher education leads to social benefits that reduce public economic burdens. For instance, the likelihood of criminal activity decreases as students complete additional years of education, leading to lower incarceration rates and less state spending on criminal justice (College Board, 2005; Texas Legislative Budget Board, 2004-2006). The College Board and Texas Legislative Budget Board data show an estimated state expenditure of nearly $2.4 billion on incarceration. Of this amount, an estimated 87% ($2.1 billion) is attributable to inmates with a high school diploma or less (College Board, 2005; Texas Legislative Budget Board, 2004-2006).

It is evident that post-secondary educational attainment is critical for improving the life of the individuals as well as the community in which they reside. Yet most significant to Texas is the growing Latino population lacking the educational credentials needed for success. Reports from the U.S. Census Bureau reveal serious discrepancies when Latino educational levels are compared to other ethnic groups, reporting 12% of Latino adults currently have a bachelor's degree, compared with 30.5% of non-Hispanic Whites (NCES, 2003). Unfortunately, only one in three Hispanics attends college (Anft, 2002). Multiple barriers exist for

students who are not successful in college. These include poor academic preparation that undermines minority and low-income students' access to and performance in college, students' difficulties in navigating the college enrollment process, and the declining real value of financial aid combined with rising college costs (Nagaoka, Roderick, & Coca, 2009).

Funding a college education continues to be a major concern for students and their families. Seventy-seven percent of Latino college students drop out of college because of lack of money, according to a study released by the Harder Group (Anft, 2002). As funding a college education remains an issue for our nation, independent programs have been created to complement the efforts of the state's initiative to close the gaps and address the ethnic educational attainment discrepancy. The programs of particular interest for this study include the Gates Millennium Scholars (GMS) Program, Louisiana Performance-Based Scholarship (LPBS), Student Achievement and Retention Project (STAR) and the Hispanic Scholarship Fund (HSF).

*Financing a College Education*

Financial constraints are significant barriers to success for low-income students, affecting both access to college and a student's ability to remain enrolled. According to Cabrera and La Nasa (2000), only 21% of disadvantaged high school students apply to college, compared to 76% of their high-income peers. Compounding this issue is the fact parents are saving less for their children's college education, and some people have saved nothing at all (Wire, 2008). This is troubling because rising

21

tuition and decreasing financial aid are factors that prevent students from continuing

their education after high school. Tuition and fees at private four-year schools in

2009-2010 averaged $26,273, up 4%, while the cost of public schools was $7,020 for

in-state students, $18,548 for out of state students, each up 6% from the previous year

(College Board, 2009). Unfortunately, tuition and fees are not the only financial

burden students face when paying for their college education. Families also have to

pay for books and supplies, room and board, transportation, and other expenses. As

seen in Figure 2, the cost of attending college is considerably more than the published

tuition price.

Figure 2: Average Estimated Undergraduate Budgets, 2009-2010
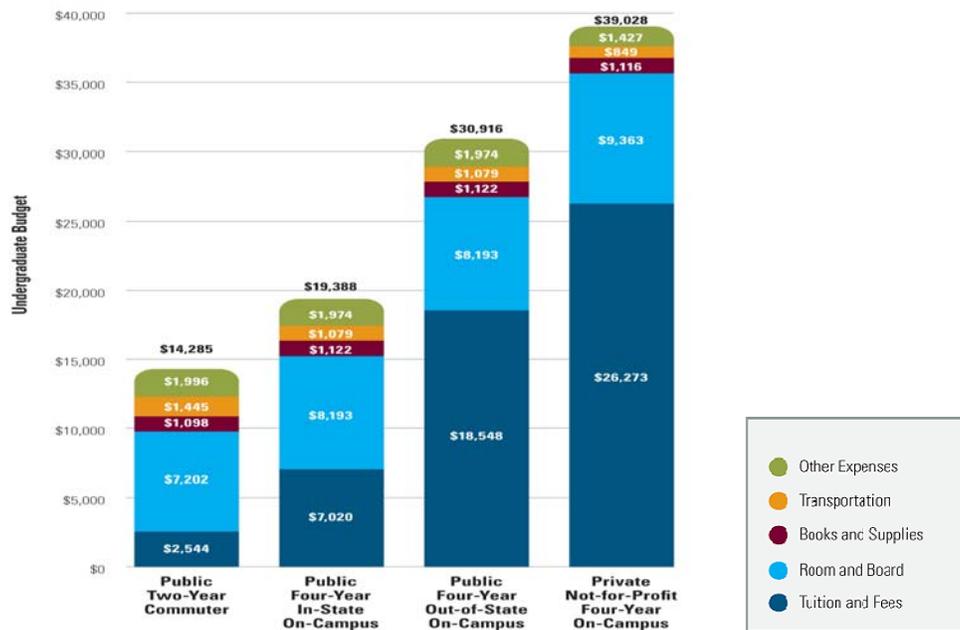


Source: The College Board, Trends in College Pricing 2009, Annual Survey of Colleges

Limited government resources, rising educational costs, and the failure to target funds to the most needy students have caused net college prices to spiral upward (Mumper, 1996). Furthermore, decreasing state appropriations for higher education institutions will continue to force colleges to increase tuition (Jaschik, 2008). In 2008, there were 17 states looking at midyear budget cuts, which could have reduced funding for institutions of public higher education, and in the worst case scenario resulted in midyear tuition increases (Damast, 2008).

It is important to mention differences in the cost of college based on family income. The federal and state government, along with private institutions have attempted to alleviate the high cost of college with grant aid for lower income students. According to Figures 3 and 4, these efforts have proved successful, as students from the lowest income category pay no tuition and fees but are required to cover $2,300 on average for room, board and other expenses. Scholarships, loans and work-study can be additional sources of financial support.

Figure 3: Net Price by Income Group: Public 4 yr Colleges Tuition and Fees
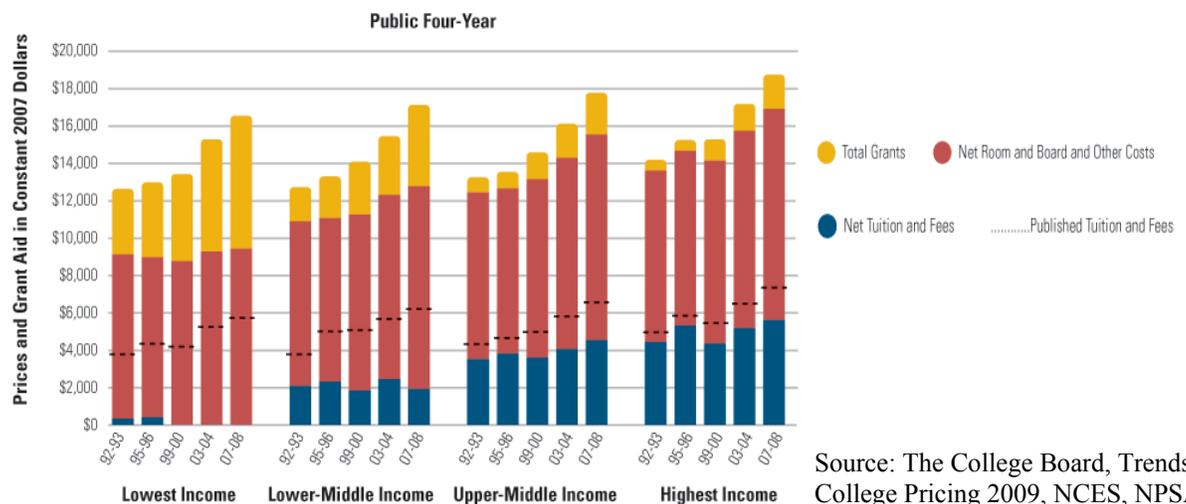


Source: The College Board, Trends in College Pricing 2009, NCES, NPSAS

In Figure 3, net price measures the amount full-time dependent students pay after taking grant aid into consideration. In Figure 3, the blue segment represents average published tuition and fees less average grant aid per student from all sources. When there is no blue segment, average grant aid exceeds tuition and fees. The red segment represents an average of other costs of attendance; including room and board, books and supplies, and transportation after subtracting any average grant aid not required for tuition and fees. The total height of the bars, including the orange average grant segment, represents total published cost of attendance.

Also noted in Figure 3, average tuition and fees net of grant aid declined for lower-middle income, full-time, dependent students at public four-year institutions, but increased at an annual rate of 2% to 3% beyond inflation for those from families with higher incomes between 2003-04 to 2007-08. For full-time dependent students from lower-middle income families with incomes (in 2006 dollars) between $32,500 and $59,999, total tuition and fees net of grant aid at public four-year colleges was 47% of the net price paid by the highest-income students in 1992-93 and in 2003-04, but only 34% of the amount paid by the highest-income students in 2007-08. This raises the issue of tuition discounting.

Figure 4: Cost of Public Four-Year College by Income Group

| Net Tuition and Fees, Net Room and Board and Other Costs, Average Grants, and Total Published Cost of Attendance, 2007-08 | | | | |
|---|---|---|---|---|
| | | Income Group | | |
| **Public Four-Year** | Lowest | Lower-Middle | Upper-Middle | Highest |
| Net Tuition and Fees | $0 | $1,920 | $4,510 | $5,590 |
| Net Room and Board and Other Costs | $9,400 | $10,810 | $10,980 | $11,280 |
| Average Grant Aid | $7,090 | $4,350 | $2,240 | $1,820 |
| Total Published Cost of Attendance | $16,490 | $17,080 | $17,730 | $18,690 |

Source: College Board, Trend in Pricing (2009)

The sticker shock for a college education is overwhelming for many. Unfortunately, higher-income students often benefit from tuition discounting. In an era when colleges compete to recruit the brightest students, proven through grade point averages and college entrance exams (areas where low-income students often fail to impress), tuition discounting has become a trend among colleges (Ehrenberg, 2007). Tuition discounting, also known as price discrimination, is the act of charging students different prices for the same educational opportunities (Baum & Lapovsky, 2006). As supported in Figure 4, in 2007-2008, institutional aid at public four-year institutions averaged about $1,340 per full-time student for those with family incomes below $59,999. Income group quartiles represent the following: Lowest (<$32,500), Lower-Middle ($32,501-59,999), Upper-Middle ($60,000-99,999), Highest ($100,000+). Students from upper-middle and highest income families received an average institutional grant award of $1,150 and $900 respectively.

Figure 5: Institutional Grant Aid: Public Institutions
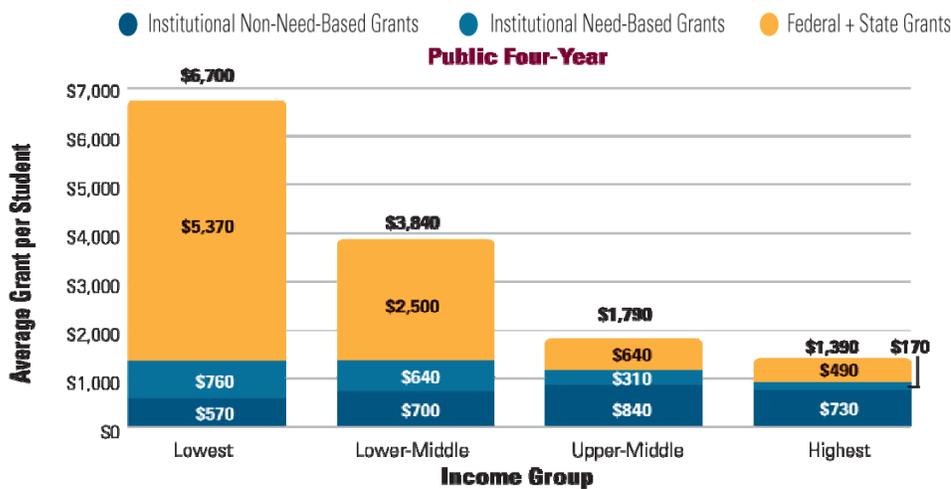


Sources: College Board (2009) - NPSAS, 2008; U.S. Census Bureau, Current Population Survey, 2007.

25

Regrettably, this financial incentive targets high-income students and often eliminates need-based scholarship opportunities. Figure 5 illustrates that non-need based aid is nearly equally distributed regardless of family income with higher dollars awarded to upper-middle and highest income students. According to the College Board (2009), in 2007-2008, public four-year institutions distributed about two-thirds of institutional grant aid without regard to financial circumstances. Students from families with incomes below $32,500 received an average of $700 in non need-based aid and $830 in need based institutional grant aid, compared to $940 and $300, respectively, for those from families with incomes between $60,000 and $100,000 (College Board, 2009). The money dedicated to merit aid is often pulled from need-based aid, driving many students to seek out loans or worse, simply eliminate college as an option after high school.

Sixty-five percent of 2007-08 bachelor's degree recipients graduated with education debt, and median debt for those who borrowed was $20,000 (College Board, 2009), yet another disincentive for low-income students to attend college. Griffith (2009), an economist at Wake Forest University, found that ten years after private colleges began offering merit aid, the colleges are likely to enroll smaller shares of Pell Grant recipients and Black students than they were prior to using merit aid. The report also addresses a negative trend in awarding aid. It is worrisome, given the already low levels of representation of low-income and minority students at four-year colleges, to find that the introduction of a merit aid policy is associated with a

decrease in the percentage of low-income students. This crowding-out is likely due to an increase in merit aid spending at the expense of need-based financial aid (Griffith, 2009).

Federal loan aid for higher education increased 60% between 1996 and 2005, driving students to borrow $77 billion to pay for college (Reuters, 2008). Students who graduated in 2007 carried 6% more student loan debt than the previous class (Reuters, 2008). Loans are a common way students pay for college, but those looking for private loans are struggling to obtain them as many private lenders are leaving the educational lending industry. There are 36 lenders who have stopped issuing private student loans since the credit crisis began (Damast, 2008). This is especially challenging as low-income families are less likely to borrow money, which results in a lack of representation of this segment of the population at post-secondary institutions (Zhu & Meeks, 1994).

In 2006-2007, Latinos represented 13% of undergraduate students in higher education (National Center for Education Statistics, 2008). Since Latino college enrollment is predicted to increase 39% between 2006 and 2017 (National Center for Education Statistics, 2008) institutions should focus on ensuring students' success, rather than student enrollment. Enrollment trends indicate Latinos attend higher educational institutions with relatively low tuition and fees. Roughly 40% of Latinos were enrolled at institutions with tuition and fees under $1000 (Excelencia in Education, 2005).

This cost-sensitive population is also less likely to utilize loans as 30% of Latino undergraduates take out college loans compared to 35% of all other students (Excelencia in Education, 2005). According to a study conducted by Deborah Santiago (2007), co-founder and Vice President for Policy and Research at Excelencia in Education, students, professors, researchers and loan providers cited three common reasons for the aversion to loans: lack of knowledge about financial aid, fear of debt and distrust of lenders. Also, some students and parents might be reluctant to seek aid because they are undocumented immigrants. According to Santiago (2007), "It's not an us-versus-them mentality, but the reluctance to take out loans, specifically federal ones, is definitely an issue for Latinos." A 2004 study by USC's Tomas Rivera Policy Institute found that 80% of Latino parents and 74% of college-age Latinos did not cite loans as possible sources of financial aid (Vara-Orta, 2007).

Since financial barriers significantly impact student goal attainment (Nagaoka, Roderick, & Coca, 2009), it is important to examine the effects of programs that not only provide funding but also support students through their college experience.

*Research*

Once enrolled in college, students face circumstances that support or hinder their advancement toward degree completion. Personal and external factors have contributed to the low college success rate of Latinos. Poor academic preparation (Ballesteros, 1986; Ramirez, 1987); limited financial resources (Muñoz, 1986; Nora,

1990); low family socioeconomics, educational background and expectations (Chrispeels & Rivero, 2001; Esprìvalo & Scott, 2003; McCloyd, 1990; Nuñez & Cuccaro-Alamin, 1998); poor relationship with faculty (McJamerson & Larke, 1989; Valenzuela, 2000); and negative perception of campus diversity climate (Flemming, 1984; Hurtado, 1994) have been some of the circumstances contributing to high Latino attrition and low graduation rates. Research has also linked students' lack of engagement (as evidenced by lack of participation in these services) with attrition. Lower levels of academic and social integration among low-income and first generation students are linked to the need for financial aid (Tinto & Engle, 2008). This is why scholarships and other sources of financial aid have proven effective in expanding college access and success for Latinos.

Tinto's (1993) theory of integration dominates the research analyzing why students do not successfully transition through college. According to this theory, retention is predicted by students' commitment to being engaged in the institution. Nora, Barlow, and Crisp's Student/Institution Engagement Theoretical Model (2005) is a framework used to explain how students can transition past the first year of college and toward degree completion.

Figure 6: Conceptual Framework for College Persistence
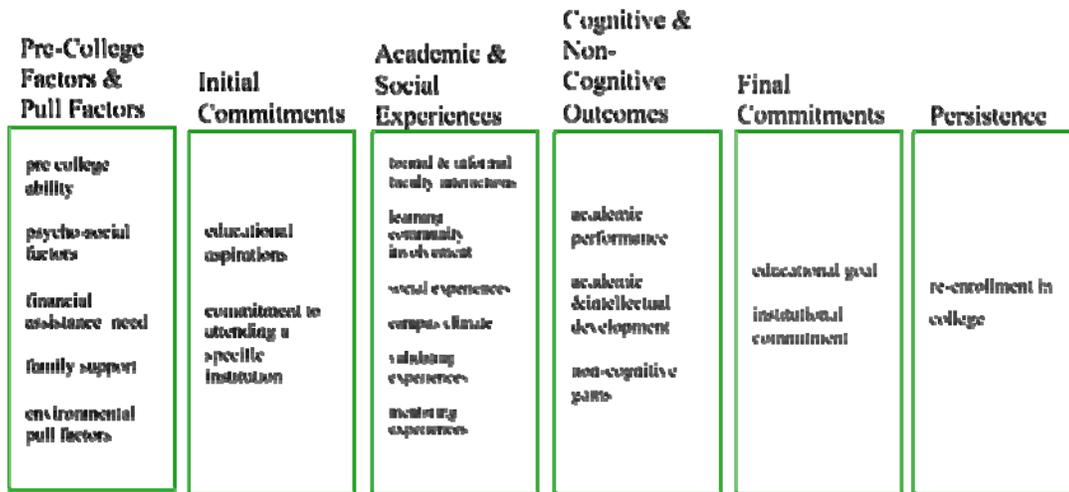


Source: Nora, Barlow, and Crisp (2005)

Retention is influenced by a variety of factors according to this theory. These factors include pre-college factors and pull factors (examples include pre-college ability, psychosocial factors, family support, family responsibilities), initial commitments to complete the degree, academic and social experiences in college, the development of cognitive and non-cognitive attributes, and final commitments that are formed as a result of the college experience. According to Vincent Tinto's (1993) model of student departure, strong engagement in college influences post-secondary completion. Similarly, Oseguera, Denson, & Hurtado (2008) found freedom from the stressors of paying for college enables students to become more engaged in academics and campus leadership activities. Research also validated the use of recognition and reward programs to engage students and generate positive academic

30

outcomes. Access to financial resources has been extensively cited in the literature as a determining factor influencing college persistence and graduation of Latinos (Hernández & Lòpez, 2004; Nora, 1990; Padilla, Treviño, González, & Treviño, 1997).

Muñoz (1986) found that limited access to financial resources is the primary source of stress for Hispanic college students. His conclusion is based on lower socioeconomic Latino students who often receive less parental financial support. Latino students' low attainment rate is associated with the need to support themselves or their families (Fields, 1988). The inability to pay for college is why many Latino students attend community colleges and enroll part-time (Fry, 2003). In spite of the challenges students face, four programs focused on providing scholarship funds have increased student achievement and retention: the Gates Millennium Scholars Program, Louisiana Performance-Based Scholarship (LPBS), Student Achievement and Retention Project (STAR) and the Hispanic Scholarship Fund (HSF).

*The Gates Millennium Scholars Program*

The Gates Millennium Scholars (GMS) Program has supported the cost of education by covering unmet need for minority students and has provided renewable awards for students maintaining satisfactory academic progress. A study using data from the GMS Program, focusing on Latino scholarship recipients compared to non-recipients, highlights how the lack of stress from having to pay for college allows students to become more involved on campus (Oseguera, Denson, & Huratdo, 2008).

This finding complements Nora, Barlow, and Crisp's (2005) Student/Institution

Engagement Theoretical Model that provides a framework to ensure the successful

transition from first year towards degree completion. Student engagement, defined as

involvement in a number of different arenas, is at the core of this model. Outside

agents who provide positive reinforcement to remain in college are critical factors to

this framework. The study reveals that scholars' mean GPAs are significantly higher

than non-recipients, highlighting the positive impact scholarships can have on

academic performance. Additional findings include, GMS improved odds of

continuous enrollment (St. John & Chung, 2002), GMS students worked fewer hours

per week and had higher retention rates (DesJardins & McCall, 2008), GMS students

spend more time in extracurricular activities compared to non-recipients (Hurtado,

Laird, & Perorazio, 2005).

*Louisiana Performance-Based Scholarship (LPBS)*

The Louisiana Performance-Based Scholarship (LPBS) examined the effects

of a performance-based scholarship with an incentive component to encourage

academic success and persistence in two Louisiana community colleges. The program

targeted low-income parents, offering students in the program group $1,000 for each

of two semesters ($2,000 total) if they met two conditions: students must enroll in

college at least part-time and maintain an average grade of "C" or better. The study

findings highlight the effectiveness of the performance-based scholarship program

with a counseling component on academic success on course registration, persistence,

increase in the number of credits earned, and overall social and psychological outcomes (Richburg-Hayes, et al., 2009).

While these findings are compelling, they generate a number of additional questions. For instance, aspects of the program's design may be critical for its success, but without studies of the variation in those elements, the significance of each element remains unknown. Financial aid, for example, may play a large role in the findings, or age and maturity of the student may be the critical variable that impacts the results. Additionally, the counseling offered to the students may have been the critical factor that led to positive findings. Unfortunately, this study came to a quick halt as a result of Hurricane Katrina. A future study that examines similar initiatives over a longer period of time would be a valuable addition to the research.

*Student Achievement and Retention Project (STAR)*

A study conducted by Angrist, Lang and Oreopoulos evaluated the effects of strategies (academic support coupled with incentives) designed to improve academic performance among college freshmen (2007). The Student Achievement and Retention Project (STAR) randomly assigned students to one of three treatment groups. One group was offered an array of support services, including access to mentoring by upper-class students and supplemental instruction. A second treatment group was offered substantial cash awards, up to the equivalent of a full year's tuition, for meeting a target GPA. The third group was offered a combination of support services as well as cash awards for performance. The control group was

offered standard support services.

The findings indicate that students in the combined group had higher first year GPAs, earned more credits, and continued to outperform the rest of the STAR population in the second year, even though incentives and services were available only in the first year (Angrist, Lang, & Oreopoulos, 2007). Use of the support services was highest among women and for students in the combined group. The research concluded that incentives had an immediate short-term effect of increasing the rate at which students sought academic support (Angrist, Lang, & Oreopoulos, 2007).

*Hispanic Scholarship Fund*

A study conducted by MPR Associates, Inc. found that 80% of Hispanic Scholarship Fund (HSF) scholarship recipients graduated within five and a half years, a graduation rate that is nearly 30% higher than the national average for students of all races and ethnicities during the same period (Hispanic Scholarship Fund, 2009). In contrast, the six-year national graduation rate for all Latino students at four-year institutions is 43.5% according to the National Center for Education Statistics (2003).

The study concluded that HSF scholarships played a significant role in helping scholars persist in college. Students supported by HSF worked fewer hours than most students, enabling them to focus more on their academic tasks. On average, HSF scholars worked ten hours less per week when compared with students sampled in other studies. Financial hardship is cited as the principal reason many Latinos

34

discontinue their education (Pedroso & Medrich, 2006). Researchers concluded that HSF support diminished the fiscal pressures students faced.

These four scholarship studies demonstrate the success of scholarship programs as well as the need to add to the research of evaluating scholarship programs. The outcomes of the LPBS, STAR, GMS, and HSF are similar in that scholarship recipients typically achieve stronger grade point averages and persist through graduation.

*Conclusion*

As the fastest growing minority group in the United States, Latinos will constitute one fourth of the nation's workforce by 2050 (U.S. Department of Commerce, 2004). The country is charged with finding a solution to address low educational attainment among Latinos especially in an era where the nation's economic future depends on the education and training of its citizens. The under preparation of this large segment of the workforce could jeopardize economic competitiveness and social health.

States around the country have created initiatives to address low college completion rates. The THECB is dedicated to meeting the *Closing the Gaps* goals by 2015. One specific goal is to increase the number of degrees and certificates by 50% (THECB, 2000). If Texas achieves the *Closing the Gaps* goals, it is estimated the state's economy will experience increases of $489 billion in total spending, $194 billion in gross state product, and $122 billion in personal income. Estimates also

include the creation of over 1,023,000 new jobs by the year 2030 (THECB, 2000).

Former President Clinton declared, "Education is the fault line, the great Continental Divide between those who will prosper and those who will not in the new economy" as quoted in Gazette (1996). This statement was significant in the nineties, but increasingly so today as the nation's financial future seems bleak. Now is the time to recognize action must be taken in order to put an end to this economic downward spiral. The state of Texas must work to increase the number of educated residents in an effort to produce a skilled workforce.

Postsecondary education is critical for sustaining economic growth and ensuring individual quality of life. Unfortunately, opportunities to pursue a college education are not distributed equitably, as evidenced by the under representation of students of color from low-income homes. Behind California, Texas is home to the second largest Latino population in the United States. Future research should focus on Texas scholarship programs that work to assist Latinos in successfully completing college.

Chapter 3 will focus on methodology used for this study. The research design, sampling procedures, data collection methods, and analysis are described.

**Chapter 3**

*Introduction*

To effectively analyze the effectiveness of the HSC program, a sound methodology is used for this study. The purpose of this chapter is to discuss the design of the study and the methodology used to explore the factors associated with the academic success leading to persistence of HSC scholars at public and private colleges. In this study program persistence is examined. Persistence is defined by whether students remain in the HSC for at least two consecutive semesters, which ultimately should lead to college completion. Previous research suggests scholarships are a significant contributor to college persistence and/or completion (Richburg-Hayes, et al., 2009; HSF, 2009; Oseguera, Denson, & Huratdo, 2008; Angrist, Lang, & Oreopoulos, 2007).

Additionally, award trends are examined along with student feedback regarding the impact of the program. Included in this chapter are the research questions guiding the analysis, the research design and description of the participants in the study, instrumentation, the data collection procedures, and analysis. Additionally, limitations of the study are addressed.

*Research Questions*

The purpose for this study is to analyze data from the HSC scholarship program. To explore this goal the guiding questions for this study are:

37

1.	Do student factors influence HSC award amounts?

2.	What are the best predictors of program persistence among HSC scholars?

3.	How do HSC students describe the HSC program experience?

*Design & Methods*

This study uses a non-experimental research design since no controlled or experimental groups were applied. A mixed-methods research design is applied in order to answer the three research questions. To answer research questions 1 and 2, descriptive and inferential statistics were used to examine HSC student factor trends and overall awarding patterns. To address research question 3, a focus group analysis allowed students to describe their experience as an HSC scholar. A mixed-methods study provides the opportunity to further delve into explaining human research from multiple perspectives while considering how methods inform the analysis and ultimately the results (Greene & Caracelli, 2003). The goal of a mixed methods study is to draw on the strengths and minimize the weakness of both types of research (Connelly, 2009).

In order to apply to HSC, students must submit a scholarship application in the spring prior to their college academic school year. Once students are selected, they are asked to submit a transcript after each semester in college. This transcript request is paired with an online survey that collects information such as expected graduation year, major, and post-secondary institution. HSC provided data for this study. The data is derived from multiyear, archived, self-reported information from

HSC applications and mid-semester surveys. The information is aggregated into a database that stores student-level data on high school GPA, college GPA (if applicable), gender, high school, parent income, and first generation college going status. This information is then combined with college, major, and years with HSC, and award total. All variables are analyzed to identify trends and award patterns among recipients.

The qualitative data were collected through focus groups and an open-ended response prompt provided to focus group participants upon completion of the session. This information is analyzed to determine trends in the responses obtained from the participants relating to persistence, academic achievement, mentoring, and HSC program offerings.

*Description of the Sample*

The primary dataset for this study contains information for 142 students receiving scholarship awards between the years 2005 and 2010. This data was collected by HSC through applications and surveys. It was verified by HSC through the collection of college transcripts and Free Application for Federal Student Aid (FAFSA). To supplement this data, focus groups were conducted to collect qualitative data regarding the HSC experience. The student information used in this study includes the following independent variables: low-income status, first generation in college status, gender, major, scholarship amount, high school and current college grade point average (GPA), high school grad with >35% F&RL population, degree

39

desired, citizenship, and college type. The dependent variables for this study are total

amount of scholarship awarded by HSC and persistence rates (defined by remaining

with HSC for at least two semesters).

<p align="center">*Procedures and Data Collection*</p>

HSC personnel contacted all current students in cohorts 1-5, encouraged them

to participate in the focus groups, and provided a general context for the purpose of

the meeting. As an added incentive, HSC agreed to provide each participant with a

$25 iTunes gift card along with snacks and beverages. The groups were conducted at

the HSC office. The dialogue was transcribed and coded thematically.

Coding is the process of combing the data for themes, ideas and categories

and marking similar passages of text with a code label so that they can easily be

retrieved at a later stage for further analysis. Coding makes it easier to make

comparisons and to identify any patterns that require further investigation. This

analysis uses grounded theory. Grounded codes emerge from the data because

prejudices and previous knowledge of the subject area are put aside in order to find

new themes in the data.

Qualitative researchers stress the socially constructed nature of reality, the

intimate relationship between the researcher and what is studied, and the situational

constraints that shape inquiry. They seek answers to questions that stress how social

experience is created and given meaning. The transcriptions of the focus groups are

examined and categorized for patterns. Relationships between categories are explored in depth.

Researchers ground themselves in the data by identifying themes or categories in an inductive analytic process (Patton, 2002). Transcriptions are examined and patterns identified. To facilitate this process, codes are used to examine the narrative data. Coding is a common step in qualitative analysis to provide a systematic way to organize textual data (Patton, 2002). Coding involves reading the text and indexing particular words, phrases, sentences or sections that provide specific insight into the research topic. The intent of this process is to discover patterns that reveal something about the issue under investigation. For this study, the intent was to get a student perspective of the scholarship program, rather than only relying on data.

*Data Analysis*

The following variables were used to prepare the data to answer the first two research questions:

1. *Low-income status* - Two level categorical variable established by gross family annual income < $33,000.

2. *First generation in college status*- Two level categorical variable established by parental education level.

3. *Gender* - Two level categorical variable.

4. *U.S. Citizenship* - Two level categorical variable.

41

5. *Country of family origin* – Two level categorical variable. The amount of time or generations away from their home country was not collected.

    a. *Mexico*

    b. *Other (Peru, Cuba, Columbia, El Salvador, Venezuela, Puerto Rico, Spain, and Bolivia).*

6. *Major* - Three level categorical variable determined by the following: STEM, Liberal Arts, and Business.

    a. STEM (aerospace engineering, biochemistry, biology, biomedical engineering, chemistry, chemical engineering, civil engineering, computer engineering, electrical engineering, environmental science, mathematics, microbiology, nursing, nutrition, physics, pre-dentistry, pre-nursing, and veterinary science)

    b. Liberal Arts (agricultural communication, American studies, bilingual education, communication, creative writing, criminal justice, economics, education, English, fine arts, geography, government, international relations, kinesiology, mass communication, music, philosophy, political science, psychology, radio, television and film, social work, sociology, Spanish, speech, textile, landscape architecture, and graphic design)

    c. Business (accounting, administration, business, finance, international business, management information systems, and marketing)

7. *Scholarship amount* - Scholarship award amounts vary by student, and range between $1,000 and $5,000 annual award. Categories were established by total dollar award per student.

   a. ≤$1,175

   b. $2,000

   c. $3,000-$5,000

8. *College type* - Five level categorical variable established by college type.

   a. Community college

   b. Texas public selective institution (<50% acceptance rates)

   c. Texas public non-selective institution schools (accept over 65% of applicants)

   d. Texas private institution

   e. Out of state institution

9. *High school graduate with >35% F&RL population* - Two level categorical variable. According to TEA, Title I schools have 35% or more of their student population on free or reduced lunch.

10. *High school GPA* - High school GPAs are divided into four groups.

    a. <3.0

    b. 3.0 – 3.49

    c. 3.5 – 3.99

    d. ≥4

*11. Current college GPA* - Current college GPAs are divided into four groups.

   *a.* <3.0

   *b.* 3.0 – 3.49

   *c.* 3.5 – 3.99

   *d.* ≥4

*12. Persistence* - Examined as a categorical variable, yes or no, to investigate HSC program persistence for more than two semesters. However, if students persisted over two semesters but left the program prior to graduation, they will be labeled non-persisted. Additionally, if a student graduated from college as an HSC participant, they will be labeled persisted.

*13. College degree desired – Two level categorical variables.*

   *a. Associate*

   *b. Bachelor*

Additional analyses stratify students into sub-categories. Frequencies and cross-tabulations between groups are calculated. The quantitative tests include regressions to examine the significance of the relationship of factors on dependent variables, persistence and scholarship award amount.

Research question 3 requires a qualitative analysis: How do HSC students describe their experience with HSC? The important aspect of qualitative research is the context in which the participants share the researcher (Mertens, 2005). Further, applying focus group methods provides an easier facilitation of shared or

phenomenological themes among participants through group dynamics and interactions (Morgan, 1997). The "lived" experiences of HSC scholars further explain college experiences in relation to the HSC program.

Questions for the focus group are found in Appendix A. These questions were produced in part through feedback from HSC administrators in addition to institutional perspectives on student success (Pascarella & Terenzini, 2005). As part of the interview, a second component was introduced in the form of free writes to allow students to provide in-depth responses following the focus group.

*Limitations*

Several limitations surfaced in the planning phase of this study. The data set contains 146 scholars total, and four of these students are eliminated because they are graduate students. Consequently, only 142 student records are analyzed. Some data points have been collected using different measurement scales. For example, GPA calculations across high schools differ; with some schools using a 4.0 scale and others using a 5.0 scale. However, the high school GPAs are normalized and put on the same scale. Another challenge to analyzing this diverse group of students is making appropriate adjustments for different educational institutions and different majors. These details are significant, because these differences make it difficult to compare apples to apples.

Student data was collected by HSC via online questionnaires. Students self reported their information and HSC ensured the accuracy of data through student

transcripts. Students are required to submit college transcripts each semester of enrollment. This data was imported into SPSS for quantitative analysis.

The scope of this study is limited for quantitative analysis. In order to examine other components of the HSC program, student focus groups provide an opportunity for complementary qualitative analysis. Yet, qualitative analysis has its limitations as well.

As a current HSC scholar, the principal investigator disclosed her relationship with the program. The recruiting email requesting participants revealed the main researcher's role in this study. This relationship may have been a limitation if participants felt uneasy sharing information because of the investigator's relationship with HSC. However, the consent forms provided at the beginning of the focus group addressed confidentiality in an effort to promote trust among participants. Moreover, the focus group gathering began with an explanation about confidentiality so participants would maintain the privacy of their peers.

Quantitatively analyzing components of any scholarship program by incorporating all contextual factors impacting college success can be very difficult. Using Nora, Barlow, and Crisp's (2005) framework for college persistence would require collecting metrics for such factors as pre-college ability, psychosocial factors, encouragement and support from family, educational aspirations, and commitment to attending a specific institution. Other measures could include: academic and social experiences, cognitive and non-cognitive outcomes, and final commitments.

Several studies on scholarship programs have utilized a comparison or control group to allow for comparisons between scholarship recipients and similar students who did not receive the aid and support services from HSC. Future studies should examine results with a control group.

*Summary and Significance of the Study*

Successfully educating Hispanics is important to the future of Texas. The Texas State Data Center projects that by 2020, Hispanics will make up the majority of Texas' population, while Anglos will fall to the second-most populous ethnicity (Figure 7).

Figure 7: Texas Population Projections



Projected Proportion of Texas Population by Race/Ethnicity

NOTE: Assuming net migration rate is half that of 1990 – 2000.
SOURCE: Texas State Data Center.
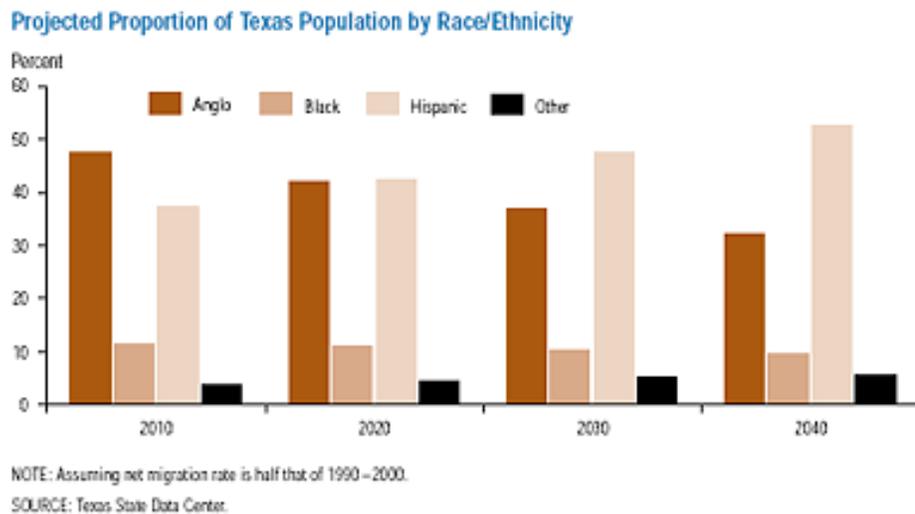
By the year 2040, Hispanics will account for over 50 % of all Texans, while one-third of the population will be Anglo (Petersen & Assanie, 2005). This study carefully examines a program in the Central Texas region in an effort to generate research on

47

college student success and scholarship programs. This study contributes to the limited research by examining factors associated with initial scholarship award amount, as well as factors associated with student persistence. It also addresses the limitations of previous research by gathering qualitative data in an effort to provide a human perspective in program evaluation.

## Chapter 4

*Results*

The underlying objective of this study is two-fold: to examine Hispanic

Scholarship Consortium award patterns and to determine factors associated with

persistence in the HSC program. Two quantitative and one qualitative research

questions serve as a framework for the data analysis and are used to organize the

findings of the study presented in this chapter.

1. Do student factors influence HSC award amounts?

2. What are the best predictors of program persistence among HSC scholars?

3. How do HSC students describe the HSC program experience?

This chapter will include a description of the participants in the study.

Following the participant description, the results from both quantitative and

qualitative analyses are included.

*Participants in the Study*

The population for the study includes a total of 142 HSC undergraduates

receiving scholarship awards between the years 2005 and 2010. Student information

is de-identified and cannot be traced back to individual students. HSC has been

awarding scholarships to students since 2005 and has five cohorts with an average of

28 scholars per year. Table 2 illustrates the composition of each group.

Table 2: HSC Cohort Composition

| Cohort | Year | Frequency | Percent |
|---|---|---|---|
| 1 | 2005-2006 | 25 | 18% |
| 2 | 2006-2007 | 29 | 20% |
| 3 | 2007-2008 | 24 | 17% |
| 4 | 2008-2009 | 37 | 26% |
| 5 | 2009-2010 | 27 | 19% |
| | **Total** | 142 | 100% |

HSC scholars are selected on the basis of academic achievement, financial need, community service, personal strengths, and leadership (HSC, n.d.). First generation college students and students pursuing majors in the fields of healthcare, science, technology, engineering and math (STEM) are given some preference in the selection process (HSC, n.d.).

A prescreening committee of ten individuals initially reviews applications and forwards the strongest applications to members and benefactors who ultimately make final award decisions. HSC is a collaboration of 34 member organizations and 5 individual benefactors. Applications may be reviewed by up to 39 different organizations and individuals. However, scholarship recipients may only receive one scholarship from one awarding organization per academic year.

Although all HSC scholars are Hispanic, much diversity exists with the group. Figure 8 captures scholar details in one image. As evidenced in the graph, the majority of students are female (64%). Over 83% of scholars are Unites States citizens, as HSC requires applicants to be American citizens or legal permanent residents. Most students (88%) identify Mexico as the country of family origin. The

countries representing the remaining 12% include: Bolivia, Columbia, Cuba, El

Salvador, Panama, Puerto Rico, Venezuela, and Spain. A minority (41.7%) of

scholars are from low-income families (<$33,000 family income) and a majority

(66%) of students are first in their family to attend a college or university. More than

half of the students graduated from a Title I high school where 35% or more of their

population are on free and reduced lunch (personal communication Annie Molina,

Texas Education Agency).

Figure 8: HSC Scholar Factors
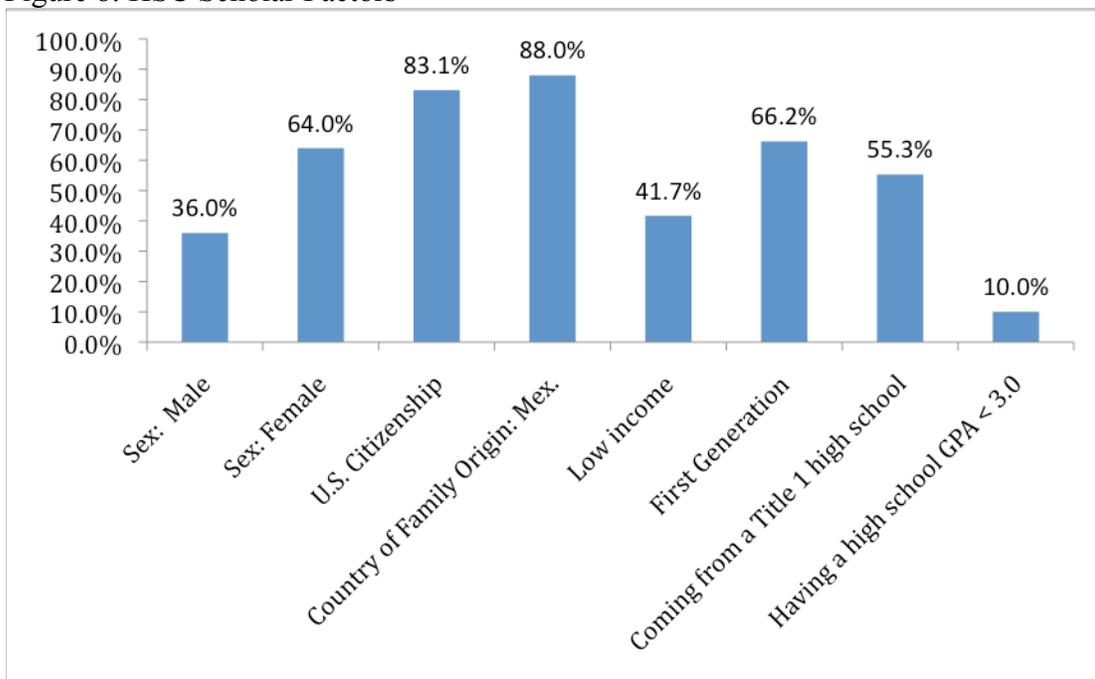


Ninety percent of students had a GPA at or above 3.0, with a majority (56%)

having a GPA between 3.5 and 3.9, as evidenced in Figure 9.

51

Figure 9: HSC High School GPAs
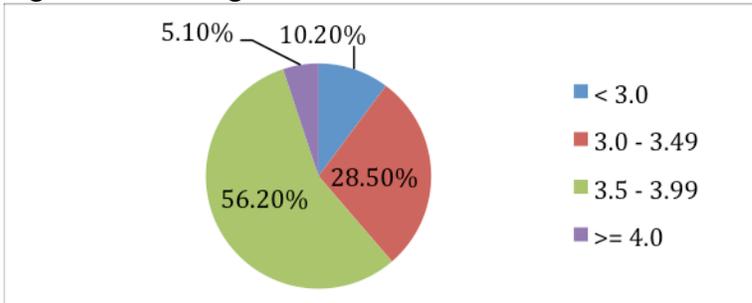


As students work toward their college degrees, academic performance has suffered in comparison to their high school GPA, resulting in lower college GPAs. Figure 10 illustrates college academic performance for HSC students.

Figure 10: HSC College GPAs
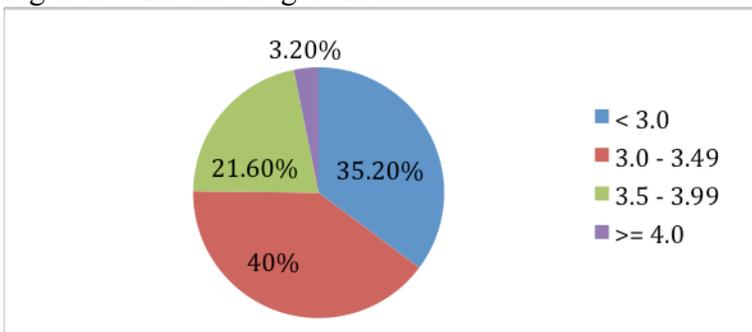


Only 10% of high school GPAs are below 3.0, compared to 35% of college GPAs. Another difference is over 60% of high school GPAs are 3.5 and better, where only a quarter of college GPAs fall into this category. It is important to note, of 142 students 17 (12%) failed to provide college GPA data. Evidenced in Table 3, cohort I only has

GPAs for 18 (72%) of the original 25, and cohort II only has 24 (83%) of the original 29. The other cohorts (III, IV, and V) have college GPA information for at least 90% of the group.

Table 3: Cross tabulation for College GPA and Cohort

| | | 2005-2006 | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | Total |
|---|---|---|---|---|---|---|---|
| | | | | Cohort Year | | | |
| College GPA | < 3.0 | 5 | 7 | 12 | 13 | 7 | 44 |
| | 3.0 - 3.49 | 11 | 13 | 6 | 12 | 8 | 50 |
| | 3.5 - 3.99 | 2 | 4 | 5 | 8 | 8 | 27 |
| | >= 4.0 | | | | 1 | 3 | 4 |
| Total | | 18 | 24 | 24 | 33 | 26 | 125 |

After examining cohorts by academic performance, the next step was to evaluate the scholarship award amounts. HSC currently offers awards between $2,000 and $5,000, however, during their first year, they awarded several $1,000 scholarships. Table 4 reflects scholarship awards over the last five years.

Table 4: Cross tabulation of Cohort and Award Amount

| | | | 2005-2006 | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | | Cohort-1st year with HSC | | | |
| Scholarship amount | <= $1,175 | Count | 22 | | | | | 22 |
| | | % w/Scholarship amoun | 100.0% | | | | | 100.0% |
| | $2,000 | Count | 3 | 27 | 22 | 34 | 24 | 110 |
| | | % w/Scholarship amoun | 2.7% | 24.5% | 20.0% | 30.9% | 21.8% | 100.0% |
| | $3 - 5,000 | Count | | 2 | 2 | 3 | 3 | 10 |
| | | % w/Scholarship amoun | | 20.0% | 20.0% | 30.0% | 30.0% | 100.0% |
| Total | | Count | 25 | 29 | 24 | 37 | 27 | 142 |
| | | % w/Scholarship amoun | 17.6% | 20.4% | 16.9% | 26.1% | 19.0% | 100.0% |

It is important to note, the first cohort was the only group to receive awards under $2,000. The chi-square for the cross tabulation of cohort and award amount (p=.00,.05) is significant. Therefore there is sufficient statistical evidence to conclude that there is a relationship between cohort and award. Additionally, it is important to note the distribution of awards by dollar amount, as shown in Table 5.

Table 5: HSC Scholarship Awards by Amounts

|  | Frequency | Percent |
|---|---|---|
| <=$1,175 | 22 | 15.5% |
| $2,000 | 110 | 77.5% |
| $3,000-$5000 | 10 | 7% |
| **Total** |  | 100% |

HSC students not only differ in scholarship award amounts, but also vary in the type of post-secondary institution (community college, selective Texas public institution, non-selective Texas public institution, private Texas institution, and out of state institution), their choice of major, and the degree they are seeking. For this study, selectivity is defined as institutions admitting 50% or less of the applicant pool, and non-selective schools accepting over 65% of applicants. Table 6 summarizes the institutions that study participants attend.

Table 6: HSC Post-Secondary Institutions by Category

| INSTITUTION TYPE | Community College | TX Public-Selective | TX Public-Non Selective | Texas Private | Out of State |
|---|---|---|---|---|---|
| *% of HSC students attending* | *5%* | *54.2%* | *11.2%* | *20.4%* | *9.2%* |
| Institutions | Austin CC | Texas A&M | Texas State | Baylor | Amherst College |
| | Alvin CC | UT Austin | Texas Tech | Concordia | Boston University |
| | Blinn College | UT Dallas | U. of Houston | Incarnate Word | Colorado State |
| | | | UNT | OLLU | Columbia |
| | | | UTEP | Rice | Cumberland College |
| | | | UTSA | Southwestern | MIT |
| | | | | St. Edward's | Notre Dame |
| | | | | St. Mary's | Natl. Tech. Inst. Deaf |
| | | | | Trinity | Penn |
| | | | | | Purdue |
| | | | | | GW University |

More than half (54%) of all HSC students attend selective Texas public institutions, while 20% of HSC students attend Texas private schools. Eleven percent of HSC students attend non-selective Texas public universities and 9% of the HSC population attends out of state schools. Community colleges have the smallest representation (5%) of HSC students. A majority (96%) of HSC students are seeking a bachelor's degree.

At these institutions of higher education, HSC students explore a wealth of

majors. Students declare their majors on initial HSC applications, as well as mid-year and end of year surveys. In an effort to compare majors, three categories were established: STEM, Liberal Arts, and Business. These categories can be examined in Table 7.

Table 7: HSC Scholars' Majors

| MAJOR TYPE | STEM | Liberal Arts | | Business |
|---|---|---|---|---|
| *% represented by HSC Students* | *41%* | *42%* | | *17%* |
| Majors | Aero. Eng. | Agricultural Communication | Political Science | Accounting |
| | Biochemistry | American Studies | Public Relations | Business |
| | Biology | Bilingual Education | Psychology | Finance |
| | Biomedical Eng. | Communications | Rhetoric & Writing | Int'l. Bus. |
| | Chem. Engineering | Creative Writing | RTF | Marketing |
| | Chemistry | Criminal Justice | Social Work | MIS |
| | Civil Eng. | Criminology | Sociology | |
| | Comp. Eng. | Education | Speech Therapy | |
| | Electrical Eng. | Fine Art | Sports Mgmt. | |
| | Engineering | Geography | Textile/App. | |
| | Env. Science | Government | | |
| | Math | Graphic Design | | |
| | Mechanical Eng. | Health Policy/Studies | | |
| | Microbiology | Health Psychology | | |
| | Nursing | International Relations | | |
| | Nutrition | Kinesiology | | |
| | Physics | Landscape Architecture | | |
| | Plan II Aerosp. Eng. | Latin American Studies | | |
| | Pre-Dentistry | Legal Studies | | |
| | Pre-Nursing | Music | | |
| | | Philosophy | | |

STEM (41%) and Liberal Arts (42%) majors are almost equally represented, but only

of 17%Business majors are HSC scholars.

*Quantitative Data Analysis Results*

The following descriptive statistics identify trends in awarding and persisting in

the HSC program. In order to examine the relationship between scholarship amount

and student factors, cross tabulations are used to examine independent variables (high

school GPA, sex, first generation status, major, college type, low income status,

college degree desired, high school graduate with >35% F&RL population, U.S.

citizenship). Cross tabulation is a presentation of data in a tabular form to aid in

identifying a relationship between the variables. Figure 11 illustrates cross tabulation

results for scholarship award categories and HSC student factors.

Figure 11: HSC Scholarship Award Amounts by Student Factor
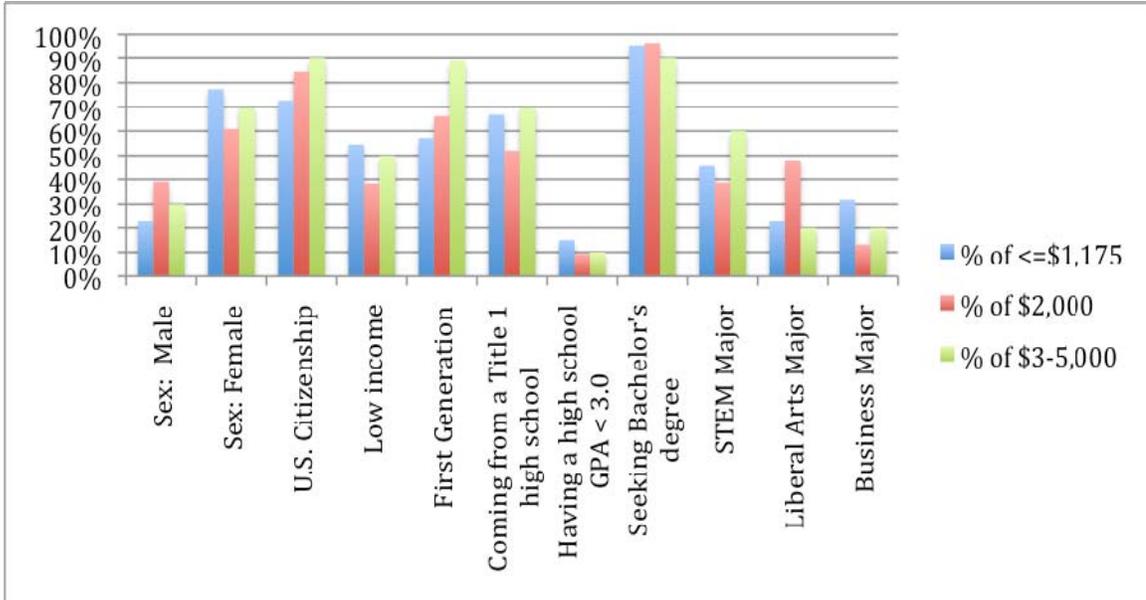


As evidenced in Figure 11, females receive a larger percentage (77%) of the awards under $2,000. However, comparisons between genders are difficult because females represent 64% of the HSC population. The chi-square for award amount and gender (p=.50>.05) is not significant and doesn't provide sufficient statistical evidence to support that a relationship exists between these two factors.

In the search for a relationship with award amounts, further analysis was done on additional students factors. Eighty three percent of scholars are U.S. citizens; these students receive the majority of all awards but more specifically, they received 90% of the largest award amounts. Yet again, chi-square (p=.50>.05) is not significant enough to conclude there is a relationship between citizenship and award.

Figure 11 also illustrates that low-income students represent less than half

(42%) of awardees, yet they receive over half (55%) of awards under $2,000. Yet, a chi-square of .32 is insignificant. In contrast, first generation students represent 66% of the group and receive 89% of the largest awards ranging between $3,000 and $5,000. Similarly, this is not insignificant with a chi-square of .24.

Evidenced in Figure 11, students from Title I high schools (45%) mirror their non-Title I high school peer when examining the $2,000 award, however these students receive a majority of the largest awards. But there is not sufficient evidence to conclude that there is a relationship between these variables (p=.27>.05)

Also demonstrated in Figure 11, 10% of students join HSC with low high school GPAs (<3.0), however 15% of this group receive the smaller awards under $2,000. Unfortunately, this also is not statistically significant (p=.73>,05).

Regardless of the variation in high school academic performance, the majority (96%) of HSC students are seeking a bachelor's degree, and 60% of the scholarship awards over $3,000 have been given to students majoring in a STEM field. Also interesting, is the high representation of Liberal Arts majors (48%) in the $2,000 awards compared to Business majors who only represent 13% of students earning this category of award amount. This relationship is almost statically significant (p=.06>.05) but with alpha levels set at 95%, there is not sufficient evidence to conclude that a relationship exists between these variables. It is important to note, however, that majors had the strongest relationship with award amount.

To answer research question 1, the relationship between scholarship award

60

amount categories (<=$1,175, $2,000, and $3-5,000) and student factors (high school

GPA, U.S. citizenship, sex, first generation status, major, college type, low income

status, Title I high school) is established by running a backward selection multinomial

logistical regression with award categories as the dependent variables and student

factors as the independent variables. Significance is assessed at the .05 level and the

p-value is observed to assess the strength of the relationship between both

independent and dependent variables. The R-squared value is examined because it

measures the strength of the model. The significance of variables as a whole is

explored by examining the significance of the regression. A regression equation is

used to further explain the impact of each change in award amount category for every

unit of predictive variable. The equation is: Scholarship award amount category=

constant + b1 (high school GPA) + b2 (U.S. citizenship) + b3 (sex) + b4 (first

generation status) + b5 (major) + b6 (college type) + b7 (low income status) + b8

(Title I high school).

*Analysis for Scholarship Amounts*

Table 8: Multinomial Logistic Regression for Scholarship Amount and Student
Factors

| Pseudo R-Square | |
|---|---|
| Cox and Snell | .076 |
| Nagelkerke | .102 |
| McFadden | .058 |

**Likelihood Ratio Tests**

| Effect | Model Fitting Criteria | Likelihood Ratio Tests | | |
|---|---|---|---|---|
| | -2 Log Likelihood of Reduced Model | Chi-Square | df | Sig. |
| Intercept | 152.356[a] | .000 | 0 | . |
| MajorGroup | 162.216 | 9.859 | 4 | .043 |

**Parameter Estimates**

| Scholarship amount[a] | | B | Std. Error | Wald | df | Sig. | Exp(B) | 95% Confidence Interval for Exp(B) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Lower Bound | Upper Bound |
| <= $1,175 | Intercept | -.539 | .476 | 1.284 | 1 | .257 | | | |
| | STEM | -.875 | .604 | 2.100 | 1 | .147 | .417 | .128 | 1.361 |
| | Liberal Arts | -1.925 | .705 | 7.448 | 1 | .006 | .146 | .037 | .581 |
| | Business | 0[b] | . | . | 0 | . | . | . | . |
| $3,000 - $5,000 | Intercept | -1.792 | .764 | 5.504 | 1 | .019 | | | |
| | STEM | -.210 | .900 | .054 | 1 | .816 | .811 | .139 | 4.733 |
| | Liberal Arts | -1.365 | 1.051 | 1.687 | 1 | .194 | .255 | .033 | 2.003 |
| | Business | 0[b] | . | . | 0 | . | . | . | . |

a. The reference category is: $2,000.

When controlling for high school GPA, sex, first generation status, college

type, low income status, U.S. citizenship and Title I high school, a student's college

major is significant factor with a Beta of -1.925, associated with a p-value of .006 (p<.05). On the other hand, high school GPA, sex, college type, low-income status, college degree desired, Title I high school and U.S. citizenship are not statistically significant. The likelihood ratio tests the significance of the researcher's model as a whole. In this regression, one of the predictors, major, is significantly (.043) related to the dependent variable, scholarship amount. Pseudo-R square like measures in this regression are not goodness-of-fit tests but rather attempt to measure strength of association. The pseudo-R square measures reflect and confound effect strength with goodness of fit. The R square in this model is .102, meaning the model as a whole accounts for 10% variability in total award by accounting for the effects of student factors. Therefore, the odds of being in the lowest scholarship category (<=$1,175) versus the mid-range award ($2,000) are decreased by a factor of .146 when majoring in Liberal Arts compared to Business.

*Analysis for Persistence*

Research question 2, seeks to examine persistence in the HSC program. For this study, persistence is defined as participation with HSC for at least two consecutive semesters. Students who have graduated and are no longer with HSC, are coded as persist. Also noteworthy, students who have participated with HSC for two or more semesters but are no longer with HSC because of low GPA, not reapplying, or loss of contact, are coded as non-persist.

Persistence data is summarized in Table 9. The purpose of examining persistence among cohorts is to compare the persistence rates across a five-year time frame. As evidenced in Table 9, 47 students (33%) did not persist with HSC. Larger drop out rates occur in the first three cohorts, with the second cohort losing the most students (52%). According to the chi-square (p=.00<.05), sufficient statistical evidence exists to conclude that there is a relationship between persistence and cohort.

Table 9: Cross tabulation of Persistence and Cohort

|  |  |  | Cohort-1st year with HSC | | | | | |
|---|---|---|---|---|---|---|---|---|
|  |  |  | 2005-2006 | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | Total |
| Persist | Yes | Count | 13 | 14 | 13 | 29 | 26 | 95 |
|  |  | % within Cohort | 52.0% | 48.3% | 54.2% | 78.4% | 96.3% | 66.9% |
|  | No | Count | 12 | 15 | 11 | 8 | 1 | 47 |
|  |  | % within Cohort | 48.0% | 51.7% | 45.8% | 21.6% | 3.7% | 33.1% |
| Total |  | Count | 25 | 29 | 24 | 37 | 27 | 142 |
|  |  | % within Cohort | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Academic performance is a reason some students struggle with higher education. For this reason, GPA and persistence are two variables examined through cross tabulation. Initially, high school GPAs were examined, as seen in Table 10.

Table 10: Cross tabulation of Persistence and High School GPA

| | | | High school GPA | | | | |
|---|---|---|---|---|---|---|---|
| | | | < 3.0 | 3.0 - 3.49 | 3.5 - 3.99 | >= 4.0 | Total |
| Persist | Yes | Count | 4 | 29 | 53 | 7 | 93 |
| | | % within h.s GPA | 28.6% | 74.4% | 68.8% | 100.0% | 67.9% |
| | No | Count | 10 | 10 | 24 | | 44 |
| | | % within h.s GPA | 71.4% | 25.6% | 31.2% | | 32.1% |
| Total | | Count | 14 | 39 | 77 | 7 | 137 |
| | | % within h.s GPA | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Students awarded with high school GPAs below 3.0 are highly at risk of not persisting. Hence, 71% of all students with a secondary school GPA below 3.0 do not persist in HSC. This statistic is significant with a chi-square of .003.

Academic performance prior to college is important, but so is college GPA, as students are asked to maintain a minimum 3.0 college GPA to stay in the program. Table 11 demonstrates the relationship between college GPA and persistence in the HSC program.

Table 11: Cross tabulation of Persistence and College GPA

| | | | College GPA | | | | |
|---|---|---|---|---|---|---|---|
| | | | < 3.0 | 3.0 - 3.49 | 3.5 - 3.99 | >= 4.0 | Total |
| Persist | Yes | Count | 17 | 43 | 27 | 4 | 91 |
| | | % within College GPA | 38.6% | 86.0% | 100.0% | 100.0% | 72.8% |
| | No | Count | 27 | 7 | | | 34 |
| | | % within College GPA | 61.4% | 14.0% | | | 27.2% |
| Total | | Count | 44 | 50 | 27 | 4 | 125 |
| | | % within College GPA | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

As illustrated in the Table 11, 61% of students with a GPA below 3.0 do not persist in HSC. Contrastingly, 100% of students with GPAs above 3.5 persist. College GPA and persistence have a statistically significant relationship (p=.00<.05). However, even though HSC policy requests a 3.0 GPA, only 21 (45% of HSC students who do not persist) of the 47 non-persisting students, have left HSC due to low grades.

Although GPA now plays a role in scholarship renewal, it is important to note that the first cohort received this award with the understanding that it was not renewable. However, after reexamining their policy, HSC opted to make this a renewable scholarship. Students from the first cohort were asked to reapply in the spring of their first year, however 12 (48%) did not. Other reasons students do not persist in the program are poor grades (21) and no data (14).

Further investigation should be conducted to determine if students who are no longer with HSC are still enrolled in college. Regardless, assuming the 67% persistence rate in the program aligns with the student's college persistence, then HSC is right at the national average of 66% (Adelman, 2006). However, if the first cohort was removed then the rate increases to 70%.

In addition to the link between GPA and persistence, students choice of educational institution has an effect on persistence relates. As evidenced in Figure 12, HSC students attending community college and non-selective Texas public institutions of higher education are most at risk for not persisting. In contrast, over

66

72% of HSC students who attend selective public in state colleges, private Texas

colleges, and out of state colleges, remain with HSC for at least two consecutive

semesters. These results appear to be powerful and are significant with a chi-square of

.01.

Figure 12: Persistence and College Type
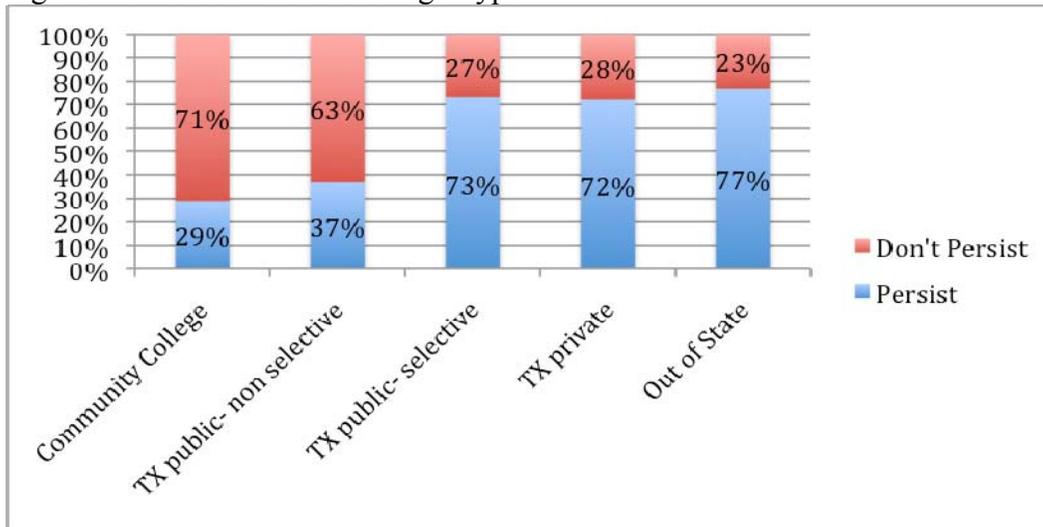


The selective nature of higher educational institutions is indicative of

persistence, but also important is the relation of additional factors such as major. As

evidenced in Figure 13, of the categories for majors, STEM, Liberal Arts and

Business, students are less likely to persist when majoring in Business (60% persist).

The chi-square for this relationship is ($p=.61<.05$) not significant.

Also illustrated in Figure 13, males persist better than females, with a 73%

persistence rate compared to 64% for females. This relationship between gender and

persistence is not significant ($p=.284>.05$). Interestingly, the male college completion

rate is also stronger (95%) versus the female completion rate (84%).

Additionally, students from Title I high schools are less likely (60%) to persist

with HSC, compared to their non-Title I peers with an 80% college persistence rate.

Table 12, further details these differences through a cross tabulation.

Figure 13: Persistence and Student Factors
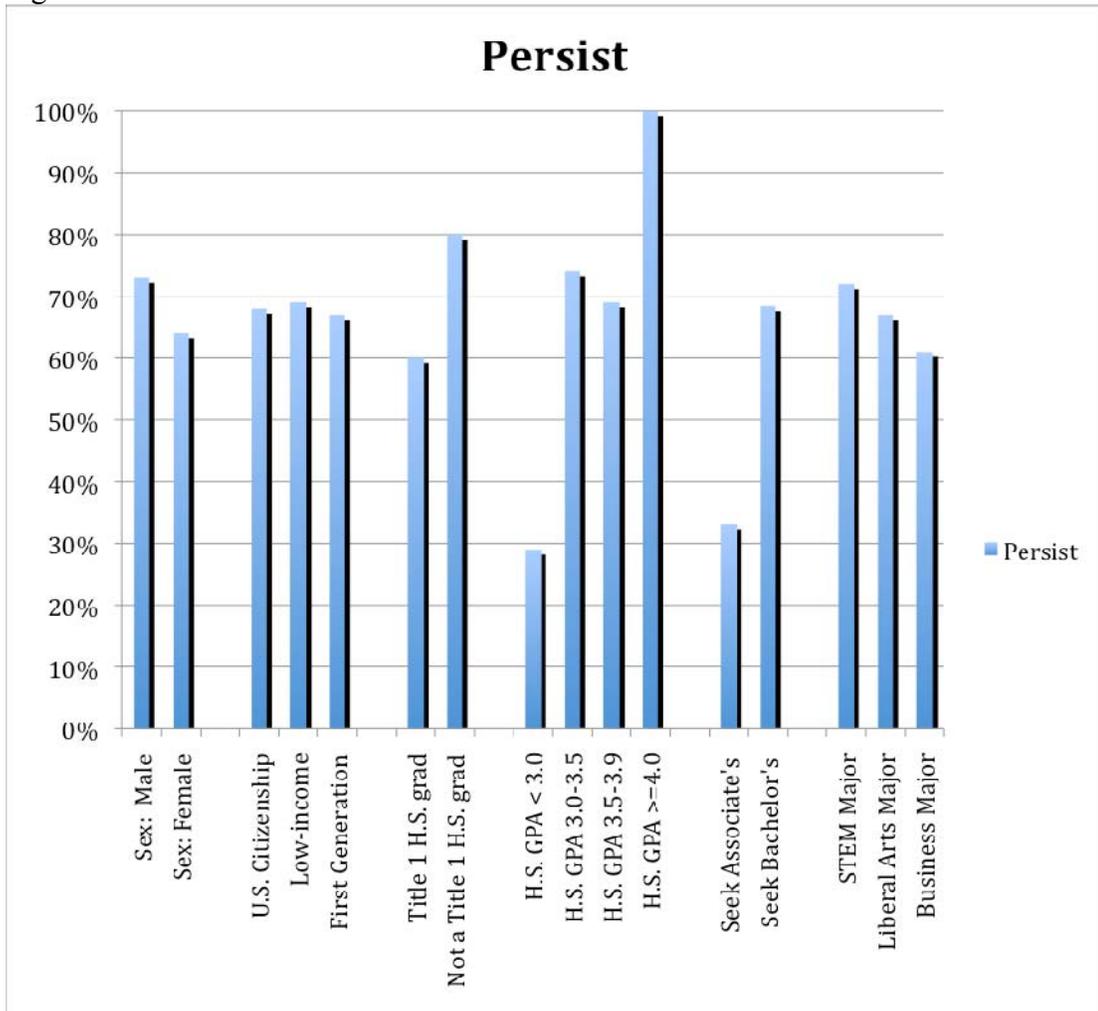


To further examine the relationship between persistence and Title I high school

status, a cross tabulation is performed. This data is significant with a chi-square of .017. It is important to note that a large percentage of HSC students who graduated from Title I schools are also first generation college bound students (73%). Title I high school graduates are also twice as like to study Business (21%) compared to their peers from non-Title I schools, where only 10% study Business.

Table 12: Cross tabulation of Persistence and Title I High School Status

|  |  |  | Title 1 School status | | |
|  |  |  | No | Yes | Total |
| --- | --- | --- | --- | --- | --- |
| Persist | Yes | Count | 47 | 44 | 91 |
|  |  | % within Title 1 School status | 79.7% | 60.3% | 68.9% |
|  | No | Count | 12 | 29 | 41 |
|  |  | % within Title 1 School status | 20.3% | 39.7% | 31.1% |
| Total |  | Count | 59 | 73 | 132 |
|  |  | % within Title 1 School status | 100.0% | 100.0% | 100.0% |

Since Title I high school graduates have such a large first generation population, and these students are struggling with persistence, an exploration of college performance for first generation students was needed. Figure 14 further illustrates the difference in academic performance between first generation students and their peers.

Figure 14: College Academic Performance by First Generation Status



First Generation
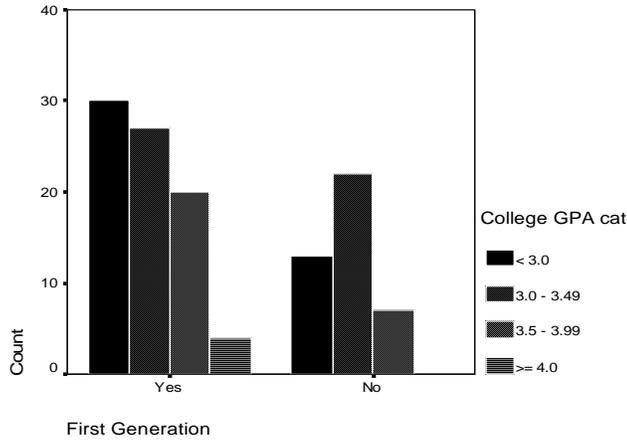
College persistence is highly related to college completion. To examine the

program's completion rates, it is important to note that HSC's first cohort had 25

students who started college in 2005. As illustrated in Table 13, 13 students from the

first cohort completed their college education while remaining an HSC scholar, and

an additional student plans to graduate in 2011. This 56% graduation rate is on par

with the national average of 55.9% according to the National Center for Higher

Education Measurement Systems (n.d.). The HSC graduation rates are slightly

stronger than the Texas rate of 49% (NCHEMS, n.d.).

Table 13: Cross tabulation of College Graduates and Cohort

|  |  | Cohort-1st year with HSC | | | | | |
|  |  | 2005-2006 | 2006-2007 | 2007-2008 | 2008-2009 | 2009-2010 | Total |
| Coll Complete | Yes | 13 | 11 | 2 | 4 | 1 | 31 |
| Total |  | 13 | 11 | 2 | 4 | 1 | 31 |

Examining the relationship between award amount and persistence can also be

measured through cross tabulation. As illustrated in Table 14, students with less

scholarship awards (those under $2,000) were less successful in persisting in HSC

(55% persistence rate) compared to those students with an award over $2,000 (69-

70% persistence rate). These results are not significant according to the chi-square

(.407).

Table 14: Cross tabulation of Persistence and Scholarship Amount

| | | | Scholarship amount | | | |
|---|---|---|---|---|---|---|
| | | | <= $1,175 | $2,000 | $3,000 - $5,000 | Total |
| Persist | Yes | Count | 12 | 76 | 7 | 95 |
| | | % within Scholarship amount | 54.5% | 69.1% | 70.0% | 66.9% |
| | No | Count | 10 | 34 | 3 | 47 |
| | | % within Scholarship amount | 45.5% | 30.9% | 30.0% | 33.1% |
| Total | | Count | 22 | 110 | 10 | 142 |
| | | % within Scholarship amount | 100.0% | 100.0% | 100.0% | 100.0% |

To further address research question 2, the relationship between persistence in

the HSC program and student factors (high school and college GPA, U.S. citizenship,

sex, first generation status, major, college type, low income status, college degree

desired, Title I high school, dropped for low GPA, and scholarship amount) are

established by running a backward selection logistic regression with persistence as

the dependent variable and student factors as the independent variables. Backward

selection method is used to eliminate variables that are not significant in the model. A

logistic regression was used because persistence is a dichotomous variable.

71

Significance is assessed at the .05 level and the p-value is observed to assess the

strength of the relationship between both independent and dependent variables. An

overall model test is used to see if the overall regression line is significant at the .05

level. The R squared value is examined because it measures the strength of the model.

The significance of variables as a whole is explored by examining the significance of

the regression. Results are seen in Table 15.

Table 15: Regression Results for Persistence and Student Factors

**Model Summary**

| Step | -2 Log likelihood | Cox & Snell R Square | Nagelkerke R Square |
|---|---|---|---|
| 1 | 48.336[a] | .517 | .756 |
| 2 | 48.336[a] | .517 | .756 |
| 3 | 66.774[b] | .433 | .632 |
| 4 | 67.507[c] | .429 | .627 |
| 5 | 67.904[c] | .427 | .624 |
| 6 | 68.605[c] | .424 | .619 |
| 7 | 71.039[c] | .411 | .601 |
| 8 | 72.797[c] | .402 | .587 |
| 9 | 80.441[c] | .360 | .527 |
| 10 | 82.081[c] | .351 | .513 |
| 11 | 64.745[a] | .443 | .647 |

a. Estimation terminated at iteration number 20 because maximum iterations has
been reached. Final solution cannot be found.

**Variables in the Equation[c]**

| | | B | S.E. | Wald | df | Sig. | Exp(B) |
|---|---|---|---|---|---|---|---|
| Step 1[a] | Sex(1) | 0.66 | 0.905 | 0.531 | 1 | 0.466 | 1.935 |
| | Award2 | | | 3.795 | 2 | 0.15 | |
| | Award2(1) | 1.146 | 1.405 | 0.666 | 1 | 0.415 | 3.146 |

72

|  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|
|  | Award2(2) | 2.284 | 1.217 | 3.521 | 1 | 0.061 | 9.814 |
|  | Citizenship(1) | 0.287 | 1.462 | 0.039 | 1 | 0.844 | 1.333 |
|  | Degree(1) | -4.588 | 41174.978 | 0 | 1 | 1 | 0.01 |
|  | College |  |  | 4.789 | 4 | 0.31 |  |
|  | College(1) | 3.794 | 41174.978 | 0 | 1 | 1 | 44.415 |
|  | College(2) | -2.446 | 1.704 | 2.062 | 1 | 0.151 | 0.087 |
|  | College(3) | 0.465 | 1.492 | 0.097 | 1 | 0.756 | 1.592 |
|  | College(4) | 0.096 | 1.518 | 0.004 | 1 | 0.949 | 1.101 |
|  | MajorGroup |  |  | 1.679 | 2 | 0.432 |  |
|  | MajorGroup(1) | -0.555 | 1.119 | 0.246 | 1 | 0.62 | 0.574 |
|  | MajorGroup(2) | -1.549 | 1.26 | 1.512 | 1 | 0.219 | 0.212 |
|  | Lowgpa(1) | -22.333 | 8938.91 | 0 | 1 | 0.998 | 0 |
|  | HSGPA3(1) | 2.596 | 4.378 | 0.352 | 1 | 0.553 | 13.416 |
|  | Income(1) | 1.624 | 1.048 | 2.404 | 1 | 0.121 | 5.074 |
|  | Generation(1) | 0.717 | 0.897 | 0.638 | 1 | 0.424 | 2.047 |
|  | CGPA3(1) | 2.561 | 0.956 | 7.182 | 1 | 0.007 | 12.952 |
|  | Title1(1) | 1.749 | 1.046 | 2.795 | 1 | 0.095 | 5.747 |
|  | Constant | -5.396 | 4.795 | 1.266 | 1 | 0.26 | 0.005 |
| Step 9[a] | Sex(1) | 0.784 | 0.628 | 1.559 | 1 | 0.212 | 2.191 |
|  | HSGPA3(1) | 2.575 | 1.101 | 5.471 | 1 | 0.019 | 13.127 |
|  | CGPA3(1) | 3.164 | 0.632 | 25.064 | 1 | 0 | 23.67 |
|  | Title1(1) | 1.265 | 0.601 | 4.426 | 1 | 0.035 | 3.541 |
|  | Constant | -3.76 | 1.209 | 9.673 | 1 | 0.002 | 0.023 |
| Step 10[a] | HSGPA3(1) | 2.81 | 1.079 | 6.776 | 1 | 0.009 | 16.605 |
|  | CGPA3(1) | 2.972 | 0.593 | 25.09 | 1 | 0 | 19.539 |
|  | Title1(1) | 1.209 | 0.59 | 4.196 | 1 | 0.041 | 3.349 |
|  | Constant | -3.562 | 1.178 | 9.147 | 1 | 0.002 | 0.028 |

This model building approach eliminated variables that were not significant in order to have the most parsimonious model. Through this process all variables other than high school and college GPAs, and Title I school graduates were removed. As illustrated in Table 15, the first model started with twelve variables. Degree type was the first variable removed, followed by dropped from HSC for low GPA, major, first

73

generation status, citizenship, scholarship award amount, low income, college type, sex, in that order. When controlling for high school and college GPAs, Title I school graduate status is significant with a Beta of 1.209, associated with a p-value of .041 (p<.05). Non-Title I high school graduates experience an odds increase of 3.349 in persistence. Additionally, high school GPA is a significant predictor of persistence when controlling for other student factors with a Beta of 2.810, associated with a p-value of .009 (p<.05). Therefore, the odds for persistence increase by a factor of 16.605 when a student has a high school GPA above 3.0. Lastly, college GPA is the most significant predictor of persistence with a Beta of 2.972, associated with a p-value of .000 (p<.05). Therefore, a student with a college GPA above 3.0 has an odds increase of 19.539 for persistence in the HSC program. Ten models were generated ranging in R square from .756 to .513. Nagelkerke R squared for this model is .513, meaning the model explains 51% of the variability in persistence by accounting for the effects of student factors. Therefore, Title I high school graduate, college GPA, and high school GPA are significant predictors of persistence, when controlling for student factors.

<div align="center">Qualitative Data Analysis Results</div>

To answer research question 3: "How do HSC students describe their experience in the HSC program?" focus groups were conducted. The goal of this question is to examine how scholars perceive HSC and its impact on their college persistence. Often, scholarship programs report on the number or scholarships

<div align="center">74</div>

awarded and the dollar amount. The focus groups serve as a way to put a story behind the numbers. Using qualitative analysis in the form of focus groups provides for specific details regarding students' experiences with HSC.

A total of five students participated in focus group interviews, two in the first group and three in the second. Students were asked to volunteer for focus groups via email from HSC. This request occurred during the summer, since most students requested the summer months as the best time to reach them. The focus groups were held at various times in the day (10 AM and 6 PM) in an effort to work around student schedule. Despite these efforts, a small group of students participated, however the small numbers allowed students to go into greater details during the interviews. Students represented both public and private Texas universities. The volunteers were predominantly female with the exception of one male participant. Focus group participants were all graduates from central Texas high schools. Diversity among participants occurred in their classification as first, second, third, and fourth year students. The students were seeking bachelor's degrees and represented both selective (Rice, Trinity, University of Texas at Austin, and Texas A&M) and a not as selective university (St. Edward's). Participants represented only two categories of majors, STEM and Liberal Arts. Additionally, first generation college students were well represented in the group. As for low-income status, two students mentioned their Pell grant eligibility.

The interviews addressed topics related to college academics, HSC program

offerings, financial aid disbursement, and mentoring (see Appendix A). Upon completion of the focus group, students participated in a 10-minute free write session to address any thoughts they were unable to convey during the interview (see Appendix C). This provided participants the opportunity to address concerns, recommendations, topics not broached during the session, and final thoughts before their departure. All five students completed the free write activity. The qualitative analysis of the transcribed interviews along with the free write used themed coding.

Coding is the process of combing the data for themes, ideas and categories and marking similar passages of text with a code label so that they can easily be retrieved at a later stage for further analysis. Coding makes it easier to make comparisons and to identify any patterns that require further investigation. This analysis used grounded theory. Grounded codes emerge from the data because prejudices and previous knowledge of the subject area are put aside in order to find new themes in the data.

<center>Code Families</center>

A few themes emerged in the coding of the interviews and free write:

- Impact of financial aid
- Family impact
- Time management issues
- Mentors

First students introduced themselves, their year in college, their major and their reasons for selecting their university. At this point, it was clear that the cost of their

college education was a critical factor when deciding what school to attend. All five students cited financial aid as the driving factor for college choice. A student discussed institutional aid as the driving force behind his college selection, "I received the Regents Scholarship, a $20,000 award over four years. In addition, I was awarded grants and other scholarships to cover the cost of attendance. I did not have to borrow any money for my first year." While another student admitted, "I am mostly paying through loans and scholarships." A different student explained, "I mainly decided to [attend Rice] because of cost and the financial situation of my family, and also the future of my siblings. Maybe my parents may not have money anymore to send me to school where I wanted to go." The financial theme surfaced again when a student admitted, "Well I think it [college choice] comes down to financial. I was accepted to a school in the northeast and I really wanted to go. My parents were willing to let me go but it was too pricey so I decided to attend Trinity because I didn't want to burden my parents."

Other variables described in institutional selection include school reputation, location, and parent recommendation. One student explained:

> My dad actually went there and so I heard about it [Trinity University] from him. I really admired the way he was still connected to it. He just had a really great connection to not only Trinity but the alumni and so I really liked the idea of not only having a school and learning but after school still being able to give back and mentor other people and utilize other resources. And they have some really amazing speakers come in and that really kind of drew me in cause I love going and hearing people talk. And also they have the academic standard I was looking for. I grew up in Austin all my life and so I wanted something that wasn't too close but not too far and San Antonio is perfect cause if something happened they [parents] could come.

Parent influence was not only evident in college choice, but also in the pursuit of a post-secondary education. One student explains:

> They [my family] were very supportive [of me going to college]….because I'm the first one [to attend college], so I have to just do it so my other brothers and family members can do it. It [college] was my father's will. My whole family's point [of coming to Texas from Mexico] was to get an education.

As the middle child, this student was the first to seek a college education. When questioned why, he explained his older siblings needed to enter the workforce early on to help the family. Since his older siblings arrived in the United State in their later teenage years, they were unable to develop a strong educational foundation to help them succeed in college. This student arrived in middle school and was fortunate to have strong English as a second language (ESL) teachers who helped him transition to Texas.

Family and mentor support were shared experiences amongst all participants. One student explained, "I couldn't have asked for a better support system. Like whenever I chose my classes, they [parents] wanted to make sure that I could balance it [academics] with a social life. It was really good." While another participant raved about her mentor, "she inspired me to chase my dreams." Students appeared to understand that they stand on the shoulders of giants.

Participants shared their educational success by crediting their family and mentors. One student honored his teachers:

All my teachers [helped me prepare for college]. I think since middle school my teachers were very supportive. They would encourage me. My ESL teacher in eighth grade said I know that at least one of all my students will come to visit me after they go to college and graduate. So, I want to go and visit that teacher and thank her after I finish my education.

While another student complements both parents and mentors, "my mentors helped me with that [moral support] and my parents were really supportive and helped prepare me [for college]." Pre-college assistance was also delivered through students' high schools. "A counselor at Akins helped students that weren't permanent residents [apply to college and for scholarships]." Another student admits, "My high school was really challenging. It definitely prepared me [for college]." One student was fortunate to receive support from high school administrators, "The school counselor and principal helped me [through the college selection and application process]." Additionally, she credited organizations such as National Hispanic Institute, Venture Scholars, and Breakthrough, for helping her prepare for college. A different student mentioned Gear Up, as a program within the school that helped her plan for college.

Once enrolled in college, students discussed the support received from institutions of higher education. "I was in a learning community the first year. I lived with a group of students in the hall and took some [three] classes with them." This student also utilized advisors, since the learning community required that students meet with one at least once per semester. He admits, "I went [to see my advisor] several times. It was close to my hall so it was easy." Access to campus support

paired with the requirement to utilize the services appeared to be beneficial for students.

Additional support in college was provided during class. A student explained that her career counseling course was beneficial, "It's a one hour course that talks about interviews and creating a professional resume. It's an informative class with an academic advisor." Additionally, she mentioned her academic advisor during her freshman year "talked to me when I was rock bottom, stressed out." Despite the challenges college life presented, this young lady was resilient and continues to pursue her education at the same university.

Challenges during the transition to college are inevitable, but the most challenging issue for each participant was time management.

> I took 17 hours my first semester. I learned to balance my time. I had to pretty much. So I think that was the hardest lesson for me because I'm one of those people that wanted this and that. I wanted to take advantage [of everything] but those were my expectations that I could to do all these things and I had to figure out what's really important to me.

While another student said "balancing my social and academics was the most difficult thing for me." A different student described her strategy for time management was maintaining a job. "When I'm busy, I study more. Once I started working I managed really well. I saw my grades go up a little bit." Another student described the stress involved with poor course schedule management:

> Well I went in as a bio chem pre med major so I was stressed out to the max my freshman year. Every other night I was crying because of all the stress. I

80

was taking two science classes and pre cal in high school, and I did so well in them. I was like its going to be so easy, but it was total opposite.

After discussing pre-college assistance as well as current support, students shared their experience with HSC. Student exposure to HSC was limited during high school, other than simply applying for the scholarship. As recipients of the award, they were extremely appreciative for the financial support. Yet more importantly, the students were thankful for the personal attention provided by HSC staff once they matriculated to college.

> They [HSC] offer more workshops and the leadership conference. I feel like HSC is a lot more involved. I get emails from them once a month. I even got a Christmas card from HSC. Which is pretty rare. I think some other scholarship programs that I've been involved with… they just kind of give the money.

Another student expressed:

> [Other scholarships try to reach out] but not to the same degree as HSC. We meet more. I think we make a relationship with Marisa & Laura that helps us become part of a greater thing. [HSC is] a great organization. Like we don't feel alone.

Sharing in this line of thinking, another student explained:

> … other scholarships give us money. Okay… here you go… bye. HSC is here. They always email us and have seminars and luncheons. I really like that because its not just a program that like here's your money and move on to the next. They are like okay we are willing to stay with you and we can be a support for you.

The students appreciated the personal support provided by HSC. Many described the pride they felt by being part of a larger organization. One student explained, "It's really awesome knowing that [I'm part of something bigger than me]…you can feel

81

that they [HSC] support you and are willing to invest money and time." The other

student in the group added "If these people are willing to invest in me, then I can

make it through the tough spots."

The students raved about the financial support and personal relationships

created with HSC staff. Additionally, students were thankful to have an opportunity

to meet other scholars while developing their professional and leadership skills during

the Leadership Conference held each summer. This three-day training experience

empowers students with tools necessary to harness their leadership potential. Agenda

items at the conference include speakers from legislative officials as well as business

owners, networking with scholarship donors and prospective internship employers,

and an etiquette dinner. Some student comments regarding the Conference include:

- I met a lot of people that can help me get an internship. And some had to prepare for an interview. All those things that we should already know, [will] help us get a job.
- The etiquette dinner was really … I can apply it to so many different areas. I think that can apply to all aspects of life.
- I enjoyed the conference at the Mexican American Center. It was a lot of fun. I guess when we broke up into rooms, we had classrooms that we would go in and it was a lot more [interactive]...I think it was …but that year we had twenty people in each classroom [workshop] … they gave us a choice [of topics of interest].
- I really liked the team building [exercises] at the Red Bud Center.

The universal approval for the Conference was high, however students did

have suggestions for future sessions. One student recommended public speaking

development. "Maybe speaking with professionals because we're always around

people our own age and I don't think I know how to speak really well with professionals. I use small words compared to them." This resonated with another student, "I agree…just being more professional."

One student recommended finding contacts in the community who could mentor students year-round. "[It would be great] if an engineer could connect [with me] twice a month on the phone and check in. Holding us accountable." He appreciated the support that HSC's small staff provided but thought hearing from a professional in his field of interest would be a unique way to maintain his academic motivation. He also believed that donors "would get better satisfaction knowing they are actually helping someone [if they check in on students occasionally]." Another student expressed her desire to hear from role models and mentors. She explained, "I don't think age or experience matters. It matters how much they are going to hold us accountable. Just showing us how much they care." Moreover, students agreed Conference topics such as persistence, teamwork, and empowerment were relevant and timely.

To compliment the Conference, HSC staff frequently communicates with students via email, phone, and Facebook. Students were very gracious for the efforts HSC has made to show students that they care. HSC messages to students often include job, internship, and volunteer opportunities.

The participants shared a strong desire to give back. Students were appreciative of their award and hoped to show their gratitude in ways other than a

simple thank you card. One student expressed, "I think knowing they helped me …I want to give back." For these reasons, HSC incorporated a volunteer component to their Leadership Conference last July. This addition to the Conference was well received by the Austin community and the scholars. Students know this award is not only about the money.

Yet, the scholarship award is a significant component of this program. The disbursement of funds was also broached during the focus groups. One student explained, "Most scholarships go to the financial aid office. And if we already met our financial need, they (the college) reduce parts of institutional aid and sometimes increase loan amounts." This is especially difficult because students felt as if the expected cost of education, determined by the institution, was not sufficient. When discussing how HSC gives its awards directly to the student one student stated, " For personal expenses it's a huge deal." She believed that many expenses exist outside of tuition, fees, books, and room and board.

After forty-five minutes of discussing participant experiences with HSC, students were given time to write any concluding thoughts.

*Analysis of Free Writes*

The final ten minutes of the focus group was dedicated to a free write. Students were given the following prompt: This is an opportunity to express your thoughts and feelings about your college experience in relation to HSC. You can write about more details that your weren't able to express during the focus group." Three themes

84

emerged from these responses: mentoring, time management, and student networking. Mentoring refers to a relationship in which a more experienced person helps a less knowledgeable person. All participants shared the desire for a mentor. They only hoped that this individual would be "familiar with their course of study." Evidently, HSC mentors overwhelmingly represent the business sector, and students were hoping to be matched with someone working in their desired field. One student recommended, "developing upper classmen mentors located on the same campus." Students simply wanted another source of support to "encourage us when challenges arise."

A second theme in the free writes was time management. All students described this as the single most difficult challenge in college. "The ability to balance social and academic activities is a skill students should develop prior to college." Developing this skill could be a topic for future HSC Conferences.

Lastly, student networking was a theme shared by participants. Participants represented a minority group on campus. If they could develop closer connections between scholars, they might lean on one another during challenging times in college. One student suggested hosting a scholar mixer, while another participant simply wrote, "we need more student to student interaction."

### Summary of Findings

The sample size in this study made it difficult to find significant results in the quantitative analysis. However, examining the trends is helpful in understanding HSC

data. For instance, the organization might work toward recruiting more male applicants since 64% of their students are female. It will be interesting to see if the current persistence rate (73%) for males would continue if their representation increased. Another interesting finding is similar persistence rates for low-income students (69%) compared to their peers (67%). Similarly first generation students, have a 67% persistence rate compared to the 66% rate for their non first generation peers. The logistic regression finds that both high school and college GPAs as well as Title I high school graduate status are the strongest predictors of persistence when using multiple variables (college type and college GPA).

When examining award patterns, a regression finds that when controlling for gender, GPA, first generations status, and low-income status, major significantly impacts the award. This finding suggests the odds of being in the lowest scholarship group compared to being in the $2000 group is reduced by 85% by being in Liberal Arts as opposed to being in business. This finding might assist the selection committee when looking at applicants since it appears the committee slightly favors STEM and Liberal Arts majors.

The qualitative findings suggest that students are very satisfied with HSC. They believe the financial and personal support HSC provides has helped them navigate the transition to college process. The students shared the support of family, which has complemented HSC's efforts. Students all struggled with similar issues, especially time management. Using this feedback, HSC might tailor their

86

communication and training sessions to help future students better manage this challenge. A way to help students handle difficulty as college students would be aligning them with a strong mentor. The students spoke highly of having a person guide them through college and even wanted to be held accountable for their actions by someone other than their parents.

Using this information, HSC can work to tailor the Leadership Conference as well as their electronic communications. Because HSC is a flat organization, change can be implemented easily. Although this information is helpful, gathering feedback from students who are no longer with the program would also be beneficial. It would be very interesting to learn if HSC could have done more to prevent their departure from the scholarship program, and in some cases, from college.

**Chapter 5**


In the Higher Education Act (HEA), former President Lyndon B. Johnson's intention was every "high school senior anywhere in this great land of ours can apply to any college or any university in any of the 50 states and not be turned away because his family is poor." (President's Commission on Higher Education, 1947). Over sixty years later, this country continues to struggle with educating its population. Perhaps the greatest challenge for post-secondary institutions is increasing the numbers of students who persist to graduation. In an effort to help improve college graduation rates, the HSC targets a small population of Central Texas Hispanic students to assist them personally and financially.

This study addresses three questions regarding HSC. First, do student factors influence award amounts? Secondly, what are the best predictors of HSC program persistence rates? And lastly, how do HSC students explain their experience in the program? This chapter first provides a summary of the first three chapters in this dissertation. This is followed by an interpretation of the quantitative and qualitative results using Nora, Barlow, and Crisp's Student/Institution Engagement Model (2005) and Tinto's model of student departure (1993). The chapter concludes with recommendations for HSC as well as suggestions for future studies.

*Summary*

*Context*

      As a current high school counselor in central Texas, I have worked with several local and national scholarship programs over the last nine years. I have come to realize that many of these programs lack an understanding of their program's effectiveness. Do their scholarship awards ultimately make a difference in the lives of students who receive them? If so, how much money makes a significant impact on student persistence in college? As a current HSC scholarship recipient, I proposed further analysis be conducted on the very program that I am a part of.

      Chapter 1 addresses the challenge Texas is experiencing in educating its population. A college degree is critical for promoting quality of life. However, the Hispanic population in Texas has the lowest college completion rates of any racial group despite representing the majority of Texas adults. It is important to understand what factors influence students as they work towards a college degree, and financial hardship is often a reason students either don't attend or complete their higher education. For these reasons persistence and financial aid were explored in this study.

      Strong college persistence rates lead to high college graduation rates. This analysis examines persistence rates in the HSC program rather than college persistence rates. Since attempts at connecting with individuals no longer with HSC

89

were unsuccessful, I could not measure college persistence. Persistence was analyzed

using categorical variables (yes, no) because students within each cohort group

represented different levels of college experience. For instance, most students in

Cohort III declared that they were first year students, however eleven students either

failed to declare their status or were not first year students. Therefore, comparisons

within the group and between the groups were a challenge that led to the examination

of persistence as a categorical variable rather than continuous variable.

HSC award amounts are also analyzed in this study. HSC has made changes to

its program over the past few years, and only awarded scholarships under $2,000 to

the first cohort. Additionally, most (78%) awards are $2,000, making it difficult to

compare the 32 awards that were below $2,000 and above $3,000. Again, this proved

to be challenging when comparing within groups and between groups. For this

reason, three categories (<=$1,175, $2,000, $3-5,000) were established when

examining scholarship award amounts.

*Literature*

Chapter 2 reports on four scholarship programs, GMS, HSF, STAR, and

LPBS, that positively impact scholarship recipients. GMS students had stronger

GPAs and were more socially engaged than their non-recipient counterparts. HSF

students worked fewer hours and had an 80% graduation rate. LPBS students were

more likely to reenroll, take more credits per semester, and were more likely to persist

90

than their peers. STAR participants had higher GPAs and earned more credits than their peers.

The literature reviewed in chapter 2 addresses the many factors that impact college persistence. Nora, Barlow, and Crisp's (2005) framework for college persistence and Tinto's (1993) model of student departure will be addressed in the findings.

*Methodology*

Chapter 3 identifies the methods for this analysis of persistence and awarding in the HSC program. This study first employed quantitative comparative methods on data from HSC. The second part of this study used focus group interviews of HSC students from five different post-secondary institutions to provide rich content in describing their experience as a HSC scholar.

*Discussion of Findings*

*Findings for Research Question 1: Awarding*
In the present study, a model for examining the relationship between scholarship award and student factors explained 10% of the variability of total award dollars. However, the only factor in the model that was significant was major. To be specific, the findings suggest if students majored in Liberal Arts, they are more likely to receive a $2,000 award compared to the other award amounts. This finding is not helpful when investigating award patterns in HSC. The reason for this is that 77.5% of awards are $2,000. However, examining cross tabulations allowed to a deeper

exploration of award trends.

Through cross tabulations, I discovered there is much in this study to indicate that the HSC does not award the population of students it may intend to award. The HSC website states that scholarships are awarded in the range of $2,000 to $5,000 based on the following criteria: academic achievement (minimum GPA is 3.0), financial need, community service, and leadership potential. Additionally the website indicates first generation college students and students pursuing majors in the fields of healthcare, science, technology, engineering and math are closely reviewed. Meanwhile, low-income students received fewer awards (42%) than those who did not qualify as low-income. Furthermore, over the past five years, award the percentage of low-income students by cohort has diminished. For instance, table 15 illustrates these patterns.

Table 15: HSC Low-Income Population by Cohort

| COHORT | Low-Income Population |
|--------|---------------------|
| 1 | 58% |
| 2 | 54% |
| 3 | 29% |
| 4 | 41% |
| 5 | 27% |

Regardless, a students' low-income status was an interesting factor examined in this study. One question that arises from this study, however, is why, if financial need is one of the criterion for an award from HSC, there are fewer low-income scholarship recipients than non-low income. Low-income awardees are receiving more per award, but fewer are receiving an award. Further studies may examine the pool of applicants and consider the following questions: are all of the low-income applicants with sufficiently high GPAs receiving an award? Do high-GPA, high-income students receive awards before low-income students with GPAs in the first quartile? Have there been low-income applicants with first quartile GPAs who have not been awarded scholarships? If so, did they share any common characteristics?

It is easy to assume that low-income and first generation status are related factors, however this was not the case for the population in this study, where only half (52%) of first generation student are also from low-income families. First generation students represent a majority (66%) of the HSC population. Furthermore, these students receive 89% of the awards between $3,000 and $5,000, as well as 66% of the $2,000 awards.

Additionally, first generation students represent a majority (74%) of Title I high school graduates. These students are twice as likely to pursue a degree in Business over Liberal Arts or a STEM major. It would be interesting to learn what factor in Title I schools contributes to this desire in selecting this major.

93

Choice in major appears to be a factor contributing to award amount. Another result in this study that directly suggests HSC is not awarding scholarships with some preference for one of their target populations is that no significantly higher award was given to recipients with STEM majors. STEM and Liberal Arts majors are almost identically represented in overall awards with 41% for STEM and 42% for Liberal Arts.  It may be that as the population of awardees grows over time, a significant difference may develop for the awards to STEM majors. Or, again, it would be useful to study the applicant pool. It may be that the HSC is in fact targeting STEM and health career majors, and has given an award to every applicant with this major who also has an adequate GPA. That is, it may be that low-income students and STEM majors are both recruited until there are no more to recruit. If this is the case, broader recruitment efforts may bring more of the target population to the attention of HSC.

The examination of scholarship award trends allowed for a deeper understanding of the HSC program. Furthermore, past research can help put these results into context. Financial assistance and need are a component of Nora, Barlow, and Crisp's Student/Institution Engagement Model (2005). Unfortunately, the results from this study don't necessarily validate that award amount solely contribute to college persistence. Yet, according to the Student/Institution Engagement Model, no single factor acts alone in affecting college persistence. It is clear that many variables impact awarding patterns, even if only one was significant in this study. Future

research with larger populations and a range of award amount should contribute to stronger findings.

*Findings for Research Question 2: Persistence*
Research shows the positive relationship between financial aid and college enrollment and persistence. An offer of financial aid is an important predictor of college enrollment among high school graduates (Catsiapis 1987), and college applicants (St. John 1991), regardless of the type of aid (e.g., grant, loan, work,) (St. John and Noell, 1989). St. John and Chung (2004) found that, compared with non-recipients, recipients of "last dollar" grants through the Gates Millennium Scholars (GMS) program were 2.74 times more likely to maintain continuous enrollment. Unfortunately, the current study did not have a control group; therefore I could not replicate the GMS results.

However, I was able to compare my results to other studies. Fortunately, the findings from this study were not consistent with previous research about persistence among first generation college students. First generation students (67% persist) were equally likely to persist in HSC than their counterparts (66% persist) whose parents had obtained more education. These results were calculated for 139 rather than the population of 142. Although three students may appear to be a small number, since the population is small, this lack of data could have had a significant effect. This finding also highlights the need for HSC to track college persistence among students who leave the program. HSC staff have mentioned their efforts to collect college

enrollment information once students leave the program, however gaps in the data make it difficult to effectively analyze these variables.

To put this 67% persistence rate into context, the rates were examined by cohort. Since the first two cohorts qualify for graduation, persistence in these two groups should be evaluated more closely. A 52% persistence rate exists for the first cohort, while the second group has a 48% rate. This data appears to be more powerful as it better aligns with college completion versus program persistence.

Persistence for first generation students was of particular interest since they represent a majority of HSC scholars. Research has indicated that first generation students are often less academically prepared than non-first generation students (McJamerson & Lark, 1989). Whether or not a student attained a degree or was still enrolled in postsecondary education was strongly associated with his or her parents' education level (Hernandez & Lopez, 2004). The cross tabulation for first generation students and college GPA supports this research in that only 33% of first generation HSC students earn between a 3.0 and 3.40, compared to the 52% of non-first generation students who earn the same GPA. Only eleven percent of first generation students applied to HSC with a high school GPA below 3.0, however 73% of this at risk population did not persist in HSC. For these reasons, HSC should be mindful of students entering the program with lower GPAs.

Similar to the affect high school GPAs have on persistence, students with college GPAs under 3.0 struggle to persist (39% persistence rate). Of the non-

persisters, nearly half, 45%, left the program due to low grades, while the other half simply ended communication with the program or failed to provide the needed paperwork to renew the award. It would be interesting to see what other scholarship programs do in order to keep the lines of communication open between students and program staff.

Students with strong GPAs are more likely to persist through graduation. Lee (2005) examines various factors that help determine whether or not a student is likely to reach degree attainment. Lee finds that family income plays a major factor in predicting whether a student will complete a baccalaureate degree. Additionally, Lee's research shows adequate financial aid that allows students to attend full-time is essential to helping students persist and ultimately complete a college degree. This finding aligns with Tinto's theory of integration (1993), where student persistence in strongly predicted by the degree of their academic integration and social integration. If students are able to enroll in college on a full-time basis, and commit most of their time to college related activities such as study groups or campus activities, then they are more likely to persist. Unfortunately, this HSC study did not replicate these findings because of the lack of student data. However, learning about students' commitments outside of school, such as work or extracurricular involvement, would be a great variable to analyze for future studies. This also aligns with Nora, Barlow, and Crisp's (2005) research.

Guided by research, several student factors were put into a model to examine

the relationship with persistence. This model for examining the relationship between HSC persistence and student factors is shown in chapter 4. A backward selection logistic regression process eliminated nine student factors in the original model due to significance levels. High school and college GPAs as well as Title I high school graduate status were expected results for two reasons. First, since HSC asks students to maintain a minimum 3.0 GPA, this factor is closely related to persisting with the program. Interestingly, 39% of students with college GPAs under 3.0 continue to persist with HSC. A great question to ask non-persisting HSC students, if they were reached, would be why they left the program, since HSC appears to work with students who fail to meet their 3.0 GPA requirement.

These results are interesting and can empower HSC to develop support programs that target students from Title I high schools as well as students entering with GPAs below 3.0. I don't believe these students were incapable of persisting, however, their pre-college ability, a term coined in Nora, Barlow, and Crisp's model, contributes to the students' persistence. According to their model, other variables that may have interfered with persistence include, support from family, campus climate, and involvement in learning communities.

The regression results led me to believe that student factors such as gender, low-income status, first generation status, and major don't impact their persistence. Therefore, if students work hard, they should achieve similar results regardless of gender, income, and first generation status. Moreover, if HSC developed target

98

programs that focused on their Title I population, maybe their success rates could improve.

Questions that arise from this study include, what type of support provided to Title I students, as well as low academic performing students, may lead to improved persistence rates?

Although this study was only able to examine persistence in the HSC program, a goal for future studies would be the examination of college persistence. However, information from students who leave the program is absolutely needed in order to accurately measure college persistence. Strong college persistence rates that ultimately lead to college completion are the ultimate goal for HSC.

*Findings for Research Question 3*

Although the focus groups were small, the students provided a wealth of information regarding their experience with HSC. After examining the four themes that surfaced through the interview process, a few changes might be made within HSC in an effort to positively affect their recipients. First of all, the impact of aid appeared to be very significant to all participants, however when asked if they would be in college despite the HSC award, they all agreed that they would still be at their post secondary institutions. Further studies should investigate what dollar amount truly effects persistence.

A second interesting theme from the focus groups was the impact of family and mentors. HSC already has a mentorship aspect within in the program, yet students had a strong desire for a more robust mentoring program. This request can be addressed in several ways. First, experienced HSC scholars can foster relationships with their younger peers. Moreover, HSC students can work with local high schools to serve as mentors for prospective college students, ultimately creating a larger applicant pool for the program. Thirdly, HSC can recruit mentors who wish to become more involved with students. HSC can then provide training to these professionals and establish expectations so mentors know they have to contact their mentee each month.

Another theme that surfaced in the focus group was issues with time management. This challenge can be tackled through HSC's Leadership Seminar, but a great way to prepare not only college students, but also high school students is to get time management information out to students at the secondary school level. Focus group participants relied heavily on their family for this type of information during their high school years. It is unfortunate that many students lack the support and expertise to navigate the college planning process.

HSC is predominantly focused on college students. Since much work is needed at the secondary level, HSC might consider collaborating with other programs that offer similar services to Hispanic students. This process might develop a larger

applicant pool in order to distribute awards evenly among gender, income, and first generation status.

College access and persistence behavior are very complex processes that begin before middle school with numerous factors involved. These factors include:

- family income, including parents' education;
- level of academic preparation, counseling and mentoring;
- quality and timing of information;
- the delivery system, including application forms and processes;
- and, lastly financial aid.

A comprehensive strategy and approach that addresses all the factors is needed to effectively impact college completion among Hispanic students in Texas. Creating partnerships between colleges, foundations, businesses, and mentoring programs with federal and state support can help to grow programs such as HSC. Comprehensive interventions recognize that multiple factors, including poor academic preparation, counseling and advising, family assistance, and financial resources, impede college enrollment and persistence for low-income students. Based on their review of the longest-running state-sponsored programs, (Cunningham et al., 2003) concluded that programs with multiple components appeared to be more effective than programs that focused on only one type of service. This is not the case with HSC; they not only provide financial assistance but have also provided wrap around services when needed. Additionally, the Leadership Seminar works to develop additional skills for students while helping them network with donors and potential employers.

Although a review of prior research finds that a number of variables influence

college-enrollment and persistence for low-income students (Cunningham et al. 2003; Perna 2005b), only a small share of programs offer a comprehensive array of services (Gándara 2001; Perna 2002). Using descriptive data from a national survey, Perna (2002) concluded that only one-fourth of programs targeting low-income students reported having "critical" components:

- goal of college attendance, to facilitate student interest in college;
- college tours, visits, or fairs, to promote aspirations for, and information about, college;
- goal of promoting rigorous course-taking, to improve academic preparation and achievement;
- parental involvement, to enhance family assistance and;
- beginning by the 8th grade, to address academic and financial barriers early enough to promote college enrollment.

HSC should consider partnering with programs that already deliver these services such as Breakthrough, College Forward, and AVID. This partnership can allow students to become familiar with HSC early on. Given that many programs serve a small fraction of those in need, targeting help to the most needy students and leveraging resources through creative collaborations and partnerships are also absolutely essential.

By leveraging resources through collaborations and partnerships with other organizations, HSC in combination with other organizations may be able to serve a greater number of students and provide students with more services that begin earlier in the education pipeline. Developing partnerships with multiple entities not only increases the financial resources that are available to support program services, but

also has other benefits (Cunningham et al. 2003). Collaborations can reduce duplication of efforts, maximize the reach of services, and ensure that students receive a comprehensive array of services. Moreover, partnerships increase the likelihood that students receive services across successive educational levels (e.g., from middle to high school to college), a feature that is absent from many existing interventions (Gándara 2001).

*Recommendations*

Using research to guide HSC operations could lead to an increase in persistence rates. HSC should make some changes to their data collection process. Guided by Tinto's (1993) model of departure and Nora, Barlow, and Crisp's framework for college persistence (2005), HSC should collect data on the following:

- College engagement (participation in organization, extracurricular activities, study groups, etc.)
- Number of hours students work

Additionally, HSC should require that students provide their year of college in order to compare groups. Also, all fields in the HSC survey should be required so missing data won't impact future analysis. Lastly, all students should agree to participate in an online exit survey, especially if they leave the program. It is possible that students avoid contacting HSC once they no longer participate because of embarrassment or shame. However, the online exit survey might provide an informal method for collecting sufficient information in order to help students before they give up on higher education.

HSC already implements many of the recommendations found in the literature by offering support and targeting specific student needs. HSC incorporates a cultural component in all their offerings, especially in the Leadership Conference. HSC ensures that successful Hispanic role models lead several sessions. Additionally, HSC partners with several local organization and individuals in order to provide the maximum funding to students. An area of improvement, when using Perna and Cooper's (2005) research, would be starting earlier in the education pipeline. HSC focuses on it scholars and their college experience, however the organization might consider getting involved at the middle and high school levels through outreach.

Building on these recommendations, Perna and Cooper (2005) found that early intervention programs help promote college persistence. They identified five strategies to shared by successful programs:

- Begin early in the educational pipeline,
- Offer services that are comprehensive and tailored to individual student needs,
- Build in cultural features that match participants' strengths,
- Focus on students who most need the services,
- Partner and collaborate with government, educational, and private entities.

According to Perna and Cooper, it is especially important that early intervention programs inform families on what is required academically to enroll in college. Successful early interventions recognize that academic, social, and financial factors can lower college enrollment and persistence for low-income students. HSC has recently become more involved in early intervention. A recommendation to assist in outreach would be to require current scholarship recipients to return to their high

school and host an information session.

The implementation of programs like HSC should be guided by research to utilize resources in ways that most effectively and efficiently improve college persistence. While a small number of studies suggest the benefits of participating in an early intervention program, few studies have examined the effectiveness of particular program components. Additionally, little is also known about how to effectively implement particular components, such as family involvement. As a result, current knowledge is based largely on what is known about college enrollment and persistence for Hispanic students more generally.

More useful research on programs should have several characteristics. First, the research should be longitudinal in order to draw conclusions about the extent to which program participation causes a range of college-related outcomes that are realized over time, including college enrollment rates and college graduation rates. Longitudinal research may be especially useful for identifying the types of services that students and their families require at different points in the education pipeline.

Future studies should involve more rigorous research methodologies such as a control or comparison group. While random assignment of students to intervention treatment and control groups may not possible in most cases, programs must be able to demonstrate the benefits of their efforts for participants relative to non-participants.

Several methodologies are required to fully understand the effectiveness of scholarship programs. Given the complexity of these programs, the differences across

105

programs in structures and participants, and the limitations that are inherent in all research studies, no one study is sufficient for understanding the contribution of scholarship programs to college persistence.

Scholarship programs are expensive to operate, in part because the most effective services are labor-intensive (Gándara 2001). Specifically, the most effective programs appear to be those in which participants have regular interactions with program staff as they progress along the education pipeline from middle school, through high school, and through college (Cunningham et al., 2003). If HSC continues to partner with organizations and individuals, they can grow the number of students they currently support. Moreover, collaborating with other programs can ensure than students and their families become more familiar with the college process and ultimately increase the number of Hispanic college graduates in Central Texas.

The education of the Hispanic population is critical in our state's economic future. Initiatives building college awareness currently exist, however there are few programs to support Hispanic students through the often-overwhelming college experience. For this reason HSC is a solution to tackling this issue, however strong evaluation measures must be implemented in order to identify if the program is truly meeting its goals. If successful, the HSC model can be replicated elsewhere in hope of increasing the amount of college educated Hispanics.

**Appendix A**

*Focus Group Questions*

1. Tell me your major, your year, and the college you are attending?
2. Why did you select the college you're enrolled in? (School reputation, Cost, Scholarship, Location, Friends, Sports, etc)
3. How has your family responded to your college decisions?
4. Tell me about your goals as part of coming to college and why?
5. Tell me about any preparation before you started college?
6. What were your expectations of college?
7. Tell me about your college experience thus far? Surroundings? Environment? Experiences? What it is taking to earn a degree? Extracurricular activities?
8. How do you handle academic demands, if any?
9. What is the greatest challenge as a college student?
10. Are you getting academic support services or guidance? Why or why not?
11. Describe your experience with financial aid? How are you paying for college?
12. Is the HSC scholarship different from any others you received? How?
13. What specific HSC factors/programs influenced your ability to attend and remain in college, if any?
14. Describe your experience with HSC Leadership Development Seminar?
15. Has HSC helped you secure an internship/employment?
16. What can HSC do to better assist you and future scholars?
17. Are you planning to continue your education upon completion of your undergraduate degree?
18. Is there anything else you want to add that we have not talked about? Or questions I did not ask you that I should have?

**Appendix B**

TITLE: EVALUATING THE IMPACT OF A CENTRAL TEXAS SCHOLARSHIP
PROGRAM ON HISPANIC STUDENTS

Conducted By: Eva Garza-Nyer
Of The University of Texas at Austin        *Department / Office*: Education/CCLP
        Telephone: 659-1508

You are being asked to participate in a research study.  This form provides you with
information about the study.  The person in charge of this research will also describe
this study to you and answer all of your questions. Please read the information below
and ask any questions you might have before deciding whether or not to take part.
Your participation is entirely voluntary.  You can refuse to participate without penalty
or loss of benefits to which you are otherwise entitled.  You can stop your
participation at any time and your refusal will not impact current or future
relationships with UT Austin or participating sites.  To do so simply tell the
researcher you wish to stop participation.  The researcher will provide you with a
copy of this consent for your records.

**The purpose of this study** is to examine student experiences in the Hispanic
Scholarship Consortium.

**If you agree to be in this study, we will ask you to do the following things:**
- Complete a survey
- Participate in a 40 minute videotaped interview
- Do a 10 minute free-write

**Total estimated time to participate** in study is 1 hour.

**Risks** of being in the study
        This focus group may involve risks that are currently unforeseeable. If you
wish to discuss the information above or any other risks you may experience, you
may ask questions now or call the Principal Investigator listed on the top of this form.

**Benefits** of being in the study:
- It would be very beneficial to HSC stakeholders, current and future scholars to
  know how you feel about this program. This information will be used to make
  future program decisions.
- Refreshments and snacks will be provided.

- iTunes gift card per participant.

**Confidentiality and Privacy Protections:**
- Your name will not be used in reporting the information
- The data resulting from your participation may be made available to other researchers in the future for research purposes not detailed within this consent form. In these cases, the data will contain no identifying information that could associate you with it, or with your participation in any study.
- This focus group will be *videotaped*:
    - (a) *video will be coded so that no personally identifying information is visible on them;*
    - (b) *video will be kept in a secure place (e.g., a locked file cabinet in the investigator's office);*
    - (c) *video will be heard or viewed only for research purposes by the investigator and his or her associates.*

The records of this study will be stored securely and kept confidential. Authorized persons from The University of Texas at Austin, members of the Institutional Review Board, and (study sponsors, if any) have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. All publications will exclude any information that will make it possible to identify you as a subject. Throughout the study, the researchers will notify you of new information that may become available and that might affect your decision to remain in the study.

**Contacts and Questions:**
  If you have any questions about the study please ask now. If you have questions later, want additional information, or wish to withdraw your participation call the researchers conducting the study. Their names, phone numbers, and e-mail addresses are at the top of this page. If you have questions about your rights as a research participant, complaints, concerns, or questions about the research please contact Jody Jensen, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects at (512) 232-2685 or the Office of Research Support at (512) 471-8871 or email: orsc@uts.cc.utexas.edu.

  *You will be given a copy of this information to keep for your records.*

**Thank you for participating in this study.**

**This is an opportunity to express your thoughts and feelings about your college experience in relation to HSC. You can write about more details that you weren't able to express during the focus group.**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

**Statement of Consent:**

I have read the above information and have sufficient information to make a decision about participating in this study. I consent to participate in the study. If you would like a summary of the results, please provide your email address:

Signature:_____ Date:

Signature of Investigator:_____ Date:

**Appendix C**

*History of HSC*

The Hispanic Scholarship Consortium (HSC) seeks to accomplish one goal: to open the doors to opportunity for Hispanic students through access to higher education. HSC is a collective of grassroots organizations across Central Texas that, through financial assistance and mentoring, helps Hispanic students get into and succeed in college. From scholarships to college counseling to career development services, HSC's member and partner organizations offer Hispanic scholars the chance to pursue the first step of their dreams by attaining a college education.

The organization was founded in the fall of 2004 by Dr. David B. Garcia to facilitate cooperation among Central Texas organizations dedicated to the advancement of Hispanics. HSC unites minority-focused nonprofit groups to leverage collective ideas and resources in order to increase the enrollment of Hispanic students in colleges and universities. One avenue for accomplishing this goal is HSC's Matching Funds Program, which doubles the financial aid available to students by matching, dollar for dollar, the funds raised by Consortium members for scholarships. Collaboration on projects like this creates dialogues between member and partner organizations that spark new initiatives and new approaches—and this is what HSC is all about.

# References

Adelman, C. (2006). The Tool Box Revisited: Plans to Degree Completion from High School to College. Washington, D.C: U.S. Department of Education.

Advisory Committee on Student Financial Assistance. (2006). Mortgaging our future: How financial barriers to college undercut America's global competitiveness. Retrieved from http://www.ed.gov/about/bdscomm/list/acsfa/mof.pdf

AEE. (2009). Alliance for Excellent Education. Texas High Schools. Retrieved from www.allfored.org.

Angrist, J., Lang, D., & Oreopoulos, P. (2007). Incentives and services for college achievement: Evidence from a randomized trial. *American Economic Journal: Applied Economics*, 2009, 1:1, 1-28.

Anft, M. (2002). Pitching Education for Hispanics. *Chronicle of Philanthropy*, 14(6).

Badolato, V. (2010). The future of higher education may depend on the success of community colleges. National Conference of State Legislatures.

Ballesteros, E. (1986). The Chicano and equal educational opportunity. The relationship of school outcomes, family background, and high school outcomes. Unpublished doctoral dissertation, University of California, Los Angeles, CA.

Baum, S., & Lapovsky, L. (2006). Tuition discounting: Not just a private college practice. College Board. New York.

Cabrera, A. F. & La Nasa, S. M. (2000). Understanding the college choice of disadvantaged students. *New Directions for Institutional Research*. San Francisco: Jossey-Bass.

Carnevale, A.P., & Fry, R.A. (2000). Crossing the great divide: Can we achieve equity when generation Y goes to college? Princeton, N.J.: Educational Testing Service.

Chrispeel, J., & Rivero, E. (2001). Engaging Latino families for student success: How parent education can reshape parents' sense of place in the education of their children. *Peabody Journal of Education*, *76*(2), 119-169.

Clayton, K.K. (1993). Family influence over the occupational and educational choices

112

of Mexican American students: Western Illinois University.

College Board. (2005). Education Pays. (New York, New York, 2005).

College Board. (2007). Trends in college pricing. (New York, New York, 2007).

College Board. (2009). Trends in college pricing. (New York, New York, 2009).

Combs, S. (2008). Texas Works: Training and education for all Texans.

Connelly, L.M. (2009). Mixed methods studies. MEDSURG Nursing, 18(1).

Cunningham, A., Redmond, C., & Merisotis, J. (2003). Investing Early: Intervention
programs in selected U.S. states. Montreal: Canada Millennium Scholarship
Foundation.

Damast, A. (2008). College tuition just keeps climbing. *Business Week*.

DesJardins,S & McCall, B. (2008). "The Impact of the Gates Millennium Scholars
Program on the Retention, College Finance- and Work-Related Choices, and
Future Educational Aspirations of Low-Income Students," mimeo.

Ehrenberg, R. (2007). Tuition rising: Why college costs so much. Retrieved from
http://net.educause.edu/ir/library/pdf/ffp0005.pdf

Esprivalo, P., & Scott, W. (2003). Ready or not here we come: Retaining Hispanics
and first generation students in post-secondary education. *Community College
Journal, 26*(2), 147-156.

Excelencia in Education and the Institute for Higher Education Policy. (2005). *How
Latino students pay for college: Patterns of Financial Aid (2003-2004).*
Fleming, J. (1984). *Blacks in college: A comparative study of students' success
in Black and White institutions*. San Francisco: Jossey-Bass.

Fields, C. (1988). The Hispanic pipeline: Narrow, leaking, and needing repair.
*Change, 20* (3), 20-27.

FinAid. (n.d.a.). Glossary. Retrieved from
http://www.finaid.org/questions/glossary.phtml#g
Fry, R. (2003). *Latinos in higher education: Many enroll, too few graduate*.
Washington, DC: Pew Hispanic Center. Retrieved from www.pewhispanic.org.

Fry, R. (2004). Latino Youth Finishing College [Electronic Version]. *Pew Hispanic Center Report*. Retrieved from http://pewhispanic.org/reports/report.php?ReportID=30

Gándara, P. (2001). Paving the way to postsecondary education: K-12 intervention programs for underrepresented youth. Washington DC: National Postsecondary Education Cooperative, Working Group on Access to Postsecondary Education.

Gándara, P., & Contreras, F. (2009). The Latino Education Crisis: The Consequences of Failed Social Policy. Harvard University Press

Gazette, U. (1996). Princeton University's Commencement Address. Retrieved from http://communications.uwaterloo.ca/Gazette/1996/July24/US%20president%20speaks%20on%20education

Greene, J.C., & Caracelli, V.J. (2003). Making paradigmatic sense of mixed-method practice. In A. Tashakkori and C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp.99-110). Thousand Oaks, CA: Sage.

Griffith, A. L. (2009). Keeping up with the Joneses: Institutional changes following the adoption of a merit aid policy. Wake Forest University. Department of Economics. Retrieved from www.ilr.cornell.edu/cheri/upload/cheri_wp120.pdf

Haurwitz, R.K.M. (2009). Boosting Hispanic enrollment increasingly urgent. *Austin American Statesman*. July 29, 2009.

Heller, D.E. (2000). The role of race and gender in awarding of institutional financial aid. Michigan University. Association for Institutional Research.

Hernandez, J., & Lopez, M. (2004). Leaking pipeline: Issues impacting Latino college student retention. *Journal of College Student Retention, 6*(1), 37-60.

Hispanic Scholarship Fund. (2009). About the Hispanic scholarship fund. Retrieved from http://www.hsf.net/AboutHSF.aspx?id=32&ekmensel=c580fa7b_8_0_32_2

Hu, Shouping. (2008). Merit-based financial aid and student enrollment in baccalaureate degree programs. Florida State University. Retrieved from http://www.airweb.org/webrecordings/forum2008/743%20-%20Merit-Based%20Financial%20Aid%20and%20Student%20Enrollment.pdf

Hurtado, S. (1994). The campus climate: Contexts of conflict. *The Journal of Higher*

*Education, 63*(5), 539-569.

Hurtado, S., Laird, T., Perorazio, T. (2003).  *The transition to college for low-income students:  The impact of the Gates Millennium Scholars program.*  Center for the Study of Higher and Postsecondary Education, University of Michigan.

Jaschik, S. (2008). State appropriation. Inside Higher Ed. Retrieved from http://www.insidehighered.com/news/2008/01/11/grapevine

Lederman, D., (2008). Unintended consequences of state merit-based aid. *Inside Higher Ed*. Retrieved from www.insidehighered.com/news/2008/05/29/merit

Lederman, D., (2009). College for all. *Inside Higher Ed*. Retrieved from www.insidehighered.com/news/2009/02/25/obama

Lee, J. (2005). *Ensuring Persistence and Degree Completion*. Found in: Reflections on College Access and Persistence. ACSFA Symposium on Access and Persistence.

Leppel, K. (2005). College persistence and student attitudes toward financial success. College Student Journal, Vol. 39.

McCloyd, V. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61*(2), 311-346.

McJamerson, E., & Lark, P. (1989, March). *Data-driven retention research: Using institutional research to inform institutional practice*. Paper presented at the meeting of the American Educational Research Association, San Francisco.

McPherson, M. & Schapiro, M.O. (2005) *Opportunities in American Higher Education*. Found in: Reflections on College Access and Persistence. ACSFA Symposium on Access and Persistence.

Mertens, D. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative and mixed methods*. Thousand Oaks, CA: Sage.

Millet, C.M, & MacKenzie, S. (1996). An exploratory study of college purchase options: How financial aid widens minority choices.

Morgan, D.L. (1997). *Focus groups as qualitative research* (2nd ed. Col. 16). Thousand Oaks, CA: Sage.

Mumper, M. (1996). Removing college price barriers: What government has done and why it hasn't worked. Ithaca: SUNY Press.

Muñoz, D. (1986). Identifying areas of stress for Chicano undergraduates. In M. A.

Olivas (Ed.), *Latino college students* (pp. 147-149). New York: Teachers College Press.

Nagaoka, J., Roderick, M., & Coca, V. (2009). Barriers to College Attainment: Lessons from Chicago. Center for American Progress. Retrieved from www.americanprogress.org/issues/2009/01/chicago_schools.html

National Center for Education Statistics. (2003). *Status and trends in the education of Hispanics.* Washington, DC. U. S. Department of Education.

National Center for Education Statistics. (2007). Public High School Graduation rates. Washington, DC. U. S. Department of Education.

National Center for Education Statistics. (2008). IPEDS, Enrollment Surveys, 2006-2007. Washington, DC. U. S. Department of Education.

National Center for Education Statistics. (2009). Public High School Graduation rates. Washington, DC. U. S. Department of Education.

National Center for Higher Education Management Systems. (n.d.). NCHEMS Report on Higher Education Inequality. www.nchems.org

Nevarez, C. (2001). Mexican-Americans and other Latinos in postsecondary education: Institutional influences. Clearinghouse on Rural Education and Small Schools, Charleston, WV.

Nora, A., Barlow, L., & Crisp, G. (2005). Student persistence and degree attainment beyond the first year in college. In A. Seidman (Ed.), *College student retention: formula for success.* (pp. 129-153). Westport, CT: Praeger Publishers.

Nora, A. (1990). Campus-based aid programs as determinants of retention among Hispanic community colleges. *Journal of Higher Education, 61*(3), 312-327.

Nuñez, A., & Cuccaro-Alamin, S. (1998). *First generation students: Undergraduates*

*whose parents never enrolled in postsecondary education* (NCES 98-082). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.

Oseguera, L., Denson, N., & Hurtado, S. (2008). Hispanic students and the Gates Millennium Scholarship program: Promising results extending to the third college year. *Journal of College Student Retention. 10(3), 307-338.*

Padilla, R., Trevino, J., Gonzalez, K., & Trevino, J. (1997). Developing local models of minority student success in college. *Journal of College Student Development, 38* (2), 125-135.

Pascarella, E.T., & Terenzini, P.T. (2005). *How college affects students.* Vol.2: A third decade of research. San Francisco: Jossey-Bass.

Patton, M.Q. (2002). Qualitative research and evaluation methods. Thousand Oaks: Sage Publications.

Pedroso, R. & Medrich, E. (2006). A Gathering Force: A Survey of Two Cohorts of Hispanic Scholarship Fund Scholars. MPR Study. Retrieved from www.mprinc.com/products/search.aspx?pubID=409

Perna, L.W. (2002). Pre-college outreach programs: Characteristics of programs serving historically underrepresented groups of students. Journal of College Student Development 43: 64-83.

Perna, L.W., & Titus, M. (2002b). Understanding differences in the choice of college attended: The role of state context. Paper presented at the annual public policy forum of the Association for the Study of Higher Education, Sacramento, CA.

Perna, L.W. & Cooper, M.A. (2005). Intervening Early & Successfully in the Education Pipeline. Found in: Reflections on College Access and Persistence. ACSFA Symposium on Access and Persistence.

Perna, L.W. (2005b). A gap in the literature: the influence of the design, operations, and marketing of student aid programs on the formation of family college-going plans and resulting college-going behaviors of potential students. Journal of Student Financial Aid.

Perna, L.W. (2005c). Understanding the relationship between information about college costs and financial aid and students' college-related behaviors. Paper

presented at the annual meeting of the American Education Research Association, Montreal, Canada.

Perryman, R. (2002). Texas our Texas. An assessment of economic development programs and prospects in the lone star state. Retrieved from http://www.perrymangroup.com/

Petersen, D., & Assanie, L. (2005). The Face of Texas Jobs, People, Business, Change: The Changing Face of Texas: Population Projections and Implications. Federal Reserve Bank of Dallas. Retrieved from: www.dallasfed.org/research/pubs/fotexas/fotexas_petersen.html

President's Commission on Higher Education. (1947). *Higher Education for America Democracy: The Report of the President's Commission on Higher Education.* Vol. 2. New York: Harper & Brothers.

Ramirez, G. (1987). *Retention of the Latino student: Student affirmative action at CSULB*. Paper presented at the meeting of the National Association for Bilingual Education, Denver, CO.

Redd, K.E. (2003). Do state academic merit scholarships discriminate against African Americans? *Black Issues in Higher Education*, 20(1), 38-39.

Reuters, T. (2008). How is U.S. higher education faring? Retrieved from www.reuters.com/articlePrint?articleid=USN2451525120081030

Richburg-Hayes, L., Brock, T., LeBlanc, A., Paxson, C., Rouse, C., & Barrow, L., (2009). Rewarding persistence: Effects of a performance-based scholarship program for low-income parents. MDRC.

St. John, E. P., & Chung, C. G. (2004). The Impact of GMS on financial access: Analyses of the 2000 cohort.

Santiago, D., Brown, S. (2004). Federal policy and Latinos in higher education, Washington, D.C.: Pew Hispanic Center.

Santiago, D. (2007). Voices: A profile of today's Latino college students. Excelencia in Education.

Sorensen, S., Brewer, D., Carroll, S., & Bryton, E. (2003). *Increasing Hispanic participation in higher education: A desirable public investment.* Retrieved from http://www.rand.org/publications/IP/IP152/

Texas Higher Education Coordinating Board. (2009). *Closing the Gaps by 2015: 2009 progress report*.

Texas Higher Education Coordinating Board, (2008). *Texas Higher Education Quick Facts.* Retrieved from http://www.thecb.state.tx.us/Reports/PDF/1096.PDF.

Texas Higher Education Coordinating Board. (2000). Closing the gaps. Retrieved from http://www.thecb.state.tx.us/reports/PDF/0379.PDF

Texas Legislative Budget Board, Criminal Justice Uniform Cost Report, Fiscal Years 2004-2006 (Austin, Texas, January 2007), p. 3.

Tierney, W.G., and A. Jun. (2001). A university helps prepare low-income youths for college: Tracking school success. Journal of Higher Education 72: 205-225.

Tinto, V. (1993). *Leaving College: Rethinking the causes and cures of student attrition*. Chicago: University of Chicago Press.

Tinto, V. & Engle, J. (2008). *Moving beyond access: college success for low-income, first generation students*, Retrieved from http://www.pellinstitute.org/files/COE_MovingBeyondReport_Final.pdf

U.S. Bureau of the Census. (2008). Annual Social and Economic Supplement," Current Population Survey. Bureau of Labor Statistics. Washington, DC. Retrieved from http://www.census.gov/hhes/www/cpstc/cps_table_creator.html

U.S. Bureau of the Census. (2009). State and County Quick Facts. Retrieved from http://quickfacts.census.gov/qfd/states/48/48453.html

U.S. Department of Commerce, Bureau of the Census. (2004). *Current population survey annual social and economic supplement*. Retrieved from: http://www.census.gov/population/sociodemo/hispanic1ASEC2004/Median_tab_04.xls

U.S. Department of Education, Council of Economic Advisors. (2000). *Educational attainment and success in the new economy: An analysis of challenges for improving Hispanic students' achievement. (ERIC Document Reproduction Service No. ED442890)*

U.S. Department of Education. (2006). Meeting the Challenge of a Changing World: Strengthening Education for the 21st Century (Washington, D.C.), p. 4,

Retrieved   from:
http://www.doleta.gov/wired/files/Meeting_The_Challenge_of_a_
Changing_World.pdf

Valenzuela, A. (2000). *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. Austin: University of Texas Press.

Vara-Orta, F. (2007). Most Latino students spurn college loans. January 31, 2007. *LA Times*. Retrieved from http://articles.latimes.com/2007/jan/31/local/me-latino31?pg=1

Villalpando, O., & Solorzano, D. (2005). The role of culture in college preparation programs: A review of the research literature.  In Preparing for college: Nine elements of effective outreach, ed. W. G. Tierney, Z. B. Corwin, and J. E. Colyar, 13-28.  Albany NY: State University of New York Press.

Wire, S.T. (2008). Parents saving less for children's college. *Chicago Sun Times*, Retrieved from www.nasfaa.org/publications/2008/awsvings092408.html

Wolfe, L. (2009). Which is Politically Correct: Latino or Hispanic? Retrieved from http://womeninbusiness.about.com/od/businessetiquette/a/pc-hispanic.htm

Zhu, L., & Meeks, C. (1994). Effects of low-income families' ability and willingness to use consumer credit on subsequent outstanding credit balances. *Journal of Consumer Affairs, Vol. 28*, 1994.

## VITA

Eva Maria Garza-Nyer attended St. Augustine High School, Laredo, Texas. In 1994 she entered The University of Texas at Austin. She received the degree of Bachelor of Arts from UT Austin in May 1997 and the degree of Master of Education from UT Austin in May 1999. During the following years she was employed as a management consultant. She entered the field of education in 2002 as a college counselor in the Austin Independent School District. She joined the Austin Community College faculty from 2004 thru 2006. In 2007, she entered the Graduate School at The University of Texas at Austin.

Permanent Address:  5310 Painted Shield Dr., Austin, Texas 78735

This manuscript was typed by the author.