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A mixed method study of rural Iowa Latino high school students to determine barriers to access

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DEDICATION

This

study

is dedicated

to two women

who inspired me to

always do my best:

my grandmother

Helen Schiele Wolf

and

my freshman English professor and advisor

Mildred Helen Bensmiller

Thank you!

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ABSTRACT

The purposes of this mixed method study were (a) to gain an understanding of how background and educational experiences affect the college decision-making process of rural high school students, and (b) to identify barriers rural Latinos encounter when formulating their post-high school plans. A survey was used to collect data concerning high school experiences. A purposive sample of rural Latino high-school graduates was interviewed to gather perceptions of their educational and background experiences.

The researcher employed a hypothetical logic model based on the college choice literature. The hypothesized model was used to examine how selected variables: background (mothers' educational attainment, residency, parents' view of education), educational environment (rigorous curriculum, gpa, students' perceptions of high school environment, engagement), and perceived barriers (work, financial aid information) affect students' college aspirations and enrollments, in particular, if there is a difference between Whites and Latinos. Descriptive statistics, logistic regression, and narrative inquiry were used to analyze the data.

The results of this study suggested several factors which influence rural Latinos' aspirations and enrollments in college. Among the findings: (a) students' command of English affects whether or not they enroll and complete a rigorous high school curriculum; (b) U.S. residency status influences Latinos' decisions to enroll in college; and (c) teacher validation and encouragement has a positive affect on aspiration and college enrollment.

The study should be replicated in other small rural communities with large ethnic growth. In addition, policy-making entities need to review legislative initiatives to make certain that they address the findings offered in this study.

CHAPTER 1. INTRODUCTION

Background

There is a widely held perception in the United States that each individual has equal access to economic opportunity and upward mobility. This belief lies within the country's *Declaration of Independence*, as scribed by Thomas Jefferson (1776): "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness…" (p. 1). Many believe that the path to "life, liberty and the pursuit of happiness" is through education.

Despite the "belief" that individuals are equal, there are many factors that disavow this perception. Each individual is born into an economic class. Within their lifetimes individuals may be given the opportunity to further their lot through educational and employment opportunities. Through these opportunities some will be able to break from their economic inheritance. From an historical perspective this achievement will be through embracing and completing an educational program beyond high school (Reich, 2006).

As a society we want to believe each individual has equal access to educational opportunities. However, for some this is not the reality. This study explored environmental and societal factors in the lives of Latinos living in rural Iowa to determine how those factors affect Latinos' decisions of whether or not to access higher education opportunities.

Problem

Despite the breadth of research on access to higher education, there is little to suggest that the personal and cultural factors that deter high school students from enrolling in college have changed substantially since the release of the Truman Commission on the Status of Higher Education (1946) (Zook, 1947). In today's society, education plays a vital role in helping to determine an individual's participation in the American economy and potential contributions to society-at-large. Individuals who attend and graduate from college enjoy such benefits as higher lifetime earnings, better health, longer lives, and a lower probability of unemployment (Bowen, 1997; Mortensen, 2006). There are also societal benefits as a result of higher education attainment, including reduced crime, reduced dependency on public welfare, increased volunteerism, higher voting rates, and greater civic involvement (Bowen, 1997; Perna & Swail, 2002). As a result of the scientific and societal advances in the past 50 years, society demands that high school graduates be competent in high-level skills in order to compete in the workforce (McCabe, 2003). Society also expects these same individuals to be prepared to attain a postsecondary education at some time in their lives.

In the last century many decision-making entities attempted to define areas of concern and need in regards to helping under-served populations attain a higher education, assuring integration and access, and providing financial assistance. Two landmark U.S. Supreme Court cases of note were Brown vs. the Department of Education (1954) in which the Court guaranteed the rights of Blacks to enroll in public universities by requiring these institutions to be integrated. The second case was Plyer vs. Doe (1982), in which the Court guaranteed the children of undocumented immigrants' access to a free public education for grades K through 12 without having to provide documentation. Finally, under the guidance of

President Lyndon Johnson, Congress passed the Higher Education Act (1965) which provided the foundation for a federally funded need-based financial aid program. This program was designed to provide grant and work assistance to students who demonstrated academic promise but could not afford to attend a public college or university.

Education is critical to an individual's economic success in the United States as life-time earnings are closely tied to educational achievement (Teri, 1995). Education remains a key to the success of individuals and the communities in which they live. This is particularly important in an information-based economy, where higher education equates to better paying jobs.

Access to education has intrigued American educators, researchers and policymakers over the span of two centuries. In 1946, The Truman Commission determined how to establish a more productive workforce. Early in the Commission's study, it was determined that education was a major factor in developing and maintaining a creative and productive workforce. This landmark Commission identified six barriers to accessing college: (1) economic; (2) regional variations; (3) restricted curriculum; (4) race; (5) religion; and (6) gender (Zook, 1947).

Thirty-seven years ago, with the passage of the Higher Education Act of 1965, the nation made an implicit commitment to low-income students: the promise of access to college for those who are academically prepared (Advisory Committee on Student Financial Aid Assistance, 2001; Gladieux & Wolanin, 1976; Heller, 2002). At that time, the goal of the nation was to develop an educated workforce that would be able to compete in a global economy. That promise was made to ensure, at a minimum, that any academically prepared, low-income student would be able to attend full-time either at a two-year or four-year public

institution, and not be required to work or borrow educational loans in excess. While the commitment to access remains implicit today, somehow its promise has lost its allure for some segments of students.

The common thread that runs between the Truman Commission, the Higher Education of Act of 1965, and recent research is the acknowledgement that the economic future of the United States rests with the awareness that an educated populace is needed to create an internationally competitive workforce. Obtaining a college education is recognized as a milestone towards reaching the "American Dream," i.e., the dream of achieving economic security and upward social mobility. Yet, in today's society, there is a disconnect between the American Dream and the American Reality and, within that disconnect, lies America's future.

Between 1981 and 2002, nearly 3.8 million individuals in the United States completed a college education (National Center for Education Statistics, 2005a). Historically, Whites pursue higher education at greater numbers than any of the ethnic minority groups. However, the White population is not growing. In 1990 the U.S. population was reported at 248.7 million, of which 76.4% were White, 11.5% Black, 8.6% Latino. 2.8% Asian/Pacific Islander, and .8% American Indian (U.S. Census, 1990). In 2000 the United States had realized a 13.2% increase from the 1990 population, of a total of 281.4 million, of which 71.8% were White, 11.8% Black, and 12.0% Latino, 3.6% Asian/Pacific Islander, and .8% American Indian (U.S. Census, 2001a). This demographic shift is impacting the nation's labor force, educational systems, and public policies.

Concern associated with this demographic shift is great, as it is estimated that 30 million Latinos will enter the workforce in the next 20 years (Suro, 2003). The major

concern is that many of these individuals entering the workforce do not have the educational background to successfully compete in an information economy (Lowell & Suro, 2002; McCabe, 2003).

While Latinos are the largest and fastest growing population in America, in comparison to Whites and Blacks, the percentage of Latinos attending colleges and universities is low. Of undergraduates age 18 to 24 enrolled in higher education institutions, 37% are White, 28% are Black, and 20% are Latinos (NCES, 2002). Many believe that the value of a higher education can be gauged by the number of students who enroll in college shortly after completing high school as it reflects the need for training beyond high school, and the degree of accessibility to higher education. In 2004, 3.6 million 18 to 24 year-old-students (i.e., the ages of typical high school as well as early graduates) enrolled in some form of postsecondary education (NCES, 2005b). Of these enrollees, 41.7% were White, 31.8% Black, and 24.7% Latino. Looking at these percentages could lead one to believe that Latinos are lagging way behind Whites in enrollment. However, when the college enrollment population is narrowed to 18 to 24 year-old students who completed high school, the ethnic enrollment figures reflect another scenario: 48.4% Whites, 47.7% Blacks, and 40.8% Latinos (NCES, 2005e). Almost half of high school completers in each ethnic group enroll in college. When comparing to two sets of figures one could conclude that a reason Latinos do not go on to college is because they do not finish high school.

Latinos are the fastest growing population in the United States, and will become the core of America's future workforce, it is important to understand why these individuals do not pursue higher education. This demographic shift means that America's economic future, which is integrally tied to its educational system (McCabe, 2003; Rand Corporation, 1997),

will be increasingly dependent upon the Latino community. For states such as Iowa it is doubly important to understand this phenomenon. According to the 2000 U.S. Census, the only populations in Iowa that increased from the 1990 Census were immigrants and ethnic minority groups. Of Iowa's 2,926,473 population count in 2000, 3.5% were Latino. Among these, 29.6% lived in communities of 10,000 or less in size, of which Latino children were most likely enrolled in a rural school district (U.S. Census, 2000b).

As the face of Iowa changes, so does the face of its classrooms. Iowa educators in elementary and secondary systems through college need to be prepared and positioned to develop and deliver educational programs that will foster the aspirations of rural Latino students.

Purposes of the Study

The purposes of this explanatory, mixed method sequential study (Creswell, 1994) were to: (a) gain an understanding of how students' background characteristics, including educational aspirations, parental education attainment, parental emphasis on educational attainment, influence of family and work obligations, and social experiences affect the college decision-making process of rural high school students; and (b) identify the barriers rural Iowa Latino high school students encounter when formulating their post-high school plans. This study fills holes in the current literature on college decision-making processes, specifically in the areas of rural Latino students' background characteristics. This study explored the potential relationship between educational aspirations, and educational and familial influences, including level of parental education, parental emphasis on educational attainment, influence of family and work obligations, educational and social experiences.

Methodological Approach

A logical positivistic approach was employed to examine the research questions associated with this study. A sequential model was employed to examine factors that are barriers and enablers to students' aspirations to attend college. This model was used to study individual and multiple factor relations with the two dependent variables.

While the positivistic portion of this study was used to identify factors that contribute towards a Latino student enrolling or not enrolling in college, the qualitative portion of this study constructed an understanding of how those factors exist within the larger context of the students' lives. Social constructionists seek to explain how individuals interpret their environment and make meaning out of their experiences. In this study the researcher sought to understand not only what factors enable or prevent a student from enrolling in college, but also how a student's experiences interact with these factors.

Theoretical Framework

A growing body of literature provided information regarding theories and factors that impact American society in providing social equity in education, including social capital (Bourdieu, 1990), situated contexts (McDonough, 1997; St. John, Paulsen, & Starkey, 1996), the concept of habitus (Berger, 2000; Bourdieu, 1997), the phenomena of high school students' college choice process (Cabrera & La Nasa, 2000; Hossler, Schmit, & Vesper, 1999; McDonough, 1997; McDonough, Antonio, & Trent, 1997), and validation of culturally diverse students (Rendón, 1994). Portions of these concepts were drawn upon when formulating the questions to ask during the semi-structured interviews. In addition, these concepts were employed when validating the participants' responses.

While a positivistic quantitative approach can provide the strength of validity to factors that influence a student's choice to access higher education, this approach alone does not describe the context from which the student comes, when formulating his/her decision. In contrast, a qualitative approach can provide a rich description of the multiple factors students encounter when making their decisions to access college, but these data can be difficult to quantify. To gain a better understanding of the factors related to this study, while incorporating the students' perspectives, a mixed methods study was selected to limit the shortcomings of either method. Therefore, two theoretical perspectives were employed in this study for gathering and analyzing the data. The following is a short description of the two perspectives.

Quantitative

Low enrollments of minority students, in particular Latino students, continue to be studied widely by the higher education community (Advisory Committee, 2001; College Board, 2005; Mortensen, 2005; Perna, 2000; Rendón, 2004; Tomás Rivera Policy Institute 2004). While it is important to recognize that Latinos are entering college at rates lower than other ethnic groups, it is equally important to identify and understand the factors that cause these students to make decisions not to enroll.

The theoretical framework for the quantitative portion of this study drew from the three-stage general model of college choice by Hossler and Gallagher (1987): predisposition, search, and choice. In particular, the first phase of this study examined factors within the predisposition stage (e.g., the aspiration stage of the college choice process). This was

accomplished by employing a student satisfaction/opinion survey composed of questions that are tied to college choice literature.

Qualitative

Barriers to a higher education differ based on one's socioeconomic status, ethnic background, or geographic location (i.e., from the standpoint of the individual). Each individual brings a unique perspective as to what is a barrier to accessing college, as well as what is an enabler which assisted them in accessing college. For example, what is viewed as a barrier to students in an urban setting, poorly funded schools, may not be applicable to students living in a rural community in Iowa.

An inductive approach was employed to further explore the factors associated with the predisposition stage of the college student choice process. This approach was guided by Bourdieu's (1987) theory of social reproduction, in particular, his concepts of social capital, culture capital, and habitus. These concepts were used to guide and situate the narrative representation of the participants' lives within the larger context of their communities (Clandinin & Connelly, 2000).

Research Questions

Central to this study was the degree of importance students place on a postsecondary education, and how that degree of importance was formulated. Related to the process of students formulating these opinions are the influencing factors students encounter along this journey, such as parental, peer, school personnel, and community influences. The following questions guided the researcher in data collection and analysis:

Quantitative

1. What are the background characteristics, high school experiences, and students' perceptions of high school for the students who responded to the Iowatown Student Impressions and Aspirations Survey (SIAS)?
2. How do the background characteristics, high school experiences, and student perceptions of high school differ between the Latino and White students who responded to the SIAS?
3. What background characteristics, high school experiences, and student perceptions of the high school can be used to predict Latino and White students' intentions to enroll in college?
4. Among the White and Latino students found to enroll in a college, how do their background and high school experiences differ from those who did not enroll?

Qualitative

5. How do rural Latino high school students describe their decisions to pursue or not to pursue a postsecondary education?
6. For those who attend postsecondary institutions how does it change their lives?
7. For those who do not attend a postsecondary institution how have their lives changed since high school?

Rationale

Through a sequential, explanatory mixed method approach, the researcher believed that the quantitative and qualitative data would not only complement each other, but would also strengthen the findings that emerged from each portion of the study. Through pairing a

qualitative approach to statistical data, this study explored and reflected on the attitudes and behavior patterns that influence rural Iowa Latino high school students' college decision-making processes. This merging of methods went beyond the reporting of data. This merger enabled the researcher to situate the data so that the reader would be able to understand the contexts in which the participants responded to the SIAS questions by providing voices to their experiences.

Within the qualitative portion of this study, the researcher identified barriers to higher education that rural Latinos face that had not previously been addressed in the literature. Through a mixed method approach, this research study examined the interaction of multiple factors in an effort to better understand the enablers and barriers to higher education encountered by rural Latino high school students.

Significance of the Study

The importance of this study is that it sought to identify factors within a specific context that promotes rural Latino high school students or prevents them from accessing higher education. Identification of these barriers provides insight as to why students do not attend college. Further, the identification of potential factors that affect rural Latino high school students' college enrollments provides insights which can be used in designing public policies, education delivery methods, and early intervention programs that will help to increase the enrollment of this population.

The college aspiration and attainment process is complex. If it were simply a matter of students choosing to attend or not attend college one would see a significant number of students enroll in college no matter their locale, ethnicity, or socioeconomic background.

However, there are a number of social and cultural factors associated with the process that cannot be measured quantitatively or altered easily through legislated programs. These social and cultural factors may be the very reasons why students need higher education to overcome their cultural environments.

The majority of the literature available on access to higher education either concentrates on income and socioeconomic stratification, the disparity in funding need-based financial aid, or lack of support systems for at-risk student populations. These studies are generally quantitative, based on data obtained through close-ended surveys and federal data collection documents, such as the Fiscal Operation Report and Application to Participate (FISAP), and federal data sets such as the Integrated Postsecondary Education Data System (IPEDS), the National Postsecondary Student Aid Study (NPSAS), and the Bureau of Labor and Statistics Current Population Survey (CPS). In addition, these studies generally pertain to students living in urban environments who are currently enrolled in college.

This study differed from the literature in three ways. First, it was a three-stage, sequential, mixed method design, containing strong quantitative and qualitative components. Second, this study concentrated on students located in a rural setting. This was in contrast to previous literature regarding barriers to higher education for Latino students based on studies conducted in urban, coastal locations (e.g., California, New Jersey, and Florida). Up to the point of this study, little has been written concerning Latino students in rural Midwest locations. Finally, the community in which this study was situated was economically homogenous, yet highly diverse in its ethnic composition. By studying and writing about this population and related personal and cultural factors, this study will contribute to a gap in the literature concerning the college choice process.

Role of the Researcher

In this study the researcher served two roles. The first role was that of a data collection instrument which encompassed the collection of data through survey instruments and interviews. The second role consisted of analyzing the data and creating meaning out of the various elements. Both roles required the researcher to be cognizant of her predispositions on the matters of rural communities, emerging minority populations, and aspirations to attend college.

The researcher grew up in the rural Iowa town of West Liberty, which is very similar to Iowatown. Her hometown was a community wherein nearly everyone knew each others' families through several generations. During her childhood West Liberty was very "mainstream" in that it was White, Protestant and had a farm-based economy. At the time of this study, West Liberty was largely Latino and Vietnamese, and was a bedroom community for Iowa City.

My ancestors came to the United States from Prussia in the mid-1800s. They arrived as laborers and established themselves within the eastern Iowa farming communities of Springdale and West Liberty. These Prussian immigrants faced several barriers as they adjusted to life in the United States: language, culture, socioeconomic status, distance from town, and general acceptance from the "native" residents of the area. The barriers are similar to the ones faced by today's Iowa immigrants.

While I had a common background to that of the Iowatown residents, I was not a member of that community. As a researcher, I entered the community as an outsider. Most obviously, I did not live in the community, nor did I have any relatives or acquaintances who lived there. Second, I was White and older than the subjects I planned to interview;

individuals in their late teens and early twenties. In addition, the interviewees were from another culture, and all were bilingual. To overcome being an outsider, I arranged to have a local Latino serve as my gatekeeper to the Iowatown Latino community. In addition, since the gatekeeper was the interviewer, I became an observer and note-taker during the interviews.

Finally, as the researcher I brought to this study an extensive personal knowledge of admission processes and the numerous hurdles encountered by first-generation college students. I am a first-generation college student, with first-hand knowledge of faculty, peer, and family influences on the decision-making process. I also brought a high level of empathy to this study based on personal experiences growing up in a small rural Iowa community with a growing ethnic population. After graduating from college, I spent 8 years working as a college admission counselor, 12 years working for the State of Iowa's grant and scholarship agency, and 20 years working as a volunteer with the National Association of Student Financial Aid Administrators (NASFAA) studying and researching changes to federal statutes, procedures, and practices concerning issues related to student access and choice.

Assumptions

The study was conducted with the following assumptions. First, in today's society high school plays an integral role in developing the foundation of individuals' participation in the American economy and society at large. As a result of the scientific and societal advances of the past 20 years, society demands that high school students be competent in high-level skills to compete in the workforce. Society also expects these same students to be

prepared to attain a postsecondary education at some time in their lives (McCabe, 2003). Despite recognition of these increased demands many students continue to leave high school minus these skills. Researchers propose that, while school administrators are aware of the need to adapt to the changes in their student populations, societal expectations, and external environments, they continue to employ the methods of instruction and administrative processes that support tracking students into college preparatory or vocational/career programs (Cohen, 2001).

Second, extensive research has shown that students at each level of the educational process are influenced by cultural and societal factors within and outside of the classroom setting. Numerous studies have revealed that the learning environment, educators' expectations, academic curriculum, family and peer support, cultural differences, and language skills have great influence on students' educational successes (Adelman, 1999; Brophy & Good, 1974; Cabrera & La Nasa, 2000; Cohen, 2001; Delpit, 2001; Gandara, 1999; George & Aronson, 2003; McDonough, 1997; Ogbu, 1988; Rendón, 1994; Sprinthall, Sprinthall, & Oja, 1998).

Third, barriers to college are not restricted to financial assistance and socioeconomic circumstances. The researcher perceived that students' decisions concerning college enrollment are strongly influenced by factors within their environment. These factors have evolved and are more numerous from those identified in the 1947 Truman Commission Report on Higher Education, including: parental educational attainment, parental emphasis on educational attainment, influence of family and work obligations, educational environment, and social experiences. Finally, the researcher believed that all students should

have access to a higher education, as some form of education beyond high school is necessary to be successful economically and socially.

Context of the Study

This study took place at a high school situated in rural central Iowa. For the purpose of this study, the high school was referred to as Iowatown High School (IHS) and the community was referred to as Iowatown. Iowatown is a small community, as defined by NCES (2002), and is located in rural central Iowa approximately 50 miles from Des Moines. The community was founded in 1869 by the Des Moines Valley Railroad, with a total population of 70. Today, the community has over 7,600 residents. Since its founding, the community has grown in numbers as well as in diversity of its composition. Iowatown historians report the community to be of Euro-American descent—from Germany, Ireland, England, Sweden, and Norway.

Iowatown is a community in transition. Once predominately Euro-Caucasian, the community now has an established population of Latinos (24.5%); Blacks (1.1%); Others (0.8%); and American Indians (0.6%). The change in the composition reflects a cultural shift in the community. Furthermore, the Iowatown School District reflects the changes of the larger community.

Since the 1990 U.S. Census, the ethnic composition of the Iowatown School District has shifted away from its Euro-Caucasian base, reflective of the community's population shift. Following the 2004 fall Iowa Department of Education census date, Iowatown school district officials reported more Latino students enrolled in Kindergarten than Whites for the

first time in the history of the school system. This change in population has caused the school district to undergo many changes and challenges.

Definition of Terms

The following definitions were used for the purpose of this study:

Access: Access to higher education is an extension of Husén's (1974) idea of *equality of opportunity*. Husén's concept is based on the belief that the "quest for greater equality of life chances, coping power, and participation [in society]" (p. 143) is rooted in obtaining a higher education.

Barriers: This term refers to factors or events which prevent some one from pursuing a higher education. Examples of barriers: illness, lack of financial support, lack of academic skills.

Enablers: Individuals, organizations, or events that in some way help an individual to achieve a goal or aspiration.

Habitus: A common set of perceptions held by all members of the same class which shape an individual's attitudes and aspirations, based on beliefs and past experiences (Bourdieu, 1977).

Latino: Hayes-Bautista and Chapa (1987) originated the term Latino. This term is applied to persons living in the United States who can trace their ancestry from Latin American countries in the Western Hemisphere. The term Latino is culturally neutral with respect to Latin American cultures and is, therefore, considered less offensive than the term Hispanic. This term has a wider scope of inclusion than the term Hispanic, as it includes persons from

Central and South America who may not necessarily speak Spanish. For this study, the term Latino was employed as the common reference for all Spanish-speaking persons.

The National Student Clearinghouse: Established in 1993, the National Student Clearinghouse serves as a central repository and single point of contact for the collection and exchange of enrollment data for the United States higher education community.

Other: Term used to indicate respondents who chose not to identify their ethnicity.

Rural: Any incorporated place of less than 2,500 individuals, which is not immediately located next to a large metropolitan area (NCES, 2002).

Small Town: Any incorporated census place with a population between 2,500 and 24, 999, and located outside a metropolitan area (NCES, 2002).

White: The Office of Budget and Management (OMB) provided the standards for race categories for statistical reporting used by all United States federal agencies. The OMB defined the ethnic category of White to be "a person having origins in any of the original people of Europe, North Africa, or the Middle East" (Day, 1996, p. 31).

Summary

This study was designed to contribute to the literature on college aspirations and the enrollment of rural Latino high school graduates, and proposed to inform educators and policymakers by identifying factors that contribute to the college decision-making process of these students. Identification of these factors will provide insight into the relational process these factors have on students and their families.

Chapter 2 provides an overview of the previous research from known theoretical studies in the areas of college choice process, culture capital, educational achievement,

learning environments, student engagement, rural schools, formation of aspirations and perceived barriers to education.

Chapter 3 outlines the methodological approach, philosophical assumptions, methodology, the sample, data collection procedures, the variables, and data analysis of the study. This chapter details the three-phase sequential explanatory mixed-method study and the analysis of the data.

Chapter 4 describes the quantitative analyses for this study. Descriptive and comparative statistics were employed to analyze the study's two subgroups—Whites and Latinos. Logistic regression was used to predict the influence of factors in graduates' formulation of aspirations to attend college.

Chapter 5 provides the qualitative analysis and findings of seven Iowatown Latino graduates. Their voices are expressed through individual and group profiles, and a summary of emergent themes.

Chapter 6 summarizes the research and provides conclusions. Recommendations for practice and future research are presented as well as the researcher's final thoughts.

CHAPTER 2. LITERATURE REVIEW

Introduction

This chapter reviews relevant literature related to the student college choice process, issues that influence student formulation of college aspiration and attendance, and how these factors relate to rural Latino college attendance. In particular, this literature review is intended to identify key elements of the college choice process that support the logic model proposed in this study.

This literature review will situate the research to reveal how the college choice process works and how recognized factors within the process may affect the college aspirations of rural Latino students. Numerous studies have incorporated college choice models to better understand student decision-making processes, some of which included Latinos, Chicanos, and Mexican Americans (Ceja, 2002; Hurtado & Inkelas, 1997). A few studies concerned rural students, however, none included Latino students.

This chapter is organized into five sections: (a) an overview of college choice theories; (b) a brief overview of college enrollment patterns; (c) an attempt to portray the Latino identity currently found in the United States; (d) a summary of factors that can influence students during the predisposition stage of the college choice process; and (e) a description of a three-stage model of college choice (Hossler & Gallagher, 1987) which was used in this study to gather quantitative data. This model, particularly the predisposition stage, provided the framework for reviewing the research applicable to this study.

Background

During the past 50 years the phenomenon of whether and how students decide to pursue a postsecondary education has been studied from numerous approaches. Colleges and universities are interested in knowing what factors, such as financial incentives, influence students in how they select the institutions they chose to attend (Choy, 1999), and what marketing techniques successfully influence this selection process (Paulsen, 1990). Policy-making entities, motivated by the assumption that a well-educated populace benefits society, are interested in identifying factors that prevent academically capable students from enrolling in postsecondary education. This information is used to create initiatives to overcome the identified barriers.

Most of the strategies developed by public policymakers to enhance participation rates have been designed to remove practical barriers, such as: early intervention programs (Perna, 2000; Perna & Swail, 2000), mentoring programs (Levine & Nidiffer, 1996); and financial incentives (Advisory Committee, 2001; Gladieux & Wolanin, 1976; Heller, 2002). However, other barriers are more difficult to address through public policy interventions, such as: cultural attitudes, perceptions, and expectations (Cabrera & LaNasa, 2000; McGivney, 2001). One of the strongest inhibitors to pursing a higher education is negative self-perception in relation to learning as a result of earlier school experiences (Bowen et al., 2000).

College choice literature covers a wide range of topics employing diverse methodological approaches. Research ranges from case studies which investigate a single institution's marketing techniques for attracting students (Paulsen, 1990) to longitudinal

studies concerning causal models which examine predetermined student characteristics (Chapman, 1981; Kane & Spizman, 1994).

Approaches to the College Choice Process

Over the span of two centuries, students' aspirations and decisions to attend college have captured the attention of researchers and policymakers. In an effort to recognize and study the multiple factors and processes involved in these decisions, the term "college choice" was coined by Hossler, Braxton, and Coopersmith (1989):

> … a complex, multistage process during which an individual develops aspirations to continue formal education beyond high school, followed later by a decision to attend a specific college, university or institution of advanced vocational training. (p. 234)

This term is generally used to describe the process, and activities in which students and institutions engage resulting in the students' decisions to continue formal studies beyond high school, and their choice to attend a particular college.

Hossler et al. (1989) also developed an extensive map of college choice theories that is considered foundational for new studies concerning student college choice. Within this analysis three conceptual approaches are noted: sociological, econometric, and combined. This research was later updated by McDonough (1997) who determined that most student college choice research focuses on institutional characteristics and students' background characteristics which are generally related to socioeconomic status. The following brief review is provided of these conceptual approaches, and how factors within these approaches interact to influence students' aspirations to attend college.

Sociological models

Sociologists tend to view college choice from the status attainment process to reveal how every day experiences affect students' decisions concerning educational attainment. The culture capital concepts of Bourdieu (1977) are important to sociological studies that focus on how and why elements within specific social classes and environments affect educational achievement. Foundational to these studies is the belief that an educated populace is good for society and a measurable element of this success is a college education. Further, there is a strong relationship between education and earnings. Better-educated citizens achieve higher earning capacity and therefore contribute greater to the tax base (Baum & Payea, 2006; Mortensen, 2006; Teri, 1995). Additional benefits include: lower numbers of individuals receiving welfare benefits; increased personal quality of life due to increased knowledge of healthy behavior and preventative care; increased levels of skills and qualifications of the workforce which, in turn, boost the American economy; reduced crime rates; higher rates of technological development; and higher levels of participation in civic and community affairs such as voting and volunteerism (Bowen, 1977; Pascarella & Terenzini, 2002; Teri, 1995).

Several sociological models have focused on the stages of the student college choice process (Chapman, 1981; Hossler & Gallagher, 1987; McDonough, 1997) and the factors that influence student aspirations and enrollment. These models examine the college process from two perspectives: (a) the impact the high school experiences and environments have on students in their decision-making process; and (b) the impact of college experiences and environments on students and optimal student-institution fit (Astin, 1993; Pascarella & Terenzini, 2002; Tinto, 2000). Sociological models of college choice focus on the influence

of schools, teachers, and significant others such as parents, peers, and high school academic performance (Conklin & Dailey, 1981; Flint, 1992; McDonough, 1997a).

Econometric models

Econometric models explain the college choice process in monetary terms, such as rates of return on educational investment (Hossler et a., 1989; McDonough, 1997a; St. John, 1991). These models fall into two categories. One category seeks to predict enrollments using institutions and states as units. In this category economists view education as a form of investment decision-making behavior (Baum & Schwartz, 2006; Gladieux, 2004; Heller et al., 1992; Mortensen, 2006; Perna, 2000; St. John, 1991). An example of this research is the positive effect need-based federal financial aid has on the attrition and retention of students from low socio-economic families (St. John, 1991, 1992).

The second category focuses on the choices of individual students. These studies split into two themes regarding the issue of student choice. The first theme focuses on why students choose a particular college from a set of colleges (Hossler et al., 1989). The second theme presents choice as related to choosing between college and a non-college pursuit such as employment, the military, volunteer work, or travel. Within this latter set, studies generally fall into five models: (a) expected costs factors; (b) anticipated future earnings due to college attendance (Dey, Austin, & Korn, 1999); (c) background characteristics that can be used to predict college enrollments; (d) high school characteristics; and (e) college characteristics (Hossler et al., 1989).

Combined models

In a combined approach, researchers utilize the strongest variables of econometric and sociological models to explain the decision-making process of college choice. These models depict the college decision-making process in sequential stages. The major difference among the combined, sociological, and econometric models is that the combined models attempt to identify both economic and social factors that may affect the college decision-making process (Hossler et al., 1989). An example of a combined model is the three-stage model of college choice by Hossler and Gallagher (1987).

Desire alone does not result in achieving an educated citizenry. In fact, becoming educated can be a formidable process. While the academic programs may be in place and financial resources are available, a third factor that enters into the mix is a student's aspiration to become educated.

The college choice process is a complex interaction of numerous factors over a continuum of time, which varies for each student. For some the journey is direct and the student travels through the three stages of predisposition, search, and choice (Hossler & Gallagher, 1987) with no side journeys. Others move in and out of the process several times, dependent on the influences in their everyday lived experiences (e.g., their habitus) (Bourdieu, 1997). Several researchers have identified and categorized two sets of factors that are consistently found to influence these processes. The first set includes institutional (college) factors, such as: costs, distance from home, availability of financial aid, and selectivity (Choy & Ottinger, 1998). The second set consists of student factors, such as: gender, ethnicity, parents' educational attainment, family income, parental preferences, religion, and academic ability (Chapman, 1981; Choy & Premo, 1995; McDonough, 1997).

Chapman (1981) suggested that the choice process for prospective traditional age students (e.g., 18-21) is longitudinal and, in order to understand a student's choice, it is necessary to consider the background and current characteristics of the student, the student's family, and the characteristics of the college the student selects. Further research suggests that choice is influenced by a set of factors in combination with external influences which can be grouped into three general categories: significant persons, characteristics of the college, and the college's efforts to communicate with perspective students (Choy, 2002; Flint, 1992; McDonough, 2004a).

Chapman's research was geared towards the discovery of how to better market colleges to students, not necessarily in the discovery of why students do not attend college. Nevertheless, Chapman's model is similar to that proposed by Hossler and Gallagher (1987) in that it acknowledges that students make decisions to attend college amidst a number of factors and environments. Hossler's and Gallagher's theory focused on identifying factors relevant to student college choice.

Enrollment Patterns

There is a perception that ethnic racial minority students are not completing high school and enrolling in college at the same rate as their White counterparts. To provide perspective to this issue, the following snapshots of enrollment trends throughout the United States and the State of Iowa are provided.

High-school enrollment

In 2002, 2.8 million students completed high school in the United States, of which 73.9% were White, 13.8% Black and 12.3% Latino. Among these high school completers,

1.8 million (65.2%) enrolled in college in the fall of 2002, of which 77.5% were White; 12.4% Black, and 10.1% Latino (National Center for Educational Statistics, 2005).

During the same time period, the State of Iowa reported 31,649 students completed high school, of which 93.6% were White, 2.5% Black, 1.9%, Asian, 1.9 Latino, and 00.1% Native American. Among these high school completers, 25,591 (80.1%) indicated that they planned to enroll in either a 2-year or 4-year postsecondary institution (Iowa Department of Education, 2002).

College enrollment

In 2003, 16.6 million college students were enrolled in the United States, of which only 10.3% were Latino. Of the 7.1 million college students who were 18 –21 years of age, 72% were White, 11.2 %, Black, 6.1% Asian, and 10.7% Latino (U.S. Census, 2005). Among those enrolled as undergraduates, 32.8% of all students enrolled in a two-year college. The ethnicity of the students within this group was comprised of 65.8% White, 14.9% Black, 5% Asian, and 14.3% Latino. Among the students enrolled in a 4-year college, 71.0% were White; 12.9% Black; 5.9% Asian; and 10.2% Latino (U.S. Census, 2005). Overall, Latinos enrolled in college less frequently than Whites and Blacks. In addition, the percentage of their participation does not mirror the percentage they comprise of the overall population.

During the same reporting period, 180,974 undergraduate college students were enrolled in Iowa, among which 158,022 (87.3%) were Iowa residents and 80,970 (51.2%) were classified as Freshmen (i.e., within their first year of academic coursework). The total

Iowa postsecondary enrollment in 2003 was 205,379, of which 92.4% were White, 3.2% Black, 2.0% Latino, 1.9% Asian, and 0.5% Native American (Iowa College Student Aid Commission, 2003). Table 2.1 provides a breakdown of student enrollment by race/ethnicity and type of institution.

Table 2.1. Iowa minority postsecondary enrollment in 2003

Institution Type	Black	Latino	American Indian	Asian	Total
4-year Public	1,817	1,494	238	1,941	5,490
4-year Independent	1,814	920	179	938	3,851
2-year Public	2,673	1,622	535	1,076	5,906
2-year Independent	293	140	28	118	579
Total	6,597	4,176	980	4,073	15,826

Source: Iowa College Student Aid Commission Survey of Ethnic Diversity, 2003.

Latino Identity

The U. S. Latino population of 41.3 million ranks as the third largest Spanish speaking population in the world, preceded by Mexico's 104 million and Columbia's 42.9 million (Cartagena, 2005). Of Latinos living in the United States, 75% are from either Mexico or Central America. Studies have revealed that individuals from these countries have more in common than those from other Spanish-speaking countries such as Spain and Portugal. Therefore, the portrait of Latino identity for this study was based on individuals from Mexico and Central America.

In general, Latinos have a very strong association with their countries of origin (Suro, 2002), believe that the family and the group are more important than the individual, and value hierarchical relationships (Korzenny & Korzenny, 2005). As a result of a strong Catholic influence, they tend to carry a sense of fatalism in that human beings are

subordinate to nature, and have a strong respect for a patriarchal order within their families. In addition, they place a strong value on introspection and spirituality.

Latinos have a reverence for tradition, family, ancestors, and education. This is reflected in the ways they interact with officials, particularly teachers and administrators. Parents are intensely dedicated to the success and well-being of their children. Many Latino children of parents who did not finish elementary school have become professionals in the United States.

Working class is a descriptor that applies to the majority of the U.S. Latino population (Korzenny & Korzenny, 2005). Many are from farming backgrounds, and typically are employed as factory workers, domestic servants, and in low-level jobs in agriculture and industrial related industry. In 2002, the average Latino household income was $33,103 (U.S. Census, 2002), and lagged substantially in respect to the rest of the country. Among those in the category of households reporting incomes of $35,000 or less, 52.0% were Latino (U.S. Census, 2002). Slightly more than one-fourth (26.5%) of Latino households were comprised of five or more people compared to 10.8% of non-Latino households.

In Iowa, the Latino population is of interest to educational institutions and policy-makers as it is the fastest growing population of any ethnic/minority group in the state. Between the 1990 and 2000 census, Iowa's population grew 13.2%. Within ethnic/minority classifications, Whites increased 5.9%; Blacks, 15.6%; Native Americans, 26.4%; Asians, 48.3%; Pacific Islanders, 9.3; and Latinos, 57.9% (U.S. Census Bureau, 2001). In addition, the Iowa Division of Latino Affairs reported that, from 2000 to 2004, the state's Latino

population increased another 26.2%. Overall, Latinos comprised 3.5% of Iowa's total population (Iowa Division of Latino Affairs, 2005).

Iowa is one example that illustrates the changing American population. As shown in Table 2.2, Iowa is one of 12 states in the Midwest where the Latino population is growing. What is applicable to Iowa may also be a model for the rest of the country. Being aware of the barriers Latinos face will help college administrators decide where to create new initiatives and direct resources.

Table 2.2. Growth of the Hispanic population in the Midwest

	Hispanic population		
	1990	2000	Difference (%)
Minnesota	53,844	143,382	166
Nebraska	36,969	94,425	155
Iowa	32,647	82,473	153
Indiana	98,788	214,536	117
South Dakota	5,252	10,903	108
Wisconsin	93,194	192,921	107
Kansas	93,670	188,252	101
Missouri	61,702	118,592	92
Illinois	904,446	1,530,262	69
North Dakota	4,665	7,786	67
Michigan	201,596	323,877	61
Ohio	139,696	217,123	55

Source: U.S. Census, Forecast Analysis, American Demographics FORECAST, April 21, 2001.

Factors that Influence Access to College

While student aspiration to attend college is an important component in the college choice process, it is an unstable predictor to actual behavior (McDonough, 2004a). Deciding whether or not to attend college is affected by many factors that interact in a complex

manner. Therefore, it is important to identify and study the factors that affect aspiration. The following is a review of research concerning the currently identified factors that influence students' aspirations to attend college.

Learning environment

Few institutions within the United States have a greater impact on the lives of Americans than the public school system. High schools, in particular, are pivotal in laying the foundation for adult participation in the American workforce and a civil society. During the past 30 years, studies have advanced a set of basic educational design features that are central to creating effective learning environments for high school students.

Cohen (2001) offered an extensive list of elements that are needed to create a successful learning environment. First, high academic standards and high expectations should be expected for all students. This is reflected in a curriculum that is engaging, challenging, and prepares students for entrance into a postsecondary environment, without remediation. Second, schools should employ well-prepared faculty who not only have mastered the content of their subjects, but also have the ability and desire to connect with young people. Third, high school environments need to be student-centered. Schools should provide students with a caring, personalized environment, which helps to develop "the array of skills, attitudes, and dispositions that will enable them to make it in the mainstream adult society" (p. 4). Fourth, high schools that make a difference are connected to their communities. This connection includes inviting representatives of the community to partner with the school in developing its programming design. As a result of this connectivity, the learning that takes place is reflective of the community; it is in the context of the whole

community, not just the school. Finally, effective high schools have a clear sense of mission and purpose. This is demonstrated through strong leadership in the classrooms and in the administrative processes. It is also reflective in the curriculum and is demonstrated by the faculty in the instructional delivery of their courses. All are reflective of strong social and academic support of students, which are important in the development of their occupational and educational aspirations.

A study of hidden curriculum (Anyon, 1980) provides support that Cohen's (2001) recommendations need to be applied throughout the K-12 system, as the foundation for college aspiration can begin prior to high school. It is suggested that most classroom environments teach to the mean, encourage rote learning, and are about teachers maintaining control. Steinburg (1996) revealed that 40% of high school students are bored with school. Cohen (2001) challenged the educational community to stop teaching to sort students between college or work, and to engage students.

In today's society high school plays an integral role in developing the foundation of an individual's participation in the American economy and society-at-large. As a result of the scientific and societal advances during the past 20 years, society demands that high school students be competent in high-level skills in order to compete in the workforce. Society also expects these same students to be prepared to attain a postsecondary education at some time in their lives (McCabe, 2003). Greater demands are placed on high schools by government agencies, accrediting entities, and economic development groups to prepare students for success in the workforce and in higher education.

Despite recognition of these increased demands, many students continue to leave high school without the skills they need. Researchers have proposed that, while school

administrators are aware of the need to adapt to the changes in their student populations, societal expectations, and external environments, schools continue to employ the methods of instruction and administrative processes that support tracking of students into college preparatory or vocational/career programs (Anyon, 1980; Cohen, 2001).

Extensive research has shown that students at each level of the educational process are influenced by cultural and societal factors within and outside of the classroom setting. Numerous studies have revealed that educators' expectations, academic curriculum, family and peer support, cultural differences, and language skills have great influence on students' educational successes (Adelman, 1999; Cabrera & La Nasa, 2000; George & Aronson, 2003; McDonough, 1997).

Academic standards

There is a pervasive assumption within college choice research that academic achievement is the most important indicator as to whether or not students attend college and where they will attend college (Choy, 2002). Several studies have advanced connectivity between the effectiveness of high school learning environments and predictors of college going behavior (Adelman, 1999; Cabrera & La Nasa, 2000; King, 1996; McDonough, 2004). Adelman (1999) suggested that high quality coursework should include math classes beyond algebra and advanced placement courses. This recommendation is reflective of the rigorous college preparation curriculum encouraged by the United States Congress through the new Academic Competitiveness Grant program, and is used by most higher education institutions as entrance requirements. While a strong academic curriculum is encouraged, it should be noted that many non-White students are over-represented in non-college preparatory

programs (Oakes, 1985; Oakes & Lipton, 1992; Warburton, Bugarin, & Nunez, 2001). A study by McDonough (1997) of students enrolling in elite educational colleges revealed that academic achievement in high school is the most significant factor, followed by students' educational aspirations, and parents' perceptions and attitudes concerning the value of a postsecondary education (Hearn, 1984). However, access to a college preparatory curriculum is a barrier for Latinos. Although they are enrolled in classes, approximately three-fourths (70%) of Latino high school students are not enrolled in the classes that will prepare them for college (Adelman, 1999).

King (1996) contended that, in addition to parents' encouragement, high school preparation plays a major role in the development of postsecondary plans for low-income high school students. This study recreated an earlier study by Leslie, Johnson, and Carlson (1977) to determine the effect of high school academic experiences based on family income. Leslie et al. revealed that students' plans to attend college were affected most by grade point average, curriculum and father's occupation. King's (1996) study revealed similar results—the quality of high school academic experiences plays a critical role in the formation of postsecondary plans (Terenzini et al., 2001).

Faculty expectation and validation

Educators, like many members of society, have their own cultural beliefs. It is through this set of beliefs that they present curriculum materials to students, and it is through these beliefs that they assess students' potentials for achievement. This assessment, based on faculty expectations and validation, lays the foundation of students' own aspirations (George, 2003).

The support and encouragement teachers provide within the classroom are related to what they feel should be taught and who should gain from their personal wisdom, and is based on their expectations of each student's abilities. Teachers tend to call on students whom they perceive to be able learners, and provide extra time and assistance due to their expectation for these students to grow. The converse occurs for students whom teachers do not believe will be able to achieve (Brophy & Good, 1974; Gandara, 1999).

Two studies tested the theory that students become what teachers expect of them. A study by Jussim and Eccles (1992) of middle school math students tested the hypothesis that teachers' expectations predict students' future achievement. Teacher expectations were studied based on perceptions of performance, students' talents, and definition of effort. From this study, it was concluded that teachers were able to predict final grades but not test scores; and teachers tended to reward by increasing the grades of students whom they perceived as exerting effort. In addition, teachers tended to punish students they perceived as lazy by lowering their grades.

These conclusions support previous research by Brophy and Good (1974) that teachers' perceptions of ability and effort are inaccurate, and the teachers' perceptions are based on their own personal social values. This study also supports the perception that effort influences performance (Schuman et al., 1985). In other words, teachers perpetuate the Euro-Caucasian belief that hard work should be rewarded. The study also revealed that teachers adjust grades higher for students they perceive as putting in extra effort and lower grades for students they perceive are not putting in enough effort.

In a 14-year longitudinal study, Alvidrez and Weinstein (1999) tested teacher expectation of intelligence and future high school performance in relation to socioeconomic

status. They contended that teachers tend to have a false belief that students will perform better in school if they come from a high socioeconomic environment. However, they also concluded that a student from a low socioeconomic situation could overcome the effects of this bias if there was a strong parental influence in the home. The study's findings advance three significant points: (1) poor environments are not predictive of poor academic performances; (2) positive qualities of the home can help students to overcome the effects of negative teacher expectations; and (3) even the smallest negative messages can become significant if they are allowed to accumulate over the course of a student's K-12 experience.

George (2003) summarized faculty expectations and student validation, and advanced the belief that educators bring their preconceived notions about students' abilities based on their own beliefs concerning gender, ethnicity and socioeconomic status. These beliefs influence educators' expectations of students' abilities to learn and, therefore, affect students' aspirations and their ability to achieve.

Students tend to take cues of their potential from the attitude and action of their teachers. If a teacher believes a student has potential, the teacher will validate the student's ability and encourage the student to grow (Rendón, 1993). Yet, students who may achieve despite the faculty member's expectations may be regarded with tolerance at best (Sprinthall, Sprinthall, & Oja, 1998).

Rendón's (1993) theory of validation embraces the experiences of non-traditional minority students and how the messages they receive both in and outside the classroom affect their self-confidence and their desire to succeed. These messages of "minority students are in college because they got a break and that White students are inherently smarter than non-whites" (p. 4) are not isolated to those enrolled in college. These same messages are heard

throughout the K-12 experience (George, 2003), and the messages have no less effect on younger students. Perhaps they have a greater impact, as many students who receive and believe them never make it to the point of completing high school or enrolling in college, where they can be surveyed about the significance of these statements on their lives, aspirations, and choice of life paths. Rendón contended that these negative messages can be negated when teachers and other interested individuals take the initiative to encourage and validate students academically and interpersonally. As students receive and hear these messages they will believe that they can be successful.

Student engagement

It is generally accepted that indicators of a student's success in high school include consistent attendance patterns, academic achievement, and aspirations to continue education beyond the high school (NCES, 1995). This definition of student engagement has been reviewed by researchers in an effort to determine how student engagement can be used to predict college enrollment.

Studies concerning student engagement generally fall into two categories: level of school attendance; and the number of extra curricular activities in which students participated. To gauge student engagement, Horn and Carroll (1997) surveyed students to determine how many times they were tardy, skipped, or absent from school. In addition, the extent of the students' participation was measured by the activities they participated in such as music, service activities, government, athletics, etc. It was determined that the more students were at school, the more they were involved in school activities which appeared to positively reinforce academic performance. This theory was furthered by McCarthy (2000),

who added the factor of ethnicity. Results of McCarthy's study suggest that cultural differences (i.e., ethnicity and SES) are responsible for participation differences.

A study of at-risk high school students and college enrollments advanced the concept that level of engagement of students in high school (i.e., attendance and activities) is a strong indicator of students' likelihood to graduate from high school and pursue a postsecondary education (Chen & Kaufman, 1992). Findings of the study indicated that student engagement, parent involvement, and peer interaction are positive factors that increase students' odds of graduating high school and attendance in college.

Habitus

To appropriately frame students' decisions concerning college choice, it is important to understand the perspectives in which the decisions are made, or the habitus. Habitus is a conceptual tool generally used in empirical research as a way of understanding the world. It is primarily a method for analyzing why certain groups in society are dominant and why some are dominated (McClelland, 1990). In sociological studies it is used to focus on the ways in which the socially advantaged and disadvantaged define their positions in a setting (Reay, 2004). Briefly, habitus can be defined as "one's view of the world and one's place in it" (Dumais, 2002, p. 45) which an individual develops based on an internalized system of outlooks, experiences and beliefs provided from the immediate environment (Bourdieu, 1997).

To understand how individuals approach or view a situation, it is important to understand the messages they have received from the culture in which they operate and how much capital (e.g., power or resources) they bring. Bourdieu's (1973, 1997) theories of

social reproduction, culture capital, and habitus provide a platform for the acknowledgement of a dominant culture within an educational institution. Bourdieu (1984) noted that capital, habitus, and field must be present and work in tandem to generate a social condition. He defined field as the setting in which the action will take place. Further, fields are spaces in which dominant and subordinate groups struggle for control of resources. The school environment is an example of a field. Common dominant and subordinate groups that can be found within this field are teacher/student, male/female, White/Latino, athletics/academics.

High schools generally are organized with well-defined procedures for dealing with students, teachers, and the community-at-large. While these procedures are in place to provide the equitable delivery of services, they often contain a hidden curriculum. Specifically, these procedures reflect the cultural beliefs of the majority population. For the majority of the school districts in the United States, these procedures reflect a dominant White culture. This culture determines how all students within a school will be treated.

The dominant cultural beliefs of our society, in turn, translate into teacher expectations (Bourdieu, 1984; DiMaggio, 1982; Gandara, 1999). It is through these expectations that teachers assess students' abilities, determine their potential, and decide who they will and will not encourage (Gandara, 1999; Brophy & Good, 1974). Students take cues from their teachers' attitudes and actions (Rendón, 1993; Sprinthall, Sprinthall & Oja, 1998). Those students who "behave" will be helped to succeed while those who act differently may be tolerated, ignored, or disciplined (Ogbu, 1988).

Students' decisions to invest in their educations, study, and enroll in college depend largely on their 'positions' within the dominant culture and the expectations they are expected to meet (Swartz, 1997). This expectation to conform to the dominant culture may

cause disconnects for students at three levels. First, if the culture in a student's home is different from that of the school, teachers can easily misunderstand student behavior. In response to this misunderstanding, the teachers may employ instructional strategies and discipline that are counter to the student's home culture (Delpit, 2001). Second, students may perceive that they are not welcome in the school and, therefore, they may try to disassociate themselves from the school environment (George, 2003). Third, students may choose to adopt a culture that is acceptable in the school environment; however, by conforming to the dominant culture, the students may experience strained relations with their family and peers as they may be perceived as abandoning their home culture.

Background factors

For non-White students, students who are recent immigrants to the United States, and students whose parents have not attended college, strong academic programs and high grade-point averages are not enough to encourage students to stay in school. These students need someone to encourage them in their academic pursuits (Levin & Nidiffer, 1996). Many times this encouragement must come from someone other than a parent.

A variety of barriers may prevent parents from being involved in their students' educational experience. These barriers often include parents' lack of confidence to interact in a different culture, insufficient language skills in either English or their native language, lack of understanding regarding how the school system works, or feeling unwelcome in the school (George & Aronson, 2003). Studies have revealed that, while ethnic minority families may have high aspirations for their children, they may not know how to advocate for them (McDonough, 1997; Steinberg et al., 1996).

Some researchers believe that access is the outcome of longitudinal exposure through social and academic experiences which begin in the home and continue throughout the K-12 experience (Bourdieu, 1986; Rendón & Hope, 1996). Studies have revealed that the availability of social support is vital in helping Latino students to develop personal self-worth (Rendón, 1994). Social support has also been proven to be a strong reinforcement of the belief that an education is important for success in the American workforce (King, 1996; McDonough, 1997; Rendón, 1994). In addition, the degree to which schools provide the development of social skills and networks for students is important in creating a positive and sustaining learning environment (Cabrera & La Nasa, 2000; McDonough, 1997).

If the school system is not intentional in providing for this type of development, it will occur on its own; most likely to the detriment of what the school is trying to achieve. This concept is supported by research conducted by Steinberg (1996) and Yari (2001). Steinberg (1996) revealed that approximately 40% of high school students are just going through the motions of school. More than a third of the students surveyed by Steinberg reported that they succeeded in getting through the school day by "goofing off" with their friends, never pushing themselves academically, and not paying much attention when in class. Yari (2001) suggested that the more relevant the coursework is to the students, the more engaged and challenged the students will feel. As a result, the more students are engaged in their educational experience, the less prone they will be to external pre-occupations.

Family

Among the factors that comprise a student's habitus, parental encouragement is considered the strongest within the predisposition phase of the college choice process (Hossler et al., 1999; Hossler & Stage, 1992: King, 1996). Rumberger (1995) observed that the family background is widely recognized as the most significant contributor to student success in school. Similarly, through an extensive literature review, Hurtado and Inkelas' (1997) purported a consistent influence of family socioeconomic status and parental educational achievement in access studies concerning student aspirations to attend college. Within the Latino culture, parental encouragement is found to be positively correlated with college enrollment (Ceja, 2004; Hossler & Stage, 1992).

Kane and Spizman's (1994) longitudinal study of high school graduates who attended college implies that the following factors contribute to the probability of students enrolling and obtaining a postsecondary education: number of siblings in college, SAT scores, high school rank, and level of parental educational attainment.

College choice studies have emphasized the role of parental encouragement and parental expectations (McDonough, 1994; Smith, Bealieu, & Seraphine, 1995; Stage & Rushin, 1992). Flint (1992) purports that the development and maintenance of college aspirations is proportionate to the message and frequency of the message that parents provide to students. Based on a sample of 1995 low-income high school students, King (1996) noted that consistent parental encouragement, especially from the father, is a strong factor in whether or not students enroll in college.

Using Gallup Poll data, Miller (1992) revealed that 92% of college-bound high school students' parents reported that providing their child with a college education was the most

important investment that they could make. Haro, Rodriguez, and Gonzales (1994) furthered this opinion with their research on factors that effect persistence. They concluded that, despite living and working in "unconventional environments to foster postsecondary goals" (p. 16), Latino family behaviors and attitudes are positive in supporting educational goals.

Haro et al. (1994) noted further that Latinos have a higher participation in the work force than any other ethnic group; have a strong sense of family; maintain extensive extended family support systems; and have low usage of public assistance programs. They concluded that, with the means available, Latino families are very involved in their children's education, and they recognize, value, and are supportive of higher education.

Socioeconomic status

Much research has drawn the conclusion that socioeconomic status significantly contributes to a student's decision to attend college. Within the college choice literature the research on this topic generally falls into two categories. First, conceptual research examines the process of how the decisions to attend college are made. An example is the student college choice model by Hossler and Gallagher (1987). The second category comprises policy studies that provide informative information concerning public funded programs.

The *2001 Access Denied Report* issued by the Advisory Committee on Student Financial Assistance, identified that students with high socioeconomic status (SES) and low academic performance have a significantly higher chance of attending college than high achieving academic students with low SES. The report further stated that high performing low-SES minority students have the least probability of attending college. Similarly,

McDonough (1997) found that students from the lowest socioeconomic groups are the least likely to apply or attend college.

Financial considerations are important when considering what factors will influence a student to attend college. Considerable research has been advanced ranging from how and when families begin to save for college, how important financial aid information is to have in the hands of families (Oliverez & Tierney, 2005; Zarate & Pachon, 2006), and the impact of federally funded aid programs on student college enrollments and retention (Carnavele & Rose, 2004; Gladieux & Swail, 1999; Heller, 2002; St. John & Noell, 1989).

Conversely, there is a growing movement that suggests financial aid by itself cannot fully explain why students do or do not enroll in college (St. John, 1991). One school of thought is that the data used within these studies are largely self-reported (Adelman, 1998). In addition, it is difficult to identify comparable studies and their outcomes, as income grids are often arbitrarily defined, based on the population being reviewed in each study (Terenzini, Cabrera, & Bernal, 2001).

Other researchers have explored alternative methods to measure socioeconomic wealth. One such method was developed using family income, parental education, and parental occupancy, plus specific items in the household such as computers, books, magazines, cars, and major appliances. Such a measure is thought to provide a broader definition of wealth, beyond that of income (Terenzini et al., 2001).

Wealth is not an easy factor to measure, as whomever is defining the parameters is subjectively imposing cultural values that may not be applicable or relevant to the sample population. Therefore, in the current study socioeconomic status was not considered.

Geographic location

A major component to this study was the geographic location of the participants; in particular, they resided in a small rural community. However, there is a paucity of research that examines students attending rural schools. Furthermore, there has been limited study on the college aspirations of rural high school students, in particular rural Latino high school students.

In a meta-review concerning rural location and poverty, Khattri et al. (1977) concluded that students in poor rural areas achieve better academically than poor, urban students. This conclusion was drawn base on the fact that rural communities have diverse characteristics that make it difficult to categorize them by economic, social, and demographic characteristics. Second, schools in rural areas are generally smaller and more connected with their communities than urban schools. It was perceived that this community connection may help the students to achieve academically. Due to budget restrictions the breadth of curriculum may not be as extensive as what can be found in an urban setting, but the basic academic curriculum is addressed. Finally, it was noted at the time of this review that rural students tended to be White and lived with two-parents.

Other research studies have posited that the combination of the socioeconomic status (SES) of the region and the family can best explain college attendance (Mortensen, 1995). Within this research area, some studies have concluded that geographic region can independently predict college attendance after controls for family SES are introduced. In particular, these latter studies revealed that rural students are least likely to attend college and suburban students have a slight advantage over students in metropolitan areas (Smith, Beaulieu, & Seraphine, 1995; Kane & Spizman, 1994).

With such a paucity of literature concerning the effect of living in a rural setting on college aspirations and enrollment, it was the intent of this study to begin to fill this gap in the literature. In particular, the current study addressed how living in a rural, predominately Euro-Caucasian community effects the college aspirations of Latino high school students.

Model of College Choice – Hossler and Gallagher

In a study about college choice, and whether or not a student will pursue a postsecondary education, it is important to conceptualize the factors that may affect the decision-making process. In the current study, the predisposition stage of the three-stage model of student college choice proposed by Hossler and Gallagher (1987) was used as the conceptual framework for determining what factors influence rural Latino students' decisions to pursue higher education. This model was applied because it is student-focused rather than institution-focused. Second, the model is useful in gaining an understanding of student decision-making processes. Third, this model enables researchers to identify factors related to the college-choice process that should be explored because it relates to the significance students place on factors regarding college choice in their decision-making processes. To understand the value of the predisposition stage, it is important to understand the general concepts of the entire model.

In the first phase, *predisposition*, a student decides whether or not to pursue a college education. This phase is sometimes referred to as the college aspiration process, and involves the development of occupational, educational, and self-aspirations, as well as the decision whether or not to continue education beyond high school. During this phase, it is thought that colleges do not have much influence in the student's decision-making process.

Influential factors identified in this phase are: background characteristics, significant others, educational activities, curricula, educational environment, and the college attendance habits of peers, among others.

In phase two, *the search phase*, students begin seeking information about colleges, and form a set of institutional choices to research more intensely. Greater interaction with the actual institutions occurs as students engage in search activities, such as visiting college campuses and the colleges which, in turn, seek students to admit.

In phase three, *the choice phase*, students evaluate their choices and colleges engage in courtship activities that are designed to entice students to attend: personal contact, offering financial assistance, and other recruitment activities. The outcome of this phase is the student's selection of a particular college to attend.

Numerous studies have concentrated on the search and choice stages, in particular, focusing on the importance of the student's socioeconomic status and the availability of financial assistance (Gladieux, 2004; Heller, 2002; St. John, 1991). However, in the current study, these factors were not included. An assumption of this study was that, if the student aspires to attend college, he or she will attend despite the family's socioeconomic status. Furthermore, it was assumed that, if the student lacks the aspiration to attend college, regardless of amount of financial assistance offered, this funding resource would not override the student's predisposition towards attending college. This assumption has been advanced previously by Alexander, Pallas, and Holupka (1987), and Hearn (1991), who revealed that in the college choice process socioeconomic factors, such as financial aid, are secondary to academic ability and educational aspirations.

Predisposition

The college aspiration process (i.e., predisposition to choose college over other options) is shaped by a wide array of interconnected environments, cultures, and conditions. Many of the studies concerning predisposition have been institutional specific and focused on factors related to students' family, socioeconomic status, academic ability, and high school or college context (Alwin & Otto, 1997; McDonough, 1997; Teri, 1995). A number of these studies have been conducted after the students successfully matriculated to college, and most have been conducted in urban settings (Levine & Nidiffer, 1996; McDonough, 2004).

The predisposition stage of the college choice process involves the development of occupational and educational aspirations. Amid various influencing factors, the student determines that a particular occupation is an appropriate fit. From thereon, the student makes a decision as to whether or not postsecondary training is necessary to fulfill this occupational aspiration.

Several findings in the literature have suggested multiple factors interact with each other in a complex manner prior to the formulation of these aspirations (Alwin & Otto, 1997; Chapman, 1981; Hossler & Gallagher, 1987; Teri, 1995). Factors identified in the predisposition stage are: parental encouragement; parental educational attainment; academic aptitude; academic achievement; school engagement; student self-esteem; student attitudes toward school; peer attitudes toward college; family socioeconomic status; teacher encouragement; and perceived economic benefits of college (Paulsen, 1990).

It is important to recognize the existence of each factor. Some factors originate in the home, some during the K-12 school experience, some in the community through work and volunteer experiences, and others through the culture of the various environments in which

students move on a daily basis. In some scenarios these factors are assets, whereas in other scenarios they are liabilities. It would seem unlikely that one single factor influences the college aspirations of students.

Summary

In this chapter the theoretical framework of the college choice process was used to review factors that influence the formation of college aspirations. Using this context helped to introduce the potential benefits of a combined model of college choice. Specific emphasis was given to factors known to influence high school students' participation in the educational system, particularly students who are Latino and living in rural settings.

This review provided a general context in which to situate the methodology for this study. Chapter 3 will provide details concerning the methodology of the study—a proposed logic model of the formation of college aspirations and enrollment based on the literature review. In addition, Chapter 3 provides the research design used test the theoretical model and address the research questions of this study.

CHAPTER 3. METHODOLOGY

Introduction

This chapter provides an overview of the research methods that were used to determine the personal, social, and cultural factors that influence rural Latino Iowa students when making their decisions to attend college. In particular, this study was conducted to expand upon a previous pilot study by Wolf (2005) to investigate the extent to which the barriers and enablers to college differ between rural Latino and White high school students.

The first part of this chapter provides the setting of the study. Next, an explanation of the mixed methods research approach and design is provided, including an overview of the methods that were employed, the samples, data collection procedures, variables, and methods of analysis. The chapter concludes with information regarding ethical issues and limitations of the study.

Research Questions

The purpose of this study was to address the following research questions:

Quantitative

1. What are the background characteristics, high school experiences and student perceptions of high school for the students who responded to the Iowatown Student Impressions and Aspirations Survey (SIAS)?
2. How do the background characteristics, high school experiences, and student perceptions of high school differ between the Latino and White students who responded to the SIAS?

3. What background characteristics, high school experiences, and student perceptions of the high school can be used to predict Latino and White students' intentions to enroll in college?
4. Among the White and Latino students found to enroll in college, how do their background and high school experiences, differ from those who did not enroll?

Qualitative

5. How do rural Latino high school students describe their decisions to pursue or not to pursue a postsecondary education?
6. For those who attend postsecondary institutions, how does it change their lives?
7. For those who do not attend a postsecondary institution, how have their lives changed since high school?

Hypotheses

The following hypotheses were offered for each outcome variable, with one exception. Each hypothesis is written as a null statement, and has no direction (Fraenkel & Wallen, 1996). There is no hypothesis for question 1 as it is descriptive in nature.

1. There is no difference between Latino and White Iowatown students in terms of background characteristics, high school experiences, and student perceptions of high school.
2. There is no difference between Latino and White Iowatown students in terms of the background characteristics, high school experiences, and student perceptions and their intentions to enroll in college (i.e., college aspirations).

3. There is no difference between White and Latino students found to enroll in college and those that did not, in regards to their background characteristics, high school experiences, and student perceptions of high school.

Capstone

In 2005, the researcher conducted a capstone project for Iowatown High School (IHS) located in rural, central Iowa. The scope of that project was to develop a student satisfaction/opinion survey instrument that could be used by school officials to collect data for its state required School Improvement Plan. The survey instrument developed was a cross-sectional design, as the information was collected at one point in time (Groves et al., 2004) from the participants during their final processing for graduation.

During the capstone project, a survey instrument was developed and administered to 78 members of the 2005 graduating class. The analysis of the data indicated that: 48.7% of the participants had aspirations to attend college, of which 78.9% were White; 73.3% Latino; and 85.7% Other (Wolf, 2005). To confirm if the students followed through with their college aspirations, data were sent to the National Student Clearinghouse, to be matched against verified college enrollments. The National Student Clearinghouse reported 61% of the 78 participants enrolled in college and persisted beyond the first four weeks of the 2005 fall term. Of participants who enrolled in college, 26 were White, 7 Other, and 5 Latino. These numbers represented 56.3% of Whites, 36.8% of Others, and 28.6% of Latinos who participated in the 2005 survey.

A question emerged from the capstone study: If Latino students aspire to attend college at nearly the same rate as Whites, why are they not enrolling in college at the same

rate? In response to this question, the current study expanded upon the previous capstone study by: adding data collected from the 2006 graduates of Iowatown High School to the 2005 data; conducting comparisons between the 2005 and 2006 data; conducting a National Student Clearinghouse match of the 2006 graduates; and interviewing graduates to learn about their decision-making processes. An explanation of the National Student Clearinghouse data match process is provided in Appendix A.

Prior to the collection of data for the 2005 capstone project, applications for approval to conduct research involving human subjects were submitted to the Office of Research Compliance at Iowa State University (ISU) and to the guidance counselor at Iowatown High School. The approvals for the 2005 capstone study were received from Iowatown High School on April 4, 2005 (Appendix B-1) and from the ISU Institutional Review Board (IRB) on April 18, 2005 (Appendix C). An amendment to the study was submitted to the ISU IRB on July 19, 2006, requesting permission to add data from the 2006 graduates. Approval for this amendment to the research was granted on August 11, 2006. An additional amendment to the study was submitted to the ISU IRB on December 13, 2006, requesting permission to use a Spanish-speaking interviewer. Approval for this amendment to the research was granted on December 14, 2006. The participant consent letter appears in Appendix B-2.

Setting

The site of the study, Iowatown, was a small community located in rural central Iowa. Iowatown was established in the 1800s as a railroad stop, and over time has grown into an agrarian supported community, and is economically homogenous (National Center for Educational Statistics, 2003). Those not directly employed in the farming industry find their

livelihoods through agricultural related industries, such as seed dealerships, farm implement companies, tool and die operations, and sundry businesses. A large meat packing operation is also located in the community as well as several grain elevators. There is a small community hospital and two medium-sized nursing care facilities. For the most part, the community is self-sufficient, as few travel to another locale for employment.

Iowatown's population consists of 72.9% White, 24.5% Latino, 14.9% of more than one race, and 1.1% Black. Within this population, 15.5% report being foreign-born, of which the majority are from Latin American countries. The average household income is $35,429 and the average home value is $69,000. Of those 25 years old and over, 75.5% graduated from high school; 10.4% have a Bachelor's degree; 3.1% have a graduate or professional degree; and 4.4% are unemployed.

Comparative census data describes the community as having higher populations of Blacks, Latinos, and foreign-born populations than the reported state average. In addition, Iowatown is below the state average in enrolled college students and in percentage of the population who have achieved a bachelor's degree or higher (Iowatown, 2006).

Iowatown experienced a significant increase (26.1%) in its Latino population between the 1990 and 2000 censuses. This increase has further significance when the focus is narrowed to the community's K-12 school system. In 1991-92, there were 1,599 students enrolled in K-12, of whom 4 were Latino, less than one percent (00.2%) of the enrollment. In 2004-05, 1,775 students were enrolled, of which 667 (40.2%) were Latino (Iowa Department of Education, 1993). In 2005-06, Iowatown reported a K-12 district enrollment of 1,766: 53.4% enrolled in K-6; 15.3% in grades 7-8; 31.3% in grades 9-12 (Iowa Department of Education, 2006c). Of those enrolled in grades 9-12: 67.1% were White,

31.4% Latino, and 1.5% Other (Iowa Department of Education, 2006d). By U.S. Department of Education standards, the Iowatown school district is considered rural, as its enrollment is under 2,500 students, and it is not located near a large metropolitan area (NCES, 2002).

The Iowatown school system is reflective of many of the characteristics associated with other small rural Iowa school districts. The Administration adheres to an agrarian academic calendar: classes begin in late summer and provide a small break in the fall which coincides with harvest; a winter break for the holiday season; a week long break in the spring that coincides with planting; and a May end date the coincides with the beginning of the hay cutting season.

Iowatown's faculty is typical of those found in other small Iowa towns. Faculty members are either newly minted college graduates or they have been on staff for at least 10 years. The average length of time on staff is 10.9 years and the average length of teaching experience is 14.3 years. Less than 1% (0.6%) of the 148 faculty members are not White (Iowa Department of Education, 2006h).

What most faculty members tend to find is that, once they have determined that teaching is their vocation and that they like Iowatown, they assimilate into the community and remain until retirement. The average age of the faculty is 42.4, compared to the state average of 42.3. School officials report that faculty and staff generally leave for three reasons: retirement, to care for extended family, or to serve in the military. The average faculty salary is $39,076, which is slightly below the state average of $40,343 (Iowa Department of Education, 2006g). In comparison to the Iowatown community average salary, faculty members are generally among the highest-paid members of the community.

The curriculum is a traditional program of comprehensive arts and sciences offerings. In addition, the high school offers a strong program in technical and career courses that are related to farming, light industry and office management. School administrators report over 75% of the student body participates in some type of extra-curricular activity. The activities include: sports, music, drama, clubs, and service activities.

There are, however, many ways in which Iowatown diverges from being a typical Iowa small town school district. Recognizing that 7.2% of its population are first-generation Americans whose first language is not English (Iowa Department of Education, 2006f), the district provides an extensive English as a Second Language (ESL) Program, as well as a Title I Reading program, and a Reading Recovery program. In addition, three Spanish-speaking paraprofessionals are employed at the high school to assist students. The school district also offers an Alternative High School setting for those who find it difficult to learn within the structure of a traditional classroom setting. Of the students enrolled in K-12, 56.8% qualify for free or reduced lunches, which is reflective of the average household income for the community. The state average for free and reduced lunches is 32.0% (Iowa Department of Education, 2006a).

On average, among those who enter high school who are eligible to be part of an Iowatown graduating class, 90.3% will graduate. This is just under the state average of 90.7% (Iowa Department of Education, 2005a). Iowatown's graduation average has improved over the past five years, from 73.7% in 2001 to 90.3% in 2005. Among those who attend Iowatown High School, 92.4% of the males and 87.3% of the females will graduate. Within ethnic classifications, 93.7% of Whites and 76.7% of Latinos graduate. These figures are slightly higher than the state average of 92.0% Whites and 74.1% Latinos.

Despite the appearances of a high graduation rate, Iowatown student performances and behaviors have caused its Administration and faculty to look seriously at these statistics and related behaviors to determine what can be done to help students improve. The 2003-2005 Iowa Department of Education Reading Proficiency Report for Iowatown reveal that 65.7% of the students tested were reading proficiently in the 11th grade. The statewide average for the same time period is 76.9%. Of those students considered as Low Socioeconomic Status (SES), 40.5% are reading proficiently at the 11th grade level, whereas the statewide average is 60.1%. Within this SES grouping 76.0% are Whites and 36.2% are Latinos. The Statewide average for SES students reading proficiently at the 11th grade level is 78.2% for Whites and 50.3% for Latinos.

Absenteeism is a concern within the district. While the average daily attendance rate is 95.3% compared to the State average of 95.4%, officials report that the students are not consistently in the classroom and that their academic performance is adversely affected.

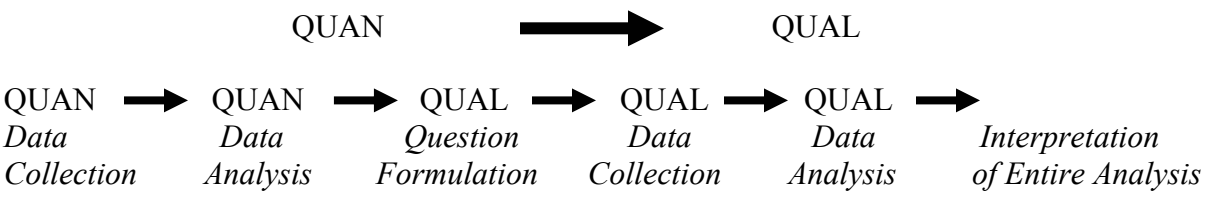
Based on conversations with school administration and a review of Iowa Department of Education demographic information, Iowatown and its high school were selected for this study based on: (a) the sharp increase in the Latino population; (b) the perceived decline in its graduates enrolling in college; and (c) the definition of the community as a *rural small town*.

An additional reason for studying the students of this community was that the community is representative of similar communities throughout the United States. Many communities have recently experienced an influx of first-generation immigrants and, as a result, are struggling to positively meet the needs of these new residents.

Research Design

The research design of this study employed a sequential explanatory strategy to collect quantitative and qualitative data (Creswell, 2003, 2005). The analysis of the data occurred in two distinct phases. The use of the sequential design, as diagramed in Figure 3.1 enabled the researcher to explore and situate the phenomenon of rural Latinos' college enrollment decision-making from several perspectives. The mixing of the methods in this study enabled the data to be considered separately, in terms of quantitative and qualitative perspectives, and also allowed the researcher to explore how each perspective influenced the other. The decision to use qualitative data to further explore the issues that affect Latino students' decisions to enroll in college guided the order of the research phases.

The first phase of the study was quantitative, which employed data gathered through a student satisfaction/climate survey instrument, known as the Student Impressions and Aspiration Survey (SIAS). These data were gathered from the 2006 graduating class of Iowatown High School. These data built upon data gathered during a previous capstone project which consisted of the 2005 graduates of Iowatown High School. During the previous capstone study data collection and analysis concentrated on student perceptions of their K-12 educational experience with the Iowatown school system. In this study students' college aspirations and college enrollments were added to previously identified variables.



Adapted from Creswell (2003), p. 213.

Figure 3.1. Sequential mixed method explanatory design

As quantitative approach methodology is generally unable to explain the cause and effect of the relationships between variables, a qualitative approach was employed in the second phase of this study to extract the rich detail of the data through semi-structured interviews. The analysis of the quantitative data was used to frame the questions asked during the qualitative interviews.

To reduce confusion that can occur when presenting a mixed methods design, the following subsections provide a description of the design, separated into two distinct phases: the quantitative phase, followed by the qualitative phase.

Phase I: Quantitative

In the first portion of this phase of the study, a logical positivistic approach (Rudestam & Newton, 2001) was employed to identify barriers and enablers to students' aspirations to attend college. The data used in this portion of the study were drawn from survey data collected from the 2005 and 2006 graduating seniors from a rural high school located in central Iowa. The second portion matched students' college aspiration data with a national database of college enrollments (National Student Clearinghouse).

Philosophical assumptions

An assumption within quantitative research is that all knowledge is derived from direct observation and inferences can be formed based on these observations (Rudestam & Newton, 2001). Furthermore, logical positivist philosophy contends that each element of a reality is separate from the other elements, and therefore can be controlled and measured (McMillian & Schmuacher, 1997). As a result of this widely held assumption, one could

assume that factors such as parental involvement or student engagement in school can be observed and measured.

A second assumption is that quantitative research can be employed to establish relationships or explain causes as to why situations exist or changes occur. Stage (1990) summarized these assumptions as researchers' attempts to explain the world and various phenomena through the notion of causation. Based on this explanation of causation, the first two stages of the current study examined relationships among variables that influence college aspirations and addressed interrogative questions.

Theoretical approach

The theoretical framework for the quantitative portion of this study drew from the three-phase general model of the student college choice process by Hossler and Gallagher (1987). According to Hossler et al. (1989), students' aspirations to attend college are dependent on a number of factors. These factors include: background, academic ability and achievement, ethnicity, gender, parental educational attainment, location of family residence (i.e., urban or rural), parental encouragement, peer encouragement, high school counselor and teacher encouragement, college aspirations, career plans, quality of school academic track, and the labor market.

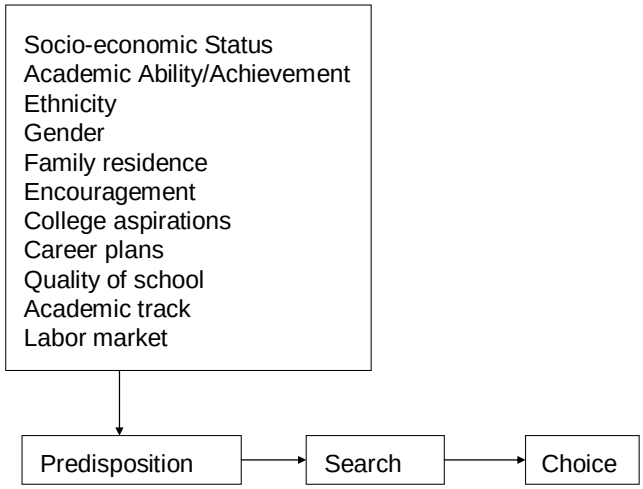
The influence of these factors is most prominent in the first phase of the model—the predisposition or aspiration stage. During this phase, when students formulate a tentative decision of whether or not to continue their formal education beyond high school, their environment is very influential on their decision-making processes (McDonough, 1997).

During the second phase—the search phase—students conduct a self-evaluation as well as explore what educational options are available to them. Students generally conduct a self-inventory to determine what they want out of a college experience. Based on this inventory, they explore postsecondary institutions to determine what each has to offer. It is in this phase that students establish limits to the types of institutions they will consider. Factors that may cause students to eliminate college choices might include location, costs, and program offerings (Hossler et al., 1989).

Choice is the third phase. It is within this phase that the student narrows the search to a group of acceptable institutions to which he/she will apply for admission. From this group the student will make a final decision of which institution to attend. During this phase the student concentrates on specific institutional characteristics, such as perceived quality, atmosphere, special program offerings, and institutional actions such as financial aid awards and personal communications, to formulate his/her final decision (Hossler et al., 1989).

The purpose of this study was to determine what factors influence rural Latino students' decisions to enroll in college. Within the student college choice model, the predisposition stage was most relevant to this study. While the search and choice phases of this model are relevant to the formulation process of a student's college choice, neither was central to the purpose of this study.

Figure 3.2 provides a conceptual view of the three-stage student college choice model (Hossler & Gallagher, 1987): predisposition (aspiration), search, and choice, and the sequence in which the stages generally occur. In addition the variables related to the predisposition stage as identified in the literature are presented. Several of these variables may affect rural Iowa students in the predisposition phase of their college choice processes.



Source: Adapted from *Understanding the college choice model* (Hossler, Braxton & Coopersmith, 1989)

Figure 3.2. Student college choice model

To explore the variables associated with the predisposition phase, data were gathered through the use of a student satisfaction/climate survey. The data were obtained from high school seniors graduating in 2005 and 2006 from a rural Iowa high school. These data were supplemented through data match information concerning students' verified college enrollments obtained from the National Student Clearinghouse (NSC).

The NSC is a non-profit organization established in 1993 to serve as a central repository for colleges to report academic data, from which verification information could be sent on behalf of colleges to inquiring entities. Through its enrollment verification solutions, NSC assists colleges, universities, high schools, and K-12 school districts in reporting degree completion and academic achievement, as well as current and past enrollment status to lending institutions, insurance companies, employers, and researchers.

Sample

The sample for this study consisted of the 2005 (*n*=70) and 2006 (*n*=112) graduates (*N*=182). All of the participants in this study were from the same small rural Iowa high school.

Phase II: Qualitative

As the researcher hoped to construct meaning out of the data collected from the participants, narrative inquiry (Clandinin & Connelly, 2000) was used to uncover subtle nuances and to provide deeper understandings of the factors brought to light in the first phase of the study. The main data collection method for the qualitative phase was semi-structured interviews. These interviews were used to explore the cultural, societal, and personal influences that effect rural Latino students' decisions to attend or not to attend college. It was anticipated that the narratives gathered from the participants would provide new perspectives of the cultural, personal, and economic factors, which make up the master scripts (Bloom, 1998) that influence the decision-making processes of these students.

Philosophical assumptions

The goal of this study was to gain understanding about barriers rural Latino high school students face when making decisions to attend college. The philosophical approach of the qualitative portion of this study was social constructionism. Constructionism is the process by which individuals engage in generating meaning of objects and experiences that they encounter (Crotty, 2003). The major components of social constructionism include: (a) the construction of meaning by the individual; and (b) what occurs when the individual makes sense (meaning) of an event/object in the context in which it is encountered

(Schwandt, 2001). This process of construct was used to offset the potentially naïve assumptions that might be formed based on the positivist results of the quantitative data gathered in the first portion of this study.

Theoretical approach

The student college planning literature generally concentrates on identifying measurable variables that work to influence the elements associated with college aspirations, enrollment and degree attainment. Few studies have attempted to describe the social and behavioral factors that affect the phenomenon of the formulation of college aspirations and enrollment (Levine & Nidiffer, 1996; McDonough, 1997; St. John, 1991). Thus, to gain a better understanding of the constructs formed from the quantitative data collected, it is important to have an understanding of the phenomenon being studied.

Enablers and barriers to higher education differ depending on one's socio-economic status, ethnicity, or geographic location. What is a barrier to students in an urban setting may not be applicable to students living in a rural community in Iowa. Bourdieu (1987) explained this difference in perspective as a result of the capital individuals bring to the situation from their culture, (e.g., culture capital). An individual's capital is the culmination of time, culture, traditions and values provided by family and the community. As a result of these elements within one's environment (i.e., habitus), an individual formulates a perspective on life. In other words, each individual has a unique perspective on what is an enabler or barrier, dependent on his or her personal perspectives and background.

In this study the phenomena comprising the development of college aspirations and attendance were explored from the viewpoint of rural Latino high school graduates.

Bourdieu's (1987) notion of culture capital was used to help situate the graduates' experiences, concentrating on the factors that influenced their decision processes. This study examined power relations in the two most common "fields" the high school students'/ graduates' experiences—school and home.

In a qualitative study, the researcher strives to explain phenomena in light of the theoretical framework that evolves/emerges during the research (Strauss & Corbin, 1990), for example, why rural Latino high school students do not enroll in college. In this study, the researcher assumed that the qualitative data which emerged during the interviews would be associated with a previously developed theory (i.e., theory of student college choice by Hossler & Gallagher, 1987). Therefore, student college choice literature was used to develop a list of questions that were asked during the interviews and situate the data during the analysis process.

However, when possible, previous assumptions regarding student college choice literature were suspended so as not to influence or impede the study until after the interviews had been completed, and the data coded and analyzed. Following the completion of these processes, the emerging categories were reviewed to determine how they could be positioned with the current literature. Whenever appropriate, constructs formulated from this study were expressed from the students' points of view.

Participants

In this portion of the study, it was important to establish a strong correspondence between the research questions and the participants. As one of the purposes of this study was to explore the reasons rural Latino high school graduates do not attend college, it was

imperative to interview a sample of rural Latinos. Purposive sampling (Bogdan & Biklen, 2003: Bryman, 2004; Creswell, 1998) was employed based on these criteria.

Selection of the participants began with homogeneous sampling comprised of all Latino students who graduated from Iowatown High School in 2005 and 2006. From this sample, two heterogeneous subgroups (Miles & Huberman, 1994) were selected and interviewed to better understand their college decision-making processes. One group consisted of Latinos who were enrolled in college, whereas the other group consisted of Latinos who aspired to attend college but did not enroll. The total for the two subgroups was comprised of 7 participants.

Data Collection Procedures

The data collection process for this study entailed three methods of collection: (a) a student satisfaction/climate survey, (b) a national database match, and (c) one-on-one interviews. The collection took place through a five-phase process. During 2005 a capstone project was conducted which included Phases 1 through 4, as outlined in the following five subsections. The capstone project served as the pilot from which this current study was based.

Phase 1 – Familiarity and entry into the community

As an outsider to Iowatown, it was important that the researcher become aware of community issues prior to meeting with students. To accomplish this, the researcher met with community and school leaders in January 2005 to determine their perceptions of the issues their students face when making post-high school plans.

Phase 2 – Set up interviews with school and local officials

In March and April of 2005, the researcher met with the Iowatown High School guidance counselor and principal to determine the most appropriate ways to assess students' perceptions.

Phase 3 – Survey the students (Quantitative)

In May of 2005, Iowatown High School seniors were surveyed as part of their graduation exit process. Each member of the senior class was asked to complete a computer-based student satisfaction/climate survey, known as the Student Impressions and Aspirations Survey (SIAS). Questions embedded within the survey were designed to collect data concerning the multipositional roles (Weis & Fine, 2004) students fulfill, their post-high school plans, and factors influencing their decision-making processes.

Demographic information was gathered through the SIAS (Appendix D-1). Data gathered through this survey provided a broad picture of the experiences students encountered while attending Iowatown High School. Trends identified from the data were used as the basis to develop the interview questions.

Phase 4 – Confirmation of college enrollment (Quantitative)

As the data gathered through the survey instrument reflected college aspirations, it was important to this study to determine if students followed through on their aspirations and enrolled in college. To determine college enrollment, a data match was conducted with the National Student Clearinghouse. Matched data for the 2005 graduates were received in March 2006 for 38 participants. Match information for the 2006 graduates was requested in October 2006, and the data were received for 56 participants.

Phase 5 – Interviews (Qualitative)

From the National Student Clearinghouse data match, it was possible to determine students who did and did not enroll in college. Based on this information a purposive sample of students who did and did not enroll in college was selected to be interviewed during the fall of 2006. To refine the findings of the quantitative portions of this study, a narrative inquiry approach (Connelly & Clandinin, 1999; Creswell, 2005) was employed to explore and gain a deeper, richer understanding of the subtle cultural, sociological, personal, and familial factors of the students' habitus and how these factors interplay in their decisions to attend or not attend college. Participants participated in one-on-one semi-structured interviews (Wolcott, 2001), at the Iowatown Community Opportunity Center.

The purpose of these interviews was to gain an understanding of how the participants made meaning of their Iowatown experiences. During this narrative inquiry the phenomena was explored related to growing up in Iowatown, attending Iowatown High School, and how these experiences effected graduates' decisions to enroll in college. Predisposition factors associated with Iowatown identified in the quantitative phase of the study were used to formulate contextual interview questions (Cicourel, 1970) which were used to uncover the significance of the factors during the interview protocols. The collected data enabled the researcher to better understand and construct meaning of how the participants make sense of their experiences, embrace their current environments, and situate themselves when formulating their decisions to attend college.

Data Collection Tools

Phase I: Quantitative

Instrumentation

Data were collected through two means. The first utilized a survey instrument, whereas the second was through a request to match data with a certified national database of college enrollments (National Student Clearinghouse).

The survey instrument was designed in 2005 for Iowatown High School to establish baseline data used to fulfill its State of Iowa School Improvement Plan obligations. The Student Impressions and Aspirations Survey (SIAS) (Appendix D-1) was designed to gather demographic data including students' gender, grade point average (GPA), native language, family composition, educational attainment of parents, ethnicity, and residency status, as well as the satisfaction of school services and post-high school aspirations. The SIAS student opinion questions were formulated based on a literature review of student college choice theory, in particular barriers and enablers of students' enrollment in higher education.

The 66-item survey instrument contained closed-ended and open-ended questions, which enabled respondents to provide directed responses to issues of interest in the study, while affording them an opportunity to elaborate on their responses. Multiple measure indicators (Bryman, 2001) were used to capture data for each concept introduced in this instrument. The questions were structured deliberately to reduce reliance on a single indicator when measuring a concept. By employing multiple indicators the researcher was able to probe and make finer distinctions in the analysis phase.

Closed-ended questions (Russ-Eft & Preskill, 2001) were used to obtain information from the students within predetermined categories. Two types of closed-ended questions were used to collect demographic information from the respondents: two-choice and multiple-choice. These formats were selected as the demographic data to be gathered did not lend to the use of a single format. *Is English your native language?* is an example of a two-choice (dichotomous) question, whereas, *How many children (18 years or younger) live in your household?* is an example of a multiple choice question.

The SIAS instrument was designed to gather information concerning seven major themes which included closed-ended, open-ended, and Likert-type rating scale questions. The themes and corresponding questions which appear throughout the survey instrument are: educational achievement, learning environment, student perceptions, engagement, barriers, aspirations, and support systems.

1. *Educational Achievement and High Quality Coursework:* Questions 3 and 8 were designed to gather information concerning students' self-perceived academic achievement (e.g., GPA) and to determine what curriculum the students pursued while attending Iowatown High School.

2. *Learning Environment:* Questions 12-14, 18-19, 25-29, 34-35, and 56 were asked to determine how students perceived their learning environment. This information was gathered in a format of close-ended questions followed by open-ended questions. Open-ended questions, in the form of fill-in-the-blank questions (Russ-Eft & Preskill, 2001), were used when the ranges of answers were uncertain. An example of an open-ended question: *What is the most powerful thing a teacher has ever said to you?* By using open-ended

questions students were allowed to express in their own words their experiences, attitudes, and beliefs.

3. Students' Perceptions: Questions 30-31 and 57-59 were designed to gather information concerning how students felt teachers encouraged them in their academic work. Question 30 was a closed-ended question followed by an open-ended question, which prompted the students to elaborate on their previous answer.

Questions 57 and 58 asked the students to reflect back on their educational experience and to disclose what was the most powerful statement a faculty member ever expressed to them and in what grade this occurred. Question 59 consisted of 18 statements concerning the school environment which the students were asked to rate on a Likert-type scale. Students rated statements concerning school policies and environment according to level of agreement: (1) = Strongly Disagree; (2) = Disagree; (3) = Agree; and (4) = Strongly Agree. The four-point Likert-type scaling method was selected to force the respondents to choose either a positive or negative response to each statement, without allowing them the ability to choose a neutral position (Russ-Eft & Preskill, 2001).

4. Engagement in School: Questions were embedded within the survey instrument to collect data concerning the multipositional roles (Weis & Fine, 2004) students fulfill, their post-high school plans, and influencing factors to their decision-making processes. Questions 9-11, 12-17, 20-21, and 49-51 were designed to gather information concerning the multiple cultures the students live, work, and learn in. The majority of these questions were paired in a closed-ended and open-ended sequence. The close-ended, dichotomous question asked the student to make an affirmative or negative response to a statement. Students were then asked an open-ended question which allowed them to explain their previous answer.

Question 9 was a rating scale question asking the students to rate activities they were involved in based on the number of hours they participate in the activity. Question 50 was a Likert-type scale question that asked the students to rate how their parents'/guardians' viewed education beyond high school according to importance as (1) = Have not mentioned education beyond high school, (2) = Not necessary, (3) = Somewhat necessary, and (4) = Very necessary.

5. *Perceived Barriers:* Questions 40-41, and 52-55 were designed to gather information concerning the barriers students perceived keep them from being successful. Questions 52, 54, and 60 were close-ended questions, used to direct the students' attention. The remaining questions were open-ended, designed to allow the students to express their thoughts in their own words.

6. *Aspirations:* Questions 38-39, 42-44, 46-48, and 61-63 were asked to learn about students' post-high school aspirations. In addition to asking for responses to traditional paths the students may follow (e.g., college, work, military), students were asked to identify life and work skills they would like to be successful at, (e.g., parenting, social skills, communication skills).

7. *Support Systems*: Questions 32-33, 36-37, and 45 were asked to gather information concerning the supporting entities students rely on. Through these questions students were asked to identify individuals whom they go to for advice, and to identify individuals who provided them encouragement when they were making their post-high school decisions.

During the development of this instrument there was some concern that students might try to skip questions when completing the survey. To resolve this issue, the questions

were constructed within the SurveyMonkey™ software so that respondents were required to answer each question before they could proceed to the next. During the analysis stage the responses to the open-ended items were analyzed, coded, and quantified. Following this process the data were transformed into themes and assigned values so they could be compared with other variables.

Validity of the instrument. In most social research it can be difficult to manipulate the variables within a study, which is why a cross-sectional design was used rather than an experimental one. Cross-sectional research designs produce associations between variables rather than casual inferences (Groves et al., 2004). By choosing to use a cross-sectional design, the researcher was limited in the ways she was able to test the validity of SIAS instrument. However, validity of the SIAS instrument was established through two accepted means—content validity and face validity.

Content validity refers to how appropriate is the content and format of the instrument being used (Fraenkel & Wallen, 1996) to gather data. The literature was used to guide the theoretical perspective as questions were formulated for the SIAS. Upon completion of the first draft of questions, the researcher reviewed similar existing instruments (e.g., Noel-Levitz and ACT new college student surveys) to determine if an instrument existed that would address the same items. Upon finding several instruments that were close but not the same as the SIAS, the researcher asked the Iowatown High School principal and guidance counselor to review the three instruments to determine if the questions were applicable for their purposes. It was determined that the existing instruments did not contain the

appropriate items that needed to be reviewed, thus it was agreed that the SIAS instrument was the best fit.

Prior to administering the instrument to the 2005 Iowatown High School graduates, a pilot test of the instrument was performed in March, 2005 with a group of first-year community college students. The purpose of the pilot test was to determine if the questions and format made sense, and if the respondents had any suggestions on how to improve the wording. This process established the *face validity* of the instrument. Face validity exists when the measure appears to reflect the content of the concept in questions (Bryman, 2004). Face validity of the SIAS was further strengthened by asking Iowatown school administrators to confirm whether the questions would capture the data needed for their internal and external reports.

Variables

Dependent. The dependent variables for this study were created from students' responses to a series of questions concerning their post-high school aspirations, and from data matches with the National Student Clearinghouse. Within the SIAS, students were asked to respond to the following question: *Have you considered going to college?* Responses to this question comprised the dependent variable known as *college aspiration*. Data matches of the Iowatown 2005 and 2006 graduates were made against the National Student Clearinghouse database to verify enrollment in college. Data from these matches comprised the dependent variable known as *enrollment*.

Independent. The independent variables within this study were developed based on the literature associated with student aspirations, college choice, culture capital, learning environments, and family influence. Variables from the SIAS were selected based on an analysis of the literature related to college aspirations and enrollment as presented in Chapter 2. The independent variables for this study (Table 3.1) were organized into three categories: (1) *Background* block which included student background characteristics; (2) *High School Environment* block which included measures of students' perceptions of their learning environment and their engagement; and (3) *Perceived Challenges and Barriers* block which included measures of factors that students perceived as impediments to their success.

Data screening

The target populations for this study were the 2005 and 2006 graduates from Iowatown High School. While the SIAS instrument was programmed so that students could not skip questions, some students provided responses that were inappropriate. An example was filling in an open-ended response with a single character. In addition, students may have entered an invalid school identification number, such as "unknown," in which case the student's data could not be matched to the National Student Clearinghouse to determine enrollment in college. To address the issue of missing or inappropriate responses, the researcher conducted data screening to identify missing data, inappropriate responses, and outliers. An example of an outlier would be a student who responded to the SIAS survey who was a visiting foreign exchange student. Such students were removed from the study prior to the analysis of the data.

Table 3.1. Independent variables

Category/Variable	Coding/Scale
Block 1: Background	
Background Characteristics	
Gender	1=male, 2=female
Race/Ethnicity – White	1=no, 2=yes
Race/Ethnicity – Latino	1=no, 2=yes
U.S. Resident/Citizenship	1=no, 2=yes
Mother's level of education Father's level of education	9-point scale, "unknown" to "PhD or advanced degree"
Parents' View of Education	4-point scale, "haven't mentioned" to "very necessary"
Native Language is English	1=no, 2=yes
Family Composition	
Parents	4-point scale, "unknown" to "living together"
Number of adults in household	7-point scale, "one" to "more than 6"
Number of children in household under 18	7-point scale, "one" to "more than 6"
Block 2: High School	
Academic Achievement	
English Foreign Language Mathematics Science History/Government	5-point scale, "none" to "more than 4-years"
GPA	Continuous variable
Students' perceptions of the curriculum: I feel challenged by my coursework.	4-point scale, "strongly disagree" to "strongly agree"
Learning Environment	
Students' perceptions of the school I feel valued and supported by this school. My school is good at providing equal opportunity.	4-point scale, "strongly disagree" to "strongly agree"
Teachers	
Student perceptions of teachers If I mess up, teachers in my school give me a second chance.	4-point scale, "strongly disagree" to "strongly agree"
Teachers are academically responsive to students' needs.	4-point scale, "strongly disagree" to "strongly agree"
The teachers treat students fairly across lines of Ethnicity and economic status.	4-point scale, "strongly disagree" to "strongly agree"
Teachers expect some students will do better than others.	4-point scale, "strongly disagree" to "strongly agree"
When I ask for assistance concerning my homework My teachers are willing to help me.	4-point scale, "strongly disagree" to "strongly agree"

Table 3.1. (Continued).

Category/Variable	Coding/Scale
Encouragement	
Activities	
Talking with teachers outside of class	7-point scale, "none" to "20+ hours"
Exercise or sports	7-point scale, "none" to "20+ hours"
Student clubs/groups	7-point scale, "none" to "20+ hours"
Block 3: Perceived Barriers	
Family Responsibilities	
Child care/babysitting	7-point scale, "none" to "20+ hours"
Housework	7-point scale, "none" to "20+ hours"
Work	
Work-for-pay	1=no, 2=yes
Hours spent working per week	7-point scale, "none" to "20+ hours"
Earnings used to support family	1=no, 2=yes

Method of analysis

A logic model derived from student college choice research was used to explore the relationships between the predisposition stage of college choice (Hossler & Gallagher, 1987) and the sample of this study. This study assumed that students' aspirations to attend college and their actual enrollment decisions were influenced by their social backgrounds, academic achievements, engagement in school, and interactions with and encouragement from faculty and family. All are factors found within the predisposition phase of the college choice process. The *Statistical Package for the Social Sciences (SPSS)*, Version 12.0 software was used to perform the statistical analysis for this study.

Descriptive statistics

Descriptive statistics were employed to construct a profile of the study's participants and to provide an explanation of the data collected through responses to the closed-ended survey questions. Cross-tabulations were performed to examine relationships between the

selected variables and the two groups of interest, Whites and Latinos. In addition, this study contains two separate analytical tracks—aspiration to enroll in college and enrollment in college.

Social demographics

A descriptive analysis was completed that included family background factors (White, Latino, residency/citizenship, number in family, educational attainment of mother and father, and native language). While five racial/ethnic groups were identified through the survey responses, this analysis was limited to two groups. Latinos and Whites were examined as they were the two major racial/ethnic groups in the community of Iowatown. Father's educational attainment was studied despite the fact that previous research indicated mother's educational attainment has a consistently stronger influence on students' college aspirations than fathers (Alvidrez & Weinstein, 1999; St. John, 1991). In addition, the composition and size of the family were considered as several studies have concentrated on students coming from single parent households. This variable was examined to determine if similar results could be applied to this study.

Casual-comparative analysis

Analysis by race/ethnicity. The variable race/ethnicity was used to study the differences between White and Latino students. The White sample included all students who marked "White" on the SIAS instrument. The Latino sample included all students who marked "Latino" on the SIAS. Students who marked Black, Native American or Asian were combined into the category of "Other." Due to small numbers, this grouping was excluded from the study.

A comparison analysis of the White and Latino students was conducted to determine relationships between the various variables and the two race/ethnic groups, concentrating on similarities and differences. An independent *t*-test was employed as the two groups consisted of non-paired individuals. Furthermore, using the match data from the National Student Clearinghouse, an analysis was conducted to determine if the characteristics differed between Latino and White students who enroll in college.

Logistic regression

A sequential logistic regression was conducted to assess the effect of the study variables on aspirations to enroll in college. In general, logistic regression was used to identify a combination of independent variables that best predicted membership in a particular group (Bryman, 2004). In this study the predicted membership was aspiration to enroll in college.

This multivariate analysis was well-suited as the dependent variable in this study was a dichotomous categorical outcome of the responses to the question, "Have you ever considered attending college, (e.g., aspiration)?" In this study logistic regression was employed as outlined by Mertler and Vannatta (2002):

> … logistic regression specifies that probabilities of the particular outcomes …for each subject or case involved. In other words, logistic regression analysis produces a regression equation that accurately predicts the probability of whether an individual will fall into one category or the other. (pp. 313-14)

A sequential logistic regression was considered the most appropriate statistical analysis technique to use as the independent variables were a mixture of categorical (e.g., White or Latino) and ordinal (e.g., highest level of education completed). Through this process the

estimated effects of the variables on *college aspiration* were introduced in three blocks: background characteristics, high school environment, and challenges/barriers (Figure 3.3).

The independent variables for the logistic regression were selected based on the literature and theoretical framework guiding this study. The first block included the background characteristics: mother's educational attainment, U.S. resident status, ethnicity, and parents' view of education. The second block included the high school variables: academic rigor, GPA, students' perceptions of curriculum, faculty and the high school environment, and interactions with teachers outside of class. The third block included two challenges and barriers experienced by students: work-for-pay and receipt of financial aid information (Table 3.2).

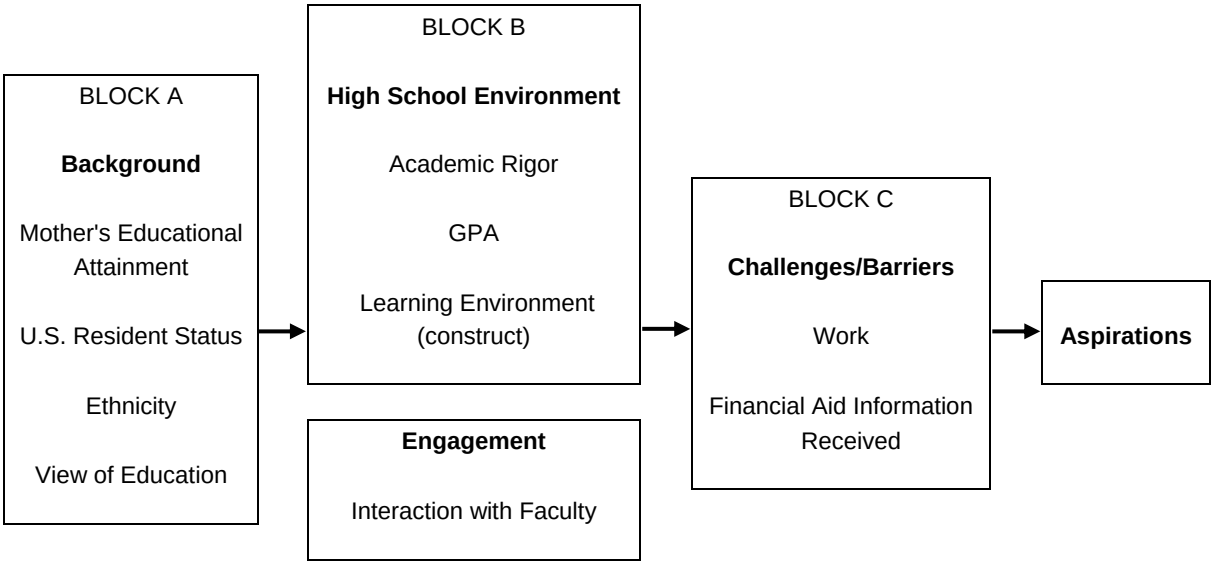


Figure 3.3. Logic model for college aspiration

Table 3.2. Logistic regression independent variables

Category/Variable	Coding/Scale
Block 1: Background	
Background Characteristics	
Race/Ethnicity – White	1=no, 2=yes
Race/Ethnicity – Latino	1=no, 2=yes
U.S. Resident/Citizenship	1=no, 2=yes
Mother's level of education	9-point scale, "unknown" to "PhD or
Parents' View of Education	4-point scale, "haven't mentioned" to "very necessary"
Block 2: High School Environment	
Academic Achievement	
Rigorous Curriculum	1= no, 2= yes
GPA	continuous variable
Construct of Perceptions of Learning Environment	
Students' perceptions of the curriculum: I feel challenged by my coursework.	4-point scale, "strongly disagree" to "strongly agree"
Students' perceptions of the school	
I feel valued and supported by this school.	4-point scale, "strongly disagree" to "strongly agree"
My school is good at providing equal opportunity.	4-point scale, "strongly disagree" to "strongly agree"
Student perceptions of teachers	
If I mess up, teachers in my school give me a second chance.	4-point scale, "strongly disagree" to "strongly agree"
Teachers are academically responsive to students' needs.	4-point scale, "strongly disagree" to "strongly agree"
The teachers treat students fairly across lines of ethnicity and economic status.	4-point scale, "strongly disagree" to "strongly agree"
Teachers expect some students will do better than others.	4-point scale, "strongly disagree" to "strongly agree"
When I ask for assistance concerning my homework my teachers are willing to help me.	4-point scale, "strongly disagree" to "strongly agree"
Engagement	
Talking with teachers outside of class	7-point scale, "none" to "20+ hours"
Block 3: Perceived Barriers	
Work-for-pay	1=no, 2=yes
Received financial aid information	1=no, 2=yes

Phase II: Qualitative

Instrumentation

Data collection methods for qualitative studies can include a number of approaches, such as one-on-one interviews, document analysis, focus groups, participant observation, journaling (Bogdan & Bilken, 2003). The major difference between these methods is whether the issue being researched can be addressed best through passive data collection (e.g., document analysis, participant observation, journaling) or by aggressively seeking (e.g., interviews, focus groups) out the information (Wolcott, 2001). For this study interviews were determined to be the most appropriate method for collecting data, as not all of the potential participants were still located in Iowatown, and travel to their new residences was a possibility.

An interview is often defined as "a communication transaction that emphasizes questions and answers" (Lumsden & Lumsden, 1997, p. 266). Even within interviewing, the decision must be made as to what style to use—free-flowing, open-ended, guided, semi-structured, and casual/conversational, life history/life cycle, projective techniques, or standardized tests (Bogdan & Biklen, 2003; Wolcott, 2001). When determining what interview style to employ, it is most important to utilize a data collection method that is best suited for the topic being researched. The purpose of the qualitative phase of this study was to uncover the meaning of the themes presented in the quantitative portion of the study, and then place them in the context of the graduates' experiences.

Seven Iowatown graduates were interviewed in one-time, one-on-one, semi-structured, funnel interviews (Bogdan & Biklen, 2003; Russ-Eft & Preskill, 2001). This style

enabled the researcher to respond to the interviewees' comments, and it also provided the option of adjusting the emphasis of the research as the data emerged. In addition, this style enabled the researcher to establish rapport with each participant, and the opportunity to encourage the participants to disclose personal impressions and stories concerning what led them to make their post-high school plans. These descriptions were used to provide insight into the college choice process that may have otherwise been overlooked.

By employing a semi-structured interview style, the researcher was be able to gather comparable data from the participants by using guiding questions of themes formulated from the quantitative data gathered in the first stage of this study. Data from the SIAS were used to formulate contextual, open-ended, guiding questions (Cicourel, 1970). The advantages of using open-ended questions for this study was that it allowed the interviewees to reveal what they perceived to be important; revealed the interviewees' lack of information or understanding of an issue; allowed interviewee bias to emerge; and provided context to the interviewees' responses (Tubbs & Moss, 2000). The semi-structured interview style allowed the researcher flexibility to be responsive to pursue topics and themes the participants introduced in their responses (Spradley, 1979). Each interview was audio taped to allow the researcher to concentrate on actively listening to the interviewees rather than being engrossed in extensive note taking, and potentially missing important nonverbal messages.

From the variety of formats that can be used to conduct interviews, the funnel sequence, as defined by Tubbs and Moss (2000), was employed when interviewing this sample of rural Latino high school graduates. Funnel interviews consist of three sequential stages: the opening, body, and closing. In the opening stage the researcher introduced the purpose and objectives of the interview, established rapport, provided an overview of the

major topics that were covered, and provided the interviewee with motivation to answer the questions. The body of the interview constituted the major portion of the time spent with each interviewee. During this stage of the interview "the funnel" technique became significant. It was during this stage that the interviewer started with broad questions which gradually became more specific (Tubbs & Moss, 2000) in order to narrow the interviewee's focus. By following the "funnel" sequence, a variety of questions were asked that could be tailored to the nature and behavior of each interviewee.

During the closing stage the interviewer summarized the interviewee's comments. This was done to determine if the interviewer captured the major thoughts expressed during the interview and to allow the interviewee the opportunity to recant or embellish on what had previously been disclosed. It was during this stage that the researcher made arrangements for the interviewee to receive a copy of the interview transcription for review and comment (Appendix B-3). Finally, at the end of the interview, the researcher thanked the interviewee for participating in this research.

The researcher prepared for the study by selecting topics and deliberately sequencing the questions prior to beginning each interview. This was done by developing an interview protocol (Bryman, 2004) that was followed during each interview (Appendix D-2). The interview protocol was used to set the agenda for each interview, provide a roadmap for the interviewer so that questions were consistent for each interview, and keep each interview within the established time parameters.

During each interview up to nine different kinds of questions were employed, depending on the individual being interviewed and his/her responses: (1) introductory questions; (2) follow-up questions, which were used to encourage the interviewee to

elaborate on responses; (3) probing questions concerning what the interviewee had just stated; (4) specifying questions; (5) direct questions; (6) indirect questions; (7) structuring questions; (8) silence; and (9) interpreting questions (Kvale, 1996). How and when these questions were employed depended on how the interviewee stated his/her responses and what he/she did not say. The later was triggered through body language, drops in vocal level, long pauses, emphasis in speech or facial expressions. For this study, the researcher introduced five general questions to each interviewee. Utilization of the styles mentioned previously was dependent on the responses and associated sub-questions (Stake, 1995).

The participants were Latinos who graduated from Iowatown High School in 2005 or 2006. At the time of the interviews they had completed high school and were either enrolled in college or pursuing other interests, such as employment or raising children.

The interviews were semi-structured yet formal in nature—formal from the standpoint that the researcher was seeking information from each participant—"one party seeking information and the other providing it" (Wolcott, 2001, p. 113). In addition, the interviews were audio taped, which implied that the researcher valued what the participant had to say. This type of interview relationship is often referred to as the "one down" position (Agar, 1980, p. 69) as the researcher assumes a subordinate role: the role of the listener. Although the researcher was learning from the participants, the researcher was in control of the interviews.

Data analysis

During the analysis the researcher attempted to reduce each interviewee's comments to a set common elements that could be used to reveal how the seven graduates viewed their

past experiences while attending Iowatown High School, their current situations, and their plans for the future. Through this information reduction (Murray, 1986; Richmond, 2002) the researcher developed a set of narratives to create a descriptive portrayal of each graduate.

By recounting the experiences central to the development of each graduate's journey to their current positions, the researcher was able to provide meaning to each of the graduates' experiences, individually and collectively. In addition, the researcher was able to provide a sense of how rural Latino high school students make their post-high school plans, highlighting the issues which are most significant in their decision-making processes.

Given the narrative inquiry design of this study, the analysis and interpretation of data documented the experiences from which the participants formulated their aspirations about college. Whenever possible, the participants' own words were employed to portray their stories.

During the interviews, the researcher was vigilant for the emergence of narrative data that provided insight to social interactions, personal relationships, and the complexities of environmental settings such as home and school, in addition to the nuances of meanings gleaned from the graduates' stories. Each interview was audio recorded, so as not to overlook any information provided by the participants. Evidence of redundancy of themes began to emerge in the fourth interview. During the remaining three interviews similar themes were presented with slightly different views.

Interview notes, transcripts, summary data from the SIAS instrument, and the National Student Clearinghouse match data served as the primary information sources. The Data Analysis Spiral model (Creswell, 1998) was used as the general analytical structure for this study. To gain an overall sense of the data, the researcher read through and reviewed all

interview transcripts, field notes, and survey data. Second, the researcher reflected on the comments offered by the participants and extracted significant statements that appeared to be influencers to their responses to interview questions or situations they described.

These comments were sorted into major organizational ideas and by significant statements. From these significant statements initial categories and trends emerged. Throughout these steps data sources were revisited to validate trends. Throughout the process the researcher compared each new data element to the list of already emerged categories. Through this constant comparative process (Creswell, 1998), the researcher developed a diagram of themes.

At this point the researcher moved from the spiral model to a comparison analysis of the data. During this process the researcher looked for common themes, topics and descriptors for each of the following categories—Latino students who enrolled in college and Latino students who did not enroll in college. Each category was color coded to enable better visual tracking. This comparison analysis enabled the researcher to identify similarities as well as outliers in the data.

Once this comparison analysis was completed, the researcher employed concepts of full compositional study (Weis & Fine, 2004) to further refine the data. By employing this concept, the researcher was able to construct propositions concerning the causes of the phenomena of why students did or did not enroll in college, and how these phenomena may have emerged.

Full compositional study is important in this analysis as the participants developed their post-high school decision-making processes while fulfilling multiple roles. Looking at the participants as just high school students and recent graduates did not provide the full

picture of the influencers they encountered while positioning themselves when making their post-high school decisions. To develop a better understanding of these influencers, the researcher reviewed data that described family and peer interaction, socialization of the school system, and the double consciousness (DuBois, 1990) that Latinos use to envision their positions within a majority community, and the multiple commitments these individuals carry.

Strategies for validating findings

Trustworthiness. As with quantitative data, a key aspect in qualitative research is the concept of validity. The trustworthiness of the data was confirmed through a variety of strategies: forward and backward review; respondent validation; member checking; and peer review. These processes provided the researcher with a deeper understanding of the qualitative process (Lincoln & Guba, 1985), and helped to identify significant variations within the data, and outliers to this study (Bhavnani, 1999).

To assure accuracy of the interview information the researcher employed a form of forward and backward review of the data (Bloom, 1998). This was accomplished by asking the participant to reflect back on past events to determine how he/she came to be where he/she is today. This reflection of past events and positioning of current state enabled the researcher to reconsider her original interpretations of the participants' responses and allowed each participant to reflect on his/her past.

Upon completion of the transcription of each interview, respondent validation (Bryman, 2004) and member checking (Clair, 2003; Lincoln & Guba, 1985; Schwandt, 2001) were used to assure that the participants' thoughts and intents were properly recorded and to

verify the accuracy of the transcriptions. Through member checking, each participant was provided a copy of their transcript and asked to provide feedback. If feedback was provided then adjustments were be made to the transcripts. If feedback was not provided, the researcher assumed that the transcription was correct.

Once a list of themes was compiled the researcher sent relevant portions of the transcripts, minus identifiers, to selected colleagues who had agreed to review and comment on the analysis of the data. Feedback from these colleagues was used to identify missed themes and to verify common themes. This peer review (Merriam, 2002) helped to prevent omissions in the data analysis. Triangulation of data from the one-on-one interviews, SIAS responses, observations, and consultation with the interviewer aided in ensuring the dependability of this study.

Confirmability of findings is another important aspect of qualitative research. A major technique in establishing confirmability is the research audit trail (Lincoln & Guba, 1985). An audit trail was created for this study through the creation of file folders for each interviewee, which included tape recordings, field notes from the interviews and travels around Iowatown, and general observations. An additional element of confirmability is the reflexivity on the part of the researcher. Throughout this study the researcher kept a journal which included all personal notes and reflections during the three stages of the study—preparation, interviews, and analysis of the data.

Role of the researcher

According to Bakhtin (1981) and Bourdieu (1977), all individuals assess situations based on their personal points of reference. These points of reference are comprised of

authoritative and internally persuasive discourses. Blumer (1969) asserted there are three basic assumptions which comprise one's personal point of view. First, individuals react towards things and events based on meanings the individual holds for them. Second, these meanings arise from some type of social interaction with another individual. Finally, meanings can be modified through an interpretive process experienced by an individual based on encounters. Within each encounter a different perspective is presented by each participant.

In a research experience the researcher needs to acknowledge that his/her perspective may cause him/her to react to a participant's response which can adversely affect the meaning the participant is attempting to bring to the event (Bloom, 1998). The researcher must be aware that personal perspectives can play a significant role in the selection of the populations to be studied, questions asked, the manner in which data are analyzed, and the interpretation of findings (Miller, 2001). Taylor and Bogdan (1998) recommended that member checking be used to avoid researcher bias.

According to Crotty (2003), "…no matter how faithfully [the researcher] adheres to scientific method, research outcomes are neither totally objective nor unquestionably certain" (p. 40). In the second phase of this study, the researcher was the primary instrument for data collection and the filtering factor for analysis. As asserted by Bloom (1998), the personal experiences of the researcher were bound to influence the interpretation of the data and the conclusions.

The researcher brought to this study an extensive personal knowledge of admission processes and the numerous hurdles encountered by first-generation college students. I am a first-generation college student, with first-hand knowledge of faculty, peer, and family

influences in the decision-making process. I also brought a high level of empathy to this study based on personal experiences growing up in a small rural Iowa community with a growing ethnic population. After graduating from college, I spent 8 years working as a college admission counselor, 12 years working for the State of Iowa's grant and scholarship agency, and 20 years working as a volunteer with the National Association of Student Financial Aid Administrators (NASFAA) studying and researching changes to federal statute, procedures, and practices concerning issues related to student access and choice.

Ethical issues. Three ethical issues were anticipated for this study. Each could have made a serious impact on the collection of data as well as the reporting of the findings.

As an outsider to the community, I needed to integrate myself into the community through the assistance of gatekeepers (e.g., guidance counselor, Latino community leader). As an outsider, I was not aware of the community nuances and there was the risk that I might misread the intentions of the gatekeepers.

To obtain reliable data, I relied on an intermediary who understood the current culture of the community, and who was trusted by the individuals who were interviewed. I was fortunate to find an Iowatown Latino who was willing to contact the potential interviewees, fulfill the role of interviewer, and who was willing and able to translate between two languages, interpret local and imported customs, and was willing to identify and explain local political and social pitfalls.

A second area of concern was that, in my chosen career of student services, I am an advocate for students. This advocacy includes assessing a situation to determine what is needed for resolution to occur, providing resources for students, and referring students to

resources as needed. By utilizing the services of the Latino interviewer, I was able to maintain a professional relationship with the participants and separate my vocation from the needs of the participants in this study.

Finally, as the findings were developed, member checking and peer review was employed to avoid misinterpreting what I thought the graduates said versus what they actually stated. In addition, a continual comparison of the summation of data against the actual transcripts was beneficial.

Limitations

The scope of this study was confined to a very specific population of young adults between the ages of 18 and 21 who had recently graduated from a rural Iowa high school. This study was designed to determine if rural Latino high school graduates are less likely to attend college than their White classmates, and to identify the factors that decreased the likelihood that rural Latino high school graduates would attend college. Results may not be replicable at other locations because this is a single site analysis of a small rural Iowa high school. In addition, the results may not be applicable to other communities.

The study examined only recent Latino and White Iowa graduates from Iowatown High School, located in Iowatown, Iowa. It does not propose to suggest that the findings may be applicable to other rural high schools whose composition may include students from other ethnic populations. By choosing this narrow focus, the researcher hypothesized that being Latino and living in a rural community and graduating from a rural high school has specific and measurable effects on the participants' decisions to go to college.

There were several limitations to this study. First, the data in this study were limited to measures available in the SIAS. For example, family income information that might be included in other studies to determine SES, but were not available in this study. This limitation could restrict the ability to examine the indirect influence of SES on students' aspirations to attend college. Another potential weakness of the study was that the data were collected from one rural high school from Iowa and, thus, does not allow for generalization to other populations. Third, the selection of participants in this study was not randomized to eliminate bias. Thus, students' aspirations towards college attendance could be overstated or understated based on the sample. Fourth, the decision-making process of college attendance was longitudinal in nature. Participants' responses in this study were snap shots in time, and may not reflect or fully describe the participants' experiences at different states through their college decision processes. Fifth, this study was limited by the variables studied. The Hossler and Gallagher (1987) college choice model contains additional variables that were intentionally not included in this study. Sixth, not all of the SIAS questions were answered by all of the participants. For this reason, the total numbers reported in the descriptive statistics may not be the same. The percentages reported indicated the total number available for each variable.

Summary

The purpose of this study was to investigate and identify the factors that influence rural Latino high school students in their college decision-making process. This chapter provided the methodological framework employed in this study. Specifically, the guiding characteristics and principles of a sequential mixed methods research study were presented.

Included in this chapter were the philosophical assumptions, the research approach, participants and sample, data collection design, data analysis procedures, design issues, and limitations.

CHAPTER 4. QUANTITATIVE RESEARCH FINDINGS

Introduction

The purpose of this explanatory study was to gain an understanding of how rural high school students' background characteristics affect their college decision-making processes, and to identify barriers rural Latino high school students encounter when formulating their post-high school plans. These two purposes were addressed through seven interrelated research questions.

This chapter provides the results of the quantitative data analysis used to investigate those research questions. Research questions 1 through 4 (quantitative study) examine the relationship between background characteristics, high school experiences, student perceptions, race/ethnicity groupings, and how these variables can be used to (1) predict aspirations to enroll in college, and (2) how they differ between those who do and do not enroll in college. Research questions 5 through 7 (qualitative study) examine how rural Latino high school graduates described their decision-making processes to pursue or not to pursue college. The findings to questions 5 through 7 can be found in Chapter 5.

The findings within Chapter 4 are separated into five sections. The first section of the quantitative findings was designed to provide a thorough understanding of the data. Descriptive statistics were used to provide a comprehensive overview of the study sample prior to the introduction of the inferential statistical analysis. The second section provides a comparative analysis between the White and Latino groups. The third section provides an examination of the means and standard deviations of the variables by race/ethnicity. Section four provides an explanation of the multivariate analysis used to predict factors which

influence students' aspirations to attend college. Definitions for the variables used in the multivariate analysis can be found in Appendix E. The final section provides an extensive descriptive analysis of the participants who aspired to enroll in college, those who enrolled, and those who did not. Quantitative data analysis tables are shown in Appendix F.

Descriptive Analysis

To obtain a better understanding of the background characteristics of the Iowatown graduates in the study sample, a profile was compiled from the results of frequencies and cross-tabulations. The variables included in this study were selected based on the literature review, presented in Chapter 2, to gain a better understanding of which variables help to predict whether or not rural high school students will enroll in college.

Sample

Table 4.1 presents the study sample of Iowatown graduates by the frequencies and percentages of the categorical variables used in this study. As indicated in Chapter 3, 2005 and 2006 Iowatown graduates were asked to complete the Student Impressions and Aspirations Survey (SIAS) instrument (Appendix D-1). Of those graduates, 195 completed the SIAS instrument, of which 1 was American Indian, 2 were Asian, 10 Black, 44 Latino, and 138 White. It was determined that the responses for the American Indian, Asian and Black groupings were too small for analysis, thus they were excluded from this study. The remaining 182 graduates comprised the sample for this study.

Table 4.1. Demographics and frequencies of Iowatown high school graduates (*N*=182)

Variable	Count	Percentage
Graduating Class		
2005	70	38.5
2006	112	61.5
Ethnicity		
White	138	75.8
Latino	44	24.2
Gender		
Female	86	47.3
Male	96	52.7
U.S Resident		
Yes	160	87.9
No	22	12.1
English is Native Language		
Yes	139	76.4
No	43	23.6
Number in the Household		
Adults		
1	30	16.5
2	88	48.4
3	37	20.4
4	12	6.6
5	5	2.7
6	5	2.7
More than 6	5	2.7
Children under 18		
1	87	47.8
2	48	26.4
3	29	15.9
4	8	4.4
5	5	2.8
6	2	1.1
More than 6	3	1.6
Mother's Education		
Unknown	16	8.8
Elementary or less	18	9.9
Some high school	18	9.9
High school grad/GED	45	24.7
Some college	16	8.8
2-year degree	31	17.0
4-year degree	32	17.6
Master degree	2	1.1
PhD or advanced degree	4	2.2

Table 4.1. (Continued).

Variable	Count	Percentage
Father's Education		
Unknown	19	10.4
Elementary or less	19	10.5
Some high school	19	10.4
High school grad/GED	46	25.3
Some college	10	5.5
2-year degree	28	15.4
4-year degree	31	17.0
Master degree	3	1.7
PhD or advanced degree	7	3.8
View of Education		
Have not mentioned	3	1.6
Not necessary	4	2.2
Some what necessary	25	13.8
Very necessary	150	82.4

Background characteristics

In this study, Whites and Latinos were examined as they were the two major racial/ethnic groups in the community. Data were gathered concerning selected background characteristics, high school experiences, and student perceptions of the high school environment (Table 4.1). Whites (n=138) constituted 75.8% of the Iowatown graduates. The percentage of participating Latinos (24.2%) was comparable with the percentage of Latinos enrolled in the Iowatown school district for the 2005-06 academic year. Within this sample, almost 88% reported being United States citizens, and over 75% indicated English as their first language.

Of the graduates completing the SIAS instrument, 46.7% reported that their mothers attended some college or attained some type of degree. They also reported that 43.4% of their fathers attended some college or attained some type of degree. Overall, Iowatown graduates reported slightly more than one-half of their parents (53.3% of their mothers and

56.6% of their fathers) never attended college. Conversely, over 96% reported that their parents viewed higher education as "*somewhat necessary*" or "*very necessary.*"

Ethnicity

To gain a better understanding of how the background characteristics of the graduates differ within the sample by race/ethnicity, a detailed description of the graduates separated into the two racial/ethnic groups is presented in Table 4.2. A little more than one-half (52.7%) of the sample was male, which varied slightly between Whites (53.6%) and Latinos (50.0%). Regarding U.S. residency, only 3.6% of Whites reported being non-U.S. residents, whereas 38.6% of Latinos reported being non-U.S. residents. In addition, there was a

Table 4.2. Frequencies of Iowatown graduates for selected variables by Race/Ethnicity (*N*=182)

Variable	Race/Ethnicity (%)		Diff.*
	Whites (*n*=138)	Latinos (*n*=44)	
Graduating Class			
2005	39.9	34.1	+5.8
2006	60.1	65.9	–5.8
Gender			
Female	46.4	50.0	–3.6
Male	53.6	50.0	+3.6
U.S. Resident			
Yes	96.4	61.4	+35.0
No	3.6	38.6	–35.0
English is Native Language			
Yes	97.1	11.4	+85.7
No	2.9	88.6	–85.7
Number in the Household			
Adults			
1	18.1	11.4	+6.7
2	52.9	34.1	+18.8
3	18.1	27.3	–9.2
4	5.1	11.4	–6.3
5	2.2	4.5	–2.3
6	1.4	6.8	–5.4
More than 6	2.2	4.5	–2.3

Table 4.2. (Continued).

Variable	Race/Ethnicity (%)		Diff.*
	Whites (*n*=138)	Latinos (*n*=44)	
Children under 18			
1	51.4	36.4	+15.0
2	26.1	27.3	–1.2
3	13.1	25.0	–11.9
4	3.6	6.8	–3.2
5	2.2	4.5	–2.3
6	1.4	0.0	+1.4
More than 6	2.2	0.0	+2.2
Mother's Educational Attainment			
Unknown	8.7	9.1	–0.4
Elementary school or less	1.4	40.9	–39.5
Some high school	31.2	36.4	–5.2
High school graduate or GED	11.6	4.5	+7.1
Some college	21.7	0.0	+21.7
2-year college degree (AA)	21.8	2.3	+19.5
4-year college degree (BA)	1.4	4.5	–3.1
Master degree	2.2	2.3	–0.1
PhD or other advanced degree			
Father's Educational Attainment			
Unknown	8.0	18.2	–10.2
Elementary school or less	1.4	38.6	–37.2
Some high school	5.1	27.4	–22.3
High school graduate or GED	31.2	6.8	+24.4
Some college	7.2	0.0	+7.2
2-year college degree (AA)	18.8	4.5	+14.3
4-year college degree (BA)	21.0	4.5	+16.5
Master degree	2.2	0.0	+2.2
PhD or other advanced degree	5.1	0.0	+5.1
View of Education			
Have not mentioned	0.7	4.5	–3.8
Not necessary	2.2	2.3	–0.1
Some what necessary	14.5	11.4	+3.1
Very necessary	82.6	81.8	+0.8

*Difference was calculated by subtracting the percentage of Latinos from Whites; a positive percentage indicates a higher percentage of White students.

considerable variance between the two groups' responses to the question "*Is English your native language."* Nearly all (97%) Whites responded "*Yes*," while slightly more than one-tenth (11.4%) of Latinos answered "*Yes*."

Parents' educational attainment

The graduates were asked to identify the educational attainment of their parents. Overall, over half (53.3%) reported their parents as never having attended college (Table 4.2). However, when divided by race/ethnicity, less than one-half of Whites (47.1%) reported their mothers had attended some college or attained some type of college degree, compared to less than one-tenth of Latinos (9.1%). A similar pattern appeared when reporting their fathers' educational attainment. Whites reported slightly more than one-half (54.3%) of their fathers attended some college or attained some type of college degree, whereas Latinos reported less than one-tenth (9.0%). When narrowing the analysis to two-year (AA) and four-year (BA) degree attainment, mothers of Whites were more likely to have attained a two-year degree (AA, 21.8%; BA, 1.4%), while Latino mothers were more likely to attain a four-year degree (AA, 2.3%; BA, 4.5%). White graduates reported their fathers to be more likely to have attained a two-year degree than to have attained a four-year degree (AA, 18.8%; BA, 21.0%). Conversely, Latino fathers' attainment was equal between the two sectors (AA, 4.5%; BA, 4.5%).

Family composition

Overall, less than two-fifths (16.5%) of the graduates reported living in a single-parent home (Whites, 18.1%; Latinos, 11.4%). The most common response to the number of adults living in the household was 2 adults (Whites, 52.9%; Latinos, 34.1%). The second-

most common response was 3 adults (Whites, 18.1%; Latinos, 27.3%). Overall, Latinos were more likely to respond to having more than 3 adults living in the household (Latinos, 27.2%; Whites, 10.9%).

When reporting the number of children in the home, the most common response was 1 to 3 children (Whites 90.6%; Latinos 88.7%). Of homes with 4 to 5 children, Whites reported 5.8% and Latinos 11.3%. In this study, 3.6% of Whites reported 6 or more children in the home. None of the Latino graduates reported more than 5 children in the home.

Academic achievement

An important aspect of this study was the academic achievement of graduates while attending Iowatown High School. A section of the SIAS instrument was designed to gather responses pertaining to academic achievement. Graduates were asked to self-report their high school grade point average (GPA) and the number of terms enrolled by type of academic area. Table 4.3 shows the responses to those questions in percentages and differences in responses between Whites and Latinos.

In terms of academic achievement measured by GPA, White graduates were more likely to report a 3.0 GPA or higher than Latinos (White, 52.6%; Latino, 38.1%). Latinos were more likely to report a GPA of 2.99 or less (White, 61.9%; Latino, 47.4%).

Based on Adelman's (1999) concept of rigorous academic curriculum, the Iowatown graduates' coursework was reviewed to determine how many students completed a rigorous academic curriculum. Of the 182 graduates, only 63 (34.6%) completed a rigorous curriculum. Between racial/ethnic groupings, 37.0% of Whites and 27.3% of Latinos

Table 4.3. Frequencies of Iowatown graduates for Academic Achievement by race/ethnicity

(*N*=182) Variable	Race/Ethnicity (%) Whites (*n*=138)	Latinos *n*=44)	Diff.*
High School GPA			
1.99 or less	8.9	16.7	−7.8
2.00 to 2.99	38.5	45.2	−6.7
3.00 to 3.99	50.4	38.1	+12.3
4.00 and above	2.2	0.0	+2.2
Rigorous Curriculum			
Yes (*n*=63)	37.0	27.3	+9.7
No (*n*=119)	63.0	72.7	−9.7
Academic Coursework			
English			
Less than 1 year	0.7	6.8	−6.1
One year	2.9	2.3	+0.6
Two years	5.1	20.4	−15.3
Three years	4.3	4.6	−0.3
Four years	87.0	65.9	+21.1
Mathematics			
Less than 1 year	2.2	4.6	−2.4
One year	3.6	9.1	−5.5
Two years	21.8	11.4	+10.4
Three years	42.0	29.5	+12.5
Four years	30.4	45.4	−15.0
Science			
Less than 1 year	2.9	6.8	−3.9
One year	2.9	6.8	−3.9
Two years	23.9	27.3	−3.4
Three years	30.4	27.3	+3.1
Four years	39.9	31.8	+8.1
History/Government			
Less than 1 year	2.9	6.8	−3.9
One year	3.6	4.6	−1.0
Two years	10.2	27.2	−17.0
Three years	26.7	27.3	−0.6
Four years	56.6	34.1	+22.5
Foreign Language			
Less than 1 year	20.3	43.2	−22.9
One year	7.2	4.5	+2.7
Two years	23.9	27.3	−3.4
Three years	16.7	9.1	+7.6
Four years	31.9	15.9	+16.0

*Difference was calculated by subtracting the percentage of Latinos from Whites; a positive percentage indicates a higher percentage of White students.

Note: GPA and classes taken were self-reported. Rigorous curriculum was defined as a student having completed 4 years of English; 3 years of Math; 3 years of Science; 3 years of History/Government; 1 year of a Foreign Language.

completed 4 years of English, 3 years each of history/government, mathematics, and sciences, and 1 year of foreign language.

Regarding the number of terms enrolled in each academic area, Whites were more likely than Latinos to complete 4 years of English (White, 87.0%; Latino, 65.9%). Latinos were more likely than Whites to complete 3 or more years of mathematics (Latino, 74.9%; White, 72.4%). White graduates were more likely to complete 3 or more years of science (White, 70.3%; Latino, 59.1%). Regarding the completion of history/government courses, Whites were more likely than Latinos to complete 3 or more years (White, 83.3%; Latino, 61.4%). Completion of foreign language courses followed a completion pattern similar to that of science and history/government, with Whites more likely than Latinos to complete one or more years of foreign language (White, 79.7%; Latino, 56.8%).

Educational environment

A second area of importance in this study was the graduates' perceptions of their high school learning environment. Within the SIAS instrument, graduates were asked to respond to statements describing their high school learning environment based on their level of agreement with those statements. Table 4.4 shows the responses by percentage and differences between the responses of Whites and Latinos.

Overall, of the seven statements included in the SIAS instrument to gauge the graduates' perceptions of their high school environment, Latinos were more likely respond as "*agree*" or "*strongly agree*" with the statements in relation to their high school experiences than Whites. Latinos were more likely to respond "*strongly agree*" to "*My school is good at equal opportunity*" (Latino, 34.1%; White, 11.6%), "*Teachers provide second chances*"

Table 4.4. Frequencies of Iowatown graduates for Educational Environment by race/ethnicity (*N*=182)

Variable	Race/Ethnicity (%)		Diff.*
	Whites (*n*=138)	Latinos (*n*=44)	
I feel academically challenged.			
Strongly Disagree	5.1	0.0	+5.1
Disagree	29.2	15.9	+13.3
Agree	55.5	65.9	−10.4
Strongly Agree	10.2	18.2	−8.0
I feel valued and supported.			
Strongly Disagree	10.2	2.3	+7.9
Disagree	16.8	9.1	+7.7
Agree	59.1	59.1	0.0
Strongly Agree	13.9	29.5	−15.6
Good at equal opportunity.			
Strongly Disagree	10.9	2.3	+8.6
Disagree	19.5	9.1	+10.4
Agree	58.0	54.5	+3.5
Strongly Agree	11.6	34.1	−22.5
Teachers Provide Second Chances			
Strongly Disagree	5.8	2.3	+3.5
Disagree	31.9	11.4	+20.5
Agree	49.3	54.5	−5.2
Strongly Agree	13.0	31.8	−18.8
Teachers Treat Students Fairly			
Strongly Disagree	13.9	2.3	+11.6
Disagree	21.1	22.7	−1.6
Agree	50.4	43.2	+7.2
Strongly Agree	14.6	31.8	−17.2
Teachers Expect Some Will Do Well			
Strongly Disagree	9.4	11.4	−2.0
Disagree	39.1	27.2	+11.9
Agree	37.0	45.5	−8.5
Strongly Agree	14.5	15.9	−1.4
Teachers Are Willing to Help Me			
Strongly Disagree	2.9	4.5	−1.6
Disagree	12.4	0.0	+12.4
Agree	64.3	61.4	+2.9
Strongly Agree	20.4	34.1	−13.7

*Difference was calculated by subtracting the percentage of Latinos from Whites; a positive percentage indicates a higher percentage of White students.

KEY: 1= Strongly Disagree; 2= Disagree; 3= Agree; 4= Strongly Agree.

(Latino, 31.8%; White, 13.0%), "*Teachers treat students fairly*" (Latino, 31.8%; White, 14.6%), and "*Teachers are willing to help me*" (Latino, 34.1%; White, 20.4%). Latinos were more likely to respond "*agree*" or "*strongly agree*" that "*I feel academically challenged*" than Whites (Latino, 84.1%; White, 65.7%). Regarding the statement "*I feel valued and supported*", Latinos were twice as likely to respond "*strongly agree*" than Whites (Latino, 29.5%; White, 13.9%).

Engagement

The third area of importance to this study was graduates' engagement in high school. The SIAS instrument asked graduates questions concerning school related activities, to which they were to indicate hours of participation on a weekly basis. Table 4.5 shows the responses by percentage and the differences between Whites and Latinos.

Whites and Latinos reported almost equal amounts of time spent talking with teachers outside of class, between *"not at all"* and *"2 hours per week"* (White, 87.7%; Latino, 93.3%). Among students seeking more outside assistance beyond 1 to 2 hours per week, Whites were twice as likely to seek assistance as Latinos (White, 12.3%; Latino, 6.8%).

Graduates' responses to participation in clubs and organizations indicated that slightly more than half of each group did not participate in any school related activities (White, 52.2%; Latino, 54.5%). Of the graduates who did participate in activities, Whites were twice as likely to participate more than 1-2 hours per week than Latinos (Whites, 29.7%; Latino, 13.6%). In athletic related activities, overall Latinos reported spending slightly more time than Whites (Latino, 52.3%; White, 43.5%)—from 6 to 10 hours per week. Beyond 10 hours

Table 4.5. Frequencies of Iowatown graduates for Engagement by race/ethnicity (*N*=182)

Variable	Race/Ethnicity (%) Whites (*n*=138)	Latinos (*n*=44)	Diff.*
Talking with Teachers Outside of Class			
0 hours	54.3	59.1	–4.8
1-2 hours	33.4	34.1	–0.7
3-5 hours	7.2	4.5	+2.7
6-10 hours	2.2	2.3	–0.1
11-15 hours	1.5	0.0	+1.5
16-20 hours	0.0	0.0	0.0
Over 20 hours	1.4	0.0	+1.4
Clubs and Organizations			
0 hours	52.2	54.5	–2.3
1-2 hours	18.1	31.9	–13.8
3-5 hours	14.5	4.5	+10.0
6-10 hours	8.7	4.5	+4.2
11-15 hours	4.3	2.3	+2.0
16-20 hours	2.2	2.3	–0.1
Over 20 hours			
Exercise or Sports			
0 hours	10.9	13.6	–2.7
1-2 hours	25.3	22.7	+2.6
3-5 hours	20.3	11.4	+8.9
6-10 hours	22.5	9.1	+13.4
11-15 hours	7.2	9.1	–1.9
16-20 hours	2.2	11.4	–9.2
Over 20 hours	11.6	22.7	–11.1

*Difference was calculated by subtracting the percentage of Latinos from Whites; a positive percentage indicates a higher percentage of White students.

KEY: 1= Strongly Disagree; 2= Disagree; 3= Agree; 4= Strongly Agree.

per week, Latinos were twice as likely to report spending 11 or more hours per week in participation of *"exercise or sports"* than Whites (Latino, 43.2%; White, 21.0%).

Challenges and barriers

The fourth area of importance in this study was graduates' perceptions of challenges and barriers. Within the SIAS instrument graduates were asked questions concerning work-

for-pay, non-paid work activities which supported their families, and whether or not they received financial aid information.

Table 4.6 provides the results of the frequency analysis of Iowatown graduates by racial/ethnic group. The table shows the percent responding and the difference between the two groups. As shown in Table 4.6, Whites were more likely to work-for-pay while in high school than Latinos (White, 87.7%; Latino, 75.0%). Latinos were three times more likely to work to help support their families than Whites (Latino, 52.3%; White, 19.7%). Conversely, Latinos were more likely to have assisted with non-paid work to support their families, such as housework and child care, than Whites (Latino, 95.5%; White, 87.0%; and Latino, 68.2%; White, 29.7%), respectively.

Both groups responded similarly to whether or not they had received financial aid information. Each group responded that almost 80% received information concerning financial aid programs and how to apply.

Statistical Significance of Variables

To obtain a better understanding of the importance of each variable on Iowatown White and Latino graduates in this study, a comparison of means and standard deviations is provided by grouping of variables.

Background

Table 4.7 shows the statistically significant differences of the background variables of the Iowatown graduates. Of the five variables, statistically significant differences were revealed among three items. Among the graduates, Latinos were more likely to have more than 2 adults in their household (Latino, M=3.02; White, M=2.33, p<.05).

Table 4.6. Frequencies of Iowatown graduates for Challenges/Barriers by race/ethnicity (*N*=182)

Variable	Race/Ethnicity (%)		Diff.*
	Whites (*n*=138)	Latinos (*n*=44)	
Work-for-Pay			
Yes	87.7	75.0	+12.7
No	12.3	25.0	−12.7
Hours Employed			
0 hours	12.3	25.0	−12.7
1-2 hours	6.5	4.5	+2.0
3-5 hours	7.3	13.6	−6.3
6-10 hours	13.0	18.2	−5.2
11-15 hours	19.6	9.1	+10.5
16-20 hours	7.2	18.2	−11.0
Over 20 hours	34.1	11.4	+22.7
Work to Support Family			
Yes	19.7	52.3	−32.6
No	80.3	47.7	+32.6
Housework			
0 hours	13.0	4.5	+8.5
1-2 hours	45.7	40.9	+4.8
3-5 hours	19.6	9.1	+10.5
6-10 hours	10.1	22.7	−16.6
11-15 hours	7.3	11.4	−4.1
16-20 hours	0.0	0.0	0.0
Over 20 hours	4.3	11.4	−7.1
Child Care/Babysitting			
0 hours	70.3	31.8	+38.5
1-2 hours	12.3	38.7	−26.4
3-5 hours	7.3	9.1	−1.8
6-10 hours	3.6	9.1	−5.5
11-15 hours	0.7	4.5	−3.8
16-20 hours	1.5	0.0	+1.5
Over 20 hours	4.3	6.8	−2.5
Financial Aid Information			
Yes	78.3	77.3	+1.0
No	21.7	22.7	−1.0

*Difference was calculated by subtracting the percentage of Latinos from Whites; a positive percentage indicates a higher percentage of White students.

KEY: 1= 0 hours; 2= 1-2 hours; 3= 3-5 hours; 4= 6-10 hours; 5= 11-15 hours; 6= 16-20 hours; 7= Over 20 hours.

Table 4.7. Mean differences for background variables by race/ethnicity (*N*=182)

Variable	Race/Ethnicity *M* (*SD*) White (*n*=138)	Latino (*n*=44)	*T*	*df*
Number in the household +				
Adults	2.33 (1.19)	3.02 (1.58)	–2.66*	59.64
Children	1.92 (1.33)	2.16 (1.14)	–1.07	180.00
Parents' Educational Attainment ++				
Mother	5.09 (1.83)	2.84 (1.61)	7.81***	81.15
Father	5.10 (1.99)	2.64 (1.50)	8.74***	95.87
View of Education +++	3.79 (0.51)	3.70 (0.73)	0.87	180.00

Level of significance: *p<.05; **p<.01, ***p<.001
KEY:
+ Responses based on a 7-point scale (1 to More than 6).
++ Responses based on a 9-point scale (1=Unknown; 2=Elementary school or less; 3=Some high school; 4=High school graduate or GED; 5=Some college but didn't graduate; 6=2-year college degree; 7=4-year college degree; 8=Master degree; 9=PhD).
+++ Responses based on a 4-point scale (Not Mentioned to Very Necessary).

When comparing parents' educational attainment Whites' parents were more likely to have achieved higher levels of education than Latino parents. In particular, mothers of Whites were more likely to attend college than Latino mothers (*M*=5.09 versus *M*=2.84, *p*<.001). Likewise, fathers of Whites were more likely to have attended college than were Latino fathers (*M*=5.10 versus *M*=2.64, *p*<.001).

Academic achievement

Table 4.8 shows the means and standard deviations of the academic achievement variables of the Iowatown graduates. Of the six variables, statistically significant differences were revealed in three items. Among the graduates, Whites were more likely to have completed 4 years of English (White, *M*=3.77; Latino, *M*=3.02), (*p*<.01), 2 or more

Table 4.8. Mean differences for Academic Achievement variables by race/ethnicity (*N*=182)

Variable	Race/Ethnicity *M* (*SD*) White (*n*=138)	Latino (*n*=44)	*T*	*Df*
High School GPA	2.79 (1.22)	2.67 (0.69)	0.61	174.00
Academic Coursework+				
English	3.77 (1.03)	3.02 (1.46)	3.15**	57.52
Mathematics	2.78 (1.05)	2.89 (1.33)	–0.57	180.06
Science	2.88 (1.16)	2.55 (1.27)	1.65	180.00
History/Government	2.82 (0.99)	2.18 (1.08)	3.61**	67.82
Foreign Language	2.17 (1.51)	1.36 (1.45)	3.11*	75.02

Level of significance: *p<.05; **p<.01, ***p<.001
KEY:
+ Responses are based on a 6-point scale (0= less than one year; 1= 1 year; 2= 2 years; 3= 3 years; 4= 4 years; 5= more than 4 years).

years of history/government (White, *M*=2.82; Latino, *M*=2.18), (p<.01), and 2 years of foreign language (White, *M*=2.17; Latino, *M*=1.36), (p<.05).

Perception of high-school environment

Table 4.9 shows the mean differences and standard deviations of Iowatown graduates' perceptions of their high school environment. Of the seven statements, there were statistically significant differences for five items. Latinos were more likely to report being academically challenged than Whites (Latino, *M*=3.02; White, *M*=2.71), (p<.01). Latinos were more likely to report feeling valued and supported than Whites (Latino, *M*=3.16 White, *M*=2.77), (p<.05). Latinos were more likely than Whites to respond that their teachers were good at providing for equal opportunity (Latino, *M*=3.20; White, *M*=2.70), (p<.001). Latinos

Table 4.9. Mean differences for High School Environment variables by race/ethnicity (*N*=182)

Variable	Race/Ethnicity *M* (*SD*) White (*n*=138)	Latino (*n*=44)	*T*	*df*
Academically challenged	2.71 (0.72)	3.02 (0.59)	–2.91**	87.49
Valued and supported	2.77 (0.82)	3.16 (0.68)	–3.17*	86.12
Equal opportunity	2.70 (0.81)	3.20 (0.70)	–3.97***	83.06
Second chances	2.70 (0.77)	3.16 (0.71)	–3.68***	77.51
Responsive	2.81 (0.70)	3.11 (0.72)	–2.43*	70.61
Expect some will do well	2.57 (0.85)	2.66 (0.89)	–0.63	180.00
Willing to help me	3.02 (0.67)	3.25 (0.69)	–1.96	179.00

Level of significance: *p<.05; **p<.01, ***p<.001
KEY: 1= Strongly disagree; 2= Disagree; 3= Agree; 4= Strongly agree.

were more likely than Whites to report that teachers provided them second chances (Latino, *M*=3.16; White, *M*=2.70), (p<.001). Latinos were more likely to report teachers being responsive to their academic needs than Whites (Latino, *M*=3.11; White, *M*=2.81), (p<.05).

Engagement

The college choice literature reviewed in Chapter 2 revealed that graduates' levels of engagement in high school are indicative of their post-high school plans. The SIAS instrument asked the graduates to respond to three activities, reporting how many hours per week they were engaged in each. Table 4.10 shows that, of the three variables, none were statistically significant.

Table 4.10. Mean differences for Engagement variables by race/ethnicity (*N*=182)

Variable	Race/Ethnicity *M* (*SD*) White (*n*=138)	Latino (*n*=44)	*T*	*Df*
Talking with teachers	1.69 (1.05)	1.50 (0.70)	1.11	180.00
Clubs and organizations	2.04 (1.40)	1.75 (1.14)	1.23	180.00
Exercise or sports	3.43 (1.76)	4.02 (2.23)	−1.83	180.00

Level of significance: *p<.05; **p<.01, ***p<.001

Challenges and barriers

Questions were asked in the SIAS instrument to determine how much time Iowatown graduates devoted to certain activities that are perceived in the college choice and social capital literature to be detractors from academic success. Of the three questions asked, statistically significant differences were revealed among all three items (Table 4.11). White graduates were more likely than Latinos to report working more than 20 hours per week (White, *M*=4.79; Latino, *M*=3.82), p<.001). Conversely, Latinos were more likely to report being involved in housework than Whites (Latino, *M*=3.41; White, *M*=2.70), p<.05). In addition, Latinos were more likely than Whites to report being involved in child care and babysitting activities (Latino, *M*=2.43; White, *M*=1.74), (p<.05).

Prediction of Aspiration to Attend College

In their student college choice model, Hossler and Gallagher (1987) purported that students' decisions to aspire to attend and enroll in college are influenced by factors within their environments. Based on Hossler's and Gallagher's theory, this study assumed that aspirations to attend college are influenced by students' backgrounds, their school

Table 4.11. Mean differences for Challenges and Barriers variables by race/ethnicity (*N*=182)

Variable	Race/Ethnicity *M* (*SD*) White (*n*=138)	Latino (*n*=44)	*T*	*df*
Hours employed	4.79 (2.10)	3.82 (2.12)	2.66**	71.95
Housework	2.70 (1.41)	3.41 (1.73)	–2.46*	62.31
Child Care/Babysitting	1.74 (1.50)	2.43 (1.66)	–2.46*	66.85

Level of significance: *p<.05; **p<.01, ***p<.001

KEY:
1= 0 hours; 2= 1-2 hours; 3= 3-5 hours; 4= 6-10 hours; 5= 11-15 hours; 6= 16-20 hours; 7= Over 20 hours.

environment and their engagement in that environment, and recognized barriers to college enrollment. These variables were identified in Chapter 2, and situated in a proposed model for college aspiration in Chapter 3.

Inferential statistical methods were applied to understand better the variables that predict Iowatown graduates' aspirations to attend college. From the available regression methods, logistic regression was selected based on its ability to explain relationships among dichotomous outcomes, and a mixture of continuous and categorical predictors (Peng, So, Stage, & St. John, 2002) with a small sample size. More specifically, sequential logistic regression was employed to test the predictive validity of the variables contained within the proposed model (Table 4.12). The predictor (independent) variables of the proposed model were grouped into three blocks, which were introduced separately into the logistic regression.

Table 4.12. Predictors of Iowatown Graduates' Aspirations to Attend College (*N*=173)

	B	S.E.	Wald	*df*	Sig.	Exp(*B*)
Step 0 *Constant*	0.137	0.189	52.547	*1*	.000	3.943
Step 1 *Background*						
Mother's Educational Attainment	0.210	0.125	2.798	1	.094	1.233
U.S. Residency Status	1.596	0.627	6.486*	1	.011	4.934
Ethnicity	0.257	0.593	0.188	1	.665	1.293
View of Education	0.703	0.337	4.337*	1	.037	2.019
Constant	-5.960	3.306	3.25	1	.071	0.003
-2 Log = 154.446						
Cox & Snell R^2 = .108						
Nagelkerke R^2 = .170						
Chi-Square = 19.796*						
Step 2: *High School Environment*						
Mother's Educational Attainment	0.026	0.149	0.030	1	.863	1.026
U.S. Residency Status	1.799	0.700	6.612*	1	.010	6.042
Ethnicity	0.192	0.658	0.085	1	.771	1.211
View of Education	0.323	0.363	0.792	1	.373	1.381
Academic Rigor	0.346	0.555	0.388	1	.533	1.413
GPA	1.197	0.398	9.026**	1	.003	3.310
Perception of HS Environment	-0.045	0.060	0.555	1	.456	0.956
Interaction with Teacher	0.378	0.278	1.848	1	.174	1.460
Constant	-7.106	3.692	3.705*	1	.054	0.001
-2 Log = 139.202						
Cox & Snell R^2 = .183						
Nagelkerke R^2 = .289						
Chi-Square = 35.041**						
Step 3: *Challenges & Barriers*						
Mother's Educational Attainment	0.003	0.149	0.000	1	.985	1.003
U.S. Residency Status	1.702	0.710	5.743*	1	.017	5.483
Ethnicity	0.214	0.666	0.103	1	.748	1.239
View of Education	0.302	0.365	0.685	1	.408	1.353
Academic Rigor	0.257	0.565	0.207	1	.649	1.293
GPA	1.138	0.402	8.022*	1	.005	3.120
Perception of HS Environment	0.045	0.060	0.573	1	.449	0.956
Interaction with Teacher	0.315	0.283	1.238	1	.266	1.270
Work-for-Pay	0.680	0.548	1.537	1	.215	1.974
Received Financial Aid Information	0.310	0.506	0.376	1	.540	1.364
Constant	-7.527	3.741	4.048	1	.044	0.001
-2 Log = 137.016						
Cox & Snell R^2 = .194						
Nagelkerke R^2 = .305						
Chi-Square = 37.226**						

Cut value = .500
Level of significance: *p<.05; **p<.01; ***p<.001

Logistic regression: College aspiration

Logistic regression analysis was conducted with the dichotomous dependent variable of aspiration to attend college (aspire to attend=1, no aspiration to attend=0). The independent variables were characterized in blocks according to how they were placed within the college aspiration model, presented in Chapter 3: background (Block 1); high school environment and engagement (Block 2); and challenges and barriers (Block 3). The logistic regression analysis was conducted for the overall sample (*N*=182).

Background characteristics

Step 1. Results of the logistic regression analysis for the total sample indicated that for Block 1 (background) the variables *U.S. residency status* and *parents' view of education* predicted college aspiration at the $p<.05$ significance level (Table 4.12). For Step 1, the value of *B* (Exp B) illustrates that among the Iowatown graduates U.S. residents were 4.93 times more likely than non-U.S. residents to aspire to attend college. Also, Iowatown graduates whose parents had a positive view of education were 2.02 times more likely than students whose parents had a negative view of education to aspire to attend college. Utilizing only the background variables in Step 1, the Nagelkerke R^2 value of .170 indicates that these independent variables perform reasonably well as predictors of aspiring to attend college. The chi-square value (χ^2=19.796, df=1, $p<.05$) demonstrates that the first block of variables collectively are significant predictors of aspiration to attend college.

High-school environment

Step 2. Step 2 included both the Block 1 and Block 2 variables. Of the high school environment variables added to the equation, only *grade point average* (GPA) was

significant ($p<.003$) and entered the prediction model. In addition, the background variable *U.S. resident* became a stronger significant predictor ($p<.010$). The chi-square value indicates that the variables entered in Block 2 significantly enhanced model fit ($\chi^2=35.041$, $df=1$, $p<.01$). Iowatown graduates who maintained a higher GPA were 3.31 times more likely to aspire to attend college than were students with lower GPAs. Those who were U.S. residents were 6.04 times more likely to aspire to enroll in college than were non-residents. During Step 2 the background variable *parents' view of education* became less statistically significant. The overall percentage of units of variation explained by the model at Step 2 increased to 28.9% (Nagelberke R^2), a 12.0 percentage point increase from the 17.0% level of predictive validity in Step 1.

Challenges and barriers

Step 3 (full model). Step 3 included variables from Blocks 1 and 2 and added the remaining two variables contained in Block 3. None of the challenges and barriers variables was significant and thus did not enter into the model. Of the background variables, *U.S. residency* remained statistically significant ($p=.017$) and of the high school environment variables, *GPA* also remained significant ($p=.005$). The chi-square analysis indicated that the full model of all three sets of predictor significantly ($\chi^2=37.226$, $df=1$, $p<.01$) predicted college aspirations. However, the predictive validity of the full model increased only slightly, to 30.5% (R^2), a 1.6 percentage point difference from Step 2. The final model (as well as Step 2) of the logistic regression analysis revealed that U.S. residency status and high GPA were significantly related to whether graduates aspired to attend college.

Summary

The following results were observed from the full model analysis:

1. Among the background variables, graduates who are U.S. citizens were 5.5 times more likely than non-U.S. citizens to aspire to attend college.
2. Among the high school environment variables, graduates with a high GPA were 3.12 times more likely to have aspirations to enroll in college.
3. While the literature emphasized that challenges and barriers (e.g., work-for-pay, supporting the family, and receipt of financial aid information) may be important influences on graduates' aspirations to enroll in college, the logistic regression results did not reveal these variables to be statistically significant.
4. Throughout the analyses, the logistic regression model became stronger with the inclusion of each block and the log likelihood value measuring lack of fit correspondingly became smaller (Step 1=154.446; Step 2=139.202; Step 3=137.016), indicating improved goodness-of-fit at each step (George & Mallery, 2005; Mertler & Vannatta, 2002).

The inflated standard errors (SE) for *U.S. residency status* and *ethnicity* suggest the presence of multicollinearity. The descriptive analysis given previously in this chapter showed that Latino students are more likely than White students not be U.S. residents. Therefore, the ethnicity variable could be discounted, as its effect on aspirations largely was accounted for through the residency status variable. The results of the analysis do not change when eliminating the ethnicity variable.

Aspiration versus enrollment

A descriptive comparative analysis was conducted to determine the relationships between selected variables and Iowatown graduates who enrolled and did not enroll in college. This analysis was further broken down into racial/ethnic groups, the type of institution enrolled, and aspirations versus actual enrollment. College enrollments of the Iowatown graduates were confirmed through data matches with the National Student Clearinghouse.

Background characteristics

A comparison of frequencies for Iowatown graduates who aspired to attend college, those who enrolled, and those who did not enroll is provided in Appendix F-1. Of the 2005 and 2006 Iowatown graduates, 141 indicated through their SIAS responses that they planned to enroll in college. Through data matches with the National Student Clearinghouse, it was confirmed that 87 graduates (61.7%) were enrolled in a postsecondary institution and 54 (38.3%) were not enrolled. Approximately half of the aspiring graduates would be considered first-generation college students if they had enrolled in college.

Those who enrolled in college were more likely to have parents who had attended college or attained a college degree than those who did not enroll in college (mother, 58.6%, versus 46.3%; father, 54.0%, versus 40.8%). Conversely, non-enrolled graduates were more likely to respond that their parents did not view a college education as necessary (7.4%, versus 0.0%).

Academic achievement

A review of aspiring graduates' academic data revealed that 58.0% achieved a GPA of 3.0 or higher. Conversely, 39.0% of these graduates successfully completed a rigorous academic curriculum. Of those graduates who enrolled in college, 67.8% achieved a GPA of 3.0 or higher, and twice as many had completed a rigorous academic curriculum as the non-enrollees (48.3%, versus 24.1%, respectively).

High-school environment

Of the seven statements concerning graduates' perceptions of their high school environment, the graduates who enrolled in college were more likely to respond "*agree*" or "*strongly agree*" than the non-enrolling graduates to the following statements: "*I feel challenged*" (73.3%, versus 64.8%, respectively), "*Teachers treat students fairly*" (70.1%, versus 63.0%, respectively), and "*Teachers expect some students will do well*" (59.8%, versus 51.9%, respectively). Enrolled graduates were slightly more likely to respond "*agree*" or "*strongly agree*" to the following two statements: "*I feel valued and supported*" (78.2%, versus 77.8%, respectively) and "*Good at equal opportunity*" (77.0%, versus 75.9%, respectively). Conversely, the enrolled graduates were more likely to respond "*strongly disagree*" or "*disagree*" to the following two statements than the non-enrolled graduates: "*Teachers provide students with second chances"* (36.8%, versus 33.3%, respectively); and "*Teachers are willing to help me when I ask for assistance"* (16.1%, versus 11.1%). However, graduates who did not enroll in college were more likely to respond "*agree*" or "*strongly agree*" to the statement "*Teachers are willing to help me*" (88.9%, versus 83.9%, respectively).

Engagement

Graduates who aspired and enrolled in college were more likely to be involved in school clubs and organizations than non-enrollees (58.6%, versus 42.6%, respectively). In addition, this same group was more likely to be involved in exercise or sports (95.4%, versus 88.9%, respectively).

Challenges and barriers

Of the challenges and barriers presented to the graduates in the SIAS instrument, graduates who aspired and enrolled in college were more likely to work-for-pay while in high school (94.3%, versus 79.6%), and work 16 or more hours per week than graduates who were not enrolled in college (43.7%, versus 35.2%, respectively). Enrollees were more likely not to be engaged in child care/babysitting activities. Conversely, non-enrollees were twice as likely to work to help support their families (29.6%, versus 16.1%, respectively) and were engaged in child care/babysitting activities (48.1%, versus 31.0%). Graduates who aspired and enrolled in college were more likely to state that they received financial aid information than the non-enrollees (88.5%, versus 74.1%, respectively).

College enrollment

A frequency comparison by selected variables was made of the Iowatown graduates enrolled in college and those who did not enroll (Appendix F-2). Of the study sample, 94 graduates were enrolled in college, and 88 were not enrolled.

Background characteristics

The majority of the graduates in both groups were U.S. citizens (Whites, 92.6%; Latinos, 83.0%) who spoke English as their native language (Whites 85.1%; Latinos 67.0%). Over three-quarters (77.5%) of the graduates aspired to attend college (Appendix F-2).

When comparing the educational attainment levels of parents, the enrolled graduates were almost twice as likely to have parents who attended college or attained a college degree than the non-enrolled graduates (mothers, 56.4%, versus 36.3%, respectively; fathers, 53.2%, versus 32.9%, respectively).

Conversely, non-enrolled graduates were more likely than enrolled graduates to indicate their mothers attained a high school education or less (63.7%, versus 43.6%, respectively). A similar response was provided when asked to report fathers' educational attainment (non-enrolled, 67.1%, versus enrolled, 46.8%). However, both enrolled and non-enrolled graduates reported a higher percentage of fathers with a high school education or less than what was reported for mothers (enrolled: fathers, 46.8%, versus mothers, 43.6%; non-enrolled: fathers, 67.1%, versus mothers, 63.7%).

Graduates not enrolling in college were more likely to come from families where parents "*never mentioned college"* or felt college was "*not necessary"* (7.9%). Conversely, all enrolled graduates reported coming from homes where college was considered "*somewhat necessary"* or "*very necessary."*

Academic achievement

In examining graduates' high school performance, enrolled graduates were twice as likely to have completed a rigorous academic curriculum as non-enrolled graduates (46.8%,

versus 21.6%, respectively). The majority of enrolled graduates completed 4 years of English (93.5%), three or more years of mathematics (69.1%), 3 or more years of science (73.4%), 3 or more years of history/government (78.8%), and 3 or more years of foreign language (58.4%). In addition, enrolled graduates were more likely to have achieved a GPA of 2.0 or higher than non-enrolled graduates (94.7%, versus 82.9%, respectively).

High-school environment

Non-enrolled graduates were more likely to respond "*strongly disagree*" or "*disagree*" to the following statements asked in the SIAS instrument than enrolled graduates: "*I feel challenged*" (33.0%, versus 26.9%, respectively), "*I feel valued and supported*" (25.0%, versus 21.5%, respectively) and "*Teachers treat students fairly*" (36.8%, versus 28.7%, respectively). Of particular note, non-enrolled graduates were almost eight times more likely to respond that *"Teachers expect some will do well"* (51.1%, versus 6.5%, respectively).

Conversely, non-enrolled graduates were more likely to respond "*agree*" or "*strongly agree*" to the following statements than enrolled graduates: "*Good at equal opportunity*" (70.4%, versus 67.7%, respectively), "*Teachers provide second chances*" (72.7%, versus 63.8%, respectively), and "*Teachers are willing to help me*" (90.8%, versus 84.0%, respectively).

Engagement

Graduates who enrolled in college were more likely to talk with teachers outside of class than non-enrolled graduates (50.0%, versus 38.6%, respectively). They were also more likely to be involved in clubs and school organizations (56.4%, versus 37.5%, respectively),

and in exercise or sports (94.7%, versus 81.8%, respectively) than the non-enrolled graduates.

Challenges and barriers

Enrolled graduates were more likely to work-for-pay while attending high school than non-enrolled graduates (93.6%, versus 75.0%, respectively). In addition, enrolled graduates were more likely to work 20 or more hours per week than the non-enrolled graduates (36.2%, versus 20.5%, respectively). Conversely, non-enrolled graduates were twice as likely to work to support their families while attending high school (39.1%, versus 17.0%, respectively).

Race/Ethnicity

Background characteristics

Within the sample of the 94 enrolled graduates, the researcher was interested in identifying characteristics or variables that differ between the two racial/ethnic groups. The frequency results of enrolled graduates' background characteristics in two groups, White and Latino, are shown in Appendix F-3. The sample consisted of 79 White graduates (84.1%) and 15 Latino graduates (15.9%).

When comparing the educational attainment level of the parents, Whites were approximately five times more likely than Latinos to report parents who had attended college or attained some type of college degree (mothers, 64.6%, versus 13.4%, respectively; fathers, 60.8%, versus 13.4%, respectively). Conversely, Latinos were more likely to report that they

were first-generation college students. Both groups reported parents' views of education to be similar—*"very necessary"*.

Academic achievement

In terms of the graduates' academic achievement, Latinos were more likely to report completing a rigorous academic curriculum than Whites (73.3%, versus 41.8%, respectively). White graduates were more likely than Latinos to complete 4 years of English (92.3%, versus 86.6%, respectively) and 4 years of foreign language (40.3%, versus 33.2%, respectively). Conversely, Latinos were more likely than Whites to complete 4 years of mathematics (53.3%, versus 30.3%, respectively), 4 years of science (46.6%, versus 43.0%) and 4 years of history/government (19.9%, versus 11.4%, respectively). In addition, Latinos enrolled in college were more likely than Whites to have obtained a high school GPA of 2.0 or higher (100.0%, versus 92.7%).

High-school environment

Overall, Latino graduates reported being more satisfied than Whites with their Iowatown high school experience. Of the seven statements on the SIAS instrument concerning the high school environment, White graduates were more likely than Latinos to respond as "*strongly disagree*" or "*disagree*" to the following five statements: *"I feel challenged"* (28.2%, versus 20.0%, respectively); *"I feel valued and supported"* (25.6%, versus 0.0%, respectively); *"Good at equal opportunity"* (26.6%, versus 0.0%, respectively); *"Teachers expect some students will do well"* (44.3%, versus 26.7%, respectively); and *"Teachers are willing to help me"* (18.9%, versus 0.0%, respectively). These responses are very similar to those reported by the non-enrolled graduates (Table F-2).

Engagement

Three questions were asked in the SIAS instrument to gauge Iowatown graduates' engagement in high school activities. Overall, enrolled Latino graduates were more likely than Whites to talk with teachers outside of class (60.0%, versus 48.1%, respectively). However, enrolled White graduates were more likely than Latinos to talk with teachers outside of class more than 6 or more hours per week (5.1%, versus 0.0%, respectively).

Enrolled White graduates were more likely than Latinos to report participating in clubs and organizations more than 1 to 2 hours per week, especially when the level of involvement was 6 or more hours per week (20.2%, versus 0.0%, respectively). Conversely, enrolled Latino graduates were more likely than Whites to spend 6 or more hours per week exercising or participating in sports (66.7%, versus 49.4%, respectively).

Challenges and barriers

An area of particular interest in this study was the difference between enrolled Whites and Latinos concerning their perceptions of barriers to college. Six questions were asked in the SIAS instrument concerning challenges and barriers. Enrolled White graduates were slightly more likely to report working-for-pay than enrolled Latino graduates (94.9%, versus 86.7%, respectively), and were more likely to report working more than 20 hours per week (39.2%, versus 20.0%, respectively). Conversely, enrolled Latinos were three times more likely than enrolled Whites to report working to support their families (40.0%, versus 12.7%, respectively).

For the two factors concerning non-paid work to support their families, enrolled Latinos were twice as likely than enrolled Whites to report spending 6 or more hours per

week devoted to housework (53.3%, versus 21.6%, respectively), and 1 or more hours per week devoted to child care/babysitting activities (53.4%, versus 26.6%, respectively).

The final barrier asked within the SIAS instrument concerned the receipt of financial aid information. Enrolled Latinos were more likely than enrolled Whites to report having received financial aid information (93.3%, versus 84.8%, respectively).

Type of institution

The frequency results of Whites and Latinos by Enrollment Status and Type of Institution is shown in Table 4.13, which has been placed at the end of this chapter. Frequency comparisons were made within type of institution.

Background characteristics

The study sample included 94 enrolled graduates and 88 non-enrolled graduates. Of the enrolled graduates, 79 were White (84.1%) and 15 Latino (15.9%). Of the enrolled Whites, 37 (46.8%) were enrolled in 2-year public community colleges, 19 (24.1%) at 4-year private colleges/universities, and 23 (29.1%) at 4-year public universities. Of the Latinos, 5 (33.3%) were enrolled in 2-year public community colleges, 3 (20.0%) at 4-year private colleges/universities, 6 (40.0%) at 4-year public universities, and 1 (6.7%) at a 2-year proprietary institution. Approximately the same percentage of non-U.S. residents enrolled at all four institution types.

Based on mother's educational attainment, first-generation White and Latino graduates were three times more likely to attend a 2-year public community college (62.25%) than a 4-year public university (21.8%). Conversely, first-generation Latinos were more likely not to enroll in college. Of this sample, the majority of White graduates were second-

generation college students, and were most likely to attend a 2-year public community college or a 4-year public university. Second-generation Latino college students were more likely to enroll in a 4-year public university or a 4-year private college/ university.

Academic achievement

Students with a GPA of 1.99 or less were most likely to enroll at either a 2-year public community college or at a 2-year proprietary institution, or not enroll in college. Whites with a GPA of 2.00 to 2.99 were likely to enroll at a 2-year public community college. Latinos with a GPA of 2.00 to 2.99 were twice as likely to attend 2-year public community colleges. Whites with a GPA of 3.00 or higher, were equally likely to enroll in either a 4-year public university or a 4-year private college/university. Latinos with a GPA of 3.00 or higher were likely to enroll at a 4-year public university or a 4-year private college/university. White and Latino graduates with a 2.99 or less were twice as likely not to enroll in college, than those who did enroll.

White and Latino graduates completing a rigorous academic curriculum were more likely to enroll at either a 4-year public university or a 4-year private college/university. White and Latino students who completed less than two years of English, mathematics, foreign language, science or history/government were the least likely to enroll college (Appendix F-4)

High-school environment

Enrolled and non-enrolled Whites were twice as likely to respond "*strongly disagree*" or "*disagree*" to the seven statements on the SIAS instrument concerning their perceptions of the Iowatown high school environment than enrolled or non-enrolled Latinos.

Engagement

White graduates enrolled in 2-year public community colleges were more likely to indicate that they "*Talked with teachers outside of the class room"* more than 6 hours per week. Conversely, the majority of the graduates, whether enrolled or not-enrolled, White or Latino, indicated that they "*Talked with teachers outside of the classroom"* 5 or less hours per week.

White graduates enrolled in 2-year public community colleges and 4-year public universities were more likely to report spending more than 6 hours per week involved in student clubs or organizations than Whites enrolled at 4-year private colleges/universities, or any of the enrolled Latinos. Non-enrolled Whites also indicated a high level of participation in clubs and organizations.

Overall, Whites were more likely to report non-participation in exercise or sports than Latinos. In addition, enrolled Whites are more likely than any of the enrollment groups to report non-participation.

Challenges and barriers

Of the study sample, 154 of the graduates (84.6%) reported working-for-pay while in high school. Of those working, non-enrolled Whites were more likely to report working 6 or more hours per week than any of the other enrollment groups. In addition, non-enrolled Whites and Latinos reported the highest percentage of working to support their families.

Concerning receipt of financial aid information, there was no significant difference between the enrolled graduates. Conversely, non-enrolled graduates were more likely then enrolled graduates to indicate that they had not received financial aid information.

Summary

This chapter was organized in five sections to reveal the results of the quantitative data analyses. The first section provided the results of descriptive statistics regarding the background characteristics of the study sample of 2005 and 2006 Iowatown graduates. The second section was comprised of the results of a comparative analysis between White and Latino Iowatown graduates. The means and standard deviations of the variables by race/ethnicity were presented in the third section. The fourth section was comprised of the results based on match data information from the National Student Clearinghouse, a multivariate analysis of predictor factors which influence students' aspirations to attend college. The fifth section was comprised of the results of how the independent variables differ between the enrolled and non-enrolled Iowatown graduates. A summary of the findings will be presented in Chapter 6.

The findings of this study contribute to the literature on student college choice literature by identifying specific independent variables that help predict student aspiration to enroll in college, for students who live in rural areas. More specifically, the variables were identified which influence the college decisions of rural Latino students who live in Iowa. The following chapter presents a summary of the qualitative findings of this mixed method study.

Table 4.13. Frequencies of Whites and Latinos by Enrollment Status (*N*=182)

Variable	Percent among participants								
	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)					
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	WHITE (*n*=59)	LATINO (*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Background									
Mother's Educational Attainment									
Unknown	10.8	0.0	8.7	20.0	0.0	0.0	0.0	10.2	10.3
Elementary school or less	0.0	0.0	0.0	80.0	33.3	16.7	100.0	0.0	51.8
Some high school	0.0	0.0	0.0	0.0	0.0	66.6	0.0	3.4	27.7
High school graduate or GED	51.4	0.0	13.1	0.0	33.4	0.0	0.0	35.6	3.4
Some college	5.4	5.3	13.0	0.0	0.0	0.0	0.0	16.9	0.0
2-year college degree (AA)	13.5	52.6	17.4	0.0	0.0	16.7	0.0	18.6	0.0
4-year college degree (BA)	13.5	36.8	43.5	0.0	33.3	0.0	0.0	13.6	3.4
Master degree	0.0	5.3	0.0	0.0	0.0	0.0	0.0	1.7	0.0
PhD or other advanced degree	5.4	0.0	4.3	0.0	0.0	0.0	0.0	0.0	3.4
View of Education									
Not mentioned	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.9
Not necessary	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	3.4
Some what necessary	16.2	0.0	8.7	0.0	0.0	0.0	0.0	20.3	17.3
Very necessary	83.8	100.0	91.3	100.0	100.0	100.0	100.0	72.9	72.4
U.S. Resident									
Yes	94.6	100.0	100.0	60.0	66.7	83.3	0.0	94.9	58.6
No	5.4	0.0	0.0	40.0	33.3	16.7	100.0	5.1	41.4

Table 4.13. (Continued).

Variable	Percent among participants								
	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)				WHITE	LATINO
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	(*n*=59)	(*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Academic Achievement									
High School GPA									
1.99 or less	2.7	0.0	0.0	0.0	0.0	0.0	100.0	15.6	25.9
2.00 to 2.99	32.4	0.0	0.0	80.0	0.0	33.3	0.0	43.8	48.2
3.00 to 3.99	59.5	63.2	51.7	20.0	100.0	66.7	0.0	40.6	25.9
4.00 and above	5.4	36.8	48.3	0.0	0.0	0.0	0.0	0.0	0.0
Rigorous Curriculum									
Yes	27.0	52.6	56.5	60.0	66.7	83.3	0.0	30.5	3.4
No	73.0	47.4	43.5	40.0	33.3	16.7	100.0	69.5	96.6
High School Environment									
I feel challenged.									
Strongly Disagree	5.6	0.0	4.3	0.0	0.0	0.0	0.0	6.8	0.0
Disagree	25.0	15.8	30.4	0.0	33.3	33.3	0.0	35.6	13.8
Agree	61.1	73.7	56.5	100.0	66.7	50.0	100.0	45.7	62.1
Strongly Agree	8.3	10.5	8.8	0.0	0.0	16.7	0.0	11.9	24.1
I feel valued and supported.									
Strongly Disagree	8.3	5.3	8.7	0.0	0.0	0.0	0.0	13.6	3.4
Disagree	27.8	10.5	8.7	0.0	0.0	0.0	0.0	15.2	13.8
Agree	55.6	68.4	60.9	80.0	100.0	83.3	0.0	57.6	48.3
Strongly Agree	8.3	15.8	21.7	20.0	0.0	16.7	100.0	13.6	34.5

Table 4.13. (Continued).

Variable	Percent among participants								
	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)					
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	WHITE (*n*=59)	LATINO (*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Academic Achievement (cont.)									
Good at equal opportunity.									
Strongly Disagree	8.1	5.3	17.4	0.0	0.0	0.0	0.0	11.9	3.4
Disagree	21.6	15.8	8.7	0.0	0.0	0.0	0.0	23.7	13.8
Agree	56.8	73.6	56.5	60.0	100.0	50.0	0.0	54.2	51.8
Strongly Agree	13.5	5.3	17.4	40.0	0.0	50.0	100.0	10.2	31.0
Second Chance									
Strongly Disagree	5.4	5.3	0.0	0.0	0.0	0.0	0.0	8.5	3.4
Disagree	40.5	36.8	26.1	20.0	33.3	16.7	0.0	27.1	6.9
Agree	43.3	52.6	52.2	60.0	66.7	50.0	0.0	50.8	51.8
Strongly Agree	10.8	5.3	21.7	20.0	0.0	33.3	100.0	13.6	37.9
Treat Students Fairly									
Strongly Disagree	10.8	15.8	8.7	0.0	0.0	0.0	0.0	17.2	3.4
Disagree	21.6	10.5	21.7	20.0	33.3	16.7	0.0	24.2	24.2
Agree	51.4	57.9	47.9	40.0	66.7	50.0	0.0	48.3	41.4
Strongly Agree	16.2	15.8	21.7	40.0	0.0	33.3	100.0	10.3	31.0
Expect Some Will Do Well									
Strongly Disagree	10.8	10.5	0.0	0.0	0.0	0.0	0.0	11.9	17.2
Disagree	29.7	36.9	47.8	20.0	0.0	33.3	0.0	42.3	27.6
Agree	43.3	36.8	34.8	60.0	66.7	33.4	0.0	33.9	44.9
Strongly Agree	16.2	15.8	17.4	20.0	33.3	33.3	100.0	11.9	10.3

Table 4.13. (Continued).

Variable	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)				WHITE	LATINO
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	(*n*=59)	(*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Academic Achievement (cont.)									
Willing to Help Me									
Strongly Disagree	2.7	0.0	0.0	0.0	0.0	0.0	0.0	5.2	6.9
Disagree	24.3	10.5	13.0	0.0	0.0	0.0	0.0	5.2	0.0
Agree	51.4	73.7	52.2	80.0	66.7	66.7	0.0	74.1	58.6
Strongly Agree	21.6	15.8	34.8	20.0	33.3	33.3	100.0	15.5	34.5
Engagement									
Talking with Teachers Outside of Class									
0 hours	54.1	57.9	43.5	40.0	66.7	33.3	0.0	57.6	69.0
1-2 hours	32.4	42.1	34.8	40.0	33.3	66.7	100.0	30.5	24.1
3-5 hours	5.4	0.0	17.4	20.0	0.0	0.0	0.0	6.8	3.5
6-10 hours	2.7	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4
11-15 hours	2.7	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0
16 - 20 hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Over 20 hours	2.7	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
Clubs and Organizations									
0 hours	48.6	36.8	43.5	60.0	33.3	16.7	100.0	62.7	62.1
1-2 hours	16.3	26.3	34.8	40.0	66.7	66.6	0.0	10.2	20.7
3-5 hours	13.5	21.1	0.0	0.0	0.0	16.7	0.0	18.6	3.4
6-10 hours	16.2	15.8	13.0	0.0	0.0	0.0	0.0	0.0	6.9
11-15 hours	0.0	0.0	8.7	0.0	0.0	0.0	0.0	6.8	3.5
16 - 20 hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
Over 20 hours	5.4	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0

Table 4.13. (Continued).

Variable	Percent among participants								
	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)					
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	WHITE (*n*=59)	LATINO (*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Engagement (cont.)									
Exercise or Sports									
0 hours	5.4	5.3	0.0	0.0	33.3	16.7	0.0	20.3	13.8
1-2 hours	37.8	10.5	26.1	20.0	33.4	0.0	0.0	22.1	27.6
3-5 hours	19.0	21.0	17.4	0.0	33.3	0.0	0.0	22.0	13.8
6-10 hours	18.9	31.6	21.7	40.0	0.0	33.3	0.0	22.0	0.0
11-15 hours	5.4	21.1	8.7	0.0	0.0	33.3	100.0	3.4	3.4
16 - 20 hours	0.0	5.2	8.7	0.0	0.0	0.0	0.0	0.0	17.3
Over 20 hours	13.5	5.3	17.4	40.0	0.0	16.7	0.0	10.2	24.1
Challenges and Barriers									
Work-for-pay									
Yes	97.3	94.7	91.3	80.0	100.0	100.0	0.0	78.0	69.0
No	2.7	5.3	8.7	20.0	0.0	0.0	100.0	22.0	31.0
Hours Employed									
0 hours	2.7	5.3	8.7	20.0	0.0	0.0	100.0	22.0	31.0
1-2 hours	2.7	5.3	13.0	0.0	0.0	0.0	0.0	6.8	6.9
3-5 hours	5.4	5.3	8.7	0.0	33.3	0.0	0.0	8.5	17.3
6-10 hours	5.4	10.5	26.1	20.0	0.0	16.7	0.0	13.5	20.7
11-15 hours	21.6	36.8	13.1	20.0	66.7	16.7	0.0	15.3	0.0
16 - 20 hours	10.8	0.0	8.7	20.0	0.0	33.3	0.0	6.8	17.2
Over 20 hours	51.4	36.8	21.7	20.0	0.0	33.3	0.0	27.1	6.9

Table 4.13. (Continued).

Variable	Percent among participants								
	Enrolled(*n*=94)							NOT ENROLLED (*n*=88)	
	WHITE (*n*=79)			LATINO (*n*=15)					
	2-Year Public (*n*=37)	4-Year Private (*n*=19)	4-Year Public (*n*=23)	2-Year Public (*n*=5)	4-Year Private (*n*=3)	4-Year Public (*n*=6)	2-Year Proprietary (*n*=1)	WHITE (*n*=59)	LATINO (*n*=29)
	46.8%	24.1%	29.1%	33.3%	20.0%	40.0%	6.7%	67.1%	32.9%
Work to Support Family									
Yes	18.9	0.0	13.0	60.0	33.3	50.0	0.0	86.2	62.1
No	81.1	100.0	87.0	40.0	66.7	50.0	100.0	13.8	37.9
Housework									
0 hours	16.2	5.3	4.3	0.0	0.0	0.0	0.0	16.9	6.9
1-2 hours	37.9	47.4	60.9	40.0	33.3	33.3	0.0	44.1	44.8
3-5 hours	18.9	26.3	21.8	20.0	33.4	0.0	0.0	16.9	6.9
6-10 hours	16.2	10.5	4.3	0.0	33.3	50.0	0.0	8.5	20.7
11-15 hours	5.4	10.5	0.0	20.0	0.0	0.0	100.0	10.2	10.3
16 - 20 hours	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0
Over 20 hours	5.4	0.0	8.7	0.0	0.0	16.7	0.0	3.4	10.4
Child Care/Babysitting									
0 hours	73.0	73.7	73.9	20.0	33.3	83.3	0.0	66.1	24.1
1-2 hours	10.8	15.8	13.1	80.0	33.4	0.0	100.0	11.9	38.0
3-5 hours	8.1	5.2	4.3	0.0	33.3	0.0	0.0	8.4	10.3
6-10 hours	2.7	0.0	4.4	0.0	0.0	16.7	0.0	5.1	10.4
11-15 hours	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
16 - 20 hours	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0
Over 20 hours	2.7	5.3	4.3	0.0	0.0	0.0	0.0	5.1	10.3
Financial Aid Information									
Yes	81.1	89.5	87.0	80.0	100.0	100.0	100.0	69.5	69.0
No	18.9	10.5	13.0	20.0	0.0	0.0	0.0	30.5	31.0

CHAPTER 5. QUALITATIVE RESEARCH FINDINGS

Seven Latino Iowatown high school graduates were interviewed in December, 2006 at the Iowatown Community Opportunity Center with the assistance of an Iowatown Latino colleague. The semi-structured, one-on-one interviews followed the procedures described in the research design section of Chapter 3.

Descriptive reporting was used to reveal the profiles of the seven Iowatown graduates who participated in this study. This procedure enabled the researcher to provide a clearer understanding of each participant as an individual, as an Iowatown High School graduate, and as a rural Iowan trying to better him/herself. A pseudonym was assigned to each participant by the researcher following the interviews.

This chapter is divided into three sections. First, a profile of the group is provided, followed by seven individual profiles. The participants' own words are added by using quotations taken from each interview and the interviewees' responses to the SIAS instrument. Supplemental information is included as provided by the Iowatown Latino colleague, as well as observations gathered by the researcher. Each profile follows the sequence of the quantitative model components described in Chapter 3: background demographics, academic achievement, perception of high school environment, engagement, challenges and barriers, and aspirations. In addition, each profile contains a description of what the participants were doing at the time of their interviews, their support systems, how their lives and aspirations have changed since high school, and their thoughts on ways to improve the educational process for students who will matriculate through the Iowatown K-12 school system. The final section presents the themes that emerged during the interviews.

Participant Profiles

The seven participants were Latino immigrants who moved to Iowatown with their families. Each participant attended elementary school in Iowatown and graduated from Iowatown High School in either 2005 or 2006. Five participants were U.S. citizens and two were undocumented immigrants. While five of the participants indicated that English was not their first language, all indicated they had mastered the English language. All of the interviews except one were conducted in English. One interview was conducted in Spanish because the interviewee explained that, although he understood English, he felt that he could better express himself through his responses if the interview was conducted in Spanish.

All participants aspired at some point during their high school experience to go on to college. Four of the seven participants were enrolled in college when the interviews took place.

The graduates indicated their parents brought them to the United States, in particular to Iowatown, so they could have better lives. More specifically, the reason given was that they could each obtain a better education. While the origination points of their journeys varied (i.e., California, Guatemala, Mexico, New Mexico, and Texas), the purpose of their journeys was the same: "*My parents brought me here to have a better life; to gain an education*." Even though they had the same common goal and grew up in the same community, something happened which caused these seven individuals to follow different paths. A description of their stories follows.

Raquel

"When I was little, I wanted to be a vegetarian because I really like animals."

Raquel is a 19-year old single mother who lives with her mother and younger brother. Born in New Mexico, she moved to Iowatown with her mother and brother when she was 5 years old. She attended the Iowatown schools, from kindergarten through 12th grade, and graduated early. While in school she was enrolled in the Talented and Gifted (TAG) program. As part of the TAG program, she participated in one of Iowa State University's (ISU) high school outreach programs—Women in Science and Engineering.

During her senior year, Raquel became pregnant and gave birth to a daughter. At the time of the interview, she worked as a cashier at a local grocery store. She still dreams of going to college at ISU, majoring in biology.

Raquel's family is comprised of her mother, brother, and daughter. Her brother is currently in high school. Raquel hopes that he will go on to college.

> *I know [emphasis] he is going to go to college, but I think it is going to be difficult to get him to do it. He has applied to both Iowa and Iowa State, but he is just really doubtful. But I know he is going to go; he just is.*

Raquel's mother has a four-year college degree, works full-time, and provides support to Raquel and her baby. Raquel stated several times throughout her interview that her mother has told Raquel and her brother repeatedly that an education is necessary to move ahead in life.

Academic achievement

When asked to describe her academic achievements to date, Raquel mentioned she maintained a 4.0 GPA her first three years of high school. Her academic coursework showed that she maintained and completed a rigorous academic curriculum despite graduating early.

High-school environment

Raquel recalled her high school experience as being:

> *…a pretty good experience. Usually there were no problems. It isn't a big high school so most of the time I got the help that I needed when I needed it. Most of all, my experience was pretty good.*

When asked if there was a particular teacher who had a significant influence on her, Raquel recalled:

> *Well, I remember when I was in middle school, my seventh grade teacher told me that I wasn't very good in Math and that…..because I really wanted to go into Algebra, introduction to Algebra or Integrated Math. And he said, "Well, I don't think you are going to be very good in math." When I got to Algebra, I worked really hard and Mr. R was the one who told me that since I worked really hard, I was good in it now. So, I ended up going all the way to Calculus. I didn't finish the whole year because I graduated early, but I ended up getting an "A" in Calculus after all. All the math teachers, they always pushed me harder. They always pushed me harder to succeed in the Mathematics Department. I never ever thought I would make it to Calculus, but I ended up getting a good grade.*

Engagement

As mentioned previously, Raquel was actively involved in the TAG program while attending Iowatown High School. She recalled several trips to colleges that were sponsored by TAG, in particular, attending the Road Less Traveled Career Conference at Iowa State:

> *I [visited] UNI, Iowa State and Iowa. I went to the Road Less Traveled [Conference] at Iowa State… I've been to that a couple of times… They had a range of mini courses that they tell you about the majors and stuff. I chose*

> *more of the Biology ones and Engineering, and they'd sit down and talk with you. You talk about the things about the programs there at Iowa State…There were tons of students there. There were a lot of Iowa State students and they talked about their experiences and majoring in Engineering…*

Besides TAG activities, and socializing with her friends and working, Raquel did not disclose any other school related activities.

Challenges and barriers

When asked to describe challenges and barriers while in high school, Raquel recalled four: work, friends, money, and her pregnancy. She indicated that she worked while in high school to earn money for her expenses and to gain some independence. When asked how access to financial aid or financial support had influenced her decision to go to college, she responded:

> *Well, actually I talked to a guy at Iowa State. He is the head of the minority scholarships and he talked about how Iowatown hasn't been involved in knowing what they can do for the minority scholarships. I am really aware of how much I was able to get. And at one point, we talked about him coming down and talking to us, specifically about minority scholarships, but that never happened.*

When asked if she thought access to financial aid was an obstacle to most of the Iowatown students, she responded:

> *Yes, I don't think a lot of people know what is really out there. Because I know I looked into the MVP Scholarship and that it is really great. Only two people out of my class got that scholarship.*

When asked what the main reason was for not attending college, Raquel responded:

> *I wanted to go to college right away, but now I am financially unable to [go] because of child care stuff. I am going to go to the local community college hopefully in August for two years. I want to go to Iowa State, but right now that is kind of…. I might just have to wait it out. I want [emphasis] to go to Iowa State.*

Aspirations

Early in the interview, Raquel was very animated in her description of what she wanted to do for her life's work and the path she planned to take:

> *Well, I still want to pursue an aquatics program, working with animals and stuff, but it is kind of hard when you live in Iowa [laughs loud], unless I want to work with river life and I don't think there is a lot of call for that. I really don't want to work with bass or anything like that [laughs] ... I kind of still want to pursue a Biology career, but so many things have happened to change that.*

When asked what colleges she applied to attend, Raquel mentioned Iowa and Iowa State.

When asked if she was admitted, she indicated that Iowa State and Iowa had admitted her. Her response when asked why she did not enroll in college was:

> *...because [of] my daughter. Her father lives two blocks away from me and living in Iowa City probably wouldn't work out very well. So I wanted to go to Iowa State, but it costs too much, and being a single mom, you know, with child care and all that stuff. So it is just too costly.*

Support systems

Raquel referenced her mother, her boyfriend, and herself when asked to describe her support systems. However, she indicated that her main support system was her mother for financial and moral support:

> *Financially, and then she helps me out a lot with my baby [nervous laugh]. Probably then my boyfriend, because he helps me out in buying stuff for her and if I ever need any help he is there.*

She did clarify that, when making decisions, she relied on herself, although she did consult with others:

Most of the time I make my own decisions, but sometimes I consult with other people, like friends, family. Most of the time I like to see like maybe if they've done it before and get some insight of their experiences.

When asked to identify the most influential person in your life, Raquel responded—herself:

[Long pause] *I would have to say myself because any decision that I have made, I have done it because I wanted to. There was a time when I was 14 and I decided that I wanted to become Catholic and I did it on my own accord. My Mom didn't force me, and no one else forced me. I remember at my confirmation class, I was the only one there who wanted to do it myself. Everyone else, their parents forced them to do it.*

How life and aspirations have changed

When asked how her life has changed since graduating and entering the work force, Raquel reflected:

Instead of just wasting my money and whatever, going out with my friends and just driving around wasting gas, I have learned that since I have to take care of someone else, I can't just waste my money. I have to save my money to buy diapers and wipes and whatever else I need for her. The tables have kind of changed; I think less about myself and more about my daughter.

When asked if there was an increase in financial responsibility her response was:

Yes, definitely. If I didn't live with my mom, I don't know what I would do [laughter] because I don't make much money at all. I realize that I have to work more to make more money and I don't just have every Friday and Saturday night off to mess around. I have to work on those Fridays and Saturdays nights.

When asked how her career goals or life goals changed, she responded:

I wanted to go to college right away, but now I am financially unable to because of child care of stuff. I am going to go to the local community college hopefully in August for two years. I want [emphasis] to go to Iowa State, but right now that is kind of iffy. I might just have to wait it out. I want to go to Iowa State [with emphasis].

When Raquel meets up with her classmates at their 10-year class reunion, she hopes to be able to tell them that:

> *Hopefully, I would have gone to college and done what I have wanted to even if I just go to school. I just want to say that I have gone to school. I know people who have gone to school and have never done anything with their education. I would just like to be able to say I have gone to school. That's what I want to do, and say that I'm happy and I have a good family – I'm sure I'll have another kid … because I remember being scared that I was pregnant because I graduated early. I graduated…. I was able to, but I graduated early because I was pregnant. I was scared about what they [others] thought, but now I know that I am not the only one; that I am one of many people who have recently had a kid* [laughs]. *So, really I would just like to prove to them that it really doesn't matter anymore.*

Ways to improve

Each participant was asked, "If you could change anything about the high school system that could improve the process for other students, what would you change?" Raquel's response was comprised of three items that were very specific to students and the Iowatown school district: financial aid, more counselors, and allow other TAG students to attend the college workshops, and added:

> *Financial aid. Maybe counseling so you can make people realize what is out there and what opportunities they have when they go to college because I know a lot of people don't think they can do it and there are too many doubts.*

When asked to clarify if students need more information, she responded:

> *Yeah, I think if they had more information and more experience, if they knew more about of what college life is about, I think, a lot more people would want to go to college.*

When asked to elaborate on her comments about counselors, her response was:

> *I really don't think the counselors did a lot because I had to do a lot more for myself than what they did for us. We probably had three counselors for a 1,000 students. We probably have 1,000 students in Iowatown High School now, almost 1,000. I think we need more counselors. Three counselors can't*

> *handle all of those kids. I know when I tried to talk to a counselor, I'd have to wait an hour or more just because there were tons of other kids in there. Sometimes they would just be messing around and it is hard when you* [emphasis] *have business to talk about and there are kids in there just messing around.* [voice appeared harsh when talking about others].

Raquel was very articulate about how she felt the TAG program needed to be expanded to help more students in the school:

> *I was involved in the Talented and Gifted Program [TAG]. And I know they made a lot of opportunities for us to visit colleges. I think they need to make other programs like that for other kids to get them more involved in wanting to visit colleges…we went to UNI. And I know that UNI is two hours away and I know we could have taken more kids there and it probably would have been more informational than to people like us.*

Raquel also offered a suggestion concerning federal policy that affects local school districts like Iowatown:

> *Well, I am really against the No Child Left Behind program because I don't think it is a good program for, especially Iowatown, because we have such a wide range of minorities in Iowatown and it is not fair to them to make them to meet the standardized tests. Some of them don't even know English and that is what they base our financial need on is how well we do on the standardized tests. How fair is it to cut our funding off when you don't do well on the standardized testing? We need even more funding to help these children to learn English so they can do better on the standardized tests. So, I am really against the No Child Left Behind. I know teachers, we've talked about this in class, in government, talked to them and they don't like it either.*

Most important lesson since high school

When asked, "What are the most important lessons you have learned since graduating from high school," Raquel's answers centered on her family:

> Well *I have probably learned that I was such a little kid throughout high school. I was not mature at all and now I think I can take on anything now that I have a kid, because it teaches you so much about life and just how precious it is. Also, I think I am a lot closer to my family now that I have graduated high school. I was always fighting with Mom because I wanted to do this and she didn't want me to do it. Now that I have a child of my own, I*

wouldn't want her doing some of the stuff I did, so I just have a different perspective.

Tomás

For a long time, I wanted to be a veterinarian. I lived on kind of a farm, like a ranch in the desert, with a couple of hills. My Dad always had liked his roosters. So we had roosters, chickens, goats, and dogs. So, I wanted to take care of animals. Then I started changing my mind and I wanted to become a teacher, an Art teacher.

Tomás is a sophomore who is studying art at the local community college. He also works part-time in a local farm implement store. He was born in Monterey Park, California. He was 1 year old when his family moved to Mexico where they lived until he was 6 years old, when they relocated in Iowatown. Tomás lives with his parents and two younger brothers. Both parents work to support the family. His parents attended, but did not complete, high school. He has two older brothers, whom he sees on a regular basis as they are in a band together, and work on a crew installing windows. Tomás described himself as a middle child. He stated several times during his interview that his parents were very pleased that he has decided to go to college.

Academic achievement

Tomás reported completing a rigorous academic curriculum prior to graduating from high school with a 2.5 GPA. In addition, he completed two full years of art classes.

Educational environment

Tomás recalled his high school experience as being as "pretty good". During his interview he did not specifically address the educational environment, but spent the majority of the interview describing his art, his friends and his favorite teachers.

> *Mr. P, my Art teacher, really inspired me a lot because he told me (pause) that everybody is an artist. It is just the way of stating your art. We talked and he taught me a lot. He was pretty much my inspiration in teaching because he is an awesome teacher.*

Engagement

Tomás described himself as "pretty good" student who got along *"pretty much with everybody in the school. I wasn't judgmental so it went well."* He was active in track and wrestling, and indicated that, while he was not a big star, he played *"pretty well"* and had fun.

When asked to describe his academic interests, Tomás explained that he has a great interest in art: *"I took every Art class that I could take in high school. I think I have been drawing and stuff ever since I was little, before going to school."*

Challenges and barriers

When asked to describe the challenges and barriers he had encountered while enrolled in the Iowatown school district, Tomás recalled three: financial, parents' citizenship, and language. Tomás indicated that having access to financial aid was a huge barrier to Iowatown students going on to college:

> *I think it affects some students' decisions. Like I have a few friends that have went to the Navy and one that went to the Army because of financial [assistance], just so they could have them pay for college. And I think that's a*

> *smart idea. They just don't have the money to go to college, so they will do something to get the money to go to college.*

A related issue was having parents who are not U.S. citizens. As a result of their status, Tomás was not eligible to apply for financial aid, even though he, himself, is a U.S. citizen.

> *I wasn't eligible for financial aid at a local business college; because of my situation with my parents; I didn't end up getting any assistance. I wasn't eligible for financial aid. It might have helped out with books if I had gotten scholarships.*

Tomás remembered not knowing English as being a problem for himself as well as his friends:

> *In high school I took Spanish III my freshman year and then Spanish IV my sophomore year. I noticed that a lot of my friends were having a hard time reading at that age. I think if they changed teaching Spanish to a younger age, like maybe middle school, it might be a lot easier for students to learn English.*

When asked why he thought some individuals don't go on to college, Tomás responded, *"I think it is just a matter of pushing yourself to do something more than you're doing. You just have to have the drive…"*

Aspirations

Tomás recalled that he wanted to be a veterinarian when he was young but, as he grew older and took more art classes, he began to discover that he wanted to be a teacher.

> *I think it changed because I know how important it is for young people to learn how to get the good things in life and learn. It is really important to have people out there who are willing to teach these kids that they are our future.*

Support systems

When asked to describe his support systems, Tomás repeatedly mentioned his mother, his brothers, and his art teacher. He also indicated that his parents provided some financial support while he is enrolled in college:

> *They support me financially, some. We have* [pause] *I have paid for all of my school so far by working part-time, but you know, they help me out with some money for gas or some money for lunch, a sandwich later or whatever. Basically, they're happy that I'm going to school* [laughs].

When asked who helps him to make important decisions, Tomás responded that he relies on himself, although he added he did ask those around him for advice. When asked who is the most influential person in his life, he responded:

> *My mom. She has always been the person that helps others. Not really feeling sorry for someone, but finding ways to help them do better and help them out and stuff. She has been a real good example for me because she has helped to encourage my painting…*

How life and aspirations have changed

Tomás was very reflective when asked to describe how his life had changed since graduation from Iowatown. He explained two major changes in his life. First was his relationship with his friends:

> *I don't see my friends as often as I used to. I used to hang out with friends a lot in high school, which I really miss, but I don't do that as much anymore. I don't get to see my friends a lot.*

When asked if there was a difference between his friends who attended college and those that did not, he responded:

> *Yeah, I have a few friends who didn't go to college and another one that didn't finish high school and he is having a really rough time right now. He's working part-time jobs, three part-time jobs,* [pause], *and he and his family is really struggling because of bills, car insurance, car payments, rent or paying*

> *for a house or whatever. He needs more than what he is making, it's like, its super tight* [trails off].

Second, he indicated that his relationship with his family had changed:

> *With my brother, Jorge, he didn't go to college. It's changed because he has told me that I am a really good example … that he is happy for me that I am going to college.*

Most important lessons since high school

Tomás was quick to point out that he had learned if he was going to survive in college he could not put off his studies:

> *I've kind of been a procrastinator for a long time* [laughs]. *And* [pause] *in high school, in college, it's changed because if you don't finish your homework, they don't take it and that's how it's been. If you're going to survive. I am learning not to procrastinate, because if I do my grades will go down. And to study. I did a lot better this semester with my classes since I've learn to become more responsible.*

> *Since going to college I've learned that you need to study as much as you can.* (Pause) *[And] when your teacher is lecturing, to listen. Remember as much as you can. I write down a lot because I'm not a person that can remember all of that at once, so I write down a lot, and that has helped out a lot for me; taking good notes.*

Ways to improve

As with the other graduates interviewed in this study, Tomás had some distinct ideas regarding how Iowatown should make changes so that the school experience is better for students. Tomás was very emphatic in expressing his ideas, pointing out the value of education, particularly college, to students and their parents.

> *Maybe you should mention college a lot more. You know, let them know how important that it will be to their future. Because basically we are the future. You need to mention how important it will be because I have friends that dropped out of school and I think their parents didn't let them know how important it is [school]. And in school they didn't care much about it, so they*

> *didn't participate in the college visits that we were able to go to. I think we need to push people, students more, towards college, so that would help them out.*

When asked if there were specific activities that would help he indicated:

> *I think field trips would help out. Field trips to visit* [pause], *a college visit but I think maybe the colleges coming to the high school, like in NextTown* [pause] *when every one, not just seniors, when they are ready, whether they're thinking about college or not. I think in high school or middle school* [trails off*]… We should be letting parents know how important it (college] is. We should be letting parents know how important it is to their kids' future.*

Carlota

> *When I was little….my mom is actually an anesthesiologist, so I grew up literally* [emphasized] *in the medical world. And because my dad was hiding from the military and then actually here in the U.S., my mom had to take me to the hospital sometimes when she didn't have babysitters, so I grew up in that world. I came by it naturally. As I grew up I came to realize it's not for me* [laughs nervously, almost apologetically]. *It is a life style I can't live with.*

Carlota is a freshman at four-year private college in central Iowa, majoring in International Management with an emphasis in Latin American Studies. She came to the United States when she was 9 years old from Guatemala with her mother who was on a political asylum visa. She entered the Iowatown K–12 system in 4th grade. Not knowing English, Carlota was enrolled in the English as a Second Language (ESL) program. In 2006, Carlota was the commencement speaker for her graduating class.

Technically, Carlota is a first-generation college student, as her parents attended college in Guatemala where the high school and postsecondary systems differ from those in the United States. When not in college she lives with her brother and her parents who have blue collar jobs as they do not meet the U.S. standards to practice the professional careers they held in Guatemala.

Academic achievement

When asked about her high school academic experience, Carlota described how she maintained a 3.62 GPA despite the fact that she did not learn English until she was 10 years old. While she did not complete a rigorous academic curriculum, as she did not complete the required three years of math, she did meet all of the other requirements. In addition she completed four years of a foreign language and successfully completed the senior honors English course.

Engagement

Aside from describing her experiences of hanging out with other Latinos during and after school, Carlota did not mention any other school-related activities. She did indicate that she worked 15 or 16 hours per week to help support her family.

Challenges and barriers

Carlota described numerous challenges and barriers that she had to face and overcome, including learning English, overcoming the feeling of being different, family finances, and finally being issued her green card.

As mentioned previously, Carlota did not know English when she arrived in Iowatown. She described this lack of knowing the language as temporarily changing her personality.

> *I kind of put myself into a shell and I'm better than that. Which, I don't know, it could be taken as a weakness or a strength. For me it was strength, because it took me less than a year to become fluent in English …*

Throughout the interview, Carlota gave several references in which she felt like an outsider—when she first arrived in Iowatown, when she started to learn English, and then

again during a college campus visit. She described her experiences of feeling different as the impetus for deciding to enroll in college. She recounted the following experiences:

> *When I first came here it was kind of a shock because when I came here, there was not a lot of Latino population. There was very few and so it was very shocking because I didn't know English and I came into this white population* [emphasized by slowly enunciating], *which I did not know existed because I lived in Guatemala. So I was kind of the odd-kid-in-class. No one else was brown, so there were a lot of obstacles for me.*
>
> *Around 6th grade, the Latino population became more here in Iowatown, so it was more comfortable* [words come hesitantly – appears to be gathering thoughts] *for me because I could have my friends. I did develop a lot of friendships. And in middle school we were close. Especially, in middle school it was kind of fun because the Latino students became kind of like family. We kind of segregated ourselves, I guess. We ate lunch together and had our own table and I mean, it was just natural to segregate, I guess. There was not a lot of Hispanic in our school, but there was enough to develop into a family. In high school, it was different because there was more and especially because there were other cultures, from other countries. People we couldn't really related to* [inaudible] *... By that time in high school, some of us were very fluent in English and some of them coming [here] didn't know English or they knew very little English, so that made a barrier I guess. They didn't want to talk to me. It was harder for them to adjust. Most of them spoke Spanglish and throughout high school they spoke Spanish. They created their own barrier.* [inaudible] *So it was more segregated among us than in the beginning.*

While she described her success at overcoming the hurdle of learning English, and adjusting to her new environment, family finances remained a concern:

> *Throughout high school my parents could barely get a house and could barely pay for the bills. There was no money to save for me to go to college. I did start working when I was 15-16* [laughs] *but that didn't work. So I started saying the only way I would be able to go to college was if I got scholarships. So I turned more of my attention into "I've got to get good grades". I started cutting back on my activities and hanging out with my friends. I knew my GPA and courses were in line with me going to go on to college.*

When asked how she thought access to financial assistance affects students going to college, Carlota revealed her concerns:

> *There is some limited access and it is probably…. Well, first of all, if you are a minority or if you got good grades. If you don't have good grades, you're not going to be going to college. So, yes there are very limited resources. A lot of people say, "Oh bull, all you have to do is file the paperwork". That's not true; there are so many requirements, besides that. It is hard. It is really hard.*
>
> *It affects,* [pause] *your life a lot* [spoken with emphasis]. *In the back of my mind still, right now, as a freshman, I think about going to school next year as a sophomore, I think about "How I am going to get my money?" I have loans that I will have to pay back. They are around $6,000 and I am barely coming out of my first semester.*

The final barrier that Carlota had to overcome was obtaining the proper documentation so that she could pursue a college education, be eligible to receive financial aid, and be eligible to work in the United States once she completed college. That documentation was in the form of her green card:

> *I guess it was more of the immigration issue because while I was here my parents were here on asylum. We are kind of refugees because of the civil war in Guatemala and I did not have my green card and I did not get my green card until the summer before I went to college. So, definitely that was one of the things that influenced me, "Please let me get my green card, so I can go to college!" because if I didn't have my green card, I wouldn't be able to get my scholarships. So, that is when I decided [to go to college] if I get it [my green card], I am definitely going to school.*

Aspirations

Similar to other students who were interviewed, Carlota wanted to enroll in college after high school. While her reasons were similar to those of the other students in this study, they differed greatly in one way:

> *… actually before middle school because I kind of decided to go to college because of the stereotypes. Not really here [Iowatown] but in the media in the United States. I decided "Yes, I will go to college." It was more about trying for me to pull myself into it, and everyone else into it, and going against the stereotypes. Instead of all the girls getting pregnant and going off with their boy friends and, I want to have more.*

When asked who had the most influence in her decision to attend college, she responded:

> *My parents mostly, but also my understanding of wanting to be more than the average Latino. I understood that when my parents came here, and made a sacrifice, and here to see they are blue collar workers, which there is nothing wrong with that, but seeing their sacrifice. It puts more strength in me to go to college and get a degree.*

Carlota recalled her earliest memories of wanting to go to college revolved around finances and the stereotypes of Latinos:

> *It really started with financial [issues]. When I started high school* [inaudible]… *I especially started thinking about the stereotypes about, especially about women* [inaudible]. *In the back of my mind I kept thinking, "I can do it."*

Support systems

When asked who supported her most and how, Carlota responded that her family provided the most support and influence for her, as well as her faith, and her friends who were in college. She explained that she is very close to her parents and calls her mother every day. One of the reasons she selected the college she is attending is that it is within an hour's drive from home. She liked being close and being able to go home on weekends.

She also indicated that her faith provided her with a very strong support system:

> *I grew up going to church and I learned a lot from my mother and my grandmother. So to be able to go to a church and any worries that I have or any situations, just to be able to kneel to pray to get them out of my system, knowing God is there no matter what* [inaudible]...

When asked if there were any teachers she recalled influencing her through school, she recalled two, both whom taught English:

> *My first teacher was in my ESL class. I was only there for about a year, but it helped me so much because I remember she would always put us in the story line and we were supposed to read along with her. In the beginning I remember I couldn't do anything and she just kept telling me that I could do it. And then finally, when I could do it, that meant a lot to me. She never gave*

up on me and that meant a lot to me because other people may have. It did happen and it took a year.

The second one is actually kind of weird because I took elite English in high school. For me it was kind of like let's see if I can do it because it was at a time when very few people got in, not because you wanted to be in, but because she chose you if she though you were capable enough. And she was very challenging, extremely [emphasis] *challenging and for me to be able to be with people with no English and be there* [pause] *just being there and for her to challenge me that way even though I was the underdog. She helped me a lot. She helped me with my writing skills. It is so funny because I ran into her a week ago and two of my diagrams were up there* [on the wall]. *In that class we got drilled to do essays, we had to do two essays every week. Every one of them had to be four or five pages long. I would suffer through them a lot. In my senior year I would spend the whole weekend and then by the end of the year it was so easy to just do it. And it was so funny because* [inaudible] *trained to do it. For me it was easy.*

How life and aspirations have changed

Carlota noted two things that had changed since she went to college. First her conviction about getting a college degree had become stronger. She explained that several of her friends who graduated before her had gone away to college, just to come back and say that not many Latinos were enrolled, so it was hard to relate to the other students. As a result Carlota increased her conviction to break the stereotype that Latinos do not attend and/or finish college: *"I just want to one day to go to a job interview and be able to say, 'Yeah, I'm a Latino woman and I'm a college grad.' "*

When asked what she plans to tell her classmates at their 10-year class reunion Carlota mentioned she plans to be able to tell them that she has finished college. She plans to be able to tell them that she is in a profession where she is helping others, but she is still undecided as to what that profession will be. She is also considering staying in Iowa, which is something she had not considered until recently:

Actually, I think about this in my head. One of my friends went to Texas to go to college and it is funny that in the beginning when we were in high school, I always made fun of Iowatown, that there is nothing to do, and stuff like that. When I talk to her now, she makes fun of Iowa and it is kind of funny that it bothers me now. Before, it really didn't bother me so much, but now it bothers me because I really do like Iowa even though in the beginning, it kind of got on my nerves. I like it. I like the way of the lifestyle and I like being able to be free and not worrying about people getting killed in drive-bys. I see a new population coming into Iowa; it gives me some hope for things.

Ways to improve

When asked, "If you could change anything about the high school system that could improve the process for other students, what would you change?" Carlota's response centered on the theme of support. She explained that she was one of the fortunate students whose parents knew how to help her along the way:

I would tell them [the school district] to support them [students] because a lot of kids don't have the support that I had. I had the support of my family. They know the importance of studying; they know the importance of going to college. But some of the students, the kids, their parents haven't had the college experience – they have had other experiences, such as you are suppose to get married, that's your job. And remotely they have in the back of their minds, "No, I don't want to do that." It is important for them [the school district] to nurture and help promote alternatives. That would help a lot. I know a lot of people give up. They get into a certain pattern, and they just give in. They think "This is it." I know a lot of people who want something more and by that I mean like an opportunity to do more with their lives.

She also saw the need for the Latino population to become united. She explained that, although her classmates came for many different countries, they were still considered Latino. Nevertheless, as a result of that diversity, she envisioned a need to unite their cultures, ideas and energies: *"If somebody would unite us, that would be awesome!"*

When asked why some students do not go on to college and what can be done to encourage them, first Carlota responded that money was probably the biggest issue. She

followed this with a recollection of a recent Latino Expo [college fair] where she talked to some Iowatown students about their college plans:

> *I went up to a lot of girls and I asked them what their plans were for college and what type of college they would like to go to. Most of them wanted to attend a community college. I asked them why and most of them said it only takes two years and it is cheap and in two years they would be working. I kind of saw that and they kind of have a reason you know. They want something that isn't going to put them in debt; that will give them resources and a job.*

Most important lesson since high school

When asked, "Since going to college what is the most important lesson you have learned?" Carlota indicated that she has learned to trust herself:

> *I have learned that I can do a lot of stuff that I didn't think I could and the security of just knowing that I can do it. That is the biggest lesson. I have always thought about myself as being very independent and then I went to college and I found out I wasn't as independent as I thought I could be. I need a lot of support from my family and even though I don't say it, I am a little scared sometimes. I kind of kept that to myself. I was a really scared. I was extremely [emphasized] scared because I kept thinking what if I can't do it? What if I'm not good enough to go to college, then what?*

Carlos

> *When I was little I wanted to be a lawyer, because my Dad always worked with lawyers and he was always paying them big bucks.*

Carlos is a freshman at a central Iowa community college where he is taking his basic classes so that he can become a math teacher. He stated that the main reason why he enrolled in this particular college was because it had a soccer team, and he wanted to play college level soccer.

He came to Iowatown from Mexico with his family when he was ten. Carlos has two brothers, and an older sister who is a college graduate and who is employed as a social

worker in Iowatown. While she is a U.S. citizen, Carlos and the rest of his family are undocumented citizens. Carlos' parents both completed some high school and work for the local meat packing plant.

Academic achievement

When asked to describe his academic achievements to date, Carlos explained how he had not done very well in his first two years of high school. Then, in his sophomore year, he realized that he would have to raise his GPA if he wanted to get into college. Thus, he worked harder and was able to raise his grades.

> *I tried to get my GPA up to a 3.0 or higher. I did get it for my last two years, but my first two years, well my first two years I didn't do so good in my studies. My last year it was 3.2, but the first years it was really low. My overall GPA was 2.8, but it could have been higher.*

During his four years of high school, Carlos completed a rigorous academic curriculum.

High-school environment

Carlos remembered his high school experience as being *"pretty good."* Most of his time was spent on the soccer field or hanging out with friends.

When asked if there was a particular teacher who had a significant influence on him, Carlos recalled his ESL teacher who did not teach any of his regular classes, but she was a big influence in his plans after high-school.

> *Probably Mrs. W, because she always like, well* [pause]. *I never had her as a teacher, she taught ESL, but I always used to go to her classroom and study and talk about life and* [pause]. *She used to tell us it would be great to have a lot of teachers in Iowatown that were Spanish and spoke our language.*

Engagement

Besides his academic work, Carlos participated in soccer all four years, achieving district and state recognition. He also indicated spending a lot of time hanging out with his Spanish friends.

Challenges and barriers

Throughout the first half of his interview Carlos kept repeating the phrase *"to make your life easier."* When asked to describe what he meant, he explained:

> *I think that when you have a degree, you wouldn't like have to work in say construction or in a place like* [pause]. *You would probably receive more money if you have an education. And you wouldn't have to worry about working until you couldn't. I think if you have an education, you can look for a job that you would like to work at the rest of your life. If you can't get an education, you pretty much go with what's there.*

When asked what barriers he saw Iowatown graduates facing, he mentioned financial resources as a barrier to enrolling in college:

> *I think some of the reasons they don't go to school is money because they have to help their parents out with money and stuff like that. Also, financially it is a little hard to get to college unless you get scholarships.*
>
> *I think access to scholarships is hard if you don't look for them. There are always scholarships if you look for them. Not a lot of people do, so they don't get a lot of financial aid.*

In addition to finances, Carlos and his parents have faced two additional barriers: his parents do not speak English and they are undocumented immigrants. As a result, Carlos is not eligible to apply for any state or federal financial aid programs. He must rely on other resources as his parents are unfamiliar with the college search process and they do not have the English skills to read the available materials. Fortunately, Carlos' sister has been assisting him.

Aspirations

Carlos remembers wanting to go to college from an early age:

> *The earliest was when I was back in Mexico about 10 years ago. I was always smart when I was little, and then I grew up and I was always saying I wanted to go to college, especially to my parents. I always told them [my parents] I wanted to be a lawyer.*

Carlos did acknowledge that when he was in high school he decided that being a teacher might be a better fit. He laughed about this because he recalled:

> *At first I didn't think I would want to be a teacher because I used to hate teachers. Now, I don't know, I want to be a teacher because I want to be more involved with the school.* [voice very enthusiastic] *I want to be a coach after I graduate college. And I will probably be a math teacher, because I'm good at math.*

When asked if there was any one in particular who had influenced his decision to go to college, Carlos mentioned his sister:

> *My sister went to college and she graduated. She has had a much easier life than if she hadn't gone to college, so that was a big thing to me. I guess going to college and getting a degree does make your life much easier, so that's probably why I decided I wanted to go.*

Support systems

Carlos indicated that his sister was not only an inspiration to him, but also his major source of information concerning scholarships and financial assistance. Besides his sister, Carlos indicated that his parents were a big source of support, both financially and emotionally:

> *Well, my sister goes on-line and tries to look for scholarships for me and she always calls me and checks to see what I'm doing and if I need money and stuff like that. My parents do pretty much the same thing. My Mom calls me about once every two days to see if I need stuff.*

When asked if his friends had provided him with any support in his decision to go to college, he replied, *"No, I pretty much knew what I was doing."*

How life and aspirations have changed

Carlos recalled that, prior to going to college, his sisters and others told him how easy college would be. Carlos indicated that it was not quite what they had told him:

> *Well, they told me it is like real easy, but you have to try hard because there is no one [people] there pushing you. You actually have to go to class and try. In college you can do whatever you want, but you just have to push yourself.*

He acknowledged that the biggest change to date was that he became self-reliant:

> *I think going to college makes your life more independent, like you are more on your own. So, you have to do stuff like wash your clothes. You don't have a bedtime; you just sleep whenever you want to. You have to do the right thing.*

He also indicated, like the other graduates interviewed, that he did not see his friends as much as he used to because they were either working or with their families:

> *I have one friend who says that after work, he just goes home at night. He doesn't go out much because he is tired after work. He's working construction building bridges. He usually works from like 6:00 a.m. until 4:00 p.m. So like after he gets off of work, he usually just goes home and stays there.*

Now, when Carlos comes home, he spends time with his brothers playing soccer.

When asked if his aspirations have changed since going to college, he indicated that, now more than ever, he wants to graduate—to get a degree and make his life easier. He does hope to come back to Iowatown to teach and raise a family:

> *Well, since my senior year, I decided, like I was thinking that staying in Iowatown would be a good idea after graduating college because it is a good town and I think it would be a good place for my children to live because it is a small, nice town.*

When asked what he would like to tell his classmates when they gather for their 10-year class reunion, he said:

> *I would like to be able to tell them I have a really healthy family and I am still teaching school instead of playing soccer – that I am still the same guy, just with an education.*

Ways to improve

Carlos' focus on what needs to be improved centered on financial assistance. He felt that it was hard to identify what is available for students and that they need more assistance in identifying what is available. He also felt that, whatever programs are put into place to raise the awareness of available financial aid, parents should be involved so that they have a better understanding of the process and the resources. He also felt it was important that sessions should be held in English and Spanish, as his parents and some of his friends' parents did not understand English.

Most important lesson since high school

When asked, "What is the most important lesson you have learned since graduating from high school," Carlos' responses centered on responsibility and family:

> *Well, first I was taking college classes in high school, but it is not the same. You have to put a little more effort into it, because they are a little harder, that's one way. They are not that hard, but you just have to try a little bit harder. Because at first when I got to college, I just didn't try hard, because I took classes in high school. I realized halfway through the semester that I realized after that I had to try a little bit harder.*

Carlos' response concerning his family was reflective of the strength of their support for him:

> *It is just that we don't see each other that often, but I think our relationships have stayed pretty much the same. I think I've gotten a lot closer to my brother, because I didn't use to hang around with them when I was here. But now every time I come back, I hang out with my brother. We go to the*

recreation center and play soccer. He is always following me around and stuff like that.

Antonio

Since I was little I wanted to do auto body work. I've wanted to do that since I was 7 or 8 years old.

At the time of his interview Antonio was married and the father of a young son, and he had worked a variety of jobs since graduating from high school in 2005. He had been working full-time at a local foundry for the past year and occasionally worked part-time at a local restaurant, when they needed extra help.

Antonio arrived in Iowatown with his family in 1997 by way of California. Upon arrival he was enrolled in the ESL program. His family consisted of his mother, father, two brothers, plus his wife and a young baby. All but the baby were undocumented citizens. Antonio's parents attended school through elementary school and one brother had attended, but did not graduate, from college. His parents worked at the local meat packing plant and one brother worked in a local restaurant.

At his request, Antonio's interview was conducted in Spanish. He explained that, while he understood English, he thought he would be able to better express himself if the interview were in Spanish.

Academic achievement

When asked about this academic achievements, Antonio indicated that he had a bit of a bumpy past while enrolled in the Iowatown school system. While he aspired to go on to college, he took few classes that would be considered as college preparatory track, let alone an academically rigorous curriculum. He completed 3 years of English, 2 years of math, 1

year of a foreign language, 2 years of science, 2 years of history, and reported graduating with a 1.00 GPA.

Antonio was quick to state that he struggled academically in his classes. In addition, he was placed in the ESL program as soon as his family arrived from California:

> *What I realized is that in Iowatown you learn more English than in other states…. Here I learned more English and things [in general] are more calm than where we had been living.*

Engagement

Antonio indicated that he spent at least 20 hours a week involved in soccer and an equal amount of time with his friends. Aside from this accounting of his time, he did not elaborate on any other ways in which he was engaged in school activities.

Challenges and barriers

While agreeing with the rest of the graduates in the study, that finances were a major barrier to personal success and college, Antonio was the only one who openly admitted that not having proper documentation prevented him from attempting to go after his dreams:

> *I've always wanted to do auto body but I couldn't because it was not easy to get into college. Because there's no money, and besides that one can't get loans without papers or a social security number. One can't get loans and that limits your ability to study.*

When asked if he ever received any assistance in looking into colleges and training programs, he indicated that he was never taken seriously because he was considered *"a bit of a trouble maker"* and was failing some of his classes.

> *I never went* [to any college fairs or college rep visits] *because they* [the school administration] *don't let you go if you are not eligible. If you are failing any classes you are not eligible. I think they need to change that*

because what if someone later thinks of going to college but was never able to go to one of those things.

Antonio also made two additional observations that were related to not having proper documentation. First, if one does not have the proper education then one is limited to working low-paying jobs. In order to make enough money to pay for college one has to work more hours, and it is difficult to make enough money to support a family let alone save enough money for tuition and school costs. Second, all of the colleges that offered the program of his interest were at least a one-hour drive from Iowatown. He was also unable to afford reliable transportation. If his car would break down, or if he would get stopped for any reason, he ran the risk of being arrested, detained, and deported. These were risks that, at this point in time, he was not willing to take.

Aspirations

During his interview Antonio was unwavering in his aspiration to go to college and become trained in auto body skills. He had researched the program through the local community college and knew that it would cost him about $10,000 to complete the two-year program. He hoped that, in time, that he would be able to have his own body shop so that he could set his own hours and work for himself, instead of taking orders from others and following strict time schedules.

Support systems

Antonio indicated that he had very little support in his life. His parents were unable to provide any financial support; in fact, he had worked to support them. He did indicate that he did get emotional support from his family, in particular his mother:

> *My Mom. That's why I graduated* [high school] *because being here so long she became sad when I wasn't going to graduate. I graduated because of her. I didn't want to be a loser. To get through school and graduate, I was working full-time and then going to school. I'd wake up around 6:00 in the morning go to school, get out around 3:10 go home, change and go to work. I would get out at midnight or 1:00 in the morning.*

How life and aspirations have changed

While his aspirations had not changed, Antonio's life had changed since graduating high school. During his senior year his girl friend became pregnant. "*I was in high school so I had to start working to help my new family.*" As a result he has had little time to think about college, other than if he could get some training he could make more money and work for himself.

In addition to working to support his family, Antonio indicated that he rarely saw his friends from high school, particularly his friends with whom he played soccer, who are now in college.

When asked what he would like to tell his classmates at his 10-year class reunion, he laughed and said:

> *That I'm staying out of trouble, been a good parent, and hopefully I'm not stuck at the job I have now. Maybe I will go to school and I have my own shop. Maybe.*

Ways to improve

Antonio believed there was one major change that could improve the system for others. He would like to see the implementation of a system that would allow undocumented citizens like him have access to financial assistance, training, and employment after they are trained:

Some type of password (an identification) where you can be able to apply for loans and work. Because people like Carlos will eventually graduate from college and not be able to work anyways. A password that would let you go to college and when you graduate you can work.

If I had a social security number that would make it [life] easier. I could [go] to college and get loans to pay for it. I would change that if I could.

Most important lessons since high school

When asked, "What important lessons have you learned since high school?" Antonio responded that he had learned two lessons. First:

Well, one doesn't need to go to college to earn money. But you have to work a little harder. Worst schedules and they don't pay as good as a college job would.

and second:

Don't waste time. If you don't like school then you need to work hard at it so you can get out faster instead of being there and wasting time. You have a couple of years to learn things otherwise you don't end up learning anything and you end up being there longer. It's better to go to college right after you graduate high school because otherwise it becomes more difficult.

Because you still have emotions about being with your friends and continuing to study. Or then you end up making other friends who are working instead or you start going into debt with other stuff. It's easier to go to college before you start working.

Ana

When I was little I wanted to be a cosmetologist.

Ana was a stay-at-home mom who graduated from Iowatown High School in 2005. In 1998, when she was in 5th grade, she moved from Texas to Iowatown with her mother and two brothers: *"We moved here because it's better than living in Texas because of the gangs and stuff."*

Ana's mother was divorced and worked to support Ana and her son, and one of Ana's brothers. Ana's other brother was in jail.

Academic achievement

When asked about her experience in school Ana recalled that she really did not like school. She explained there were times when she would become annoyed with her teachers and got into trouble. However, she did feel that her junior and senior years went *"pretty well"* compared to the other years.

While in school she was enrolled in a college preparatory track, but did not complete a rigorous academic curriculum. She did indicate that she was enrolled in some special education classes and graduated with a 1.8 GPA. When asked what issues she had with her teachers and school, she responded that sometimes she did not pay attention, or she would fall asleep and not complete her assignments.

Engagement

Ana did not mention any school activities during her interview. She did indicate that, while in school, she worked approximately 16 to 20 hours per week at either a local grocery story or as a housekeeper for a local hotel. In addition, she provided more than 20 hours per week of child care for her son.

Challenges and barriers

When asked what challenges or barriers she encountered that kept her from enrolling in college, Ana replied the main reason was her son. However, she indicated there were several other factors that attributed to her not enrolling in college. Her economic situation

and her level of confidence also played a part in her decision not to continue going to school at this time.

When asked what barriers keep others from going to college, she indicated motivation and falling in with the wrong group. She felt that, once a person fell in with the wrong group of friends, it was hard to get straightened out and change.

Aspirations

At the time of her interview, Ana was no longer interested in becoming a cosmetologist as she had developed allergies to many of the chemicals used in processing hair. Her current aspiration was to become a medical assistant. She was accepted at the local community college to begin the program in 2007.

When asked what she would like to tell her classmates in 10 years that she has doing, she replied:

> *Hopefully by then, I will be able to go to school and stuff. And then tell them that I am working as a nurse and trying to go farther.*

Support systems

When asked to describe the most influential person in her life, Ana named her Mom:

> *I guess I would say my Mom. She is a single mom with four kids. In Texas, you didn't get a lot of money. She tried hard, but we never had enough money for what we wanted to do. She never had any money for us to go to college. That's why we all had jobs.*

How life and aspirations have changed

Since graduating from high school, Ana had worked two different jobs, but now stayed home to care for her son. When asked how her life has changed, she replied:

[Being a stay-at-home mom] was not something I really wanted to do, but I really didn't want to go to school after I graduated. I don't have a job. I can't get a babysitter and I live with my mom. [nervous laugh]

Ways to improve

Ana offered responses similar to those of the other study group members when asked the question, "How can the process be improved for students coming up through the grades?" She felt that more financial assistance was needed for students to be able to enroll in college. She also wished that some one would have helped her to understand at an earlier age that studying and going on to college was important:

I wish someone would have pushed me enough to help me graduate. I wish they would have started to push me earlier. Like if they told me you aren't going to graduate, you are [inaudible]. *The teachers like pushing me into it.*

Most important lessons since high school

When asked, "What is the most important lesson you have learned since high school?" she replied, *"It's not easy raising a son by yourself."* She indicated that, while she loved her son, she would have waited to have a baby:

I would have gotten a job or a career. I would have money for gas, a baby sitter, transportation and stuff. I would have gotten an education and stuff.

Elena

When I was little I wanted to be a police officer.

Elena is a first year student at a private college in central Iowa, majoring in computer science, and is a roommate with Carlota. She came from California to Iowatown in 1996, when she was in 1st grade. Elena considered herself a middle child with an older brother and sister, and a younger brother and sister. Her older sister is enrolled in another private college

in Iowa. Her older brother started at the local community college, but dropped out and is now working. Her parents were originally from Mexico, and worked in the local meat packing plant. Elena explained that she chose the college she is attending because it is close to Iowatown and she can visit her family on weekends.

Academic achievement

When asked about her academic achievement to date, Elena was quick to point out that she knew very little English when she came to Iowatown, but completed AP English and college classes during her senior year. Her academic coursework showed that she maintained and completed a rigorous academic curriculum, and achieved a 3.70 GPA. During her senior year she completed a college course—Introduction to Computer Literacy.

High-school environment

When asked if there was a particular teacher who had a significant influence on her, Elena recalled her English teacher. *"I would say, Mrs. K, she taught English. I think she really pushed us to the limit and she really challenged us."*

Engagement

Elena was actively engaged in Iowatown High School activities. While in school, she played softball for three years, averaging 20 or more hours a week in practice and games. She was a member of the National Honor Society and was active in DECA.

Challenges and barriers

When asked to describe challenges and barriers to higher education, Elena cited financial reasons, particularly access to financial aid for Latino students: *"There aren't many*

scholarships out there for Latinos. There is too much competition for too few grants." Second, she remarked about the way teachers teach, *"They need to be more responsive to students and they need to challenge the students more, and emphasize what is important."* Third, she advised that the school needs to offer more challenging courses. Finally, she brought up confidence; that students don't have the confidence that they can be successful, particularly if their English skills are weak:

> *They just don't think they can do it, and financial aid won't let them apply. And some don't have the grades to go to college. And there's citizenship. Some don't have the confidence that they can do it.*

When asked if being undocumented presented unusual challenges for any of her friends, she responded that lack of papers was not the issue. *"[Generally] people who don't have proper papers usually don't have the grades to go to college."* When asked to clarify her thoughts, she stated: *"I think the big excuse is they think that they can't do it, because it is a challenge. And eventually it [not going to college] becomes their reality."* When asked to clarify if it was a result of low motivation, she replied, *"Yes. If they have the motivation and no papers, they are still going to do it [go to college]*."

During several of the interviews, the issue of requiring a certain GPA in order to participate in campus visits was raised. When asked if she was aware of this, Elena responded in a different manner than some of the others:

> *I think that is a good thing because then they get the people that actually want to go to college. But then there were people when I went [on visits] that I knew they didn't have college potential. They didn't want to go to college; they went because they just wanted to get out of school. I think it's beneficial having a GPA cutoff; it limits the number of people attending who actually want to go to college and they can get more attention.*

Aspirations

As stated at the beginning of this profile, Elena mentioned that her earliest aspiration was to be a police officer. However, when she discovered that she might get shot, she decided to change her life's goal. As a result of taking college computer science classes in high school, Elena indicated that her interest changed to computers:

> *I always liked enjoyed computers. Like I took all of the classes in computers in high school. And I also took that college class at the local community college, called Intro to Computer Literacy. I really enjoyed that class. It opened my eyes to computers and what I can do with my knowledge. That* [emphasis] *class did because that one kind of put into my mind that I really want to work with computers.*

Elena recalled wanting to go to college since she was little, but it was in middle school that she actually realized that she could. She remembers counselors coming to the middle school to talk with them about going to college, classes that they might take, and different majors.

When asked what she would like to tell her classmates about herself at their 10-year reunion, she responded:

> *Well, I would like to think that I would have a career and a family and everything. I would like to talk to them about what my life has been after college, and what my job is like.*

Support systems

Similar to the other students in this study, Elena offered that her parents, particularly her mother, were the mainstays of her support systems

> *Well, my parents have encouraged me to go to college and they tell me that I can make it. And when I have to make a decision I usually just tell my Mom what I am thinking about doing and I ask like her opinion, and I go from there.*

How life and aspirations have changed

When asked how her life has changed since enrolling in college. Elena explained:

> *Well, I have seen that there is more to life than high school, and that there is a big picture and that with going to college there are more doors that will open because I will have a college degree.*

When asked how her relationships had changed with her family and friends, she was adamant that they had not changed for her family: *"I'm just not there, but I am still there, because we talk on the phone and I'm there on the weekends, sometimes."* However, she did indicate a change with her high-school friendships; that they had grown distant:

> *I think there is a difference, just because they know you are going to college and they know that they are not going to college. There is a thing* [pause] *I don't know, that it's really evident, it's just there.*

When asked if she would stay in Iowa after graduating college, Elena responded:

> *I've always kind of thought I would move from Iowa, because I don't see myself in Iowa, because I don't see doing what I want to do in Iowa. Because I'm into technology and Iowa is not a technology place. I would choose to leave because there are not a lot of opportunities here.*

Ways to improve

Elena offered responses similar to those of the other study group members when asked the question, "How can the process be improved for students coming up through the grades?"

> *Definitely the way teachers teach, they need to be more responsive to students and they need to challenge the students more, and emphasize what is important. They need to offer more challenging courses.* [pause] *And there needs to be more scholarship opportunities.*

When asked, "Several of your classmates took rigorous academic courses, as far as a lot of English, math and science, but they are not in college now. Do you have any speculations as to why or why not?" she responded:

Probably that college wasn't for them, or that they started to work thinking they would save for college and then the money got to be the big draw. Or that they went to college, stopped out to work, and then realized they don't have enough money to go back to college.

When asked if she would change anything about growing up in Iowatown, she said:

I don't know, particularly for me, I always enjoyed living in Iowatown because there are so many Latinos. There's this big community of Hispanics, and I really like that, I can relate to them. Because in college, I don't have that, and I kind of think it's hard to relate to other students in college. There's no one that I can say to, "Look at how hard I had to work to get here" because they haven't been where I have and they can't relate.

Most important lessons since high school

When asked to talk about the most important lesson she had learned since going to college, she responded

My mind is more challenged. I know that I can be anything I want to be.

Well, like before my only goal was to finish college, but now it's pretty much about getting a job and what kind of job I'll get, and where I'm going to do it. Well, my own goal right now is to finish college and then finding a job in my field.

Making Meaning of Participants' Voices

The qualitative portion of this study was designed to explore Iowatown graduates' responses to the following research questions, based on student college choice literature:

5. How do rural Latino high school students describe their decisions to pursue or not to pursue a postsecondary education?
6. For those who attend postsecondary institutions how does it change their lives?
7. For those who do not attend a postsecondary institution how have their lives changed since high school?

When exploring these questions eight themes emerged from the graduates' stories. The findings are intertwined within the following elements from the predisposition phase of Hossler's and Gallagher's (1987) three-phase general model of the student college choice process: learning environment, academic standards, faculty expectation and validation, student engagement, dominant culture, cultural factors, family, and socioeconomic status.

Cultural factors

Dominant culture

In sociological studies the term *dominant culture* is used to focus on ways in which the socially advantaged and disadvantaged define their positions in a setting (Reay, 2004). It became evident during the interviews that the participants had learned to survive within the dominant White culture of Iowatown, but that they were not always satisfied with their past or current positions. Several were very candid in their views, especially on the topic of Latino stereotypes as portrayed by the media, especially of Latino women as being pregnant, stupid, and relying total on the males in their lives. They wanted more out of life than being identified as *"girls getting pregnant, going off with their boyfriends, or working as a common laborer."*

Carlota recalled the sacrifices her parents made both in Guatemala and here, and, as a result, stated: *"I just want to one day, to go to a job interview and be able to say, 'Yeah, I'm a Latino woman, and I am a college grad.' "*

Unfortunately, despite the academic opportunities and mentoring provided to her through TAG and the Women in Sciences Program, Raquel succumbed to the stereotype by

becoming pregnant during her senior year. However, she continued to profess that she will overcome her situation, go to college, and become more than blue-collar working mother:

> *...I was able to, graduated early because I was pregnant. I was scared about what they [others] thought, but now I know that I am not the only one; that I am one of many people who have recently had a kid* [laughs]. *So, really I would just like to prove to them that it really doesn't matter anymore.*

In particular, Raquel and Carlota were quite adamant that not only did they personally want to break out of the media stereotype, but they also felt the school district needs to take some action on this issue. Carlota stated it this way:

> *I would tell them [the school district] to support them [students] because a lot of kids don't have the support that I had. I had the support of my family. They know the importance of studying; they know the importance of going to college. But some of the students, the kids, their parents haven't had the college experience – they have had other experiences, such as you are suppose to get married, that's your job. And remotely they have in the back of their minds, "No, I don't want to do that." It is important for them [the school district] to nurture and help promote alternatives. That would help a lot. I know a lot of people give up. They get into a certain pattern, and they just give in. They think "This is it." I know a lot of people who want something more and by that I mean like an opportunity to do more with their lives.*

Several of the graduates spoke about how they felt when they came to Iowatown. They described the experience of feeling like they were "*the odd kid in the class, as no one else was brown*." Even to this day, they had not quite shaken this feeling of being different and "*sticking out*" in a White culture. More recently, for Carlota, it happened when she went on overnight visit to a small private college in South Central Iowa.

> *I came to a conclusion [to attend my current college] that since I went to College B and spent the night over there. I did not like it because it is a very conservative white population. At night I went to some of the stores* [pause], *which my college is kind of like that, too, but with College B, like the town,* [pause] *It kind of reminded me of when I first came to Iowatown and I went to the store and everyone stared at you, and you don't know if they are staring at*

you because you are a stranger in town or because you are brown. So you get that feeling; so definitely like I'm not coming here; I don't like it here.

As for Antonio, being Latino is something he is reminded of every day. He indicated that he was never taken seriously while in school, because he was considered a bit of a trouble maker. He felt that, because of this "label" and the fact that he was not White, he did not get the assistance he needed and did not do well in his classes. As a result he has not been able to go on for further training. Today he is employed as a common laborer trying to support his new family with little hope of getting beyond his current situation.

Ana echoed Antonio's experience in that:

Sometimes when a person is trying to find 'their place' they fall in with the wrong group of friends. Then it can be difficult to get straightened out and to prove to others that you can do better. In Iowatown, if you are Latino and in with the wrong group nobody thinks you can do better.

English

All seven participants indicated that they spoke English. Five of the seven learned English through an ESL program after they arrived in Iowatown. Each participant commented that, if a student did not have a command of English, he or she would probably not be able to survive academically or be successful after high school. Tomás personalized this message by recalling his experience in learning English and what he observed of his friends' experiences:

In high school I took Spanish III my freshman year and then Spanish IV my sophomore year. I noticed that a lot of my friends were having a hard time reading at that age. I think if they changed teaching Spanish to a younger age, like maybe middle school, it might be a lot easier for students to learn English.

Carlota pointed out two very important issues about the dominant language of English. She recounted that, when she first came to the Iowatown, she did not know English and became withdrawn, which was the opposite of her normal personality. This comment, when paired with Antonio's comments regarding his need to know English to be successful, points to the issue of overlooking an individual's true potential because they are outside the dominant culture.

Second, Carlota pointed out that gaining fluency in English can cause a rift within the Latino community. Persons who have accomplished English fluency alienate themselves, are considered elitist, and are avoided by their non-English speaking friends within their Latino community:

> *...By that time in high school, some of us were very fluent in English and some of them coming [here] didn't know English or they knew very little English, so that made a barrier I guess. They didn't want to talk to me. It was harder for them to adjust. Most of them spoke Spanglish and throughout high school they spoke Spanish. They created their own barrier.* [inaudible] *So it was more segregated among us than in the beginning.*

She felt that it is very important that the school district or someone needs to address this growing issue. Carlos' experience added credence to Carlota's feelings about the need for the school district to take action. Carlos' parents did not speak or read English, therefore, he needed to rely on resources other than his parents to understand materials he was given at school. In turn, he needed to explain these processes to his parents, many times serving roles as interpreter and educator.

Family

Parental encouragement and support are considered to be strong contributors to student success in high school and enrollment in college (Hossler & Stage, 1992; Hossler et

al., 1999; King, 1996; McDonough, 1994; Rumberger, 1995). The participants' stories of their families provided insight into the influence they have on these graduates. Through these stories it became evident that family can be a double-edged factor (Hossler, Schmit, & Vesper, 1999).

Support

The participants unanimously cited their parents as being a major support system in their lives. Examples of this support ranged from "*encouragement*" to "*do well in school*," "*economic support for college expenses or child care*," to "*emotional support*" when making decisions or encountering life's challenges.

When asked which parent they would turn to for assistance, every student stated that their mother was their strongest supporter. Each felt their mothers saw their potential and encouraged their abilities. Tomás' mom encouraged his love for art by helping him to set up a studio. Carlota's, Elena's and Carlos' moms shared their pride of being in college. Raquel's mother still believed that she will go on to college. Antonio expressed his desire to not disappoint his mother, due to her faith that he is a good person. As a result of her faith and belief in him, Antonio finished high school:

> *My Mom. That's why I graduated [high school] because being here so long she became sad when I wasn't going to graduate. I graduated because of her. I didn't want to be a loser.*

Barriers

While the participants relied on their families for support, several alluded to the fact that their families were actually the barriers to their personal goals and success. Raquel, Ana,

and Antonio had small children. Their new families were one of the first reasons cited as they told their stories of why they did not go on to college.

Raquel explained that she did not enroll in college because of her daughter—being a single mom with child-care expenses and tending to her daughter's needs made it difficult. Even with free child care, she felt it would be difficult for her to take unpaid leaves from her job to commute to and from a college to attend classes.

Ana indicated that, while she loved her son, she wished she would have waited to start a family. She implied that she should have gone to college and started a career prior to having children.

Regarding Antonio, he not only gained a son while in high school but also a wife. While he did not name his son as the major reason for not going on for some type of post-high school training, he did imply that becoming a father had complicated his life in ways he had not anticipated.

Socioeconomic status. As stated in Chapter 2, socioeconomic status was not originally selected as a factor of interest because defining parameters were perceived to be too subjective in nature. However, as the interviews progressed, elements related to socioeconomic status emerged. In the interviews, students were not asked about their personal finances or their families' socioeconomic status, yet they gave responses that provided insight into their personal situations. For example, two themes emerged that appeared of particular significance for all of the participants—U.S. residency status and finances. It was interesting to note that the significance of U.S residency status was a notable result of the logistic regression analysis reported in Chapter 4.

U.S. residency status. In many regards, U.S. residency status was the "unmentioned elephant" in the room for four of the seven participants. Each of the participants gave accounts of how difficult it is to access college or achieve any type of success if one is not a U.S. citizen. Among the seven participants, Carlota was in the U.S. on a political asylum visa, and had recently been issued a green card. Carlos and Antonio were undocumented immigrants. Tomás was from a blended family (i.e., he was a U.S. citizen but his parents were not). The issue of U.S. citizenship for these Iowatown graduates had created additional barriers that each has had to face.

As mentioned previously, Carlota came to the U.S. with her mother on a political asylum visa. While her visa allowed her to legally be in the United States, it did not provide Carlota with a permanent status; therefore, she was not eligible for state or federal financial aid assistance until her permanent status was approved. Carlota was concerned about how she would be able to finance her dream of going to college:

> *I guess it was more of the immigration issue because while I was here my parents were here on asylum. We are kind of refugees because of the civil war in Guatemala and I did not have my green card and I did not get my green card until the summer before I went to college. So, definitely that was one of the things that influenced me, "Please let me get my green card, so I can go to college!" because if I didn't have my green card, I wouldn't be able to get my scholarships. So, that is when I decided [to go to college] if I get it [my green card], I am definitely going to school.*

Carlotta indicated that she changed her life style during high school because she did not know when her green card would be approved. She wanted to ensure that she would be able to pay for college as her parents did not have any extra money, and she was uncertain about her eligibility to receive state and federal financial aid assistance.

> *So I started saying the only way I would be able to go to college was if I got scholarships. So I turned more of my attention into "I've got to get good*

> *grades". I started cutting back on my activities and hanging out with my friends. I knew my GPA and courses were in line with me going to go on to college.*

While this shift in lifestyle enabled Carlota to achieve a 3.62 GPA and recognition for her accomplishments by Iowatown faculty and students in the form of being the 2006 student commencement speaker, it does raise the question of what activities she might have excelled in if she had been able to spend time at extra curricular activities.

While Tomás was a U.S. citizen due to his birth in California, his parents were not citizens. Since he lived with his parents, Tomás was ineligible to apply for state and federal financial aid, as he was unable to meet the requirements of the federal government to apply for financial aid as an independent college student:

> *I wasn't eligible for financial aid at a local business college, because of my situation with my parents; I didn't end up getting any assistance. I wasn't eligible for financial aid. It might have helped out with books if I had gotten scholarships.*

To afford college, Tomás enrolled in the local community college due to its low tuition. In order to pay the tuition, he worked two part-time jobs—one at a local farm implement store and the other by working with his brothers to install windows. His parents helped by providing Tomás with money for gas or lunch when they were able.

Carlos and Antonio were both undocumented immigrants. They shared this status, yet each had taken a different path towards life after high school. While Carlos and his parents were undocumented, his sister was a U.S. resident. It has been through her assistance that Carlos has been able to afford to enroll in college. Although Carlos told his friends that he enrolled at a central Iowa community college so that he could play soccer, there were two other reasons: first, the low tuition and, second, he could live in the residence hall. Living in

the residence hall enabled him to avoid the risk of getting stopped while driving and having to produce a driver's license. One of the ways that Carlos' sister has helped him was by conducting searches for scholarship programs open to minority students that do not require proof of U.S. citizenship. Another way was by helping Carlos to file the paperwork associated with becoming a U.S. citizen.

Antonio envisioned the issue of not being a U.S. citizen as more than not being able to go to college; it was a barrier to having a good life. He found some irony when considering that his parents brought him to the United States to have a better life than what they had in Mexico. Antonio saw himself in an inescapable circle. If he were educated, he could make more money and have an easier life. Yet, he is unable to get the training he would like because he does not qualify for a student loan because he is not a U.S. citizen. Even if he could find the money to pay for the training he faces two additional obstacles. First, he cannot afford to buy a reliable car and is concerned that his old car might break down when he is commuting to school. He runs the risk of being deported if he is stopped [by the police]. Second, lack of a green card or U.S. citizenship also limits his ability to work for some employers.

U.S. Immigration laws allow individuals such as Carlos and Antonio to apply for citizenship if they have a relative who is already a U.S. citizen. Once the process begins it could take anywhere from 5 to 7 years before approval is granted. This was not a problem for Carlos as his sister was over 21 years of age. However, Antonio's situation was further complicated as his relative is his son. In order for Antonio to qualify using his son as his relative of record, he must wait until his son turns 21. Then it will take another 5 to 7 years for approval. If Antonio follows this process, the earliest he can apply for citizenship is

when he is 41 years old. It is Antonio's dream that something will be enacted legislatively to alleviate his situation:

> *[There needs to be] some type of password, an identification number, where you can be able to apply for loans and work. Because people like Carlos will eventually graduate from college and not be able to work anyways. A password that would let you go to college and when you graduate you can work.*

Financial

Discussion of financial issues was prominent in each graduate's stories. What is striking is that their comments and concerns were not limited to whether or nor they could qualify for financial aid. Their concerns were much broader and, thus, are presented as three sub-themes that emerged from the data: family resources, paying for college, and associated stress.

Family resources. Participants recalled that their parents brought them to Iowatown to have better lives than their parents had. Their parents came to Iowatown because there was employment. However, despite the fact that they were employed, their children observed that money was tight. Carlota recalled her family's situation: *"Throughout high school my parents could barely get a house and could barely pay for the bills."* Antonio remembered his situation as having very little money for extras.

The seven participants worked at some point while in high school. In some cases, they worked to cover their own expenses and to gain some work experience. However, two students (Ana and Antonio) worked to help support their families

All of the participants were aware that family resources affected their dream of going to college. Since family finances were tight, they would have to find outside financial assistance if they wanted to go to college.

Paying for college. Research studies by the Tomás Rivera Policy Institute (2004) have revealed that one of the major reasons Latinos do not enroll in college is that they and their parents do not receive financial aid information while in high school. Based on the SIAS responses and the interviews, this was not the case in Iowatown. Each student who was interviewed had received financial aid information and was keenly aware that financial aid was an important part in going on to college. The issues that the participants had were not of the financial aid process but that there were other qualifiers that did not allow them to access the system, such as citizenship and grades. As Carlota observed:

> *There is some limited access and it is probably…. Well, first of all, if you are a minority or if you got good grades. If you don't have good grades, you're not going to be going to college. So, yes there are very limited resources. A lot of people say, "Oh bull, all you have to do is file the paperwork". That's not true; there are so many requirements, besides that. It is hard. It is really hard.*

As a result, Iowatown Latinos looked for other means of assistance, such as lower-cost institutions, outside scholarships, or military service. Carlota recalled that, while helping at a recent Latino Education Expo, she talked to girls from Iowatown about what they were going to do after high school and was disturbed with their responses:

> *…I got a chance to go up there and volunteer at that [Latino Expo]. It was kind of fun because I went up to a lot of girls and I asked them what their plans were for college and what type of college they would like to go to. Most of them wanted like a community college. I asked them why and most of them said it only takes two years and it is cheap and in two years they would be working. I kind of saw that and they kind of have a reason you know. They*

> *want something that isn't going to put them in debt; that will give them resources and a job.*

Another means by which some Iowatown Latinos have found ways to pay for college, was through military service. Tomás explained that he had considered this as an option, until his mother talked him out of it:

> *Like I have a few friends that have gone to the Navy and one that went to the Army because of financial [assistance], just so they could have them pay for college. And I think that's a smart idea. They just don't have the money to go to college, so they will do something to get the money to go to college.*

Stress. During the interviews each graduate mentioned in some form or another that money was tight for their families. Two, Ana and Carlota, were more descriptive about their personal situations. Ana recalled her family situation as always having been financially tight and that was one of the reasons her mother moved them to Iowatown:

> *[My Mom] she is a single mom with four kids and in Texas; you didn't get a lot of money. She tried hard, but we never had enough money for what we wanted to do. She never had any money for us to go to college. That's why we all had jobs* [inaudible].

Carlota's situation described a different form of stress related to finances:

> *It affects,* [pause] *your life a lot* [spoken with emphasis]. *In the back of my mind still, right now, as a freshman, I think about going to school next year as a sophomore, I think about "How I am going to get my money?" I have loans that I will have to pay back. They are around $6,000 and I am barely coming out of my first semester.*

In addition, several who are enrolled in college mentioned that they have observed financially related stress among their friends who had not gone on to college. Tomás provided an example that best summarizes the comments of the college participants:

> *Yeah, I have a few friends who didn't go to college and another one that didn't finish high school and he is having a really rough time right now. He's working part-time jobs, three part-time jobs, [pause] and he and his family is*

> *really struggling because of bills, car insurance, car payments, and rent or paying for a house or whatever. He needs more then what he is making, it's like, its super tight* [trails off].

The unspoken comment that each provided was, *"I'm glad that's not me."*

Parental education attainment

The graduates were asked at the onset of each interview when they came to Iowatown. Each offered the reason they came was because of their parents. More important, however, was the underlying reason their parents brought them to Iowatown—to obtain an education.

A review of the participants' stories and their SIAS responses revealed that only Raquel and Elena had parents with college degrees. Thus, 5 of the 7 participants were potentially first-generation college students. It is interesting to note that, while the parents might not have obtained a college degree, they instilled in their children the importance of having a college education.

Educational environment

Need for improvement

Toward the end of each interview, the graduates were asked what changes they would recommend that might help students coming up through the Iowatown K-12 system. They were very open regarding their comments and did not hold back their thoughts. Their recommendations fell into three categories: support, financial assistance, and social policy change.

Support. Raquel, Ana, and Carlota were very passionate about the need for more support for students and their parents. Raquel expressed concern that not, only did students need more personal assistance, but also the Iowatown High School needed more counselors to assist with the students' needs:

> *We probably have 1,000 students in Iowatown High School now, almost 1,000. I think we need more counselors. Three counselors can't handle all of those kids. I know when I try to talk to a counselor, I had to wait an hour or more just because there were tons of other kids in there.*

Ana expressed the desire that she wished someone had provided her with some mentoring:

> *I wish someone would have pushed me enough to help me graduate. I wish they would have started to push me earlier.*

Carlota's comment helped to articulate Ana's request for help:

> *I would tell them [the school] to support them [students] because a lot of kids don't have the support that I had. I had the support of my family. They know the importance of studying; they know the importance of going to college. But some of the students, the kids, their parents haven't had the college experience – they have had other experiences, such as you are suppose to get married, that's your job. And remotely they have in the back of their minds, "No, I don't want to do that." For them to nurture that thought, to help promote alternatives. That would help a lot. I know a lot of people give up…. I know a lot of people who want something more and by that I mean like an opportunity to do more with their lives.*

When asked to define what types of support they felt the school should offer, the graduates mentioned three: college planning, financial aid, and moral guidance.

Carlota suggested:

> *More than anything, I mean, yeah, there's financial support, but also just moral support because yes a lot of people are out there who really don't mean to get into trouble. They're out there, but they need to be shown. They have self-doubts; they just have to get past it. You have to shut it off.*

She also mentioned that one way to help students learn about alternatives to factory work is to have former students come back and talk about what they are doing and what they had to do to get there.

Elena suggested that, another way to help students, was that teachers need to adjust the way they teach. "*They need to be more responsive to students and they need to challenge the students more."*

An additional way is to offer college classes in Iowatown so students do not have to commute so far. This would also enable them to save on costs associated with going to school. As pointed out by Raquel:

> *It would be good if classes were offered here because I wouldn't have to worry about child care so much. Also it would be expensive if I had to drive to one of the colleges in the area to go to class. Not only would I have to think about day care cost, but gas, and taking the time away from work.*

Financial Assistance. The participants universally stated that more financial aid in the form of scholarships needs to be made available. As Elena surmised, *"There aren't many scholarships out there for Latinos. There is too much competition for too few grants."*

In addition to more funding, several of the participants suggested that parents needed to be more involved in the educational process regarding the process of applying for college as well as for financial aid. In addition, parents need to emphasize the importance of college in one's life after high school. Tomás suggested:

> *Maybe you should mention college a lot more. You know, let them [students] know how important that it will be to their future. Because basically we are the future. You need to mention how important it will be because I have friends that dropped out of school and I think their parents didn't let them know how important it was [school] and in school they didn't care much about it, so they didn't participate in the college visits that we were able to go*

> *to. I think we need to push people, students more, towards college, so that would help them out.*

Carlos suggested sending letters to raise the awareness of parents:

> *Colleges do send letters, but I think some parents don't know what's going on. We should be letting parents know how important it [college] is. We should be letting parents know how important it is to their kids' future.*

He mentioned that an appropriate time for this activity would be for middle school students, so they would take the information they receive in high school more seriously.

Making the system more open. Antonio commented that he did not get to attend any college fairs or college representative visits because of the eligibility requirements. He felt this excluded the very people who needed the assistance the most.

> *I never went because they don't let you go if you are not eligible. If you are failing any classes you are not eligible. I think they need to change that because what if someone later thinks of going to college but was never able to go to one of those things.*

Rachel comments mirrored those of Antonio:

> *Ok, I was involved in the Talented and Gifted Program [TAG], and I know they made a lot of opportunities for us to visit colleges. I think they need to make other programs like that [available] for other kids to get them more involved in wanting to visit colleges.*

Social policy change

Elimination of No Child Left Behind. Raquel, Carlota, and Antonio were more global in their thoughts about what needs to be changed in order to help students. For Raquel, it was the current No Child Left Behind legislation. She felt this legislation is detrimental to communities like Iowatown:

> *Well, I am really against the No Child Left Behind program because I don't think it is a good program for, especially Iowatown because we have such a*

> *wide range of minorities. It is not fair to them [the federal government] to make [students] to take the standardized tests, because some of them don't even know English. The results of the tests are what they base our financial need on. How fair is it to cut our funding off when you don't do well on the standardized testing? We need even more funding to help these children to learn English so they can do better on the standardized tests.*

United Latinos. Carlota felt that the school district and the larger community needed to look into the need to unite the various sectors that make up the current Latino population:

> *...the [Latino] population is getting bigger and varied [from more than one country, culture]. There is kind of that barrier amongst us. It's a barrier of being outside our race. It would help a lot if they would get up and try to unite us, because we are not united at all. Sometimes we are united in important immigration issues, other than that we are not really united. So, if somebody would unite us that would be awesome.*

DREAM Act. A concern about the implications of proposed legislation regarding undocumented immigrants was a topic of great concern for Antonio. In essence, what he was describing in his wish for a number was something comparable to the portions of the federal DREAM Act legislation (e.g., the Development, Relief and Education for Alien Minors Act). The original legislation was proposed in 1996 and continues to be a central point of discussion concerning U.S. immigration issues.

> *Well, if I had a social security number that would make it easier. I could go to college and get loans to pay for them. I would change that if I could*

Academic standards

Longitudinal studies by Adelman (1998; 1999) suggested that the strongest indicator of whether or not a student will enroll in college is if he/she has completed a rigorous academic curriculum in high school. This curriculum is defined as 4 years of English, 4 years each of math, science and history/government, and 1 year of a foreign language. What

Adelman's research did not address is: What factors influence student enrollment and completion of a rigorous curriculum?

The participants of this study provided some possible insight as to what needs to occur before rural Latinos can complete a rigorous curriculum. The major obstacle for them was gaining the necessary English skills. Several remarked that the challenge can be overwhelming to learn the basics of a complex language such as English while simultaneously trying to master the other academic requirements.

Despite not knowing English when they first came to Iowatown, 4 of the 7 participants (Raquel, Tomás, Carlos, and Elena) completed a rigorous curriculum. Three students (Carlos, Elena, and Carlota) were enrolled in college classes while in high school.

Faculty Expectation and Validation

Validation of worth

One of the strongest themes that emerged from the interviews was the desire of each for the validation of their individual worth. None were aware that this was a message they were offering; they saw their comments simply as responses to a series of interview questions. However, when their comments were placed side-by-side by the researcher, their combined message was powerful.

Raquel recalled a time when she was trying to meet with a guidance counselor, and had to wait due to some of her classmate hanging out in the counseling office. She wanted someone to recognize that her time was valuable and that her issues were important.

On one hand, Tomás and Carlos recalled being impressed by teachers who took the time to recognize their efforts even though they did not ask for such recognition. On the other

hand, Elena expressed concern that she had overcome so much, but felt her accomplishments were not being noticed:

> *…it's hard to relate to other students in college. There's no one that I can say to, "Look at how hard I had to work to get here", because they haven't been where I have and they can't relate.*

Carlota mentioned she would like the community to recognize that Latinos are people, the same as Whites or Blacks. While she wanted to be recognized, she did not want to be put on display or to be viewed as *"the odd kid."*

Ana and Antonio expressed their messages of recognition in a different light. Their combined message was they did not want to be forgotten.

Motivation

From a researcher's perspective, the words determination and tenacity came to mind as the stories in the transcripts were reviewed. While only one graduate actually mentioned motivation in reference to lack of motivation, all seven provided examples of the concept. Their efforts to master English, work to achieve good grades and complete high school, jobs to support their families, and searches for financial aid resources provide evidence that motivation, particularly self-motivation, has played a strong role in where they are today.

The negative comment from her 7th grade math teacher gave Raquel the motivation to excel in math, and complete Calculus her senior year. Carlota, Tomás, Carlos, and Elena were motivated by the ESL instructor to learn English so that doors would open to them. Tomás recalled his art teacher who encouraged him to expand his art and to think about teaching. Antonio mentioned that his Mother's faith in him provided the motivation for him to finish high school.

The one negative reference concerning motivation came from Elena, in the context of why some students do not go on to college. When asked if being undocumented presented unusual challenges for any of her friends, she responded that not having papers was not issue:

> *[Generally] people who don't have proper papers usually don't have the grades to go to college. I think the big excuse is they think that they can't do it, because it is a challenge. And eventually it [not going to college] becomes their reality. If they have the motivation and no papers, they are still going to do it [go to college].*

Student Engagement

There is a belief held by some in the higher education community that, in addition to academic achievement, the more students are engaged in high school activities, the more likely they will graduate and enroll in college (Chen & Kaufman, 1992). However, engagement in school activities may be counter to some students' goals. Carlota pointed out that, because she needed to get good grades to qualify for scholarships so that she could go on to college, she cut back on her school activities and socializing with her friends.

Antonio provided another example which revealed that this theory may not be applicable to the current study. Antonio admitted that he did not do well in his high school academic studies. However, he compensated for his poor academic performance by actively participating in the school's soccer program and logging over 20-hours of time per week. Unfortunately, while he achieved high social participation, it did not make up for his low academic performance.

Summary

This chapter presented the qualitative findings of the study through analysis of a group profile of the participants, individual profiles, and a summary of eight emergent

themes: dominant culture, English, family, U.S. residency status, financial issues, the need for improvements, validation of worth, and motivation. When presented collectively these themes provide an understanding of why rural Iowa Latinos do or do not enroll in college.

Based on data from the interviews, the researcher was able to provide rich, thick descriptions of how these Iowatown graduates remembered their Iowatown high school experiences, and what they encountered along their way which influenced their decision to attend college and provided a backdrop to the journeys they were currently taking.

Chapter 6 includes the findings of this study intertwined with related literature. The chapter also includes a discussion of implications that can assist school administrators, college admission and retention personnel, and state and federal policy-makers. In addition, the researcher describes her personal reflections regarding her journey throughout this mixed method research study.

CHAPTER 6. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

"As citizens of the United States, we are all descendants of immigrants." –J. Swilky (2007)

There is a widely held perception in the United States that each individual has equal access to economic opportunity and upward mobility. For many the key to success is education. As a society we want to believe each individual has equal access to educational opportunities, however, for some this is not the reality.

The purposes of this study were to gain an understanding of how students' background characteristics effect the college decision-making process of rural high school students, and identify barriers rural Iowa Latinos encounter when formulating their post-high-school plans. This chapter examines characteristics and barriers identified in the results by utilizing Hossler's and Gallagher's (1987) theory of student college choice to frame the analysis.

This chapter provides a summary of this research study, and is organized into the five sections: (1) summary of the study; (2) data analysis and research findings; (3) discussion of findings; (4) implications for practice and policy, and (5) recommendations for future research.

Summary of the Study

Chapter 1 described the importance of the tie between educational achievement and individual and societal economic success, with particular attention to the importance of educational access for rural Latinos. This chapter provided an overview of several perspectives of influence on college attainment, including current shifts in the U.S. population and previously recognized barriers to higher education. Despite the breadth of

research concerning access to higher education, there are few studies that address the personal and cultural factors which impact rural high school students' enrollment in college. This study proposed to inform the higher education community by extending the literature regarding college access for rural students, more specifically rural Latino high school students.

The literature review in Chapter 2 presented theoretical concepts associated with providing social equity in education, and three recognized approaches to the college choice process: sociological, econometric, and combined. Reviewing these models provided a foundation for understanding the various factors that can be present in the college decision-making process. This summary of concepts included: social capital (Bourdieu, 1990), situated contexts (McDonough, 1997; St. John, Paulsen, & Starkey, 1996), the concept of habitus (Berger, 2000; Bourdieu, 1997), the phenomena of high school students' college choice process (Cabrera & La Nasa, 2000; Hossler et al., 1999; McDonough, 1997; McDonough, Antonio, & Trent, 1997), and validation of culturally diverse students (Rendón, 1994). Following the review of social equity theories, the researcher described current enrollment and population trends of students enrolling in college, and introduced factors in Latino identity. The remainder of Chapter 2 reviewed and discussed the factors that influence access to college and placement of these factors within the predisposition phase of Hossler's and Gallagher's (1987) theory of student college choice.

Chapter 3 presented the data and methods used in this mixed method study and provided a hypothesized logic model for college aspiration (Figure 3.3) based upon the literature reviewed in Chapter 2. The expansion of a previous pilot project was presented,

and the method in which qualitative data would be used in conjunction with the quantitative analysis of the study.

Chapters 4 and 5 contained the results of the quantitative and qualitative analyses. The analyzed data of SIAS survey were presented and quantitative research results applicable to each research question. Chapter 5 presented an analysis of the rich, thick descriptions of eight themes that emerged in the qualitative portion of the study. This analysis was presented in identical order of the placement of the results reported in Chapter 4.

Data Analysis and Research Findings

An explanatory, mixed method sequential design (Creswell, 1994) was used in this study as a quantitative approach is generally unable to explain the cause and effect of relationships between variables. In keeping with the sequential design of this study, the data analysis and research findings were separated into two subsections—quantitative and qualitative

Quantitative data

Research question 1: What are the background characteristics, high school experiences, and students' perceptions of high school for the students who responded to the Iowatown Student Impressions and Aspirations Survey (SIAS)?

Descriptive analysis, based on frequency comparison, was used to answer this first research question. As illustrated in Table 4.1, the results of the 2005 and 2006 cohorts were combined to reveal the general characteristics of the study sample (*N*=182). The study sample consisted of 75.8% Whites and 24.2% Latinos.

Research question 2: How do the background characteristics, high school experiences, and student perceptions of high school differ between the Latino and White students who responded to the SIAS?

Descriptive analysis, based on frequency comparison (Table 4.2 – 4.6) and a comparison of means and standard deviations (*t*-tests) was used to address this question (Table 4.7 – 4.11).

Background

Whites were more likely to report being U.S. citizens, English as their first language, and both parents having attained at least a high school degree, if not higher. Latinos were more likely to report not being U.S. Citizens; English was not their first language, and both parents having completed less than a high school degree. Of the students who reported parents attaining college degrees, Latino mothers were more likely to have attained a 4-year degree (Table 4.2). A statistically significant difference for Latinos was revealed for having more than 3 adults in the household ($p<.05$). Statistically significant differences for Whites were revealed for mothers being more likely to have attended college ($p<.001$) and fathers being more likely to have attended college ($p<.001$) (Table 4.7).

High school experiences

Academic achievement. Whites were more likely to report a GPA of 3.0 or higher. Between the two groups only 34.6% of the sample completed an academically rigorous high school program. While Whites were more likely to complete a rigorous program, it was noted that Latinos were more likely to complete 3 or more years of science and math than

Whites (Table 4.3). A statistically significant difference for Whites was revealed for having completed four years of English ($p<.001$) (Table 4.8).

Engagement. Over 50% of both groups reported not being involved in organized high school activities (Whites, 52.2%, versus Latinos, 54.4%). Of those who did participate, they appeared more likely to participate in sports (Table 4.5).

Student perceptions

Educational environment. Overall, Latinos were more likely to agree that their high school experience was positive in nature. This assumption is based on the responses the graduates provided for seven statements in the SIAS instrument (Table 4.4). Statistically significant differences for Latinos were revealed for "*being academically challenged*" ($p<.01$), "*feeling valued and supported*" ($p<.001$), "*teachers provide second chances*" ($p<.001$), and "*teachers are responsive when asked to provide assistance*" ($p<.05$) (Table 4.9).

Challenges and barriers. Whites were more likely to work-for-pay than Latinos; however, Latinos were three times more likely to report working to support their families. Over three-fourths of each group reported having received financial aid information while in high school (Table 4.6). A statistically significant difference for Whites was revealed for working more than 20 hours per week ($p<.01$), whereas statistically significant differences for Latinos were revealed for being involved in housework ($p<.05$), and in child care/babysitting activities ($p<.05$) (Table 4.11).

Research question 3: What background characteristics, high school experiences, and student perceptions of the high school predict Latino and White students' intentions to enroll in college?

Sequential multiple logistic regression analysis, a multivariate statistical method, was used to determine which independent variables most effectively predicted graduates' aspirations to attend college (Table 4.12). Two variables were identified as predicting graduates' aspirations: GPA and U.S. residency status. The results suggest that graduates who were U.S. residents and had higher grade point averages (GPA) were more likely to aspire to enroll in college than were graduates who were not U.S. residents and had low grade point averages.

Research question 4: Among the White and Latino students found to enroll in a college, how do their background and high school experiences differ from those who did not enroll?

Descriptive analysis, based on frequency comparison, was employed to answer this research question. Four comparative tables were developed.

As indicated by the results for graduates who aspired to attend college, those who enrolled, and those who did not enroll (Appendix F-1), 141 of the sample of graduates, indicated they aspired to attend college, of which 87 (61.7%) enrolled in college. Approximately half of the aspiring graduates would have been considered first-generation college students, had they enrolled in college. Of those who enrolled in college, 67.8% had achieved a high school GPA of 3.0 or higher, and were twice as likely to have completed a rigorous academic curriculum than the non-enrollees.

As indicated by the results for graduates who enrolled in college versus those who did not (Appendix F-2), 94 of the sample of graduates enrolled in college and 88 did not.

Graduates who did not enroll in college were more likely to report coming from families where parents "*never mentioned college*" or felt college was "*not necessary*."

As indicated by the results for 94 enrolled graduates, by racial/ethnic group (Appendix F-3), the sample was comprised of 79 Whites (84.1%) and 15 Latinos (15.9%). Enrolled Latinos were more likely to report completing a rigorous academic curriculum than enrolled Whites. Enrolled Whites were more likely to report participating in clubs and organizations than enrolled Latinos, while enrolled Latinos were more likely to report working to support their families.

As indicated by the results for Whites and Latinos by enrollment status and type of institution (Table 4.13), Whites were more likely to enroll in 2-year public community colleges (46.8%), whereas Latinos were more likely to enroll at 4-year public colleges/ universities (40.0%).

Quantitative findings

The findings from this study indicated that rural students' aspirations to attend college were influenced by several factors, more specifically:

1. High GPA and being a U.S. citizen were the most significant predictors in graduates aspiring to enroll in college.
2. Students who completed a rigorous curriculum, or close to, were more likely to enroll in college.
3. Students whose parents attended or who attained some type of college degree were twice as likely to enroll in college.
4. Latinos were more likely than Whites to report that English is not their first language.

5. Approximately half of the aspiring graduates qualified to be first-generation college students.
6. Graduates who aspired and enrolled in college were more likely to be involved in school clubs and organizations than non-enrollees (58.6%, versus 42.6%, respectively).
7. Graduates who aspired and enrolled in college were more likely to work-for-pay while in high school and work 16 or more hours per week.
8. Graduates who aspired but did not enroll were more likely to be involved in child care activities and working to support their families.
9. Graduates who did not enroll in college were more likely to come from families where their parents "*never mentioned college*" or felt college was "*not necessary*."
10. In this study, enrolled Latinos were more likely to report completing a rigorous academic curriculum than enrolled Whites.
11. Enrolled Latinos were more likely to have completed 4 years of mathematics than enrolled Whites (53.3%, versus 30.2%, respectively).
12. Enrolled Whites were more likely to report spending more than 6 hours per week participating in clubs and organizations than enrolled Latinos.
13. Enrolled Latinos were more likely to report spending more than 6 hours per week participating in exercise or sports.
14. Enrolled Latinos were three times more likely than enrolled Whites to report working to support their families.

Qualitative data

The purpose of the qualitative portion of this study was to gain a deeper understanding of the factors that affect rural Latino high school students' decisions to enroll in college. This portion of the study took place over a two-week period of time at the Iowatown Community Opportunity Center. One-on-one interviews were employed using a narrative inquiry perspective. All seven of the interviews were audio-taped and transcribed. Then the transcripts were analyzed by the researcher.

While the participants' stories reflected the statistical results outlined in the quantitative portion of this study, their explanations provided a perspective that the quantitative results lacked. The following is a brief synopsis of the themes that emerged as related to each of the qualitative research questions.

Question 5: How do rural Latino high school students describe their decisions to pursue or not to pursue a postsecondary education?

For each of the graduates, the decision to pursue an education did not materialize at a single moment but was developed over an extended period of time, with a number of factors influencing the graduates' decisions. All of the graduates indicated that they began to consider going to college while they were in middle school. However, 3 of the 7 students interviewed knew during their senior year that they would not be able to go to college due to the pending births of their children. Of those three, two indicated that, despite becoming parents, they probably would not have gone to college due to other circumstances, such as: (a) not being a U.S. citizen; and (b) not having the necessary grades.

Validation and mentoring

The graduates tended to take cues of their potential from the attitudes and actions of their teachers. In addition to timing, each of the participants indicated that a faculty member was very instrumental in how they perceived their talents and formulated their post-high school goals. Five of the 7 graduates reflected on the teachers who helped them along the way and how the teachers helped or challenged them. Raquel's 7th grade math teacher had told her she was not good at math which motivated her with the resolve to prove him wrong.

Tomás recalled that his art teacher took time to introduce him to his inner talent. He not only helped Tomás develop his talent, but also instilled in him the desire to share that talent with others by studying to become a teacher. Carlota revealed that her ESL and English instructors influenced her life. Each teacher not only challenged her to do her best, but also provided gentle encouragements along the way. Elena not only recalled similar experiences in ESL and English, but also found her love for computers through her instructors at a local community college. Carlos recalled a teacher whom he did not take classes from, but who allowed him to sit in her room and talk.

However, not all of the experiences were remembered with fondness or resulted in personal success. Antonio and Ana both recalled that the teachers did not encourage them and they felt that their abilities were discounted as they did not always get along with their teachers.

Family

In addition to faculty validation, parental encouragement played a strong role in the formulation of the decisions the students made. Throughout the interviews the students

indicated that their parents, more specifically their mothers, provided them with emotional and moral support when formulating decisions. For example, they spoke of how their mothers encouraged them to look at college. At times, the students' comments reflected frustration as several indicated that: *"My mom would ask me to go look at this college or that college. Her asking me would cause me to say, 'No, I don't want to', when in fact I knew that that was what I was needed, and wanted, to do."*

U.S. residency

While the participants did not specifically mention U.S. residency as being a deciding factor, each alluded to it through stories of their journeys to Iowatown as well as what they observed happening to their friends. Of the seven participants: one had a political asylum visa and was recently issued a green card; two were undocumented immigrants; and one was from a blended family in which he was a U.S. citizen but his parents were not. For each of these Iowatown graduates, the issue of being a U.S. citizenship created additional barriers that their White classmates did not have to face.

Because she did not know when her green card would be approved, Carlotta indicated that she changed her lifestyle during high school to make certain that she would be able to pay for college as her parents did not have any extra money, and she was uncertain about her eligibility to receive state and federal financial aid assistance. While Tomás was a U.S. citizen due to his birth in California, his parents were not. Consequently, he was ineligible to apply for state and federal financial aid, as he could not meet the requirements to apply for financial aid as an independent college student because he lived with his parents. Carlos and

Antonio were both undocumented immigrants. Although they shared this status, each followed a different path towards life after high school.

Although Carlos and his parents were undocumented, his sister was a U.S. resident. It was through her assistance that Carlos has been able to afford to enroll in college. One of the ways that Carlos' sister helped him was by conducting searches for scholarship programs open to minority students which do not require proof of U.S. citizenship. She also helped Carlos file the paperwork associated with becoming a U.S. citizen. While Carlos has told his friends that he enrolled at a central Iowa community college so that he can play soccer, there were two other reasons: the low tuition, and he could live in the residence hall. By living in the residence hall he did not have to risk driving his older model car, and having to produce a driver's license if he was stopped by police.

Antonio viewed the issue regarding his lack of U.S. citizenship as more than the mere closing of a door to attend college; it was a barrier to having a good life. He found some irony when considering that his parents brought him to the United States to have a better life than what they had in Mexico. He saw himself in an inescapable circle. If he were educated he could make more money and have an easier life. However, he was unable to get the training he would like because he did not qualify for a student loan because he was not a U.S. citizen. Even if he could find the money to pay for the training, he faced two additional obstacles. First he could not afford to buy a reliable car. He was concerned that his current car might break down when he was commuting to school. If he were stopped by the police, he faced the risk of being deported. Second without a green card or U.S. citizenship he was not be able to work for anyone else.

Question 6: For those who attend postsecondary institutions how does it change their lives?

Those attending college indicated that they had *"learned to be more self-sufficient," "that my mind is being challenged and that there are more opportunities out there,"* that their relationships with their families and high school friends are changing, and that their goals are expanding.

Personal growth

Throughout the interviews the enrolled graduates spoke of how their lives had grown since graduating from Iowatown High School. They mentioned making new friends, taking more interesting and harder classes, and becoming more independent. They were very happy about their choice to attend college rather than to stay at home and work. Carlos mentioned he had to stop procrastinating and he now had to do his own laundry. Carlota said she had gained more confidence in her abilities, such as her academic knowledge and decision-making skills. Since enrolling in college, she felt less reliant on her parents and friends than when she was in high school. Elena summarized this transition as, *"My mind is more challenged. I know that I can be anything I want to be."*

Financial issues

The discussion of financial issues was prominent in each of the graduates' stories. What was striking is that their comments and concerns were not limited to whether or not they could qualify for financial aid. Their concerns were much broader and emerged as three sub-themes: family resources, paying for college, and associated stress.

During the interviews the graduates mentioned in one form or another that money was tight in their families. They mentioned that their parents brought them to Iowatown as

there were more employment and educational opportunities for them. They recalled that although luxuries were not prominent, their families always encouraged them to go on to college so that they could have easier lives. The graduates explained that the concept of an easier life meant not having to work so hard to put food on the table that there is little energy left at the end of the day to do anything else.

Carlota described the type of stress she and others experienced since being enrolled in college and knowing the tight financial situations their families' endure:

> *It affects,* [pause] *your life a lot* [spoken with emphasis]. *In the back of my mind still, right now, as a freshman, I think about going to school next year as a sophomore, I think about "How I am going to get my money?" I have loans that I will have to pay back. They are around $6,000 and I am barely coming out of my first semester.*

In addition, several graduates mentioned that they had observed financially related stress in their friends who had not enrolled in college. Tomás provided the following example that best summarizes of the comments of the college participants:

> *Yeah, I have a few friends who didn't go to college and another one that didn't finish high school and he is having a really rough time right now. He's working part-time jobs; three part-time jobs* [pause]. *And he and his family are really struggling because of bills, car insurance, car payments, and rent or paying for a house or whatever. He needs more then what he is making; it's like, it's super tight* [trails off].

The unspoken comment from each was, *"I'm glad that's not me."*

Need for scholarships. A related financial issue was finding financial assistance in the form of scholarships. As several of the enrolled graduates were not eligible for state and federal financial aid assistance they had to rely on their families, work, and private scholarships. Each pointed out that there were very few minority scholarships for which they could apply and competition was high for this money.

Question 7: For those who do not attend a postsecondary institution how have their lives changed since high school?

The graduates responded with a single word—obligations. The three graduates who did not go on to college were currently taking care of their first child. Between child care and work, they found that there is not much time for other activities. Raquel was very hopeful that she would still be able to obtain a college degree. Both Ana and Antonio expressed frustration that they could not see a way out of their current situations. All three graduates expressed envy of their classmates who were attending college, as they saw themselves unable to achieve their dreams due to the need to provide support to their new families.

Raquel spoke wistfully about enrolling in Iowa State some day and majoring in biology. Throughout her first three years of high school, she maintained 4.0 grade point average, and participated in the Talented and Gifted Program. While trying to maintain her dream of college she has been living with her mother, raising her daughter, and working as a grocery cashier. She mentioned that she had to work more to support her daughter, had little money for extras and less time for her friends as she had to work weekends.

Ana talked about wanting to find a job that provides child care. She lived at home with her mother and brother as she was not employed and needed their financial support. While she mentioned she loved her son, she realized that she has no opportunity to improve her situation until he is older.

Antonio began working his senior year in high school to support his new family. Despite working nights he was able to go to school during the day and graduate, but not

without making some sacrifices. As a result of his experiences he provided this advice to other Latino students:

> *If you don't like school then you need to work hard at it so you can get out faster instead of being there and wasting time. You have a couple of years to learn things otherwise you don't end up learning anything and you end up being there longer. It's better to go to college right after you graduate high school because otherwise it becomes more difficult. Because you still have emotions about being with your friends and wanting to go to college.*

Qualitative findings

Following are findings from the qualitative portion of the study:

1. While Iowatown Latinos learned to survive within the community's dominant Euro-Caucasian culture they were not satisfied with their current positions. They believed they were at a distinct disadvantage due to color, language, and citizenship.
2. Latinos whose parents did not speak English had to rely on others to help them, and their parents to understand the administrative processes of the local school system as well as the college choice process.
3. Iowatown Latino parents had a great respect for higher education and wished their children could obtain a college education so that they can have better lives. However, these parents did not have the background or understanding of the system to help their children through the college choice process.
4. Residency status places Latinos and their parents at a disadvantage. If the students are not U.S. citizens, they cannot apply for state or federal financial aid. If the students are U.S. citizens but their parents are not, they cannot apply for state or federal financial aid.

5. If they lack U.S. citizenship or English skills, Iowatown Latino graduates are not likely to seek a college education and will be employed in low skill jobs.
6. Despite citizenship status, if an Iowatown Latino has the motivation, he/she will find a way to gain the skills and financial assistance to enroll in college.

Discussion of Findings

The findings of this study confirmed that attainment of a high GPA and being a U.S. resident are the most accurate predictors of rural students who aspire to and enroll in college. In addition, there were other specific background, educational, environmental, and challenges/barriers that affected the graduates' aspirations to enroll. These findings supported the predisposition phase of Hossler's and Gallagher's (1987) student college choice model, which postulated that students' aspirations to attend college are affected by socioeconomic and environmental variables. In addition, these findings provided an explanation of the phenomena of developing college aspirations. The following section focuses on the research results related to the background, learning environment and challenges/barriers variables, within the context of the literature review presented in Chapter 2.

Background variables

The background variables in this study were comprised of ethnicity, U.S. residency status, parents' educational attainment, parents' view of education, and English as the native language.

Ethnicity

The original sample of graduates completing the SIAS instrument was 195. However, due to low numbers in three of the ethnic groups (American Indian, Asian, and Black) their responses were excluded from the study. Therefore, the study concentrated on analyzing data of Whites and Latinos as they were the two largest population groups in Iowatown. It is important to note that the percentages of the two groups were reflective of the larger Iowatown community which was comprised of 75.8% Whites and 24.2% Latinos. Findings of this study revealed that White graduates were more likely to aspire and enroll in college than Latino graduates.

U.S. residency status

This factor was not discussed in Chapter 2 but identified as a significant factor in both the logistic regression analysis presented in Chapter 4 and mentioned by all seven participants in Chapter 5. Findings of the study revealed that an Iowatown graduate who is not a U.S. citizen is less likely to enroll in college than a U.S. resident, whether White or Latino.

Parents' view of education

Parental encouragement regarding education, as described in Chapter 2, is a background variable that has been shown to impact students' aspirations to enroll in college (McDonough, 1994; Smith et al., 1995; Stage & Rushin, 1992). In the current study, the majority of participants listed parents' view of education as being "*very necessary*" or "*somewhat necessary*."

In addition, the interviewed graduates unanimously cited their parents as being a major support system in their lives. This supports the concept that parental encouragement and support are considered to be strong contributors toward student success in high school and enrollment in college (Hossler et al., 1999; Hossler & Stage, 1992; King, 1996; McDonough, 1994; Rumberger, 1995).

English

Language is a significant element of the concept *dominant culture* (Reay, 2004). Every participant commented on the fact that if a student did not have a command of English he/she probably would not be able to survive academically, or be successful after high school. Not only did the participants feel that learning English was necessary to survive academically, but also to fit into the dominant White culture of Iowatown. Because they learned English, some of the participants mentioned a fracturing of the Latino community as a result of those knowing English as being considered elitist, and that resulted in some of the non-English speaking Latinos shying away from them.

Learning environment variables

The learning environment variables in this study were: academic achievement perceptions of the learning environment, and engagement with faculty.

Academic achievement

Adelman (1998, 1999), McDonough (2004), and Warburton, Bugarin, & Nunez (2001) suggested that the strongest indicators to college aspiration and enrollment are whether or not students are enrolled in a rigorous academic curriculum and how well they

perform in these classes (i.e., GPA). Overall, the results from this study supported Adelman's and McDonough's concept of academic achievement. The majority of students who aspired and enrolled in college had, in fact, completed a rigorous academic curriculum and had a GPA of 2.0 or higher.

In addition, the participants of this study provided some possible insights as to what needs to occur before rural Latinos can complete a rigorous curriculum. The major obstacle for them was gaining the necessary English skills. Several observed that the challenge can be overwhelming when learning the basics of a complex language such as English while one is trying to learn the other required academic requirements.

Perceptions of the learning environment

How a student perceives his/her environment has an impact on whether or not the student wants to be in that environment (Ayon, 1980; Cohen, 2001). The participants were asked to respond to seven statements on the SIAS instrument concerning impressions of their high school environment. The majority of Latinos responded that they "*agreed*" or "*definitely agreed"* with these statements. The White participants were slightly more likely to respond "*disagree*." A limitation of this study was that the participants were individuals who were about to graduate from high school. The sample did not include any students who had dropped out prior to graduation.

Engagement with faculty

One of the strongest themes that emerged from the interviews was the desire of each participant to have his/her individual worth validated. These findings reinforced Rendón's

(1993) theory of validation—that students tend to take cues of their potential from their teachers.

Within this study there were contradictory results. In the quantitative analysis, the majority of students indicated that they did not have contact with the teachers outside of class. Yet, from the qualitative analysis, each student mentioned many times, and with fondness, the encouragement they received from a teacher concerning their academic talents, special skills such as art, or inspiration regarding career choice, such as teaching.

Challenges/Barriers variables

Despite the fact that state and federal policy-makers have sought to broaden accessibility to higher education for all high school graduates, rural Latino students are still at a disadvantage compared to their White classmates. Several studies on college choice have revealed financial barriers are the reasons these students do not go to college (Advisory Committee on Student Financial Assistance, 2001; Heller et al., 2002; St. John & Noell, 1989; Tomás Rivera Policy Institute, 2004; Tornatzky, Cutler, & Lee, 2002). Specifically, two challenges revealed in the current research related to financial barriers are work-for-pay and the receipt of financial aid information.

Work-for-pay

Within the assumptions of this study, it was advanced that students who work-for-pay may do so in order to help support their families. The quantitative findings suggested that White graduates worked to cover personal expenses whereas Latinos were more likely to report working-for-pay to help support their families. Among the subgroups reviewed in

Chapter 4, non-enrolled Latinos were more likely to report working-for-pay to help support their families than any of the other groups.

The quantitative findings were substantiated by the graduates' stories. The seven participants worked at some point while in high school, in some cases to cover their own expenses and gain work experience. Ana and Antonio worked to help support their families, and did not enroll in college. All of the participants were aware that, since their family finances were tight, they would have to find outside financial assistance if they wanted to go to college. As a result, each sought financial assistance to help cover their expenses.

Received financial aid information

The Tomás Rivera Policy Institute (2004) has suggested that, on a national level, Latino students are less likely than any other racial/ethnic group to apply for and receive need-based financial aid. However, when this issue was reviewed in the current research, the quantitative and qualitative results suggested the opposite. The quantitative results revealed over 80.0% of Whites and Latinos received financial aid information (Table 4.6). In addition, during the qualitative interviews, all of the participants indicated that they had received financial aid information. This suggests that the receipt of financial aid information is not an issue. The issues are: being able to understand and predict the cost of a higher education; understanding the process of applying for financial aid resources; and meeting the eligibility requirements in order to apply for financial aid.

Whether White or Latino attending college is expensive. Having an understanding of what resources are necessary to enroll in college can be overwhelming, especially for those who have no prior point of reference. Within this study 53.3% of the participants met the

criteria to be first-generation college students. This implies that the participants lack a role model within their family to provide guidance and understanding of how much money is needed through family resources or outside funding to pay for tuition, fees, books, transportation, and other educational related costs, and where to look for such resources.

As mentioned throughout the interviews, the participants told of how they and their families did not have an understanding of the processes they were expected to follow in the K-12 system let alone have the knowledge of how to maneuver through the college choice and application processes. They acknowledged that this lack of information was compounded by not having a solid understanding of the English language. The participants indicated that English skills were necessary in order to understand the various processes associated with education.

Being able to meet the eligibility requirements to apply for financial aid was the final factor. Of the four students enrolled in college in this study, each received scholarship assistance. Two were eligible for state and federal aid; however, two were not eligible and, as a result, enrolled in low-cost community colleges. Their reason for not applying for state and federal aid was associated with U.S. residency issues. One was not a U.S. resident and the other was a resident but his parents were not, which made him ineligible to apply.

Implications for Practice and Policy

Closing the gap between aspiration and enrollment requires action on several levels. The literature reviewed in Chapter 2 supports the belief that college aspiration is shaped by a wide array of interrelated factors—some originate in the home, some originate in the K-12 school system, and others are present due to state and federal policies.

The findings of this study provide various implications for practice and policy. First, this study contributes to the existing literature on student college choice by providing a description of characteristics of rural high school students who aspire to enroll in college. Second, this study identified specific independent variables which are barriers rural Latino students must overcome if they wish to enroll in college. These findings illustrate how the lack of U.S. residency status and English skills hinder Latinos from successfully competing academically in high school. Third, an important contribution from this study is the creation of a model for predicting college aspirations, which includes academic and environmental elements.

School districts and colleges/universities

Aspirations to attend college begin in the home. Parents and other family members are key in the development of students' self-esteem and their future plans. As indicated by the participants of this study, their parents brought them to Iowatown to have better lives. In addition, their parents wanted them to have a college education as they believed education is necessary to have a better life.

A necessary component in America's economic system for a successful transition between aspiration and attainment is providing students and their parents with an understanding of the importance of an education beyond high school. It is also important to provide an understanding of how the college choice process works. Developing this process not only involves the students and their parents, but also K-12 school systems, college and universities, and local, state, and federal support systems.

Educational and policy-making groups need to step back and take note that first-generation rural high school students, in this case Latinos, have additional hurdles to overcome in order to transition successfully from aspiring to actually attending college. First, is their ability to learn and understand English. Second, is their comprehension and understanding of the importance of the role of education has in America's economy. Third, is their successful navigation of the process to attain U.S. residency. Successfully addressing these hurdles will help rural Latinos gain equality with their White counterparts as they move forward to embrace their American Dreams.

Based on the results of this study, faculty and administrators at the high school level should consider providing support systems to assist Latino students and their parents with their adjustment to school system processes as well as recognizing the importance of a higher education. As suggested by the graduates, there are six initiatives that the school district could consider.

1 Schools systems need to employ more counselors to meet with the students, especially multicultural [Latino] students, to assess their needs and provide them connections with other resources, such as social services, the local community college, workforce development agencies, and immigration outreach.

2 Second, the graduates indicated that faculty members need to change the way they teach and work at finding ways to better engage the students in the classroom. As faculty expectations play a significant role in their interaction with students which, in turn, affects students' academic successes (Brophy & Good, 1974; Gandara, 1999), it is important that school administrators determine what is and is not occurring in the classroom. In addition to researching these issues, school administrators should

determine the resources faculty need to engage and interact with a changing student population. Possible resources and training could include:

a. Discussions about cultural belief systems during educator in-service programs.
b. Techniques in how to become more knowledgeable about the history and the cultures of the students within the class or the school.
c. Provide examples of best practices that foster respectful, cooperative relationships among teachers and students.
d. Development of student peer groups that provide support for ethnic identity while encouraging academic achievement.
e. Provide faculty with intervention and teaching techniques on how to engage students in the learning processes, and incorporate students' cultural backgrounds into the structure and content of the educational program.
f. Provide faculty with techniques that help students to realize what they are learning is relevant to their lives and to their futures.
g. Provide faculty with techniques that help to identify students who enter high school underprepared. Once students are identified, provide each student with an individual educational plan plus the necessary resources to engage them and to raise their abilities up to the expected performance levels.
h. Provide faculty and students with encouragement and recognition that promotes a positive and supportive learning environment.

3. The mentoring and validation of students are well-established factors that encourage students to succeed academically (Levine & Nidiffer, 1996; Rendón, 1993). During the interviews the graduates specifically named faculty members who took a special

interest in their talents and abilities, and encouraged them. It is important that a more purposeful validation and mentoring system be put into place to assist first-generation immigrants in adapting to the U.S. educational system. Such a program needs to go beyond the K-12 school system in order to be successful. To be truly effective the process should include community members, postsecondary institutions, and state and social service agencies. The needs of these students and their families go beyond validation of their academic skills. A comprehensive program should also include validation of their heritage and their journey of understanding American and local customs. If they are to be successful citizens of the local community they need to be introduced to the customs of the community so that they can become acclimated into the community. At the same time communities need to open up to the transformation of its residents.

Currently Iowatown has been engaged in community discussions (Swilky, 2007) designed to bring Whites and Latinos together to discuss the transition of their community. Through these organized conversations, participants gain a better understanding of the needs of the various ethnic groups as well as each others' cultures. Iowatown needs to continue these events and broaden the group of participants so that more members of the community can be included and benefit from the discussions.

4. In the current global economy, most employment opportunities require some type of post-high school training. Therefore, it is important to cultivate all students to aspire to seek higher education regardless of their interest in seeking technical training, or attending a 2-year community college or a 4-year college/university. The key factor is not to discount the abilities of any students. College visits can occur at varying

levels for elementary, middle and high school students. School systems and postsecondary institutions need to explore ways to provide students with opportunities to explore their post-high school options. These opportunities could include: career interest assessments, workshops designed to explore career and training options, invite former students as guest speakers to describe their journeys, arrange for guest speakers who can talk about various career options and the training involved with each. Another option would be to design a course that would incorporate all of the above options, plus financial aid, and offer it to students during a class, such as homeroom.

5. Parents are a key component in the success of their offspring. As stated by the graduates in this study, the majority of their parents recognized the value of a post-high school education and wanted their children to have that opportunity. However, as revealed in the interviews, parents did not always know how to help their children access a higher education. The school system, colleges, and state and federal agencies need to work to actively engage parents to enable them to gain an understanding of the importance of a higher education. This assistance needs to be made available to families prior to high school so that parents are aware of the academic preparation needed by their children to successfully attain their educational goals. Several successful urban programs could be used as models in rural school districts, such as GEAR-UP, America Reads, and Upward Bound. These federally-funded programs have successfully exposed under-represented students to post-high school options during the past 15-years.

6. Finally, 84.6% of the study sample participants indicated that they worked-for-pay while attending high school. Whether these graduates worked to earn spending money, save for college, or to help support their families, this is a large percentage of high school students in the workforce within a community the size of Iowatown. The hours that most high school students work delimit the time that could potentially be spent studying, taking part in school activities, or getting a good night's sleep. School administrators should track the employment of their students and their grades. In addition, they should explore working with area employers to develop opportunities to provide a workforce for the community that includes work-study or cooperative education offerings for students who must work to support their families or raise money to pay for college. Such an arrangement might help these students earn credit for skills training and academic work, and provide them incentives to stay in school.

Policy-making entities

Since the Truman Commission first recognized barriers to higher education, state and federal policy-makers have made gallant strides to provide guidance and programs to improve preparation and access to higher education. As society evolves, values and priorities expressed in state and federal programs change. Findings in this study indicated there is a powerful relationship between U.S. residency status and Latino enrollment in college. These findings indicate that it is time to review and revise two policies that affect students' preparation and access to higher education.

First, this study illustrated that Latino students who are undocumented are not likely to enroll in college due to three factors: (1) they may not have the English skills needed to be academically competitive; (2) they are not eligible for state or federal financial assistance; and (3) some who are successful in attending college cannot be employed until they either receive a green card or become a U.S. citizen. Under current immigration policy, an undocumented immigrant may apply for citizenship if he/she has a relative who is a U.S. resident. Many of the undocumented students in Iowatown are not fortunate enough to have such a relative. They were brought here by their parents, and under the protection of the Supreme Court case Plyer vs. Doe (1982), and they were eligible to receive a K-12 public education. Now they are graduating and confronted with a dilemma: they are educated as any other Iowatown student, and are academically eligible to enroll in college but unable to do so as they are not U.S. citizens. To them, the United States is their country, but they are not allowed the same options as native-born students, due to the legalities circumventing their status as citizens.

Within the last 10 years proposals to have been presented to Congress to consider changing the current immigration laws to allow individuals, such as the Iowatown graduates, to become eligible to apply for U.S. citizenship. One proposal is the DREAM Act (The Development, Relief and Education for Alien Minors Act, 2003). If adopted, this Act would allow individuals who have graduated from a U.S. high school, who have been in the country more than five years, and who plan to either enroll in college or enter the military to apply for U.S. citizenship. This type of policy change would benefit the individuals described in this study, as well as the U.S. economy.

A second federal initiative that needs to be reviewed is the No Child Left Behind Act (2002). This federal program has caused some concern for the Iowatown school district and has the potential of negatively impacting future students. No Child Left Behind requires school districts to prove annually that students are meeting basic grade level competencies. If the required assessment levels are not met, federal funding is reduced to the state and, in turn, the school district. One issue that negatively affects the Iowatown school district is the assessments must be completed in English. With a growing Latino population, there is a significant risk that the district's scores will drop if students cannot take the assessments due to insufficient English skills.

This study provided five examples of students who became very accomplished in English in a short period of time. However, this does not imply that they are the norm. For districts such as Iowatown, it is important that the No Child Left Behind legislation be amended to allow more flexibility in bringing students along regarding their English and other academic skills. If changes are not made, the opposite of what this legislation is trying to accomplish will occur—students will be left behind.

Access to education has been a concern to many entities over the history of this country. Congress is currently grappling with the development and articulation of an immigration policy that will arguably have an enormous impact not only on immigrants but also on educational systems. As reflected in the examples provided in this study, students, especially students new to the United States, will need support systems that educational entities may not be cognizant of, let alone have in place.

While the context of this study was a rural, Midwestern community, the results have implications for urban as well as rural environments. Despite the policies Congress will

enact to address the current immigration situation, those policies will have direct and indirect effects on immigrants, and the communities in which they settle. Educational entities need to be aware and have resources in place so that the needs of these new students are appropriately addressed as the new policies are implemented.

Recommendations for Future Research

As presented in Chapter 1, there is a paucity of research concerning students who attend rural high schools regarding college aspiration. In addition, while there is a growing body of literature on Latinos, few reference Latinos who live in rural communities. This study opens the door for more research concerning students who live in rural communities, especially rural Latino students. A longitudinal study should be considered for the Iowatown school district to determine if the same findings occur in subsequent cohorts. In addition, this study could be replicated in other small rural communities with large ethnic growth to determine if there are similarities or differences in the findings.

In addition, more research should also be conducted to determine why some students complete a rigorous academic curriculum and some do not. Adelman (1999) and McDonough (2004) suggested that the completion of a more academically challenging curriculum, consisting of mathematics beyond algebra, is a significant factor in predicting college enrollment. Research should be conducted to determine the background and environment factors that may prevent this from occurring, such as a student's command of the English language.

Research could also be conducted to review ethnic/minority students' college aspirations using Maslow's Hierarchy of Needs (1987) as the theoretical framework. Such a

study could be used to determine if an individual's basic needs are met, will the individual have more time to devote to other interests such as preparing for college aspirations, work, and school activities.

Conclusion

The purpose of this study was to gain an understanding of how background characteristics affect the college decision-making process of rural high school students, and identify barriers rural Iowa Latinos encounter when formulating their post-high school plans. The results of this study provide insights into the environmental factors that affect rural Latino high school students' enrollments in college. Findings suggest that first-generation students and their parents require additional assistance to understand the K-12 educational system as well as the college choice system. While these factors were associated with a rural Latino population, it is important to note that they are not isolated to rural or ethnic students. These factors apply to other student groupings, especially when educators and policy-makers fail to recognize and understand the backgrounds of the students they are trying to educate.

Final Thoughts

Throughout this research study I was struck by the similarities between the current rural Latinos of Iowatown and my Prussian ancestors who came to Iowa in the mid-1800s. Each group was anxious to begin new and better lives when they reached the United States and Iowa. Each had to overcome the animosity of the established local cultures that greeted them when they settled in their new communities.

I have been humbled by the barriers the students of this study and my ancestors were required to overcome: leaving their families and their home countries; traveling to an area

previously unknown by them; being isolated culturally, socially and linguistically; and being employed in occupations that no one else wanted. Several times I have asked myself, What is the difference between the two groups other than 150 years? At the time my ancestors arrived, there were no immigration quotas as the country was expanding. Today, Iowa needs immigrants to keep its population stable, yet there are federal quotas and regulations that are in place, some which appear to be subjective in nature.

The desire for a better life is a strong incentive for families. The stories that the participants in this study shared with me tugged at my heart and my conscience. For those who were fortunate enough to be enrolled in college, I wish them well in their endeavors. I fully expect that several will return to Iowatown and be strong influencers of that community's future. For those who have not been able to go on to college, I am concerned about their futures. They have so much talent and so much hope, yet so many obstacles to overcome. I pray that their fortunes will change.

Our nation is at a cross-roads. We have the choice of reaching out, accepting, and engaging all students, including immigrant students, at their current skill levels, or we can continue to ignore their unique needs and follow systems that do not address their educational needs. Should we have the courage to accept the path of change, we as educators and policy-makers need to encourage the promotion and development of these students by providing the needed resources, encouragement, modeling of behavior, and mentoring. Central to this decision is the transformation of our educational systems. This includes the intentional engagement and education of current faculty and administrators. It also includes the development of our future teachers and administrators. Local, state and federal initiatives

need to be designed to provide them with the skills and knowledge base to engage and celebrate all learners, no matter their level of skill or background.

It is time for the American society to wake up to see that all students are individuals who have potential. Whether native-born Americans or immigrants, all are individuals with feelings, talents, and dreams. The United States was founded on the idea opportunity and equality for all. It is time to provide the tools so all can reach their potential.

APPENDIX A. NATIONAL CLEARINGHOUSE MATCH CRITERIA

National Student Clearinghouse
13454 Sunrise Valley Drive, Suite 300
Herndon, Virginia 20171

703-742-4200
www.studentclearinghouse.org

StudentTracker Search Options

Using StudentTracker, your institution can discover valuable information regarding the following student populations:

1. **Former Prospective Students**
   Admissions directors, enrollment managers, and institutional researchers can use this StudentTracker query to identify institutions with whom they compete in the recruiting and admissions arena. Institutions are often surprised at the empirical results that StudentTracker provides, and conventional assumptions are frequently off-target. Knowing what other schools your prospective students choose to attend will guide your efforts to more effectively select, target and recruit prospective students.

   You can submit a StudentTracker request that lists former prospective students, including:

   - Prospects who requested information about your institution, but never submitted an application
   - Applicants who accepted your offer of admission, but later withdrew their application or simply did not enroll
   - Applicants who were accepted for admission, but declined the offer
   - Applicants who were denied admission
   - Applicants for admission to a four-year institution who subsequently attended a two-year institution

   After searching its database, the Clearinghouse will return an electronic listing of each former prospective student with the following information:

   - Name of the institution(s) where your former prospective students subsequently enrolled
   - Students' enrollment status
   - Applicable attendance term begin date
   - Graduation achievement*

   Enrollment information for Former Prospective Students is available through individual student transactions using the Clearinghouse Web site, or through electronic data exchanges in a flat file or an Excel spreadsheet format. By utilizing the electronic data exchange, your institution will also receive an aggregate summary report of your file results in addition to the student level detail file.

2. **Previously Enrolled Students**
   This StudentTracker query can be used by enrollment managers, registrars and institutional researchers to discover the subsequent educational experiences of their drop-outs and graduates. This information can help demonstrate the extent to which your institution prepares students for transfer to other schools to complete their education. In some cases, additional performance funding can be obtained when "drop-outs" are correctly reclassified as "transfers" or "graduates."

   One of the primary uses of this StudentTracker functionality is to facilitate institutional compliance with the Federal Student Right to Know Act and the IPEDS Graduation Rate Survey, as well as to enable knowledgeable responses to surveys such as the *US News and World Report*.

* Degree information is only available to schools participating in DegreeVerify.

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13454 Sunrise Valley Drive, Suite 300
Herndon, Virginia 20171

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www.studentclearinghouse.org

Creating StudentTracker Research Files in Flat File Format

This guide will help you use a flat file format to prepare your StudentTracker research files. If you have any questions or need assistance, contact **studenttracker@studentclearinghouse.org.**

STEP 1: CREATE HEADER RECORD

Create your header record using the layout below. The total header record length is 500 bytes.

Field Name	Length	Start	Stop	Type*	Comments
Record Type	2	01	02	AN	Enter H1
School/Entity Code	6	03	08	N	Enter your 6-digit school code
Branch Code	2	09	10	N	Enter your 2-digit branch code. If you don't know it, enter 00.
School/Entity Name	40	11	50	AN	Enter your school name
File Creation Date	8	51	58	N	This is the date that the file was created (YYYYMMDD). *IMPORTANT: The date cannot be in the future.*
Purpose of Inquiry	2	59	60	A	• **Enter SE for Subsequent Enrollment inquiry.** Searches for attendance AFTER the Search Begin Date. • **Enter DA for Denied/Declined Admissions inquiry.** Searches for attendance AFTER the Search Begin Date • **Enter PA for Prior Attendance inquiry.** Searches for attendance BEFORE the Search Begin Date. • **Enter SB for Family Member inquiry.** Searches for attendance AFTER the Search Begin Date.
Entity Type	1	61	61	AN	Enter I (for Institution of Higher Education)
Filler	439	62	500	AN	Leave blank

*The type codes in this document are "A" alpha, "N" numeric, and "AN" alpha numeric.

APPENDIX B. CORRESPONDENCE

B-1. Approval Letter From Iowatown High School

Dr. Frankie Santos Laanan
Assistant Professor
N243 Lagomarcino Hall
Iowa State University
Ames, Iowa 50011-3195

April 1, 2005

Dear Dr. Laanan,

Laurie Wolf is interested in working with Iowatown Community School District at the high school level on a project of substantial value as part of her dissertation project, a requirement for her PhD. This letter is to verify that she has support from the Iowatown Community School district to conduct research using our students.

Ms. Wolf is currently employed as the Executive Dean of Student Services at Des Moines Area Community College (DMACC). This project is closely related to her work at DMACC and will also enhance her ability to carry on her current responsibilities as well as assisting in her researching development.

I have reviewed Laurie's proposal and understand she will implement the survey, gather data, compile the information, and present her findings back to the district.

The team and myself look forward to working with Laurie. Please contact me with any questions.

Sincerely,

Guidance Counselor
Iowatown High School

B-2. Informed Consent Document

Project Title: Access Barriers to Higher Education: A Study of Rural High School Students

Investigator(s): Laurie A. Wolf, ISU Doctoral Student

PURPOSE

This is a research study. The focus of this research study is to gain an understanding of the considerations high school students and their families face when making the decision of whether or not to attend college. You are being asked to participate in this research study as you are 18 and older and a recent high school graduate from a rural Iowa high school.

PROCEDURES

During your senior year at Iowatown High School members of the graduating class were asked to complete an exit interview survey. The purpose of this research study is to explore the summary data from that survey.

If you agree to participate in this research study, your participation will last for no more than three hours maximum. Participants are invited to participate in a tape recorded interview. The individual interviews will take place at the New Opportunities, Inc. offices located in Iowatown, Iowa. It is anticipated that the interview will last approximately 60 to 90 minutes.

Prior to beginning the interview, the interviewer and researcher will discuss the informed consent form and confirm your eligibility and willingness to participate. Participants will also have the opportunity to ask any questions concerning the study or the informed consent form prior to beginning the interview.

RISKS

The potential risks to the participants involve only those associated with self-reflection. As such, the risks to the participants are minimal.

BENEFITS

Benefits to the participants include greater self-reflection and the opportunity to contribute to the understanding of the experiences and issues rural high school students and their families face when making post-high school plans.

COSTS AND COMPENSTATION

Participants will not have any costs and will not receive any compensation for their participation.

CONFIDENTIALITY

Records of participation in this research project will be kept confidential to the extent permitted by law. Please be assured that the confidentiality of your responses and academic information will be upheld at all times. Information gathered in this study will not be presented in any form that will identify you or your family. The principal investigator (Laurie Wolf) will be the only individual to view the individual responses. Participants will not be identified by name, either in the recording or the reporting of the data. All personal identifiers will be removed prior to the data analysis phase. Only the aggregated data will be reported.

Interviews will be tape recorded to foster accuracy in the data collection and analysis. Audiotapes and notes will be stored by the principle investigator (Laurie Wolf) in a locked file cabinet for three (3) years. In addition, participants participating in interviews will be given the opportunity to review their typed transcript to confirm accuracy of what has been recorded.

In the event of any report or publication from this study, participants' identities will not be disclosed. Results will be reported in a summarized manner in such a way that individuals cannot be identified.

VOLUNTARY PARTICIPATION

Taking part in this research study is voluntary. Participants may choose not to take part at all.

If you agree to participate in the interview phase of the study, you may stop participating at any time. If you decide not to take part, or if you stop participating at anytime, your comments will be deleted from the transcriptions and will not be used in the study. Discontinued participation in this project will not result in any penalty or loss of benefits.

QUESTIONS

You are encouraged to ask questions at any time during this study. For further information concerning this research study, please contact Laurie Wolf at (515)964-6437 or Lawolf@dmacc.edu. If you have questions concerning the rights of research subjects, please contact the Iowa State University Institutional Research Board (IRB) Compliance Administrator, Janice Canny at (515)294-4566 or jcs1959@iastate.edu.

Participant

Your signature indicates that you voluntarily agree to participate in this research study, that you have been given time to read the document and that your questions have been satisfactorily answered. You will receive a copy of the signed and dated written informed consent prior to your participation in the study.

Participant Name (printed): _____

_____ _____

(Participant Signature) (Date)

B-3. Transcription Cover Letter

[Date]

[Address]

[Participant Name];

Thank you for allowing me to interview you on [Date].

Enclosed is the transcription of our conversation. I have attempted to capture what you stated throughout the interview. I have avoided making any changes to your comments. Words or phrases that appear in brackets [ ] are comments that I've added to help make it easier to follow the context of our conversation. For example: [laughter].

Please let me know if you believe that the transcription has changed your comments to make them any less accurate. As promised, I have deleted personal names and identifying information to protect your privacy. If, in your opinion, anything needs to be changed, I will be glad to make the revisions.

I will call you on [date] to speak with you concerning this transcript and to find out if there are any corrections or additions you would like me to make. If you need to contact me before the date listed above, please call me at 1.800.362.2127, extension 6437. If I am not available please leave me a phone message, so that I can return your call.

Again, thank you for allowing me to interview you, and to include your comments in my research.

Sincerely,

Laurie Wolf
ISU Graduate Student

APPENDIX C. HUMAN SUBJECTS APPROVAL

IOWA STATE UNIVERSITY

Institutional Review Board Office of Research Assurances Vice Provost for Research 1138 Pearson Hall
Ames, Iowa 50011-2207
515 294-4566 FAX
515 294-4267

DATE: March 31, 2005

TO: Laurie Wolf

FROM: Office of Research Assurances

RE: **IRB ID** # 05-171

STUDY REVIEW DATE: March 31, 2005

The Institutional Review Board has reviewed the project, "Access Issues in Higher Education" requirements of the human subject protections regulations as described in 45 CFR 46.101(b)2. The applicable exemption category is provided below for your information. Please note that you must submit all research involving human participants for review by the IRB. Only the IRB may make the determination of exemption, even if you conduct a study in the future that is exactly like this study.

The IRB determination of exemption means that this project does not need to meet the requirements from the Department of Health and Human Service (DHHS) regulations for the protection of human subjects, unless required by the IRB. We do, however, urge you to protect the rights of your participants in the same ways that you would if your project was required to follow the regulations. This includes providing relevant information about the research to the participants.

Because your project is exempt, you do not need to submit an application for continuing review. However, you must carry out the research as proposed in the IRB application, including obtaining and documenting (signed) informed consent if you have stated in your application that you will do so or required by the IRB.

Any modification of this research must be submitted to the IRB on a Continuation and/or Modification form, prior to making any changes, to determine if the project still meets the Federal criteria for exemption. If it is determined that exemption is no longer warranted, then an IRB proposal will need to be submitted and approved before proceeding with data collection.

cc: Larry Ebbers
ELPS

APPENDIX D. SENIOR EXIT SURVEY QUESTIONS AND INTERVIEW PROTOCOL GUIDE

D-1. Student Impressions and Aspirations Survey [SIAS]

(completed online through SurveyMonkey™)

1. Please enter your district ID number: _____

2. Gender: ____ Female _____ Male

3. Your average High School GPA: _____

4. Is English your native language? ___ Yes ____ No

5. My parents are:
___ Both alive and living with each other.
___ Both alive, divorced or living apart.
___ One or both are deceased.
___ The whereabouts of my parents is unknown; I live with a guardian.

6. How many people live in your household?
(Mark one for each column)

	1	2	3	4	5	6	6 or more
Adults							
Children 18 years and younger							

7. What is the highest level of formal education obtained by your parents? (Mark one for each column)

Education	Father	Mother
Elementary school or less	_____	_____
Some high school	_____	_____
High school graduate	_____	_____
Some college but didn't graduate	_____	_____
Associate Degree	_____	_____
Bachelor Degree	_____	_____
Master Degree	_____	_____
Doctoral Degree	_____	_____

8. During high school (grades 9-12) how many trimesters did you study each of the following subjects? (Mark one for each item)

Subject	Trimester
English	
Mathematics	
Foreign Language	
Science	
History/Government	
Computer Science	
Art	
Music	
Drama	
Career/Technical	

9. During this past school year, how much time did you spend during a typical week doing the following activities? (Circle one for each item)

Activity	Hours per Week						
Child care/Babysitting	0	1-2	3-5	6-10	11-15	16-20	Over 20
Exercise or sports	0	1-2	3-5	6-10	11-15	16-20	Over 20
Housework	0	1-2	3-5	6-10	11-15	16-20	Over 20
Playing video games	0	1-2	3-5	6-10	11-15	16-20	Over 20
Reading for pleasure	0	1-2	3-5	6-10	11-15	16-20	Over 20
Socializing with friends	0	1-2	3-5	6-10	11-15	16-20	Over 20
Student clubs/groups	0	1-2	3-5	6-10	11-15	16-20	Over 20
Talking with teachers outside of class	0	1-2	3-5	6-10	11-15	16-20	Over 20
Volunteer work	0	1-2	3-5	6-10	11-15	16-20	Over 20
Watching TV	0	1-2	3-5	6-10	11-15	16-20	Over 20
Working for pay	0	1-2	3-5	6-10	11-15	16-20	Over 20

10. If you work-for-pay, do you spend your money the way you want? ____ Yes ____ No

11. If you work-for-pay, is the money you earn used to help support your family? ____ Yes _____ No

12. How many days have you missed this school year? _____

13. How many of these missed days were unexcused absences? _____

14. How many times have you been late/tardy during the past month? _____

15. What, if anything, prevents you from arriving to school on time? _____

16. Do you have a computer and Internet access in your home? _____

17. If you answered yes to Question 16, how often do you access the Internet during the average week? _____

18. Do you have access to computers and the Internet at school? _____ Yes _____ No

19. If you answered yes to Question 18, how often do you access the Internet during an average week, from school? _____

20. Do your parents use the Internet? _____ Yes _____ No

21. If you answered yes to Question 20, how often do they access the Internet during an average week? _____

22. Are you aware of locations in your community (other than the school or your home) where you can access a computer and the Internet? _____ Yes _____ No

23. If you answered yes to Question 22, please list these locations: _____

24. Is this access free or is there a charge? ____ Free _____ Charge

25. Do you feel that the Guidance Counselors are available when needed? _____ Yes _____ No

26. During the how many times did you meet with your guidance counselor? _____

27. What topics did you discuss? (Mark all that apply.)

_____ Academic advising and planning
_____ Attendance issues
_____ Career counseling
_____ College planning
_____ College financial aid
_____ Health related issues
_____ Personal/emotional issues

_____ Interpersonal/relationship issues
_____ Self-esteem issues
_____ Study habits and skills
_____ Volunteer opportunities
_____ Other (please specify): _____

28. What services are offered by the guidance counseling staff that you feel are most beneficial? (Mark all that apply.)

_____ Academic advising and planning
_____ Attendance issues
_____ Career counseling
_____ College planning
_____ College financial aid
_____ Health related issues
_____ Personal/emotional issues
_____ Interpersonal/relationship issues
_____ Self-esteem issues
_____ Study habits and skills
_____ Volunteer opportunities
_____ Other (please specify): _____

29. What services would you like to see added and/or improved? _____
30. Do you feel that your teachers have encouraged you in your academic work? ___ Yes ___ No
31. In what ways: _____
32. During the past year did you discuss your post high school plans with any one? ___ Yes ___ No
33. Whom? _____
34. What do you like most about school? _____
35. What do you like least about school? _____
36. What support would you need to be able to perform at your maximum academic ability? _____
37. Who do you go to for advice when you need to make a decision? _____
38. In what areas of your life would you like to be good/successful at? _____
39. What, if anything, keeps you from succeeding at what you want to be good/successful at? _____
40. What, if anything, keeps you/distracts you/prevents you from learning when in class? _____
41. After school, what prevents you from getting your homework done? _____
42. What would you like to do with your life after high school? _____
43. Do you believe education after high school is necessary for the 'work-for-pay' you would like to do? _____ Yes _____ No
44. Have you considered going on to college? ____ Yes ____ No
45. If you answered no to Question 44, what would encourage you to consider attending college? _____
46. If you answered yes to Question 44, what do you think about when you think of college? _____
47. Have you considered going to college? ____ Yes _____ No

48. If you answered yes to Question 47, who or what helped you to decide to go to college?
_____

49. Who was most important in helping you to make the decision to go to college?
_____

50. How do your parents/guardian view education beyond high school?
_____ Not necessary
_____ Some what necessary
_____ Very necessary
_____ Have not mentioned education beyond high school

51. Describe what it means to you to have access to an education: _____

52. Have you received any information concerning financial assistance programs for college? ___ Yes ___ No

53. If you answered yes to Question 52, from where did you receive the information?
_____

54. If you answered no to Question 52, are you be interested in receiving financial aid information? _____ Yes _____ No

55. If you answered yes to Question 54, what type of information would you be interested in receiving? _____

56. Some college courses are currently being offered in Iowatown. What courses would you Like to see offered? _____

57. What is the most powerful thing a teacher has ever said to you? _____

58. What grade were you in? _____

59. Please mark the most appropriate response for each of the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
The curriculum at this school is academically challenging.				
Everyone in my school has an equal chance to get into the hardest classes.				
I feel valued and supported by this school.				
My school is good at equal opportunity.				
If I mess up, the teachers in my school give me a second chance.				
Teachers are academically responsive to students' needs.				
The teachers treat students fairly across lines of ethnicity and economic status.				
Teacher know and understand me.				
Teacher care about students like me.				
Teacher give me a second chance.				
Administrators treat students fairly across lines of ethnicity and economic status.				
Teachers expect me to do well in school.				
Teachers expect some students will do better than others in school.				
I feel challenged by my coursework.				
When I ask for assistance concerning my coursework my teachers are willing to help me.				

I feel what I discuss with my guidance counselor will be kept confidential.

The teachers/administrators are fair when they discipline students.

I feel safe in school.

60. How far would you be willing to travel to attend the college of your choice?
_____ Less than 1-hour
_____ 1-2 hours
_____ 3-4 hours
_____ 5-8 hours
_____ More than 8 hours

61. In what type of college would you like to enroll?
_____ Career/Vocational
_____ Community College
_____ 4-year Private
_____ 4-year Public

62. What are your plans after high school?
_____ Attend college
_____ Military service
_____ Work
_____ Undecided
_____ Other (please specify): _____

63. If you chose college as your answer to Question 62, what college do you plan to attend?
_____

64. Ethnicity (Mark one):

____ Asian
____ Black
____ Caucasian
____ Latino/a
____ Native American
____ Other: _____

65. Residency Status:
_____ Born in Iowa
_____ U.S. Citizen
_____ Permanent resident (green card)
_____ Prefer not to answer

66. Please add any comments you would like to share.

D-2. Semi-Structured Interview Protocol

One-on-One Interviews

At the beginning of the interview the researcher will review with the participants' their rights as research subjects. The researcher will provide each participant assurances of the precautions that will be taken to protect his/her identify and confidentiality.

During the beginning of the interview the researcher will ask the participant a series of questions to find relevance to the following larger questions of the study.

At the conclusion of the interview, the researcher will arrange for when copy of transcript will be sent to the interviewee.

In addition, the interviewer will thank the interviewee for this interview. Also, she will assure him/her of confidentiality of his/her responses.

Framing Questions for the Study

How do rural Latino students describe their decisions to pursue or not to pursue a postsecondary education?

For those who attend postsecondary institutions how has it changed their lives?

For those who do not attend a postsecondary institution, how have their lives changed since high school?

D-3. Interview Questions for College Participants

Please introduce yourself and describe what you have been doing since you graduated from Iowatown High School.

Describe your experiences living and going to school in Iowatown.
(May need to ask some follow-up questions based on what they say).

When you were little what did you want to be when you grew up? How has that aspiration changed? Why?

Tell me about how you decided to go to college after high school. What influenced your decision?
(Listen for these responses. If they are not part of the response will need to ask some follow-up questions. Also, may need to ask for specifics concerning how they respond: FAMILY, FRIENDS, FINANCIAL AVAILABILITY, CONFIDENCE, OTHER INFLUENCES)

Who do you know well that has gone to college?
(This is an opportunity for them to share about their family and friends)

What have they told you about college?

Describe your earliest memories about wanting to go to college. What do you remember thinking or feeling?

Did you meet with college representatives while you were in high school? Why or why not?
If they met with a college representative, ask:
What do you remember about those meetings?
What do you remember about the college representatives?

Some students meet with college representatives but then don't go on to college.
Why do you think this happens?
Of the things you just described, are any of them true concerning your experience? How or why?

Why did you select the college you are currently attending?

Who are your biggest sources of support? In what ways do they support you?

When making important decisions who helps you

Who has been the most influential person in your life and why?

How do you think access to financial support affects Iowatown students' decisions to attend college?
What type of assistance is needed for student to go on to college?
Would this make a difference for you personally? Why or why not?

How has your life changed since going to college?

What are the most important lessons you have learned since attending college?

How have your relationships with your family changed?

How have your relationships with your high school friends changed?
Is there a difference between those who went to college and those who did not?

How have your career and life goals changed since going to college?

If you could change anything in your life that would directly affect where you are today, what would you change? What impact do you think that change would have made?

When your 10 year class reunion is held in 2015/2016 what do you want to be able to tell your classmates that you have been doing with your life?

D-3. (Continued). Interview Questions for Working Participants

Please introduce yourself and describe what you have been doing since you graduated from Iowatown High School.

Describe your experiences living and going to school in Iowatown.
(May need to ask some follow-up questions based on what they say).

When you were little what did you want to be when you grew up? How has that aspiration changed? Why?

Tell me about how you decided to get a job after high school. What influenced your decision?
(Listen for these responses. If they are not part of the response will need to ask some follow-up questions: FAMILY, FRIENDS, FINANCIAL AVAILABILITY, CONFIDENCE, OTHER INFLUENCES Also, may need to ask for specifics concerning how they respond.)

Who do you know well that has gone to college?
(This is an opportunity for them to share about their family and friends)

What have they told you about college?

Did you ever think about going to college? Why or why not?

Did you meet with college representatives while you were in high school? Why or why not?
If they met with a college representative, ask:
What do you remember about those meetings?
What do you remember about the college representatives?

Some students meet with college representatives but then don't go on to college.
Why do you think this happens?
Of the things you just described, are any of them true concerning your experience? How or why?

Who are your biggest sources of support? In what ways do they support you?

When making important decisions who helps you

Who has been the most influential person in your life and why?

How do you think access to financial support affects Iowatown students' decisions to attend college?
What type of assistance is needed for student to go on to college?
Would this make a difference for you personally? Why or why not?

How has your life changed since entering the work force?

What are the most important lessons you have learned since graduating from high school?

How have your relationships changed with your family?

How have your relationships changed with your friends?
Is there a difference between those who went to college and those who did not?

How have your career and life goals changed?

When you were little what did you want to be when you grew up? How has that aspiration changed? Why?

If you could change anything in your life that would directly affect where you are today, what would you change? What impact do you think that change would have made?

When your 10 year class reunion is held in 2015/2016 what do you want to be able to tell your classmates that you have been doing with your life?

APPENDIX E. DEFINITIONS OF THE VARIABLES

Variable Name	Definition	Scale
Year (YEAR)	A dichotomous variable representing the year the individual graduated from Iowatown High School.	5 = 2005 6 = 2006
College Enrollment (ENROLL)	A dichotomous variable representing the college enrollment status of the graduate.	1 = No 2 = Yes
Gender (GENDER)	A dichotomous variable representing the graduate's reported gender.	1 = Male 2 = Female
High School Grade Point Average (GPA)	A categorical variable representing the graduate's self-reported grade point averaged gathered on the SIAS instrument.	1 = < 2.00 2 = 2.00 to 2.99 3 = 3.00 t0 3.99 4 = 4.00 or greater
Native Language (ENGLISH)	A dichotomous variable representing graduate's response to the question Is English your native language?	1 = No 2 = Yes
Parent's Status (PARENTS)	A categorical variable representing the graduate's response to parents' relationship with family.	1 = Whereabouts unknown; live with a guardian. 2 = One or both are deceased. 3 = Both alive but, divorced or living apart 4 = Both alive and living together.
Number of Adults in Household (ADULTS)	A categorical variable representing the number of adults the graduate reported living in the household.	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = More than 6
Number of Children in Household (CHILDREN)	A categorical variable representing the number of children the graduate reported living in the household. A child is defined as 18 years of age or younger.	1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = More than 6

Variable Name	Definition	Scale
Father's Education (FATHED)	A categorical variable representing the greatest educational level of the graduate's father, as reported by the graduate.	1 = Unknown 2 = Elementary school or less 3 = Some high school 4 = High school graduate or GED 5 = Some college but didn't graduate 6 = 2-year college degree (Associate) 7 = 4-year college degree (Bachelor) 8 = Master degree 9 = PhD or other advanced degree
Mother's Education (MOTHED)	A categorical variable representing the greatest educational level of the graduate's mother, as reported by the graduate.	1 = Unknown 2 = Elementary school or less 3 = Some high school 4 = High school graduate or GED 5 = Some college but didn't graduate 6 = 2-year college degree (Associate) 7 = 4-year college degree (Bachelor) 8 = Master degree 9 = PhD or other advanced degree
Number of Years of English (HSENG)	A categorical variable representing the number of years of English the graduate completed while attending Iowatown High School.	0 = less than 1 year 1 = 1 year 2 = 2 years 3 = 3 years 4 = 4 years 5 = more than 4 years
Number of Years of Mathematics (HSMATH)	A categorical variable representing the number of years of Mathematics the graduate completed while attending Iowatown High School.	0 = less than 1 year 1 = 1 year 2 = 2 years 3 = 3 years 4 = 4 years 5 = more than 4 years
Number of Years of Foreign Language (HSFRLA)	A categorical variable representing the number of years of Foreign Language the graduate completed while attending Iowatown High School.	0 = less than 1 year 1 = 1 year 2 = 2 years 3 = 3 years 4 = 4 years 5 = more than 4 years

Variable Name	Definition	Scale
Number of Years of History/Government (HSHIST)	A categorical variable representing the number of years of History/ Government graduate completed while attending Iowatown High School.	0 = less than 1 year 1 = 1 year 2 = 2 years 3 = 3 years 4 = 4 years 5 = more than 4 years
Number of Years of Science (HSSCI)	A categorical variable representing the number of years of Science the graduate completed while attending Iowatown High School.	0 = less than 1 year 1 = 1 year 2 = 2 years 3 = 3 years 4 = 4 years 5 = more than 4 years
Child Care/ Babysitting (PYCHBY)	A categorical variable representing the number of hours per week the graduate reported participating in child care/babysitting.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours
Exercise or Sports (PYEXC)	A categorical variable representing the number of hours per week the graduate reported participating in exercise or sports.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours
Housework (PYHOUSE)	A categorical variable representing the number of hours per week the graduate reported participating in housework.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours
Student Clubs/ Groups (PYCLUBS)	A categorical variable representing the number of hours per week the graduate reported participating in student clubs/groups.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours
Talking with Teachers Outside of Class (PYTEACH)	A categorical variable representing the number of hours per week the graduate reported participating in talking with teachers outside of class.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours

Variable Name	Definition	Scale
Working for Pay (PYWORK)	A categorical variable representing the number of hours per week the graduate reported participating in working-for-pay.	1 = 0 hours 2 = 1-2 hours 3 = 3-5 hours 4 = 6-10 hours 5 = 11-15 hours 6 = 16-20 hours 7 = Over 20 hours
Work to Support Family (SPFAM)	A dichotomous variable representing graduate's response to whether or not s/he works to help support family.	1 = No 2 = Yes
Parents' View of Education (VIEW)	A categorical variable representing the graduate's interpretation of the message s/he felt was heard from parents/guardians concerning the value of education beyond high school.	1 = Have not mentioned education beyond high school. 2 = Not necessary 3 = Somewhat necessary 4 = Very necessary
Receipt of Financial Aid Information (FININFO)	A dichotomous variable representing the graduate's response of whether or not s/he received information concerning college financial aid assistance.	1 = No 2 = Yes
Challenging Curriculum (CHALLEN)	A categorical variable representing the response the graduate provided to the statement: I feel challenged by my coursework.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Valued and Supported (VALUED)	A categorical variable representing the response the graduate provided to the statement: I feel valued and supported by this school.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Second Chances (SCCHAC)	A categorical variable representing the response the graduate provided to the statement: If I mess up, the teachers at my school give me a second chance.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Equal Opportunity (NTEQAL)	A categorical variable representing the response the graduate provided to the statement: My school is good at equal opportunity.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Fairness (FAIR)	A categorical variable representing the response the graduate provided to the statement: The teachers treat students fairly across the lines of ethnicity and economic status.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Teachers are Responsive to Students' Needs(RESPONS)	A categorical variable representing the response the graduate provided to the statement: Teachers are academically responsive to students' needs.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Expect some Students will do well (NTWELL)	A categorical variable representing the response the graduate provided to the statement: Teachers expect some students will do well.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

Variable Name	Definition	Scale
Teachers are Willing to Help (WILLING)	A categorical variable representing the response the graduate provided to the statement: When I ask for assistance concerning my coursework my teachers are willing to help me.	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree
Ethnicity (ETHN)	A dichotomous variable representing the graduate's response to the SIAS question concerning ethnicity.	3 = White 4 = Latino
U.S. Residency Status (STATUS)	A dichotomous variable representing the graduate's response to the SIAS question: Are you a U.S. citizen?	1= No 2 = Yes
Type of College Enrolled In (COLL)	A categorical variable representing the type of institution the graduate was enrolled in, based on The National Clearinghouse Data Match.	1 = Proprietary 2 = Community College 3 = 4-year Private 4 = 4-year Public
Rigorous Curriculum (RIGR)	A dichotomous variable representing an analysis of the number of years of courses completed by the graduate according to Adelman's (1999) concept of a rigorous academic curriculum.	1 = No 2 = Yes
Working for Pay (WORK)	A dichotomous variable representing the graduate's response to the question, Do you work-for-pay?	0 = Not employed 1 = Works for Pay
College Aspirations (ASPIRE)	A dichotomous variable representing the graduate's response to the questions Do you plan to go to college?	0 = No plans to attend 1 = Aspires to attend College

APPENDIX F. QUANTITATIVE TABLES

TABLE F-1. Frequencies of Iowatown graduates who aspired to attend college by Enrollment Status

	Percent among participants		
(*N*=141) Variable	All Aspired (*N*=141)	Enrolled (*n*=87)	Not Enrolled (*n*=54)
Background			
Mother's Educational Attainment			
Unknown	7.8	6.9	9.3
Elementary school or less	7.1	3.4	12.9
Some high school	8.5	8.1	9.3
High school graduate or GED	22.7	23.0	22.2
Some college	9.9	6.9	14.8
2-year college degree (AA)	19.9	23.0	14.8
4-year college degree (BA)	20.6	24.1	14.8
Master degree	0.7	1.2	0.0
PhD or other advanced degree	2.8	3.4	1.9
Father's Educational Attainment			
Unknown	10.6	5.7	18.5
Elementary school or less	7.8	5.7	11.1
Some high school	9.9	9.3	11.1
High school graduate or GED	22.7	25.3	18.5
Some college	6.4	5.7	7.4
2-year college degree (AA)	16.3	20.7	9.3
4-year college degree (BA)	19.9	19.6	20.4
Master degree	2.1	1.1	3.7
PhD or other advanced degree	4.3	6.9	0.0
View of Education			
Not mentioned	1.4	0.0	3.7
Not necessary	1.4	0.0	3.7
Some what necessary	7.1	5.7	9.3
Very necessary	90.1	94.3	83.3
U.S. Resident			
Yes	92.9	93.1	92.6
No	7.1	6.9	7.4
Academic Achievement			
High School GPA			
1.99 or less	8.0	4.6	13.5
2.00 to 2.99	34.0	27.6	46.1
3.00 to 3.99	55.8	64.4	40.4
4.00 and above	2.2	3.4	0.

Rigorous Curriculum			
Yes	39.0	48.3	24.1
No	61.0	51.7	75.9
High School Environment			
I feel challenged.			
Strongly Disagree	4.3	3.5	5.6
Disagree	25.7	23.2	29.6
Agree	60.0	66.3	50.0
Strongly Agree	10.0	7.0	14.8
I feel valued and supported.			
Strongly Disagree	7.8	6.9	9.3
Disagree	14.2	14.9	12.9
Agree	61.7	63.3	59.3
Strongly Agree	16.3	14.9	18.5
Good at equal opportunity.			
Strongly Disagree	8.5	9.2	7.4
Disagree	14.9	13.8	16.7
Agree	59.6	60.9	57.4
Strongly Agree	17.0	16.1	18.5
Second Chance			
Strongly Disagree	5.0	3.4	7.4
Disagree	30.5	33.4	25.9
Agree	51.7	51.7	51.9
Strongly Agree	12.8	11.5	14.8
Treat Students Fairly			
Strongly Disagree	10.6	10.3	11.1
Disagree	22.0	19.6	25.9
Agree	49.7	50.6	48.2
Strongly Agree	17.7	19.5	14.8
Expect Some Will Do Well			
Strongly Disagree	9.2	5.7	14.8
Disagree	34.1	34.5	33.3
Agree	40.4	41.4	38.9
Strongly Agree	16.3	18.4	13.0
Willing to Help Me			
Strongly Disagree	2.8	1.2	5.6
Disagree	11.4	14.9	5.5
Agree	63.1	59.8	68.5
Strongly Agree	22.7	24.1	20.4

Engagement			
Talking with Teachers Outside of Class			
0 hours	51.8	49.4	55.6
1-2 hours	34.8	38.0	29.6
3-5 hours	8.5	8.0	9.2
6-10 hours	2.1	1.2	3.7
11-15 hours	1.4	2.3	0.0
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	1.4	1.1	1.9
Clubs and Organizations			
0 hours	47.5	41.4	57.4
1-2 hours	24.1	29.9	14.8
3-5 hours	12.1	10.3	14.8
6-10 hours	9.9	13.8	3.7
11-15 hours	4.3	2.3	7.4
16 - 20 hours	0.7	0.0	0.0
Over 20 hours	1.4	2.3	1.9
Exercise or Sports			
0 hours	7.1	4.6	11.1
1-2 hours	26.2	26.4	25.9
3-5 hours	17.7	15.0	22.2
6-10 hours	22.0	23.0	20.4
11-15 hours	9.9	12.6	5.6
16 - 20 hours	5.0	3.5	7.4
Over 20 hours	12.1	14.9	7.4
Challenges/Barriers			
Work-for-pay			
Yes	88.7	94.3	79.6
No	11.3	5.7	20.4
Hours Employed			
0 hours	11.3	5.7	20.4
1-2 hours	6.4	5.7	7.4
3-5 hours	7.1	5.7	9.2
6-10 hours	14.2	13.9	14.8
11-15 hours	20.6	25.3	13.0
16 - 20 hours	9.9	8.1	13.0
Over 20 hours	30.5	35.6	22.2
Work to Support Family			
Yes	21.3	16.1	29.6
No	78.7	83.9	70.4

Housework			
0 hours	9.9	9.2	11.1
1-2 hours	44.7	44.8	44.4
3-5 hours	19.9	19.6	20.3
6-10 hours	12.7	14.9	9.3
11-15 hours	6.4	4.6	9.3
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	6.4	6.9	5.6
Child Care/Babysitting			
0 hours	62.4	69.0	51.9
1-2 hours	19.2	17.2	22.2
3-5 hours	8.5	6.9	11.1
6-10 hours	2.8	2.3	3.7
11-15 hours	1.4	1.2	1.8
16 - 20 hours	1.4	0.0	3.7
Over 20 hours	4.3	3.4	5.6
Financial Aid Information			
Yes	83.0	88.5	74.1
No	17.0	11.5	25.9

TABLE F-2. Frequencies of Iowatown graduates who Enrolled in College (*N*=182)

Variable	Percent among participants: Enrolled (*n*=94)	Not Enrolled (*n*=88)
Background		
Mother's Educational Attainment		
Unknown	7.4	10.2
Elementary school or less	3.2	17.1
Some high school	8.5	11.4
High school graduate or GED	24.5	25.0
Some college	6.4	11.4
2-year college degree (AA)	21.3	12.5
4-year college degree (BA)	24.4	10.2
Master degree	1.1	1.1
PhD or other advanced degree	3.2	1.1
Father's Educational Attainment		
Unknown	5.3	15.9
Elementary school or less	5.3	15.9
Some high school	9.6	11.4
High school graduate or GED	26.6	23.9
Some college	6.4	4.5
2-year college degree (AA)	19.1	11.4
4-year college degree (BA)	20.2	13.6
Master degree	1.1	2.3
PhD or other advanced degree	6.4	1.1
View of Education		
Not mentioned	0.0	3.4
Not necessary	0.0	4.5
Some what necessary	8.5	19.3
Very necessary	91.5	72.7
U.S. Resident		
Yes	92.6	83.0
No	7.4	17.0
English is Native Language		
Yes	85.1	67.0
No	14.9	33.0
Aspired to Attend College		
Yes	92.6	61.4
No	7.4	38.6
Academic Achievement		
High School GPA		
1.99 or less	5.3	17.1
2.00 to 2.99	31.9	47.5
3.00 to 3.99	59.6	35.4
4.00 and above	3.2	0.0
Rigorous Curriculum		
Yes	46.8	21.6
No	53.2	78.4

English		
Less than 1 year	0.0	4.5
One year	4.3	13.7
Two years	1.1	5.6
Three years	1.1	13.7
Four years	93.5	62.5
Mathematics		
Less than 1 year	1.1	4.5
One year	1.1	16.0
Two years	28.7	26.1
Three years	36.1	35.2
Four years	33.0	18.2
Science		
Less than 1 year	2.1	5.7
One year	3.2	13.6
Two years	21.3	36.4
Three years	30.8	26.1
Four years	42.6	18.2
History/Government		
Less than 1 year	2.1	8.0
One year	2.1	18.1
Two years	17.0	19.4
Three years	66.0	37.5
Four years	12.8	17.0
Foreign Language		
Less than 1 year	10.6	42.0
One year	10.7	18.2
Two years	20.3	20.5
Three years	24.3	9.1
Four years	34.1	10.2
High School Environment		
I feel challenged.		
Strongly Disagree	3.2	4.5
Disagree	23.7	28.5
Agree	64.5	51.1
Strongly Agree	8.6	15.9
I feel valued and supported.		
Strongly Disagree	6.5	10.2
Disagree	15.0	14.8
Agree	63.4	54.5
Strongly Agree	15.1	20.5
Good at equal opportunity.		
Strongly Disagree	8.5	9.1
Disagree	13.8	20.5
Agree	60.7	53.4
Strongly Agree	17.0	17.0

Second Chance		
Strongly Disagree	3.2	6.8
Disagree	33.0	20.5
Agree	50.0	51.1
Strongly Agree	13.8	21.6
Treat Students Fairly		
Strongly Disagree	9.6	12.6
Disagree	19.1	24.2
Agree	51.1	46.0
Strongly Agree	20.2	17.2
Expect Some Will Do Well		
Strongly Disagree	1.1	13.6
Disagree	5.4	37.5
Agree	68.8	37.5
Strongly Agree	24.7	11.4
Willing to Help Me		
Strongly Disagree	1.1	5.7
Disagree	14.9	3.5
Agree	58.5	69.0
Strongly Agree	25.5	21.8
Engagement		
Talking with Teachers Outside of Class		
0 hours	50.0	61.4
1-2 hours	38.3	28.4
3-5 hours	7.4	5.7
6-10 hours	1.1	3.4
11-15 hours	2.1	0.0
16 - 20 hours	0.0	0.0
Over 20 hours	1.1	1.1
Clubs and Organizations		
0 hours	43.6	62.5
1-2 hours	28.7	13.6
3-5 hours	10.7	13.7
6-10 hours	12.8	2.3
11-15 hours	2.1	5.7
16 - 20 hours	0.0	1.1
Over 20 hours	2.1	1.1
Exercise or Sports		
0 hours	5.3	18.2
1-2 hours	25.6	23.8
3-5 hours	17.0	19.3
6-10 hours	23.4	14.8
11-15 hours	11.7	3.4
16 - 20 hours	3.2	5.7
Over 20 hours	13.8	14.8

Challenges/Barriers		
Work-for-pay		
Yes	93.6	75.0
No	6.4	25.0
Hours Employed		
0 hours	6.4	25.0
1-2 hours	5.3	6.8
3-5 hours	6.4	11.4
6-10 hours	12.7	15.9
11-15 hours	23.4	10.2
16 - 20 hours	9.6	10.2
Over 20 hours	36.2	20.5
Work to Support Family		
Yes	17.0	39.1
No	83.0	60.9
Housework		
0 hours	8.5	13.6
1-2 hours	44.7	44.4
3-5 hours	20.2	13.6
6-10 hours	13.8	12.5
11-15 hours	6.4	10.2
16 - 20 hours	0.0	0.0
Over 20 hours	6.4	5.7
Child Care/Babysitting		
0 hours	69.1	52.3
1-2 hours	17	20.5
3-5 hours	6.4	9.1
6-10 hours	3.2	6.8
11-15 hours	1.1	2.3
16 - 20 hours	0.0	2.3
Over 20 hours	3.2	6.8
Financial Aid Information		
Yes	86.2	69.3
No	13.8	30.7

TABLE F-3. Frequencies of Enrolled Whites and Latinos (*N*=94)

Variable	Percent among participants ENROLLED ALL (*N*=94)	WHITE (*n*=79)	LATINO (*n*=15)
Background			
Mother's Educational Attainment			
Unknown	7.4	7.6	6.7
Elementary school or less	3.2	0.0	20.0
Some high school	8.5	0.0	53.2
High school graduate or GED	24.5	27.8	6.7
Some college	6.4	7.6	0.0
2-year college degree (AA)	21.3	24.1	6.7
4-year college degree (BA)	24.4	27.8	6.7
Master degree	1.1	1.3	0.0
PhD or other advanced degree	3.2	3.8	0.0
Father's Educational Attainment			
Unknown	5.3	5.1	6.7
Elementary school or less	5.3	1.2	26.6
Some high school	9.6	2.5	46.6
High school graduate or GED	26.6	30.4	6.7
Some college	6.4	7.6	0.0
2-year college degree (AA)	19.1	21.5	6.7
4-year college degree (BA)	20.2	22.8	6.7
Master degree	1.1	1.3	0.0
PhD or other advanced degree	6.4	7.6	0.0
View of Education			
Not mentioned	0.0	0.0	0.0
Not necessary	0.0	0.0	0.0
Some what necessary	8.5	10.1	0.0
Very necessary	91.5	89.9	100.0
U.S. Resident			
Yes	92.6	97.5	66.7
No	7.4	2.5	33.3
Academic Achievement			
High School GPA			
1.99 or less	5.3	6.3	0.0
2.00 to 2.99	31.9	30.4	40.0
3.00 to 3.99	58.6	59.5	60.0
4.00 and above	3.2	3.8	0.0
Rigorous Curriculum			
Yes	46.8	41.8	73.3
No	53.2	58.2	26.7

English			
Less than 1 year	0.0	0.0	0.0
One year	4.3	3.8	6.7
Two years	1.1	1.3	0.0
Three years	1.1	2.6	6.7
Four years	93.5	92.3	86.6
Mathematics			
Less than 1 year	1.1	1.3	0.0
One year	1.1	1.3	0.0
Two years	28.8	32.9	6.7
Three years	36.3	34.2	40.0
Four years	32.7	30.3	53.3
Science			
Less than 1 year	2.1	2.5	0.0
One year	3.2	3.8	0.0
Two years	21.4	24.1	6.7
Three years	30.8	26.6	46.7
Four years	42.5	43.0	46.6
History/Government			
Less than 1 year	0.0	0.0	0.0
One year	4.3	5.1	0.0
Two years	17.0	15.2	26.7
Three years	66.0	68.3	53.4
Four years	12.7	11.4	19.9
Foreign Language			
Less than 1 year	10.6	11.3	6.7
One year	10.7	11.4	6.7
Two years	20.3	11.7	33.4
Three years	24.4	25.3	20.0
Four years	34.0	40.3	33.2
High School Environment			
I feel challenged.			
Strongly Disagree	3.2	3.8	0.0
Disagree	23.7	24.4	20.0
Agree	64.5	62.8	73.3
Strongly Agree	8.6	9.0	6.7
I feel valued and supported.			
Strongly Disagree	6.4	7.7	0.0
Disagree	15.1	17.9	0.0
Agree	63.4	60.3	80.0
Strongly Agree	15.1	14.1	20.0
Good at equal opportunity.			
Strongly Disagree	8.5	10.1	0.0
Disagree	13.8	16.5	0.0
Agree	60.7	60.7	60.0
Strongly Agree	17.0	12.7	40.0

Second Chance			
Strongly Disagree	3.2	10.1	0.0
Disagree	33.0	16.5	20.0
Agree	50.0	60.7	60.0
Strongly Agree	13.8	12.7	20.0
Treat Students Fairly			
Strongly Disagree	9.6	11.4	0.0
Disagree	19.1	19.0	20.0
Agree	51.1	51.9	46.7
Strongly Agree	20.2	17.7	33.3
Expect Some Will Do Well			
Strongly Disagree	6.4	7.6	0.0
Disagree	35.1	36.7	26.7
Agree	40.4	39.2	46.6
Strongly Agree	18.1	16.5	26.7
Willing to Help Me			
Strongly Disagree	1.1	1.2	0.0
Disagree	14.9	17.7	0.0
Agree	58.5	57.0	66.7
Strongly Agree	25.5	24.1	33.3
Engagement			
Talking with Teachers Outside of Class			
0 hours	50.0	51.9	40.0
1-2 hours	38.3	35.4	53.3
3-5 hours	7.4	7.6	6.7
6-10 hours	1.1	1.3	0.0
11-15 hours	2.1	2.5	0.0
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	1.1	1.3	0.0
Clubs and Organizations			
0 hours	43.6	44.3	40.0
1-2 hours	28.7	24.1	53.3
3-5 hours	10.7	11.4	6.7
6-10 hours	12.8	15.2	0.0
11-15 hours	2.1	2.5	0.0
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	2.1	2.5	0.0
Exercise or Sports			
0 hours	5.4	3.8	13.3
1-2 hours	25.5	27.8	13.3
3-5 hours	17.0	19.0	6.7
6-10 hours	23.4	22.8	26.7
11-15 hours	11.7	10.1	20.0
16 - 20 hours	3.2	3.8	0.0
Over 20 hours	13.8	12.7	20.0

Challenges and Barriers			
Work-for-pay			
Yes	93.6	94.9	86.7
No	6.4	5.1	13.3
Hours Employed			
0 hours	6.4	5.1	13.3
1-2 hours	5.3	6.3	0.0
3-5 hours	6.4	6.3	6.7
6-10 hours	12.8	12.7	13.3
11-15 hours	23.4	22.8	26.7
16 - 20 hours	9.5	7.6	20.0
Over 20 hours	36.2	39.2	20.0
Work to Support Family			
Yes	17.0	12.7	40.0
No	83.0	87.3	60.0
Housework			
0 hours	8.5	10.1	0.0
1-2 hours	44.7	46.8	33.3
3-5 hours	20.2	21.5	13.4
6-10 hours	13.8	11.4	26.7
11-15 hours	6.4	5.1	13.3
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	6.4	5.1	13.3
Child Care/Babysitting			
0 hours	69.1	73.4	46.6
1-2 hours	17.0	12.7	40.0
3-5 hours	6.4	6.3	6.7
6-10 hours	3.2	2.5	6.7
11-15 hours	1.1	1.3	0.0
16 - 20 hours	0.0	0.0	0.0
Over 20 hours	3.2	3.8	0.0
Financial Aid Information			
Yes	86.2	84.8	93.3
No	13.8	15.2	6.7

TABLE F-4. Frequency of High School Curriculum by Enrollment Status (*N*=182)

	ENROLLED							NOT ENROLLED	
	WHITE				LATINO			WHITE	LATINO
Variable	2-Year Public *n*=37	4-Year Private *n*=19	4-Year Public *n*=23	2-Year Proprietary *n*=1	2-Year Public *n*=5	4-Year Private *n*=3	4-Year Public *n*=6	*n*=59	*n*=29
English									
Less than 1 year	0	0	0	0	0	0	0	1	3
One year	0	0	0	0	0	0	0	4	1
Two years	3	0	0	1	0	0	0	3	8
Three years	0	0	1	0	1	0	0	5	1
Four years	34	19	22	0	4	3	6	46	16
Mathematics									
Less than 1 year	1	0	0	0	0	0	0	2	2
One year	0	0	0	0	0	0	0	5	4
Two years	7	1	5	0	0	0	0	17	5
Three years	21	11	5	0	2	2	3	21	6
Four years	8	7	13	1	3	1	3	14	12
Science									
Less than 1 year	2	0	0	0	0	0	0	2	3
One year	0	0	1	0	0	0	0	3	3
Two years	14	2	0	0	2	0	0	17	11
Three years	10	7	3	1	1	2	4	22	5
Four years	9	10	19	0	3	1	2	15	7
History/Government									
Less than 1 year	0	0	0	0	0	0	0	4	3
One year	1	0	1	0	0	0	0	3	2
Two years	2	2	3	1	0	0	0	7	12
Three years	13	8	7	0	2	1	1	9	7
Four years	21	9	12	0	3	2	5	36	5
Foreign Language									
Less than 1 year	9	0	0	0	1	0	0	17	18
One year	3	0	0	0	0	0	0	9	2
Two years	11	4	2	0	2	1	2	16	7
Three years	9	6	3	1	2	1	0	5	0
Four years	5	9	18	0	0	1	4	13	2

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In all the ways you can, in all the places you can,
At all the times you can, to all the people you can,
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