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DISSERTATION  
SUCCESS FACTORS OF UNDER-PREPARED STUDENTS:  
A PHENOMENOLOGICAL STUDY

Submitted by  
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School of Education

In partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
Colorado State University  
Fort Collins, Colorado  
Spring 2002

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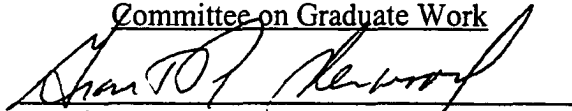
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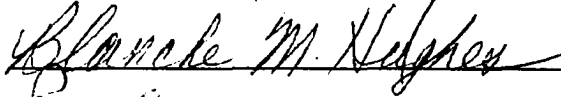
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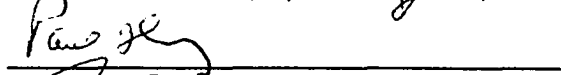
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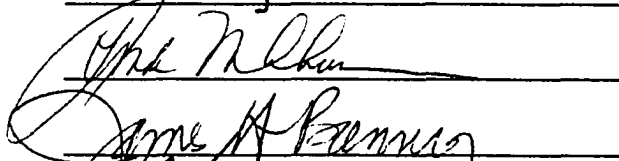
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Committee on Graduate Work

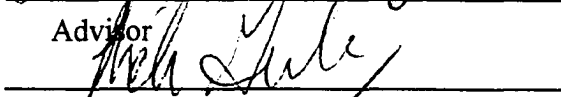
  
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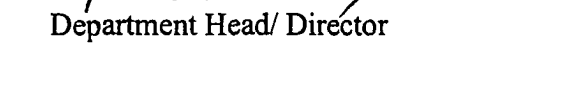
  
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## ABSTRACT OF DISSERTATION

### SUCCESS FACTORS OF UNDER-PREPARED STUDENTS: A PHENOMENOLOGICAL STUDY

This study examined success factors of eight under-prepared students at Colorado State University. The goal of the research was to understand the factors that allow students with low levels of academic preparation to succeed at a selective institution. Under-preparedness results from weak academic experiences in high school, often as a result of the student's low-income and first generation college family background.

The research approach for this study utilized a phenomenological form of qualitative inquiry. This approach seeks to understand the essence or the "central underlying meaning" of an individual's experience. The factors which led to academic success for the eight students emerged from interview data.

Four major themes emerged from the data: Pre-College Experiences; Struggles; Positive Campus Experiences and Support; and Student Growth. The Pre-College Experiences theme explored the events and experiences of the students prior to college enrollment. Their high school experiences reveal an expected pattern of poor academic preparation that low-income students tend to receive.

The Struggles theme documented the challenges of being the first in the family to go to college, the academic struggles the students faced on campus- particularly during their first year- and their social challenges.

The theme on Positive Campus Experiences and Support documented the many services

and people who made a positive impact on the students' social and academic life. The students received assistance from committed and caring professors and staff who provided encouragement, guidance, and constructive feedback. The advice created meaningful relationships and brought a sense of connectedness for the students. The students also developed successful academic strategies through observation, association, or imitation of other students.

The Student Growth theme covered the transformation of the neophyte students into sophisticated scholars. Through their accumulation of successes, the students began to develop pride, confidence and independence. The students experienced tough times and endured the pain of low academic preparation. Despite of these struggles, the students revealed a strong sense of adaptation and perseverance. The sense of adaptation was exemplified by their ability to turn challenges into motivators, particularly the first generation college status. A potential source of shame was turned into a reason to excel. The students became accountable for their own academic responsibilities and internalized their motivation to graduate. In the end, the students took control not only of their academic life, but of their entire life.

The findings were conceptualized within a student resiliency framework to explain the inordinate amount of perseverance of the eight students. According to Henderson and Milstein, resiliency can be taught through a six step curriculum. Understanding the factors which lead to academic success, and implementing a resiliency skills curriculum, can help under-prepared students enjoy a higher level of success.

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## CHAPTER 1

### Introduction

The road to educational success on the college campus is traveled uniquely by each student. While the academic path is an individual experience, some common roadblocks exist, particularly for students whose journey began with major educational obstacles. One of these obstacles is academic under-preparedness, experienced by students attending institutions which admitted them with lower than standard academic credentials. Many of these students, however, are able to negotiate a challenging academic environment with surprising resiliency and success. Uncovering the ways in which these students find success on campus can enrich educators' perspective about a population which may be more underestimated than under-prepared.

#### *Context of the Problem*

Understanding the factors of academic success and challenges of under-prepared students on campus can be enhanced by first exploring the issues which affect pre-collegiate academic performance. Family socio-economic status has a strong relationship to a student's ability to earn a college degree (Tinto, 1993, Mortenson, 1999). Nationwide, only 27.5% of low-income students enrolled in a program of postsecondary education (Cross, 2000). Mortenson (1998) reported that if a student comes from a family in the top quartile of income, the chances of

graduating with a bachelors degree by age 24 is 74%. In contrast, an individual whose family income is the bottom quartile has only a 5% chance of such achievement. Porter's (1990) study of six-year persistence rates in pursuing four-year degrees revealed that students from the lowest income quartile had a completion rate of 17.6%, compared to a 55.4% rate for students from the highest quartile.

A family's financial resources is a crucial factor as a higher income usually means living in neighborhoods with quality schools, allowing families to give their children resources and quality academic experiences they needed (Barnett & Boocock, 1998). The difference in motivation varies according to a person's resources, availability of opportunity or removal of barriers. In other words, wealthy families have a much greater ability to provide inducements for their children to be motivated. They have first-hand knowledge of the benefits of a college education, understand what is necessary to be academically prepared for college, and have the ability to alleviate economic and psychological barriers to enrolling and succeeding in college (Barnett & Boocock, 1998). Students lacking such resources are less likely to fare well with traditional prediction criteria, such as college aptitude test scores and high school grade point average, and thus have historically experienced low levels of college enrollment (Rooney, 1998).

Another piece of the puzzle is the standardized test dilemma. The November 19, 1999 edition of Colorado State University's student newspaper, the Rocky Mountain Collegian, ran a front page story headlined, "NAACP says SAT, ACT scores unfair" (Stucky, November 19). Though much research has been done on the merits of using the SAT as a gatekeeper for college enrollment, debate continues over whether the SAT correlates more to family income than to college success. The College Board (1996) reported that low-income SAT takers score an

average of 130 points less than the entire sample. This same study also reveals that the low-income SAT takers have slightly lower grades and take less academic course work.

In addition to the challenge of academic preparation, another barrier for low-income families is financing higher education. Paying for college costs can be a critical piece of the equation when parents and students weigh the feasibility of college attendance (Coomes, 2000). One of the most effective strategies to get students and their families committed to higher education is the promise that student financial aid will pay for what the family cannot (Coomes, 2000). This implied contract strategy has diminished tremendously, however, as institutional, state and federal student aid has lagged behind sharply-rising college costs (Coomes, 2000). The erosion of grants from student aid awards has been dramatic. In 1988, loans comprised 45% of all financial aid given to students. By 1998, loans constituted 60% of student aid. With student aid awards including less grant money and more loan burden, low income families are balking, opting for their children to get a job or to pursue other options (Coomes, 2000).

Earning a college degree is not easy to accomplish. The arduous work and tenacity needed to earn a college degree has produced a great number of non-completers over the years (Tinto, 1993). In studies as early as 1937, data showed attrition rates at 45 percent (Porter, 1990). Yet, the baccalaureate is revered and coveted for its ability to deliver financial rewards, career options, and good quality of life (Pascarella & Terenzini, 1991). This level of faith in the college degree to deliver these essential human needs is perhaps due to its dependability to return a great deal of profit for the educational investment made (Pascarella & Terenzini, 1991). Pascarella and Terenzini calculated this return to be a 21% average annual yield- impressive by any standard. Admission to selective schools can be even more rewarding, regardless of racial or

other background (Bowen & Bok, 1998). Over the last three decades, students' attitudes regarding the purpose of a college education reflect a shift in values. In 1969, over 80% of students agreed with the idea that a higher education was important in helping them develop a meaningful philosophy of life. By 1989, less than half of the students agreed with this notion. By contrast, students who thought of a degree as a means for increasing earning power increased substantially during this same period (Astin, 2000).

### *Climbing the Ivory Tower: A Historical Background*

The evolution of the American higher education system goes back hundreds of years, however, a key historical event occurred in the 19<sup>th</sup> Century. Over 70 institutions of higher education opened during the late 1800s, mostly due to the Morrill Land Grant Act of 1862 (Domonkos, 1989), a response by the United States Congress to induce states to address the needs of the Industrial Revolution and its need for technology.

An important component of this era of growth and access in higher education were the Historical Black Colleges and Universities, established by the Morrill Act. These institutions first provided industrial and agricultural education for African Americans (Jackson, 2001). By 1991, 70 percent of African Americans with a baccalaureate degrees had earned it from a Historical Black College or University (Jackson, 2001).

Institutions of higher education continued to open and thrive throughout the better part of the 20<sup>th</sup> century (Domonkos, 1989). As in the rest of the developed world, "the expansion of scientific and technical knowledge has created a serious need for well-trained individuals able to design, operate, and maintain the sophisticated industrial machinery that has evolved in the technically advanced societies" (Domonkos, 1989, p. 19). Other factors, including national

security, training of teachers, and the development of technology in an ever-increasing complex global reality have led to the evolution of numerous outstanding universities to meet these challenges (Domonkos, 1989). During the past few decades, however, greater strides have been made to make higher education more accessible to all Americans. The turbulent decades of the fifties and sixties witnessed the struggle to provide opportunity for the poor and people of color (Bower & Bok, 1998). Access to higher education improved through landmark Supreme Court decisions, including *Brown vs. Board of Education* and congressional acts, providing laws, guidelines, policies, programs and resources to bring about change (Harvard Law Review, 2000). World War II produced an enormous number of veterans returning home from the war. These individuals were given the opportunity, through the GI Bill, to pursue a higher education (Bower & Bok, 1998). These watershed events began to create substantial access to a population previously underrepresented on college campuses. In 1965, blacks made up only 4.8% of all college students in the United States (Bowen & Bok, 1998). By 1995, African American students accounted for 13% of all undergraduate enrollments (Cross, 2000).

Another factor which pressed for greater access occurred in the late fifties. In response to the Soviet's launch of Sputnik, Congress enacted the National Defense Educational Act of 1958. This gave impetus to get the United States' best and brightest minds to colleges by creating new high school curriculum tracking (Lucas, 1999). Because of this perceived critical national threat, Americans who demonstrated the best talent and credentials benefitted from an ever-increasing amount of resources poured into the higher education system.

Concurrently, the United States was also confronting its heritage of segregation and racial discrimination. Landmark court cases such as *Brown vs. the Board of Education of Topeka* in

1954, led to tearing down legal discrimination—the separate but equal concept (Wilson, 2000). The Civil Rights Movement eventually led to the Civil Rights Act of 1966 and the birth of Affirmative Action (Harvard Law Review, 2000) . In 1965, President Lyndon Johnson’s War on Poverty created Title IV federal financial aid programs (Mumper, 1998), and the Federal TRIO program (educational opportunity programs) to promote financial and educational opportunity for Americans from low-income and diverse backgrounds.

### *Statement of the Problem*

The ability for college graduates to build individual wealth with a college degree (Tinto, 1993) is perhaps one of several reasons the United States’ investment in higher education has been considerably large. The reliability and predictability of the benefits of a baccalaureate degree, as well as the quality of higher education, may perhaps be largely unquestioned in the academic community. However, an unresolved social challenge remains. What can be done to help academically under-prepared students succeed in completing their college degree? Who succeeds academically at Colorado State University is of great interest to administrators and policy makers. Data which can help predict retention and graduation on campus are continually gathered to shape and reshape institutional policy.

In some cases, the extent of under-prepared student academic success on campus can affect new admissions policies, as data are used in the equation of who gets invited to have a place in this county’s more selective universities through the use of academic success prediction policies. The Colorado Commission Higher Education (CCHE) index, a composite of college test scores and high school grades, has demonstrated a degree of predictability for retention and graduation. Colorado State University’s Office of Budget and Institutional Analysis (OBIA)

produces reports on retention and graduation rates. In its study of the freshmen class of 1993, the attrition rate for students admitted with index scores below 95 was higher than for those students with index scores above 101 (OBIA, 1999). Data for entering freshmen classes from 1986 through 1992 also showed a similar pattern of higher attrition rates for students with lower CCHE index scores.

The data, however, also demonstrate a level of achievement by under-prepared (lower index scores) students. While the five-year retention and graduation rate of 101-109 index students is 58%, the rate for students with 90-95 index scores is 46% . This is a twelve point gap, a relatively modest difference between these two groups. Given the lack of certainty of the CCHE index to predict success, investigating what contributes to the success (retention/ graduation) of under-prepared students can lead to a better understanding of how those students are able to “make it” and to close the gap.

This study seeks to understand how students with CCHE index scores below 95 are able to be retained at Colorado State University. A qualitative inquiry approach will be used to attempt to understand the phenomenon of academic attainment for those individuals whose level of perceived preparation suggests lower levels of success on campus. Particularly, the study will inquire into low income, first generation (neither parent has a baccalaureate) individuals whose academic achievements present the greatest contrast between predicted ability (under-preparedness) and academic success (college gpa). The research will explore factors which lead to academic success for students entering the University below the assured admission CCHE index.

### *Significance of the Study*

The CCHE index policy can be conceptualized in the context of two ideological approaches, meritocracy and access. Meritocracy is a concept based on the belief that a person's achievements are earned under a fair and equitable system, and should be rewarded through the distribution of resources according to the level of achievement (Bowen & Bok, 1998). The access concept does not embrace the system of determining achievement as equitable. The access approach addresses historical, familial, and community circumstances by offering opportunity programs which remove barriers to higher education for under-represented groups in higher education (Bowen & Bok, 1998). Opportunity programs for such individuals are necessary to bridge the gap between the academic under-preparation caused by impoverished schools and socioeconomic factors, and educational achievement.

Prior to the CCHE index policy, students from every academic background had a greater degree of access to Colorado universities. The CCHE index policy served to reduce access at the higher level institutions, and shift those students to community colleges. The implementation of this policy at Colorado State University resulted in the practice of extending up to 20% of admissions offers- referred to as the "window"- to students with less than the minimum CCHE index score. Consequently, access to institutions such as Colorado State University became more restrictive. For advocates of meritocracy, the CCHE index policy served to solidify standards for earning the right to be admitted. Along this line of thinking, the window remains a way for under-prepared, and perhaps undeserving, students to slip into campus through the back door. The window allows admission to students who may have academic and possibly financial needs, thereby diluting the already scarce resources for the general student body.

The issue of who gets into college is very complex and filled with emotion. The promise of what a degree can bring to people's lives makes this a high-stakes proposition. Given that socio-economic class can negatively affect pre-college academic achievement and college attendance, legislation and institutional programs were created to mitigate this problem. However, this continues to be a challenge of predominantly white institutions since the era of the civil rights movement (McNeary, 1996). Colorado State University is among the thousands of institutions of higher education in the United States that offer an opportunity to earn a college degree.

The significance of this study is that it will explore success factors of students who entered the University with CCHE index scores which would suggest a lesser level of success. Although research efforts usually attempt to identify factors which lead to college departure, this study will pay attention to success factors of under-prepared students and will explore the essence of their experience in terms of resiliency, skills, and determination. Identifying such success factors could be significant to enrollment policy makers in assessing the potential for academic achievement and graduation of under-prepared students. Academic and student affairs staff may gain new insights about retention strategies and programs which may either be already in place, or which could be developed . Outreach staff can facilitate student success through development of skills and awareness in pre-enrollment programming. In the end, the institution may better understand the students who are taking full advantage of opportunity policies which make a Colorado State University education accessible to the people of Colorado.

## CHAPTER 2

### Literature Review

The progression of the nation's children from early school years to college graduation and beyond has been described as an educational pipeline (Bowen & Bok, 1998). This educational pipeline, in theory, ensures a child's transition from elementary school, through middle school and high school, and finally, through enrollment in a program of postsecondary education. The educational pipeline also directs students according to their individual academic abilities and career interests (Lucas, 1999). During high school, the assessment of students' academic potential for college through high-stakes tests often determine the next step in the progression through the pipeline (U.S. Department of Education, 2000). However, the analogy of an educational pipeline can fail to convey the complexities of the issues surrounding the flow of academic talent through the educational system. Bowen and Bok (1998) described this process as the flow of water through a river, with its numerous and ever-changing twists and turns which must be constantly recognized by those who wish to navigate its waters. In their analysis of the consequences in using race in the admissions process, they acknowledged the academic, social, as well as political and policy elements which encompass the complex issue of admission and retention of disadvantaged students in higher education. In a similar fashion, the review of the

literature describes and analyzes the body of research and knowledge about who reaches college, how they get there, and how students are able to achieve academic success on campus.

The issues underlying academic success factors of under-prepared students can be divided into two major categories: pre-college social and academic factors (poverty, educational experiences, standardized tests, and alternative admissions methods) and college social and academic factors (retention, retention of under-prepared students, retention of students of color, retention of low income students). Each of these two areas are comprised of a complex set of factors, some of which have repercussions going back to a student's early school years and family socio-economic background.

### *Poverty*

Low income students have several disadvantages in their pursuit of an education. Poverty is linked to low academic performance (Sexton, 1961; Lucas, 1999). Students from low-income and ethnic backgrounds are more likely to be tracked into non-college bound curricula (Lucas, 1999). This in turn has a great effect on the admissions process because family income has a positive predictive effect on college standardized test results (Rooney, 1998; Moreno, 1999). Sexton (1961) stated that the "educational advantages have gone to those who could pay the price to an elite of wealth" (p. xiii). According to a report by the Institute for Higher Education Policy (1997), the factors creating challenges for students aspiring to higher education include welfare participation, first-generation college student status, and parental divorce. All these factors help to explain why an individual whose family income is the bottom quartile has a 5% chance of graduating with a bachelor's degree by age 24, compared to 74% chance if the student is from a family in the top quartile (Mortenson, 1998).

Regrettably, economic conditions may not be improving for today's children. The official poverty level for children rose from 17 to 25 percent between 1969 and 1993 (Barnett and Boocock, 1998). Poverty itself is not a indictment on intellectual ability. Rather, low income families' approach to the educational process does not mirror that of those who run the schools (Lareau, 1989). Middle class parents know how to advocate for their children at their schools. They advocate for their children in order to create the avenue leading to a college preparation education (Lareau, 1989; Lucas, 1999). Course selection, an important factor in college attendance, has been correlated to social class (Lucas, 1999). Families from low socio-economic classes also value the importance of a college education, but may perhaps not realize how to use the schools to benefit their children (Lareau, 1989). Teachers who tend to come from middle class backgrounds may value middle class behaviors more than academic achievement in their assessment of children (Rist, 1970). Most teachers today are white females from middle class backgrounds (DeMarrais & LeCompte, 1995).

Demographic data show the low-income, ethnic minority, first generation college students are not a negligible population on the college campus today. During the 1995-96 academic year, nearly half of all undergraduates in the United States had family incomes below \$20,000, 45% were first generation, and 30% were from ethnically diverse populations. Specifically, they were 12% African-American, 10% Latino, 6% Asian/ Pacific Islander, 1% American Indian/ Alaskan Native (Institute for Higher Education Policy, 1997).

### *Educational Experiences*

The mantra of the real estate industry is location, location, location. Prospective buyers, particularly those with the resources to have many choices, include quality of schools in the

complex decision of choosing a neighborhood in which to purchase their home. Low-income families have fewer choices, and therefore tend to live in impoverished neighborhoods which often have neglected school buildings that lack resources conducive to providing a quality education (Kozol, 1991). Jonathan Kozol, in his book Savage Inequalities, explored the vast differences in the quality of schools. Kozol documented some of the most extreme cases of impoverished school buildings and their surrounding communities across the nation, uncovering the disparities in the quality education within cities and communities. The conclusion drawn from the study is that parents' wealth determines where students live, and therefore the quality of education they receive.

The effects of school quality, however, may not have to be predicated on resources alone. School control by ethnic minority communities, specifically the ability to direct and administer the school within the community, can mitigate for low educational outcomes of disadvantaged students. Donato (1999) compared Hispano student outcomes in four school districts in Southern Colorado during 1920-1963. The school district which enjoyed the greatest control by Hispanos in hiring teachers, administering its schools, creating the social climate, and preparing students for higher education, also enjoyed the highest academic success.

As students progress in the educational system, the evaluation of their learning and intellectual potential are said to indicate their path in the pipeline. These academic paths can be conceptualized broadly into two categories: college bound and vocational. The two paths have distinct curricula, and tracking is the method used for channeling students. An educational system which provides academic choices depending on ability and preference is thought to be desirable. However, Lucas (1999) reported that Black and Latino students are disproportionately

overrepresented in vocational curriculum. Rivera-Batiz (1995) also reported a disproportionate number of minority students being tracked into vocational and other non-academic curricula. This process of tracking minorities and low-income students into non-college bound curricula creates a barrier for those students who may have the potential and the desire to pursue a college degree, perpetuating a social-class caste system (Lucas, 1999).

The student population grew from about 200,000 to over 1.5 million from 1880 to 1918 (Brousard & Joseph, 1998). With education reformers concerned with the acculturation of thousands of new immigrants, school attendance became compulsory (Lucas, 1999). Because schools at that time offered a classic college preparatory curriculum, a stratified educational curriculum was implemented to provide training for the children of immigrants. This situation created the beginning of the stratified educational system, in which different cognitive preparation as well as socialization occurred. This differentiation in instruction was believed by some to ensure the intellectual and leadership development of the more intelligent individuals. Although currently the American school system does not have an explicit system of stratifying students in different tracks, it exists in a manner which tends to reflect more a student's socio-economic background than meritocratic matching. Socialization, "cognitive achievement and the rationing of college access" were the three goals of the old tracking system. However, the net effects of tracking remain similar (Lucas, 1999).

What are the consequences of tracking? Students in high tracks do tend to be more interested in school, whereas low track students exhibit less interest (Lucas, 1999). The Maryland Higher Education Commission reported that students who went through a college-bound curriculum in high school fared better in college than those who did not (Merisotis &

Phipps, 2000). Higher track students earned higher grades and needed less help in subjects such as English, reading and math.

In addition to school quality and tracking, teacher perceptions play an important role in the academic chances of low income and minority students. In the year 2000, Rist's classic study of teacher expectations based on student's social class was reprinted 30 years after its original publication. In 1970, Rist's study concluded that a child's placement in reading groups depended on the teacher's perception of success factors based on middle class values, and not based on accurate reading capability. Children who did not display such middle class traits were not able to break out of the lower reading level groups, even if their reading ability improved. This phenomenon of teacher behavior was observed by Sexton (1961) years earlier when her assessment of education and income in public schools concluded that "teachers, in certain vital matters, have class outlook very similar to that of upper-income groups" (p. 230). The average teacher is a Anglo woman from a middle to upper-middle class family who teaches at a suburban school (DeMarrais & LeCompte, 1995). Brousard and Joseph also found that teacher expectations are influenced in a significant manner by characteristics such as "race, gender, social status, personality, language or accent, physical appearance or attractiveness, or student name" (p. 114). Teachers expect students in lower-track classes to learn slower and have weaker cognitive achievement, and although a student may drop to a lower track, moving up again almost never happens (Brousard & Joseph, 1998).

Valdez' (1996) extensive observations and interactions with Mexican migrant families revealed their cultural uniqueness and educational challenges. The role of the family in their children's education was to defer to the teacher and the school, as is the custom in Mexico.

However, teachers perceived this parent behavior as a lack of interest in their children's education. Valdez critiqued current parental involvement approaches as attempting to change the behavior of the family, while ignoring the school staff's responsibility to look at its own values and methods. Valdez concluded that although traditional intervention models may be less successful with families of Mexican origin, attempts must continue to engage this population.

### *Standardized Tests*

The next part of the voyage is the college admissions process. This phase includes the use of high-stakes tests such as the SAT and ACT. The admissions process often includes the use of such tests, as well as grades, class rank, and other factors, which may include race and ethnic background (Rooney, 1998). A study by the U.S. Department of Education (2000) attempted to engage institutions in analyzing their use of tests in what it called high-stakes decisions. Because of the critical impact on students' futures the use of high-stakes tests such as the SAT can have, careful consideration in their use by institutions is urged. The report encouraged administrators to consider whether standardized tests used by their institution accurately assess the skills and capabilities they seek to evaluate. The following passage describes the consequences of using high stakes testing:

Significant differences in placement test scores based on race, gender, or national origin may trigger a further inquiry about the test and how it is being used to make placement decisions. The validity of the test scores would be called into question if the test scores are substantially affected by irrelevant factors that are not related to the academic knowledge and skills that the test is supposed to measure. On the other hand, a test may accurately measure differences in the level of students' academic achievement. That is,

low scores may accurately reflect that some students do not know the content. However, test users should ensure that they interpret those scores correctly in the context of their high-stakes decisions. For instance, test users could incorrectly conclude that the scores reflect lack of ability to master the content for some students when, in fact, the low test scores reflect the limited educational opportunities that the students have received, (pp. 28-29).

The debate over the merits of college entrance exams is not new. The Educational Testing Service (ETS), which administers the SAT, has responded to such claims over the years. In 1980, the ETS responded to charges in a Nader/ Nairn report that claimed "... the relationship of SAT scores to income is inordinately high, and that the tests preserve the social status quo by denying opportunity to students from poor and working class families" (ETS, 1980, p.3). ETS provided data disputing such claims, but did admit higher average scores were achieved from students who came from families with higher incomes, and that the relationship was moderate in nature. ETS disputed that this relationship denies low income individuals access and opportunity, and that the relationship is merely a reflection of the fact that "higher income families enjoy educational advantages that many lower income students do not" (ETS, 1980, p. 3). What ETS claimed is that testing itself does not create barriers to higher education- the scores merely reflect the economic realities of society. ETS reported the correlation to be .30, in line with other studies measuring socio-economic status and educational achievement.

Another issue concerns whether SAT scores measure what they are supposed to measure across groups. Pennock-Roman (1998) concluded, based on limited data, that such tests have a lower degree of accuracy in predicting college success for Hispanic students as compared to

White Non-Hispanic students. The researcher further suggested that one apparent cause could be not taking enough courses to prepare academically, and that many decades of validity research shows high school records are better predictors of college performance than are aptitude test scores. Other studies revealed that the SAT was less of an effective predictor of academic success for Hispanics than for White students (Moreno, 1999). The gap between average SAT scores of Black and White students increased from 189 in 1988 to 198 in 2000 (Cross, 2000). With few exceptions, cultural bias did not have a major presence on such tests (Moreno, 1999).

The College Board, in one of its own publications, revealed the connection between low-income SAT takers and all others. The low-income SAT takers score an average of 130 points lower than the entire sample (King, 1996). The College Board has responded to such criticisms by producing a new way to use the SAT test scores. Institutions can choose to receive scores, called Strivers, that are adjusted based on the student's background (Glazer & Thernstrom, 1999). Factors used in producing the Strivers scores include being a student from a low income family, the parent's educational level, race/ethnicity, and school/community factors. All of these factors combined can bring an additional 200 points to the student's SAT score. These 200 points theoretically make up for the lower score because of the student's environmental factors. Adding 200 points is a better indicator of the student's score and of the student's true aptitude. St. John, Hu, Simmons, & Musoba (2001) constructed an index which can predict freshmen retention as well as the SAT alone by using the high school's average SAT score and subtracting it from the student's score. This "merit-aware index" uses school comparisons to predict academic potential.

Because many institutions use college test scores as part of their admissions process,

students' scores tend to dictate their choice of college. A proponent of de-emphasizing the use of test scores, Rooney (1998), posed the question: do test scores equal merit? Rooney asserted that if institutions stopped using tests, an increase in ethnic, gender, and socio-economic diversity would result from such students not being deterred from applying (1998). Rooney also reported that the information from standardized tests give little additional data to a student's application. Rooney also asserted that only a handful of decisions are changed when test scores are thrown into the equation. A student's high school academic record is a superior method of ascertaining college potential and preparedness. Also, a no-test policy lessens the influence of the issue of who has access to test coaching. Students with good academic records with low test scores will still be motivated to apply to college. Because the SAT also under-predicts academic performance for women, decreasing the use of such tests can serve to remove what seems an unfair criteria (Rooney, 1998).

In Colorado, the CCHE index policy is used for making admissions decisions at Colorado State University. In 1985, House Bill 1187 gave CCHE, which until then was merely an advisory committee, the authority to "develop long-range plans for an evolving state system of higher education" (House Bill, 1985). The Colorado Legislature pursued the accomplishment of three major goals through the CCHE index policy . The first was to bring a more uniform procedure and standards for admissions for institutions across Colorado. Second, through enrollment caps, to shift the college bound populations away from overburdened universities and towards community colleges. Third, the policy was seen as a way to deflect the burden of constituents' complaints about who gets into college away from the legislature. The language of the Act directs CCHE to "commence immediately to establish and the governing boards shall implement

academic admission standards for first-time freshmen all state-supported baccalaureate and graduate institutions... beginning of the fall term in 1986" (House Bill 1187, 1985, p. 13). The CCHE index, thereby, created the parameters for admissibility, based on students' academic credentials, for each institution of higher education in Colorado.

At Colorado State University, admissions decisions are based on the CCHE index score. By combining ACT or SAT scores along with high school rank or grade point average, an index score is produced. Institutions may have different minimum index requirement levels for assured admission. At Colorado State University the minimum is 101. This translates to about a 1050 SAT score or 23 ACT score and an overall grade point average of 3.3 on a 4.0 scale. However, students with an index number below the minimum might still be admissible. Up to 20 percent of the students admitted do not have to meet the minimum index score. This 20% exception leeway is referred to as the window.

#### *Alternative Admissions Methods*

Doing away with a selection process which uses college tests scores would lead to an open admissions policy. "The best way of determining whether a potential student is capable of college work is to admit [them] to a college and evaluate his performance there" (National Urban League, 1970). The City University of New York (CUNY) implemented an open admissions policy in the Fall of 1970. This experiment was seen as "the nation's most ambitious attempt to expand college access for minorities" (Lavin & Hyllegard, 1996, p. 3). Did the experiment work? Was it a waste of tax-payers money and loss of CUNY's academic reputation? Lavin and Hyllegard in their book Changing the Odds: Open Admissions and the Life Chances of the Disadvantaged reported that attendance by minorities increased dramatically. However,

attendance also increased for whites, a benefit of the policy not generally recognized. The decision of CUNY, which serves two hundred thousand students in seventeen campuses, to implement this policy drew criticism such as Vice President Spiro Agnew's comment concerning "100,000 devalued diplomas" (Lavin & Hyllegard, 1996, p. 17). Lavin and Hyllegard also reported that while many students did drop out because of academic under preparation, the number of degrees earned by African Americans tripled, and for Hispanics it doubled. An impressive number of advanced degrees earned was reported as well.

An alternative approach to the admissions process using non-cognitive variables was developed by Sedlacek and Brooks in 1976 (Sedlacek, 1996). This method of predicting academic success for students of color addresses the gaps between disadvantaged and privileged students, as exhibited by the disparity of test scores and high school academic preparation. Non-cognitive variables have proven to have validity for African American, Hispanic, Asian, international, as well as students in general. Answers to the Non-Cognitive Questionnaire (NCQ) give admissions officials a way to gauge the type of intelligence which calls for problem-solving skills. These variables include positive self-concept or confidence, realistic self-appraisal (especially academic), ability to understand and deal with racism, preference on long-range goals to short-term or immediate needs, availability of strong support person, successful leadership experience, demonstrated community service, and knowledge acquired in a field.

### *Retention*

Low levels of retention of college students is not a new phenomenon. In studies as early as 1937, data showed attrition rates at 45 percent (Porter, 1990). This seems to speak to the arduous task of completing an academic program replete with challenges. Some environments

are more challenging than others. Public universities are less likely to graduate their students (43%) than are independent colleges (52%) after six years (Porter, 1990).

The vastness of the large campus can have the effect of magnifying social issues of connectedness, isolation, belonging, and meaning. The public funding efficiency and productivity of these small academic cities creates yet another challenge to individuals without a family history of college completion. What makes for successful retention efforts at large public universities? Creating smaller communities out of large universities by creating new ways to replace the traditional large lecture hall is recommended (Tinto, 1993). These more intimate communities can be most effective during the first two semesters of college, when the opportunity to connect is critically important (Tinto, 1993). Astin's theory of student involvement (1997) asserts that institutions' pedagogical approach caters to the well prepared pupil. By implementing strategies which produce greater involvement, under-prepared students tend to benefit, with involvement defined as "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1997, p. 251).

The question remains, however, why do students in general leave college? Tinto (1993) studied factors and forces driving student departure. He described the act of leaving college as a "highly idiosyncratic event," which could only be understood by gaining insight into each individual's circumstances. However, three overarching themes have emerged from decades of study into student departure, which "pertain to the disposition of individuals who enter higher education, to the character of their interactional experiences within the institution following entry, and to the external forces which sometimes influence their behavior within the institution" (p. 37). The term of 'disposition of individuals' pertains to their intention and commitment.

Intention is defined as the extent of specificity, ambition, and clarity of educational goals, and serves as a predictor of college completion. Commitment to reaching educational goals is an obvious and significant factor related to retention. Not surprisingly, a high level of goal commitment coupled with a high degree of academic competence lead to a higher likelihood of degree completion. However, if either commitment or competence were moderate or low, students experienced a lower level of retention, but tended to re-enroll in another institution. Students with low goal commitment and competence were most likely to leave college, and not enroll in any other institution. Interactional experiences on campus are comprised of adjustment (students ability to adjust to the challenges of college), difficulty (not meeting institutional academic standards), incongruence (mismatch between student's interests and needs and what an institution has to offer), and isolation (lack of significant and substantive relationships on campus). Isolation can be effectively minimized by frequent contact with faculty members, especially outside the classroom, serving as an important factor in student persistence.

External forces include external communities, external obligations, and finances. Involvement in external communities may be positive if such community values college education. If not, participation in such groups can lead to abandonment of educational goals. This can be particularly true for disadvantaged students who participate in their community which has a low level of college degree attainment. External obligations include employment and other commitments which impede full or substantive participation on campus activities and opportunities.

Finances pertains to the issue of ability to pay for college costs. Although the ability to pay for college is an important factor, students may use it to mask other more significant reasons

for leaving. If a student is committed to her/his educational goal, then finances has a lesser impact on withdrawal. However, if the student does not find her/his educational experience as rewarding, any perceived or real financial challenge will lead to departure.

What has been learned about helping students succeed on campus? A review of over 2,600 studies on the impact of college on students produced four themes for student success (Barr & Desler, 2000). First, students gain from their campus experience when they connect their academic, interpersonal, and extracurricular experience to a particular academic goal. The greater the engagement in relevant and impactful campus educational undertakings, the greater the achievement. The second and third factors deal with the integration and “involvement in academic and social life of the institution” (Barr, 2000, p. 51). Creating ways to help students develop a sense of belonging and that they are valued individually is the fourth positive reference on student retention.

#### *Retention of under-prepared students*

Having negotiated their way onto campus, under-prepared students now face not only their own background of academic neglect, but must contend with institutional challenges. How do under-prepared students fare academically according to the review of the literature? The research reveals a mixed bag containing weak student academic achievement, a degree of success, and possible solutions.

As would be predicted, under-prepared students do not persist nor graduate at the level of students with standard credentials. In a CUNY (College University of New York) study by Lavin and Hyllegard (1996), open admissions students had weaker high school records than their regular admissions classmates. Grades were lower, although differences between white and

minority students within the same admissions category were minimal. However, by 1984, 80% of regular admits had degrees, compared to 56% of open admissions students. Among open admissions students, graduation rates were as follows: White 61%; Black 49% and Hispanic 39% (Lavin & Hyllegard). Institutions which have highly selective admissions requirements have a five-year graduation rate of 78.5% (Mortenson, 1999). The same report showed selective admissions institutions with a graduation rate of 59%. The open admissions five-year graduation rate was 36.6%, less than half the graduation rate of the highly selective institutions. These numbers imply that better academic preparation increases the chances for college success, and that easing the rigor of admissions standards, such as open admissions policies, leads to lower graduation rates.

An important element for under-prepared students in their ability to persist is to participate in courses which can assist in improving academic skills, particularly in math and English. Although the perception might be that remediation is a current higher education dilemma and perhaps an indictment on the K-12 education system, remedial education has existed since colonial times (Merisotis & Phipps, 2000). In 1995, 78% of colleges and universities offered at least one remedial class (Merisotis & Phipps, 2000). Merisotis & Phipps concluded that

those halcyon days when all students who enrolled in college were adequately prepared, all courses at higher education institutions were “college level,” and students smoothly made the transition from high school and college simply never existed. And they do not exist now (p. 69).

Students with low index scores can be perceived by faculty and the general study body as

a dilution of academic standards. Pitts, White and Harrison (1999), in a qualitative study of 46 faculty members, revealed that faculty perceive an overall decline in preparation across all students. Faculty commented about their reluctance to teach at a lower level and to pass students who have not learned much at all. The authors cited two underlying factors for the increase in student under-preparedness, “egalitarian demand for access to higher education and enrollment-driven institutional funding” (p. 345). Faculty are concerned with the issue of access of under-prepared students since it suggests a lowering of standards and the responsibility for having to teach in a remedial manner.

### *Retention of Students of Color*

Over the last five decades, major barriers have been removed for students of color to attend college. However, the retention issue remains crucial for minority students. Porter reported that “Black and Hispanic completion rates lag seriously behind those of whites and Asian Americans” (1990, p. vii). This gap is between 20-25%, as whites and Asian American students graduate at rates above 50%, compared to rates of 35-30% for Black and Hispanic students. Other studies show minority students with six-year graduation rates in the range of 27 to 57 percent, while another study revealed a rate of 60 percent (McNeary, 1996). A report on the ‘Black-White Higher Education Equality Index’ which compares the progress and achievement of each population, stated the index has remained at 70.1 for several years. Although this index has increased from 57 when it was first reported in 1970, it still leaves a 30 point gap between Blacks and Whites (Cross, 2000).

In 1998, college-bound students were “more racially and ethnically diverse, more eligible for college credits before college enrollment, and had higher grades than their predecessors”

(Barr, 2000, p. 559). However, differences in academic preparation and test scores continue to widen between African American and Latino students, and other racial and ethnic populations (Barr, 2000). Four of the most important areas which affect the retention of Black students have been identified (Lang & Ford, 19988). These are: how well students are prepared for the academic challenges in college; components which influence academic achievement such as intellectual and non-intellectual; challenges regarding knowing the system, the culture of the institution; and inherent social obstacles and financial need of black students (Lang & Ford, 1988).

As institutions continue to improve their services and campus environment to integrate minority students, most retention strategies have fallen short of success. The approaches which attempt to solve the low levels of success of disadvantaged students tend to be minimally impactful because they fail to recognize the complexity of the issue (McNeary, 1996). Institutions tend to address the issue in an analytical, detached manner, when in reality the complexities of the issue demand a level of understanding and commitment much greater than what administrators are able to grasp. McNeary (1996) discussed four retention traps which institutions set for students of color in their attempts, albeit in good faith and with good intentions, to reduce attrition rates. The first trap is treating all students of color in the same manner. Students of color are not a monolithic group, and their diversity in ethnicity, family income, family role, and high school experience and preparation all contribute to the uniqueness of each student. Treating students of color as a group with identical traits and experiences often leads to generalized services. Because these services ignore the students' diverse social backgrounds and different levels of academic preparation, the institution fails to address unique

needs and challenges.

The second retention trap is providing services which are aimed at fixing the student. When students are identified as under-prepared, or having a deficit, the institutional response is to fix the problem. Remediation is used to bring the students up to par academically. However, this approach by itself ignores how other important elements, such as the institution's responsibility for the learning environment, and the role of faculty and the curriculum, play in the success of students of color. This approach which puts the sole responsibility on the student and treats them as students with deficiencies is not effective and does not treat students with dignity.

The third retention trap is lack of support from the institution to make it work. The complexity of the issue is usually beyond the administrators' grasp, and funding for programming is insufficient. Even with a lack of understanding, institutions fail to conduct research to uncover the root causes of the attrition problem, and established programs often fail as they are not based on sound assessment data. Retention programs are then minimally funded and staffed, or require outside, temporary grants. With few resources and a limited capacity of staff to influence campus wide reforms, the retention efforts tend to be limited, and the focus is on the perceived shortcomings of diverse students instead of those of the institution.

The last retention trap deals with the institution's academic community, and its responsibility to integrate and sustain a climate of multicultural richness and appreciation.

### *Retention of Low Income Students*

The student's socio-economic status makes a significant difference in a student's ability to earn a degree (Porter, 1990). Porter's study of six-year persistence rates in pursuing four-year degrees revealed that students from the lowest income quartile had a completion rate of 17.6%,

compared to a 55.4% rate for students from the highest quartile (Porter, 1990). Mortenson (1998) reported that students from the lowest income quartile have a 5% chance of earning a bachelor's degree, while students from the top quartile have a 74% chance of graduating.

Coomes (2000) reported that research on financial aid and student retention points to an implied contract between the university and the student. This expectation is set during the recruitment stage. The expectations from the implied contract carries over from the recruitment stage to the undergraduate years as students weigh whether to stay or leave college (Coomes, 2000). Once on campus, timing is an important factor, as most students dropout during the first two semesters, or after the eighth (Porter, 1990). Financial aid can make an impact on retention, as 90% of students who received a grant were still enrolled. For those not receiving a grant, the rate was only 75% (Porter, 1990).

Tinto also described financial pressures as one of the factors which can lead to departure (1993). The impact of finances on college departure, however, can be overstated (Tinto, 1993). Although financial problems are often cited as a reason for leaving campus, Tinto believes other underlying issues relating to the student's experience, academic and non-academic, are usually the root causes (1993). Students who face difficult financial situations earn their degree, as they internalize the future benefits of their education and have rewarding college experience. College students engage in a continual evaluation of their commitment to staying on campus and their perceptions about "affordability have a sustained influence on subsequent persistence decisions" (Coomes, 2000, p.70).

Naturally, low income students are the most concerned about college costs and financial aid packages (Coomes, 2000). Working class students are concerned about working during their

college years as a way to control their budgetary concerns in order to continue in college (Coomes, 2000). For students who lack a positive campus experience, any perceived or real difficult financial situation, no matter how trivial, is enough reason to rationalize their departure from college (Tinto, 1993). In fact, two-thirds of students who drop out of college are in good academic standing at their time of departure (Tinto, 1993).

### *Benefits of a College Education*

The process for the distribution of any scarce resource is inherently filled with tension and suspicion. Because a college education is an exceedingly valuable resource (Bowen & Bok, 1998), the topic of who gets admitted can often elicit emotional, perhaps even irrational responses. This anxiety seems to increase with the institution's academic reputation, as Brown-Miller (1996) puts it, "not being picked to play in the big leagues looks like losing the game" (p. 110). While there may be other higher education choices for under-prepared students, such as technical colleges and trade schools, attending more selective institutions has certain advantages. The Department of Education reports that "the contribution of college characteristics to future earnings was statistically significant" (U.S. Department of Education, 2000). College selectivity was positively correlated to earnings, adding 11 to 19 percent of annual income for males who attended "selective" colleges, compared to those who attended "non-selective" institutions, while data for female students also showed a positive correlation for similar factors (U.S. Department of Education, 2000).

Charts and graphs which report annual earnings based on educational attainment tend to support the benefits of a college education. Mortenson (October, 2000) reported that the average annual earnings of an individual with no high school diploma is just over \$16,000. A bachelor's

degree would increase the average earnings to around \$43,700, and an advanced degree would bring in over \$63,000. Bowen and Bok (1998) reviewed decades of data on the benefits of a degree from selective schools, particularly for Blacks, and determined that such education has enormous rewards. Astin (2000) reported that student values regarding education have shifted since the sixties. The percentage of students surveyed agreeing with the statement 'the chief benefit of a college education is to increase one's earning power' increased from 53% in 1969 to 71% in 1989. In contrast, students who agree with the statement regarding attending college was to 'develop a meaningful philosophy of life' decreased from over 80% to just below 50%.

After graduation, the benefits of a degree extend beyond individual career and financial gain (Bowen & Bok, 1998). Students' ability to contribute to their community are made possible by attending a selective college. Their own children then will have a greater chance for academic success and the cycle of poverty can be greatly impacted. Beyond the economic benefits, Bowen and Bok also determined that a large percentage of graduates attributed their ability to work with individuals from diverse backgrounds to their experience during college (1998).

An individual's self-interest encompasses securing essential human needs, including a college education. Denial of such a commodity is clearly against the individual's well-being (Stone, 1997). This level of faith in the college degree to deliver these essential human needs is perhaps due to its dependability to return a great deal of profit for the educational investment made (Pascarella & Terenzini, 1991). Pascarella and Terenzini calculated this return to be a 21% average annual yield- impressive by any standard. Admissions to selective schools can be even more rewarding, regardless of racial or other background (Bowen & Bok, 1998).

## *Summary*

The review of the literature has described studies and theories on issues relating to the educational experiences of low income, minority students and the retention of under-prepared students on the college campus. Important and interrelated themes such as poverty, ethnicity, educational experiences and their role in a child's schooling emerged. Family income often dictates students attend impoverished schools which provide a weak college preparation education. The literature review also revealed challenges to the issue of access and opportunity in the context of the use of standardized college tests such as the ACT and SAT. The validity and usefulness of college entrance exams, particularly the SAT, is questioned.

Once students are admitted, the ability of students to enjoy success on campus depends on several factors, including pre-enrollment academic qualifications, student/institutional match, campus environment, and the institution's approach to creating an environment where students thrive academically and socially. Students who are less prepared and who are admitted to less selective schools tend to graduate at lower rates. Students from low income families weigh their perceptions about or actual ability to finance educational costs. Another challenge of student under-preparedness is faculty's perceptions on the impact on their work load and academic standards. Although the time and energy needed to graduate are enormous, the benefits of a college degree are well documented. Students will endure the pain and suffering of such a journey in order to reap the benefits a college education can bring.

## CHAPTER 3

### Methodology

#### *Research Approach and Rationale*

John Creswell (1998, p.15) defined qualitative research as “an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyzes words, reports detailed views of informants, and conducts the study in a natural setting.” The objective of the proposed research fits well with the definition of qualitative research. The study seeks to explore the social or human problem of negative prediction of retention and graduation, and the lack of insight into the phenomenon of under-prepared students achieving academic success. The proposed research, through analysis of interviews and institutional data, seeks to build a holistic portrait of the phenomenon at Colorado State University.

This study used a qualitative method of inquiry known as phenomenology. Phenomenology seeks to gain insight into the “structure and essence of experience” (Patton, 1990), as well as to “understand the meaning of events and interactions to ordinary people in particular situations” (Bogdan & Biklen, 1992, p. 34). The themes which may emerge will arise from an individuals’ unique perspectives on their interaction with their environment. The

emphasis on understanding individual's subjective reality will reveal emergent themes to form a coherent construct which can bring deeper understanding to the institution. In this study, the phenomenology approach will seek to understand the structure and essence of experience by academically successful Colorado State University students who were considered under-prepared.

The reasons for selecting this approach have to do with the nature of the research objective. The study attempts to understand the particular circumstances of several individuals and to describe the meaning (Creswell, 1998) of the situation or concept. The study begins with philosophical ideas such as equality, access, potential, and opportunity. Following the philosophical ideas, the researcher forms an approach to studying the problem. In this study, such approach consists of interviewing several individuals on campus, and extracting meaning from their statements (Patton, 1990).

### *Research Setting*

The research setting is a large, land-grant university in Fort Collins, a city of 115,000 in northern Colorado. Located at the juncture of the great plains and the Rocky Mountains, Colorado State University was founded in 1870 as an agricultural college. Today, this Ph.D. granting institution has an enrollment of over 23,000 students from each state and 94 countries (OBIA, 2000). Colorado State University's location is one of the most sparsely populated areas of the country (U.S. Census, 2000).

Without a large population base, Colorado's funding level for higher education ranks 29<sup>th</sup> in the nation (\$743 million), and its one-year state funding increase of 3.4% ranks 37<sup>th</sup> (Schmidt, 2000). Alabama, with a population size roughly the same as Colorado, ranks 18<sup>th</sup> (\$1.1 billion),

and Mississippi, with 1.3 million less inhabitants, also finishes ahead with a ranking of 24 (\$881 million) (Schmidt, 2000). This below par level of funding is perhaps indicative of the results of the first national report card for state's higher education performance, in which Colorado received average marks (Selingo, 2000). States were graded on five categories (Colorado's grades in parentheses): Preparation (B); Participation (B-); Affordability (B-); Completion (C); and Benefits (A) (Selingo, 2000). Colorado's lowest grade of a C was in the Completion category. The factors which are used to determine this grade include the percentage of freshmen who come back to school the following year and degree completion within five years. While Colorado's rate of persistence for freshmen is 74%, top states have an average score of 84%, and its five-year graduation rate of 49% is lower than the top average of 66% (National Center for Public Policy and Higher Education, 2000).

Colorado earned an A on the category of Benefits. Benefits is defined as the percentage of 25-65 year-olds with at least a baccalaureate, the income differential from those not having a degree, voting participation, charitable giving, and adult literacy (Selingo, 2000). With 34.6% of its citizens with bachelor's degrees, Colorado is the top ranked state on this important education category.

Participation criteria takes into account the percentage of individuals enrolled in college in three age categories (Selingo, 2000). Although the criteria does not include college enrollment for low-income students, Colorado might have scored lower than its earned B- if such criteria were included. Only 17.3% of low income students in Colorado enroll in college- only five states have a worst rate, and this compares dimly to Connecticut's top ranked rate of 73% of low-income students enrolling in college (Cross, 2000).

The grade of B- on Affordability indicates that Colorado could do more to bridge the financial gap of low-income residents. In the Preparation category, Colorado received a B, which indicates students are graduating from high school, have taken algebra, scored above proficiency in national assessments, and did well in SAT or ACT tests.

This study will focus on students who entered the University through the window. Particular attention is given to students who have CCHE index scores below 95. During the Fall of 1999, the researcher conducted a preliminary inquiry to find out how many students were admitted with an index number of 95 and below. The University's Office of Budgets and Institutional Analysis produced for the researcher a list of students who had senior status and who were admitted with CCHE index scores 95 and below. The list did not contain names. However, 517 records were produced. In the Fall of 1999, 5,934 Colorado State University students had senior status. The 517 students represented in the OBIA list comprise 8.7% of all the Fall 1999 seniors. Although the list did not reveal the entering term for these students, an illustrative comparison can be made with entering classes of previous years. For the freshman class of 1992, 7% of students were admitted with index scores 95 and below. For the freshman class of 1993 and 1994, this figure is 5% for each year. For 1995, the number reaches 9%.

Colorado State University's Freshmen Retention Study of the class of 1993 reveals a 12 percentage point difference in retention and graduation rates between students with high and low prediction criteria (OBIA, 1999). While the data show that students with higher prediction scores do have higher retention and graduation rates, students with lower prediction scores do enjoy a level of success which deserves a closer look.

The researcher does not infer any empirical analysis from this data, other than a simple observation. Colorado State University students who are admitted with low index scores (95 and below) seem to be represented in the 1999 senior class at roughly similar levels as previous freshmen classes. The numbers seem to point to a certain level of retention for students from under-prepared backgrounds. The list contained records of students with index scores as low as 64. Yet even this student had a gpa of 2.3. Most students on the list were admitted with index scores above 90 (325 out of 517 or 63%).

### *Research Question*

The proposed research will attempt to gain insight and understanding into the phenomenon of under-prepared students achieving academic success at Colorado State University. In particular, the study will seek to discover the meaning of this experience for these individuals. In order to accomplish this objective, the research design must be based on a guiding research question, along with supporting interview, or subquestions (Creswell, 1998). This overarching question must be broad enough to encompass the breadth of the study.

#### Research Question:

What experiences have contributed to your ability to get this far at Colorado State University?

Interview questions, or subquestions, are designed to facilitate the process of collecting data in order to help answer the research question. Creswell (1998) differentiates subquestions into two distinct categories, issue and topical. Issue subquestions attempt to gain insight into complex topics, such as personal, political, and social factors. Topical subquestions are used to gain descriptive information (Creswell).

**Topical Subquestions (brief survey form):**

1. Demographic information
2. General impressions and insights about their CSU experience
3. Participation in a pre-college or Bridge transitional program
4. Support systems

**Issue Subquestions:**

1. What is your personal definition of success?
2. Were you aware of the university systems?
3. If you needed help, did you know where to get it?
4. Did you get the help you needed?
5. Why you? (Why are you successful?)
6. The university, by admitting you, took what we might call a risk, a chance. Do you agree? Why; why not?
7. Did you feel the university accurately assessed your readiness for college work?
8. Did ethnic pride, community/ belonging/ spirituality/ religion play a part?

*Selection of Research Subjects*

In a phenomenological study, the need to have all participants experience the phenomenon is essential (Creswell, 1998). To meet this important methodological requirement, constructing a sound definition of the phenomenon is necessary. The primary objective of the research is to seek to understand the experience of under-prepared students who now enjoy academic success at Colorado State University, defined as having a cumulative grade point average of 2.0 or greater. To illustrate this phenomenon in a more substantive and impactful

manner, students who have the greatest gap between level of preparation (low index score) and outcome (high grade point average) will be selected. Creswell (1998) called this type of sampling extreme cases. The purpose of extreme cases sampling is to “learn from highly unusual manifestations of the phenomenon of interest” (Creswell, p. 119). The individuals representing the most dramatic experience of overcoming the predictability of a low index score by performing well academically is the essence of the proposed research. If this procedure yields a large amount of potential research participants, selection will be done in a descending order of extremes. In order to identify the students from low-income, first generation backgrounds, a brief survey form will be used. This procedure will serve to select research participants whose under-preparedness is likely to be caused by socioeconomic factors as described in the review of the literature. Research participants will be selected in an ongoing basis with no predetermined number. However, the range of participants may range from eight to 20. Selection of participants will cease when data from interviews show redundancy and saturation of emerging themes and insights.

The selection of research subjects was coordinated with the Colorado State University’s Office of Budgets and Institutional Analysis. This department generated a comprehensive list of University students who meet the criteria for study. During the Fall of 1999, the researcher conducted a preliminary inquiry to find out how many students were admitted with an index number of 95 and below. Of the 517 records produced, the index scores ranged from as low as 64 to 95. Most students on the list were admitted with index scores above 90 (325 out of 517 or 63%). The researcher asked for this list again, and after securing permission from the Human Research Committee, names were also requested.

### *Human Research Committee*

The researcher submitted an application to the University's Human Research Committee before the selection process began. This application included assurances and processes which comply with University requirements regarding human research. The researcher also maintained a set of standards and rules to protect individual rights, privacy, and minimize the intrusion into the lives of the participants. A copy of the consent form can be found in the appendix.

### *Data Analysis*

In order to reduce the data into meanings and themes which capture the essence of the individuals' experience, the researcher suspends prejudgements, also known as *epoche*. By temporarily abandoning preconceptions, the researcher can reach the level of understanding through the perspective of the informants.

Creswell (1998) provided a set of four steps in the analysis of the data. In the case of this study, the data was in the form of transcribed interviews. Step one is to read all of the descriptions completely. The second step calls for the author to extract the most significant statements from the data. For the third step, statements are formulated into meanings, and the meanings are then organized into clustered themes. In the last step, a narrative description and conceptual framework is created from the themes to produce the "essence" of the phenomenon. In this case, the answer to the question: what is the essence of the success experience.

### *Trustworthiness*

A critical component of the research design was to implement measures which helped ensure standards of quality and verification. These steps allowed for a higher level of certainty that the researcher "got it right" (Creswell, 1998). The first criteria to ensure trustworthiness was

to establish credibility (internal validity). Credibility, comprised of several strategies, includes reflexivity, member checking, and peer examination (Creswell, 1998). Reflexivity consisted of documenting the researcher's personal reflections in a field journal. These reflections provided insight into the thoughts, feelings, and impressions. Member checking allowed the establishment of greater confidence in the credibility of the research by allowing participants to verify transcripts. Most of the participants reviewed the transcript and only a few had minor, typographical revisions. The participants believed the transcribed interview was done correctly. This checking by the source of the information assured the researcher that the perspective of the participant is closer to the "truth" (Creswell, 1998).

Peer examination is a process which allowed the researcher to discuss the study with colleagues. These discussions brought different perspectives, new ideas, and suggestions to make the research more credible. In particular, the researcher consulted with current and recently graduated Ph.D. peers in the area of qualitative research data analysis software. These conversations occurred in the course of several months prior to the data collection stage of the study. In the end, the researcher was able to select a software package appropriate for the research methodology.

Dependability (reliability) is comprised of providing an audit trail. An audit trail, in the form of the journal already mentioned, will provide a road map so that other researchers are able to duplicate this study. As the data collection phase of the study began, notes and descriptions of the processes were documented. The documentation includes detailed information to the degree that another researcher can replicate the study.

### *Personal Statement*

The researcher brings to this study a long history in the practice of providing educational opportunity to disadvantaged populations. Since 1988, the researcher has worked professionally in the educational opportunity field, specifically with the Federal TRIO programs. These programs provide services to low-income, first generation (defined as parents not having a bachelors degree), and disabled Americans. These services include academic preparation, awareness of higher education opportunities, and activities which increase motivation and commitment to pursue a postsecondary educational program.

One of the most critical issues for this profession is helping participants, who because of their socio-economic background, are often under-prepared for academic work in more selective colleges and universities. TRIO professionals engage in advocacy for these students by promoting greater access to colleges by de-emphasizing the use of ACT and SAT scores. The researcher's bias is towards less emphasis on such test scores, and more weight given to less traditional methods of predicting academic success. The researcher believes more selective universities have a role in mitigating the inequalities of society, particularly the imbalance of resources and quality of education amongst poor and rich communities and their schools. Furthermore, institutions of higher education should provide transitional programs to bridge the high school experience to the academic rigors and campus resources which allow students to become engaged and find meaning in their college experience.

### *Limitations of the Study*

This study has one identified limitation. The study is limited to students attending Colorado State University. The objective of the research is to understand what is going on at this

particular university, and the results of the study will be unique to a geographical location. This institution has an enrollment of just over 23,000 students. Located in northern Colorado, the institution enrolls primarily white students in a community with a similar demographic profile.

## CHAPTER 4

### Findings

The research approach for this study utilized a phenomenological form of qualitative inquiry. This approach seeks to understand the essence or the “central underlying meaning” of an individual’s experience (Creswell, 1998, p. 52). This meaning can be revealed by allowing the research participant to explore their experience, both outward appearance (academic success) and inner consciousness which can be grounded in imagery, reflection, and meaning.

In this study, the goal was to gain understanding of the research question- what experiences have contributed to your ability to get this far at Colorado State University? Eight Colorado State University seniors were interviewed regarding their academic experience as well as family background and pre-college experiences. Several sub-questions provided a guide for the interviews, including demographic information, general impressions and insights about their CSU experience, participation in a pre-college or Bridge transitional program, and any support systems that allowed them to be successful. There were also questions regarding their personal definition of success, their awareness and involvement in university support systems, and their perspective on their admissions and level of readiness to attend the university. The interview

questions also sought to learn if ethnic pride, community/ belonging/ spirituality/ religion played a part in their success.

The research participants were chosen from a list of students who shared several socio-economic and academic backgrounds. After securing permission from the University's Human Research Committee, a list was produced by the institution containing 482 senior level students with an admissions index of 95 or below. The list was reduced to 37 potential research participants after excluding students who did not meet the established profile outlined in the methodology chapter. Students with poor academic records (a grade point average below a 2.0 based on a 4.0 scale) were excluded. Student with a grade point average below a 2.0 are placed on academic probation, and would not be considered successful students. Students for whom first generation college status could not be determined were not included, as well as students who did not meet low- income criteria (or such information was absent). Low-income is defined as having an Expected Family Contribution (EFC) amount which qualifies a student for the Federal Pell Grant. The EFC amount is derived from family financial information and is used by student financial aid offices to award student aid.

The condensed list contained students with admissions index scores ranging from 64 to 95. The range of grade point averages was from 2.0 to 3.4. Students who had the greatest gap between level of preparation (low index score) and outcome (high grade point average) were to be selected. The goal of extreme cases sampling is to "learn from highly unusual manifestations of the phenomenon of interest" (Creswell, p. 119). To determine low-income and first generation college status, the list provided by the institution included such data, eliminating the need for the brief survey form described in the methodology chapter. Final selection began with students with

the lowest index scores who had earned the highest Colorado State University grade point average.

Many eligible potential research participants could not be reached due to out-of-state addresses and phone numbers, or limited information about how to locate them. Some students did not return messages, and after several attempts, their participation was deemed unlikely. In the end, three of the students interviewed had participated in a pre-college program. While there was no intentionality in the selection of these participants, the ability to more easily locate them, and the trust already established, led to not losing their participation.

Interviews were set up by calling the potential research participants and explaining the study. Several students did not have local numbers, and attempts were made to reach them by leaving messages. Of the students who were reached, only one declined to participate and no reason was given for the refusal. Of the eight students selected, the range of index scores was 64 to 91, and the grade point average ranged from 2.1 to 3.4. Selection of participants ceased when a preliminary examination of the data showed redundancy of experiences. These redundancies, or themes, will be described in the rest of this chapter.

The interviews were arranged to take place at the Lory Student Center, a location central to campus and likely familiar to the students. After the study was further explained, the release was signed by the student. The interviews were documented using a microcassette tape recorder. The interviews (cases) were transcribed into a word processing software. The transcriptions were then imported into a qualitative data managing software called HyperResearch. This software allows efficient coding of case text and editing and management of codes across each case. After all eight cases were coded, the code list was refined and condensed to decrease redundancy and

increase clarity. This system of coding and data manipulation through HyperResearch software facilitated the emergence of themes which help to answer this study's research question.

### *What Experiences Led to the Students' Success?*

The main objective of the study is to gain an understanding of the student's experience leading to success at Colorado State University. The data collected for this study consisted of interviews with eight seniors who whose index numbers were between 64 and 91. The interviews yielded insights into the students' experience on the Colorado State University campus, including information about specific events and interactions which they identify as significant. These experiences can consist of a moment of insight, a significant event, a particular university service or office, or a special relationship. Either as a comprehensive set of experiences, or a single defining moment, the interview data yields clues and insights to answer the research question: what experiences have contributed to your ability to get this far at Colorado State University?

The students' backgrounds were varied, and included both female and male students, as well as students from Asian, Black, Hispanic, and white ethnic/racial backgrounds. Only one student was from out of state, six were from Colorado's Front Range, and one from a mountain community. Each student profile opens with a personal background paragraph and continues with data which illustrates, on an individual level, the factors which led to their academic success.

#### *Student one.*

Student One is a Hispanic male from Fort Collins who participated in a bridge transitional program. He struggled in high school mainly due to his lack of academic focus and

familial economic needs, including homelessness during a brief period of time. His responses indicated a need for connectedness with people and a search for meaning in his academic pursuits.

I can't say this of everybody but I feel that I'm successful because I want to be successful and I didn't feel that way when I started college.

Student One benefitted from a transitional academic Bridge experience during the summer before his freshman year. This experience allowed him to gain academic skills and to integrate into the campus community. Despite its benefits, the structure of the program was perceived as overly intrusive.

Yeah, actually I was well informed of all my options because of being in the Bridge Program. It was a positive and a negative. It felt like I was getting my hand held all the time but also it really helped me find out a lot of, gave me a lot of networking abilities and told me where I could go to get help, like El Centro, EOC and that one program that used to be in Clark.

Another success factor for Student One was finding meaning and connectedness in his academic work by building relationships with university staff and professors.

The bigger the class, the more you're treated like another number. That's why I started getting to know my teachers, actually. Which was a Bridge suggestion. They told us to take our teachers to lunch and stuff. And I did during Bridge and I actually still talk to one of the teachers, Dr. L. We still go out to lunch every once in awhile and he sort of does the surrogate father thing - how's your grades?

Connectedness had an additional benefit. By staying connected with offices and their services, he was able to create a source of motivation.

I wouldn't say that I really, necessarily needed help, but I needed motivation. I guess that would be a form of needing help. Like with needing tutors and stuff, it wasn't a lack of understanding the material. It was more of a lack of willing to study. And like meeting the tutors forces you to study on a regular basis.

In the end, moments of insight seemed to play a significant role in his ability to refocus his energies towards academic work. This student was able to internalize his motivation for success and hold himself accountable for his academic performance.

I think somebody just told me and it clicked, you know how as a young kid you blame your parents, put blame, blame everybody for everything. Your problems don't have anything to do with you. But that I think at some point I decided that I gotta start holding myself accountable. That's when I decided I needed to start doing better. At this point in my life, if anything goes wrong, it's mostly on me to fix it. Or it's on me because I am accountable. I decided that I need to be accountable. Somebody else is not accountable for my life.

The need for structure may seem contradictory to his moment of insight where motivation to succeed was internalized. However, manipulating his environment to maximize his chances for academic success is a mature approach and exhibits initiative. Student One stumbled academically in his search for meaning in his studies. Through building of relationships and taking advantage of academic resources, he was able to regain his focus that was provided by the Bridge Program.

I didn't really want to learn at the time. And when you're first starting college, you have to take a bunch of classes that have nothing to do with what you enjoy, usually. And if I don't want to learn something, I won't. So I'll do very badly in that class. But if the material is hard or easy or anything, as long as I didn't enjoy doing it I wasn't going to do well in it and that's why when I was a younger college student, I really didn't do very well. So that's why I'm still in college now, actually. For me I had to decide when I wanted to be a good student. Really, I want to graduate now. I have a focus to graduate.

*Student two.*

Student Two is a Hispanic male from out of state who transferred to CSU after attending a community college and a state university, both unsatisfying experiences. Although he was admitted as a transfer student, the combination of his high school grades and test scores resulted

in the lowest index score not only of the students interviewed, but of the entire original list. This student's journey to this institution illustrates the level of perseverance in the search for an academic experience which holds meaning to him.

I've always wanted to be somebody. I've always wanted to do something, something I enjoy.

Student Two transferred to Colorado State University after several unsuccessful academic experiences. Although his high school academic experience was not ideal, he pursued a college education by attending a community college and a state university. He eventually enrolled at Colorado State and was able to thrive.

I tried to prove myself that I could come to school because I was intimidated in applying to a lot of schools. But CSU was always one that I wanted to go to. So, all in all, I worked a lot harder. I've learned a lot from people, tutors, friends. I've picked up their study habits. I go to the library. I can study peacefully for a long time with no distractions. I've come a long way. I feel proud of myself. I understand that I've come a long way since high school.

This student worked hard to find an institution that was the right fit for him. He has displayed a great amount of self-reliance and initiative. The following paragraph is his response to the question if he taught himself how to navigate the system at this institution.

Yes, but I wouldn't do it again. What I mean is if I see an advantage, then I'll take it. That's where I am right now. I applied to grad school and I learned from my mistakes in undergrad school. And in grad school, I know it's going to be more difficult and I know I'm going to have to take that organized study guides and go to an organization meeting or have some assistance. But like tutors is the closest thing that I've done. My tutor for last semester, I would visit frequently and we would study together in my weakest subject.

Despite his self-reliance inclinations, Student Two benefitted from the tutors that the university offered. Student Two can be characterized as a self-motivated individual who searched for, and found, a sense of belonging and accomplishment at this institution.

I've always wanted to be somebody. I've always wanted to do something, something I enjoy.... But a lot of it was just ambition. I just wanted to make something out of myself. Pretty much, that's it. I've never really thought about it, analyzed it. But going back, I remember I just want to do something. I want to be something. I don't want to stick around. I want to experience new things, be someone else. Colorado State was the place. I've been living completely on my own. So I came up here, alone, did everything alone up here. I hope I've done alright. I think I have.

*Student three.*

Student Three is a Black male from Denver who was recruited on an athletic scholarship. He has been able to draw from his experiences in different environments and situations and has learned a number of adaptation skills, which facilitated his success on campus. Student Three also draws from his faith to overcome hardship and create optimism. His ability to learn study skills and other positive habits, as well as learn from the mistakes of others, have helped him succeed.

... education, that's the only thing that you have. You can say I earned it and nobody else did it but you.

Student Three was recruited to play football at Colorado State University. On campus, he learned study habits and skills by observing others. He participated in several campus services and organizations.

For me coming here just scheduling things and having a lot of support systems from the academic services and things like that really helped me out. And then too just meeting a lot of people that were probably on the same boat as I was, studying within this topic. And I just caught on to a lot of good study habits from people I hung around, things like that.

Although Student Three benefitted from campus services, he does not completely attribute his academic success to such programs.

I attribute most of it [academic success] to just myself being able to change, being able to adapt to different situations and things like that because for me, no matter how much help they gave me, if I wasn't to do it or if I wasn't willing to change, then I wasn't going to change. So, for me it was just kinda shedding some of those old habits and just picking up some new ones. And just adapting to how college life is as far as the classroom, you know. Because when you come in as a freshman, everything goes so fast - you're a number, your social security number. There's a hundred people in a class. You don't really know nobody. But if you can adapt over the years, then you can kinda start to figure the whole college thing out.

Student Three attributes his ability to adapt to his racial background as a Black male growing up in inner-city Denver who was bused to an all-white Catholic school. Also, he learned from participating on team sports such as football, which exposed him to people from different backgrounds working closely towards a common goal. As a high school student, he saw football as his only chance to make it to college. And once on campus, maintaining his academic eligibility was a strong motivator to keep doing well.

For me, it motivated me a lot. Just, not necessarily the eligibility part, but just being able to take it upon myself to get my stuff together. Not to be like, "well, the coaches are checking my grade. I have to have this 2.0 or you know, something like that." I did it all for myself. Because in the long run, there is gonna be no coaches or anybody looking after you once you get in the real world.

In addition to sports and his ability and willingness to adapt, Student Three finds strength in his faith. The following paragraph is his response to what he most attributes his success to.

Faith. I believe faith. Because for me, when there's no other person that can help you, when you can only help yourself and when you can't even help yourself, you have to believe that somebody's gonna help you. So, it's all faith, I believe it's what helped me.

*Student four.*

Student Four is a White female from a mountain community who has been through several challenging events, including family conflict and personal illness. Her journey of self-

discovery through academic growth and fulfillment have allowed her to thrive despite her responsibilities for her own family. Her positive academic experiences have allowed her to find meaning, not only academically, but also in her life.

I want do something positive with my life. I felt that all my life, even when I was a child.

Student Four's experience at this institution is perhaps the most striking example of what an educational environment can do for a person's development. She was able to manage personal challenges and family problems through services at the university's counseling center. She also found her passion academically through writing, allowing her to develop confidence and find meaning in her academic work.

Well, I've been thinking about this since you called me and I think primarily the services here on campus. I've utilized the Counseling Center. I've utilized the Career Counseling. And just my professors have been especially helpful, especially my advisor has been helpful and encouraging, definitely.

Right after I got married, I had an illness that I couldn't even move, I had a lot of pain. And that went on for about a year and I started to write during that time. And that was the only thing I could do that I had control over. I didn't have control over the pain or anything else. So, I started to write and I started to realize that I loved doing that. And that's what led me here. I decided that there was something about writing that was fascinating to me and I wanted to study that.

Other campus services allowed her to pinpoint her area of interest. In particular, career counseling was instrumental in helping her validate her commitment and passion for writing.

Academically, I really needed the career counseling because I came in thinking I knew what I wanted to do and I didn't know if that was the right career choice for me. That helped me focus on my studies a little bit more, once I realized that I had the right type of personality for the career I was in, or pursuing with English.

Student Four found support and help with personal growth and career development.

However, in the end, she recognizes her resilience as an integral factor to her academic success.

Resilience. I feel a lot of joy when I'm here, when I'm pursuing... I've learned that I love writing and that's my passion. That really gives me strength to draw from in other areas of my life. So being here is really important in other aspects of my life because I feel like I am a better person. I'm a better mom. I'm a better wife. I'm a better daughter and whatever.

In the end, it was her journey of self-discovery that defines her experience at this institution. Discovering her passion, as much as anything else, has allowed her to find the strength and meaning to do well academically.

One of the reasons I've had a hard time deciding on English or deciding on a major is because I'm not so much looking for a career, I'm looking to find who I am. And that's really what I've been doing here at the University.

*Student five.*

Student Five is a Hispanic male from a rural community on the northern Front Range who benefitted from pre-college programs. He integrated socially into the university by creating lasting friendships with students who share his background, and by providing service to the community through campus organizations. Although academic and social structure was provided by pre-college programs, he struggled on his own to find the discipline to complete course work. Eventually, he found ways to provide this on his own.

And I think when there has been structure, that's where I have succeeded. When somebody says do this, this and this. I can do it then I can start doing it independently.

Student Five was another student who participated in a Bridge transitional program. He also benefitted from the academic skills and structure provided. However, and similar to Student One, he faced academic troubles once the structure was not present.

And grades are evaluations of that but there is no real structure. And I think when there has been structure, that's where I have succeeded. When somebody says do this, this and this, I can do it then. I can start doing it independently. If you look at

the correlation there, Bridge was structured. The next semester, I just kinda did it independently. That's why those semesters were good. And then once I started to kinda no structure, ok you're on your own buddy. That's when I started to, kinda going back to being bored.

Student Five was able to figure out the correlation between structure and his ability to do well academically. He found structure after his Bridge experience through participation in a fraternity. Motivation to graduate and increase his chances for a good paying job also was also a factor in his success.

The fraternity. I've held many different positions, including a national position. That's kinda the way I've found structure, as far as getting tasks done, community services, things like that, that are structured, they've got to be done. Academically, that has helped. And the fact that I need to graduate or else, what am I going to do, if I didn't graduate - starting working some where else for menial pay?

Student Five's success can also be credited to a couple of other factors. The first one is his personal drive to persevere despite occasional failures.

Determination that I was not going to fail even though times got tough with external forces outside the University: family. Ongoing things still happen here at the University. Say, if I failed a class I needed, I wouldn't let that affect it.

The other factor is the level of comfort with his educational environment. This environment was created by peers who had similar backgrounds and experiences.

Being comfortable in my surroundings here. Like I said finding a safe haven for each individual, each individual at CSU is going to find their own place at CSU, whether it is joining a club, a fraternity, a sorority, playing sports, doing things such at that. Once they find that and the people that have the same upbringing, same values really, they can become comfortable in their settings and their settings become an external force that doesn't even matter. And I think that was what I was able to do. By joining the fraternity, I was able to find my little safe haven. And have the guys know exactly what I go through and what my family has been through. Just having fun with it.

*Student six.*

As an Asian female from Hong Kong, Student Six has been in the United States since the eighth grade and struggled with issues of cultural and language differences. Although Fort Collins provided a limited amount of excitement and entertainment opportunities as compared to her native land, the academic pace and approach was more relaxed. This allowed her to develop relationships with classmates and professors as she increased her language, academic and social skills.

When I came here I took a lot of classes that you need to speak in front of people and this helped me to improve a lot and increase my self confidence. I can say that right now I am not afraid to talk to people.

Student Six's biggest challenge was the language barrier as she is not a native English speaker. However, the slower pace of the American educational system has helped her adjust and make progress. Student Six was originally denied admission, and took classes at a community college to become admissible.

But I like to study because it's not too much pressure. Hong Kong education's too much pressure. Student like to do homework everyday, more than 10. So, when I came here study, I feel relaxing. The method is different. Teacher teach you then you can say your opinion. I think this style, I can learn a lot because you can say your opinion and teacher can say it is right, it is wrong, can correct your idea, something like that.

Student Six was able to create support systems within her classroom environment to maximize her learning, particularly seeking help from classmates in understanding the nuances of assignments and academic expectations.

They explain. Sometimes they know I didn't understand too much English. Like a difficult word, I don't understand that. They tried to use simple English to explain to me and they tried to clarify ideas they have. So, it helped me to

improve a lot and understand the project. We work together so I can understand the direction they are going in. What the main point they think is important.

In addition to making connections with classmates, Student Six further developed her English skills by using the Writing Center.

I think the Writing Center. I took a Composition class before and every time I went there, they helped me a lot to make the corrections and tell me what is in the essay, like the structure, the grammar. It helped me a lot to improve the English writing.

Student Six came to this university with perhaps the biggest academic deficit of the group. Her limited English skills may have been a real deterrent to many students, but she has been able to be resourceful and find support to mitigate her developing English language skills.

I think that the classmates, the teachers, and the environment is very nice. And as I say before, it's not too much pressure. So I can. I love to study more than before. And the classmates, they are very nice.

*Student seven.*

Student Seven is a white male from the Denver area who encountered first-year challenges on campus, and these negative experiences led to leaving the institution. The student came back, and after matching his interests with a major, his academic and campus experiences became significantly more meaningful, which led to success. He does not consider his experiences at this institution as a special accomplishment.

I don't know if I see myself as a success. I'm just one person out of 22,000 people, 24,000 people. I'm just a number with no name. I think it's because going to college is the norm...

Student Seven faced a major obstacle during his freshman year, which led to temporarily dropping out of college. He believed the social environment in the residence hall was an unpleasant and distracting experience not conducive to academic success.

My freshmen year, living in the dorm, all the hustle and bustle, and all the immaturity I guess. I feel I am a little more mature than the average college person. So, with the immaturity in the halls, in the classrooms, and all that, I felt that this wasn't the right place for me. So, my grades kind of fell, the second semester of my freshman year. After my freshman year, I took a semester off and reevaluated everything. And decided what could be possible career options for me if I stayed out of school or went back to school, which was the better choice.

For Student Seven, academic success was not dependent on a deeper integration into the social fabric of the campus. To the contrary, it was his own removal from the university community that seemed to be the right move for him. However, being removed from potential support systems placed greater pressure on him to figure out university systems and services. Fortunately for him, he did figure out how things work at the university.

I'd have to say more understanding of how things work around the college campus and college courses. Getting away from the dorms was a real big help. After my first semester of my sophomore year, the semester I came back, I moved off campus. It was a lot better. I felt I could do a bit more quality studying then if I had to do it at the library. I think that's basically it. Just knowing that I was in a major that I did like, it was easier to study for it.

Student Seven has drawn much of his support from his girlfriend, who is also a student at this institution. This relationship serves as a mutual source of encouragement. He attributes a great deal of motivation to earning his degree in order to meet the goals he and his girlfriend have set for themselves.

Well, my girlfriend now, we've been dating since high school and she's the same motivation that I am...just go to college. Get an education and support ourselves. She's been kinda been equal with me on that. She supports me and I support her.

In addition to using the HELP/Success Center and talking to professors about career choices, Student Seven was eventually able to find the academic major that was the right fit for him.

It was more of trial and error. My freshman year I started out in Health and Exercise Science with a concentration in Physical Therapy. And then some of the classes that were involved with it, I really didn't want to take. And so I switched to Occupational Therapy, but it was kind of in the same field, but different things involved. And I went back because I really realized I wanted something in Health and Fitness or Health and Wellness. I kinda did a little bit of research on the different majors and the subgroup of majors, and concentrations and majors. After I changed it last, to something I really like, I really realized that's what I wanted to do. It just took some time to find it, I guess.

Student Seven developed definite thoughts about what he does and does not need from the institution. His inclination for self-reliance is balanced by the support he receives from his girlfriend. Student Seven's ability to investigate, explore and figure out the system has allowed him to take what he needs from institution without more interaction than necessary.

*Student eight.*

A Hispanic male from Greeley, Student Eight participated in pre-college programs, where he gained skills and a network of colleagues. His involvement in a Latino fraternity and support from institutional retention services allowed him to remain on campus despite family problems. Community and family struggles have provided a source of motivation to earn his degree.

I didn't really think I could, but I was determined to. I was determined to. This is going to make or break me. So I wanted to do it.

Student Eight benefitted from two pre-college programs. The first one was Upward Bound, a college bound program serving low income, first generation students during their high school years. The second was a Bridge program, which served to model key elements of a successful college experience.

It's... changed me since I was in Upward Bound when you had crunch time towards the end of the summer program, you know what I mean. And that carried on through my high school and on through my college years. It's like you need to do that, if not, you're not going to do it, you're not going to pass. It's like, you

know what I mean, consequences if you don't do something. You know what they are going to be. Because before I was not doing studying, I was almost failing high school. Then Upward Bound came along and showed me what I needed to do to be successful in high school, and as well as in college, the Bridge Program showed me as well.

Student Eight used connections to campus services to help him get through rough times.

He attributes his success partly to the special relationships with university staff.

But stayed and plugged in with some people, like [ ] and people like that. They helped me get through it and find a way to get past that without dropping out. They showed me other options besides just dropping everything and going back home with my mom. They helped me get around that and stayed focused and be able to graduate.

A student's involvement in campus events and social organizations leads to greater integration into the fabric of the institution. For Student Eight, involvement in a fraternity allowed him to gain personal satisfaction by serving the community, and by interacting with students from other states who share similar backgrounds and goals.

Yeah, actually I got involved with a fraternity, [ ], a [ ] Fraternity. I got involved with that and that helped put me out in the community, as well. Getting things started with community service, stuff like that. People around our region, people in Kansas, Nebraska, California, our whole region. Doing stuff like that.

Ultimately, Student Eight points to his determination to do well as a major factor in his success.

It's all determination. If you want success, it's there for you. It's there for everybody. It's if you want it or not. If you choose the right path, you go the right path. You take the right path or you take the wrong path. It depends upon the person. There's people that take it and there's people that don't.

### *Conclusion*

Naturally, the factors leading to academic success are unique to each student. Students credited their success to a range of factors, including campus services, motivation to succeed,

personal growth, faith, and learning from others. To the degree that each of these factors played in their success would be difficult to ascertain. However, each of the factors is not expected to have a greater impact as the dynamic combination and interaction of these factors. What is important to recognize is that each factor must be considered significant, and to recognize and value the students' experience.

Each student's individual set of success factors show us a glimpse of their experience at Colorado State University. The research question of what factors led to success has been answered for each student. However, a richer understanding of the phenomenon can be achieved by exploring the diversity of events that have impacted their academic success. The data collected has revealed several categories, which can help explain the phenomenon. These categories, or themes, are: Pre-College Experiences; Struggles; Positive Campus Experiences and Support; and Student Growth.

### *Pre-College Experience*

In order to understand the phenomenon of the under-prepared student succeeding at this institution, it is important to recognize the background and experiences that have led these students where they are today. It has been discussed in chapters one and two that family educational achievement and economic status play a role in a student's chances of college degree attainment. The students in this study reflects the small percentage of successful college students from such backgrounds and, similar to what the literature research shows, what occurs before students set foot on campus plays a role in the students' subsequent academic experiences.

*High school academic experiences.*

Indeed, the students' high school experiences had an effect on college academic achievement. Their academic and familial experiences were universally negative, but not without some positive notes. Their academic weaknesses were attributed to family issues, lack of focus or motivation and lack of maturity, among other factors.

I think when I took the ACT and all through high school, I wasn't ready to go to college. I wasn't, I think if I waited to go to college, or waited to take the ACT even, I could've done a lot better. That was just... I was too carefree at that time in my life. And really when I started college, I wasn't an effective student. Because before I was not doing studying, I was almost failing high school.  
[Student One]

I understand that I've come a long way since high school. Because in high school, I just didn't care. But then when it came to applying, I looked back at my high school performance and said "I'm going to have to work even harder now."  
[Student Two]

Sometimes personal and family issues can be the root of a poor high school experiences.

For this student, the parents' divorce created an environment not conducive to learning.

I didn't feel like I got a lot from high school. I was having a hard time. At the time, my parents were getting divorced and there was a lot of turmoil in my home. And so I didn't do as well as I think I could have had I not had that environment. It was pretty tumultuous. [Student Four]

A student reported that his school may have allowed him to coast academically because of his social status at school. This practice of not holding students academically accountable has obvious and real implications when student is then placed in a rigorous academic setting.

...in high school I wasn't, with the low index score and all that, I wasn't really into academics too much. I was more into hanging out with friends, playing sports, having fun. I didn't much care about my grades. The grades I got because, you could just say because I was an athlete, they were kind of like - we'll pass this guy. I'm not saying that happened. I'm just saying that was part of it, that I was a popular guy. [Student Five]

Another student had the opportunity to attend a high school which made a real attempt to prepare its students for college. However, this student was not able to absorb the lessons and skills taught. His sole focus was to find a way to get to reach a university setting and play football.

They did get you ready for the note taking, they did get you ready for, you know, just the fast pace, how the work was going to be. But for me, in high school I didn't really absorb all of that like somebody else did. It's all different, I didn't... I don't want to say I didn't take it seriously, but, I might not have taken it as seriously. I do now, because my thoughts in high school was just get to college to play football. [Student 3]

Some students face more challenges than others. For this student, learning English was a burden in addition to all other academic responsibilities.

I took the ESL class in high school. And it helped me to improve a lot and the teacher there helped me a lot too. So it give many chances to speak in high school. [Student Six]

Student responses reveal different degrees of high school preparation and a variety of experiences. None of the high school experiences, however, can be characterized as ideal for college preparation. Some students faced personal problems, while others did not take their studies seriously. Perhaps more important than what was said, is what was not mentioned. Students did not report that their school was particularly concerned about their college plans or preparation. In the end, the high schools can be evaluated as to how well they prepare students for the academic rigor at a university level. Although this may not be a fair standard to hold the schools to, the results regarding how they prepared this group of students would not be impressive.

*Their journey to Colorado state university.*

Each of the students' journey to this university was a unique story of struggle, fortune, and circumstance. While many factors play a role in how a student selects a college, the students in this study used basic principles of affordability and proximity to home in their decision-making process. Perhaps because the students are from low-income and first generation backgrounds, the ability to pay and need to remain close to their source of support became important factors. Indeed, some students chose it because of Colorado State University's perceived low tuition and proximity to their community.

A very enjoyable campus, lots of greenery. Most of the teachers care about the students. It's also cheaper for in-state students. That's mainly why I chose CSU. [Student One]

I thought of three schools and CSU was one of them. The other was Wyoming. Puget Sound in Seattle was one of them. I kinda wanted to go far away, but not too far. I know CSU is a real good school within Colorado. And our tuition costs, too, also affected that. [Student Seven]

For one student, the opportunity to play Division I football not too far from home was a very important reason to attend Colorado State University. He expected to have a large amount of playing time as this university's football program was not as competitive as other institutions.

And they came and watched me play football, offered me a scholarship and so on and so forth... I think it was ... I just had this image that I liked being close to home, to that was the thing and then also, it was like, it was almost a city away from where I was at. Totally different type of people, totally different type of things that you would encounter. So that helped me out too. On the football standpoint, it was an up and coming program. I felt like if I came here I would be maybe a big fish in a small pond because I was recruited by University of Washington, University of Texas, and things like that. [Student Three]

For three students, the journey took a slight detour. The eight students had index scores below 91, of which five were admitted based on their index score. The remaining three students

used college credits earned outside of Colorado State University to provide evidence of readiness for this institution's academic rigor. Because they were denied admissions initially, they took classes at a community college or state university. After successfully completing a minimum amount of credits, these students were offered admission. These students responded that the University made the right decision in requiring college work before being admitted to this institution. This perspective is due mainly to the students' experiencing the institution's degree of academic difficulty.

I would go to Front Range first if I can choose again... It's easier to take class at Front Range and it give me a lot of preparation [Student Six]

... I applied to CSU. I got the letter back and it said to work a little harder. And so I did, I went to Texas Tech for a year. [Student Two]

I definitely didn't feel prepared in some ways, especially with math and science. I had a hard time in those subjects. And I can see why they set the standards. [Student Four]

For three students, their journey to the institution was through a summer transitional bridge program. This program provided a structured residential environment with a realistic academic experience. It has already been reported how students either embraced or discontinued the use of skills and tools learned during their bridge experience. To the extent that the students used these skills, they were able to experience success. In the end, however, it was up to the student to make that decision.

And the Bridge Program... I had never learned to study. It was like, whatever, I'll do it the night before. So when I got to Bridge, it was like you can't do it the night before. They showed us how to do things ahead of time, plan out things, time management, things of that nature. From my transcripts, you can see that Bridge and the first semester after that I followed the Bridge model. After that, I followed my own model and it kind of hurt me. [Student Five]

On a policy level, an effective strategy to address a student's under-preparedness would be to provide a set of intensive and realistic experiences which can increase the chances for success. The author, however, must declare a bias for this type of program as he directs the bridge program for low-income, first generation students at this institution.

Regardless of the students' journey to the campus, all of them faced challenges adjusting to the academic demands of university courses. The high school experiences reported indicate an overall weak level of academic preparation. For students who first attended another postsecondary institution, their preparation seemed adequate for admissions purposes, but not complete. Some students expressed that certain subjects, such as science and math, pose particular academic challenges at Colorado State University. While students who participated in a bridge transitional program were able to mitigate their under-preparedness, their sporadic use of learned skills prevented better academic performance. Yet another student battled to take command of the English language.

*Academic preparedness.*

Access to higher education, particularly to selective institutions such as Colorado State University, is largely based on the student's index score, which in turn indicates a student's level of preparation. Admissions officers' most important responsibility is to assess an applicant's academic ability and level of preparation which can ensure the student has a realistic chance of succeeding on campus. However, despite the range of level of preparedness by each student, they faced challenges adjusting to the academic demands of the institution.

Yes, of course I did [feel under-prepared]. I felt kind of rushed, for one. And I came here and I knew it was going to be a lot more difficult and I knew I had to

keep all my grades up. I had to keep those grades up. And that's basically what I did, study more often. [Student Two]

The biggest thing getting used to is the hard work I've been doing and studying for tests. Compared to high school, where there was short term memory and that was it. Here, you have to retain it all, to keep it because all the classes build on top of that. [Student Eight]

This process of adjusting academically had various degrees of difficulty. While the process of adaptation to the campus, both academically and socially, ultimately created a sense of accomplishment, the immediacy of the academic shock was most evident during the first year of attendance. Most students were able to adjust and learn from other students or received assistance from professors and staff. Some students also faced challenges due to their lack of maturity or not knowing how to be an effective student.

Yeah, for me it was "Yeah, this is pretty tough." At the high school I went to, it was a college prep high school. So it was... so the formal work and stuff that they gave me wasn't all that bad, but it was just getting used to- how to do it, and how to take notes, how to pay attention with one hundred other people, you know, doing the same thing. And the professor, not being able to raise your hand, for the most part, you didn't know it as a freshman, being able to raise your hand and say, "can you put that slide back up because I didn't get that." Or going to the professors' office and having them explain some of the things that you don't understand. So for me it was pretty hard my first semester. [Student Three]

And I think I could've been better prepared in high school but it's just been my own drive to succeed that has kept me ok. [Student Four]

Academic preparedness consists of more than the mastery of certain subject matter and collection of a set of good study skills. Lack of consistent academic performance and discipline in study habits can also pose a challenge for academic success. Complacency in academic performance during one semester can deprive a student the cumulative grade point average cushion that may be needed in a subsequent term in which unexpected challenges may arise.

My problem is I get complacent and say, "Oh well, a C or B is passing. Oh well, I'm going to have this free time to go home and play Dreamcast and win the Superbowl or whatever. [Student Five]

Not all students expressed their level of preparation as inadequate. One student did not feel at a disadvantage compared to the rest of his classmates. He described the learning process was similar to what he was used to in high school.

I think I was somewhat prepared, I guess. Since there was just basically studying and remembering things, not actually processing...or implementing things. It wasn't too bad. It was kinda like high school. I think I as prepared as anybody else. [Student Seven]

Eventually, the students adjusted to the academic demands of the university. It is safe to state that the students could not have predicted the level of rigor, dedication and study skills that would be necessary to do well. For most students, the initial academic jolt served notice to the students to adjust, learn, and grow. To the credit of the students, they reacted positively to the struggles and made adjustments. Amazingly, the students have survived additional struggles. Such struggles are discussed in the following pages.

### *Struggles*

Struggle is indeed part of each of the student's story. The challenge of being first generation college students resulted in typical struggles such as uncertainty in ability to earn a degree, lack of parental guidance on the college bound process, and academic struggle due to poor integration into the university environment. The students faced academic and social struggles typical of the average student. However, these challenges become more severe due to the lack of role models who know how to navigate and succeed in college.

*First generation status.*

Before setting foot on campus, each student brought a unique set of experiences, both academic and familial. As discussed in the review of the literature, these socio-economic and educational backgrounds play a large role in the students' ability to enroll and graduate from college. The more immediate effects of their parents lack of education is manifested as their lives are filled with familial struggles and privation.

I think it affected me by my mom... my parents' divorce when I was young. My mom she couldn't find a high paying job, you know, basically. Low work status or not high paying. She had a hard time supporting all of us, because there was seven of us kids. So, she had a hard time, knowing that she didn't go to college. [Student Seven]

So that's a relief to help me out because I don't want to be like my mom, working 9-5 job, making ends meet - barely making ends meet. [Student Eight]

In addition to their living conditions, the interviews revealed that being a first generation college student does create real obstacles and challenges in the path to college enrollment and also deprived the students of parental academic advice.

But I hadn't actually intended to go college out of high school. I never even...it wasn't encouraged in my family maybe because nobody else had gone. It wasn't really brought up. [Student Four]

Actually, they didn't help me a lot because they didn't take any education, especially my mom. She didn't know anything. My dad just took some of high school. So, for academics they didn't give me any ideas. [Student Six]

There's nobody telling me I need to study more or nobody was pushing me because they didn't know what kind of push I needed I guess. [Student One]

The issue of first generation status was received with near universal, visceral and articulated responses of struggle. Perhaps they remembered so well because it was a lonely, frightening experience as they found their way through a new and intimidating path. The

students accepted their situation without any discernable contempt for their parents lack of educational achievement. Rather, their approach to solving the college enrollment puzzle seemed to be a source of accomplishment and pride.

I'm also the first in my family to go to college and I didn't have any help. No one told me, or could tell me, or I was afraid to ask what do I do when I get accepted... It was hard. I had no reference to fall back on. I couldn't ask my mother. My brothers didn't go. When you're applying to school, you don't know you need 30 credits for a freshman. You tell yourself that's a lot of courses. But I did some reading and I figured it out. I never looked at it before and never asked questions. It was just a full hands-on experience. [Student Two]

The amount of advice regarding college enrollment which their parents were able to offer was very limited. This left the students to find their own way into a college campus. While some students benefitted from pre-college programs for first generation students, others, however, were forced to rely on their own wits and good fortune. In addition, there was the recognition that the college enrollment process was easier for others whose parents have gone to college.

I think it played a lot because I didn't really hear nothing about college coming up. Whereas some kids that their parents went to college, that's all they hear about. I didn't hear about that. I heard about, you know, graduating high school. And my only outlet to get to college, you know the way I was thinking, anyway, was through sports. And the first time I ever heard about going to college I was probably, maybe in eighth grade and went to see some high school game at [ ], I believe. And they were talking about scholarships and things like that. And that made me feel like, "Well, I can do just what they're doing. They're the same as me. You know, I can get myself a scholarship." [Student Three]

Some students were more fortunate than others concerning the level of parental awareness and approach to breaking the cycle of low educational achievement. However, this was the exception, not the rule. Most students did not report their parents' role in the college enrollment process as involved as the following case.

My parents don't even have a high school diploma. So it's kinda like, subsequent, after the family struggles with the initial family core, they basically said the next step is to send our kids to college by whatever means necessary to give them whatever we have, no matter what it is. [Student Five]

*Academic struggles.*

Students faced a variety of academic struggles, particularly during their first year on campus. Given their academic under-preparedness and lack of parental advice, their academic struggles are not entirely unexpected. The students expressed their inability to grasp or control their academic environment, and struggles in figuring out the system. Also, the sensation of no control in a new situation was yet another challenge.

So for me it was pretty hard my first semester. I was like, you know, I knew it was something I had to do but I just didn't figure out how it had to be done at the time... Because when you come in as a freshman, everything goes so fast - you're a number, your social security number. There's a hundred people in a class. You don't really know nobody. [Student Three]

I definitely didn't feel prepared in some ways, especially with math and science. I had a hard time in those subjects. [Student Four]

One student places the blame directly on himself, perhaps a bit unfairly. It could be said that many students arrive at the university with a carefree attitude towards their academic responsibilities. This student also reported that social activities had taken precedence over his studies.

I was just an immature punk when I started college. I was too carefree. I really should've beared down and tried to focus more, but I didn't want to at that time. [Student One]

The students lacking academic experiences and college success skills can increase their ability to succeed through a bridge transitional program. These benefits are designed to carry over to the rest of the students' college career. However, if the student does not continue to use

such tools, the benefits of the program become ineffectual. Because the student is not part of the program any longer, it is up to the student to decide to put into practice the tools and skills once again.

Actually the very first semester here, other than Bridge, I kind started tweaking things a little bit, “oh well, I won’t study during this time or this time, or I’ll study this or I’ll only do this, kind of taking short cuts... I put it off, procrastination. I’m a procrastinator, really bad. [Student Five]

The grand magnitude of the Colorado State University campus was overwhelming for some students. Nothing in high school could have prepared individuals for the vastness of the campus and size of the classrooms, particularly if their communities and schools were substantially smaller. The large scale of the campus became a detrimental learning environment, particularly the large classrooms. The big classes were not conducive to learning, partly due to the lack of connectedness some students needed.

The challenges? I’d say class sizes, like lecture hall classes. [Student Eight]

That was a big class as well, about 200 students. So, the teacher couldn’t get to know you unless you took the initiative... The bigger the class, the more you’re treated like another number. [Student One]

Feeling lost in the vastness of the campus can be exacerbated if the student cannot find meaning in what is being taught.

I didn’t really want to learn at the time. And when you’re first starting college, you have to take a bunch of classes that have nothing to do with what you enjoy, usually. And if I don’t want to learn something, I won’t. So I’ll do very badly in that class. [Student One]

With a large community of over 23,000 students, it would not be expected that the institution could meet the needs and expectations of all students. This situation is exacerbated by the immediacy created by the residence halls. For one student, the residence hall living

environment as a freshman was an extremely unpleasant experience. As reported earlier, the student left the university due to what he considered a poor learning situation in the residence hall.

Like if you have a test on Friday in the morning, but nobody else in the hall has a test the next day, then they are out in the hall in the hall partying. They're doing whatever. It's really kinda hard. I guess the cliques kinda formed within the halls. I really didn't fit into those. [Student Seven]

The following statement provides a compressed view of the academic struggles theme. It starts with the perception of being less prepared than their peers, due mostly to their high school academic training. If part of a bridge transitional program, they benefitted from such experience. However, despite any preparation program, or previous college experience for other students, their first year experience was filled with academic difficulties. Eventually, students adapt and develop the skills to do well in their courses.

Yeah, I'll say that I'm probably a student who didn't have as much as everybody else had. There's some people out there that have been trained, the types of training and studying every... since they were little. And I was like, just coming in kind of from high school... But then it took me a while to really get used to, that I really need to study that much. The Bridge Program helped me out a little bit, and study for three classes, I think, for the summer. But coming in the fall, that's where the real college studying came in. But then it came easier after my first couple of tests, I got used to it. Got used to it. [Student Eight]

### *Social challenges.*

The interaction of social and academic elements can become problematic, as in the case of the Student Seven, whose residence hall experience was a failure. Negative social experiences, particularly race and ethnicity issues, can have serious repercussions on the academic performance of students. Fortunately, only two of the six diverse students reported such issues, and neither one reported a negative effect on academic performance. However, this

could have given them a reason to leave the university if such incidences became frequent, or the student needed any reason to leave the institution.

My first college placement tests I took here when I was Natural Resources. This was ages ago, it seems. The advisor was kinda like... I was the only quote-unquote Hispanic during that Preview, for that major. He didn't seem really inviting. And I didn't do so good on my placement scores. And he just happened to emphasize that I screwed up this and I did this. I felt really stupid after that.  
[Student Five]

Since I'm half Mexican and half Caucasian, I've actually been discriminated against by both sides. You know, the one saying, you're not Mexican enough, the other saying, you're not white enough, or something like that. Or I guess if you reverse it - one saying I'm too white and the other one saying I'm too Mexican.  
[Student One]

One of the more striking findings of this study is that only one student reported financial hardship as a struggle during their years at this institution. The severity of her financial situation could have made her departure from the university a legitimate factor. This is, however, not consistent with the review of the literature which reports that poverty greatly reduces the chances of degree completion. Nevertheless, the lack of reported struggles due to finances does agree with Tinto's assertion that financial factors are a convenient excuse for dropping out, and that it is seldom the real reason.

Probably the financial part [hardest thing at CSU] because I have no support from my parents or anybody other than the government, the loans I receive and the grants. And I've had to work part-time - I'm not working currently because my husband works full-time. But up until my junior year, I worked part-time and I felt that that took away from the time I could have been studying and the times when I worked a lot, it affected my grades. So I would say that has definitely been difficult for me in my particular situation. [Student Four]

Challenging family situations can lead to feelings of guilt and obligation. This can be particularly true if the student has been the family's source of emotional strength or income. One

student seriously considered leaving the university when his mother was facing problems back at home. With help from university staff, he was able to find a way to remain enrolled without feeling that he abandoned his mother.

Well, my mom was having problems at home. I could've just dropped out and helped her. [Student Eight]

While some social struggles are relatively ordinary, some are particularly serious. Dealing with major personal challenges such as motherhood, transferring institutions, and turbulent family issues can stretch anyone to their limit. This student's ability to cope and persevere speak to her resiliency.

I actually left for awhile after I had my daughter and tried to go to CU, which I found to be an environment that wasn't supportive to me and that's why I came back here and decided to finish my degree here.... For the counseling, it wasn't exactly an issue related to my education. I had an alcoholic father that kept showing up in my life and I had to go. It started to affect my grades. [Student Four]

Sometimes a student's social structure is fragile due to their family history. The following statement reveals a situation which can easily result in the student giving up. Instead, the student draws strength from his faith to overcome challenges.

I think it just came from everything I went through in my life. You know, I went through a lot that some people don't even know about and probably couldn't even tell just from talking to me. You know, they might think that I came from a stable family or this or that. You know everybody has a story. There's 23 million stories all over the place, for every person that you meet. But, but mine particularly was that I didn't have that stable family, things like that. And I had to just reach into myself and the Lord and family. You know, we didn't have a lot to eat or a lot of money to do these things. We just... love is what helped us through. So for me it was that that helped me to keep on going. [Student Three]

For Student Six, adjusting to a new country, culture, and city presented an acculturation challenge. For her, the liveliness and excitement of Hong Kong was in sharp contrast to what the Fort Collins community had to offer.

I came here like four years ago. And far as life at Colorado State, it's so boring compared to my country. I'm from Hong Kong. So, at first... here's not too many entertainment. [Student Six]

The Struggles theme reveals that students faced three additional challenges. First, their first generation college status forced the students to forge a new and unknown path without the benefit of parental advice. Second, their tenuous journey to campus is aggravated by first year academic struggles, including large classrooms, lack of academic skills, and distractions. Third, social challenges involve family issues, finances, cultural assimilation, and ethnic discrimination.

#### *Positive Campus Experiences and Support*

Thus far the reporting of the data reveals few hopeful signs which illustrating how the students succeeded on this campus. This section will explore the ways in which the university provided helpful services and university staff reached out to the students. A wide array of institutional strategies and services which are designed to help students succeed have been reported as helpful by the students. Even more important are the strong relationships developed with professors and staff.

#### *Positive experiences.*

Given all the challenges and struggles the students face, what is it that allows them to remain committed to this institution and to their educational goals? Students expressed genuine and enthusiastic appreciation regarding their positive campus experiences, the quality of professors and staff, and fellow students. Such praise for the quality of experience speaks

particularly well of this institution since some students attended other institutions and compared their experience. This level of satisfaction could also be attributed to a good student-institutional match. In any case, the students articulated positive experiences ranging from environmental factors to meaningful connections with caring professors and staff.

I think that the classmates, the teachers, and the environment is very nice. And as I say before, it's not too much pressure. So I can.. I love to study more than before. And the classmates, they are very nice. [Student Six]

I love Fort Collins and Colorado State's a great place. They're really flexible here. Compared to the other university I went to, it seems more like a professional relationship, like a friendly relationship with your students. Like a small school, which I like. Not as big as other schools I've seen and I was applying to. To me it's kind of small. And I've enjoyed it a lot. [Student Two]

The review of the literature describes that feeling connected to the campus contributes to student retention. To the extent that a student spends energy towards their academic experience, a student will experience success (Astin, 1997). Similarly, Tinto's model of student retention necessitates the student's social and academic integration into the institution. This student found a great sense of belonging at Colorado State University.

... there was also the feeling that I want to be here, I want to belong. And when I came here, I wanted to be accepted by my peers. By the university itself... And ever since then, I've been satisfied with coming here and working pretty hard. [Student Two]

Having positive experiences on campus and in the community is appreciated by one student, yet simultaneously reserving judgement. As an African American in a community and university comprised of over 85% white students, he characterizes his experience as a qualified success.

I haven't yet had too many bad experiences at this school as far as, the way things are, the surrounding areas, and things like that. And the people seem to be pretty cool, so I've had a pretty good experience. [Student Three]

Each student can point to one or several key factors which helped them to remain engaged socially and academically. For this student, playing in the university's marching band provided a meaningful experience and motivation to remain on campus.

Well, really enjoying music has helped me out, I guess. It was the main motivation for me to stay in college, for my beginning years because I really enjoy playing. [Student One]

Another positive experience was involvement in a fraternity. Their work with the community and with fellow fraternity members in other states gave the students a sense of meaning and accomplishment.

I got involved with that and that helped put me out in the community, as well. Getting things started with community service, stuff like that. People around our region, people in Kansas, Nebraska, California, our whole region. Doing stuff like that. [Student Eight]

I'm a founder here of a Latino based fraternity [ ] of which is composed of a lot of TRIO program alumni: through Bridge, through Upward Bound, through Talent Search, we kind had that formation there, the pillars of academics, culture, and brotherhood, enabled me to kind of keep on track with that. It's been tough, with different things going on... that served as my support group after Bridge, it really did. [Student Five]

The sense of community did not have to be as structured as a fraternity. Students with common socio-economic backgrounds formed informal communities.

...it was sort of knowing that people are going through the same thing is really helpful, I guess. Actually knowing those people. You have a lot in common. It seems like a lot of your characteristics you have in common just from being raised in the same economic, and social and environmental backgrounds, I guess. [Student Five]

Other positive experiences include a foreign-born student who appreciates the low level of academic pressure as compared to her country of origin. The learning environment was right for her as she was also mastering the English language.

But I like to study because it's not too much pressure. Hong Kong education's too much pressure. Student like to do homework everyday, more than 10. So, when I came here study, I feel relaxing. [Student Six]

Another student left Colorado State University for personal reasons, and attended the University of Colorado at Boulder. However, she did not find that environment to be supportive of her, and came back to this institution where she has been very satisfied with her experiences.

I've had a really positive experience here. I actually left for awhile after I had my daughter and tried to go to CU, which I found to be an environment that wasn't supportive to me and that's why I came back here and decided to finish my degree here. [Student Four]

These testimonials are indicative of the positive atmosphere this institution has provided the students. From clubs, to music, to institutional responsiveness, the students have benefitted from the such positive experiences.

*Faculty/staff support & campus resources.*

Every one of the students expressed appreciation for the assistance they received from professors and other university staff. The students received advice on choosing a major, career exploration, and course subject matter. For some, these encounters constituted of no more than good advice from caring university staff. For others, the connectedness to a professor or staff member was a meaningful experience.

I like the professors in the [ ] department... They've always been helpful. Like right now, I have to meet a professor and talk to her. The professors have been helpful. Ask them a question, they answer my question. They're trying to give me

some pointers for grad school now. What are my options. What universities to look at, that interest me. [Student Two]

I'd say maybe some of my professors. Talking to them about possible career fields. They let me know that if you stay in this major, this is where you will likely go or you could also go over here. So that helped out a lot. [Student Seven]

I always go to talk my professor. They really help me to answer my questions. [Student Six]

It has been reported that large classrooms were an intimidating, impersonal experience for some students. Developing a relationship with the professor was helpful in creating a more intimate learning environment. In some cases, the relationship can develop into a mentoring arrangement, bringing a multitude of benefits for the students. For this particular student, it was validation and a sense of connectedness.

The bigger the class, the more you're treated like another number. That's why I started getting to know my teachers, actually. Which was a Bridge suggestion. They told us to take our teachers to lunch and stuff. And I did during Bridge and I actually still talk to one of the teachers, Dr. [ ]. We still go out to lunch every once in awhile and he sort of does the surrogate father thing - how's your grades? [Student One]

In addition to professors, campus resources such as the Counseling Center and the Career Center provided important services. This student experienced great personal growth through counseling and identifying a career and major, bringing meaning to her educational experience.

I think primarily the services here on campus [were helpful]. I've utilized the Counseling Center. I've utilized the Career Counseling. And just my professors have been especially helpful, especially my advisor has been helpful and encouraging, definitely... Academically, I really needed the career counseling because I came in thinking I knew what I wanted to do and I didn't know if that was the right career choice for me. That helped me focus on my studies a little bit more, once I realized that I had the right type of personality for the career I was in, or pursuing with English. [Student Four]

Some students could pinpoint a particular person who played a key role in their ability to stay on campus and be successful. For this student, the key person was someone he knew from the pre-college programs he was involved in before attending Colorado State University. He kept in touch with this person and was able to benefit from his advice.

From the knowledge of other people, saying it was going to be hard if you do drop out, to come back and try to get back into the swing of things. And as long as we can help you out, as long as you stay in school. I was talking to people who know, who have been there before. [ ], you know, he was in the same boat that I was going to go through. It was like, just work it out. [Student Eight]

For students of color, the university's advocacy offices offer a variety of social and academic support services. To the extent that students engage in such services, they can gain a sense of community and belonging. In addition, students can begin to make connections with other university services and academic opportunities.

Black Student Services Office was a good...you know, played a good role too because you go there and they have a lot nice people that are willing to help you out. You know, it's just an environment where you can be around some people like yourself and just talk about issues that you were familiar with and things like that. And then if you needed to get into stuff to try and better yourself, with helping other people, then you could do that too. So, that helped you out a lot. [Student Three]

The students benefitted from the quality of relationships established with professors, university staff, and student services offices. These people and offices provided key services at crucial junctures. The end result was that the students educational and social experience became significantly more meaningful, resulting in a higher level of institutional integration and satisfaction.

*Development of successful academic strategies.*

Another important successful approach was the students' ability to develop constructive academic and social strategies. These strategies have allowed students to improve and refine their study habits. Some students were aware of their academic deficiencies, and learned by observing other students' study habits. Students also learned by using services available on campus, by learning the flow and routines of classroom expectations, and by gaining a realistic understanding of the amount of study time required to be a successful student.

Just as I was going along through each class, knowing that the different testing styles, and different teaching styles and how to adapt to each... the class structure was basically the same. And then I also understood how there going to be tests, but the higher up in the years I go, the more interpretation and the more remembering things... more discussing... There's gonna be less studying and more projects, stuff like that... I realized I didn't need a whole lot of studying, I just needed to go over it a little bit. [Student Seven]

And I just caught on to a lot of good habits from people I hung around, things like that... I saw that maybe instead on the plane ride somewhere going on a football trip, just listen to my walkman, I would study, or something like that. Or maybe instead of watching TV, I wouldn't even watch TV, and study, things like that. ... on your own, you figured out I need to do this... I need to study more...I learned a lot from people, tutors, friends. I've picked up their study habits... watched other people study, studied with friends, went to the library more often. [Student Three]

But then it took me a while to really get used to, that I really need to study that much. [Student Eight]

I had to keep those grades up. And that's basically what I did, study more often. [Student Two]

Eventually, students become astute learners, allowing them to take on academic subjects they may not have thought they could comprehend. This growth in classroom competency carried over to their entire self-concept, allowing the development of pride, confidence and independence.

... it was an Economics Forecasting Class, she uses calculus, statistics and other means to figure out the equations. So, as she was writing the stuff down, I was thinking back when I was in high school and I would've laughed at that, Gamma Alpha Y equals this minus that. But now, I was like how is it that I understand this stuff now? [Student Five]

The development of successful academic strategies does not necessarily consist of simply learning study skills. Rather, creating situations conducive to one's academic success can encompass the involvement of fellow students. This student involved her classmates and encouraged collaborative work so that she could benefit from their insights and direction regarding academic assignments.

They explain. Sometimes they know I didn't understand too much English. Like a difficult word, I don't understand that. They tried to use simple English to explain to me and they tried to clarify ideas they have. So, it helped me to improve a lot and understand the project. We work together so I can understand the direction they are going in. What the main point they think is important. [Student Six]

Another student was able to do better academically after leaving her part-time job. The student was able to spend more time studying and this improved her academic work. Also, this student developed the discipline to be able to do well in the institution's math modules, which are a requirement for graduation.

The math modules really helped me. The ability to keep retesting and taking the material into my own hands. Being responsible for that myself - that worked well for me. Rather than just going to a math classroom where I always felt they moved too fast for somebody like me. So I was able to self-pace my learning and that was helpful to me in that area. [Student Four]

For one student, finding the right fit with a community was the solution to his earlier experience with a distractive learning environment.

I moved into Braiden Hall, which is an upperclassman dorm. And it was a little more mature there and a lot easier studying. I really focused more on my studies and projects and all that. [Student Seven]

As reported earlier, the students developed relationships with their professors as they sought academic and career advice. The students also used these opportunities to boost their confidence in the classroom setting. These skills allowed them to gain more from the class and have a richer classroom experience.

...the teacher couldn't get to know you unless you took the initiative. [Student One]

But if you can adapt over the years, then you can kinda start to figure the whole college thing out. [Student Three]

It becomes evident that the students learned from observation and mistakes. They also have learned from their own growth as students and individuals. The students have received quality student services and experienced caring and competent professors and university staff. The theme of Positive Experiences and Campus Support outlines the factors that have contributed to their academic success. However, these services and experiences are available to everyone, including students from similar backgrounds who did not succeed at this institution. The following theme, Student Growth, reveals that beyond positive experiences, students who are able to reach the finish line have something else going for them.

### *Student Growth*

Thus far, the students have been able to withstand the forces working against their chances for success. The Student Growth theme will describe how the students have developed from enduring foot soldiers to take-charge commanders.

*Development of pride, confidence, and independence.*

While the students came into the university with low levels of academic preparation, no family legacy of higher education achievement, and personal feelings of inadequacy, that was not the case a few years later. By their senior year, the students had good reason to feel a sense of achievement and pride. The amount of social and academic growth they experienced is evident in the following passages.

I think maybe my personality. I don't like to talk to people. Probably I can say I'm a shy person. When I came here I took a lot of classes that you need to speak in front of people and this helped me to improve a lot and increase my self confidence. I can say that right now I am not afraid to talk to people. [Student Six]

I've come a long way. I feel proud of myself. I understand that I've come a long way since high school. Because in high school, I just didn't care. But then when it came to applying, I looked back at my high school performance and said "I'm going to have to work even harder now." [Student Two]

That really gives me strength to draw from in other areas of my life. So being here is really important in other aspects of my life because I feel like I am a better person. I'm a better mom. I'm a better wife. I'm a better daughter and whatever. [Student Four]

Although maturation is a natural process not dependent on academic success, the students' growth is particularly special given where they started. This great leap was due to their courage to enroll in a selective university, and achieve academically despite the odds.

Being an experience of such as being on your own, you know, and becoming an adult, and just getting a lot of things without depending on people, and learn how just do for yourself, that's been my experience here. [Student Three]

Confidence. I'd say that I've gained a lot of confidence from almost achieving the goal. I really think that I can do this now. When I started I didn't feel that I could do it. But other people were telling me that I could and I was like, maybe I can. [Student One]

Usually when students apply for college admissions, their concern is not whether they are academically prepared, but whether they will be admitted at all. There are many ego-related issues riding on such decisions, including rejection and self-worth. Once admitted, the students usually do not pay attention to academic preparation until after their first exam is returned. At this point they may question whether the university made the right decision about allowing them on campus. However, at this point in their development as mature students, the self doubts they may have harbored are now abandoned. The following statements are responses to whether the student believe the university made the right decision in admitting them.

Most definitely. Because I'll be graduating here in May. So, most definitely. I think they did. [Student Eight]

*Turning challenges into victories.*

We have learned that the students' experience with success at this institution has been a journey filled with a variety of struggles. The struggles range from familial background to academic preparation. Somehow, each student, in their own way, turned these obstacles into a positive experience. Although first generation college issues may have begun as challenges, these students turned them into motivators for success. In the months after these interviews were conducted, the students will have hopefully overcome the family's lack of academic achievement- if indeed they earn their undergraduate degree. Perhaps part of their success is due to turning a disadvantage into something positive. Virtually all of the students articulated their motivation for success and pride in being the first one in their family to earn a college degree.

... I'm the first to go to college and make it this far. Now I'm graduating. I can tell people are proud and it makes me feel good about myself that I have accomplished something. It's something more than just a degree. It is my worth I put into. [Student Two]

I think it affected me by my mom... my parents' divorced when I was young. My mom she couldn't find a high paying job, you know, basically. Low work status or not high paying. She had a hard time supporting all of us, because there was seven of us kids. So, she had a hard time, knowing that she didn't go to college. I know that it kinda influenced me to get an education, make something...be able to support myself as well as my spouse and any future kids. Just her situation makes me motivated. [Student Seven]

My parents don't even have a high school diploma. So it's kinda like, subsequent, after the family struggles with the initial family core, they basically said the next step is to send our kids to college by whatever means necessary to give them whatever we have, no matter what it is. It might not be a lot, but they need to succeed. We were always told, whatever you need in college. [Student Five]

Probably that nobody has had a degree in my family. I come from a divorced family and neither my father nor my mother have college degrees. And once I had my daughter I feel it's a really important thing that I get an education so I that I can someday encourage her to do the same. [Student Four]

These stories do not vary substantially. Each has an element of social and economic struggle faced by the family. The desire to take a different path by choosing higher education, and subsequently reaping the rewards, is common in all responses. The lesson to be learned is quite clear to the students, and never very distant from their consciousness.

So everything I did I thought about my family and I thought about myself and how I would better my family to maybe stop the cycle of no people going to college. And my little brothers and sisters having to see nobody going to college. Now we can start a different chain where, my brother went to college. You know, now the bar is raised. Now I have to go to college and their kids feel like they have to go to college. And it will just keep on increasing the bar. [Student Three]

I think you don't really know what to expect going into college when your parents haven't gone. And they're working real hard. They don't want you to have the same life as they had, where they are always struggling for money, check to check sort of living, you know. A big motivation for me being in college was actually being homeless for awhile when I first moved to Fort Collins... I knew in my head that I needed to be in college, to try and get out of this rut. You know, it's been progressing through each generation in my family. [Student One]

Well, it affected me because I'm like, I got a good chance. A once in a lifetime chance to be successful, to get my stuff done. Something that my mom never had and my father never had. Or anyone else before me. So I was like this is a once in a lifetime chance. So I want to make the best of this. So that's a relief to help me out because I don't want to be like my mom, working 9-5 job, making ends meet - barely making ends meet. So I was like I want to make it different for myself, as well as my future family. [Student Eight]

Parental economic struggles is an undeniable source of motivation to succeed. The hope of a better financial future and for occupational satisfaction allow the students to endure the worst of their experiences at Colorado State University. The students have lived through the family struggles brought by the lack of their parents' education. In addition to avoiding the same fate, some students also believe in the privilege and pride of being an educational pioneer. This level of awareness about their situation, and how their future can be different, is tremendously empowering.

*Taking control.*

It would be easy to understand how these students could readily be defeated by a challenging and unfamiliar academic environment. However, the interviews have illustrated the students' evolving sense of confidence through successive academic victories. Eventually, students realized their own potential and became emboldened and philosophical about their accomplishments. Taking control, in the form of internalized motivation or accepting ownership for their needs and responsibilities, suggests a development of sophisticated insight. This stage is the culmination of the integration all the factors which have been reported.

I'm not the most academically, most hard working person. But in high school, it definitely showed, obviously. It definitely showed since I've been in college, undergraduate school. I've been working more and more. I can always get the things I want to get done. I do my best. [Student Two]

Taking control of their own educational success is expressed by statements in which students realize that, in the end, it is up to them to create success. Students reported a desire to succeed that had different sources. This motivation was either something they possessed before enrolling at Colorado State University, or it was developed through experiences and moments of insight.

I think really what it is, is that I had to decide that I wanted to be successful. I think that when I started college, is mostly everyone else wanted me to be successful and that was my.. That was their motivation, I guess. They wanted me to be successful. [Student One]

I suppose that I just feel that inner drive to succeed. That's a tough question. I just always felt that drive. I really want to create. I want do something positive with my life. I felt that all my life, even when I was a child. Really felt the need to express myself and do well in school. [Student Four]

I didn't really think I could, but I was determined to (succeed academically). I was determined to. This is going to make or break me. So I wanted to do it. So determination also fit in there. [Student Eight]

As the students matured during their years on campus, their awareness and sense of responsibility evolved. Responsibility for their own academic performance, as expressed in the following paragraphs, reveals the students' realization that in the end, is all up to them to make it happen.

I did it all for myself. Because in the long run, there is gonna be no coaches or anybody looking after you once you get in the real world. [Student Three]

I actually started doing things (academically). I know I always had initiative in there. [Student Five]

But then it took me a while to really get used to, that I really need to study that much. [Student Eight]

I learned accountability while I was here. That was something that I didn't have before I came here. I was sort of sheltered... That's when I decided I needed to

start doing better. At this point in my life, if anything goes wrong, it's mostly on me to fix it. Or it's on me because I am accountable. I decided that I needed to be accountable. Somebody else is not accountable for my life. [Student One]

The ability to take control over the factors which lead to academic success is a critical step, not only for success at this institution, but it is also an important life lesson. The students can transfer these skills to their personal relationships, place of employment or graduate school. True self esteem is gained with the real and meaningful accomplishments. The students' ability to persist and adapt, particularly given where they started, is an tremendous feat.

Taking control allows the students to shed their family's legacy of low educational attainment. Students can break the cycle and forge a new destiny for themselves. This level of self-determination can be undeniably empowering.

#### *Chapter Conclusion*

The research question of this study was to understand to the experiences of the under-prepared student by uncovering the factors which led to academic success. The interviews have given us a glimpse of the treacherous yet amazing journey the eight students experienced. From humble beginnings to success at a prestigious university, they have defied the statistical odds. This chapter discussed the students' journey to this institution, as well as the people, services, personal development, and self-determination that can help explain their success.

The students' journey to Colorado State University were unique in obvious ways. All the students, however, share a common background of socio-economic hardship and a heritage of low family educational achievement. First generation college and low-income status were barriers to college preparation, enrollment, and academic success. The challenges faced included

lack of a sound high school educational experience, little or no college enrollment information, and a shortage of advice on how to be a successful college student.

Yet, the students thrived. Caring and knowledgeable professors, staff, and fellow classmates made an impact on each of the students. Students received quality advice regarding majors, course work, course selection, study skills, and graduate school. Caring university staff provided retention and study skills advice. Fellow students helped through active participation, or by serving as role models for good study habits. Many offices were credited with providing quality services, which helped the students to develop academically and socially.

In the end, these positive experiences helped the students overcome their rough beginning at this institution. The students adapted to their new academic and social environment by bending with their challenges, but not breaking. They observed, learned, and received help from other students. They made mistakes and tried not to repeat them. They suffered in many ways and learned their lessons. They were willing to listen and take action. They were willing to seek out others and find meaning. They stayed.

Beyond the factors outlined in this chapter, what made these students immune to the epidemic which afflict so many other under-prepared students? Although each student is a unique story with different paths to success, all of the students possess an inordinate amount of perseverance and adaptation skills. The students are an undeniable strong and determined group of individuals. They share a humble and impoverished educational and socio-economic background. Their character and ambition make them worthy of praise and admiration. And they stayed.

## CHAPTER 5

### Discussion and Recommendations

The Findings Chapter discussed the factors which allowed each of the eight students in the study to succeed at Colorado State University. Such factors included adaptation to new environment, campus services, helpful faculty and staff, and personal growth leading to important insights. Factors common amongst the students were then grouped into four themes: Pre-College Experiences; Struggles; Positive Campus Experiences and Support; and Student Growth.

The Pre-College Experiences theme explored the events and experiences of the students prior to setting foot on campus. Their high school experiences reveal an expected pattern of poor academic preparation that low-income students tend to receive. The journey each student took to get to Colorado State University was documented. Three students used college credits earned at another institution to gain admissions to this campus. Five students were admitted with the use of their index number. Of those five, three participated in a bridge transitional program which provided a realistic academic experience and a curriculum of college success skills. Despite their path to this institution, virtually all the students arrived with either a lack of academic preparation or a lack of commitment to implement learned skills.

This study focused on academic success factors. However, in order to better understand this success, a look at their struggles is necessary. The Struggles theme documented the challenges of being the first in the family to go to college, the academic struggles the students faced, particularly during their first year, and their social challenges. The variety and degree of struggles may have created an image of academic doom. Instead, the students' success underscored their ability to overcome great obstacles.

The theme on Positive Campus Experiences and Support documented the many services and people who made a positive impact on the students' social and academic life. Indeed, without these positive experiences, it would be hard to expect any level of success. Fortunately for the students, wonderful and caring professors and staff were able to provide encouragement, guidance, and constructive feedback. The advice created meaningful relationships and brought a sense of connectedness for the students. Many offices and organizations allowed the students to develop a sense of belonging and meaning by providing community and service. The students also developed successful academic strategies through observation, association, or imitation of other students.

The Student Growth theme covered the transformation of the neophyte students into sophisticated scholars. Through their accumulation of successes, the students began to develop pride, confidence and independence. The students experienced tough times and endured the pain of low academic preparation. Despite of these struggles, the students revealed a strong sense of adaptation and perseverance. The sense of adaptation was exemplified by their ability to turn challenges into motivators, particularly the first generation college status. A potential source of shame was turned into a reason to excel. The students became accountable for their own

academic responsibilities and internalized their motivation to graduate. In the end, the students took control not only of their academic life, but of their entire life.

### *Discussion of the Literature*

The review of the literature discussed the under-prepared student in terms of access to, and academic success in higher education. The findings chapter revealed that the eight students in this study faced a multitude of struggles on their path to enrolling in college and with their academic and social experiences on campus. In comparing both the literature and the data, several common factors were revealed. These similarities, as well as differences, will be discussed to gauge the extent that the body of research can help explain the experience of the eight students at this institution.

#### *Overview of the review of the literature.*

The literature review was comprised of nine themes which have an influence on the under-prepared student. The theme of Poverty discussed how the lack of financial resources impacts a child's quality of education and the chances for college degree achievement. The theme of Educational Experiences explained how as a consequence of poverty, students usually attend impoverished schools. These schools lack resources usually associated with wealthy districts. The parents' low educational attainment, or first generation status, inhibits parental efficacy, resulting in vocational tracking and a negative perception by school staff about the parents. The next literature review theme explored the problem of Standardize Tests scores earned by low income students. Low scores lead to less access and opportunities, as these high-stakes tests are used widely by colleges and universities in their admission making process.

Another theme, Alternative Admissions Methods, discussed how institutions can move away from using standardized test scores by having open admissions or using non-cognitive variables.

The Retention theme discussed the experiences, external forces, and institutional factors that lead to student success or attrition. These include family issues, degree of integration into the fabric of the institution, and perceived or real financial conditions. Next, the Retention of Under-prepared Students was found to be lower than that of more prepared students. However, academic remediation can mitigate a student's lack of preparation. The theme of Retention of Students of Color revealed that although the number of students of color enrolling in college is growing, their retention rates continue to lag behind that of white students. The retention efforts implemented to address this dilemma are often inadequate. The Retention of Low Income Students explored the link between retention and financial aid, work, and personal finances. Finally, the Benefits of a College Education theme explained what is at stake for students who do not have the opportunity to earn a college education, and the consequent loss to them and their families.

#### *Similarities.*

The literature review discussed factors which can have an effect on a student's ability to reach the college campus, including first generation college status. Similarly, the eight students reported that they faced struggles in their path to college. The literature review discusses that these struggles can be attributed to the pre-college educational experiences, such as living in impoverished neighborhoods which often have neglected school buildings that lack resources conducive to providing a quality education (Kozol, 1991).

The review of the literature discussed the use of standardized test scores in admissions decisions. The debate over such use has been going on for decades. A recent report by the U.S. Department of Education urges institutions to be careful in their consideration of test scores, given the critical impact on students' futures. Administrators were challenged to consider whether standardized tests used by their institution accurately assess the skills and capabilities they seek to evaluate (U.S. Department of Education, 2000). It has been argued that test scores more closely predict family income than success in college. ETS (1980) did admit higher average scores were achieved from students who came from families with higher incomes, and that the relationship was moderate in nature. Colorado State University does use high-stakes tests such as the SAT and ACT to make admissions decisions. However, it does have the flexibility to admit students who do not have high test scores, thereby placing relatively less emphasis on the ACT and SAT scores. Perhaps because this institution de-emphasized test scores in their admissions process, the ACT and SAT were not mentioned extensively by the students. Only a few comments were made and only in casual reference.

The review of the literature presented information on alternative admissions methods. Open admissions and use of non-cognitive variables were posed as possible ways to minimize institutions' use of standardized test scores so that students from low income and first generation backgrounds could have greater access to higher education. Although Colorado State University does not by policy use either of these two methods, students with low index scores are admitted on a regular basis. In fact, 20% of a freshmen class can consist of students admitted with index scores below 101. The end result is not necessarily an open admissions policy, rather a window of opportunity for under-prepared students. The university's approach to the balance of access to

the institution and academic preparation seems to work on an admissions level, but not necessarily on a retention level.

The issues surrounding retention shared many similarities. The fact that the eight students defied the odds does not necessarily invalidate the research reported on the review of the literature regarding how a student's socio-economic status can make a significant difference in their ability to earn a degree. The eight students in this study may be representative of the low percentage of students who are successful. A study of six-year persistence rates in pursuing four-year degrees revealed that students from the lowest income quartile had a completion rate of 17.6%, compared to a 55.4% rate for students from the highest quartile (Porter, 1990). Mortenson (1998) reported that students from the lowest income quartile have a 5% chance of earning a bachelor's degree, while students from the top quartile have a 74% chance of graduating. Although this study focused on successful students, the information collected reveal the multitude of reasons, events, and factors which could have led to a student leaving the university.

Similar to the struggles of the eight students, the literature reports that the vastness of a large campus can have the effect of magnifying social issues of connectedness, isolation, belonging, and meaning. This problem can be addressed by creating smaller, more intimate communities out of large universities by replacing the traditional large lecture hall. These communities can be most effective during the first two semesters of college, when the opportunity to connect is critically important (Tinto, 1993). The eight students did not have the opportunity to be part of such intimate learning environments. However, they created intimacy in their learning environment by establishing relationships with their professor and university

staff. Students also became involved in a variety of campus clubs and organizations. Astin's theory of student involvement asserts with greater involvement, under-prepared students can benefit, with involvement defined as "the amount of physical and psychological energy that the student devotes to the academic experience" (1997, p. 251).

The challenge of retention of students of color is based on the continuing problem of Black and Hispanic graduation rates not being nearly at the level of whites and Asian Americans (Porter, 1990). With this challenge of improving retention for diverse students, this institution has implemented several strategies, including advocacy offices for the four major ethnic groups and student groups based on ethnic background. Most of the six diverse students reported involvement in offices and groups which allowed them to experience a sense of community and creating opportunities for involvement and personal development. However, not all the students had a positive experience with these offices and organization. Overall, though, the students of color at this institution benefitted from services and personnel whose job is to facilitate their success on campus.

The literature review explored the benefits of a college education. The benefits included higher lifetime earnings, greater community involvement, and increasing their own children's chances of earning a degree. For the eight students in this study, a great source of motivation was to have such benefits, particularly because their parents did not have them.

#### *Differences.*

A difference between the review of the literature and the student interview data was that there was almost no mention of high school curriculum tracking by the students. The review of the literature revealed that Black, Latino, and low income students are disproportionately

overrepresented in vocational curricula (Lucas 1999). In addition, Rivera-Batiz (1995) reported a disproportionate number of minority students are tracked into vocational and other non-academic curricula, inhibiting academic opportunity and perpetuating a social-class caste system (Lucas, 1999). One student was enrolled in classes he portrayed as somewhat remedial, and not until his junior year did he begin to take “regular courses.” Two other students participated in a pre-college program called Upward Bound, which requires students to enroll in college bound courses. However, the interview questions did not address high school curriculum, and it may be that students could have been tracked. A review of their high school transcripts may indeed reveal evidence of tracking.

The students in this study reported several challenges faced during high school. These problems ranged from a lack of academic focus to family issues. Although the eight students were somewhat at-risk for dropping out, all of them completed their high school studies on time. The review of the literature described the theoretical educational pipeline- the progression of the nation’s children from early school years to college graduation and beyond (Bowen & Bok, 1998). The pipeline is not without leaks and it affects disadvantaged groups disproportionately. The eight students of the study, however, were able to successfully flow through the educational pipeline.

The literature review discussed that college students engage in a continual evaluation of their commitment to staying on campus and their perceptions about “affordability have a sustained influence on subsequent persistence decisions” (Coomes, 2000, p.70). Although working class students are concerned about working during their college years as a way to control their budgetary concerns in order to continue in college, only one student mentioned

finances as an obstacle to success during college. Only two students mentioned tuition costs as a factor in choosing Colorado State University. Tinto (1993) contends that students who lack a positive campus experience, any perceived or real difficult financial situation, no matter how trivial, is enough reason to rationalize their departure from college. In fact, two-thirds of students who drop out of college are in good academic standing at their time of departure.

### *Student Resiliency*

While the findings chapter reported the factors which allowed the students to succeed, the discussion could be enhanced through an exploration of resiliency. Resiliency has been defined as “the process of coping with disruptive, stressful, or challenging life events in a way that provides the individual with additional protective and coping skills than prior to the disruption that results from the event” (Richardson in Henderson & Milstein, 1996, p. 7). Another author defines resiliency as the “capacity to spring back, rebound, successfully adapt in the face of adversity, and develop social, academic, and vocational competence despite exposure to severe stress or simply to the stress that is inherent in today’s world” (Rirkin & Hoopman in Henderson & Milstein, 1996, p. 7).

These definitions of resiliency apply to the eight students of this study. The eight students came to this campus with circumstances that would predict many things except academic success. From birth, the cards were stacked against them- poverty, heritage of low educational achievement, substandard secondary academic preparation, and difficult postsecondary experience. However, each of them possessed certain qualities that allowed them to succeed despite great odds against them. What, then, can we make of their unlikely success?

The resiliency paradigm can help answer this puzzle. The findings chapter revealed that students overcame serious challenges. Several resiliency tactics were employed to create a successful academic formula. These tactics included adaptation, internalized motivation, moments of insight, and the ability to turn struggles into positive energy. This phenomenon can be explained by the theory of student resiliency.

Looking at these students through a resiliency theory lense can help explain beyond the 'what' (success factors) and move towards the 'why' (resiliency). But must these traits be genetic, or can they be taught? According to Henderson and Milstein (1996), resiliency can be taught through a six step curriculum. These six steps towards building resiliency are beneficial for both students as well as educators. The six steps are: increase bonding; set clear and consistent boundaries; teach life skills; provide caring and support; set and communicate high expectations; and provide opportunities for meaningful participation.

Increase bonding can be accomplished by facilitating connections within a group or community. Students who participated in a bridge program reported that friendships and connections made in the program carried over to the rest of their years on campus. They relied on these relationships as a foundation of their social support. To the extent that students established connections within a group, their campus experience was satisfactory. Conversely, if this did not occur, and for one student in the residence hall it did not, the experience suffered.

Setting clear and consistent boundaries is important in communicating to students about accountability and discipline. Students who benefitted from structure before entering the university floundered until they were able to develop their own boundaries in the form of academic discipline and accountability.

Another step calls for teaching life skills such as communication, cooperation, and establishing healthy learning environments. Unfortunately, these lessons were mostly self-taught by the students. However, the students were open and willing to learn by observation. Some were fortunate to have some of these skills, but for the most part, the students observed then absorbed the qualities and skills they intuitively perceived as helpful.

The most important step in teaching resiliency is to provide caring and support. This can help explain the students' need and appreciation of caring family members, professors, university staff, or significant others. This also explains why large classrooms are so repugnant- and not necessarily due to the low quality educational experience. Rather, students feel the professors could not possibly care, and could not logistically be able to provide support. Each of the students in the study was able to find someone who cared, who gave them excellent advice, or who could provide meaningful support. This in turn, made the experience at Colorado State University a successful one.

Another step is to set and communicate high expectations. In one important way, the university has provided that through its level of academic rigor. All the students realized what they were in for, and responded well to the academic challenge. Students who participated in a bridge program can expect to be part of a community which strives for the highest levels of academic achievement. University student services and organizations which expect high performance and academic commitment, as well as professors and staff, have done a great service to the students.

The last step in teaching resiliency calls for educators to provide opportunities for meaningful participation. A bridge transitional program can provide this through enrollment in

actual university courses. Students can also gain such experiences through the wide array of opportunities offered by student services offices. These opportunities include community service and other volunteer activities, student teaching, study abroad, and the multitude of student clubs and organizations.

What does the students' ability to overcome tremendous odds and still experience success tell us about the phenomenon? How can we characterize such ability or skill? The theory of student resiliency corroborates the experiences, personal growth and skills that the students expressed.

Indeed the eight students in this study share a special ability to cope, adjust, change, persevere, and possess a knack for turning challenges into victories. This could be a special gift or something that was taught to them. Maybe it is a combination of both. Perhaps we will never know. What can be known with a degree of certainty is that this group of students beat the odds. They were given a bleak set of circumstances. Yet on graduation day they will receive their college diploma and they and their families will rejoice in the feat that only a few years ago seemed so distant, perhaps out of reach- like a tall mountain. The students will grab their diploma, walk across the platform, smile, and soon after begin to look for the next mountain to climb.

#### *Recommendations for Further Research*

This study yielded insight into the experiences of eight under-prepared students at this institution. The findings chapter allowed a peak into the phenomenon of their tenuous situation, yet development into confident and competent scholars. However, unanswered questions remain

and potential issues to be explored. Therefore, the researcher makes the following recommendations:

1. Conduct more research on students with low index scores. The list generated by the researcher contained 482 Fall 2001 seniors with an index score of 95 or below. This amount of students comprises 8.4% of the 2001 senior class- not an insignificant number. The University can benefit from learning more about what these students need to become more successful.

2. First generation college status seemed to be a motivator, not a liability, for the eight students in the study. The students shared a unique ability to turn challenges into something positive. The lack of educational achievement by their families, and the financial and social repercussions of the lack of economic opportunity, showed to be a strong motivator to staying and graduating from college. Poverty and first generation status, which the review of the literature shows to predict low college degree attainment, seemed not to affect this group of students. Further research could help explore if this resilient response is present with other successful students and if it is absent from unsuccessful ones.

3. Similar to recommendation number two, a study of similar students through the lens of the resiliency model is suggested. The research questions can be derived from the resiliency factors. What is the process for turning a negative situation into positive energy? What allows them to adapt so well and endure so much?

4. Financial matters related to retention was not a factor for the students in this study. This study seems to confirm what Tinto suggests- that the eight students did not use finances as an excuse for other issues. Further research could explore how successful students from low income backgrounds manage to avoid dropping out because of financial reasons. Was it because

they received generous financial aid packages? Small amounts of or no student loans? Have the students learned to balance work and studies? Have they learned to cut back and live within their means? Have they learned where to find resources?

### *Conclusion*

The students in this study may look back at the last few years and scoff at the notion that they accomplished something quite special. In an ideal world, this should be the appropriate response, as it would be for giving high praise for reading a book or mowing the lawn. While these tasks require a degree of skill, reading and mowing should not be inordinately challenging for some groups because of social and economic factors. Earning a bachelors degree, then, should not be an inordinately agonizing experience for individuals who are poor and whose parents do not have a college degree.

While the eight students exhibit an extraordinary ability to persevere, many other students with similar backgrounds may be able to succeed academically at this institution with appropriate intervention. I declare my bias as a university employee whose profession is creating educational access and opportunity for students from first generation and low-income backgrounds. I firmly believe the eight students, and other students with similar backgrounds, deserve a place at this and other similar institutions. The dilemma of the under-prepared students cannot be resolved simply by denying access. The findings chapter revealed an abundance of effective services and strategies that allows students to succeed if they are given the chance. The gift that the eight students have imparted is a road map to success for others to follow.

What can we do with such a road map? For advocates of students from first generation, low-income students, the road map can offer a few insights and ideas about helping students

succeed. Using the resiliency model can result in a sound curriculum for high school and college students. For university policy makers, the road map can illustrate the need for certain services and validate what is already being offered. For university professors and staff, the road map clearly shows the difference they make in the success of the student. Clearly, the human connectedness was instrumental in bringing meaning to the educational experience of the eight students. And lastly, for the eight students, and for all who share their heritage and aspirations, the road map shows that barriers to success are merely bumps on the road.

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APPENDIX

PROJECT APPROVAL, OFFICE OF REGULATORY COMPLIANCE

INFORMED CONSENT FORM

PHONE CONTACT SCRIPT

INTERVIEW GUIDE/ QUESTIONS

FEDERAL PELL GRANT PAYMENT SCHEDULE 2001-2002

MEMORANDUM

TO: James Banning, School of Education, 1588

FROM: Celia S. Walker, Regulatory Administrator for the  
Human Research Committee 

SUBJECT: **PROJECT APPROVAL**  
Title: Success Factors of Under-Prepared Students: A Phenomenological Study.  
Protocol No.: 01-132H  
Funding Agency: N/A  
Funding Agency Deadline: N/A

DATE: July 13, 2001

I am pleased to inform you that the above-referenced project was approved by the Human Research Committee on July 9, 2001 for the period July 9, 2001 to May 4, 2002 with the condition that the attached consent form is signed by the subjects and each subject is given a copy of the form. It is the investigator's responsibility to obtain this consent form from all subjects. *NO changes may be made to this document without first obtaining the approval of the Committee. Approval is for 20 CSU undergraduates.*

A status report of this project will be required within a 12-month period from the date of approval. You will be sent a reminder approximately two months before the protocol expires. The Principal Investigator will report on the numbers of subjects who have participated this year and project-to-date, about problems encountered, and provide a verifying copy of the consent form or cover letter used. The necessary form (H-101) is available from the Regulatory Compliance web page (see below). Should the protocol not be renewed before expiration, all activities must cease until the protocol has been re-reviewed.

It is the responsibility of the investigator to immediately inform the Committee of any serious complications, unexpected risks, or injuries resulting from this research. It is also the investigator's responsibility to notify the Committee of any changes in experimental design, participant population, or consent procedures or documents. This can be done with a memo which completely describes the changes and their consequences (new consent form or cover letter, or altered survey instrument, for example). Students serving as Co-Principal Investigators may not alter projects without first obtaining PI approval. The PI is ultimately responsible for the conduct of the project.

This approval is issued under Colorado State University's OPRR Multiple Projects Assurance M-1153-01 issued August 1, 1996. If approval did not accompany a proposal when it was submitted to a sponsor, it is the researcher's responsibility to provide the sponsor with the approval notice.

Please direct any questions about the Committee's action on this project to me for routing to the Committee.

Additional information is available from the Regulatory Compliance web site at [www.research.colostate.edu/regulatory/](http://www.research.colostate.edu/regulatory/)

Attachment  
xc: Oscar Felix w/attachment

**COLORADO STATE UNIVERSITY  
INFORMED CONSENT TO PARTICIPATE IN A RESEARCH PROJECT**

**TITLE OF PROJECT:** Success Factors of Under-Prepared Students: A Phenomenological Study

**NAME OF PRINCIPAL INVESTIGATOR:** James Banning, Ph.D.

**NAME OF CO-INVESTIGATOR:** Oscar Felix

**CONTACT NAME AND PHONE NUMBER FOR QUESTIONS/PROBLEMS:** Oscar Felix, 491-6473

**SPONSOR OF PROJECT:** N/A

**PURPOSE OF THE RESEARCH:** This purpose of this study is to investigate factors leading to academic success for students who entered the University academically underprepared (defined by low CCHE index scores) and who are low income and/or first generation college students to uncover their experiences.

**PROCEDURES/METHODS TO BE USED:** Research participants will be selected using information from University records and participant survey form. Criteria for selection are: low CCHE index score, low income status, and first generation college student. Each participant will be interviewed for about one hour. The interviews will be conducted by Oscar Felix, the co-investigator. The types of questions in the interview will revolve around your experience at Colorado State University, your personal definition of success, your academic preparation, and the services and support systems which you believe helped you at this institution. The interviews will be audio taped in order for content to be transcribed. Transcribed interviews will be processed using qualitative data analysis software. Audio tapes will be returned to participants or destroyed a few weeks after defense of dissertation.

**RISKS INHERENT IN THE PROCEDURES:** There are no known risks. However, it is not possible to identify all potential risks in research procedures, but the researcher(s) have taken reasonable safeguards to minimize any known and potential, but unknown, risks.

**BENEFITS:** There are no direct benefits to participants of this research/study.

**CONFIDENTIALITY:** All information obtained from research participants will remain confidential. Only Principal Investigator and Co-Investigator will have privilege to all content of interviews. Dissertation committee members may be allowed full access to all content as determined by Principal Investigator or Co-Investigator. Participant names, places, or other identifiers will be masked or changed in the final copy of the dissertation and any publications based on this study. Audio tapes will be returned to participants or destroyed a few weeks after defense of dissertation.

**LIABILITY:** The Colorado Governmental Immunity Act determines and may limit Colorado State University's legal responsibility if an injury happens because of this study. Claims against the University must be filed within 180 days of the injury.

Questions about participants' rights may be directed to Celia S. Walker at (970) 491-1563.

Page 1 of 2 Participant's initials \_\_\_\_\_ Date \_\_\_\_\_

**PARTICIPATION:**

Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participating at any time without penalty or loss of benefits to which you are otherwise entitled.

Your signature acknowledges that you have read the information stated and willingly sign this consent form. Your signature also acknowledges that you have received, on the date signed, a copy of this document containing 2 pages.

\_\_\_\_\_  
Participant name (printed)

\_\_\_\_\_  
Participant signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness to signature (project staff)

\_\_\_\_\_  
Date

Page 2 of 2 Participant's initials \_\_\_\_\_ Date \_\_\_\_\_

## Phone Contact Script

Hello my name is Oscar Felix and I am Ph.D. student at Colorado State University.

I am conducting a study on factors which lead to success at CSU and would like to tell you about it to see if you would be interested in being part it.

You have been identified as a successful student and I would like to learn more about your experience at CSU.

The reason you have been identified as successful is because you are currently a senior and your index score was below 95 when you were admitted (explain what index is, how it used for admissions, its implications to predict retention/graduation, and academic under-preparedness).

I would like to meet with you for about 45 minutes and conduct an interview. Questions I will ask pertain to your experiences at CSU, what is your own definition of success, your academic preparation, and the services and support systems on campus you believe helped you at this institution.

I will tape record the interview so that I may transcribe the conversation. I will return the tape (or destroy it) after study is concluded. The information from the interview will be kept confidential and any publication of the study, including dissertation and articles, will not identify you in any way. A consent form details this and other protections provided to you.

Participation is voluntary. If you agree to participate, you may stop your participation at any time.

## **Interview Guide/ Questions**

### Topical questions:

Demographic information

General impressions and insights about their CSU experience

Participation in a pre-college or Bridge transitional program

Support systems

### Issue questions:

What is your personal definition of success?

Were you aware of the university systems?

If you needed help, did you know where to get it?

Did you get the help you needed?

Why you? (Why are you successful?)

The university, by admitting you, took what we might call a risk, a chance. Do you agree? Why; why not?

Did you feel the university accurately assessed your readiness for college work?

Did ethnic pride, community/ belonging /spirituality/ religion play a part?

## Federal Pell Grant Payment Schedule 2001-2002

If the EFC is:	The scheduled Federal Pell award is:
0	\$3,750
1 - 100	\$3,700
101 - 200	\$3,600
201 - 300	\$3,500
301 - 400	\$3,400
401 - 500	\$3,300
501 - 600	\$3,200
601 - 700	\$3,100
701 - 800	\$3,000
801 - 900	\$2,900
901 - 1000	\$2,800
1001 - 1100	\$2,700
1101 - 1200	\$2,600
1201 - 1300	\$2,500
1301 - 1400	\$2,400
1401 - 1500	\$2,300
1501 - 1600	\$2,200
1601 - 1700	\$2,100
1701 - 1800	\$2,000
1801 - 1900	\$1,900
1901 - 2000	\$1,800
2001 - 2100	\$1,700
2101 - 2200	\$1,600
2201 - 2300	\$1,500
2301 - 2400	\$1,400
2401 - 2500	\$1,300
2501 - 2600	\$1,200
2601 - 2700	\$1,100
2701 - 2800	\$1,000
2801 - 2900	\$900
2901 - 3000	\$800
3001 - 3100	\$700
3101 - 3200	\$600
3201 - 3300	\$500
3301 - 3550	\$400

**Note:** The above listed annual awards are based on full-time enrollment. Three-quarter-time, half-time, and less-than-half-time enrollees receive an amount proportional to their enrollment status. Refer to the other Pell payment schedules for actual amounts.

pellpaycht.202 1/04/2001