University of Nevada, Reno

A Case Study of College Persistence for the Dean’s Future Scholars Program

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requirements for the degree of Doctor of Philosophy in
Educational Leadership with an emphasis in Higher Education Administration

by

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Abstract

This qualitative case study supplemented by quantitative data was employed to explore the understandings that 13 undergraduate students from a single Dean’s Future Scholars (DFS) cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college at the University of Nevada, Reno. To examine these understandings, the history of each component was investigated. The 13 DFS students in this case study were first-generation / low-income students of color. The six major components examined included: (a) Summer Middle School Enrichment; (b) School Year Mentoring; (c) Summer Math; (d) Summer College Bridge; (e) Summer Internship; and (f) The Lounge.

An open-ended survey was administered to 13 students regarding individual program components as well as overarching program experiences. In-depth interviews were conducted with three program administrators exploring programmatic history, development, intent, and implementation. This study examined 13 student’s perceptions of individual components as well as overarching program experiences. An intrinsic case study design coupled with a constructivist grounded theory approach was utilized. Tinto’s (1993) theory of Individual Departure was utilized as a Theoretical framework.

Four major themes were constructed from the student survey: (a) Support, (b) Joy; (c) Gratefulness; and (d) Growth. Three key findings were extrapolated from the survey data, (a) DFS is family, (b) DFS creates cultural capital, and (c) DFS creates social capital.
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TABLE OF CONTENTS

Chapter I  INTRODUCTION…………………………………………………………..1

Purpose statement……………………………………………………………………..5
Significance of study……………………………………………………………………..6
Study design………………………………………………………………………………..7
Research Questions……………………………………………………………………….8
Limitations………………………………………………………………………………….9
Definition of terms………………………………………………………………………..10
Organization of Dissertation…………………………………………………………..12

Chapter II  LITERATURE REVIEW……………………………………………13

Introduction……………………………………………………………………………..13
Low socioeconomic status……………………………………………………………..16
    Suggestions directed at equalizing income inequalities…………………………26
Academic preparation and Students Success………………………………………..31
    Solutions in regards to academic preparation……………………………………37
Role of information and habitus………………………………………………………41
Perceptions of college affordability………………………………………………….49
Interdependency Among barriers……………………………………………………54
Outreach Programs……………………………………………………………………56
P-20 partnership characteristics……………………………………………………57
    Characteristics outreach Programs Implement: What is Successful?………58

Chapter III  METHODOLOGY…………………………………………………65

Research Design………………………………………………………………………..64
    Research design……………………………………………………………………..65
    Research questions…………………………………………………………………….66
The case…………………………………………………………………………………..68
Participants……………………………………………………………………………..69
Data sources……………………………………………………………………………..70
Data collection……………………………………………………………………………73
    Program artifacts…………………………………………………………………….74
    Interviews……………………………………………………………………………..74
    Survey………………………………………………………………………………..74
Data Analysis……………………………………………………………………………75
Summary…………………………………………………………………………………78
CHAPTER I
Introduction

College access issues are becoming increasingly important as research indicates that equity and accessibility for first-generation / low-income students has been declining in America (Astin & Oseguera, 2004; Long & Riley, 2007). Adelman (1999, 2006, 2007) indicated that a lack of college preparation was a contributing factor to this declining equity, but pinpointed access as the main issue for college entrance and success. Conley (2005), as well as Long and Riley (2007), indicated inadequate student preparation for college as a major barrier. Adelman (1999), Conley (2005, 2010), Horn and Nunez (2000), and Long and Riley (2007) indicated that the higher the level of math attained in high school the greater the chance for college attendance, retention, and completion. Sociologists Bourdieu (1983, 1988) and Coleman (1988, 1990) noted that social capital is an important indicator of academic success. Bourdieu (1983) defined social capital as “The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition–or in other words, to membership in a group” (p. 248). Tinto’s (1975, 1993) model of student integration and retention also focused on a student’s academic and social integration.

Adelman (1999) found, “Of all the components of curriculum intensity and quality, none has such an obvious and powerful relationship to ultimate completion of degrees as the highest level of mathematics one studies in high school” (p. 5). Adelman also found that overall curriculum outweighed test scores and GPA for academic resources brought to college as well as for attainment of a bachelors degree. Adelman noted, “the impact of a high school curriculum of high academic intensity and quality on degree completion is far more pronounced - and
positively - for African-American and Latino students than any other pre-college indicator of academic resources” (1999, p. 3).

In later research Adelman (2006) argued, “the academic intensity of the student’s high school curriculum still counts more than anything else in pre-collegiate history in providing momentum toward completing a bachelor’s degree” (p. xviii). Once again, Adelman found the highest level of mathematics above Algebra 2 to be the most important factor for student success in postsecondary education. It is of note that Adelman found schools with high Latino student populations were far less likely to offer trigonometry in their curriculum. In regards to college retention, Adelman (2006) noted that students that had accumulated less than 20 college credits after one calendar year were less likely to graduate.

In a follow up study, Adelman (2007) found academic preparation to be the leading indicator for student success and persistence. As such, Adelman pointed out a need for colleges, outreach programs, and high schools to work together to increase student literacy and better prepare students for college. Without such preparation, students may lack knowledge about college rigor and this may negatively affect effort towards placement testing, admissions, and applying for financial aid. Adelman stressed the need for students to be active players throughout their high school education and on into their postsecondary institutions. Adelman concluded with the argument that “access is meaningless without that effort” (p. 51).

First-generation / low-income students often lack generalized knowledge about the college system, thus potentially creating significant barriers to college entrance and persistence. Tierney and Venegas (2009) stated, “Low-income and first-generation students enter junior high and high school without knowing much about college and are in schools with historically low college-going rates” (p. 371). De La Rosa (2006) argued, national research “demonstrates that
financial aid awareness and information does play a role in the college decision process for low-income, 4-year university-qualified students and their parents” (p. 1672).

Conley (2005) discussed the specialized knowledge that allows students successful transition and retention into the college system and posited that “the economically well-off are more likely to have this knowledge than working-class families of families whose children are the first generation to attend college” (p. 22). Tierney and Venegas argued, “Low-income students often experience educational environments in which there is a lack of informed resources” (2009, p. 380). As a result, a lack of social and cultural capital can disproportionately affect first-generation / low-income student’s preparation and understanding of college. Long and Riley (2007) argued that a significant barriers for low-income students “is the complexity of the college admissions process and financial aid systems, as well as a lack of accurate information about higher education costs” (p.41).

In regards to the perception of affordability for low-income students McDonough & Calderone (2006) stated, “Sometimes a lot of these kids will be eligible for a lot of scholarships, but they’re afraid to even apply because they think they’re not going to be able to afford it” (p. 1710). King (2001) suggested:

New information from the federal government suggests that an increasing number of low- and moderate-income college students—who likely would qualify for financial assistance—do not take advantage of financial aid programs, despite a trend of increased applications for aid among the general student population. (p. 1)

As such, students often lack the information necessary to navigate the complexities of college enrollment and to realize that college may be affordable with the right types of financial aid (Conley, 2005; De La Rosa, 2006; Long & Riley, 2007; McDonough & Calderone, 2006).
Long and Riley (2007) argued, “College attendance is the culmination of a series of steps and benchmarks, and this current landscape is too complex and difficult for many families to decipher and navigate” (p. 41). This systemic challenge can lead to students believing that college is out of reach financially and becoming disenfranchised with the process and giving up entirely. Tierney and Venegas (2009) argued that if students receive support and relevant information about academic preparation and financial aid in timely fashion “then access to a postsecondary education is likely to rise for low-income youth” (p. 384).

These findings are important because they support the argument that “existing class-based distributions of cultural capital, economic capital, and other patterns of privilege in our society is apparent in the class-based patterns of participation in our system of postsecondary education” (Paulson & St. John, 2002, p. 201). In other words, social capital and habitus create individual frameworks that influence student perceptions regarding college affordability and directly affect students decisions on where, if at all, to attend post secondary education.

The literature summarized above indicates the necessity of providing students with a wide variety of academic preparation and college information. College students need early access to accurate information about college costs and expectations. Conley (2005) indicated high school teachers and counselors need to prepare students not only for admissions, but also for the many challenges students will face when they arrive at institutions of higher education. Students need to be able to navigate the often difficult and confusing financial aid systems embedded in institutions of higher education. Students must be academically prepared to succeed in college level English and math coursework. McSwain and Davis (2007) suggested increasing outreach programs and offering support programs that include mentoring for first-
generation / low-income youth that address study habits, course taking patterns, and the financial aspects of paying for college. They also suggested programs should offer emotional support.

Once on campus, students also need to integrate into the institutional social structures in a variety of ways, for example, employment on campus, campus housing, or engagement in campus clubs and organizations (Adelman, 1999, 2006, 2007; Astin & Sax, 1998; Bourdieu, 1983, 1988; Coleman, 1988, 1990; Conley, 2005; Long & Riley, 2007; Riley, 1997; Tinto, 1975, 1993). Tierney, Venegas, and De La Rosa (2006) pointed out “Without financial aid, students have little chance of being active participants in academic life. Such a point is important because engagement has been found to be a key aspect for student retention” (p. 1602). Conley (2005) stated, “The time has come to think past admission to academic success” (p. 5).


**The Purpose Statement**

The purpose of this study was to explore the understandings that 13 undergraduate students from a single Dean’s Future Scholars (DFS) cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college; to examine these understandings, the history of each component was investigated. The six components examined were:
1. Summer Middle School Enrichment
2. School Year Mentoring
3. Summer Math
4. Summer Bridge
5. Summer Internship
6. The Lounge

**The Significance of the Study**

Although there are various federal, state, and institutional outreach programs that target first-generation / low-income students and address some of the barriers discussed above, a limited number of these programs contain all aspects developed to address these barriers. The Dean’s Future Scholars program has over time developed program components to address the majority of the barriers mentioned above. The program was implemented in 2000 and has never undergone a formal study of each of the six major program components. At the time of this study, the mentoring component and the math component had been studied separately. However, there was no comprehensive study of all six program components individually.

Because no research has been conducted on the individual program components to ascertain their possible contribution to college persistence it was unclear of how students perceived how individual program components might contribute to college persistence or how individual components might interact to contribute to college persistence. As such, the program needed to be studied to ascertain whether various program components actually contributed to college access, success, and persistence. This study is relevant to campus administrators that develop and implement outreach programs for first-generation / low-income students and to current administrators involved with the DFS program. The model utilized in this study may be
replicated by other outreach programs to ascertain what program components contribute to sophomore second semester student persistence.

**Study Design**

An intrinsic case study (Stake 2005) was chosen as the study design to develop a better understanding of the perceptions and experiences of 2010 DFS college cohort who successfully progressed into the second semester of their sophomore year. Stake (2005) suggested that intrinsic case studies are “undertaken because, first and last, one wants better understanding of the particular case” (p. 445). Lichtman (2011) stated, “The defining characteristic of a case study is that it is an examination of a particular group or event or program” (p. 109).

This case was viewed through the framework of constructivist grounded theory (Charmaz 2006). Charmaz (2006) stated that “A constructivist approach places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants” (p. 130). Furthermore, Charmaz (2006) argued, “Constructivists study how-and sometimes why-participants construct meanings and actions in specific situations” (p. 130). This study examined how program participants perceived the overarching program and separate program components and their contribution to college persistence. While referring to Silverman (2004), Charmaz (2006) indicated, “that only after establishing how people construct meanings and actions can the analyst pursue why they act as they do” (p. 130).

Both qualitative and descriptive data were utilized to conduct the study. Three data sources were utilized and triangulated to conduct this study: program artifacts, interviews, and a student survey. The program artifacts reviewed for this study included: (a) program reports, (b) public and internal presentations, (c) internal trainings, (d) email correspondences to and from
the Dean regarding DFS, (f) grant narratives, (g) DFS media and marketing materials, (h) the University of Nevada Reno, Center for Cultural Diversity annual report, (i) Summer Middle School Enrichment component summer schedules, (j) manuals for mentoring, and (h) course syllabi from the EDU 110 and EDU 111 college readiness courses associated with the Summer Bridge component. The interviews included the Dean of the College of Education (COE) that initiated the program, the Dean of the COE at the time of the study, and the program Director. In addition, a purposefully selected sample of the 2010 DFS freshman college cohort that were enrolled in the second semester of their sophomore year at the University of Nevada, Reno, were invited to participate in an open-ended survey and complete a self-reporting checklist. The survey was developed to determine what program components were perceived by this cohort to contribute to persistence into the second semester of their sophomore year.

**Research Questions**

The purpose of this case study was to determine the perceived contribution of the six major components of the Deans Future Scholars (DFS) program on a single cohort of students to persistence into the second semester of their sophomore year. This study included a student survey of the 2010 DFS program participants that were enrolled in the spring semester of their sophomore year at the time of the study. The intent of this study was to develop a better understanding of the six components of the Dean’s Future Scholars Program. The study examined these components individually in relationship to college persistence for participants. The research questions that drove the case study were:

1. What research or data led program administrators to develop and implement the six components of the Dean’s Future Scholars Program?

2. How was the program developed and implemented?
3. What were student experiences of the various components of the Dean’s Future Scholars program and how did students perceive those components contribution to college persistence?
   a. How did students experience the School Year Mentoring component?
      i. Did the School Year Mentoring component contribute to college persistence?
   b. How did students experience the Summer Middle School Enrichment component?
      i. Did the Summer Middle School Enrichment component contribute to college persistence?
   c. How did students experience the Summer Math component?
      i. Did the Summer Math component contribute to college persistence?
   d. How did students experience the Summer Bridge component?
      i. Did the Summer Bridge component contribute to college persistence?
   e. How did students experience the Summer Internship component?
      i. Did the Summer Internship component contribute to college persistence?
   f. How did students understand and utilize the Lounge?

Limitations

The Dean’s Future Scholars program was established in 2000 and has developed incrementally over time. The uniqueness of the program demographics, location, and history may create reliability issues in implementation of the program on other campuses. The key program developers and administrators had strong ties within the local school district as well as key departments on campus. As a result, the program may have been granted access within the public schools and had ties funding sources that may be different or hard to replicate on other
campuses. The criteria for selection into DFS consisted of sixth grade teachers and counselors recommending students that are primarily low-income, show academic promise, but may lack the necessary support structures to be successful. Because the selection process was not clearly defined, the actual selection criteria are unknown. Although findings from this study indicated that all six components contributed to persistence into the second semester sophomore year of college for this single DFS cohort, it is difficult to determine how selection criteria and selection itself may have contributed to persistence.

It should be noted that the researcher was graduate assistant of the DFS program and as such, researcher bias needed to be addressed. The researcher worked closely with the faculty advisor and doctoral committee members to ensure the research findings matched the data. The researcher developed the survey and no pilot was conducted. Two faculty members within the Educational Leadership department at the university reviewed the survey for content validity. Finally, it should be noted that the study focused on the contributions of the six major components of the DFS program. Although the administrator interviews and the program artifacts indicated areas for improvements; the student survey did not contain any specific questions in regards to programmatic improvements.

**Definitions of Terms**

*Access:* The ability to attend college.

Components that contribute to ability to attend college include, but are not limited to: financial resources, knowledge, academic-preparation, social and cultural capital, and habitus.

*Cultural Capital:* “linguistic and cultural competence and that relationship of familiarity with culture which can only be produced by family upbringing when it transmits the dominant culture (Bourdieu, 1977, p.494).
First-generation students: Students who are the first in their family to attend college or whose parents have not graduated from college.

Habitus: Individual social space that creates positions, dispositions, and practices inextricably linked together (Bourdieu, 1984; Calhoun, Gerteis, Moody, Pfaff, & Virk, 2002).

Low-income Schools: Title 1 Schools that have a majority or higher percentage (for the school district for this study 75%) of students that qualify for Free and Reduced Lunch (FRL).

Low-income students: Students with a low socioeconomic status that qualify for FRL by the 2011 Washoe County School District standards.

Persistence: “The rate at which students who begin higher education at a given point in time continue in higher education and eventually complete their degree, regardless of where they do so” (Tinto, 2010, p. 128).

Retention: For the purposes of this case study, retention is student persistence with satisfactory academic progress and continued enrollment in second semester sophomore year.

Social Capital: "The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or in other words, to membership in a group” (Bourdieu, 1983, p. 248). Bourdieu (1983) adds to this further, defining social capital as "transforming contingent relations, such as those of neighborhood, the work place, or even kinship, into relationships that are at once necessary and elective implying durable obligations subjectively felt (feelings of gratitude, respect, friendship, etc)” (pp. 249-250).

Reproduction of social and cultural capital: Bourdieu frames capital in the terms of reproduction or the act of parents passing on capital to their children. For the purposes of
this study, the reproduction of capital is the capital passed on to students through the DFS program staff, administrators, and participation in program components.

*Development of social capital and cultural capital:* Although findings from this study indicated that social and cultural capital were mainly reproduced there were instances where students indicated learning from one another in the lounge. As this was not a direct intent and structured into the program, for the purposes of this study, the act of learning from other DFS students or on their own is referred to as the development of social and cultural capital.

**Organization of Dissertation**

The dissertation will be presented in five chapters. The first chapter outlines barriers for first-generation / low-income student high school graduation, as well as college entrance and retention. The summary details what research indicated can be provided to students to overcome such barriers. A brief explanation of the case study design, driving questions, as well as the purpose and significance of the study were explained. Finally, definitions of terms for the purposes of this study and possible limitations were outlined.

Chapter II is a review of the related literature regarding first-generation / low-income student’s barriers for high school graduation as well as college entrance and success. Barriers included socio-economic status, academic preparation, habitus and information, and student college perception. Although each barrier was discussed separately, the interdependency of barriers was discussed following the individual discussions. Chapter II also discussed early intervention and outreach programs. More specifically, detailed research about institutional partnerships and various program components were discussed. Finally, a detailed description of the Dean’s Future Scholars Program and the six major program components was provided.
Chapter III discusses the case study that was conducted to explore the perception of thirteen students in a single DFS cohort of the six major components contribution to persistence into the second semester of their sophomore year. More specifically, Chapter III outlines data sources, collection, and analysis of program artifacts, interviews, and a student survey conducted during the study. Chapter IV examines the findings for each of the six major program components and discusses the four major themes that emerged through analysis. Finally, Chapter V discusses the significance and implications of the research findings.
CHAPTER 2

Introduction

Tierny, Venegas, and De La Rosa (2006) observed, “As society switches to a knowledge-based economy, access to postsecondary institutions also rise in importance” (p. 1602). Conley (2005) stated, “The college degree has become much more important for entry into the labor force and continues to be the critical credential for access to graduate schools in the professions” (p. 4). Tierny and Venegas (2009) stated, “most scholars advise that postsecondary education is necessary for gainful employment” (p. 364). Employers are increasingly seeking college degrees during the screening process when hiring (Adelman, 2006). Further, Long and Riley (2007) argued that:

The monetary rewards of a college degree are so great that many in the field of higher education have begun to categorize the decision to attend college as the million-dollar question because, on average, people with a bachelor’s degree will earn one million more over the course of their lifetimes than those with only a high school diploma. (p.39)

There is a high desire to attend college among high school freshmen. Conley (2005) pointed out, “Close to 90 percent of incoming high school freshmen state that their goal is to go to college” (p. 9).

Higher education literature indicates that education is increasingly becoming more important in an ever-expanding global economy. As such, it is important to examine what research indicates regarding the access and barriers for high school graduation and college entrance and success for underrepresented first-generation / low-income students. Hauptman (2007) pointed out, “an examination of available data also indicates that concerns about levels of student readiness, access, and success are particularly acute for low-income and minority
students” (p. 4). Low family income, a lack of academic preparation, inaccurate information, and misperceptions about college affordability are major barriers for first-generation / low-income students in regards to college entrance, persistence, and graduation (Chen & Dejardins, 2007; Conley, 2005; De La Rosa, 2006; Horn & Nunez, 2000; Long & Riley, 2007; McDonough & Calderone, 2006). McSwain and Davis (2007) argued, “college prices have risen more rapidly than the rate of inflation since the early 1980’s placing a disproportionate burden on families with the lowest incomes” (p. 8).

Tinto (1982) stated, “It seems self-evident that finances can be critically important to individual higher educational careers; but their effect on dropout can be long-term or short-term and direct or indirect in nature” (p. 689). Unforeseen costs may disproportionally affect college students from low-income families. This can lead to dropout, especially in the first year of college when there has been very little perceived investment by students (Tinto, 1982).

Financial aid policy itself can become a barrier for low-income students. Hauptman (2007) argued:

Institutional aid packaging practices increasingly contribute to a declining degree of targeting toward economically disadvantaged students. This lack of targeting reinforces chronic inequities at each stage of the educational pipeline (p. ix).

Therefore, systemic policy put in place can often exacerbate the financial struggles of first-generation / low-income students. The following section will provide a discussion related to the issues outlined above. Although the literature indicates interdependencies between barriers, each barrier will be discussed separately and then a summary of the interdependency between barriers will be provided.
Low Socioeconomic Status

Long and Riley (2007) conducted a meta-analysis of related literature regarding financial aid and college access. They found, “Among high school graduates in 2004, only 43 percent of students from families who made less than $30,000 immediately entered a post secondary education. In contrast, 75 percent of students from families who made more than $50,000 did so” (Long & Riley, 2007, p. 40). When Long and Riley took into account academic preparation they found that the large inequality gap remained. The top academic quartile of low-income high school graduates entered college at roughly the same rate as the bottom quartile of high-income high school graduates.

These researchers found high-income high school students that entered college graduated at a rate of 81 percent within five years of entrance. In contrast only 36 percent of low-income students graduated within eight years (Adelman, 2006; Long & Riley, 2007). In addition, the top 25 percent of low-income students that entered college were far less likely to persist and graduate than their high-income counterparts.

Hauptman (2007) in conjunction with the Western Interstate Commission for Higher Education (WICHE) and the Lumina Foundation published a report based on a meta-analysis addressing why the United States has been more successful in creating college access than student readiness and success. However, Hauptman noted there are still large equity gaps in postsecondary access. In regards to equity gaps in postsecondary education Hauptman argued, “low-tuition policies at public institutions do not do a good job of targeting state subsidies toward the lowest-income students. Nor are most student aid programs at the federal and state levels well targeted to the poor” (2007, p. ix). The result is institutional inequity based on socio-economic status at every level throughout the educational system.
Hauptman (2007) noted that in nearly four decades since equity of access became an underlying theme in policy implementation, the gap between the rich and poor has not narrowed. Hauptman indicated, “even when ability level differences are taken into account, socioeconomic status remains a key predictor of student access” (2007, p. 4). Hauptman argued one of the reasons for this is “merit based admissions policies tend to favor better-prepared students, who come most frequently from better OR more affluent high schools” (2007, p.6). As a result, middle and upper-income students gravitate to schools with relatively low-tuition costs in order to maximize the benefit for their respective costs. In such cases, there is often poor alignment between subsidies and assistance towards the neediest students via policy or institutional practices.

Chen and DesJardins (2008) conducted a meta-analysis related to financial aid and dropout rates across varying parental income levels and found a dropout gap across income level groups that affect low-income students. In order to understand this phenomenon they examined different types of financial aid and parental income to ascertain if different types of aid may lead to a reduction in the dropout gap. They concluded existing theoretical frameworks failed to consider the temporal dimension or timing of aid, and various aid impacts on dropout by income level.

Chen and DesJardins (2008) analyzed the Beginning Postsecondary Students survey of 6,733 students who started their postsecondary education during the 1995-1996 academic year. The survey contained annual information about social and academic integration, dropout rates, and financial aid. For the purposes of the study, only students at four-year institutions were included. The researchers categorized variables into nine groupings then into five constructs including student background, educational aspirations, academic and social integration,
institutional characteristics, and financial aid. Chen and DesJardins studied the interaction effect between parental income level and financial aid to determine if there was a correlation between financial aid effects and income group.

Their research findings indicated that lower-income students drop out at a higher rate than upper income students do. “About 38% of low-income students dropped out of institutions without returning during the observation period, whereas the percentages of drop out for middle income and high-income are 31% and 22%, respectively” (Chen & DeJardins, 2008, p. 10). When analyzed closely they found that the high-risk portion of this group was more likely to be females with low GPAs that had parents with low education levels as well as low educational aspiration levels.

Chen and DeJardins (2008) found a direct negative correlation between dropout rates and parental income. Dropout rates for high-income students were only 61.1% of that of low-income students. While there was no significant statistical difference in dropout rates between middle and low-income students, parental level of education significantly affected dropout rates between these two groups. Chen and DeJardins found, “the odds of departure for students whose parent have a bachelor’s degree or above are only 64.3% of departure from those students whose parent completed high school” (2008, p. 10).

This research indicated several other factors correlated to dropout rates. Students with higher educational aspirations had lower dropout rates. This research indicated a negative correlation between first year GPA’s and dropout rates. Students receiving loans, work-study, and showing higher levels of academic integration were less likely to drop out as well. Finally, examination of types of aid indicated the Pell grant was statistically significant in regards to
reducing the dropout gap. Chen and Dejardins (2008) found, with other factors controlled, work-study and loans did in fact reduce low-income student dropout rates.

In order to make sense of institutional policies that contribute to student success, Muraskin and Lee (2004) researched 20 four-year institutions with high low-income student enrollment. Half of the institutions had higher than average graduation rates (HGR) and half had lower than average graduation rates (LGR). Researchers determined low-income enrollment by percentage of Pell grant recipients at each institution. Graduation rates were determined by the number of students enrolled full-time who graduated within six years.

Researchers analyzed policy to determine if policy differences correlated to student graduation rates. Muraskin and Lee (2004) found systemic differences in resources and student bodies between HGR and LGR institutions. Greater resources at HGR institutions included more graduate offerings, full-time faculty, educational resources, and better faculty to student ratios. This trend indicated LGR institutions have a more difficult time providing the same education and thus retaining and graduating students (Muraskin & Lee, 2004). However, researchers noted that students at LGR institutions are paying approximately the same after financial aid as those that attend HGR institutions. The reasoning is that although HGR institutions have higher tuition rates, they also provide more grant aid, offsetting the higher tuition rate. Muraskin and Lee (2004) concluded that 12 factors were common among HGR institutions including:

- Intentional academic planning
- Small class size allowing for greater interaction and discussion
- The provision of personal academic support and advising
- High level of available and accessible full-time faculty
• Educational innovation designed to aid students’ transition and supply students with extensive tutoring and group study
• Offering of developmental education
• Geographic isolation leading to the institution becoming the epicenter of students’ lives
• Mandatory first year campus residence
• Students, faculty, and the community of these institutions came from similar backgrounds and shared similar values and experiences
• Student selectivity in terms of GPA and SAT/ACT
• Focus towards merit-based financial aid that attracted high achievers
• A focus on individual institutional policy directed at retention and graduation rates above national performance levels.

McSwain and Davis (2007) conducted a meta-analysis for the Institute of Higher Education Policy of the working poor, access, and success in postsecondary education. They found that although working poor students received financial aid they did not receive enough to cover the costs of college, and therefore, had unmet needs. They also found that working poor students had to juggle time and therefore often attended school part-time, which led to even lower levels of financial aid. Another major issue that surfaced during the analysis was the working poor student’s high sensitivity to unanticipated fluctuations in daily expenditures such as unforeseen costs (e.g. car repairs, medical bills, and appliance replacements).

McSwain and Davis (2007) pointed out that starting at a community college, being a first-generation student, and long hours of employment are factors negatively correlated to college success. They argued, “because these factors are closely linked to income, working poor
students continue to lag behind their counterparts with higher family incomes in the area of degree completion” (McSwain & Davis, 2007, p. 31).

St. John (2002) noted that “since 1980 the gap in college participation rates between low-income and high-income students and between minorities and Whites has widened substantially, creating new inequality in college access” (p.1). St. John attributed this widening gap, or as he termed it *The New Inequality*, to the fact that tuition increases have greatly outpaced the real value of federal grant aid, disproportionally affecting low-income students net cost of college. St. John concluded this through a meta-analysis he conducted on the National Center of Education Statistics (NCES) 1987 National Postsecondary Aid Survey as well as numerous studies regarding college access and preparation.

St. John (2002) outlined three critical trends that led to the growth of *The New Inequality*. The first trend was the relative value of the Pell grant versus the costs of college. The purchasing power of the Pell grant has waned substantially since 1975. The second trend was that although college participation rates have continued to increase since the 1980’s, participation rates for Whites and high-income students have outpaced that of African American, Hispanic, and low-income students. The final trend was a decline in enrollment in four-year institutions during a time when overall college participation rose. St. John attributed this to the decline in purchasing power of the Pell leading lower-income students to enroll at community colleges in larger numbers.

Chen and St. John (2011) conducted a multi-level of analysis on how state policy affects student persistence at first-institutions. First institutions were considered the initial institutions of higher education that a student attended. Chen and St. John (2011) were specifically examining:
1. After controlling for student and institutional level factors, how are state-level financial policies associated with persistence overall at student’s first institutions?

2. Do the relationships between state and financial policies and first-institution persistence differ by student SES and racial/ethnic background? (p. 634)

Chen and St. John (2011) utilized the Beginning Postsecondary Students (BPS) database consisting of 6,383 beginning postsecondary students from 422 colleges and universities that enrolled in 1996 and followed these students until 2001. They analyzed the national higher education database containing the financial indicators of 49 states as well.

Several findings resulted from their research. Socio-economic status proved to be a significant factor. Chen and St. John (2011) stated, “even after controlling for all other factors at individual, institutional, and state levels, we found substantial gaps in persistence rates at first-institutions by SES, with high-SES students having 55% higher odds of persisting than their low-SES peers” (p. 652). Chen and St. John found social integration, both high school and initial college GPA’s, first-year academic integration, and individual educational aspirations to be significant factors in student persistence at first institutions. Chen and St. John (2011) also found, “institutional characteristics were found to be linked to student persistence” (p. 653). However, the most important characteristic was the level of selectiveness by the institution, or the level of admissions requirements students needed to meet to be successfully admitted into the institution. Finally, the research indicated that state financial aid variables were important factors in understanding student persistence; this indicated a need to examine state need aid in proportion to public tuition when examining student persistence (Chen & St. John, 2011).

Another important factor to examine is institutional allocation of aid based on need or merit. Doyle (2010) conducted an analysis that examined “shifts in institutional responsiveness
to both student need and student test scores over the period 1992-2003” (p. 789). Essentially this analysis was designed to determine if institutional priorities for allocating financial aid had shifted over the period studied. To analyze allocations based on need versus merit Doyle used the National Postsecondary Student Aid (NPSA) survey administered to tens of thousands of students over 12 years. The survey gathered student data about institutional characteristics as well as individual student background and financial aid. When Doyle (2010) defined need versus merit he stated, “I posit that any aid that increases as family income goes down can be reasonably inferred to be need-based, while aid that increases as SAT scores go up can be described as merit-based” (p. 793). Doyle limited his sample to students dependent on parents and classified as full-time students. It is of note that Doyle excluded work-study aid and loan aid because less than 4% of the students received loan aid and less than 6% received work-study aid.

Doyle (2010) found that initially at public four-year doctoral institutions there was not a significant difference between high and low-income student aid nor was there a significant difference between aid allocated by different SAT score levels. By 2003 aid allocations between high and low-income students did in fact increase, indicating a need-based focus while student aid based on SAT score increased dramatically, indicating that these institutions were shifting towards favoring higher test scores, but were not shifting away from need-based aid along the way. In public four-year non-doctoral institutions, there was not a significant difference in high and low-income student aid. However, by 2003 the difference between high and low-income aid was not statistically significant while high verses low SAT score aid was significant. Once again, this indicated a shift towards favoring high-test scores while failing to increase need-based aid.
Baum (2007) conducted a meta-analysis of college financial aid and its effect on students from varying socio-economic backgrounds. Baum’s research included college financial aid at federal, state, and individual institutional levels. Her research indicated a need to address all three areas separately because the financial aid system exasperated inequality gaps between affluent and non-affluent students and the trend in aid appeared to be widening this gap.

Baum (2007) argued, “the federal government has primary responsibility for furthering equality of opportunity among Americans” (p. 16). The main federal funding contribution for the neediest students is the Pell grant. Baum indicated that at the time of the study, the average Pell grant award was $2,040 and the maximum award was $4,050. Baum (2007) argued the “maximum Pell grant covers slightly more than half as much of the price of a year at a public four-year college as it did 20 years ago” (p. 16).

Another source of aid provided by the federal government comes in the form of tax credits and tax deductions. However, as Baum (2007) noted this type of aid does not target low-income students. In fact, tax credits and subsidies for families that intentionally save for college can help exacerbate inequality gaps. Baum (2007) argued, “because only households that pay taxes are eligible for these subsidies, they miss the very poor entirely, favoring middle- and upper-income families over lower-income families” (p. 16). Baum found that families that earn between $100,000 and $160,000 receive over 40% of the benefit of tax deductions, while less than 25% of the benefit from tuition tax credits and less than 50% of the benefit of the tax benefit from deductions go to families that earn less than $50,000 a year.

Baum (2007) argued that tax credits and tax deductions, although popular with politicians and society, pose several major problems, especially for low-income students. First, there is currently no evidence that either tax credits or tax deductions increase college-going
rates. In actuality, it is likely that they only aid students that are already attending college. Another inherent issue of tax credits and tax deductions is that they are essentially reimbursement programs that provide aid in the spring the following year. As a result, these programs are ineffective in helping students who do not initially have the money to attend college. Another problem with these programs is that they only provide money for tuition and do not account for other expenses including room, board, and books that make up the majority of the costs of attending college. This results in unmet need for the neediest students. It is important to note that Baum (2007) found great merit in the utilization of the tax system to help subsidize college student cost as long as those students are well informed, earn enough money, and pay enough taxes to successfully claim the benefits. Baum (2007) argued, “in 2005-2006, almost 9 million citizens reduced their tax bills through use of the tuition tax credits and deductions, while fewer than 5.4 million students received Pell Grants” (p. 17).

Baum’s (2007) analysis of state financial aid indicated that many states are moving towards a higher proportion of subsidies and merit based aid. Baum (2007) argued, “this is problematic since grants don’t just go to students with need” (p. 17). Baum argued that institutional subsidies tend to help all students at a particular institution instead of just the students targeted by the institution. This means that awards could be allocated to schools with high low-income enrollment. However, low-income students are usually found in higher concentrations at community colleges where far less subsidies are allocated thus widening equity gaps. Baum (2007) pointed out that state allocations have also shifted towards merit-based grant aid. This can be problematic as Baum (2007) argued, “because of the eligibility criteria, middle- and upper-income students are more likely than lower-income students to receive these grants” (p. 17).
Baum and McPherson (2011) analyzed student sorting in institutions of higher education. For the purposes of this analysis Baum and McPherson separated sorting into two distinct categories, the Big Sort and the Little Sort. The Big Sort is the process that separates individuals that enter into the military, labor force, community colleges, and four-year public or private institutions. The Little Sort is the process that separates those students that attend the upper echelon institutions of higher education. Baum and McPherson (2011) noted the significance of the Big Sort as “the one that has a major impact on the lives of many students and on the character of the inequality in American society” (p. 6). Baum and McPherson (2011) stated that, “only 10 percent of students in the most selective colleges and universities came from the bottom 40 percent of the income distribution” (p. 7). However, this same population produced 12.5 percent of the SAT scores or ACT equivalencies equal to or exceeding 1250.

**Suggestions Directed at Equalizing Income Inequalities**

Hauptman (2007) suggested several steps that state and federal institutions might take in order to reduce the access equity gap for postsecondary education. First, states might enhance current merit-based programs by adding a needs-based component. Although award allocation to students based on merit would be the focus, students with higher need would receive higher award amounts or subsidies. Hauptman argued that student aid programs based on family financial unmet need often lead to families with more income receiving more aid if they enroll in institutions that are more expensive. Hauptman suggested this equity disparity might be alleviated or reduced if need were measured based on low family income rather than institutional cost minus unmet need. Hauptman also recommended the federal government create financial incentives for institutions to graduate need-based grant recipients. Hauptman argued, “this would then encourage states to explore various ways in which they might encourage their
institutions to make greater efforts both to enroll and graduate students from lower-income families” (2007, p. 18). In order for this to work, the eligibility requirements would need to be structured in a manner that only reward institutions for recruiting and graduating low-income students for this particular aid source. It should be noted that Hauptman pointed out this type of aid can be problematic as it may lead to institutions lowering their standards in order to receive federal or state aid dollars. In order to address this Hauptman suggested limiting the size of payments and implementing safeguards in order to insure balance in readiness, access, equity, and retention.

Muraskin and Lee (2004) argued that in institutions serving a high percentage of low-income students “much of the difference in student outcomes may be due to factors so basic that they are hardly amenable to tweaking institutional policies or practices” (p. 3). However, they did find that large numbers of HGR institutions enrolled freshmen in developmental or remedial programs indicating the need for institutional administrators to continue to support such programs or implement such programs if not in place already. Muraskin and Lee also found that many of the HGR institutions were located in small towns with shared values and social cohesion supporting arguments for the need for institutions to create outlets for student social integration that can lead to higher persistence and eventually higher graduation rates.

McSwain and Davis (2007) suggested a number of ways that institutions as well as the federal and state governments can help working poor students. One way to help working poor students would be to provide tax relief. McSwain and Davis suggested making all grant aid tax free, increasing the federal exempt amount for the Pell grant, or allowing for more educational tax credits geared towards room and board or books. Another suggestion was that institutions might offer more support to working poor students in the form of extended night and weekend
hours for all student services departments, extended core curriculum offerings outside of normal business hours, and offering extended hours for libraries and computer labs. McSwain and Davis also suggested a nationwide increase in federal grant aid and statewide initiatives in regards to financial aid awareness.

McSwain and Davis (2007) targeted specific changes that would affect individuals on welfare by allowing them to count college class time towards their 20 hour a week work, community service, or vocational class requirement. They also suggested raising childcare allowances when calculating estimated family contributions (EFC) for financial aid to help single parents afford college. McSwain and Davis targeted working poor youth by suggesting a higher annual income level for maximum EFC qualification. In regards to first-generation students, McSwain and Davis suggested increasing outreach programs and offering support programs that include mentoring for first-generation / low-income youth that address study habits and the financial aspects of paying for college while offering emotional support.

St. John (2002) offered two relatively direct solutions in order to help alleviate the New Inequality. First, the federal government needs to reinvest in the Pell grant in order to increase its real purchasing power back to its 1980 level. Second, states need to increase investment levels in need-based aid through outreach programs and need-based grants. St. John argued if these steps are taken, then “there is a greater chance of restoring equal opportunity to a level that existed in the 1970’s” (2002, p. 25).

Chen and St. John (2011) offered three policy related suggestions to help address student persistence. First, they suggested that states create policy emphasizing outcomes that support student persistence. This would entail policy that takes into account the price elasticity between state aid and tuition as it affects persistence. Chen and St. John (2011) argued that “higher
tuition without increased grant aid is associated with higher dropout rates” (p. 654). Therefore, policy needs to be written in a way that state need-based aid is allocated to offset tuition costs. Second, Chen and St. John suggested that the federal government and accrediting agencies utilize student persistence as part of the accreditation process. Finally, Chen and St. John suggested that the current policy that utilizes high school graduation as a measure for state need based grants be reframed in a manner that rewards K-16 success. According to Chen and St. John (2011) state financial aid policies have a direct impact on student persistence:

The idea of maintaining financial mechanisms to ensure access to and persistence in four-year colleges for students from all SES backgrounds should remain a major goal, and we need to adapt strategies for achieving this goal in the new context. (p. 654)

Baum (2007) suggested three basic tenets in restructuring financial aid. First, there is a general need to simplify the system. In order to do this Baum suggested fewer separate programs, more consistency with rules and eligibility, and streamlining the entire process. Second, policy should be written in a manner that targets increasing educational opportunities. Baum argued that tax deductions, merit-based aid, and general grants based on test scores probably do not promote greater opportunity. Finally, financial aid should go beyond focusing on admission to college and focus on academic preparation and persistence. Baum (2007) argued:

While not everyone is interested in going to college and it is not the right course for every individual, financial constants should not be the deciding factor in who enrolls and who does not. It is not fair that accidents of birth should determine educational opportunities. And it is not efficient for society to be deprived of the potential productivity of
individuals who are unable to participate and succeed in higher education because of their limited financial resources. (p. 20)

Another major suggestion was creating systemic streamlined admissions processes across institutions. Baum and McPherson (2011) argued this would work much like the current California institutions where requirements met lead to the possibility of admittance into a category of institutions, but not necessarily an individual institution. Baum and McPherson argued this might lessen the destructive aspects of the system and lead to a more rational process.

Baum and McPherson posited that upper echelon institutions fail to enroll the number of qualified first-generation/low-income students they should, and as such, examined what factors contributed to this phenomenon. Baum and McPherson (2011) suggested that elite institutions should increase the number of students admitted. They argued that as the overall college-going population increases so should the overall number of students admitted to elite institutions. Baum and McPherson argued that due to recent budget cuts spending per student at elite institutions has declined. They suggested that as the economy improves instead of increasing spending per student they increase the overall number of students admitted. Baum and McPherson (2011) argued that elite institutions, “would still maintain their positions as the most selective and best-endowed colleges and universities in the country” (p. 11).

In summary, there appears to be negative correlations between low family income and college access and success. As Tinto (1975) argued in the 1970’s “Specifically children from lower status families exhibit higher rates of dropout than do children of higher status families even when intelligence has been taken into account” (p. 99). Baum and McPherson (2011) argued, “Indeed, the likelihood that those first-generation or lower-income students who do have a good chance of admission to a selective college or university will even apply is quite low” (p.
Although a correlation can be drawn between family income and high school graduation, college entrance, and earning a degree, there are other barriers correlated to first-generation / low-income students that can influence student success (American Council on Education, 2001; Baum, 2007; Baum & McPherson, 2011; Conley, 2005; De La Rosa, 2006; Horn & Nunez, 2006; Long & Riley, 2007; McDonough & Calderone, 2006). One such critical barrier is academic preparation.

**Academic Preparation and Student Success**

The population of students seeking college entrance has changed drastically from the traditional elite to students from varying socio-economic and cultural backgrounds. As this population has shifted college administrators raised minimum GPA admissions requirements, but failed to provide a consistent definition of what defines a well-prepared student. High school academic curriculum developed by states in the 1990’s was based, for the most part, on citizenship and workforce success rather than college success (Conley, 2005). Because high school curriculum is often not a cohesive and well-designed program of scaffolding academic skills in a progression from ninth through twelfth grade, few students make the connection between the content and intellectual skills necessary to succeed in college. As a result, when these students enter college they struggle with a system that assumes that incoming freshmen have a specific knowledge base and can think critically (Conley, 2005).

Hauptman (2007) argued, “a series of reports over time suggest that a large and possibly growing number of entering college students in the U.S. require remediation or otherwise are not prepared to do college-level work” (p. 2). This can lead to low graduation rates. In the U.S. less than 50 percent of students who enroll in a four-year institution complete their baccalaureate
degree and the degree completion rates for students that begin at a community college are much lower.

Tierney & Venegas (2005) argued:

The level of preparation that students have prior to entering college influences their chances of persistence and success in college. As such, the timing and implementation of many college-going practices such as rigorous academic preparation, appropriate counseling, and access to financial aid information are critical to college preparation.

(p. 11)

Hauptman (2007) found that because policies have focused on access rather than student success, institutions have neglected the issue of preparation. In fact, it was Hauptman’s contention that the focus on increasing access correlated inversely with incentivizing institutions to graduate students. Hauptman argued, “few states require that students be adequately prepared for institutions to receive funds” (2007, p. 5). Traditionally, states tended not to allocate funds based on any type of success outcomes, whether it was measuring term completion or graduations rates of students receiving aid. Federal aid largely mirrors this philosophy and requires minimal levels of preparation for students to receive aid. This type of policy lends itself to a system that values access over student preparation and success.

However, since the 1990’s many states have on some level “adopted performance-based funding mechanisms that included graduation rates as one of the key indices on which the performance of institutions would be judged” (Hauptman, 2007, p. 10). The intention of these mechanisms is to recompense both students and institutions for success and address the nation’s need to better prepare students. It is important to note that student outcome based policies may serve to widen the disparity gap.
In a study conducted from 1996 to 2002 at the Stanford Institute for Higher Education research known as “The Bridge Project”, researchers studied 25 high schools in six states and surveyed over 2,000 students and roughly the same number of parents. From those surveyed the findings focused on roughly 450 students in three high schools surrounding Sacramento. Researchers focused on California students because they felt the California system better informed students. Their logic was that if students struggled with academic preparation, perception, and college knowledge within the best informed system, then students in other less informed states would likely have difficulties as well (Conley, 2005).

Conley (2005) agreed with Adelman (1999, 2006) when he stated that the “single most important factor in determining college success is the academic challenge of the courses students take in high school” (p. 38). For mathematics, this means that not only should students take advanced math courses (coursework beyond Algebra II) in high school, but they should also continue math immediately upon entrance into college (Adelman, 1999; Conley, 2005). Students that take advanced math coursework have more than twice the graduation rate of students that do not. Not only is level of math important, but continuity is an important factor in mathematics as well. Students that take math in their last year of high school and their first semester of college are more successful in college mathematics as well as in sciences such as chemistry and physics (Conley, 2005).

Conley (2005) argued in regards to writing, institutions of higher education have required four years of English in high school for quite some time, but the precise curriculum of those four years has remained somewhat of an enigma and has not necessarily geared students for success in college, particularly for technical writing. Conley pointed out teachers that have earned college degrees in English teach a majority of English classes taught in high school. As a result,
English professors tend to focus on expressive writing, poetry, and specific literature. However, students need preparation for technical writing throughout college where faculty often expect critical analyses of a broad array of writing throughout a wide variety of subject material (Conley, 2005).

Adelman (1999) conducted a longitudinal study entitled Answers in a Toolbox beginning in 1980 on a national cohort of 8,873 tenth graders, the followed the students until 1993 when these students were approximately 30 years of age. The study utilized artifacts including student transcripts and test scores coupled with a student survey to determine academic intensity, attendance patterns, and attainment of a bachelor’s degree. Adelman then ran a five step logistic regression on the findings.

Adelman (1999) found, “Of all the components of curriculum intensity and quality, none has such an obvious and powerful relationship to ultimate completion of degrees as the highest level of mathematics one studies in high school” (p. 5). Adelman also found that overall curriculum outweighed test scores and GPA for academic resources brought to college as well as for attainment of a bachelor's degree. Adelman noted, “the impact of a high school curriculum of high academic intensity and quality on degree completion is far more pronounced and positively for African-American and Latino students than any other pre-college indicator of academic resources” (1999, p. 3). Adelman (1999) found that academic resources were more highly correlated to bachelor’s degree attainment. Adelman also found that advanced placement courses influenced college access and that they were more highly correlated with degree completion at four-year institutions than with access to those institutions. In short, Adelman found that academic preparation had the greatest correlation overall for college access and degree attainment.
Seven years after Adelman (1999) put forth *Answers in a Toolbox*, he compiled a follow-up study entitled *The Toolbox Revisited*. *The Toolbox Revisited* is a report Adelman (2006) compiled through analyzing the National Center for Education Statistics (NCES) data that followed a national sample of over 12,000 eighth graders from 1988-2000 and followed only students that graduated high school and attended four-year intuitions. The study focused on what factors correlated with four-year degree attainment.

Adelman’s (2006) major findings from this study mirrored the findings in *Answers in a Toolbox* with a few important differences. Adelman (2006) argued, “the academic intensity of the student’s high school curriculum still counts more than anything else in pre-collegiate history in providing momentum toward completing a bachelor’s degree” (p. xviii). Once again, Adelman found the highest level of mathematics above Algebra II to be the most important factor for student success in postsecondary education. It is of note that Adelman found schools with high Latino student populations were far less likely to include trigonometry in their curriculum. Adelman (2006) also found that college students with less than 20 semester credits after one calendar year were less likely to graduate. Adelman argued that the belief that first year students drop out in draconian numbers is false; many of these students may *swirl* ( unofficially moving back and forth between institutions of higher education) and tend to reenroll again within a calendar year.

In the sample studied there was a positive correlation with degree attainment for students that enrolled in the initial summer program and completed four or more credits. Adelman (2006) found that the swirling mentioned earlier negatively correlated to degree attainment. However, formal transfer from community college to a four-year institution positively correlated to degree completion. In regards to academic performance, Adelman found that academic performance in
high school was still the strongest indicator of postsecondary success. However, Adelman found that GPA and class rank became stronger indicators than senior test scores, the opposite of the findings in Answers in a Toolbox.

In 2007, Adelman conducted a follow up analysis using the National Education Longitudinal Study (NELS), which examined 25,000 eighth grade students nationally, beginning in 1988. The NELS study also included follow up interviews with school administrators, teachers, and parents, as well as data such as test scores, and both high school and college transcripts. Adelman was curious to examine if the United States truly had an access problem as much of the literature indicated.

For the purposes of this study, Adelman (2007) looked at four different definitions of access including threshold access, recurrent access, convenient access, and distributional access. Adelman (2007) decided to use threshold access because “definitions of access that include recurrence, convenience, and distribution both diffuse and contaminate the focus of the question” (p. 49). In essence, this meant that access was defined as “the first time you walked through the door of any accredited postsecondary institution and stayed long enough to generate a transcript record” (Adelman, 2007, p. 49). It is important to note that Adelman did not differentiate access availability between two-year and four-year institutions that have significantly different persistence and graduation rates. Based on these data and criteria Adelman (2007) found:

66 percent of students who graduated on-time from high school with a standard diploma entered some kind of postsecondary school directly from high school and another 13 percent entered by their mid-20s, for a total access rate of 79 percent. (p. 49)

Adelman (2007) found that persistence or participation is a significant problem. To measure this Adelman used 10 credits earned over the first year as a benchmark indicator for
successful participation. With participation included, the overall number of students that gained access to the overall number of students that earned 10 credits dropped from 79% to 70%. However, the number of low-income students dropped from 69% to 54% respectively. When Adelman looked at the students in the top 60% of their class that entered a postsecondary institution, 97% hit the 10 credit benchmark. Based on these findings Adelman (2007) argued, “in short, do we have an access problem? Not really. Do we have a participation problem? Oh Yes!” (p. 51).

Once again, Adelman (2007) found academic preparation to be the leading indicator for student success and persistence. As such, Adelman pointed out a need for colleges, outreach programs, and high schools to work together to increase student literacy and better prepare students for college. Adelman stressed the need for students to be active players throughout their high school education and on into their postsecondary institutions. Adelman (2007) concluded with the argument that “access is meaningless without that effort” (p. 51).

**Solutions in Regards to Academic Preparation**

Hauptman (2007) indicated that “policies most likely to lead to greater student success relate to programs that seek to improve student preparation” (p.11). As a result, Hauptman suggested increasing funding for at-risk students through early intervention programs such as the State Scholar Initiative (SSI) and the federal Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP). Both programs focus on college preparation. GEAR UP seeks to provide extensive mentoring and counseling beginning in middle school, builds university/middle school partnerships, and awards need-based aid upon college entrance. The SSI connects students with business leaders to help motivate them to complete a rigorous high school curriculum. To connect students with business leaders Hauptman recommended the
federal government set up a system that would allocate federal funds to states that created similar programs. The states would then be responsible for allocating said funds to appropriate individuals.

Hauptman’s (2007) final suggestion to help improve student preparation and therefore increase success was remuneration for institutions based on Pell grant recipients' retention and success. The line of reasoning behind this is that if institutions were rewarded based on Pell recipient success it would incentivize institutions to better support students and improve the efficiency of Pell grants.

Conley’s (2005) findings from the “Bridge Project” research indicated several tactics to address improving first-generation college student awareness in regards to academic preparation, college success, and admissions testing and financial aid requirements and procedures. The suggestions in the “Bridge Report” indicated that curriculum in high schools might be simplified in order to create a system designed to minimize or eliminate the possibility for students to make poor decisions. This would include, but not be limited to, tailoring elective courses towards helping students’ preparedness for college transition and success (Conley, 2005).

Conley (2005) also suggested an emphasis on responsibility of high school administrations in exposing students to admissions and financial aid information, including registration deadlines. Conley suggested administrators set up a system through which automatic enrollment occurs for students in regards to the SAT and ACT sequences. Increasing the availability of Advanced Placement testing coupled with this automatic test enrollment might increase the numbers of first-generation / low-income students earning college credit in high school and therefore make those students more college competitive locally and nationally.
Conley’s (2005) findings indicated that counseling and career centers with volunteer staff were successful in helping create centers of access to college knowledge in fiscally challenged areas. Therefore, high schools might build career planning directly into the curriculum based on college search and requirement information and thus open up an avenue for continuous learning regarding college admissions and success for high school students.

Conley (2005) noted that some states have begun to gravitate towards default type curriculum with automatic student enrollment. These types of curricula by design meet their respective higher institutions’ state admissions requirements. Although many of these programs include an opt-out option, students can only opt out with parental permission. Part of the opt-out design includes classes of equal difficulty outside of the default curriculum in order to help reduce the fallout that might occur if students perceived classes outside the curriculum as less difficult.

For states that have not moved to a mandatory curriculum, Conley (2005) suggested that middle schools and high schools should work together to create counseling sessions for middle school students. More specifically, faculty and administrators should implement detailed and mapped out class schedules with middle school students to insure that students enroll in the best possible curriculum in order to meet their goals. Along with curriculum mapping, Conley recommended testing eighth grade students on basic admissions requirements for colleges. Immediately following the tests faculty should provide the correct answers to students. School faculty might then keep a database tracking student awareness in order to make an informed decision if more support in the form of an advisory class for second semester eighth graders was needed.
Findings from Adelman’s (2006) research indicated that in order to close the gap between whites and Asians in juxtaposition to Latinos and African Americans administrators should look at five key factors. First, college administrators need to focus on the number of credits generated in the first year. Advisors and administrators need to make sure students complete at least 20 credits within the first calendar year. Second, administrators need to address policy issues of no credit repeats and no penalty withdrawals. Third, administrators need to add sections of high demand classes to summer sections to encourage student summer enrollment and thus smooth out institutional resources by eliminating the need to hire additional faculty during the year to accommodate the otherwise high demand. Fourth, administrators need to institute a policy that encourages no delay of entry. This can help to alleviate the findings that the longer students wait to enter college the less likely they are to succeed. Finally, administrators need to make sure schools offer and students complete a rigorous high school curriculum that Adelman (2006) indicated is the single most important factor correlated to successful degree attainment.

Due to the concern regarding college preparedness, the National Governors Association Center for Best Practices (NGA Center), along with the Council of Chief State School Officers (CCSSO), worked together to create the Common Core Standards through the Common Core State Standards Initiative (CCSSI). The Common Core Standards, developed in the summer of 2009 is a set curriculum created with the direct input of experts, school administrators, community members, parents, and teachers to provide the necessary coursework to help students succeed in college and the workforce upon high school graduation (CCSSI information website, 2012). Thus far, 45 states have adopted the Common Core State Standards.
Role of Information and Habitus

First-generation/low-income students often lack generalized knowledge about the college system thus creating significant barriers. Tierney and Venegas (2009) stated, “Low-income and first-generation students enter junior high and high school without knowing much about college and are in schools with historically low college-going rates” (p. 371). De La Rosa (2006) argued, national research “demonstrates that financial aid awareness and information does play a role in the college decision process for low-income, 4-year university-qualified students and their parents” (p. 1672). The decision to pursue entrance and transition into college requires specialized knowledge regarding financial aid, admissions, course sequencing, and placement testing information. When discussing the specialized knowledge that allows students successful transition and retention in the college system, Conley (2005) posited that “the economically well-off are more likely to have this knowledge than working-class families or families whose children are the first generation to attend college” (p. 22). Tierney and Venegas argued, “Low-income students often experience educational environments in which there is a lack of informed resources” (2009, p. 380). As a result, a lack of social capital can disproportionally affect first-generation / low-income students’ navigation of the system.

The concept of social capital has been on the fringe of the field of sociology for decades, but it was Bourdieu (1983, 1988) and Coleman (1988, 1990) who first linked the idea of social capital to educational attainment and illuminated direct correlations between social capital and educational success. These sociologists argued that different forms of capital, more specifically forms of human and social capital, are main contributing factors for educational attainment. Therefore, a lack of social capital within the educational system or in the family can create a major barrier for first-generation students.
When referring to social capital Paxton (1999) stated, “it remained obscure until Bourdieu and Coleman popularized it” (p. 92). Social capital defined by Bourdieu (1983) is "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition—or in other words, to membership in a group” (p. 248). Bourdieu added to this, further defining social capital as "transforming contingent relations, such as those of neighborhood, the work place, or even kinship, into relationships that are at once necessary and elective implying durable obligations subjectively felt (feelings of gratitude, respect, friendship, etc)” (1983, pp. 249-250).

Coleman (1988) stated, “Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible” (p. S98). Paxton (1999) points out “the newer concept of Social Capital acknowledges that certain social relations (e.g., dense networks, norms of reciprocity) can also facilitate production in addition, with the introduction of social capital, researchers began to speak of efficiency gains in noneconomic goods” (p. 92). These efficiency gains in noneconomic goods for first-generation / low-income students would include several different benefits. One benefit would be information and knowledge of the procedural components necessary to complete high school and enter into college.

When Bourdieu (1983) discussed his definitions of social capital, he applied it mainly to the inter-workings and relationships of the elite classes as a means to reproduce their positions in a "closed off" community. Closed off community connotes a dichotomous meaning where the tangible, gated community coexists with the intangible values, and goals within the members of the community. The elite are able to close themselves off from the rest of society, through networks of education, income, and social status. A key variable regarding reproduction of
social status starts with education. This is evident when the children of the elites are "legacy" candidates and ushered into numerous Ivy League schools, trained for high paying top executive and political positions, and therefore reproducing their elite upbringing (Bourdieu, 1983).

First-generation / low-income students do not have the ascribed status that allows for the automatic inclusion of this elite standing and thus educational attainment. As a result, the social capital that would result in high school graduation and college attainment for these students is relatively nonexistent. If Bourdieu (1983) is correct, the social capital created through college graduation could repeat itself for first-generation / low-income students thus creating a cycle of success for years to come.

Social capital is connected to differential dispositions based on life experiences and peer groups. Sociologist Pierre Bourdieu (1984) labeled this differential perception or taste as *habitus* and argued:

That objects of knowledge are constructed, not passively recorded, and, contrary to intellectualist idealism, that principle of this construction is the system of structured, structuring dispositions, the *habitus*, which is constituted in practice and is always oriented towards practical functions. (As cited in Calhoun, Gerteis, Moody, Pfaff, & Virk, 2002, p. 276)

Therefore, *habitus*, Bourdieu argued, is individual social space that creates positions, dispositions, and practices inextricably linked together. These constructs are used to build social frameworks so that individuals can come to understand their relative positions in the world. Individuals then make life-choices based on their perceptions of their relative positions within a given society. Bourdieu used social class as an example and pointed out how members within a given social class tend to dress alike, make similar consumer choices, and partake in similar
leisure activities. These decisions are essentially the action individuals take based on their perceived relationship within society (Bourdieu, 1984; Calhoun, Gerteis, Moody, Pfaff, & Virk, 2002). As a result, individuals internalize their respective **habitus** and come to expect what their options are within society. Essentially, this internal compass influences individual choices regarding familial patterns, careers, and other important life choices not excluding education.

Perna (2006) recognized the importance of **habitus** or the behavioral patterns resulting from individual social and cultural capital. Based on the premises that rational choice theory is linear and student choice is multi-faceted Perna created a multi-level conceptual framework for researching student behavior. Perna argued, “research does not reveal the extent to which knowledge is a cause, or consequence, of college-related outcomes” (2006, p. 1662).

Tierney and Venegas (2009) posited that “the underlying assumptions of rational choice theory do not entirely explain why teenagers who are college eligible do not apply for college and/or financial aid” (p.365). Much like Perna (2006) Tierney and Venegas found that an array of non-linear factors influence student decision-making and behavior in regards to attending college. Tierney and Venegas stated, “we find it disconcerting that virtually all of the research has neglected to speak with, interview, reflect on, or otherwise address the assumptions, beliefs, and concerns of low-income students” (2009, p. 368). As a result, Tierney and Venegas examined California, Nevada, and Kansas financial aid systems from a cultural-ecological model perspective to ascertain if early commitment programs affect college going. Tierney and Venegas reported that “the simple point is that in three very different states insufficient financial aid is not the only, or in at least California’s case, the major problem. A lack of information and action related to adequate academic preparation is” (2009, p. 379).
Paulson and St. John (2002) argued that the popularly used Student Development and Change theories were limited and mainly used data on middle class traditional-aged students. They found these models to be inadequate because they failed to examine *habitus* and direct linkages to policy. Paulson and St. John argued that because students come from varying backgrounds and frameworks the models used to study student decision-making should examine the “situated and contextual nature of student choice” (2002, p. 195). In order to alleviate these inadequacies they developed a student choice-based construct they entitled *The Financial Nexus Model*.

Conley (2005) found that parents, teachers, and older siblings were the main sources for college information for high school students. Conley argued, “When students are unaware of complex course requirements and sequences, it is easy for them not to take a course they need or not to remain in the sequence, thereby losing the opportunity to be eligible for admission to certain schools” (2005, p. 20).

In Long and Riley’s (2009) meta-analysis previously discussed they argued, “While cost and academic preparation are important hurdles for students, the role of information is also substantial in determining college success” (p. 42). This can be a potential barrier for first-generation / low-income students who often lack knowledge regarding the college system. In fact, Long and Riley (2009) argued one of three main barriers for low-income students “is the complexity of the college admissions process and financial aid systems, as well as a lack of accurate information about higher education costs” (p. 41).

McDonough and Calderone (2006) conducted a study which used 78 focus groups coupled with 50 individual interviews across 20 high schools in Southern California, dividing six counties, three of which were rural and the other three were urban. The study examined 230
African American and Latino students on track toward college. Along with the 230 students, 63 counselors, and 87 African Americans and Latinos parents participated as well. Researchers collected data from counselors at 14 of the 20 schools. Findings explored counseling, affordability, relative perceptions of money, and loan concerns of African American and Latino parents. McDonough and Calderone (2006) concluded:

College counselors represent one of the single most important forms of college and financial aid information for lower income children and their families. Yet evidence abounds that a main causal factor for the under enrollment of low-income students in college, and especially minority students, is a lack of information on college costs and a perceived lack, or uncertainty of financial aid availability. (p. 1704)

Perna (2006) stated, “most adults, parents, and students are uninformed or poorly informed about the costs of attending college and the availability of financial aid” (p. 1621). Today fewer and fewer high schools have the resources to provide such information. After an analysis of literature related to college pricing, financial aid, and student behaviors Perna concluded, “research does not reveal the extent to which knowledge is a cause, or a consequence, of college-related outcomes” (2006, p. 1622). In order to rectify this dilemma Perna suggested a multilevel level conceptual model that includes four layers of context for studying the correlations with college knowledge. The four layers include “habitus; the school and community context; the higher education context; and the broader social, economic, and policy context” (Perna, 2006, p. 1620).

The habitus context examines student perception based on the societal groups to which they belong, including socio-economic status, race, and culture (Perna, 2006). The school and community context takes into account factors such as peer groups, counselors, and available
information at students’ respective schools. For example, low-income, African American, and Hispanic students’ higher dependency on school counselors in schools that often lack adequate resources regarding college. The higher education context examines the administration’s role in informing students about financial aid. Finally, the social, economic, and policy context addresses perceptions of who is responsible for paying for college, between students and the government. However, the policy context examines financial aid criteria, unmet financial aid need, the complexity of the financial aid system, and the systemic emphasis on loans. Due to the varying contexts in which students understand and perceive college as a realistic option, Perna (2006) suggested:

By considering the multiple levels of context that shape individuals’ college-related perspectives, decisions, and behaviors, researchers, practitioners, and policy makers will better understand the ways in which to ensure that individuals of different groups appropriately have and use necessary information. (p. 1632)

Other research suggests that policies addressing college preparation programs targeted towards populations traditionally underrepresented might help prepare and inform students. The basic tenet behind this idea is that these programs may expose students to social and cultural capital, systemic knowledge, and available opportunities (De La Rosa, 2006; Gandara & Moreno, 2002; Tierney & Venegas, 2005).

Tierney and Venegas (2009), like Perna (2006), posited that college decision-making processes are not linear and that there are different layers of influences that affect students’ decisions to go to college. Tierney and Venegas argued:

Students and their families do not think in a linear fashion like a rational choice consumer who gains one piece of information and then decides whether to make a purchase.
Student decision-making is much more protean and complex than what rational choice theorists assume. (2009, p. 380)

In order to address multi-layered contexts, Tierney and Venegas created the *cultural ecological model*. It is Tierny and Venegas’ contention that the traditional rational choice framework neglected to take into account factors that lead to a college eligible teenager’s choice not to attend college. As a result, Tierny and Venegas argued, “information and preparation for college and financial aid are multifaceted and longitudinal and have the potential to play critical roles in increasing access to postsecondary education” (2009, p. 365). Therefore, Tierny and Venegas argued that one solution to finding out just what factors affect student choice to attend or not attend college is to use the *cultural ecological model* to eliminate their suggested issues with the traditional rational choice model.

The cultural framework includes educational environments, familial environments, community environments, as well as other out of class environments. Working under this framework assumes that college choices by students are the result of a multitude of social factors as well as social players, including parents, teachers, counselors, and peers. One of the benefits of this approach is that it works well with a mixed methods approach allowing researchers to delve into the qualitative aspects that may help identify what factors correlate with student and parent behavior and choice if such correlations were occurring (Tierney & Venegas, 2009).

Other benefits of utilizing the cultural framework include teasing out specific choices and influences from students that basic surveys may miss and then directly creating policy change based on those findings. The cultural framework also lends itself to research that may allow researchers to glean how a variety of different social factors influence inter-related decisions and actions. Finally, the cultural framework may allow researchers to interpret how low-income
youth process information that lead to better development of informational materials (Tierny & Venegas, 2009). Tierney and Venegas (2009) posited,

Low-income / first-generation youth frequently do not have the cultural and social capital to understand what is required to acquire economic wealth. They interpret daily life in a manner quite different from their wealthy counterparts. Financial aid is but one of many actions that they must confront, and the benefit of aid frequently appears indirect or even counter to other parts of their social well-being. (p. 382)

As such, students often lack the information necessary to navigate the complex college system and to realize that college may be affordable with the right types of financial aid (Conley, 2005; De La Rosa, 2006; Long & Riley, 2007; McDonough & Calderone, 2006). Long and Riley (2007) argued that “College attendance is the culmination of a series of steps and benchmarks, and this current landscape is too complex and difficult for many families to decipher and navigate” (p. 41). This systemic challenge can lead to students believing that college is out of reach financially, not taking advantage of fee waiver options, and becoming disenfranchised with the process and giving up entirely. Tierney and Venegas (2009) argued that if students receive support and relevant information about academic preparation and financial aid in a timely fashion “then access to a postsecondary education is likely to rise for low-income youth” (p. 384).

**Perceptions of College Affordability**

The perception regarding college affordability influences students’ decisions on whether or not to attend college (De La Rosa, 2006; Long & Riley, 2007; McDonough & Calderone, 2006). Oftentimes, if students come to believe that they do not have the fiscal resources available to attend college they will give up and not even attempt to apply for financial aid
(Conley, 2005; De La Rosa, 2006; Long & Riley, 2007; McDonough & Calderone, 2006).

Tierney and Venegas (2009) stated, “Recent research suggests that low-income high school students do not prepare for college because they believe a post-secondary education is expensive and unaffordable” (p. 363). De La Rosa (2006) found that just under half of the low-income students studied did not feel that they deserved to receive financial aid information.

In regards to the perception of affordability for low-income students McDonough & Calderone (2006) stated, “Sometimes a lot of these kids will be eligible for a lot of scholarships, but they’re afraid to even apply because they think they’re not going to be able to afford it” (p. 1710). The American Council on Education (ACE) report (2001) suggested:

New information from the federal government suggests that an increasing number of low- and moderate-income college students—who likely would qualify for financial assistance—do not take advantage of financial aid programs, despite a trend of increased applications for aid among the general student population. (p. 1)

Horn and Nunez (2000) indicated that first-generation students and their families perceive college affordability and financial aid availability differently than people whose families have attended college.

Tinto (1975) indicated that factors making up family backgrounds play key roles in college entrance and success. Tinto stated, “The most important of these factors were the quality of relationships within the family and the interest and expectations parents have for their children’s education” (1975, p. 100). Therefore, if first-generation/low income students’ parents have no expectations for their children to go to college, then this can create a motivational barrier. In essence, a parent’s expectation can become as important as the students’ expectations themselves (Tinto, 1975).
Long and Riley (2007) found that debt aversion is another barrier for low-income students and claimed, “Financial aid administrators report anecdotally that students from traditionally disadvantaged backgrounds often are unwilling to incur substantial debt to attend college” (p. 50). If students are unwilling to borrow and grant aid and scholarships do not cover college costs, it becomes difficult to find alternative ways to pay for college.

De La Rosa (2006) analyzed the 2004 College Access and Financial Aid survey developed at the Rossier School of Education and the Center for Higher Education Policy Analysis and designed to investigate students’ ideas about how to pay for college, whether or not students used college preparation services, and student background information. Researchers distributed the survey to 11th and 12th grade students in seven low-income high schools in the Los Angeles area. Approximately 3,609 surveys were completed which composed a 52 percent rate of return.

While analyzing this data De La Rosa (2006) found that “parent background was influential in low-income students’ view of their college opportunity and perceptions of financial aid” (p. 1682). Results from the analysis suggested that students whose parents went to high school were much more likely to aspire to go to college. Results also indicated that parental level of education affected student financial aid awareness and parental level of involvement with the financial aid process. Finally, De La Rosa (2006) found that low parental level of education led high school students to perceive college as expensive.

Although this research indicated the importance of parental background, De La Rosa’s (2006) analysis suggested that students received financial information mainly from counselors, coaches, and teachers. According to De La Rosa this can be problematic because “1 out of every 5 dependent and 1 out of every 4 independent low-income students failed to take advantage of
most government and institutional financial aid programs because they did not submit a Free Application for Federal Student Aid” (2006, p. 1673). De La Rosa argued this was because, “Large public high schools in low-income, urban areas tend to lack systematic communication about college, career plans, and financial aid and typically have one college counselor to serve a student population ranging from 1,000 to 5,000” (2006, p. 1671).

To exacerbate this problem high school counselors that meet with students often view affordability differently than first-generation / low-income students. McDonough and Calderone’s (2006) research indicated, “The perceptual differences concerning college affordability are an unintended consequence of differential tastes between middle-income counselors and low-income families” (p. 1703).

McDonough and Calderone (2006) made connections between habitus and perceptions of college affordability and argued, “that this deliberative process is essential to understanding the financial aid and college cost decisions of low-income students and their families” (p. 1704). McDonough and Calderone analyzed the literature regarding college decision-making for lower income students and found, “To a great extent, educational research on the financial aid and college cost deliberations of low-income students and their families overlooks the ways in which disparate socio-cultural interpretations of money shape college decision making for the lower income children” (2006, p. 1704).

McDonough and Calderone’s (2006) indicated that counselors felt that parents of African American and Latino students found the language associated with loans to be confusing. More specifically, there were times when parents did not understand the difference between grants, scholarships, and loans. Even when parents did understand the difference, some counselors found parents to be debt averse as they felt college financing to be a parental responsibility.
Counselors also thought parents perceived college loans to be “huge and often insurmountable debt” (p. 1714). Finally, counselors felt that these parents felt that their children would not be able to afford school without borrowing money from the family as well.

Paulson and St. John (2002) argued that a student-choice construct approach is appropriate when examining the student decision-making process. They argued that educational choices are linked to policy, student choices are always contextual and situational, and student-choice patterns are diverse, and as a result, studies need to be conducted on diverse groups. In order to address these basic tenants they developed the *The Financial Nexus Model*. Paulson and St. John argued:

> the nexus model is uniquely suited for advancing our understanding of diverse patterns of educational choice, how such patterns may be related to differences in social class, and the ways of public policy (e.g., financial policy) can promote and support diversity in higher education. (2002, p. 193)

Using *The Financial Nexus Model* Paulson and St. John (2002) examined student perspectives regarding finances during their initial college choice and later during persistence related choices. The rationale behind *The Financial Nexus Model* is that if students perceive low cost, as an important factor when choosing a college then costs are likely to be an important determinant in persistence decisions as well.

Social capital, cultural capital, and habitus create individual frameworks that influence student perceptions about college affordability and directly affect students’ decisions on where if at all to attend postsecondary education. This suggests the need to conduct research in a manner that includes diverse sets of students and includes a wide range of variables and tests for the interrelations among variables.
De La Rosa’s (2006) study of counselors and low-income students suggested, “Findings indicate that some perceive that college and financial aid—related information is not for them. They also believe that college is too expensive for them to attend, suggesting that this perception alone keeps them from even considering college” (p. 1683). Calhoun et al. (2002) pointed out that “habitus is not only constraining, it is also enabling” (p. 261). Therefore, if a lack of information constrains first-generation / low-income students’, exposure to this information may help to enable them to enter and persist in college.

De La Rosa (2006) suggested, “college aspiration and financial aid awareness must be simultaneous in the development of low-income students” (p. 1684). This simultaneous fostering is necessary because the findings from this study suggested perception of the availability of financial aid directly affected low-income student perception of college opportunity.

**Interdependency Among Barriers**

College access issues are becoming increasingly important as some research indicated that equity and accessibility have been declining in America (Astin & Oseguera, 2004; Long & Riley, 2007). Adelman (1999, 2006, 2007) indicated a lack of college participation as a contributing factor to this declining equity, but pinpointed access as the main issue for college entrance and success. Astin and Sax (1998) indicated that community service participation positively correlated with 10 different academic outcomes including, but not limited to, GPA, persistence, and preparation for graduate school. Various researchers indicated that the higher the level of math attained in high school the greater the chance for college attendance, retention, and completion (Adelman, 1999; Conley, 1995; Horn & Nunez, 2000; Long & Riley, 1997).
Research indicated inadequate student preparation for college as a major barrier to attendance (Conley, 2008; Long & Riley, 2007).

Sociologists (Bourdieu, 1983, 1988; Coleman, 1988, 1990) pointed out that social capital is an important indicator of academic success. Tinto (1975) argued that “presumably lack of integration into the social system of the college will lead to low commitment to that social system and will increase the probability that individuals will decide to leave college and pursue alternative activities” (1975, p. 92). However, Tinto conceded that Durkheim’s model lacked individual characteristics pertaining to student retention necessary to understand student educational persistence in its entirety.

In reference to academic preparation Conley (2005) stated, “Perhaps the key focus in all classes should be life after high school” (p. 9). This not only means supporting student success for high school graduation it means preparing students for whatever endeavors they wish to pursue immediately after high school. For K-12 administrators this means adequately preparing students for college success.

In summary, there appears to be a necessity to provide students with a wide variety of information services and academic preparation. Students need early access to accurate information about college costs and expectations. According to the literature high school administrators need to prepare students not only for admissions, but also for the many challenges students will face when they arrive at institutions of higher education. Students need to be able to navigate the often difficult and confusing financial aid systems embedded in institutions of higher education. Students must be fluid in the academic skills necessary to succeed in college level English and math coursework. Students also need integrating into the institutional social structures in a variety of ways whether through employment on campus, campus housing, or

**Outreach Programs**

According to Fenske, Geranios, Keller, and Moore (1997) phenomenal growth in early intervention and academic outreach programs began in the early 1980’s. Early intervention programs include public and private agencies that provide an array of services to low-income or at-risk students. Common services include provision of information, tutoring, mentoring, and financial assistance. At the epicenter of early intervention programs is the assumption that such programs increase graduation rates and college-going levels for program participants. Fenske et al., (1997) stated, “Academic outreach programs that originate in schools, colleges, and universities are a subset of the broader concept of early intervention. Academic outreach programs are differentiated from early intervention programs in that academic outreach programs are operated by academic institutions” (p. 2). Fenske et al. (1997) noted this specific distinction because it sheds light on how faculty and program administrators may influence such programs.

Academic outreach programs and early intervention programs often share the goal of high school graduation. However, academic outreach programs focus on preparation and planning for college and usually do not specify a particular academic discipline. However, a few academic outreach programs actually do encourage students to enter a particular field of study and therefore create a symbiotic relationship benefitting both the student and the institution of higher education (Fenske et al. 1997).
Fenske et al. (2007) categorized early intervention programs into six distinct categories:

1. Programs established by philanthropic agencies
2. Federally supported programs
3. State-sponsored programs with matching federal support
4. Entirely state-sponsored programs
5. System changes involving school-college collaboration
6. College- or university-sponsored programs.

Fenske et al. (1997) argued these early intervention programs are often uncoordinated and duplicative and as a result may not provide all of the services necessary to be effective. To address the redundancy barriers they suggested program administrators develop bonds between higher education institutions, schools, and the community to insure the provision of services needed to graduate high school, enter, and succeed in college for underrepresented students.

**P-20 Partnership Characteristics**

Laguardia (1998) conducted a study to determine what characteristics developed between K-12 schools and postsecondary institutions were successful in promoting academic preparation, college enrollment, and retention for underrepresented students. The study was based on partnerships that met the following program criteria: existence for five or more years, deemed successful enough to be studied, strove to improve academic performance, targeted underrepresented students, supported college students regardless of choice of major, targeted increased college enrollment and success, and involved collaboration between varying levels of education. Twenty-one such partnerships were identified and 48 surveys were administered to various program administrators and yielded a return of 40 surveys.
Survey findings indicated that contracts between institutional partnerships were present in 82% of the programs. Nearly 95% of the programs employed a coordinator to act as a liaison between institutions, and a committee governed 77% of the programs. Participants reported institutional collaboration and leadership as the most influential factors contributing to the formation of partnerships. Nearly half of the respondents surveyed viewed collaboration as the most important factor and approximately 40% indicated an individual leader as the most significant contributor to partnership development (Laguardia, 1998).

Results indicated that improved college preparation for students, professional relations between institutions, and increased college enrollment were reported as successful. However, Laguardia (1998) stated, “college retention was deemed to have been achieved substantially by only 22 percent of the respondents, and to some degree, according to 44 percent of the respondents” (p. 176). The majority of programs utilized GPA’s, high school graduation rates, college preparatory course enrollments, SAT scores, and college enrollments as outcomes. However, less than half of respondents reported that partnership programs collected college graduation data (Laguardia, 1998).

**Characteristics Outreach Programs Implement: What is Successful?**

Perna (2002) conducted a study to determine which existing outreach programs contained the variety of components necessary to properly serve underrepresented students. Perna examined the 1999-2000 National Service Outreach Programs survey (NSOP) conducted by the National Center for Education (NCES) intended to supply in-depth information regarding existing outreach programs. Research yielded responses from 50 states, Guam, Micronesia, and Puerto Rico from 1,110 programs. Of the 1,110 programs, only 735 targeted historically underrepresented students and 751 targeted first-generation students.
To analyze the data Perna (2002) utilized a three-stage model proposed by Hossler and Gallagher (1987). The first stage is predisposition, the initial student choice of college over technical school, work, or some other life choice. In the second stage, search, students research various postsecondary options to make an informed decision about college or university they desire to attend and apply. The third stage, choice, is the phase when students review the institutions that accepted them and make a choice based on rankings then decide on which to attend.

Perna (2002) stated the reason for utilizing the three-staged approach was:

Few studies have examined the extent to which existing precollege outreach programs include the elements that have been identified in previous research in each of the three stages of the process. This study was designed to indentify the characteristics of precollege programs that target groups of students that have been historically underrepresented in higher education and to compare the characteristics of these programs with what is known from prior research about the predictors of college enrollment. (p. 66)

In regards to predisposition towards college, Perna (2002) found that most programs found fostering an interest in attending college important. Although the first stage of predisposition was high, programs emphasis on college completion was relatively low. This can be problematic because student expectation correlates with goal realization. The research indicated that more that 80% of these programs utilized role models to develop educational expectations with students. Another method utilized was targeting specific groups. Approximately 40% of the programs targeted specialized groups including first-generation, historically underrepresented, and low-income students. About one third of these programs
focused on services from a particular school. Perna (2002) noted this is important because “focusing services on a particular school may be particularly effective given that researchers have found that students are more likely to plan to attend college when their friends also plan to enroll” (p. 70).

The second stage is “characterized by the process of gathering and processing information about both college in general and particular institutions” (Perna, 2002, p. 70). Perna (2002) found that college campuses were the main site of services. For 40% of the programs that service first-generation, underrepresented, or low-income students college campuses were the primary location. Perna found precollege programs favored assisting with college enrollment, college fairs, and interaction with college faculty and students, while encouraging financial planning was a relatively low priority.

Perna (2002) examined three factors in regards to the third stage, choice of an institution. Perna argued that predisposition, academic preparation, and parental encouragement and involvement are three key interrelated components of institutional choice. Perna (2002) pointed out “only about one fourth of programs that target low-income students, underrepresented minorities, and first-generation students provide accelerated courses below the college level or college-level courses” (p. 72). Perna noted this might be a possible program weak point as research indicated that high school curriculum is one of the most important factors in high school graduation and college success (Adelman, 1999, 2006, 2007; Conley, 2005).

Perna (2002) indicated that parental engagement and expectation correlate to predisposition and college enrollment. Perna’s research indicated that roughly three out of four programs in the study included a parental component. The services most frequently offered included college awareness, financial aid counseling, and parental participation in student
activities. Many programs required parents to sign a commitment contract and provide family financial information before formal acceptance of a student in the program. However, Perna (2002) found, “coordination with parents is the most frequently reported problem area or area of need for programs that target low-income students, historically underrepresented minorities, and first-generation students” (p. 75).

Perna (2002) pointed out the importance of providing college information to students early in the educational pipeline. Perna (2002) stated, “only about one third of programs targeted at low-income students, historically represented minorities, and potential first-generation college students first enroll students before the eighth grade” (p. 75). This is a potential program weakness because starting program participants too late can negatively affect program outcomes.

In summary, Perna (2002) reported, “only a fraction of these programs, however, appear to contain components aimed at addressing the most critical aspects of the college enrollment process” (p. 80). Perna (2002) found that many early intervention programs start too late as research indicated that student engagement should start as early the sixth and seventh grades to be effective. Perna (2002) also found that despite the documented importance of academic rigor in high school “encouraging rigorous course-taking is among the least frequently reported goals of precollege outreach programs” (p. 80). As such, program administrators need to examine and implement program components that address all of the barriers to college entrance discussed above.

Engle, Bermejo, and O’Brien (2006) conducted a study developed to study first-generation student perception of what program components influenced their college enrollment. Research participants included focus groups of 135 first-generation Texan students. Student participants included Trio Talent Search, and Upward Bound supported program alumni enrolled
in institutions of higher education at the time of the study. Engle et al. (2006) stated the focus
groups specifically examined “aspirations and encouragement to go to college; academic
preparation for college, college knowledge about how to apply to and pay for college, and
academic, social, and cultural transitions to college” (p. 11). Lastly, focus groups were
conducted with various Trio administrators and staff and interviews were conducted with two
Talent Search and Upward Bound administrators.

In regards to raising students’ college aspirations Engle et al. (2006) found that personal,
interactive, and persistent outreach made an impact on college interest and preparedness. Engle
et al. (2006) stated, “according to students, the earlier the outreach, the more effective it was” (p.
39). Students did indicate that intervention at the high school junior and senior level still had a
significant impact; however, they indicated that earlier intervention was better. Students also
indicated that pre-college program staff were a valuable resource in providing college
knowledge. Staff provided ongoing information and support to both high school students and
their parents. In essence, staff provided the information the students’ parents were unable to and
helped students find the necessary resources to gain admission into college.

Engle et al. (2006) stated that “academic services offered by pre-college programs—such
as tutoring, college preparatory courses, did help to mitigate (although not eliminate) gaps in
students’ academic preparation for college” (p. 40). However, many students were largely
unsuccessful during their first semester in college due to a lack of academic support. As a result,
students returned to the pre-college staff to overcome their lack of success in the first semester.
Although first-generation students struggled academically their first semester they reported that
exposure to campus prior to enrollment through workshops, bridge programs, pre-admissions,
and campus visits helped prepare them to navigate college, make friends, and manage the
balance between academics and social life. This preparation allowed for a much smoother transition into college (Engle et al., 2006).

The Engle research results also indicated that involving the entire family in the transition process from high school to college was essential for first-generation students. More specifically, the focus on developing a long-term relationship based on trust with the family led to higher parental comfort levels and support for students’ desire to go to college. Relationship development with students was a key factor for success as well (Engle et al., 2006). Engle et al. (2006) stated students “emphasized that it was the relationships and trust they developed with program staff that allowed them to be receptive to the support that helped them get into and through college” (p. 40).

Engle et al. (2006) suggested several steps outreach programs can utilize to provide students with the information about how and why to go to college. First, coordinate efforts between federal, state, community, and school based programs. Second, build stronger relationships between college access agendas and precollege programs. Third, schools need to address the counselor to student ratio so high school counselors can provide guidance on the proper pathways to college. Finally, provide more funding for these programs so that they can help other students that might benefit from these services.

Engle et al. (2006) suggested several ways to better prepare students for college. First, they indicated that high school preparatory curriculum become the mandatory high school curriculum for everyone. This aligns with Adelman’s (1999, 2006, 2007) and Conley’s (2005) research that indicated a rigorous high school curriculum as a major contributor to college access and success. Engle et al. also suggested increased funding for schools that service high populations of first-generation students, as they are usually underfunded. Finally, they suggested
transcending basic remediation help by providing tutoring and opportunities to take dual enrollment courses, advanced placement, and honors classes.

Engle et al. (2006) found a lack of support once students entered college to be a major barrier to persistence. To address this issue they suggested that precollege support programs encourage students to attend institutions that have college support programs in place and that have high student success and retention rates. They also suggested extending existing precollege programs to college campuses. Not only will this create college student support it might help alleviate the lack of coordination and redundancies. Another suggestion was to reduce student participation barriers by offering more flexible hours conducive to life situations such as work hours common for low-income students. Engle et al. suggested programs provide additional financial aid information tailored towards acceptable debt levels and the amount of hours a student should work to promote retention. They also suggested that programs place students in campus jobs relative to their individual area of study that might not only help them pay for college, but may promote academics as well.
Chapter III
Methodology

This study explored the understandings that 13 undergraduate students from a single
Dean’s Future Scholars (DFS) cohort held concerning the contributions of the six major
components of DFS to their persistence into the second semester of their sophomore year of
college; to examine these understandings, the history of each component was investigated. In
2000, the Dean of the College of Education implemented DFS, a college-based academic
outreach program to assist first-generation / low-income students graduate high school and
subsequently enter and succeed in college. Since its inception, the program had never undergone
a formal study of each of the six major program components. This chapter outlines the research
methods conducted to complete this study. It is divided into seven sections: (a) research design,
(b) the case (c) participants, (d) data sources, (e) data collection, (f) data analysis, and (g)
summary.

Research Design

An intrinsic case study (Stake 2005) was chosen as the research design because the
researcher had a particular interest in this case. There was no intent to compare the case to other
cases only to develop an understanding of the of the program in regards to program history,
intent, and evolution, coupled with the perceptions and self-reported experiences of the 2010
DFS college cohort who successfully progressed into the second semester of their sophomore
year of university study. Stake (2005) suggested that intrinsic case studies are “undertaken
because, first and last, one wants better understanding of the particular case” (p. 445). Lichtman
(2011) stated, “The defining characteristic of a case study is that it is an examination of a
particular group or event or program,” (p. 109). Yin (2003) noted, “the case study strategy may
be used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes” (p. 14). As there was no formally stated set of outcomes for the six DFS components at the time of the study, a single case study design was selected for this study.

Case study research design should not be confused with qualitative research. Case study design can utilize qualitative methodology, but often uses triangulation of data that includes a mix of both quantitative and qualitative data (Yin, 2003). Stake (2005) stated, “Usually we want to learn what the selected case does—its activity, its functioning. We will observe what we can, ask others for their observations, and gather artifacts of that functioning” (p. 452). Triangulation of data then serves to clarify how a case is viewed through the utilization of multiple lenses.

Case studies are often viewed as systems and as such, are bounded by those systems. Although a case study may look at a singular case, there are often many subsections within the context of a particular case. These subsections can include, but are not limited to, contextual history, culture, politics, and ethics of a particular case. Although case studies are bounded within the context of the particular case under study, both internal and external factors of a particular case can be pertinent to the study (Stake, 2005).

**Research questions.**

The research questions that drove the case study were:

1) What research or data led program administrators to develop and implement the six components of the Dean’s Future Scholars Program?

2) How was the program developed and implemented?

3) What were student experiences of the various components of the DFS program and how did students perceive those components contribution to college persistence?

   a) How did students experience the Summer Middle School Enrichment component?
i) Did the Summer Middle School Enrichment component contribute to college persistence?

b) How did students experience the School Year Mentoring component?
   i) Did the School Year Mentoring component contribute to college persistence?

c) How did students experience the Summer Math component?
   i) Did the Summer Math component contribute to college persistence?

d) How did students experience the Summer Bridge component?
   i) Did the Summer Bridge component contribute to college persistence?

e) How did students experience the Summer Internship component?
   i) Did the Summer Internship component contribute to college persistence?

f) How did the students experience the Lounge?
   i) Did the Lounge contribute to college persistence?

This study was viewed through the framework of constructivist grounded theory (Charmaz 2006). Charmaz (2006) stated that “A constructivist approach places priority on the phenomena of study and sees both data and analysis as created from shared experiences and relationships with participants” (p. 130). Furthermore, Charmaz (2006) argued, “Constructivists study how- and sometimes why-participants construct meanings and actions in specific situations” (p. 130). This specific case studied how administrators and program participants perceived the overarching program and separate program components and the contribution to their college persistence. While referring to Silverman (2004), Charmaz (2006) indicated, “that only after establishing how people construct meanings and actions can the analyst pursue why they act as they do” (p. 130).
The Case

In 2000, DFS, a college-based academic outreach program was established at the University of Nevada, Reno (UNR) to facilitate college access for first-generation / low-income students enrolled in the local Washoe County School District (WCSD). Each year, approximately 50 students were selected in sixth grade by teachers and counselors employed at one of seven Title I Schools in the WCSD. Students were selected based upon academic promise, but may have lacked the necessary support structures for successful completion of high school, and subsequently college entrance, and success. The students in this study were originally selected in sixth grade to be part of DFS in Fall, 2003. Each continued with the program through middle and high school; they subsequently enrolled and had persisted into their sophomore year at the UNR. This single cohort of students was the fifth cohort selected to participate in the DFS program, however, this was the first cohort presented with the opportunity to participate in all six DFS program components.

At the time of the study, the mentoring component and the math component had been studied separately. However, there was no comprehensive study of all six program components individually or the possible interaction between the six components. Although research drove the intent and evolution of the program and program administrators believed each program component was important, it was unclear of how students perceived individual program components or how individual components might interact to contribute to college persistence. As such, the DFS 2010 college cohort was selected to explore how they perceived the individual components as related to college persistence. At the same time, there was no clear research on the history, intent, or evolution of the program or individual program components. In order to understand the context of student perception, it was necessary to examine the program in order to
develop an understanding of student perception. Once program history, intent, and evolution, were understood it was then possible to construct the boundaries surrounding the case of the 13 students who were selected for this study.

**Participants**

Two distinct groups of people were included in this study: DFS program administrators and DFS students. The Dean of the College of Education (COE) who initiated the program, the Dean of the COE at the time of the study, and the DFS Director were recruited to provide the historical context for program intent and evolution. All three agreed and were interviewed.

Students from the 2010 DFS college cohort who had persisted into their second year of university were recruited. This group was the first cohort that had the opportunity to access all six major components of the DFS program. The cohort was the fifth group of students that entered the program in the sixth grade. Originally, the 2003-2004 sixth grade DFS cohort consisted of 53 students. Of the original 53 students, 48 students graduated high school. Of the 48 high school graduates, 24 students enrolled at the UNR, 22 enrolled at Truckee Meadows Community College (TMCC), one entered the military, and the whereabouts of the last student was unknown.

Only students enrolled at UNR were recruited for this study for two reasons. First, the majority of students that enrolled at TMCC did not participate in the summer bridge or the internship components just prior to entering college. Second, only students that enrolled in UNR had access to the lounge, college mentoring, and other support services throughout their first two years of college. Of the 24 students who initially enrolled at UNR, two students transferred to TMCC in their first year of college, one entered the military, one student dropped out, and contact information for two students could not be obtained; 18 students with reliable contact
information persisted into the second semester of their sophomore year. These 18 students were recruited for this case study. Of the 18 students invited to participate, 13 students completed the survey.

**Data Sources**

Three data sources were utilized to conduct this study: program artifacts, interviews, and a student survey. The program artifacts reviewed for this study included: (a) program reports, (b) public and internal presentations, (c) internal trainings, (d) email correspondences to and from the Dean regarding DFS, (f) grant narratives, (g) DFS media and marketing materials, (h) the UNR, Center for Cultural Diversity annual report, (i) Summer Middle School Enrichment component summer schedules, (j) manuals for mentoring, and (h) course syllabi from the EDU 110 and EDU 111 college readiness courses associated with the Summer Bridge component.

The program reports included in the Dean’s working file included the 2005-2006 and 2006-2007 annual reports to United Student Aid Funds (USA Funds). The 2009 UNR Latino Report detailing the program and DFS student demographic data was reviewed. The 2008, 2009, and 2010 Dean’s annual longitudinal data reports included high school GPA, SAT/ACT scores, and racial demographic data as well as college entrance and retention data. Presentations included a 2007 campus presentation, a 2009 presentation at the national Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) conference, 2011 and 2012 presentations at the national conferences for the National Council of Professors for Educational Leadership, and two informational / fundraising presentations, a 2012 presentation to the Reno Nevada Soroptomist Club and 2013 presentation for the Reno Rotary Club. Presentations also included an ACT conference presentation, American Indian Higher Education Workshop, Washoe County
School District Student Graduation presentation, an internal mentor training presentation, as well as sixth and seventh grade DFS student orientation presentations (years unknown).

Internal training included nine mentor training agendas and 10 mentor training presentations for each fall and spring semester spanning from 2005-2010. The mentor trainings and presentations included, but were not limited to, relationship building techniques, how to break down communication barriers, mock mentor and ethics simulations, as well as, bullying, suicide, substance abuse, and mental health problem protocol in regards to state mandated reporting.

Email correspondence consisted of emails sent and received by the Dean who initiated DFS. Emails included, but were not limited to, correspondences with the Director, collaborations with the WCSD, data reporting, strategies to identify potential future educators, fiscal reports, grant information, student demographic information, and high school success data. The media materials included news articles of individual student stories as well as stories highlighting the overall program. The marketing materials consisted of program flyers and a proposal constructed for the UNR President outlining the program and the cost per student broken down by each program component.

The UNR Center for Cultural Diversity is required to prepare an annual report summarizing all diversity initiatives on campus. A section within the report contained a DFS program summary including demographic data, as well as, high school and college entrance data. The grant narratives included: (a) the 2010 Nevada System of Higher Education GotoCollegeNevada grant, (b) the 2011 and 2012 Nevadaworks In School Youth sub-agreement Grants, (c) the 2008 AT&T Math grant, (d) The 2010 United Student Aid application, and (e) the 2010 Wells Fargo Grant a Wish for Your School Mini-Grant Program.
In addition, Summer Middle School Enrichment component summer schedules, manuals for mentoring, and course syllabi from the college readiness courses associated with the Summer Bridge component were examined. The Summer Middle School Enrichment summer schedules contained day to day activities and mentor rotations. The manuals for mentoring included information pertaining to the program foundation, tools and training, handouts and activities, scholarships, and community service. Finally, the course syllabi contained a list of assignments, guest speakers, schedules, and the expected student outcomes set fourth for the course.

The second data source was the interviews with the DFS administrators. According to Stake (2005) interviews are used in “finding out about a thing that the researchers were unable to observe themselves” (p.95). As such, administrator interviews with the Dean who initiated the program, the Dean of the College of Education at the time of the study, and the DFS Director were conducted. Stake (2005) stressed that interviews tailored to individuals should be conversational; for the purposes of this case study, semi-structured interviews were conducted, allowing the participants to answer questions through general comments or stories. The interviews consisted of four sections. The first section consisted of five questions designed to explore the administrator’s initial perceptions of the program, how those perceptions changed over time, and as those perceptions changed what resources they drew upon. The second section consisted of seven questions designed to explore the strategies administrators utilized to develop and implement the program. The third section consisted of three questions designed to explore how communication both externally and internally drove program intent and development. Finally, the fourth section consisted of three questions designed to explore what program aspects administrators felt were successful or unsuccessful throughout program history. The interview protocol can be found in Appendix (A).
The last data source came from a researcher-designed survey. The instrument consisted of two parts. The first part contained a self-reporting checklist consisting of 14 questions. Specifically, the self-reporting checklist contained questions regarding college entrance data, program component participation, and academic and social resource utilization of the lounge. The checklist was designed to provide information to address key questions: In which components of the DFS program did individual students participate? What services did they access? When students entered college were they regular or special admits? Specifically, four questions pertained to high school characteristics regarding SAT/ACT and GPA information, three questions pertained to college entrance data, and eight questions pertained to DFS lounge utilization before entering college, upon entering college, and in the second semester sophomore year. The complete checklist is contained in Appendix (B).

The second part contained a survey with 10 open-ended questions designed to determine program component contribution to student persistence; specifically there was one open-ended question for each of the six program components. The survey also included four questions designed to determine students overarching experience within the program. This portion of the survey is included in Appendix (B).

**Data Collection**

Initially, a research protocol was submitted and accepted by the Internal Review Board at the University of Nevada, Reno (IRB). Data was collected under the auspices of the approved IRB protocol. First program artifacts were collected from the Dean’s originating file and the DFS share drive. Next, interviews were developed and conducted. Finally, after the interviews were analyzed, a survey was developed, distributed, and collected through the Survey Monkey server.
**Program artifacts.** One hundred and eighty three artifacts were compiled in a permanent file by the Dean. The complete file was made available for this research study. Thirty files containing multiple documents were compiled on the DFS share drive. The Director granted access to the entire share drive for this study. In addition, program mentors provided informational training binders for the 2011 and the 2012 academic years. The grant narratives, program reports, emails, presentations, media articles, syllabi, and marketing materials, were housed in the COE; unfettered access was provided to these documents by the DFS administrators. The UNR Center for Cultural Diversity annual report is a public document available on the university website. The media articles contained in the Deans originating file were public information. The emails and annual reports contained in the Dean’s originating file were made available by the Dean. Additionally, the Director made mentor trainings, presentations, and program schedules available electronically.

**Interviews.** The Dean who initiated the program, the Dean at the time of the study, and the Director were contacted via email and invited to participate the study. All three replied via email and agreed to participate. They were then contacted via phone and an interview time and place was scheduled in an office chosen by each participant. The interviews were conducted over a one-week period. Each interview was approximately 30 minutes. All interviews were semi-structured, audio recorded, and transcribed verbatim for analysis.

**Survey.** Eighteen students from the 2010-2011 DFS college cohort were contacted by the director via email. The email contained a link to the survey housed on Survey Monkey’s server. One week following the initial email, the director sent a second email reminding students about the opportunity to participate in the study. When students completed the survey, results were de-identified by the Survey Monkey software and compiled on the Survey Monkey server.
prior to researcher access. The survey was de-identified in order to help reduce participant discomfort. Because the researcher was a graduate assistant of the program it was decided that the data would be de-identified, and therefore the participants would remain anonymous, to maximize the return rate of the survey while minimizing participant risk. Although college entrance characteristics were included, basic demographic data questions were not. Demographics were not included in order to reduce the length of the instrument and therefore potentially maximize the return rate. Survey results were collected one week after the director sent the email reminder. Of the 18 students asked to participate in the survey, 13 responded.

Data Analysis

Analysis was undertaken in two broad phases: in-depth understanding of the DFS program components followed by student perceptions and self-reported experiences of the DFS components. Program artifacts and interviews with DFS program administrators were used to gain an understanding of the DFS program in general and the six components specifically. Existing documents were used for three purposes. First, they were used to build an understanding of the history, intent, and evolution of the overall program. Specifically, artifacts were analyzed to indicate program priorities and determine what opportunities led program evolution and intent. Second, existing documents provided the formal description of the program components and what each specific component was intended to accomplish. Finally, artifacts that were attached to specific components were analyzed in regards to the relative component.

The working DFS file made available by the Dean consisted of just under 600 pages of correspondence, notes, grant narratives, annual reports, and informational presentations. The analysis of the working file provided a framework for the overall historical context and
development of the DFS program as well as detailed descriptions of individual components. Seven grant proposals with over 50 pages of narratives were reviewed; of particular importance were the narratives information regarding the history and development of the program, the project and objective outcomes in relation to individual components, and a roadmap in regards to the logistics and delivery of individual components. The grant narratives also provided an understanding of the research that drove the program development and implementation.

Notes for five academic and three community service presentations totaling approximately 150 pages were reviewed to further add to the understanding of individual program components, historical development of the program, and proposed future direction of the program. Nineteen mentor training presentations and agendas (70 pages) provided a framework for the School Year Mentoring program focus and delivery. Additionally, the analysis provided a platform for understanding the context of a DFS mentor. The analysis of two mentor handbooks (92 pages) aided in the understanding of the details of mentoring on a day-to-day basis, mentor meeting topics, and expected mentoring procedures.

The analysis of two course syllabi (13 pages) for EDU 110 and EDU 111 the DFS college readiness courses provided the activities and learning outcomes attached to the Summer Bridge component. As such, the analysis provided a framework for both the intent and delivery of the Summer Bridge Component. The analysis of annual summer middle school documentation (20 pages) dating back to 2005 provided a historical context of the component as well as a logistical view of the delivery of the Summer Middle School component. Upon completion of artifact analysis three administrator interviews were analyzed.

Interviews were used to provide a more nuanced understanding and the details of how the components were actually conceived, developed, and implemented. First interviews were
analyzed to develop the chronological and contextual history of DFS. Then interviews were analyzed to ascertain how DFS administrators understood the original intent of the program, the development of program partnerships, and the evolution of DFS over time. Finally, interviews were analyzed to develop an understanding of what program components DFS administrators perceived to be successful or unsuccessful and why.

The analysis of the interview data followed the guidelines suggested by Maxwell (2005). First, the audio recording of each interview was reviewed. Next, the verbatim transcription of the interviews was analyzed. Memos were recorded any common themes or threads that seemed to link together any emic categories that emerged (Maxwell 2005). After themes were identified from interviews, transcripts, and notes they were analyzed for further understanding of the administrator’s perceptions regarding program development, intent, and implementation. The overarching purpose of interviews was to determine if and what components of the program were intended to contribute to student persistence.

Once the program components were contextualized and the history and development of the program were understood, the student survey was analyzed. Academic characteristics were charted and then the narratives in the survey were analyzed. Each of the program components was analyzed to ascertain how students reported experiencing the six components and if the six components contributed to program participant college persistence. Data analysis focused on the 2010-2011 college student cohort participation and experiences in the overall program, as well as for each program component individually.

The open-ended responses to the survey were categorized, printed, and read by individual questions. Analysis included a three-phase process. Initially, open-ended survey results were read through in their entirety to determine what overlying themes were intertwined throughout
the responses. While going through these readings memos were written on common themes and threads that seemed to link together emic categories that emerged (Maxwell 2005). An emic coding categorization (Maxwell, 2005) was used to denote the participant’s experiences and perceptions. After themes were identified, the results were analyzed line by line for further understanding of the participant’s perceptions by program component and overarching program themes. The third phase was interpretive. Through triangulation of data, concepts and themes were teased out that may have not been noticed if only one of the data sources were utilized. The utilization of memos, interviews/survey, and program data helped to uncover themes about how these 13 DFS students perceived DFS individual program component contribution to persistence as well as how the overall program was experienced.

**Summary**

This chapter summarized the methodology that was utilized to conduct the case study. The case study questions and a description of the methodologies employed were outlined. This case study employed a constructivist grounded theory model (Charmaz 2006) with guided questions to explore the entire DFS program and each of the six program components individually. Administrators and students involved with the DFS program were interviewed and surveyed to collect data and information related to the program as well as individual program components that may have contributed to DFS student college persistence. Chapter Four presents findings and Chapter Five outlines conclusions and findings from the case study analysis.
Chapter IV

Results

This study explored the understanding that 13 undergraduate students from a single Dean’s Future Scholars (DFS) cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college; to examine these understandings, the history of each component was investigated. In 2000, the Dean of the College of Education implemented DFS, a college-based academic outreach program designed to assist first-generation / low-income students graduate high school, and succeed in college. The study focused on the following six DFS components:

- Summer Middle School Enrichment
- School Year Mentoring
- Summer Math
- Summer College Bridge
- Summer Internship
- The Lounge

To address the research questions an intrinsic case study was employed. To gain an understanding of the six components of DFS, artifacts, including the originating Dean’s program files, grant narratives, and unpublished reports, were examined. Interviews related to program history were conducted with three program administrators. Thirteen students completed a survey with open-ended questions regarding their experiences with the six program components coupled with their overarching program experiences. In addition, descriptive statistics related to program participant college entrance characteristics and lounge utilization data were computed.
This chapter is divided into three major sections. The first section provides a brief history and description of each of the six components of DFS based on three administrator interviews and program artifacts, followed by the open-ended student survey responses regarding perceptions of the component. Finally, survey respondent self-reported lounge utilization and college entrance data is provided. The second section consists of the four themes that were identified through the analysis of the three administrator interviews and the open-ended survey responses. The final section is a summary of the chapter.

**Program History and Evolution**

Three-administrator interviews were conducted and program artifacts were reviewed to understand the history and evolution of the six major DFS components. To develop an understanding of the 13 students’ perceptions regarding the six DFS components, an open-ended survey and self-reported checklist was administered. The following section provides a brief summary of the program history and each component’s evolution. Next, a brief description of each of the six components coupled with the surveyed student perceptions of each component is presented. Finally, the college entrance data for the survey respondents is reported.

In 2000, The Dean of the College of Education initiated the DFS program at UNR. The Dean revealed in his interview that he first encountered the concept of a DFS program in 1993 at Texas Tech University. The Dean stated:

Initially, when we instituted the program at Texas Tech University I visited several of the entry conferences and it became very clear to me that it was a direct way of impacting first-generation/low-income, primarily minority students to begin to interest them in college.
The program at Texas Tech involved bringing public school students together a few times a year for a variety of short conferences. According to the Dean “they brought together young kids with the idea that, you can go to college, you can go to Texas Tech, and you can become a teacher”. The Dean added, “Those goals really took hold with me”. When the Dean accepted his position at UNR, he noted the lack of diversity in the teacher education program. He stated:

Looking at the demographics of the university it struck me that it was an opportunity to develop a program that could begin to try to deal with the changing demographics of the community by reaching out to that particular group of students: low-income, minority, first-generation to go to college.

In an attempt to address the lack of diversity, the Dean decided to emulate the Texas Tech program. The Dean envisioned the program at UNR as an opportunity to: (1) bring diverse students onto campus; (2) inform potential university students about the College of Education and; (3) to recruit diverse students into the field of public education. The Dean stated that he recognized the limitations of the conference approach used at Texas Tech that mainly familiarized potential students with the university campus.

The Dean initiated the program by garnering support across campus by showing a video of the Texas Tech program to various campus administrators at UNR. As a result, he was able to form critical relationships with the College of Education leadership group, department chairs, the Associate Dean, university Faculty Senate, and various community groups. These early contacts provided a launching pad for creating awareness of program intent. In December of 2000, the Dean received a $5000 donation from a local teacher’s mother who learned about the program from her son. The Dean stated, “It was pretty remarkable that the word of mouth about an idea
could generate that kind of interest”. The money provided the initial seed money to bring students on to campus for conferences.

In 2000, the Dean hired a graduate assistant to provide support for program development and implementation. The Dean and the graduate assistant contacted 10 Title I schools in the Washoe County School District (WCSD) and asked the sixth grade teachers and counselors to select five students from each school that would comprise the first DFS cohort. According to the UNR Diversity Report (2012), the first cohort consisted of 48 sixth grade students. The Dean indicated that the main idea, at that time, was to bring students to campus for an annual conference and imprint the idea “You can go to college, you can go to UNR, and you can become a teacher”. The Dean indicated that he ultimately wanted to provide more than a conference for students as indicated by his statement, “I think it was very clear to me early on that one shot efforts didn’t work”. The Dean added, “I had a lot of ideas about things we could do, but until we received financial sources to support those ideas, we were limited to the annual conference”.

Following the program inception in 2000, DFS evolved into six major components; each component was based upon college outreach research, but were added over a five-year period as available funding and opportunity warranted. The following program components were added in chronological order: Summer Middle School Enrichment (2002); School Year Mentoring (2004); Summer Math (2004); Summer Bridge (2006); Summer Internship (2006); and the Lounge (2007). The following section describes the history and logistics of each of the six DFS components individually and reports student survey responses to each component as well.
History of the Summer Middle School Enrichment Component. In 2002, a graduate assistant developed and implemented the Summer Middle School Enrichment component with the help of a WCSD counselor. Initially, the three-week summer component included Native American art, music, and dance. The Director stated, “It mostly was getting to know the kids and playing a lot of games with them. The component was run by a graduate assistant and was mostly cultural activities. It was a lot of fun”. In 2003, a two-day summer trip to the Lake Tahoe 4H camp, social activities, field trips, and activities designed to familiarize students with the UNR campus were added. In 2007, the Summer Middle School Enrichment component was expanded to include career exploration. In 2012, the Summer Middle School Enrichment component included the utilization of a variety of campus resources including academic and recreational facilities. Students participated in off campus field trips, played cooperative games, and created art with staff. Finally, students participated in service learning and career development in a variety of ways. Although the DFS Summer Middle School Enrichment component focused on an introduction to college life and recreation, the design of the Summer Middle School Enrichment component promoted the cementing of bonds between staff and program participants, as well as encouraged student peer interaction and bonding.

Student perceptions of the summer middle school enrichment component. Thirteen students responded to the survey question regarding Summer Middle School Enrichment participation; seven students reported participating in two years, three reported participating in one year, and four reported not participating. It is important to note that 14 answers were reported for 13 students indicating that one student marked two separate answers.

The student feedback related to the Summer Middle School Enrichment component was generally very positive. One student wrote, “It was very fun, I met a lot of people and I still have
a good friendship with the kids I met then”. Another student indicated, “It was fun. I met a lot of people and we still keep in touch here and there and that was about five years ago”.

Students also reported building friendships; for example, one student indicated that “It [the Summer Middle School Enrichment component] was a social connection between myself and others. It was full of activities such as tubing downtown or rock climbing and was pure joy. It was the best time before I started growing up”. Another student wrote, “It was nice to bond with all of the other kids in my cohort”. A third student indicated, “After the middle school program [component], I looked forward to seeing the same DFS kids every summer, even if the summer classes [Summer Math Component] were a drag”. In summary, students reported that activities were fun and that they developed friendships.

**History of the School Year Mentoring Component.** In 2000, the Dean asked an Educational Leadership faculty member, to become the faculty advisor and she agreed. In 2002, the Director took over the management of DFS from the graduate assistant and believed that the services DFS provided students should be expanded. Although the Summer Middle School Enrichment component and conferences were familiarizing students with campus, the Director felt DFS needed to provide additional support as indicated by his statement “I didn’t really feel it [conferences and the Summer Middle School Enrichment component] was changing the kids as far as getting them prepared for college. I knew that they [students] had fun, we [students and staff] had a lot of fun, we made a lot of connections, but were they ready for college”? The idea of how to expand the program began with college access and completion research provided by the faculty advisor.

In 2002, when the Director took over the management of the program the faculty advisor provided the Director with various research articles focused on student success and persistence,
including Adelman’s (1999) *Answers in a Tool Box* and several Lumina Foundation studies. The research indicated positive benefits of advanced high school math beyond Algebra 2 and mentoring students on college entrance requirements, financial aid, and academic preparation.

In 2002, the UNR Director of Financial Aid made the Director of DFS aware of the United Student Aid funds (USA funds). As a result, the Director applied for and was awarded $50,000 from USA funds. This funding enabled further expansion of the program. In 2004, the USA funds allocation enabled the Director to implement the School Year Mentoring component. Student employees were trained as mentors and met with program participants at their school site on a weekly basis. Mentors provided academic advising, college admission and financial aid information, as well as emotional support. These various support systems helped build relationships between mentors and students that may have created an atmosphere and support structure conducive to academic success.

Academic goal setting and other support services continued through the high school mentoring process and into college. For example, mentors worked with students to help alleviate anxiety related to often intimidating and hard to navigate college financial aid and entrance requirements. In addition, mentors focused on rigorous course selection. Finally, mentors supported students and discussed various reservations program participants may have had in regards to transitioning and attending college.

The implementation of the School Year Mentoring component resulted in a restructuring of staff. The Dean had initially hired staff that consisted of two retired school district teachers and thus the relationship with the DFS students was limited. The Director believed that university student mentors would improve the program, as student employees with similar backgrounds to program participants could develop stronger relationships. The Director
indicated, “I found some students who were low-income / first-generation kids, who looked like the kids we were recruiting, and I started hiring those kids to work as we [DFS] earned money”.

An important consideration in the addition of the mentoring component of DFS was the availability of “work-study” students. Work-study is a Title IV federal aid program that subsidizes FAFSA eligible student’s wages for up to $1500 per semester. As the staff changed to include many first-generation / low-income employees who were Work-study eligible the director encouraged students to apply for Work-study. As a result, student mentors received Work-study and the financial support of Work-study allowed program administrators to augment USA funds and employ additional mentors.

A second major source of funding was the Regents Service Program (RSP). In the early 2000’s the Nevada System of Higher Education Board of Regents established the RSP. The purpose of the RSP was to allow students to “make a contribution to the critical needs of the community” with a focus on literacy and outreach to the K-12 public school system (Nevada System of Higher Education, 2012). In 2003, the Dean allocated a share of the College of Education’s annual portion of the Regent’s Service Program (RSP) funding for the mentors. This allocation, coupled with Work-study, became the foundation for student employee wages for the School Year Mentoring component.

In 2010, in response to the observation that students were not persisting into their second year of college at a desired level, the Director decided to provide additional mentor support for college program participants. Initially, the Dean had asked the Director to encourage program participants to utilize existing campus resources (e.g. the Center for Cultural Diversity, Trio, and other student support programs). The Director agreed, but also felt that DFS should provide more support “I think we decided that some kids needed more support, more mentoring, and
continued affiliation with DFS even while they are in college”. As a result, when program participants entered college, DFS Graduate Assistants mentored students to help DFS students successfully transition and remain in college. College mentoring began during the summer immediately before students began their first year and persisted through college. College mentoring consisted of core curriculum advising, career planning, emotional and academic support, as well as the provision of general college information. College mentors met with program participants on a bimonthly basis for approximately one half hour.

**Student perceptions of the school year mentoring component.** All thirteen students surveyed reported participating in the school year mentoring component. All 13 students received middle school, high school, and college mentoring. Students often reported building friendships with their mentors. One student wrote, “I loved my DFS mentors. I feel like I grew up with them and now they’re my friends in college”. Although many students referred to their mentors as friends, students often referred to their mentors as family. One student indicated, “They are the second set of siblings because you connect with the mentors on different types of levels”. Another student reflected, “They want what is best for us…they are another family”.

Students reported feeling supported by their mentors. For example, one student wrote, “Mentors were the only people in my life who NEVER put me down and were always a positive influence on my life”. Another student reflected on his or her mentor by stating, “He was someone I could go to talk to about anything with and I was never once judged around [by] him”. A third student indicated, “They are all supportive and are willing to help you succeed in your goals”.

Along with feelings of support and safety with mentors, students reported utilizing mentors for advice. One student wrote, “The experiences with the mentors are always good, they
have been around a lot longer and know what they are talking about and can always offer advice on courses, professors, financial aid, and basically life experiences”. Another student wrote, “If I need help with something, I know I can go to at least one of them and be able to talk to them”. A third student reflected on his/her mentor and wrote, “He was the older brother I never had. He was able to relate to the struggles I had been through; He was always willing to listen and easily start a conversation right on the spot.”

**History of the Summer Math Component.** In 2004, in conjunction with the School Year Mentoring component, the Director implemented a Summer Math component. The college preparation research indicated positive benefits associated with advanced high school math beyond Algebra 2 on college student entrance and success. The USA Funds received in 2002 enabled financing a Summer Math component. As a result, in the summer of 2004, the Director implemented the Summer Math component.

High school program participants could enroll in the Summer Math component during their eighth, ninth, tenth, and eleventh grades depending on the current level of mathematics attained. The Summer Math classes were five days a week for six weeks. During the six-week period, students met with DFS tutors for four hours and attended classes taught by WCSD math teachers for four hours each day. The goal of the Summer Math component was to facilitate an opportunity for students to complete four years of math prior to entering college. This was an opportunity that was not available in many Title I schools in the district at the time of the math component inception.
**Student perceptions of the summer math component.** Seven of the 13 students surveyed reported participating in two years of the Summer Math component and five of the 13 students reported participating for three years. Two students reported not participating. It is important to note that 14 answers were reported indicating that one student selected two answers.

Students provided examples of benefitting from participating in the Summer Math component. However, students also indicated that although they knew there was an inherent benefit to the Summer Math component it came with a sacrifice. Students indicated understanding the component might be unpleasant at times, much like exercise or medicine; however, students indicated understanding the component was ultimately in their best interest. For example, one student wrote, “It was nice to get ahead of other high school students, but it was also sometimes inconvenient because we never really got a summer vacation”. Another student reflected, “It was difficult focusing for hours at a time with just a 15 minute break, but it paid off, and it definitely helped me maintain a high GPA in high school”. A third student wrote, “At first you are reeled in by the fun games and trips, then they slam you with summer classes, but once you get into the classes and doing the work it isn’t bad and it helps you get in higher classes and finish more quickly”.

When students reflected on the Summer Math component, they indicated that having mentors present and tutoring were essential parts of the component. For example, one student wrote, “It was great to have mentors sit in class with us and tutor us every morning so that we fully understood what was being taught, especially since summer school covers materials so quickly”. Another student stated, “It was such a help to have mentors in the morning for tutoring sessions. I took math for three summers in DFS and received nothing below an A”. A third student reflected, “Math class became easier for me because of all the help I could get before and
after classes”. A fourth student wrote, “Tutoring helped a lot, especially with harder math courses and there was always someone to help who knew what they were doing”.

**History of the Summer Internship Component.** In 2006, the Summer Internship component was implemented. The Dean asked the DFS Director to do a presentation about DFS to the City Council Diversity Committee and various city staff members. As a result, the City of Reno Diversity Coordinator asked the DFS Director if he might be able to help recruit and place students for a federal grant. The coordinator was the principal investigator for a flow through Workforce Investment Act grant subcontracted through Nevadaworks that placed young adults in paid city internships throughout the summer. The City of Reno Coordinator had had limited success with the grant, only nine students enrolled, of which five students dropped during the summer. The Director agreed to help find and place students in jobs on campus. However, because the grant requirements stipulated that the City of Reno Coordinator employ program participants as city employees, the process was cumbersome and inefficient. To alleviate the inefficiencies, the City of Reno Coordinator asked the Director if he would apply for the grant the following year.

The Director wrote for the grant and received an allocation that supported 25 student internships. This adjustment allowed the Director to place DFS program participants as student employees in campus jobs and provided summer college courses in conjunction with the internships. The Director designed the Summer Internship component to provide employment for participants for a period of eight weeks. Participants worked four hours a day, four days a week, in various jobs across campus. Students participated in the summers of their high school sophomore, junior, and senior years and were able to take college courses in conjunction with their internships. The Summer Internship Component was intended to help program participants
develop the characteristics and skills necessary for successful employment and expose participants to college administrators, faculty, and students to assist with successful integration into campus life. It also provided a financial incentive for the students to stay engaged in the program.

An unexpected consequence of the Summer Internship component was the campus supervisor’s response to program participants. Although the original intention was to provide students with the necessary skills to be successful employees and college students, faculty and staff in the departments where the students worked frequently hired them as student employees when they enrolled in college their freshman year. The Director stated, “The university folks would hire them because they were looking for good student employees and they had a good record with our kids”. For example, of the cohort under study, according to program documentation, 17 of the 18 students asked to participate in this case study were offered student employee positions on campus as they began their first in year in college. Fifteen of the 18 students that were offered accepted positions on campus, two students were offered positions and declined to accept other job offers, one of which was a job as a mentor for the DFS program, and the final student was undocumented and could not participate in the Summer Internship component.

Student perceptions of the summer internship component. In the survey results, all 13 students reported working at least two years in the summer work program; four of those students reported participating for three years. Student respondents generally provided very positive feedback. Many students reported securing jobs. For example, one student wrote, “I was actually able to get hired as a student employee at Student Success Services when I started college, to me that was the best, to be able to work and go to school at the same place”. Another
student reported, “I worked at the National Judicial College with [name]… and the Nevada Wolf Shop where I still work….”

Students also reported how the internship led to the development of skills and knowledge. One student reflected on his/her internship and wrote, “It helped me with etiquette and helped me become more professional”. While another student reported that the staff of the organization where his/her internship took place helped to develop “skills that are looked at by employers in the real world”. One student indicated that the experience helped to broaden his or her social circle on campus “I met a lot of college students outside the Dean’s Future Scholars program”.

Students reported positive experiences with co-workers and work environments. For example, one student wrote, “It was a nice office where I got to gain experience for future jobs”. Another student indicated, “My managers were the best and my last summer job [DFS summer Internship placement] after graduating [high school] actually hired me for the semester, it was the best feeling ever”.

**History of the Summer College Bridge Component.** In 2006, the Summer College Bridge component was developed alongside the Summer Internship component. The Director understood that taking college courses prior to entering college as a freshman was positively correlated to college success (Adelman 2006). The Director utilized the Workforce Investment Act grant managed by Nevadaworks to obtain funding for college tuition along with the paid job internships. This grant allowed the Director to implement the Summer College Bridge component.

DFS junior and senior high school students could attend the Summer Bridge component. The design of the summer bridge program was intended to further prepare program participants for college entrance and success. Participants attended college courses for eight weeks of the
summer. The DFS program provided two college summer classes for program participants. Students initially took a college bridge course and when that course was completed had the opportunity to enroll in a remediation course if necessary. However, if students did not need math or English remediation courses they could enroll in an appropriate level college course (e.g. English, math, philosophy, and communications). The college course enrollment is highly dependent on the individual needs of each student.

The design of the Summer Bridge component was to promote basic college literacy in DFS students before entering their first year of college and to allow DFS students to bank college credits. The bridge courses exposed DFS students to various services and departments on campus as well as college level research and technical writing. Various guest speakers from campus presented college survival information on topics such as financial aid, advising, admissions, study methodologies, time management, tutoring, the writing and math centers, stress management, and various campus web-based tools and resources necessary to enroll and retrieve daily course information. Course design required students to successfully work in teams and develop informational presentations on clubs and organizations and to participate in small group activities and discussions often found in college coursework. The Director stressed, “Those kids are going to walk into college with 15 credits maybe, and they are going to know stuff nobody else knows”.

**Student perceptions of the summer college bridge component.** All 13 students reported participating in at least one year of the Summer College Bridge component. However, of those 13 students, seven students reported participating in two years and five reported participating in three years.
Students reported very positive experiences with the Summer College Bridge component. One student wrote, “I was extremely thankful that I got a chance to get a head start on college courses”. Another student wrote, “I got to take actual college courses… It was a rewarding experience that helped prepare me for college”. A third student noted, “It was very beneficial in that we already had an idea of what to expect once entering college”.

Many students reported perceptions of college readiness. For example, one student reported, “It was a rewarding experience that definitely helped prepare me for college”. A second student reflected, “We got to learn how college worked before we actually attended college”. Another student wrote, “It was great getting to know the resources on campus…and getting to have a little bit more freedom before being thrown into campus life”. A fourth student wrote, “I knew what was expected from a college student and when I entered in the fall, it was like home”. A fifth student reflected, “The experience was like the real thing...taking real college classes with real college students and real college professors was mind blowing, yet it prepared us”.

Student responses indicated that feeling prepared for college offset some initial nervousness about college entrance. For example, one student expressed the comfort of attending classes with fellow DFS students and indicated it “took some of the nervousness and scared feelings away”. Another student summarized it by writing, “If it wasn’t for this program, my perspective going into college would be totally different. I felt prepared and that there was nothing to be afraid of”. One student directly expressed how feeling prepared for college led to comfort and wrote:

It was a little scary at first. It did end up teaching me that no matter what age you are and no matter what class you are taking, college or not, all you need to do is dedicate yourself
and everything will be ok. It really made me less scared to go to college.

**History and Utilization of the Dean’s Future Scholars Lounge.** In 2007, a DFS graduate assistant felt that DFS program participants needed a space on campus that would provide a second home. The graduate student petitioned the Dean to provide office space along with student resources for program participants. The Dean agreed and provided space housed in the college of Education for the DFS program. The DFS lounge was located on the second floor in the College of Education at the University of Nevada, Reno. The DFS Lounge is an approximately 1500 square foot space located in the College of Education building that was formerly a general student lounge. Students had 24-hour access through a code key on the door to the lounge.

The DFS lounge contained 16 computers (a combination of PC’s and Mac’s) that DFS students had unfettered access, were allowed to print, scan, and copy free of charge. The DFS administrators intended to provide an academic outlet for students as well as space on campus for students to engage in non-academic activities. The lounge was available for various purposes such as homework, tutoring, sleeping, eating, and communicating with various DFS staff.

At the time of the study staff and students had extensively decorated the DFS lounge. The mantra Respect, Responsibility, and Resilience was uniquely constructed in two-foot high letters on the walls. The south wall was dedicated as a DFS graduate wall. When DFS students graduated from college, they signed and dated this wall and left messages for future students. Examples included “believe”, “persevere”, and “delay gratification.

**Lounge survey results.** The survey included questions regarding the usage of separate lounge resources prior to entering college, upon entering college, and at the time of the study. When asked if and how students utilized the Lounge for different services, 11 students responded
to the question and two students chose not to answer the question. When asked if students utilized the Lounge for various services upon entering college, all 13 students responded to the question. When asked if students utilized different services in the Lounge at the time of the survey, all 13 students responded to the question. Tables 3, 4, and 5 report the student responses to each question.

Table 1 summarizes student reporting of Lounge usage prior to entering college. Results indicated prior to entering college students largely utilized the Lounge for an array of academic purposes. Student responses indicated a high utilization for computer use (90.9%), tutoring (81.8%), and studying (81.8%). Responses also indicated a high utilization of free printing and seeking out help from mentors. The one non-academic area students indicated utilizing was hanging out with friends.
Table 1

*Student Utilization of Lounge Resources Before Entering College*

<table>
<thead>
<tr>
<th>Lounge usage category</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring</td>
<td>81.8%</td>
<td>9</td>
</tr>
<tr>
<td>Computer Use</td>
<td>90.9%</td>
<td>10</td>
</tr>
<tr>
<td>Free Printing</td>
<td>72.7%</td>
<td>8</td>
</tr>
<tr>
<td>Appliances</td>
<td>36.4%</td>
<td>4</td>
</tr>
<tr>
<td>Hanging Out With Friends</td>
<td>72.7%</td>
<td>8</td>
</tr>
<tr>
<td>Studying</td>
<td>81.8%</td>
<td>9</td>
</tr>
<tr>
<td>Group Studying</td>
<td>45.5%</td>
<td>5</td>
</tr>
<tr>
<td>Seeking Out Help From Friends</td>
<td>27.3%</td>
<td>3</td>
</tr>
<tr>
<td>Seeking Out help From Mentors</td>
<td>63.6%</td>
<td>7</td>
</tr>
<tr>
<td>Eating Meals</td>
<td>54.5%</td>
<td>6</td>
</tr>
<tr>
<td>Taking a Break From Campus</td>
<td>54.5%</td>
<td>6</td>
</tr>
</tbody>
</table>

As shown in table 1, students reported a high rate of use of academic resources before entering college. However, students began to utilize non-academic resources at a much higher rate as they entered college. The resources utilized at the highest rates were free printing (100%) and studying (100%). The next highest rate of utilization (92.3%) fell under five categories: tutoring, computer use, eating, sleeping, and taking a break from campus. Finally, students reported utilizing the Lounge for seeking out help from friends and mentors (84.6%), hanging out with friends (84.6%), and group studying (76.9%).
Table 2

Student Utilization of Lounge Resources Upon College Entrance

<table>
<thead>
<tr>
<th>Lounge usage category</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring</td>
<td>92.3%</td>
<td>12</td>
</tr>
<tr>
<td>Computer Use</td>
<td>92.3%</td>
<td>12</td>
</tr>
<tr>
<td>Free Printing</td>
<td>100.0%</td>
<td>13</td>
</tr>
<tr>
<td>Appliances</td>
<td>69.2%</td>
<td>9</td>
</tr>
<tr>
<td>Hanging Out With Friends</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Studying</td>
<td>100.0%</td>
<td>13</td>
</tr>
<tr>
<td>Group Studying</td>
<td>76.9%</td>
<td>11</td>
</tr>
<tr>
<td>Seeking Out Help From Friends</td>
<td>84.6%</td>
<td>10</td>
</tr>
<tr>
<td>Seeking Out Help From Mentors</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Eating</td>
<td>92.3%</td>
<td>11</td>
</tr>
<tr>
<td>Sleeping</td>
<td>92.3%</td>
<td>12</td>
</tr>
<tr>
<td>Taking a Break from Campus</td>
<td>92.3%</td>
<td>12</td>
</tr>
</tbody>
</table>

As shown in table 3, students reported the highest use of Lounge resources at the time of the survey was eating (92.3%). Results indicated that 84.6% of students reported utilizing the lounge for computer use, sleeping, free printing, hanging out with friends, studying, and sleeping.
Table 3

*Current Student Utilization of Lounge Resources*

<table>
<thead>
<tr>
<th>Lounge usage category</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring</td>
<td>61.5%</td>
<td>8</td>
</tr>
<tr>
<td>Computer Use</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Free Printing</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Appliances</td>
<td>69.2%</td>
<td>9</td>
</tr>
<tr>
<td>Hanging Out With Friends</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Studying</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Group Studying</td>
<td>61.5%</td>
<td>8</td>
</tr>
<tr>
<td>Seeking Out Help From Friends</td>
<td>69.2%</td>
<td>9</td>
</tr>
<tr>
<td>Seeking Out Help From Mentors</td>
<td>76.9%</td>
<td>10</td>
</tr>
<tr>
<td>Eating</td>
<td>92.3%</td>
<td>12</td>
</tr>
<tr>
<td>Sleeping</td>
<td>84.6%</td>
<td>11</td>
</tr>
<tr>
<td>Taking a Break from Campus</td>
<td>61.5%</td>
<td>8</td>
</tr>
<tr>
<td>Mean</td>
<td>76.26%</td>
<td>9.92</td>
</tr>
</tbody>
</table>

As shown in Table 4, a comparison of the three separate periods of Lounge utilization indicated that, overall, students reported utilizing the Lounge most upon entering college. The data indicated a spike in the mean usage from prior to entering college to entering college (61.97% to 88.45%) and overtime the usage dropped from 88.45% to 76.26%. Although over 60% of program participants reported utilizing the lounge in each of three periods, utilization of
the Lounge increased upon entering college. In particular, respondents reported the usage of free printing (100%), studying (100%), eating (92.3%), seeking out help from friends and mentors (84.6%), and group studying (76.9%). Seeking out help from friends had the greatest change increasing from 27.3% to 84.6%, while eating increased from 54.5% to 92.3%, and group studying increased from 45.5% to 76.9%, which indicated an overall shift in lounge utilization from purely academic purposes to personal and peer resources.

The data indicated that with the exception of eating, a shift from entering college to current utilization occurred and overall usage of the Lounge decreased over time from 88.45% to 76.26%. Tutoring and taking a break from campus experienced the largest decreases from 92.3% to 61.5%. However, at least 61.5% of students reported utilizing the lounge in each distinct category, which indicated that the Lounge was still highly utilized.
Table 4

*Longitudinal Student Utilization of Lounge Resources*

<table>
<thead>
<tr>
<th>Lounge usage category</th>
<th>Before College</th>
<th>Upon Entering</th>
<th>Currently Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutoring</td>
<td>81.8%</td>
<td>92.30%</td>
<td>61.50%</td>
</tr>
<tr>
<td>Computer Use</td>
<td>90.9%</td>
<td>92.30%</td>
<td>84.60%</td>
</tr>
<tr>
<td>Free Printing</td>
<td>72.7%</td>
<td>100.00%</td>
<td>84.60%</td>
</tr>
<tr>
<td>Appliances</td>
<td>36.4%</td>
<td>69.20%</td>
<td>69.20%</td>
</tr>
<tr>
<td>Hanging Out With Friends</td>
<td>72.7%</td>
<td>84.60%</td>
<td>84.60%</td>
</tr>
<tr>
<td>Studying</td>
<td>81.8%</td>
<td>100.00%</td>
<td>84.60%</td>
</tr>
<tr>
<td>Group Studying</td>
<td>45.5%</td>
<td>76.90%</td>
<td>61.50%</td>
</tr>
<tr>
<td>Seeking Out Help From Friends</td>
<td>27.3%</td>
<td>84.60%</td>
<td>69.20%</td>
</tr>
<tr>
<td>Seeking Out Help From Mentors</td>
<td>63.6%</td>
<td>84.60%</td>
<td>76.90%</td>
</tr>
<tr>
<td>Eating</td>
<td>54.5%</td>
<td>92.30%</td>
<td>92.30%</td>
</tr>
<tr>
<td>Sleeping</td>
<td>*</td>
<td>92.30%</td>
<td>84.60%</td>
</tr>
<tr>
<td>Taking a Break from Campus</td>
<td>81.8%</td>
<td>92.30%</td>
<td>61.50%</td>
</tr>
<tr>
<td>Mean Usage</td>
<td>61.97%</td>
<td>88.45%</td>
<td>76.26%</td>
</tr>
</tbody>
</table>

* Sleeping was not included for before college because students did not have the option before entering college.
College Entrance Data

Table five provides an example of the overall high school graduation data by race. The 2012 high school success data was utilized because at the time of the study DFS did had not compiled high school success data by race. Below is a summary of the high school graduation rate data. The table compares the DFS graduation rates with WCSD from which program participants were selected.

Table 5

Summary of 2012 High School Diplomas and Graduation Rates

<table>
<thead>
<tr>
<th>Category</th>
<th>Deans Future Scholars</th>
<th>Washoe County School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Seniors in Cohort</td>
<td>46</td>
<td>4,509</td>
</tr>
<tr>
<td>Honors Diplomas (17 out of 46)</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>Advanced Diplomas (10 out of 46)</td>
<td>22%</td>
<td>11%</td>
</tr>
<tr>
<td>African American (2 out of 4)</td>
<td>50%</td>
<td>44%</td>
</tr>
<tr>
<td>Asian (5 out of 5)</td>
<td>100%</td>
<td>82%</td>
</tr>
<tr>
<td>Caucasian (3 out of 3)</td>
<td>100%</td>
<td>79%</td>
</tr>
<tr>
<td>Hispanic (25 out of 28)</td>
<td>89%</td>
<td>56%</td>
</tr>
<tr>
<td>Multiracial (1 out of 2)</td>
<td>50%</td>
<td>74%</td>
</tr>
<tr>
<td>Native American (2 out of 3)</td>
<td>67%</td>
<td>53%</td>
</tr>
<tr>
<td>Pacific Islander (1 out of 1)</td>
<td>100%</td>
<td>56%</td>
</tr>
<tr>
<td>Overall H.S. Graduation Rate</td>
<td>85%</td>
<td>65%</td>
</tr>
</tbody>
</table>

* Table adapted from a DFS unpublished report
Table 6 provides a summary of the survey respondents self-reported college entrance data. All students in the case study were students of color. Two students reported graduating high school with a GPA of 4.0 and higher, six indicated graduating with a high school GPA between 3.5-3.9. Four students reported graduating with a GPA between 3.0-3.4 and one student reported graduating with a GPA of 2.5-3.0.

The survey also included questions regarding the SAT and ACT, which are the standard college entrance examinations. Ten of the students responded to the question related to the ACT. Five reported that they had not taken the ACT; three reported that they placed between 18-21, and two reported that they placed below a 17. Nine of the students responded to the question related to the SAT. Two students reported that they did not take the SAT, three reported that they scored between 500-609, three students reported a score between 470-499, and one student reported a score below 470.

Twelve of the students reported that they entered college above the developmental English level and 11 reported entering college above the developmental math level. Thus, the student self-reported data indicated that a majority of study participants entered their fall semester first year at college at or above expected math and English levels.
### Table 6

*Summary by Number of Participant College Entrance Data; GPA, ACT, SAT, Enrollment, and Initial Courses*

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<th>GPA</th>
<th>2.5-3.0</th>
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<th>3.5-3.9</th>
<th>4.0 or Higher</th>
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<th>18-21</th>
<th>Above 21</th>
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<th>Below 470</th>
<th>470-499</th>
<th>500-609</th>
<th>Took ACT</th>
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<table>
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<table>
<thead>
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<td>Number</td>
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</table>

* Special admits are students who do not meet the minimum UNR entrance requirements of a 3.0 high school GPA

**Themes**

Using Maxwell (2005), the analysis of the open-ended survey questions consisted of three phases. Initially, responses were read through in their entirety to identify overlying themes. Next memos were recorded on common emic categories that emerged and themes were identified. Following the identification of themes, the responses were analyzed line by line to develop an understanding of the program participants’ perceptions of individual components and of the overall program. The analysis of the 13 DFS participants revealed four overarching themes woven throughout the fabric of student responses. These themes included: (a) Support,
(b) Gratefulness, (c) Joy, and (d) Growth. Support included relationship building, trust, security, and guidance. Gratefulness included opportunity, help, and recognition. Joy included feelings of fun, happiness, and excitement. Finally, growth included learning skills, gaining experience, and growing as individuals.

**Support.** Support was an overarching theme throughout the student responses. Students often noted feeling connected with the program and the importance of the relationships they built with peers, staff, and their personal mentors. Many students referred to DFS as a community and more specifically as a family. Students reported utilizing these relationships for academic and emotional support. Students also indicated these relationships led to feelings of trust and security. Students often expressed feeling comfortable sharing very personal experiences and feelings without fear of judgment from the DFS community.

Overwhelmingly, students reported a sense of connectedness associated with participating in DFS. For example, one student wrote, “It feels like I am connected to campus and that I will always have a group of friendly people to go to for advice on anything”. However, for most students the connectedness regarding DFS was coupled with perceptions of familial ties. One student wrote, “It is my family. They support me, physically, emotionally, and mentally to succeed in whatever I become a part of”. Another student reflected, “It feels like you are part of a big family who is always there to support you”. A third student wrote, “It is like another family. DFS holds me together. They are a great support”. Students also indicated feelings of familial ties were associated with shared goals and values. One student wrote, “The mentors come from different neighborhoods, cities, and states, but all have a common vision”. Another student wrote, “It feels like a big family whose dreams and aspirations are accomplished through the help of one another. It feels great!”
Students indicated relationships with staff led to feelings of trust and security. For example, one student wrote, “You grow such a deep relationship with the staff that trust and reliance is not a problem…you get to know them as a human being, someone who shows they care for you”. Another student stated, “They were more than mentors, they were the best friends we could always count on”. A third student noted, “I have learned to be comfortable around them. If I need help with something, I know I can go to at least one of them and be able to talk to them”. A fourth student wrote:

All of my mentors got to know me and the rest of the people that were in the program on an academic and personal level which helped us open up about things in the classroom and things going on at home.

Although the majority of student responses indicated positive experiences in regards to support, results also indicated that the support aspect of the program might not have been historically strong. The Dean and the Director both noted past issues with the selection of staff that were older professionals that may have struggled to build relationships with the students. Even after the Director decided to hire college student mentors some student responses indicated barriers to relationship building. One student reflected, “My DFS mentors weren’t always consistent. I always had a different one”. Another student wrote, “it was sad when they left to bigger and better things”. Results indicated that although utilizing college student mentors appeared to help build relationships the transient nature of college students may have created challenges as well.

**Gratefulness.** Another overarching theme within student responses was gratefulness. Initially, students reported feelings of gratefulness for selection and inclusion as a program participant. In part, gratefulness included feelings of accomplishment that a teacher or counselor
recognized his or her academic potential and felt the student deserved the opportunity to participate in DFS. However, throughout student responses appreciation of program participation and the many opportunities the program provided emerged as well. Students recalled opportunities to get ahead in high school, find college jobs, prepare for college, give back to the community, and grow as individuals. Some students directly indicated that they did not know where they would be today [in the second semester of their second year] if they had not participated in the DFS program. For example, one student wrote, “I was happy that out of all of the kids in my class I was one of the lucky chosen ones”. Another student reflected, “I felt accomplished and felt that there was someone out there that cared about my education”. A third student wrote, “I was excited because only a couple of people were chosen to be a part of the program from my class”. Another student wrote, “I felt like I was special. It made me feel good that someone was actually noticing my good grades and how hard I worked”. Finally, one student reflected, “I felt it was well deserved and I was humbled to know that my sixth grade teacher at Dodson Elementary saw something in my character that would lead me to the college path”.

Students also indicated feelings of gratefulness at inclusion as a DFS participant. For example, one student wrote, “It’s an unexplainable feeling to be part of an amazing program. I am truly blessed to be in DFS”. Another student reflected, “It is an honor, I am proud to say that throughout my K-12 career I took part in an incredible program”. A third student wrote, “It’s a great honor to be part of such a great program, it has given me the opportunity to prove to myself that with effort anything is possible”.

Students also expressed gratefulness towards the opportunities provided throughout the program. One student wrote, “There was nothing that could have compared to the
opportunity that we were given‖. Another student wrote, ―I was more prepared for college before entering than most of my peers‖. A third student reflected, ―they [DFS] show you resources and support that a student wouldn‘t get if they wanted to come to college and were from a low-income family‖.

Students also indicated DFS had a direct impact on their educational success. One student wrote, ―There is no word to describe the feeling. I know I am very grateful to be in DFS because without DFS I wouldn‘t be where I am today‖. A second student referred to his/her mentor and wrote, ―I give him all the love possible because he was the main reason that I graduated high school in the top 10 of my class‖. A third student reflected, ―I honestly did not think DFS would play such a big role in my life‖. Another student indicated, ―DFS has made a huge impact throughout middle school, high school, and even now, in college‖.

**Joy.** Students reported feelings of happiness, fun, and excitement throughout the program. Feelings of excitement and joy began when students first heard they were accepted into the program. Students also expressed feelings of happiness and experiencing fun throughout the program and during interactions with their peers and mentors.

Students indicated they felt excitement when they first found out they were accepted into the program. One student wrote, ―I was excited and looking forward to get ahead in school and at the same time have a fun summer‖. Another student wrote, ―I was excited to be accepted into the program. I was in the sixth grade and I felt like DFS was a great opportunity to get myself prepared for college‖. A third student indicated, ―I was really happy‖.

Students also indicated feelings of happiness and experiencing fun throughout the program. One student reflected, ―when I first began, to be honest, it was all fun and games because Bob made it sound so fun, which it was!‖ Another student wrote, ―It was fun! I was
always excited for the summer because it was time for DFS!”. In reference to the Summer Middle School Component one student wrote, “Middle school program was fun! We went on field trips, got to take art classes and science classes. It was a fun new way to learn things”. Another student reflected on the Summer Math component and wrote, “No matter how boring or hard a math class was, at the end of summer, I was always able to say that it was super fun!”. One student reflected on his/her experiences with mentors and wrote, “They were all really fun!”. In regards to the Summer Internship component, one student reflected, “It was a fun environment where the people were happy and laid back”.

Although the majority of student responses indicated feelings of joy associated with inclusion within DFS, it should be noted that some student responses indicated feelings of sacrifice associated with program participation. Once student reflected, “I was excited but also sad I would be losing my summers”. Another student wrote, “I missed out on five years of summer fun”.

**Growth.** Growth was the final theme evident throughout student responses. Students reported participation in the program helped them grow as individuals. Individual growth included learning to appreciate education and social growth. Students also reported growth through learning a variety of academic, career, and life skills.

Students reported a process of personal growth and learning throughout the program. For example, one student wrote, “It became more of learning about myself and how important school really is. Not only that, but how education can get you so many things in life”. Another student indicated, “You really think that sometimes you don’t need any of it, but then after a while you start to realize how much you really do”. A third student reflected, “It has made me grow into a
successful person and I am grateful to give back to the community‖. Finally, one student indicated, “I grew socially and professionally”.

Students also indicated learning a variety of academic, career, and life skills through program experiences. For example, one student wrote, “I got the idea of time management, from going to class and going to work and making it to each destination on time”. Another student reflected, “I learned to save up and handle money”. A third student wrote, “The experience was amazing, I met a lot of great people and learned a lot about management”. Another student indicated, “one got to learn how college worked before we actually attended”. A fourth student reflected, “I had never had a real job before these two [summer internship placements], so I got a little taste of how it would be as a worker and how it would be to work as a student on campus”. Finally, in regards to the internship program, another student indicated, “Now I have job experience for a resume and know what is expected from an employer!”.

**Summary**

This purpose of this study was to explore the understandings that 13 undergraduate students from a single DFS cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college; to examine these understandings, the history of each component was investigated. First, a brief overview of the history and evolution of the program components was provided. Next individual component history and evolution coupled with results from an open-ended survey and self-reported checklists were reported. Four major themes emerged from the analysis of the 13 participant’s responses to the open-ended survey questions: (a) Support, (b) Gratefulness, (c) Joy, and (d) Growth. Chapter Five provides a discussion of findings, conclusions, and recommendations.
Chapter V

Discussion, Implications, and Recommendations

The purpose of this study was to explore the understandings that 13 undergraduate students from a single DFS cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college; to examine these understandings, the history of each component was investigated. This chapter is divided into four major sections. The first section includes a discussion of the key findings based on the results of data analysis from three program administrator interviews, 13 open-ended student surveys, and program artifacts. The second section provides implications for practice for administrators developing, implementing, or evaluating college-based academic outreach programs. The third section outlines recommendations for future research, and the fourth section provides a summary of the case study findings.

Discussion

The findings from this case study indicated that the relationship building starting in the sixth grade and increasing in intensity into the college years was the cornerstone of the DFS program. Furthermore, findings appeared to indicate that program participants’ long-term consistent interaction with DFS staff and peers led to the social construction of those experiences as the creation of and inclusion within a second family. A second family that not only supplied the robust networks and knowledge inherent in social and cultural capital, but also the voluntary relationships that entail personally felt reciprocal obligations.

This perceived inclusion within a second family provided a platform conducive to the successful reproduction of social and cultural capital. This finding aligned with Bourdieu’s (1983) argument that group membership, knowledge, and feelings of kinship are necessary to
reproduce the social and cultural capital that allow students to successfully enter, navigate, and succeed in the college system. In addition, findings from this case suggested that the six major program components appeared to contribute to a sequential process building upon one another and intensifying as students moved throughout the program. This is consistent with Bloom’s (2008) research on social and cultural capital, which she referred to as college going capital. The reproduction of social and cultural capital appeared to provide DFS students with the necessary tools to successfully transition and integrate into college. This finding is consistent with Tinto’s (1993) theory of Individual Departure.

The Reproduction of Social/Cultural Capital and Integration

Bloom (2008) argued:

College going capital is very rarely built through direct instruction; instead, it is deeply rooted in a series of personal experiences of college campuses built over long periods. It is built through visits, summer programs, and connections with family and friends stretching over student’s lifetimes, and utilized in increasingly intense ways as they enter high school. (p. 4)

Findings indicated that although program administrators did not originally design the DFS program to address the above concept; overtime, the six components addressed the above stated elements. From early entry in the Summer Middle School Enrichment component to attending the Summer Internship and Bridge components just prior to entering college, DFS students were embedded in a program that began in the sixth grade and persistently increased in intensity.

Beginning with the Summer Middle School Enrichment component, students were exposed to college students [DFS staff] and the college campus through a series of academic and social activities, which students reported as joyful and fun. The Middle School Enrichment
program seemed to create peer networks that expanded beyond the student’s neighborhoods, family, and community consistent with Tinto’s (1993) theory of Individual Departure. Students reported building lifelong friendships with peer students [DFS students are selected from the entire school district] and reported building relationships with staff beyond their individual mentors during the Summer Middle School Enrichment component.

As students began to participate in the School Year Mentoring component in the seventh grade relationship building increased in intensity. Students reported feeling grateful that mentors always pushed them to their limits and created a safe atmosphere. Students also reported that mentors were like older siblings or family members with life experience that they felt comfortable with seeking advice from, as stated, “they have been around a lot longer and know what they are talking about and could offer advice on courses, financial aid, and professors.”

As students entered high school, fun summers gave way to a rigid and academically focused Summer Math Component that students reported as difficult, but beneficial. Students indicated the realization that in order to get ahead or succeed there are often necessary sacrifices. Students reported the necessity of giving up summers to get ahead in school and increase their GPA’s. As such, the behaviors necessary to succeed in the institution such as hard work and diligent study appeared to have been partially passed on through the Summer Math Component. The Summer Math Component also increased both the time and intensity of mentor / student interactions. Mentors served as tutors for the Summer Math Component and as such spent a great deal of time with students on a daily basis.

The College Internship Component appeared to contribute to the development of social and cultural capital as well while ingraining students into campus culture. Students reported learning work ethic, money management, employer expectations, timeliness, and professionalism. In
addition, students reported that the internship was not only a means to meet administrators and staff on campus, but it also broadened their social circle of campus peers outside of the safety of DFS. Additionally, students indicated that they felt the internship led directly to campus employment upon college entrance. As such, it appeared that the Internship Component might have helped to familiarize students with the campus culture and build the necessary capital to persist. This is consistent with Tinto’s (1993) argument that indicated a need for student engagement on campus that included working on campus.

Findings from this case indicated the Summer Bridge Component might have provided a conduit to develop social and cultural capital as well. Interviews and artifacts indicated that the bridge course was specifically designed to promote basic college literacy in DFS students before entering their first year of college and to allow DFS students to bank college credits. Students reported that enrolling in the Summer Bridge component helped alleviate anxiety during the transition into college through shared experience and support with peers and DFS staff. Students also reported learning skills such as time management and study habits. The DFS Bridge Component appeared to expose students to the language, knowledge, resources, and behaviors necessary to succeed in college. One student stated, “We got to learn how college worked before we actually attended college”. Another student reflected, “I knew what was expected from a college student and when I entered in the fall, it was like home”.

Finally, findings indicated that the Lounge appeared to help provide a safe transition for the continued growth of social and cultural capital upon college entrance. Findings indicated the Lounge was intentionally developed; indeed, it was utilized for many aspects necessary to provide the reproduction of capital. Students utilized the Lounge for basic needs such as eating,
sleeping, and taking a break from campus. However, the Lounge was also utilized for academic purposes such as printing, tutoring, studying, seeking help, and group work.

Tinto (1993) argued that it was beneficial for students to engage in “anticipatory socialization” or preparation of integration into the college social system prior to entering college (p. 98). Findings indicated that the DFS program appeared to provide a wide array of pathways including mentoring, summer programs, and the Lounge for transition. The Bridge and Summer Internship Components appeared to address anticipatory socialization by exposing students to the expected norms, beliefs, as well as, behavioral and intellectual patterns prior to entering college. Student responses indicated that students viewed these relationships as a DFS community. The DFS community seemed to be an integral part of the transition between high school and college and contributed to the acquisition of the necessary social and intellectual skills through social and cultural capital.

Tinto’s theory (1993) indicated a need for student engagement with various organizations across campus that included, but were not limited to fraternities, sororities, intramural sports, clubs and organizations, student government, extracurricular programs, or working on campus. Findings indicated that the DFS program appeared to provide three pathways that facilitated student engagement on campus. First, the Lounge appeared to provide a second home where students could eat, sleep, seek help, study, and interact with DFS students and staff in a variety of ways. Second, program artifacts indicated that an unintended consequence of the Summer Internship Component was that 17 of the 18 students in the cohort were offered student employment positions through their internships just prior to full time college entrance. Thus, they began their college careers with the opportunity for on campus student employment. Finally, findings indicated through the Summer Bridge Component students were encouraged to
explore various campus clubs and organizations as well as use a variety of campus resources such as academic advising, the writing center, the tutoring center, the math center, and the knowledge center.

Findings from this case indicated that all six components may have contributed individually to program participant persistence. However, findings also indicated that program components built upon one another sequentially to contribute to the persistence of this cohort into the second semester of their sophomore year. Finally, findings from this study indicated that the School Year Mentoring component was the cornerstone of the relationship building inherently necessary in the reproduction of both social and cultural capital.

**Implications for Practice**

Research findings from this case appeared to indicate that the DFS program was successful in developing strong relationships between DFS staff and students beginning in the sixth grade. Administrators working with academic outreach programs should begin with early intervention in the sixth grade and stress relationship building at the core of mentor training. Administrators should encourage constant contact that creates safe and trusting environments while creating a framework entrenched in the use of college language that fosters an atmosphere conducive to expanding social networks inherent in the college system. Once trusting relationships are built, administrators should begin to intensify participant exposure to the various forms of social and cultural capital in increasingly concentrated ways that are necessary to enter and succeed in college (Bloom, 2008).

Findings from this study indicated that the internship program might have provided a platform to acquire the necessary work skills, values, and behaviors that reinforce workplace success, including, but not limited to student employment. The internship program also appeared
to expand both professional and personal networks for the cohort under study. The Bridge Component appeared to alleviate anxiety related to entering college and exposed students to support services, techniques, and classroom behaviors necessary to succeed in college.

Therefore, outreach programs should strive to place students in campus internships prior to their first year of college entrance to help students acquire these necessary employment skills. Administrators of outreach programs should also create bridge courses designed to acclimate students to the rigors and normal structures of college courses so they are prepared upon college entrance. Bridge courses should be designed to encourage a strong student community in a safe learning environment.

Findings also indicated that the Lounge appeared to help provide a safe haven for the reproduction of social and cultural capital on campus. The lounge was utilized for basic needs, academic help, and emotional support. However, as students persisted in college into the second semester of their sophomore year, usage of the lounge began to decrease indicating that students may have integrated into other aspects of college life. As such, academic outreach programs should provide a shared space on campus that can help provide a second home for students upon college entrance.

The findings of this study indicated that all six components of the DFS program might contribute to student persistence. In addition, findings indicated that all six components may have built upon one and other sequentially. In order to determine what components may or may not have led to short, medium, and long-term outcomes and to what extent; administrators should conduct a theory-based program evaluation. Stufflebeam and Shinkfield (2007) stated that theory development identifies:
the mechanisms by which program activities are understood to produce or contribute to program outcomes along with the appropriate description of context, specification of independent and dependent variables, and portrayal of key linkages. The main purposes of the theory-based program evaluation are to determine the extent to which the program of interest is theoretically sound, understand why it is succeeding or failing, and provide direction for program improvement. (p. 186)

The intent of the evaluation should be to develop a better understanding of the six components, and the interactions between these components of the DFS program. In addition, the evaluation should examine program components in relationship to college persistence and completion for participants. The program theory of change model should be normative in order to illuminate how the program is understood to work. The initial theory of change should follow programmatic logic models. Savaya & Waysman (2005) argued:

Programs are often complex, comprising many different types of interlinking components. What is needed is a relatively simple instrument that can help the practitioner explicate and present program theory, by guiding and structuring the process. The logic model is such a tool, whose purpose is to describe and articulate program theory. (p. 85)

Parallel to discussions of Chen (1990) upon completion of this evaluation, administrators should develop a descriptive model to illuminate how the program actually works. Although this case seemed to indicate that all six DFS program components and the interaction of these components might have contributed to persistence the research findings indicated several areas that may need future exploration.
Future Research and Recommendations

This study focused on the DFS students from a particular cohort that successfully persisted into the second semester of their sophomore year. The focus of this study was on what program components may have contributed to college persistence. As such, this study did not explore the perceptions of students that did not graduate high school, graduated high school but did not enter college, or students that graduated high school and entered a college other than UNR. Therefore, a follow up study could be conducted to explore these student’s perceptions of the six program components to help explore what program components may have lacked.

DFS students are selected in sixth grade by counselors and teachers who they believe show academic promise, but may lack the necessary resources to successfully access and succeed in college. Although findings from this study indicated that all six components contributed to persistence into the second semester sophomore year of college for this cohort, it is difficult to determine how selection criteria and selection itself may have contributed to persistence. As such, an experimental research design study might contribute to a broader understanding of actual impacts of the program.

A longitudinal study could be conducted with three separate groups. Counselors and teachers could select 150 students, which is three times the number of students that participate in the DFS program in a given year. Then, a random selection process could be utilized to separate the 150 students into three groups. The first group could be informed that they had been noted as students that showed academic promise and be given a certificate recognizing the achievement. The second group could be informed that they had been noted as students that showed academic promise, be given a certificate, and meet with a school counselor or teacher on a semester basis
and be encouraged to participate in the regularly scheduled college access workshops and activities. Finally, the third group could participate in DFS.

The progress of the students in each group could then be followed from sixth grade through college to determine to what extent DFS contributes to high school graduation, college entrance, and persistence. This study might help identify if there is a placebo effect with regard to student selection for the program that may contribute to college persistence and to what extent minimal periodic recognition of acceptance might contribute to college persistence.

Another recommendation for further research would be to use propensity score matching as described by Ho, Imai, King, and Stuart (2007) to identify a control group that closely resembles the treatment group consisting of students participating in the DFS program. The National Student Clearinghouse data could be utilized to obtain complete enrollment records from both the control and treatment group. Significant differences between the groups could then be analyzed using standard statistic methods.

Furthermore, at the time of this study in 2012, there was very limited high school student success data. Since this study began in 2012, DFS program administrators began to compile comprehensive high school success data. However, DFS administrators do not currently track college success data. This is in part because the DFS program began in 2000 and at the time of this study large cohorts of students were just beginning to enter college. However, if program administrators want to determine if program components not only lead to college entrance, but impact college graduation, college success data should be collected and analyzed as well.

Finally, there is a lack of research that specifically addresses college integration and the reproduction of social and cultural capital for culturally diverse students. As such, there is need of studies that examine how various cultures perceive and experience the reproduction of social
and cultural capital and the integration into new communities. Such research might help administrators and faculty members create programs and atmospheres to maximize the opportunities for culturally diverse students to successfully transition and succeed at institutions of higher education.

**Summary**

This largely qualitative case study supplemented by quantitative data was employed to explore the understandings that 13 undergraduate students from a single DFS cohort held concerning the contributions of the six major components of DFS to their persistence into the second semester of their sophomore year of college at UNR. To examine these understandings, the history of each component was investigated. The 13 DFS students in this case study were first-generation / low-income students of color.

The six major components examined included: (a) Summer Middle School Enrichment; (b) School Year Mentoring; (c) Summer Math; (d) Summer College Bridge; (e) Summer Internship; and (f) The Lounge. An open-ended survey was administered to 13 students regarding individual program components as well as overarching program experiences. In-depth interviews were conducted with three program administrators exploring programmatic history, development, intent, and implementation. This study examined 13 student’s perceptions of individual components as well as overarching program experiences. This study also provided a historical background of program development based on program administrator perceptions of program intent coupled with the opportune availability of various funding sources. An intrinsic case study design coupled with a constructivist grounded theory approach was utilized to conduct this research. Tinto’s (1993) theory of Individual Departure was utilized as a Theoretical framework.
Four major themes were constructed from the student survey: (a) Support, (b) Joy; (c) Gratefulness; and (d) Growth. Three key findings were extrapolated from the survey data, (a) DFS is family, (b) DFS creates cultural capital, and (c) DFS creates social capital. Student perception of DFS as a family was the cornerstone of the program and led to student growth in both social and cultural capital. As students progressed through the six program components, the strength of relationships and both the intensity and frequency of social and cultural capital increased through the internship, bridge, and lounge components providing all of the elements necessary to transition into and succeed in college according to Tinto’s (1993) theory of Individual Departure from institutions.

In addition, all six components seemed to create the college going capital suggested by Bloom (2008) built over a long period of time and constructed through a series of campus visits, social connections, academic courses, and personal experiences on the college campus. The perceived construction of family also appeared to facilitate the necessary social and cultural capital that research has indicated is necessary for college entrance and persistence (Bloom, 2008; Bourdieu 1977, 1983, 1988; Coleman, 1988, 1990; Paulson & St. John, 2002; Paxton, 1999; Salazar, 2004; Sullivan, 2001; Tierney & Venegas, 2009).
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Appendix A

Interview Protocol for Program Administrators

Dean that Initiated the Program

I would like to start this interview by taking you back to the beginning.

- When did you first come into contact with the DFS program at Texas Tech? What did you think of it?
- What prompted you to bring it here?
- When you brought the program over from Texas Tech how did you envision the program at UNR?
- What steps did you take to initially replicate the program?
- Did this change over time?
- What resources did you draw upon as the program progressed to improve upon it?

Strategies

Now I’d like to focus on the actions you took after the program began.

- What strategies were immediately put in place?
  - Why did you select these strategies?
  - Who did you immediately involve and why?
  - What role did you play in the process and what was it.
- What roles did other people play?
- As you think back about the immediate strategies, how effective were they?
- As the program developed, did your strategies change and if so, how?
  - What prompted the change?

Now I want to talk about partnerships:
Briefly how did partnerships work within the program

- Principals
- Teachers
- Counselors
- The college of ed.
- Alignment guidelines, criteria?
- Briefly how did external communication occur?
  - Media
  - NSHE / Board of Regents
  - Campus community
- As the program developed how did it grow and why?
  - Grants
  - Donors

There are always positive and negative aspects in major undertakings. What have been your biggest challenges? Do any alliances strike you as key to the success of the program?

- What was the most positive thing that happened during the development of this program?
  - Can you see how this might be used to replicate this program?

- What didn’t work?
  - What did you do about it?

- How has your program experience informed you about what the program should do in the future?
  - What do you see tuition’s role now and in the future
What is your institution doing about containing and reducing costs for first generation low income students?

What role do you see financial aid playing in program participant’s futures?

Are there any things missing from the program you might add if you had the funding?

**Director**

I would like to start this interview by taking you back to the beginning.

- When did you first start come into contact with the DFS program?
- Initially how did you understand it?
- Did this change over time?
- What resources did you draw upon as the program progressed to improve upon it?

**Strategies**

Now I’d like to focus on the actions you took after the program began. (For Some of these would be advise)

- When you came on what did you find?
- Who did you immediately involve and why?
- What role did you play in the process and what was it?
- What Roles did other people play?
- What worked?

**Now I want to talk about partnerships**

Briefly, how do the partnerships work within the program?

- Principals
- Teachers
o Counselors

o The college of ed.

o Alignment guidelines, criteria?

o Briefly how does external communication occur?

   o Media

   o NSHE / Board of Regents

   o Campus community

o As the program developed how did it grow and why?

   o Grants

   o Donors

   o components

There are always positive and negative aspects in major undertakings. What were your biggest challenges? Do any alliances strike you as key to the success of the program?

- What was the most positive thing that happened during the development of this program?

   o Can you see how this could be used to replicate this program?

- What didn’t work?

- How has your program experience informed you about what the program should do in the future?

   o What do you see tuition’s role now and in the future

   o What is your program doing about containing and reducing costs for first generation low income students

   o What role do you see financial aid playing in program participant’s futures?
o Are there any things missing from the program you might add if you had the funding?

**Dean at the Time of the Study**

I would like to start this interview by taking you back to the beginning.

- Before you were Dean you were faculty in the College of Ed. What did you think about DFS?
- What did you first think about DFS when you took over as Dean?
- What were your first experiences working with the program like?
- Did this change over time?
- What resources did you draw upon to gain an understanding of the program?
  o Written
  o Human
  o Literature
  o Political

**Strategies**

Now I would like to focus on the actions you took after you came to understand the program

- When you came on what did you do?
- Who did you immediately involve and why?
- What Roles did other people play?
- At what point did you involve…
  o The director
  o Various staff
  o Media
Students

As you think back about the immediate strategies, how effective were they?

As the situation developed, did your strategies change and if so, how?

What prompted the change?

Communication

Ok, you have an overall strategy (assuming that was found in the responses above), let us shift to communication. However, before we get into communication regarding the program

Briefly, how did internal formal communication occur within campus?

Process

Alignment, guidelines, criteria?

Briefly how did external communication occur?

Media

NSHE / Board of Regents

General Public

As you implemented strategies to financially support the program did you make any deliberate changes in how and who you communicated with?

Now I want to talk about Partnerships

There are always positives and negative aspects with major undertakings what have been you biggest challenges?

- What has worked best since you have taken over
  
  Can you see how this might be replicated in creating similar programs?

DFS is mostly on grant funding and yet we know that this state is not out of the woods economically or is the program institutionally integrated and safe.
How has your experience with the program informed how you are thinking about the future of the program?

- What do you see tuition’s role now and in the future?
- What is the college of Education doing about containing and reducing costs?
- How do you see financial aid affecting the future of the program?
- Are there any components you feel might be added to improve the program?
Appendix B

Program Participant Checklist and Survey Protocol

1. What was your high school GPA?
   - Above 4.0
   - 3.5-3.9
   - 3.0-3.4
   - 2.5-2.9
   - 2.0-2.4
   - Less than 2.0

2. What level of English did you qualify for your first semester?
   - English 098
   - English 101
   - English 102

3. What level of math did you qualify for your first semester?
   - Math 069
   - Math 120
   - Math 126 R
   - Math 127 R
   - Higher than math 127 R

4. If you took the ACT what was your score?
   - If you took the ACT what was your score?   Below 17
   - 18-21
   - 22-26
Higher than 26
I took the SAT

5. If you took the SAT what was your score?
   Below 470
   470-499
   500-609
   Above 609
I took the ACT

6. Were you admitted to UNR as a special admit?
   Yes
   No

7. Did you get DFS mentoring in middle school and high school?
   Yes
   No

8. How many years did you participate in the DFS summer middle school program?
   0
   1
   2
   3

9. How many years did you participate in the DFS summer math program?
   0
   1
10. How many years did you participate in the DFS summer work program?
0
1
2
3

11. How many years did you take summer college classes with DFS?
0
1
2
3

12. Did you use the lounge for any of the following before you started college? (Please choose all that apply)
Tutoring
Computer use
Free printing
Appliances
Hanging out with friends
Studying
Group studying
Seeking out help from friends
Seeking out help from mentors
Eating Meals
Tuesday Food Day
Taking a break from the rest of campus
Other (please specify)

13. Did you use the lounge for any of the following once you entered college? (Please choose all that apply)
Tutoring
Computer Use
Free printing
Appliances
Hanging out with friends
Studying
Group studying
Seeking out help from friends
Seeking out help from mentors
Eating
Sleeping
To take a break from the rest of campus
Other (please specify)

14. Did you still use the lounge for any of the following? (Please choose all that apply)
Tutoring
Computer Use
Free printing
Appliances
Hanging out with friends
Studying
Group studying
Seeking out help from friends
Seeking out help from mentors
Eating
Sleeping
To take a break from the rest of campus

1. When did you first found out you were accepted to the DFS program and what was your reaction?

2. What does it feel like to be part of DFS?

3. What was the middle school program like for you? Describe some of your experiences?

4. When you were in middle school or high school what DFS activities helped you the most and why?
   A. Tutoring
   B. Workshops
   C. Help with papers
   D. Lounge resources
   E. Summer Programs

5. Describe your experiences with your DFS mentors.

6. If you attended the summer middle school program what was that like for you?
7. If you attended the summer Math program explain what that was like for you.

8. If you attended the summer-bridge program and took college courses with DFS before you enrolled in college what was the experience like for you?

9. If you participated in the summer work program what places did you work on campus and what was the experience like for you?