WHO STEPS UP: PREDICTORS OF COLLEGE ENROLLMENT IN HIGH-RISK HIGH SCHOOL STUDENTS PARTICIPATING IN THE STEP UP PROGRAM

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ABSTRACT OF THE THESIS

Who Steps Up: Predictors of College Enrollment in High-Risk
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This study is a secondary analysis of data that have been gathered for the years 2007, 2008, and 2009 by the Step Up program which is a college outreach program offered at Hoover High School in conjunction with San Diego State University. Data from 78 participants were examined. Data include demographic variables, scores from four measures the students take as pre- and post-tests, their overall grade in the college level class that is a component of Step Up, and whether students matriculated into a two or four year college or university. Demographic and college attendance frequencies and means were computed. A factor analysis was performed on the community organizing skills and knowledge scale in order to validate it. Paired t-test analyses were conducted for each scale given as pre- and post-test measures to the students. Data from national statistics regarding all students’ college matriculation were examined for comparison. Step Up program participants frequently have one or more of these risk factors. The vast majority of students are an ethnicity other than White. Most speak a first language other than English. All are from low-income families. This study demonstrates the Step Up program has a positive effect on the rate of college attendance. Results show students who participated in the Step Up program were more likely to go to college than those from a similar demographic nationwide. The Step Up program had a significant effect on college attendance; however, student’s scores on the scales measuring personal characteristics were primarily unaffected.
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CHAPTER 1

INTRODUCTION

In the United States 1.2 million students drop out of high school annually. If the students who dropped out in 2007 had stayed in school, they would have added $329 billion to the economy over their lifetime (Alliance for Excellent Education, 2007). Research has shown that each dropout will cost the nation $260,000. If dropout rates stay the same over the next 10 years, it will cost us as a nation three trillion dollars (Alliance for Excellent Education, 2007). Those who do graduate from high school make on average over $9,000 more annually than a high school dropout, live longer, are less likely to be teen parents, less likely to commit crimes, less likely to depend on social welfare benefits, more likely to raise healthier, well educated children, and are more likely to be involved in civic activities such as volunteering and voting (Alliance for Excellent Education, 2007; Baum & Payea, 2005).

There are other benefits to graduating high school and even more with obtaining a university degree. College educated persons earn on average 73% more over the span of their working career than those with a high school degree. Someone with an advanced degree will earn two to three times as much (Baum & Payea, 2005). This is an individual benefit, but also affects society at large. Higher incomes translate into more tax revenue, less reliance on public assistance, and lower unemployment. There is a correlation between a college education, lower rates of smoking, lower incarceration rates, more volunteerism, and higher levels of civic engagement (Baum & Payea, 2005). Those with a college degree will also save the government money and thus taxpayers.
White and middle to upper class high school students are more likely to apply to, and get accepted into, college as compared to their minority or low-income counter-parts (Domina, 2009). The opportunities that are open to white middle class students are very different than those open to poor or diverse students. These opportunities include having parents with college education and experience, access to private tutors, school counselors, and better schools (Farmer-Hinton, 2008).

Family income is also a predictor of what kind of college students will attend: a public two year, public four year or private four year. Students with family income less than $30,000 are twice as likely to attend a two year public institution as compared to more affluent students (Baum & Payea, 2005). Once enrolled in college, minority students still struggle, with only 7% earning a bachelor’s degree within eight years, and 6% earning an associate degree. This is compared to 44% of more affluent students graduating with a bachelor’s degree (Baum & Payea, 2005). Someone with an associate degree will annually earn on average $37,600 as compared to the earnings of $49,900 of someone with a bachelor’s degree (Baum & Payea, 2005).

There are many reasons why there is an achievement gap between white and minority high school students, but most agree that the problem of access to college is actually a problem of not being prepared (Astin & Oseguera, 2004; Gelber, 2007; Harper, Patton & Wooden, 2009; Louie, 2007; Maralini, 2007; Pallais & Turner, 2006; Venezia & Kirst, 2005). To address the problem of preparation, many high school-based programs have been developed and implemented. Such programs fall into two categories; school wide initiatives and targeted student level programs (Domina, 2009). School wide initiatives are programs offered to a school in its entirety and often include raising the expected educational standards
school wide. Services such as tutoring, college recruitment, and university outreach are also frequently offered. In a school wide program fewer services are available, but they are open to any and all students who would like to use them (Domina, 2009). Targeted initiatives are programs that recruit select individuals and provide opportunities only to those participants. Some include scholarships for participants if they graduate from the program; most offer tutoring, summer classes, help with college applications, and college counseling. Both school wide and targeted programs have been proven to be effective (Domina, 2009).

Some school wide programs include Advancement Via Individual Determination (AVID) and Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) (Domina, 2009). AVID is a school wide program funded through grants applied for by the schools. To be certified as an AVID program, a school must implement 11 essential components successfully. They are: established recruitment and selection requirements; written agreements stating voluntary participation from students, staff and parents; the AVID class is offered during the regular school day; challenging reading and writing curriculum is offered; students are enrolled in classes that meet college entrance requirements and are academically challenging; critical thinking skills are introduced; collaborative instruction is stressed; tutoring is offered by trained academic tutors; the program is evaluated through data collection and analysis; the school districts is committed to funding AVID; and there is an interdisciplinary site team collaboration (Watt, Huerta, & Lozano, 2007). The overall goal of AVID is to offer a challenging curriculum to students and the support necessary for them to be academically successful.

GEAR UP is a federally funded grant program offered to states or collaborations between schools, community organizations, and businesses. To be eligible for this program a
school must have students of whom at least 50% are eligible for free or reduced price lunch. GEAR UP schools must start offering services for students no later than the 7th grade. GEAR UP offers financial incentives and provides academic models to help improve low-performing schools. The program does this by looking at a student’s academic life as going from K through 16 instead of K through 12. Schools can offer after-school and summer programming, eliminate academic tracking, provide professional development to teachers and staff, and offer continuous curriculum content for teachers to utilize. Schools can choose the services they would like to offer and the package varies from state to state. Often they include, tutoring, college counseling, parent services, curriculum support, professional development, and mentoring (Watt et al., 2007).

Other college outreach programs that are based in high schools include the bundle of programs funded under TRIO. These programs include Upward Bound, Educational Talent Search, Student Support Services, the three that TRIO is branded for, as well as four other programs. The other four programs are Educational Opportunity Centers; Staff and Leadership Training Authority; The Ronald E. McNair Post-Baccalaureate Achievement Program; and Upward Bound Math/Science Program (McElroy & Armesto, 1998).

Upward Bound is a targeted program offered to students between the ages of 13 and 19 who have had poor academic success. To be eligible to participate students have to be from a low income family with parents who have not earned a bachelor’s degree. Upward Bound is multi-year program incorporating college counseling, tutoring, a summer program, and school-year academic support (McElroy & Armesto, 1998).

Education Talent Search was created to find individuals from disadvantaged backgrounds who have the potential to be successful in college, but who might be overlooked
in the traditional college entrance process. The program offers career, financial, and academic counseling. This program is also open to students who have dropped out of high school and encourages them to reenter and finish their education (McElroy & Armesto, 1998).

Student Support Services gives assistance to students in their transition from one level of higher education to another. The program does this by providing opportunities for academic development, and help meeting basic college requirements (McElroy & Armesto, 1998). Educational Opportunity Centers offers services to adults who meet the basic eligibility requirements of TRIO/Upward Bound. The program seeks to provide comprehensive services to adults so they can negotiate the college application process and the degree program successfully (McElroy & Armesto, 1998). The Staff and Leadership Training Authority program funds training and professional development opportunities for TRIO staff. Funding is also available for the creation of materials and training manuals (McElroy & Armesto, 1998).

The Ronald E. McNair Post-Baccalaureate Achievement Program has the goal of preparing TRIO eligible participants who are already attending universities and who have proven their potential for doctoral studies. This preparation is through mentoring, internship, research and other scholarly activities. The program also offers help in meeting undergraduate requirements and enrolling in graduate school (McElroy & Armesto, 1998).

The Upward Bound Math/Science Program is similar to Upward Bound, but offers specialized training for math and science. The goal of the program is to encourage students to major in math or science and pursue careers in those fields (McElroy & Armesto, 1998).
The success of these programs has led to their expansion and adoption into schools. College outreach programs are now in many high schools and about 5% of high school students are involved in such programs. Students from low-income families are even more likely to be involved in these programs with a 10% participation rate (Domina, 2009).

Some studies have suggested that individual level factors such as locus of control (Smith & Mihans, 2009), health locus of control (Graffeo & Silvestri, 2006), and self-esteem (Ferkany, 2008; Gifford, Briceno-Perriott, & Mianzo, 2006) are important in influencing preparation for college. Race and family economic status are also predictors of academic success (Lewis, 2007). The environment students are exposed to at home and in their school is also important. Parental attitudes about college influence students’ decisions. Students who have parents who do not think it is feasible or possible for their child to go to school are much less likely to do so (Crosnoe, Mistry, & Elder, 2002). Students who go to schools with fewer resources are less likely to move on to secondary education, partly because the expectation in their school is that they will not continue their education past high school (Farmer-Hinton, 2008; Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003).

**PURPOSE OF THE STUDY**

This study is an evaluation of the Step Up program which is a college outreach program offered at Hoover High School in conjunction with San Diego State University (SDSU). Hoover High School’s students are mainly minority and low income. All of the students who attend Hoover High school are eligible for free or reduced price lunch (San Diego Unified School District, 2009b). The Step Up program is run through San Diego State University’s Consensus Organizing Center (COC), and has an enrollment of 30-60 students every year. The Step Up program offers students the chance to take a college level class at
SDSU in their junior year of high school. The students are bused from their high school to SDSU where they take an introduction to social work class. Part of the class is a requirement for the students is to complete 40 community service hours. Students are offered tutoring for the duration of the class and are matched with undergraduate and graduate level students for mentoring. Participants who graduate from Step Up are eligible for help filling out financial aid, scholarship, and college applications. They are also eligible to compete for scholarships offered only to Step Up students.

**Research Questions**

This study utilizes secondary data and seeks to determine if the Step Up program is effective in producing students who move on to a post secondary institution.

Research questions include:

1. Is Step Up reaching students who are less likely to enroll in college, i.e. those who are low-income, from minority groups and/or those who speak English as a second language?

2. How do students who participate in the Step Up program compare with students nationally, regarding subsequent matriculation at either 2-year or 4-year college/universities?

3. What is the validity of a scale measuring community organizing knowledge and skills, a focus of the course?

4. What is the impact of participating in the Step Up program regarding how students change in individual factors? The individual factors include locus of control, health locus of control, self-esteem, and community organizing skills and knowledge.

**Limitations**

The major limitation of this study is the lack of a control group or solid comparison group. Also there is the possibility of selection bias when students were selected to participate in the Step Up program originally. The Step Up program has only been run at San
Diego State University and only with two professors teaching the classes. This could be a problem when trying to implement the program in a new location due to reliability issues.

All students who participate in the Step Up program are also part of the AVID program in their high school. This could increase the level of college attendance and encourage students to self select into the Step Up program.

**DEFINITION OF TERMS**

The following is a list of terms used throughout this paper. These definitions outline what is measured by the scales used in this study.

**Locus of Control**

Locus of control is the personal feeling of control over a given situation or life event. Internal control is the belief that you are personally responsible for the direction of your life. External locus of control refers to the belief that outside forces or luck are responsible for the way things are (Graffeo & Silvestri, 2006).

**Health Locus of Control**

Health locus of control is related to a person’s beliefs about how their actions affect their health. Internal health locus of control is the belief that a person can keep themselves healthy by doing certain things. External health locus of control is the belief that a person’s health is a matter of luck or external sources and it doesn’t matter what actions they take to stay healthy (Ubbiali et al., 2008).

**Self-Esteem**

Self-esteem is how people view themselves in relation to how they feel others see them. Self-esteem has been related to how individuals cope on a daily basis with negative feedback and emotions. Those with high self-esteem are able to deflect the negative and
focus on the positive without it affecting how they view their personal worth (Newman & Newman, 2009).
CHAPTER 2

LITERATURE REVIEW

This literature review gives an overview of the problem of access to and completion of higher education by low-income and minority students. Individual and school characteristics that affect college enrollment are examined as well as the current national programs in place to address these problems. The intervention that is the basis of this study is also explained.

DEFINITION OF THE PROBLEM

The United States has a college access problem. Not enough students are going to college to fill the jobs available to college graduates. Due to this our economy is flagging because high school graduates do not make enough money to jumpstart it (Baum & Payea, 2005). There is a disparity between who gets into college; the majority currently attending college are affluent white students, filling a historic norm (Farmer-Hinton, 2008). This is partially due to the financial viability of families and partially due to the poor quality schools in low-income areas. Adequate preparation is also a problem. Students who attend low quality schools do not have the preparation, skills or background to be accepted into a college or university, and if they are accepted, to succeed there (Gelber, 2007).

In 2008 students entering universities, both at the undergraduate and post bachelorette level, were 63% White, 14 % Black, 12% Hispanic, 7% Asian/Pacific Islander, 1% American Indian/Alaska Native, and 3% nonresident alien (National Center for Education Statistics, 2010). According to the 2000 census the population is 62% white, 12% Black, 13% Hispanic,
4% Asian/Pacific Islander, 1% American Indian/Alaskan Native, 6% some other race, and 2% two or more races (Info Please, 2010).

For students who are from low-income families, one of the costs of this achievement gap is the continued social and economic stratification of American society due to lack of educated ethnic minorities (Perna, 2007).

In the state of California, only 81% of high school students graduated with the academic credentials that meet the University of California or California State University entrance requirements (San Diego Unified School District, 2009a). This means students are not taking the classes they need while in high school to be admitted to a state college, let alone succeed once they have matriculated. This is not just a problem in California, but one that is affecting all parts of the United States (Louie, 2007). High school curriculum and college entrance requirements do not match, thus a student could easily graduate from high school and not be able to enter college; the more academically well prepared students are, the more likely they are to attend college and to be successful once there (Louie, 2007).

There is a different view on the issue of access to college. According to Alderman (2007) there were 2.6 million entering freshmen in 2004. Because of this, he states we do not have an access problem, but that we have a participation problem. Participation is defined as students who attend college and earn at least 10 credits that count towards a credential. Further, income is strongly related with participation. About 90% of students who come from families in the top third of the family-income range go on to postsecondary education, while only 69% of those in the bottom third are able to continue their education beyond high school. To narrow the gap by only one percentage point, 26,000 low income students would have to enter college each year (Alderman, 2007). Alderman (2007) believes the major
reasons influencing this phenomenon is than many low-income youth have poor grades in high school, or didn’t take the right courses, thus were unable to get into college. Other variables are students not liking school, and financial reasons including having to work to support their families. Many feel that they could not afford an education or they choose to work instead of going to school. In terms of participation, 97% of students who graduate in the top 60% of their class (when curriculum, grades, and test scores are combined), go on to earn at least 10 credits in a postsecondary institution. There is no difference when looking at race or ethnicity and a small difference when looking at family income: 94% of low-income versus 99% of high-income. This suggests that we need to better prepare students and encourage them to push themselves academically (Alderman, 2007).

Lewis (2007) states that students from low SES communities are receiving a less rigorous education which makes it harder to compete for higher paying jobs. This leaves the residents of poorer neighborhoods at a power disadvantage as they do not have the means to come out of the underclass and into the middle class. Our education system is holding students back by not providing the tools necessary to advance in society. Until we fix this inequality, the United States will not be looked on as the leader in democratic ideals (Lewis, 2007).

ADDRESSING THE PROBLEM

One strategy to address the achievement gap is through affirmative action; however it has not been successful in changing the problems of access and preparation (Louie, 2007). In some states affirmative action policies have been suspended and entrance into college is based only on academic viability. Appearing to give everyone an equal chance to get into college, low-income students still do not have the same advantages as affluent students.
Many do not have access to schools, teachers, or counselors that can or will help prepare them for the rigors of college academia. High school curricula in some instances do not meet the requirements for college entrance. Because of these policies there are very few minority and low income students attending prestigious universities (Astin & Oseguera, 2004; Gelber, 2007; Harper et al., 2009; Louie, 2007; Maralini, 2007; Pallais & Turner, 2006).

Many current programs do not admit students who are most in need of services, so even as successful as a program might be, there still needs to be work done to make services available to those still marginalized (Loza, 2003). Due to the criteria for acceptance into most college outreach programs, many Latino and Black students are not included in the services offered. These criteria include having a higher GPA as well as proven capability to succeed in college. Many students are often not as prepared academically as their white counterparts. Unless these students are able to take advantage of the opportunities outreach programs offer, the achievement gap will remain open (Loza, 2003). College outreach programs as they are currently offered have yet to work out the problems between philosophy and application: the students with greatest need are still not being served by the programs (Perna, Rowan-Kenyon, Bell, Thomas, & Li, 2008).

As indicated in Chapter 1, there are many types of college outreach programs offered throughout the country based on different models. Many offer similar services such as tutoring, mentoring, and exposure to college campuses. Some offer summer programming, much like a summer camp, and others simply provide financial aid seminars. What they all have in common is they are trying to reach the underserved population and give them whatever it is that is missing so they can have the same opportunities as other students. The variety of services offered speaks to the fact that what exactly is creating the achievement
gap between white and non-white and poor and affluent students is unclear. There are many theories, and programs to address each. Currently no program has been proved unequivocally successful, but as a whole they are starting to narrow the gap. For this literature review, programs are divided into two groups: those that offer targeted services to a select number of students who meet predetermined requirements, and school wide programs that seek to raise educational outcomes of a whole school.

**School Wide Programs**

In California most college outreach programs are offered through high schools and provide targeted services to address non-financial variables affecting college attendance. This is different from some other states that offer financial aid without other services, or offering programs through colleges and universities (Perna et al., 2008).

A college outreach program needs a number of components to be successful. These components include: (a) improving achievement among students, (b) encouraging students to apply to college, (c) providing financial aid, (d) exposing students to college through visits to campus, (e) encouraging students to take more rigorous coursework in high school, (f) improving student’s academic skills and motivation, (g) getting parents involved and aware of college opportunities, (h) assisting parents with financial aid forms, (i) SAT and ACT tutoring, and (j) starting the program by the 8th grade (Bergin, Cooks, & Bergin, 2007).

**Current National Programs**

There are a number of widely used college outreach programs across the nation. Both school wide and targeted programs which have been evaluated on their effectiveness for increasing the number of students who attend a post-secondary institute. These are a few of the most common programs.
AVID and GEAR UP

Two nationally recognized school wide college outreach programs are AVID and GEAR UP. These two programs have been studied more than most programs and have clear standards for what the programs entail.

Students in AVID are placed in a class with teachers who teach study skills and other skills that would be helpful for a student to learn before college. AVID is individualized at each school because a lead teacher is in charge of most of the programming; differences between programs can be detected (Loza, 2003). AVID requires high standardized test scores and the potential to be successful in higher education to be eligible for the program (Loza, 2003). Components of the AVID program are school centered and promote some restructuring of the school to reform educational outcomes, but they do not implement them rigorously at all sites, or not all students at the school have access to these reforms (Loza, 2003).

Students participating in AVID take more advanced placement and college preparatory classes than their peers. They are also enrolled in an elective class that offers tutoring, academic support, and help with filling out college applications and financial aid packets. An analysis of the AVID program found students who were more academically prepared than mainstream students, but one of the requirements of participation in the program is to excel academically (Watt et al., 2007).

GEAR UP is a federal grant offered to low-performing and low-income schools the help them raise academic achievement in K-12 classrooms. The grants are used to offer afterschool and summer programs, teacher and staff professional development, continuous curriculum, and financial aid information and services (Watt et al., 2007).
Evidence to support AVID and GEAR UP has proved inconclusive, yet encouraging. Students participating in AVID were significantly better prepared for college academically. Students who participated in either AVID or GEAR UP were more knowledgeable about college and financial aid (Watt et al., 2007).

TRIO/Upward Bound

One of the first and largest targeted student level programs is Upward Bound (UB) which is part of the TRIO programs developed in 1964 by Lyndon B. Johnson as part of the Economic Opportunity Act which fell under his “War on Poverty.” The TRIO programs include Upward Bound, Talent Search, Student Support Services and other programs that benefit students whose family income is less than 150% of the poverty rate (McElroy & Armesto, 1998).

Upward Bound works with 9th through 12th grade students offering tutoring, help applying to college, financial aid, and a 6-8 week residential summer program at a local college. UB mandates that in order to be accepted into the program, all students must demonstrate the ability to be successful in college (Loza, 2003). This leaves out any underachieving students who might have benefited from the program. UB is offered at many colleges across the United States.

The results of UB are mixed. One study compared ACT, a national college admissions test, scores from UB students to ACT scores of students who did not attend a UB program; they found that UB did not have a significant effect on GPA, ACT scores, or retention in college (McLure & Child, 1998). A qualitative study based on surveys and focus groups stated UB helped with goal setting and improved GPA (Zulli, Frierson, & Clayton, 1998). However, one study (McElroy & Armesto, 1998) reported data showing that students
who attended UB were more likely to attend college (90% compared to 72%); attend a four year institution instead of a two year institution (74% compared to 43%); and graduate from a four year college (20% compared to 5%).

Upward Bound students are more likely to plan on applying for financial aid for college than students who did not attend UB. They were also more likely to plan on working while in school (McLure & Child, 1998). Students who attended UB were more likely to ask for services such as tutoring once they reached college. This showed an ability to be aware of their weaknesses and the confidence to ask for help (McLure & Child, 1998).

**EXCEL**

The EXCEL program recruits minority students at the end of their 8th grade year. Students must have a 3.0 or higher GPA to participate in the program. EXCEL participants take rigorous coursework and college preparatory classes during the summer and while in school. All students who manage to complete the program successfully are given a scholarship to the sponsoring university. In addition to the scholarship EXCEL offers tutoring, mentoring and seminars to help prepare students for college (Bergin et al., 2007). Even with this incentive, the students in the program were no more likely to enter college than the control group (Bergin et al., 2007).

The EXCEL program was successful at getting students to attend the sponsoring university; however, students were not significantly more likely to attend other colleges or universities than the comparison group of students. The study also found that the EXCEL program did not have any effect on the academic achievement of the participants (Bergin et al., 2007). Because the program recruited high achieving students to begin with, the academic improvements made were negligible at best. Another possible explanation is that
the EXCEL students knew they had a scholarship if they kept a B average, so they might not have put as much effort into getting a higher GPA (Bergin et al., 2007). There was one change in the attitudes of EXCEL participants: they had a desire for more education than the control group. This is attributed to their exposure to the college campus and knowing they would be able to attend college from a financial standpoint (Bergin et al., 2007).

**Other Approaches**

There have been other programs and approaches for changing the academic climate and encouraging students to attend postsecondary school. One charter school tried to prepare minority students for college by incorporating college preparation into every class. In this case study, many teachers were frustrated with the students and their elementary and middle schools because they did not properly prepare them for high school, let alone for college preparation classes. The teachers overcame these difficulties and had a 66% success rate of students graduating and attending college. This is compared to only 33% of students in the mainstream school system even graduating from high school (Farmer-Hinton, 2008).

**ISSUES AFFECTING COLLEGE PREPAREDNESS**

Research has found that some issues affecting high school dropout or not attending college were having an affiliation with a gang, learning English as a second language, have migrant status, immigrant status, or were employed more than 20 hours a week while in school (Loza, 2003). The issues affecting college enrollment are intertwined and cannot be separated from each other in a meaningful way. Many factors are highly correlated. We must look at the problem of college access as an integrated problem examining how the variables interact with each other as well as with student success (Perna, 2007).
School Counselors

Yet another approach that has been examined is the role of school counselors in keeping students in school and preparing them for college, especially if the students are migrant students, according to Cranston-Gingras and Anderson (1990) and Nunez (2009). These authors promote the idea that low school budgets lead to counselors being cut from the staff. The ones left are overloaded and tend to only have time to adjust schedules and deal with disciplinary issues rather than help with the college search application process (Corwin, Venegas, Oliverez, & Colyar, 2004). This is just one more disadvantage minority and low-income students face in their preparation for college.

Familiarity with College

Students who have some link or tie to college are more likely to attend. The more students are exposed to the idea, linked with people who have gone to college, and actually visit a college or university, the more likely they are to attend (Endberg & Wolniak, 2009). Familiarity with college life, a college campus and financial aid all contribute to the likelihood of a student attending college. This is also demonstrated through a student’s access to college counselors, financial aid information and family support (Perna, 2007).

Personal Characteristics

There are a number of factors that have been identified through the literature to influence college enrollment such as locus of control, health locus of control, and self-esteem.

Locus of control is a student’s belief that they are in control of their own education, that if they work hard they can succeed. Students who have these beliefs often do well academically are more likely to do well in high school and college. Locus of control has been
determined to affect academic achievement in that students with higher internal locus of control, are more likely to move on to college and more likely to be successful. Students who identify with an external locus of control are less likely to go to college and if they do, they are more likely to drop out (Smith & Mihans, 2009). The importance of locus of control has recently come under the attention of college admission counselors who regard it as one of the most important indicators of success along with self-esteem (Gifford et al., 2006). Locus of control has been proven to have a strong positive correlation with academic success even when taking into consideration the moderating variables of socioeconomic status (SES), gender, age, and race (Gifford et al., 2006). Because of all the variables affecting college preparedness, it is vitally important that students feel they do have control over getting into college. They have to believe the effort they put into school will make a difference, as well as how they look at financial aid. If they have higher internal locus of control they will understand how much influence they have over their own actions and how that will look when applying to college (Smith & Mihans, 2009).

Self-esteem and locus of control are closely linked, according to Gifford et al., (2006). There is some debate as to the true value of self-esteem as a predictor of academic success, however there is research supporting its value (Ferkany, 2008; Gifford et al., 2006). While high self-esteem has not been empirically proven to contribute to academic success, the characteristics of self-esteem are logically aligned with success on many fronts. These characteristics include: independence, resistance to peer pressure, willingness to attempt new tasks, tolerance of frustration, ability to deal with positive and negative emotional reactions, and willingness to be of assistance to others (Ferkany, 2008). Self-esteem is needed for students to be confident in their abilities, and be able to move past negative emotions and
feedback. If self-esteem is overlooked it could cause difficulty for students’ educational path (Ferkany, 2008).

Health locus of control is the belief about how much control students feel that they have over their health. High internal health locus of control may mitigate the physical affect stress might have over academic performance. Academic performance and health locus of control have been examined and found to be correlated with each other in college students (Graffeo & Silvestri, 2006). Research shows that those who have higher internal locus of control in relation to health tend to perceive themselves as healthier and take better care of themselves in general (O’Hea et al., 2009) which could contribute to overall success in education. Higher internal locus of control is correlated with students taking better care of themselves, being more well-adjusted psychologically, and the ability to deal with high stress. All of these variables influence a student’s ability to perform academically (Graffeo & Silvestri, 2006).

There have been many studies done on the personal and familial traits and environmental factors that influence the rate of college attendance in minority youth. Characteristics that have been studied are parental attitudes about their child’s ability to go to college (Crosnoe et al., 2002; Kenny et al., 2003), and student’s personal financial situation (Destine & Oysterman, 2009; Kezar, Lester, & Yang, 2009).

If a minority or low-income student does decide to take the personal and financial risk and enter school, he or she may end up dropping out. The variables influencing students dropping out are family, finances, and grades. As stressful as a financial situation can be, the largest predictor of a Black student staying in college is his or her grades in the freshman year (Donovan, 1984). Black students were found to attend four year institutions more often
than two year institutions; however they were less likely to attend a four year institution than whites (Endberg & Wolniak, 2009).

Some studies found that if parents do not think their child has the capacity go to college, either because of financial situations, or because no one else in the family has gone to college, the child is much less likely to apply for admission (Destine & Oysterman, 2009; Kezar et al., 2009). Once students become aware of financial aid and the feasibility of obtaining scholarships and loans, their attitudes about their ability to attend college change. Often there simply is a lack of information available for low-income and first generation college students. Further attention has been given to high school students and their hesitation to take out loans. This stems from a variety of factors including poor credit history, feeling they will not be able to pay back the loan because of current financial stability, and the need to work for daily needs rather than being able to take the time to go school (Kezar et al., 2009).

Students from a lower SES are less likely to attend a post secondary institution of any kind, two or four year. As level of income increases, the likelihood of attending a four year college increases (Endberg & Wolniak, 2009). Students from families who are economically disadvantaged are less likely to have parents who encourage them to go to college or put in the effort to enroll their children in special schools that would help prepare them for higher education (Crosnoe et al., 2002). Students from families who are low income may lower their expectations of what they are able to achieve academically and focus instead on finding work. If attitudes of these low income students can be shifted to think that they can afford college through need base grants and scholarships, they are more likely to plan on putting the time and effort needed into getting into college (Destine & Oysterman, 2009). Providing
information about need based financial aid in the early years of students’ academic life is important so they can put the effort in when it is most important. Currently financial aid information is given towards the end of high school when students have already settled into their mindset if they are going to college or not, as well as having much of their academic career behind them. At this point it is too late for students to change their minds and put in the effort to get good enough grades to go to college (Destine & Oysterman, 2009).

Offering financial aid is not enough to close the achievement gap; one must also look at other factors including family, psychological, educational differences, and social differences (Perna, 2007). Some parents are not aware of college outreach programs, college entrance requirements, or financial aid. For these programs to be successful, and for the achievement gap to close, parents need to be better informed of the options for their children and programs need to find better ways to outreach to parents (Loza, 2003).

If students’ family and friends aspire to go to college, or have gone to college, they are more likely to enroll as well (Endberg & Wolniak, 2009; Kenny et al., 2003). Schools that have direct parent contact increase their college-going students at a higher rate than schools without the parent contact. Parents’ aspirations for their children directly affect their college attendance (Endberg & Wolniak, 2009). In conjunction with these beliefs, if students perceive barriers to their college enrollment, or between academia and a career path, they do not put forth the effort to get past those barriers. These perceptions can also influence students to choose less prestigious career paths after college (Kenny et al., 2003). Parents who have more self-efficacy in their personal lives often are more involved in their adolescents’ education which gives students an advantage when navigating the transition from high school to college (Crosnoe et al., 2002).
How frequently a family has moved between a child being in 8th and 12th grade is also correlated with the rate of attendance at a two or four year college (Perna & Titus, 2005). Adolescents’ peers are also extremely important. A relationship has been established between the attitudes of a student peer group about college attendance and the likelihood of students attending a post secondary institution (Perna & Titus, 2005). Parental contact with the school for reasons other than behavioral raise the chance of students attending college (Perna & Titus, 2005). Parental involvement of this sort also builds the social capital of the school and their child’s peer group leading to more students going on to higher education than if the parent was not involved (Perna & Titus, 2005).

Social Capital

In our democratic society it is assumed that all schools are created equal and will prepare students equally to succeed in higher education. They will all provide the same opportunities for networking and building social capital that will enable them to be successful in their lives. However, this is just not true. Schools are very different based on their location, the teachers, the students who attend, and the tax bracket the student’s families are from. These differences link students with very different options for social and cultural capital which gives them very different opportunities in higher education (Loza, 2003; Perna & Titus, 2005). Social capital is a resource that students may utilize by drawing on connections within their network, making new connections, improving productivity, employ connections for upward mobility, and help solidify economic returns (Perna, 2007).

Parental involvement is one form of social capital that has a direct correlation with the rate of attendance in a post secondary institution. This form of social capital brings support and a solid network for the student which both contributes to success in college
(Perna & Titus, 2005). Parental support also creates a norm that the student wants to work within. Parental support for college creates the norm that the student will attend college. The norm created by the parent also influences if students will attend a two or four year institution (Perna & Titus, 2005).

Parental involvement, as important as it is, varies greatly by income group, with high SES parents being more likely to be involved in their child’s education than a low SES parent. In part this is due to barriers unconsciously set up by the school systems (Rowan-Kenyon, Bell, & Perna, 2008). Some studies have found that low-income parents do not feel they had the skills necessary to deal with the college application process and that it is for the schools to help their children. This is directly contrasted by upper class parents who reinforce the belief that college is important and can give advice at home (Rowan-Kenyon et al., 2008).

Parental involvement is vital on many levels. It shapes the post secondary opportunities available to their children, which vary based on income level. It also shapes how schools interact with parents and how policy and institutional norms are formed (Rowan-Kenyon et al., 2008). As all of these aspects are influenced by parental involvement it is vital to create programs that require it (Rowan-Kenyon et al., 2008).

The structure of a high school in part determines students’ educational path. Students who attend schools in a low income area where most parents have not attended college are much less likely to attend college. Students are fitting into the norm of their high school when they do not attend college (Endberg & Wolniak, 2009). To attend college, students have to have the social capital necessary to gain information about the application procedure, financial aid, and why one might want to go to college. Students also need contacts that will enable them to get correct information, reference, and help with applications. This is
especially true in the Latino community (Endberg & Wolniak, 2009). The resources a school offers also affects how many students will go on to a post secondary institution. Those resources combined with students’ social capital can also influence if students attend a two or four year institution (Endberg & Wolniak, 2009). Along with this is academic achievement. Students who excel in academics are more likely to attend a college or university, and those who attend a better high school are more likely to excel (Endberg & Wolniak, 2009).

Students have to make a major decision during their high school years about whether to go on to college or not. Perna and colleagues (2008) state that there are many levels of thinking that go into this decision: societal pressures and norms; family pressure and student beliefs; the quality and norms of their k-12 education; and their familiarity with post secondary institutions.

**School Factors**

The standards that students are held to in order to graduate from high school are different than those that would enable them to meet entrance requirements for many colleges and universities. Furthermore, many students do not receive the proper information that would let them choose classes appropriately to ensure their acceptance into college. This is especially true for low-income students (Venezia & Kirst, 2005). Many schools that serve low-income students assume their students will not be attending college and do not give them information on entrance requirements, application procedures or financial aid information. Without this information students are left to figure it out on their own. First generation college students often have no one to walk them through the process. Venezia and Kirst (2005) state that there needs to be a shift in policy so that high school graduation requirements are more closely aligned to college entrance requirements. Perhaps this shift
would best be undertaken by creating a system that looks at education as K-16 rather than K-12 (Venezia & Kirst, 2005).

**TRENDS IN MOVEMENT OF ACCESS**

Trends show that social inequalities in education due to race have been abating and will continue to do so in the next 100 years. However, the same trend has not been established for those from a low SES background (Gamoran, 2001; Rowan-Kenyon et al., 2008). Minority students and those from a low SES background are receiving more education than a century ago, but so are white students and those from a higher SES background. So even as the average grade level achievement grows for minority students, the achievement gap between minority and low SES students, and white or high SES students grows (Gamoran, 2001). Furthermore, the gap between low and high SES students is not closing as the gap between racial differences has been. This is due to less pressure being put on society at large to narrow this void, and because laws are not in place to protect low SES students, as affirmative action has started to protect the rights of ethnic minorities (Gamoran, 2001).

**THE STEP UP PROGRAM**

To address the widespread issue of college access this study will evaluate a program that claims to have demonstrated very good results getting low income students into college. The Step Up program is run through San Diego State University Consensus Organizing Center (COC), and has enrollment of 30-60 students every year. In the 10 years the program has been in existence, many of the students who graduate from Step Up have gone on to college.

The Step Up program has a unique approach to preparing students for college compared to other college outreach programs. First, the program accepts students who
normally would not be going on to college. Typically these students have a GPA of around 2.0 and they are first generation college students. The program is offered at one of the poorest schools in San Diego, Hoover High School, where 100% of the students who attend are eligible for free or reduced price lunch (San Diego Unified School District, 2009b). Most students are from families where English is not spoken at home and thus the students are English language learners. All of these factors contribute to a greater chance of not being able to attend a post secondary institution. The goal of Step Up is to make it possible for students to continue their education beyond high school.

The Step Up program is open to all juniors at Hoover High School. The students apply for the program through their school counselors and once selected, participate in a college level “Introduction to Social Work” class at San Diego State University (SDSU, SW110). The students attend class once a week and complete college level assignments. Once they complete the course they will receive college credit for their work. By bringing the students to SDSU Step Up addresses the familiarity factor (Endberg & Wolniak, 2009). The students who participate become comfortable on a college campus. Earning college credit is beneficial when they go on to apply to college. It also gives them a solid idea of what college is, so it seems within their capabilities to continue their education.

One requirement of the class is to volunteer for 40 hours of community service, which students complete in their own community. This is to address the sense of community aspect as well as students feeling supported by those within their social network. Lastly, students are given one on one help from “almost” peer mentors—those who are social work majors at the undergraduate and graduate level, and are about three to seven years older. This is done both in class and outside of class at their school or local library. Often mentors help
with assignments and with filling out financial aid and college applications. This gives students the social capital to succeed in the complicated, unfamiliar area of getting into college. Also as the students are from low-income families, and are first generation college students, most do not have parents or relatives who would be knowledgeable enough to help them fill out the applications. The program also addresses social capital in that they are creating a peer group for the students of like minded individuals who want/anticipate going to college. This network is kept together even after the class is over through social networking sites and phone calls.

Students who successfully complete Step Up are eligible to apply for a special scholarship through the Step Up program. This scholarship is competitive for Step Up graduates, but once they have the scholarship, it is unique because it only requires students to maintain a 2.0 GPA in college. This is a special arrangement that Step Up staff has negotiated to make sure students will keep the scholarship even if they are not perfect students.

**SUMMARY**

Overall there are many variables affecting student success at the college level, as well as variables affecting a student’s chance to go to college. The current college outreach programs are trying to address the needs of students that affect acceptance and preparedness for college. These programs are needed, but have not been proven to be empirically successful. Some research has suggested that all schools need to raise the academic bar and push students so they are all prepared for higher education. Some research focuses only on the financial reasons students are not going to college. No matter what the cause is, there is a distinct achievement gap between affluent white students and low-income minority students.
This gap needs to be addressed so all students can have equal opportunities to succeed in a society that demands higher education.

Research indicates that individual level attributes may be helpful in successfully utilizing college outreach programs that are offered to students (Graffeo & Silvestri, 2006; Smith & Mihans, 2009). Research has also suggested that students are more likely to be positively influenced by college outreach if they are not already academically successful (Domina, 2009). Further examination of these assertions will add to the existing literature on the effectiveness of college outreach programs and how best to work with students to prepare them to be successful in college.
CHAPTER 3

RESEARCH DESIGN AND METHOD

This study is a secondary analysis of data that have been gathered for the years 2007, 2008, and 2009 by the Step Up program and that have never been formally analyzed for program evaluation. Data include demographic variables, scores from four measures the students take as pre- and post-tests, their overall grade in the college level class that is a component of Step Up, and whether students matriculated into a two or four year college or university.

STUDY POPULATION

All students at the junior grade level at Hoover High School are invited to apply for the Step Up program. Students are reached in two ways; a staff from the Consensus Organizing Center goes into each Homeroom of the junior class and describes the program, and all counselors are encouraged to tell their students and help them apply. Most years about 100 students will apply for the program. Of these, up to 30 are selected for each semester. The application for the program includes some questions that are the basis for selection. Information generated from these questions include: if they would be the first in their family to go to college, if they know anyone who has gone to college, why they want to join the program, and their GPA. When students are selected, the Consensus Organizing Staff looks primarily at the answers to those questions. They want students who would be the first in their family to go to college, who very much want to join the program and have concrete reasons why, and who are middle of the road academically. Most students admitted to the
Step Up program have an average GPA of 2.0 when they enter the program. The program does not admit students who are already on track for college. Step Up is trying to reach the population who would most likely not apply for college.

For this study, students who had completed all the pre- and post-tests during the years 2007, 2008, and 2009 were included in the sample. Seventy-eight out of a total of 82 (95%) students who were enrolled in the program during the study timeframe completed the evaluation paperwork. Unfortunately a comparison for those who participated to those who did not participate was not possible due to a lack of available data.

**DATA COLLECTION**

This study examined secondary data that were collected by the Consensus Organizing Center for Step Up program in 2007, 2008, and 2009. Data collection was originally approved by the San Diego State University IRB. Data were gathered through pre- and post-tests administered to the Step Up class at the beginning and the end of the semester during class time. Each student was given an identification number to keep information anonymous. The data that were not included in the pre- and post-tests were gathered by the Consensus Organizing Center staff through phone class and emails to study participants.

**MEASURES**

The following measures were used in the data collection:

*Nowicki-Strickland Locus of Control Scale for children.* The Nowicki-Strickland Locus of Control Scale for Children (LOCC) (Nowicki & Strickland, 1973) is a 40 item scale using yes or no answers to derive a score. The score describes a child’s locus of control as either internal or external. Internal locus of control is when a person has the perception of being in control of most events in their lives, external locus of control is the belief that most
events happen by chance or luck, internal locus of control is preferable to external and is often gained through maturity (Nowicki & Strickland, 1973). Sample questions include “Do you think it is better to be smart than lucky?”, “Are some kids just born lucky?” and “Do you usually feel that it is almost useless to try in school because most of the other children are just plain smarter than you?” (Nowicki & Strickland, 1973). This scale has been found to be reliable and valid among adolescents (Miller, Fitch, & Marshall, 2003; Nowicki, Duke, Sisney, Stricker, & Tyler 2004; Nowicki & Strickland, 1973). Scores on this scale are calculated by giving items a rating of either 1 or 0 and summing all items. Lower scores are correlated with higher internal locus of control. Using Cronbach’s alpha algorithm, alpha scores showed acceptable internal consistency (.72).

Wallston’s Multidimensional Health Locus of Control Scale. The Multidimensional Health Locus of Control Scale (MHLC) (Wallston, Wallston, & DeVellis, 1978) measures individual perception of control over health. The scale includes 17 questions using Likert scoring where 1 equals strongly disagree and 6 equals strongly agree. Questions include: “If I take care of myself I can avoid illness” and “No matter what I do, if I am going to get sick, I will get sick” (Wallston et al., 1978). This scale has been found to be valid and reliable (Wall, Hinrichsen, & Pollack, 1989; Wallston et al., 1978). Scores on this scale are calculated by splitting items into two subscales that measure internal locus of control and external locus of control. The items in each subscale were added to determine a score in each subscale. There is not an overall MHLC score. Using Cronbach’s alpha algorithm, alpha scores showed acceptable internal consistency for both subscales; internal (.68) and external (.66).
**Hudson’s Index of Self-Esteem scale.** The Index of Self Esteem (ISE) by Hudson (1982) is a 25 item scale that measures self-esteem, using Likert scoring where 1 equals none of the time, and 7 equals all of the time. Questions include: “I think my friends find me interesting” and, “I think I have a good sense of humor” (Mathiesen, Cash, & Hudson, 2002). This scale has been found to be both reliable and valid (Taylor, 2005). Scores on this scale are calculated by reverse scoring designated items and summing all items. Higher scores indicated higher self-esteem. Hudson’s Index of Self Esteem Scale (ISE) (1982) was scored by reverse scoring items 3, 4, 5, 6, 7, 14, 15, 18, 21, 22, 23, and 25. All items were then summed to determine a total score with higher scores meaning higher self-esteem. Using Cronbach’s alpha algorithm, alpha scores showed acceptable internal consistency (.66).

**Community Organizing Skills and Knowledge Scale.** Community Organizing Skills and Knowledge Scale (COSKS) is a 15 item Likert scale where 1 equals strongly agree and 5 equals strongly disagree. Questions include “I think I have skills which can help my community” and “I know how to build relationships with people who have power in my community”. This scale was developed to test the skills of consensus organizing, a community organizing model developed by the author. It has not been validated to date and will be subjected to validation tests for this study. The COSKS was scored by summing the final score from each factor.

**Other data examined.** Demographic variables examined were ethnicity, language spoken at home, gender, and age. Also taken into consideration were the students’ final grade in the class, if they went on to attend college, and if they matriculated into a community college or a four year university.
DATA ANALYSES

Demographic and college attendance frequencies and means were computed using SPSS version 16. A factor analysis was then performed on COSKS in order to validate it. Items from the measures were reverse-scored as needed, then summed for factor scores and overall scores. Cronbach’s alpha scores were computed to determined internal reliability for the COSKS. Paired t-test analyses were conducted for each scale given as pre- and post-test measures to the students.

Data from national statistics regarding all students’ college matriculation were examined for comparison. These data include college attendance rates by all high school graduates, and those from students graduating from a school where 75-100% of the students are eligible for free or reduced price lunch. These data were used as a straight comparison to the data examined from Step Up students to determine the effectiveness of the program on rates of college attendance.
CHAPTER 4

RESULTS

Research question #1: Are the students enrolled in Step Up at high risk for not attending college?

Table 1 summarizes the demographic characteristics of study participants. Data were gathered through pre and post-tests from 78 participants out of 82 students who enrolled in the Step Up program during the spring semester of 2007, 2008, and 2009. The majority (67%) of the participants were female and over half (59%) where of Hispanic origin; 12.8% African, 11.5% African-American, 11.5% Asian, 3.8% of mixed ethnicity, and 1.3% were White. Participants spoke 14 different first languages; mostly Spanish (44.9%), followed by English (38.8%). The rest were spread through various Asian and African languages (see Table 1). The age of participants ranged from 16-18 with a mean age of 16.4 and a standard deviation of .56.

Research Question#2: How do the students compare nationally regarding further college matriculation?

Table 2 shows the percentage of students who attended college, and of those who attended, how many are attending a four year university versus a two year community college. Of those who participated in the Step Up program, the majority (87.6%) attended college; from those who attended most (52.6%) attended a four year university. National data were used for comparison for students who attend a school where at least 75% of students are eligible for free or reduced price lunch (National Center for Education Statistics, 2010). From
### Table 1. Descriptive Demographic Statistics

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<tr>
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<th></th>
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<tr>
<td>Age (16-18)</td>
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<td>.56</td>
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Table 2. College Entrance

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<td>11.4</td>
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<tr>
<td><strong>Nationwide (75-100% eligible for free or reduced price lunch)</strong></td>
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</tr>
<tr>
<td>College</td>
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<tr>
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<tr>
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<tr>
<td>Community College</td>
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</table>

These data less than half (42.3%) attended college, and only 20.7% attended a four year university.

This study seeks to answer the question if participants of the Step Up program are more likely to attend college than non-participants. The national level data shows they are.

**Research question #3: What is the validity of the COSKS scale?**

A factor analysis using varimax rotation was used on all 14 items of the COSKS. Items that did not load above .5 on any factor were removed. A scree plot was used to determine that a two factor scale was the best model. The final two factor model was identified in the fifth analysis and contained six items. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was used (.70) and the Bartlett’s test of sphericity (X2 =250.698, df = 15, p=.000) illustrated that the model fits the data. An index was then created for each component by summing the variables loading on each factor. Using Cronbach’s alpha
algorithm, alpha scores showed good internal consistency: factor 1 (.81), factor 2 (.92), both factors (.72).

Table 3 shows factor one is made up of three items that represent resource availability, factor two is made up of three items representing knowledge.

Table 3. Rotated Component Matrix for Eichler’s Community Skills and Knowledge Scale

<table>
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<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If I had a personal problem I would know an adult to ask for help</td>
<td>-.083</td>
</tr>
<tr>
<td>2</td>
<td>I think there are people in my community who can help me if I have a personal problem</td>
<td>.112</td>
</tr>
<tr>
<td>3</td>
<td>I know someone in my community who has the power and the resources to help me if I have a problem</td>
<td>.057</td>
</tr>
<tr>
<td>6</td>
<td>I think I have knowledge which can help my community</td>
<td>.924</td>
</tr>
<tr>
<td>10</td>
<td>I have knowledge which can help people with power</td>
<td>.914</td>
</tr>
<tr>
<td>12</td>
<td>I have knowledge which can improve my community</td>
<td>.943</td>
</tr>
</tbody>
</table>

Research Question #4: Did Step Up have an effect on student’s individual level characteristics?

Table 4 shows scores of all the measures used. The COSKS was split into two factors, resources and knowledge. The resources scale score went down slightly with a pre-test of (M= 2.4, SD= .9) and post-test of (M= 2.4, SD= 1). Knowledge factor scores also went down a very small amount with pre-test (M= 2.3, SD= .9) and post-test (M= 2, SD= 1).
Table 4. Scores on all Scales

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COSKS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources pre-test</td>
<td>2.4</td>
<td>.9</td>
</tr>
<tr>
<td>Resources post-test</td>
<td>2.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Knowledge pre-test</td>
<td>2.3</td>
<td>.9</td>
</tr>
<tr>
<td>Knowledge post-test</td>
<td>2.0</td>
<td>.8</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>4.7</td>
<td>1.3</td>
</tr>
<tr>
<td>Post-test</td>
<td>4.4</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>ISE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>89.4</td>
<td>16.1</td>
</tr>
<tr>
<td>Post-test</td>
<td>90.6</td>
<td>19.4</td>
</tr>
<tr>
<td><strong>LOCC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-test</td>
<td>12.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Post-test</td>
<td>11.1</td>
<td>5.2</td>
</tr>
<tr>
<td><strong>MHLC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal pre-test</td>
<td>23.2</td>
<td>5.9</td>
</tr>
<tr>
<td>Internal post-test</td>
<td>23.8</td>
<td>5.4</td>
</tr>
<tr>
<td>External pre-test</td>
<td>18.1</td>
<td>5.8</td>
</tr>
<tr>
<td>External post-test</td>
<td>18.9</td>
<td>5.7</td>
</tr>
</tbody>
</table>

The students’ scores on the overall scale went down from pre-test (M= 4.7, SD= 1.3) to post-test (M=4.4, SD 1.5). Students’ scores on the ISE went up slightly from pre-test (M=89.4, SD= 16.1) to post-test (M=90.6, SD=19.4). Students’ scores on the LOCC showed change from pre-test scores (M= 12.7, SD= 5) to post-test scores (M= 11.1, SD= 5.5). Student’s scores on the MHLC subscales both showed a small increase. The scores on the internal subscale increased from pre-test (M= 23.2, SD= 5.9), to post-test (= 23.8, SD= 5.4). The external subscale also showed an increase from pre-test (M= 18.1, SD= 5.8) to post-test (M= 18.9, SD=5.7).

Table 5 shows results from paired t-test analyses that were used to determine the change over time from pre- to post-test. On the COSKS resources factor, there was no difference in pre- and post-tests. Knowledge went down, however this finding only
Table 5. Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>t</th>
<th>Df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COSKS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>-0.204</td>
<td>71</td>
<td>0.84</td>
</tr>
<tr>
<td>Knowledge</td>
<td>1.9</td>
<td>68</td>
<td>0.06</td>
</tr>
<tr>
<td>Total scale</td>
<td>1.2</td>
<td>67</td>
<td>2.1</td>
</tr>
<tr>
<td><strong>ISE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.4</td>
<td>60</td>
<td>0.7</td>
</tr>
<tr>
<td><strong>LOCC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.1</td>
<td>73</td>
<td>p &lt; 0.05</td>
</tr>
<tr>
<td><strong>MHLC</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>-0.7</td>
<td>66</td>
<td>0.5</td>
</tr>
<tr>
<td>External</td>
<td>-0.8</td>
<td>69</td>
<td>0.4</td>
</tr>
</tbody>
</table>

approached significance (t = 1.9, df = 68, p = 0.06). There was no difference in the overall COSKS scale scores. The ISE increased slightly; this difference was not significant. The LOCC showed change over time which was significant (t = 2.1, df = 73, p < 0.05). Scores on the internal and external factors of the MHLC rose, however this difference was not significant.

The significant level of change at the p < 0.05 level for LOCC scale shows the effect of Step Up on students overall score. The COSKS also shows change that is approaching significance on the knowledge factor, but it does not reach that level. The other scales do not show a statistically significant change.
CHAPTER 5

DISCUSSIONS AND IMPLICATIONS

Students who speak English as a second language, are from low-income families, and are an ethnicity other than White, are less likely to attend college (Farmer-Hinton, 2008; Loza, 2003; Perna, 2007). The majority of study participants were at high risk of not attending college. Step Up program participants frequently have one or more of these risk factors. The vast majority (98.7%) of students are an ethnicity other than White. Most (69.2%) speak a first language other than English. All are from low-income families.

This study demonstrates the Step Up program has a positive effect on the rate of college attendance. Results show students who participated in the Step Up program were more likely to go to college (87.2%) than those from a similar demographic nationwide (42.3%).

The Step Up program had a significant effect on college attendance; however, students’ scores on the scales measuring personal characteristics used were primarily unaffected. The only scale with significant change was the LOCC scale. Participant’s scores showed a significant change in study participants having a more internalized locus of control which is correlated with higher rates of college attendance (Gifford et al., 2006). No other scale showed significant changes from pre- to post-test. One reason scores may not have changed as much as predicted is student’s level of comfort with the staff administering the scales and thus the likelihood they answered more truthfully. Another possible explanation is the number of students who spoke English as a second language. These students would have
become more familiar with the vocabulary as the class progressed and would be able to answer more accurately by the time the post-test was given.

Individual level characteristics were also examined including community organizing skills and knowledge, self-esteem, locus of control, and health locus of control. The COSKS was proven to be a parsimonious scale with few questions loading on each factor.

Students did not have significant change on the COSKS, and statistically the only individual level characteristic significantly affected in this sample was locus of control. The change on this scale echoes the findings of Gifford et al., (2006) and Smith and Mihans (2009) who state locus of control is an important factor indicating a student’s likelihood of attending college. While there is a correlation between locus of control and college attendance, it is not strong enough to attribute the success of the program to raising student’s internal locus of control.

A possible reason a change was seen in rates of college attendance, but not in individual level characteristics, is the student’s new familiarity with college. Familiarity with college has been proven to affect college attendance rates (Endberg & Wolniak, 2009). Students who participate in the Step Up program attend a college level class at a university and therefore become familiar with the college atmosphere. This correlation is a factor in the results shown.

A point of note is all participants self selected to apply to the program. Step Up staff select applicants who do not look like they were already on the path to college according to the research, such as those with a low GPA and being first in their family to go to college. However, self-selection shows motivation which may be a mediating factor in this study.
The high school that all study participants attended took part in the AVID program; research has shown that students who are a part of AVID are more knowledgeable about college and academically better prepared (Watt et al., 2007). If study participants attended AVID as well as Step Up, this could have affected the outcome of the study. Future research is needed to examine this possible additive effect.

Domina (2009) suggests that students who statistically are less likely to go to college often benefit the most from college outreach programs. The students who are selected for Step Up are those who statistically would be less likely to attend college without an intervention. Because Step Up works with this population a correlation can be seen in the rate of college attendance by participants.

While this study was limited due to the use of secondary data, it does add to the body of literature detailing the benefits of college outreach programs. There is still room for more research looking at how the Step Up program affects personal characteristics such as locus of control that may impact college enrollment. Perhaps the lack of significant findings regarding personal characteristics was due to the wrong characteristics being measured. Other characteristics such as academic self-efficacy may be more likely to change based upon college course attendance. There is also room to examine mediating variables such as the instructor, the time outside the classroom the instructor spends with the students, and their community service placement. Because there was no control or comparison group in this study, the change that was determined in the measured scales could be due to the intervention. A randomized control trial placing some students into the Step Up program would help determine the actual affect of the program on college attendance and variations in the scales.
All students who attend Hoover High school are eligible for free or reduced price lunch. For this reason national level data were collected from schools with a similar population to establish a baseline of college attendance. Students who participated in the Step Up program were far more likely (98.6%) to attend college than those from the national level sample (42.3%). This difference is not fully explained, but it is notable. Students who participate in this program may be more interested in general regarding future college enrollment. Further research should be conducted on the Step Up program and the personal characteristics of the students who participate. The high rate of college attendance suggests that the program is very effective, but with few significant results shown through the use of scales, the question remains as to why the program is so effective.
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