IMPROVING COLLEGE READINESS, PURSUIT, ACCESS, AND PERSISTENCE OF

DISADVANTAGED STUDENTS

by

OLCAY YAVUZ

A dissertation submitted to

The Graduate School of Education

Rutgers - The State University of New Jersey

in partial fulfillment of the requirements

for the degree of

Doctor of Education

Graduate Program in Teacher Leadership

written under the direction of

_____

W. Steven Barnett, Ph.D.

_____

Lesley Morrow, Ph.D.

_____

Carol Dahir, Ed.D.

New Brunswick, New Jersey

May 2014

IMPROVING COLLEGE READINESS, PURSUIT, ACCESS, AND PERSISTENCE OF
DISADVANTAGED STUDENTS

© 2014

Olcay Yavuz

Rutgers, The State University of New Jersey

Graduate School of Education

New Brunswick, New Jersey

Announcement of Ed.D. Dissertation Defense

OLCAY YAVUZ

Improving College Readiness, Pursuit, Access, and Persistence of Disadvantaged Students

Committee: Prof. Dr. W. Steven Barnett, Prof. Dr. Lesley Morrow, Prof. Dr. Carol Dahir

Date: January 31, 2014

Time: 10:30am

Location: GSE ETPA Room 11

ABSTRACT

This study investigated how participation in the comprehensive College Readiness Access and Success Program (CRASP) affected disadvantaged students' college readiness, pursuit, access, and persistence. The study was guided by three major research questions: (1) What are the impacts of CRASP? (2) How does each component of CRASP affect college readiness, pursuit, enrollment, and persistence? (3) What struggles do graduated PCSST students report in their first year of college?

CRASP was implemented by the Paterson Charter School for Science and Technology's (PCSST) school counseling department. PCSST, located in Paterson, New Jersey, served 1,040 students, grades K through 12. Approximately 85% of PCSST's students were enrolled in the free and reduced lunch program, and 90% of the school's population was African American or Hispanic. The sample population for this study consisted of 384 PCSST alumni from the classes of 2009 to 2013.

This study compared college-related outcomes of PCSST students who participated in CRASP for different lengths of time (from none to four years). Multiple regression was used to measure the relationship with CRASP, controlling for students' basic demographics and abilities prior to CRASP.

The findings showed that when professional school counselors, educational leaders, and key stakeholders worked collaboratively to deliver comprehensive counseling programs such as CRASP, disadvantaged students received measurable benefits in their college readiness, pursuit, and access. Particularly, CRASP participation was associated with higher percentages of students making necessary preparations to get ready for college and enrolling in post-secondary institutions.

Overall, this study provided information on the efficacy of CRASP to inform local decision making. Furthermore, it shed light on factors that hinder or help disadvantaged students' college readiness, pursuit, access, and persistence. The findings also address disadvantaged students' low rates of college readiness, access to higher education, and completion of college degrees. In line with the new college and career readiness accountability standards, the results indicate a need for further investigation by creating research-based and innovative comprehensive school counseling programs catering to the needs of disadvantaged students.

ACKNOWLEDGEMENTS

First, I would like to thank my wife for her ongoing support and love. Thanks for being an incredible wife and taking good care of our kids while I was working on my dissertation. I cannot imagine what my life would be without her in it. I appreciate everything she has done for me and for our kids. I especially want to thank her for constantly reminding me that I could do this and always encouraging me to pursue my dreams. Selim and Kerem, thanks for being a greatest joy of my life and being a stress relief during my dissertation writing process. Now my dissertation is over and I can play with them all day. I hope that when you grow up, I will be able to be good role model to show them the value of patience and perseverance and the importance of family. I hope they will see that hard work always pays off and that learning never ends.

I also would like to thank my parents and my sister for their constant support through all my up's and down's. Thanks for supporting my education dreams by giving me unconditional love and allowing me to come to the United States of America. Even though they live so far away, I knew that my parents have been there for me and have always prayed for me to pursue my passions with unwavering support and enthusiasm. Mam, I finally made it, and after years, I am coming home without bags of books and articles. Dad, Yes! You can call me as Doctor Yavuz, but I will still NOT be able to write prescriptions for medicine and treat patients. To the rest of my family, I thank you for your love and support.

Particularly, I want to thank my dissertation committee, Dr. Barnett, Dr. Morrow and Dr. Dahir for their ongoing advice, support, and guidance in helping complete my research. It is important to me for three of you to know that I could not have done this without your guidance and support. I would especially like to thank my dissertation chair, Dr. Steve Barnett. He is a remarkable advisor, researcher, and expert in quantitative design. Above all, he helped me design

my methodology and the conceptual model of my program. During group and individual meetings, Dr. Barnett provided me ongoing support and very valuable strategies for my data analysis. Otherwise, I would not have been able to finish this research study without your guidance. Although words cannot fully express my feelings of gratitude and devotion, I would like to say thank you.

Specially, I would also like to acknowledge Prof. Dr. Lesley Morrow for serving on my committee. Her feedback, resourcefulness and wisdom were very helpful throughout my dissertation experience. After the qualification process, Dr. Morrow strongly encouraged me to study improving disadvantaged students' college readiness, persistence, access and persistence. Her continued support and confidence in my abilities helped me push through this process.

Finally, I would like to extend my utmost appreciation to school counseling professor, graduate school advisor, dissertation committee member, and friend, Prof. Dr. Carol Dahir who gave me my beginning in school counseling and inspired me to complete my doctorate. Starting from 2006, she has taught me so much about school counseling education, program development, ASCA National Model and accountability. Without Prof. Dr. Dahir's support, guidance, patience, encouragement and wisdom, I would never have been able to be successful with my comprehensive school counseling program. As an expert school counselor educator and professor, she also has contributed very much to my personal, social, career and professional development. Over the years, I learned so much from Prof. Dr. Dahir. Her encouragement and belief in my abilities helped motivate me to finish this process. She will also never know how much she has inspired me to become a professional school counselor. Nonetheless, thank Prof. Dr. Dahir for everything she has done for me since entering the master program in NYIT.

DEDICATION

I dedicate this to those who inspire me to be the best I can be

Sumeyra (my wife), Selim and Kerem (my sons)

Gulasem (my mother), Huseyin (my father), Gulay (my sister) and

All minority, low income and first generation students

IMPROVING COLLEGE READINESS, PURSUIT, ACCESS, AND PERSISTENCE OF DISADVANTAGED STUDENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE: INTRODUCTION

In 2010, the Blueprint for Reform, released by the U.S. Department of Education,

proposed the reauthorization of the Elementary and Secondary Education Act (ESEA). As

indicated in the Blueprint for Reform (2010), America was once the best educated nation in the

world. A generation ago, the U.S. led all other nations in college completion rates, and in the

same time period, the United States had the highest post-secondary graduation participation rate

among the Organization of Economic Cooperation and Development (OECD) countries.

However, by 2010, according to the Blueprint for Reform, ten countries had surpassed America

in college completion, and the U.S. also dropped from ranking first in the world to 13th in higher

education participation. This led the federal government to focus on school reforms, with the

goal of ensuring that every student graduating from high school is ready for college or a career,

regardless of their income, race, ethnicity or language background, or disability status. Armed

with these statistics, President Obama stated that, "by 2020, America will once again have the

highest proportion of college graduates in the world" (U.S. Department of Education, 2010, p.1).

In short, aligned with President Obama's statement and the new federal college and career

readiness standards for all students in English language arts and mathematics; and developing

better assessments aligned with college and career-ready standards , national attention was

focused on helping all students get ready for, get into, and get through college and/or preparing

for a career.

Although public secondary schools are helping students graduate from high school, about

40 percent of high school graduates are not adequately prepared by their high schools to meet the

rigor of college coursework according to recent studies (Hart, 2005; Blueprint for Reform, 2010).

Consequently, high school graduates have to take remedial courses that extend their time in

college. In addition to this lack of academic readiness, employers agree that today's high school

education leaves a large proportion of students unprepared for the expectations that they face in

entry-level jobs (Hart, 2005).

In this study, the researcher explores which factors assist or hinder disadvantaged

students in achieving their college and career goals. The purpose of this study is to explore a

range of academic and counseling programs, information, and strategies that can help Paterson

Charter School for Science and Technology (PCSST), as well as other secondary institutions,

design a comprehensive school counseling program that enables students to successfully get into

a college and earn a post-secondary degree. This study also provides readers with practical

examples of successful college readiness strategies through the exploration of college

experiences of former PCSST students who graduated between 2009 and 2013. Furthermore, this

dissertation research study will help both secondary and post-secondary institutions understand

the needs and challenges that disadvantaged students face in their first year of college. Finally,

this study provides key stakeholders in both secondary and post-secondary institutions with

practical partnership strategies to improve their students' college success and retention by

designing comprehensive school counseling programs.

According to the PCSST 2011-12 school report card, around 90 percent of the students

are Hispanic or African American, and the majority of students come from first generation

college-bound, and low-income families. PCSST is considered a high-poverty school, and

recognizes the importance and challenges of preparing its students to be college and career-

ready. The College Readiness Access and Success Program (CRASP) was initiated and

implemented by the director of the PCSST school counseling department in September, 2009, to

address this need. CRASP is aligned with the American School Counselor Association's (ASCA)

National Model (2005), and is a comprehensive model that provides activities to engage and

prepare disadvantaged urban high school students for college and a career.

Overall, this quantitative research study is designed to examine the impacts of CRASP on

PCSST's graduated students' college readiness, pursuit, access, and persistence in their first year

of college. The study consists of six major sections: introduction, a literature review, CRASP

description, the methodology section, the study findings, a discussion, and the conclusion.

In the first section, the researcher provides a statement of the problem and identifies the

research questions. The second chapter provides a review of the literature and theories regarding

college readiness and retention of students at risk, and lessons learned from the best practices and

previous studies. Within the literature review, the researcher discusses how the previous research

studies have approached the issue of college access and retention of students at risk. The

literature review also addresses how this study relates to and builds on what has been done

substantively and methodologically in preparing minority and disadvantaged students for college

or careers after high school. The third chapter introduces in detail the components, conceptual

model, and theoretical framework that forms the foundation for the "CRASP" approach.

The fourth and fifth chapters are the Methodology and Findings sections of the study,

respectively. In the fourth chapter, the researcher includes a description of the research design,

sampling procedures, data collection, and data analysis methodology, as well as the role of the

researcher, validity and reliability issues. In chapter five, the researcher presents the findings of

the research study. Then, in chapter six, the dissertation study concludes by offering possible

broad implications for educational policy, research, and practice. Overall, this comprehensive

evaluation of CRASP has the potential to help high schools assess their own efforts in meeting

the needs of disadvantaged students by highlighting a wide range of academic and counseling

interventions available to the key stakeholders.

Definitions and Indicators of Key Terms

Several technical terms are used in this dissertation study. In particular, the study

includes terms such as college readiness, college retention, persistence, matriculation, college

attrition, attainment, and retention. Providing an operational definition of these terms is expected

to help readers better understand the issues discussed in this study of disadvantaged students'

college retention and success. Therefore, definitions of these terms, which may be useful for

readers, are given below.

College Readiness: In the literature, there are four approaches that are primarily used to describe

college readiness. The most common approach is to define college readiness in terms of high

school course-taking patterns, including course titles and the number of credits required for

graduation, combined with the grades students receive in those courses (Callan, Finney, Kirst,

Usdan, & Venezia, 2006). A second approach is to measure college readiness through students'

performance on standardized college entrance test scores, such as the ACT and SAT tests (ACT,

2005). The College Board (2010) provides a third approach, which defines college readiness as

"…when they have the knowledge, skills, and behaviors to complete a college course of study

successfully, without remediation." Finally, Conley (2007) offers the following approach:

"college readiness is a multi-faceted concept comprising numerous factors, both internal and

external, to the classroom environment" (Conley, 2007, p.12). Conley's model consists of four

key areas: cognitive strategies, content knowledge, academic behaviors, and contextual skills and

awareness. In general, Conley's model is promising; however, it does not currently enjoy

widespread usage since many colleges consider grade point average and the SAT as the best

predictors of college readiness.

College Retention: In general, retention is defined as a percentage measurement that shows how

many students re-enrolled at an institution that they attended the previous year. A retention rate

commonly measures the percentage of freshmen that re-enroll the next academic year as

sophomores (Arnold, 1999, p.5). As mentioned in the report prepared by the Texas Guaranteed

Student Loan Corporation (1999), retention rates are important because they are perceived as

indicators of academic quality and student academic success.

College Matriculation: To officially enroll as a student in a post-secondary institution.

College Persistence: A college student's continuation of behavior leading to a desired goal, that

helps describe processes related to student goal achievement (Arnold, 1999).

College Pursuit: Showing ongoing effort to get into and through college.

College Attainment: Reaching a desired goal in earning a college degree.

College Attrition: A post-secondary institution's loss of undergraduate students.

Problem Statement and Research Questions

When the researcher was hired by PCSST as a high school counselor in 2009, he realized

that there was no embedded culture of college pursuit for students at PCSST. According to the

archived student records**,** the four year college acceptance rate was only around 20 percent. In

conjunction with this college enrollment data, the majority of students were not engaged in

college and career related activities such as FAFSA completion, SAT taking, and completing

college applications. In other words, the researcher noticed that prior to the implementation of

the CRASP, PCSST students were not attempting to take college entrance exams and fill out

college and financial aid applications. In particular, during the 2008/2009 school year, no juniors

took the PSAT, which is one of the most important indicators of college pursuit. Parallel to the

PSAT data, approximately 60% of the class of 2009 did not take the SAT. In order to assist

PCSST students with planning their careers and post-secondary education, the CRASP was

developed and implemented in September 2009 at PCSST. The main goals of CRASP are to help

PCSST students improve their: (1) post-secondary education and career readiness; (2) college

pursuit; (3) college access, and (4) college persistence.

As more and more students graduated from PCSST and moved on to college and other

post high school graduation options between 2009 and 2013, the researcher, PCSST

administrators, teachers, and parents wanted to know if PCSST graduates who enrolled in

college were able to achieve academic success and stay in college. It is noted that although

CRASP had been conducted for four years at the time of this study, the full impact of CRASP on

students' college readiness and success had not been measured. The short and long term effects

of CRASP were not fully known due to a lack of data on how PCSST alumni were doing in

college.

In short, the research on CRASP's effects on college retention fell somewhat behind the

initial CRASP research, which focused primarily on getting PCSST seniors into college after

high school graduation. This new focus on college retention is considered an important

contribution to the PCSST community and literature. To this end, this dissertation study was

conducted to explore PCSST graduates' experiences in getting ready for college and graduating

successfully. Other than archived student achievement data such as GPA and the SAT, this

researcher developed a comprehensive survey to explore the first-year of PCSST alumni's

college experiences. The survey results are also expected to explore how PCSST could help its

former students stay in college and help future PCSST students by revising and improving

CRASP.

Aligned with the research purpose, this study has been guided by three major research

questions. The primary research question is: What are the impacts of CRASP on students' college

readiness, college pursuit, college access, and persistence in their first year of college? The

second research question is: What parts of students' high school and college experiences are

most critical to help them get ready for college and achieve in college? The third question is:

What major struggles did former PCSST students face in their first year of college? While the

main focus of this study is to address each of these research questions, it also aims to help the

PCSST administration and stakeholders understand how well they are supporting their students'

college readiness, access, and success. By informing these stakeholders of this study's findings,

it is hoped that a feedback loop can act as a springboard to improve and broaden the reach of

CRASP.

Significance of the Study

This dissertation study focuses on improving college readiness, pursuit, access, and

persistence for disadvantaged students through a comprehensive school counseling program. In

this study, the term "disadvantaged" include African American and Hispanic students, low-

income students, first generation college students, special education students, and ESL students.

These disadvantaged students are a significant part of the college population, and they are more

likely to face attrition (ACT, 2010). Therefore, it is important to understand what interventions

work in preparing disadvantaged students for college. To that end, this research study sought to

extend educators' knowledge about designing and leading comprehensive school counseling

programs that might help disadvantaged students get ready for college, get into college, graduate

from college, and ultimately find a job in their chosen field. It also sought to explore effective

partnership strategies between secondary schools and post-secondary institutions so they can

work collaboratively to improve the college and career readiness of disadvantaged students.

For Students

Higher education is increasingly important to career success; entering and completing

college can drastically affect an individual's career path and lifetime earnings. As shown in

Figure 1 (adapted from Carnevale, Rose, & Cheah, 2011), individuals who have a four-year

bachelor's degree earn, on average, $2.2 million over a work lifetime, and about 50% more than

workers with only a high school diploma. Lifetime income rises even more with a doctoral or

professional degree; although earning a degree is not the only reason that degree holders have

higher lifetime earnings, it is a contributing factor. Moreover, Williams and Swail (2005)

reported that post-secondary education and career training lead to better employee benefit

packages, better health care, increased social status, longer vacations, and better work conditions.

Therefore, this dissertation study is significant for students because it aims to help disadvantaged

students prepare for college and succeed in college so that they can earn the degrees that will

enable them to earn greater economic and social status.
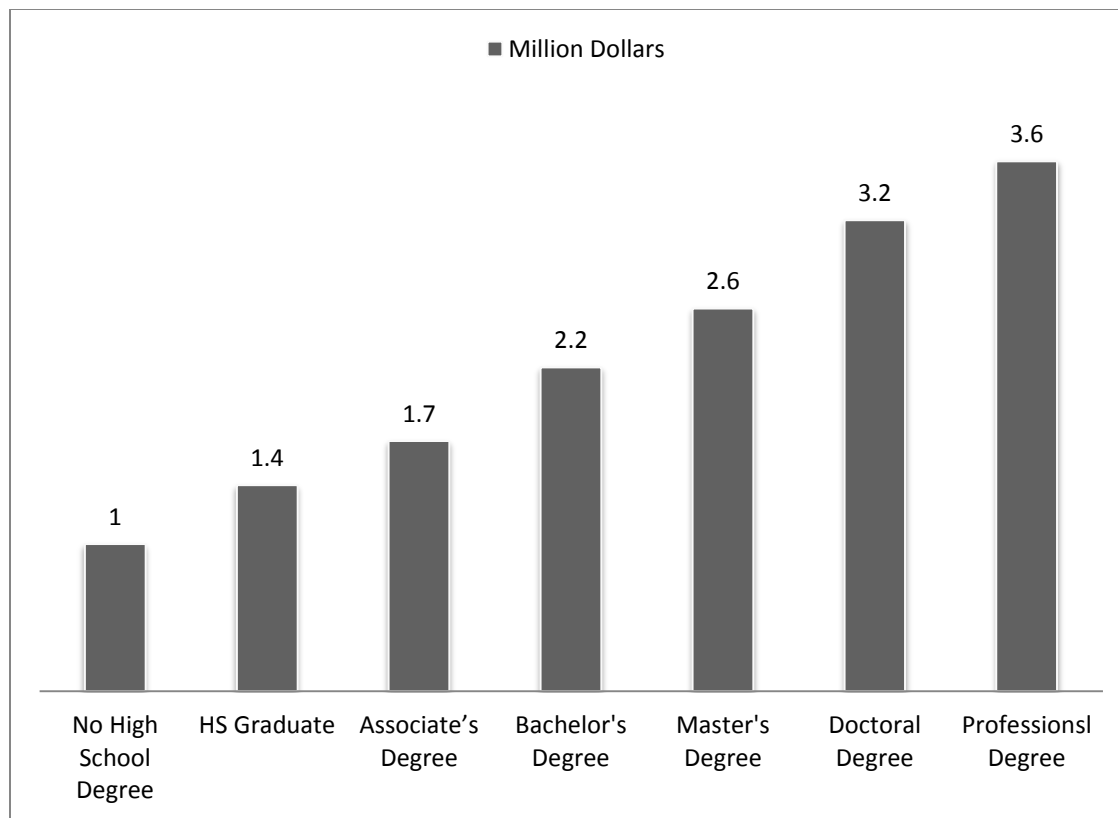
Figure 1. Life time earnings by education level (Carnevale, Rose, & Cheah, 2011)

Finally, aside from the positive economic impact of college success, researchers also

emphasize the adverse impact of college failure on an individual's mental and emotional health.

For instance, Jimerson (2001) noted that retained students are more likely to experience lower

self-esteem relative to promoted peers. In addition, students who drop out of college without

earning their degrees are more likely to experience personal and mental problems, such as

psychological disorders. Thus, this dissertation study, particularly its focus on improving the

college readiness, access and persistence of students, would directly benefit PCSST students,

who need ongoing guidance and support to earn a college degree.

For PCSST and High Schools

We live in the age of accountability. This study, which focuses on building a collective

capacity among stakeholders for improving college readiness and college persistence, will help

PCSST become better prepared to address the state's accountability reports on post-secondary performance. This study also benefits PCSST by collecting data regarding the percentage of students who apply to post-secondary schools, the percentage of students who took the SAT and the percentage of former students who were accepted to college. Moreover, this study helps PCSST know what percentage of graduated PCSST students enrolled in a post-secondary institution and stayed in college.

Finally, this study provides information on the efficacy of the PCSST College Readiness Access and Success Program (CRASP). It will shed light on factors that hinder or help PCSST students' college readiness, pursuit, access and persistence. Information obtained from this study can be used to help improve the CRASP model. The findings of this study can be also helpful for other secondary schools. In particular, the study can help other urban high schools better understand the challenges that disadvantaged students face in their first year of college, and the impacts of programs like CRASP. It can also provide insight into designing high school programs that can help disadvantaged or minority students enter and succeed in college.

For Society and Economic Growth

As Zumeta, Breneman, Callan, and Finney (2012) reported that over the past five decades, economists have carefully studied the labor market "returns" on investments in "human capital" via higher education. The strong and consistent finding of these studies is that higher education and post-secondary training have paid off well for most individuals. Additionally, returns to society on its investments in post-secondary education are generally found to be significantly positive and also offer a wide range of non-pecuniary benefits (Psacharopoulos & Patrinos 2004; Williams & Swail, 2005; Baum & Payea, 2004; McMahon 2009). Therefore, this

study's focus on increasing college readiness and college persistence provides information that

benefits society in several ways, as described below.

First, from an economic perspective, both federal and state governments provide billions

of dollars per year for public K-12 and post-secondary institutions by allocating grants, loans,

and work assistance, as well as tax credits and deductions, to help students finance post-

secondary education (Carnevale, Jayasundera, and Hanson, 2012). However, if students are

poorly prepared and not succeed in college, money as well as their talents, skills, time, and effort

will be wasted, not only for the individual but for society as a whole. This dissertation benefits

society by contributing knowledge about how to better disadvantaged students get into college

and complete it successfully.

In addition to the economic returns to individual, Williams and Swail (2005), as well as

Baum and Payea (2004), have found that post-secondary education improves the quality of life

for a society in a variety of ways. For example, individuals with higher levels of education are

more likely to be a part of organized volunteer work, vote, and give back to their communities in

other ways. Other social benefits include decreased reliance on public assistance, increased tax

revenues, lower demands on the criminal justice system, better parenting skills, and increased

entrepreneurial activity (Watts, 2001). Furthermore, the investment in improving college and

career readiness has been linked to lower incarceration rates, more volunteerism, and more

democratic participation. In reference to these statements, this dissertation research study will

help the Paterson community as a whole, as well as individuals, by exploring and presenting

effective strategies that work to improve the college readiness and success of disadvantaged

students.

CHAPTER TWO: LITERATURE REVIEW

Over the last two decades, numerous research studies have been conducted on the college readiness and retention of disadvantaged students. It is very challenging to include all past research in this dissertation study. Therefore, during the article selection process, the researcher utilized Cooper's (1998) four main criteria for inclusion and exclusion of articles from the literature review. The selected research studies are discussed with sufficient details to provide an understanding of their relevance, how they contribute to this study, and indicate how this study moves beyond them. Overall, the literature review focused primarily on empirical, peer-reviewed studies related to improving the college readiness and retention of students at risk. However, seminal research in each area of interest was also utilized when necessary to strengthen the literature review. Furthermore, the majority of studies covered in this review were published in the last ten years.

In general, this literature review investigates the effects of various interventions and support programs on disadvantaged high school students' college preparation and retention. The literature review is organized to answer the following questions: (a) How has school counseling changed as the structure and expectations of K-16 education have changed historically?; (b) What are the social justice issues surrounding college readiness and retention?; (c) What theoretical framework can be used to understand college readiness and retention for disadvantaged students?; and (d) What works in preparing disadvantaged students for college and graduation? Figure 2 provides a literature map of the research indicating how the researcher organized the literature review. At the end of the literature review, the researcher discusses how previous research informs this study and describes the components of CRASP in detail.

- Practices
- Policies
- Research

- Progressive-Era
- Civil Rights Era
- Post Nation-at-Risk Era

What
Works

Historical
Perspective

Theoretical
Framework

Social
justice
issues

- Human Capital
- Social Capital
- Cultural Capital
- Financial Capial

- Low income Students
- First Generation
  Students
- Students of Color
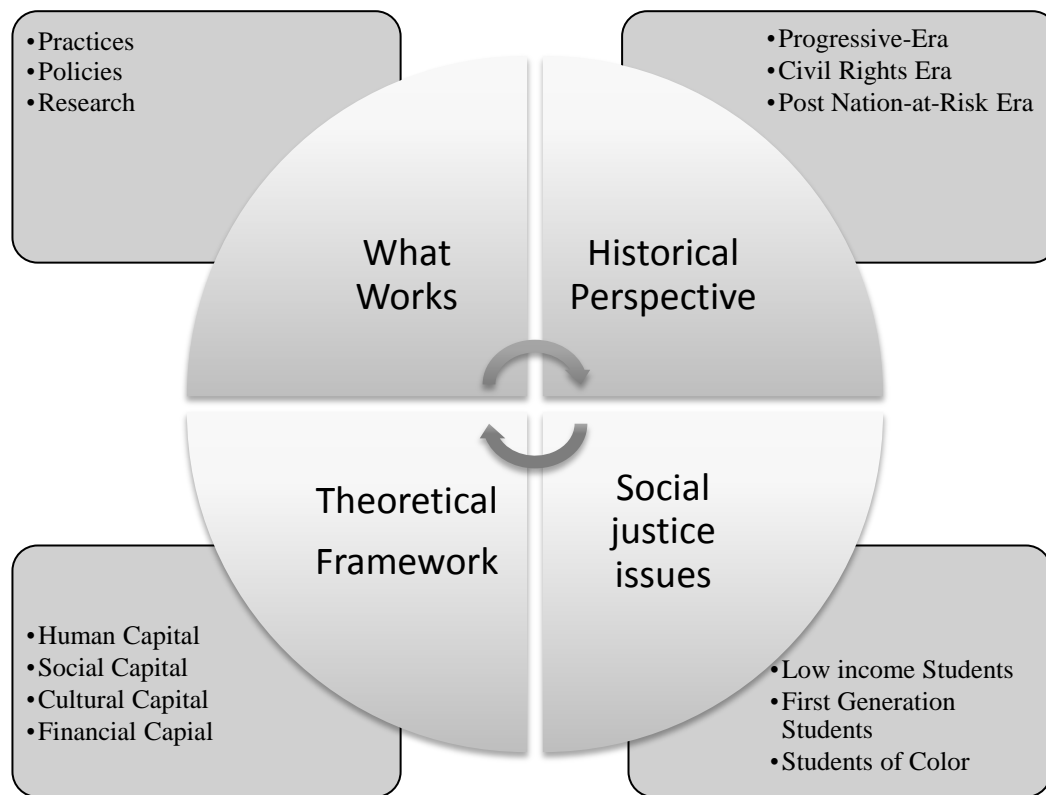
Figure 2. The literature map of the study.

Historical Perspective

Over the past few years, educational stakeholders, researchers, and policy makers have

been specifically focusing on the college and career readiness of disadvantaged students. In this

part of the study, the researcher explores what made the nation turn its attention to preparing

high school graduates, regardless of their gender, race, ethnicity, or socio-economic situation, for

college and careers. Focusing on such questions as: "over the past five decades, what has

changed?" and "why are American students' college and career readiness very important for the

future of the nation?" is crucial to adopt a historical perspective to understand why federal and

state educational leaders, policy makers, and educators from K-12 and higher education have

been recently significantly focusing on college and career readiness. In order to answer the

questions above, the researcher identified and applied a historical understanding of the effects of

the three main American education era reforms on college and career readiness during the last

century. In addition, the researcher described how these era reforms since 1890 have shaped the

roles of school counselors and the function of schools.

Progressive-era (1890-1940)

At the beginning of the 20th century, the United States was becoming increasingly urban

since cities were crowded with immigrants who moved to America from all parts of the world.

Between 1890 and 1930, over 22 million people migrated to the United States, including almost

three million children (Hochschild and Powell, 2008). Therefore, during the progressive era,

educational reformers sought to make significant structural and pedagogical changes in

education. For example, the compulsory school attendance law was passed in 1909, and states

increased their support for schooling. Furthermore, up to the progressive education movement,

the focus of education was the subject matter to be learned. However, with the implementation of

the progressive era reforms, the 20th century education system started to focus more on the

individual needs of students. In particular, the philosopher and educator John Dewey

significantly influenced American education. John Dewey was passionate for democracy and he

was an advocate for social justice so that all people may share in a common life. He emphasized

the importance of active learning, as well as scientific and measurable educational strategies to

increase the quality of education and student learning. Overall, during the progressive era, the

applied physical, life, and social sciences received growing attention to meet the demands of

industry, business, and agriculture (Reese, 2005).

Similar to K-12 education, events such as the Industrial Revolution, World War I (1914-

1918), and the progressive era reforms also influenced the higher education system in America.

For example, after 1837, the Historically Black Colleges and Universities (HBCUs) began to

open and admit African American students. Later in 1862, Congress passed the Morrill Act, and

with the implementation of this law, signed by President Abraham Lincoln, colleges and

universities became assisted by federal funding. In addition, eligible states received 30,000 acres

of federal land to establish colleges and universities (Altbach, Berdahl, & Gumport, 2005). At

that time, federal funding for higher education was given to post-secondary institutions to

educate farmers, scientists, and teachers. Then, in 1890, the Second Morrill Act passed, which

provided additional endowments and gave educational opportunities to people of all social

classes. When all things are taken into consideration, post-war prosperity, as well as the various

Morrill Acts, improved the college attendance rate by nearly double between 1920 and 1930

(Lazerson, 1998; Archibald, 2002). In addition, college entrance exams were developed at this

time. As a result, this significant investment in higher education encouraged employers to hire

applicants who possessed college degrees.

While reforms were influencing the structure and function of schools, the roles and

responsibilities of professional school counselors have also historically been changed by the

many influences over the last century. For instance, around the turn of the twentieth century, the

vocational and technical aim of education began to gain significant importance. As a result of

this, the main purpose of schooling was viewed as the way children gained knowledge and skills

for their future careers (Gysbers, 2001). Therefore, the first school counselors, who existed as

vocational counselors nearly 100 years ago, emphasized linking education with work. In

particular, Frank Parsons, known as the "father of guidance", became a very influential scholar

and played an important role in expanding the concept of vocational guidance (Dahir & Stone,

2012). In short, during the early years of school counseling, the main duties of these vocational

counselors included preparing students for work based on their personal values, attributes,

aspirations, and interests.

Civil Rights Era (1950-1974)

Between 1950 and 1974, national protests that were focused on equal opportunity for all

deeply influenced school reforms. For example, in the early 1950's, racial segregation in both K-

12 schools and post-secondary institutions was the norm across America. However, in 1954,

because of the Supreme Court's ruling in Brown vs. the Board of Education of Topeka, Kansas,

African American students gained the opportunity and right to attend predominantly white K-12

schools and colleges (Kluger, 1975). Then, the Civil Rights movement of the 1960's encouraged

post-secondary institutions to actively recruit black and other minority students. As a result of

the Supreme Court's Brown v. Board of Education decision, and the Civil Rights movement, the

racial diversity of the student population in higher education has been significantly increased.

Furthermore, in 1957, Sputnik 1 was launched by Soviet Union, which was a major

technological advance at that time. The success of Russian scientists triggered competitions on

an international level. In the 1960's, America focused on exploring funds and resources to

identify and encourage gifted and talented students to attend post-secondary education in the

fields of Science, Technology, Engineering, and Mathematics (STEM) (Tannenbaum, 1958)

because of this competition.

Right after the Civil Rights movement and the National Defense Act, the Higher

Education Act (HEA) was passed in 1965. With the implementation of the Higher Education

Act, the federal government provided financial support to both public and private higher

education institutions, as well as to the individual students. Since 1965, in order to increase the

number of low-income students, the HEA was amended three times by 1980. Furthermore, Pell

grants, educational loan opportunities with lower interest rates, and early intervention programs

provided both academic and financial aid to the neediest minority students (United States

Department of Higher Education, 1998).

Reforms have been influencing the structure and function of schools, as Dahir (2003)

states, "The history of school counseling has depicted a profession in search of an identity" (p.

345). Parallel to this statement, the role of the school counselors was changed and redefined

during the Civil Rights era, much like the function of K-12 schools and colleges. For example,

this generation of counselors was expected to have the skills and expertise in intelligent

measurements and therapeutic interventions, psychological assessment, and college admission

for the purpose of serving all students (Dahir & Stone, 2012). Later in 1958, the National

Defense Education Act (NDEA) was enacted and provided appropriate funding for the school

counseling profession. As a result, the number of professional school counselors tripled between

1958 and 1967 (Wittmer, 2000). The American School Counselor Association (ASCA) was

founded in 1953 and has had a significant influence on the development of the profession, as

well as the development of school counseling in K-12 schools (Burnham & Jackson, 2000). With

the foundation of the ASCA, professional school counselors had their own credentials, standards,

and guidelines to meet the needs of all students. In addition, the ASCA encouraged school

counselors and key stakeholders to work collaboratively towards their goal of improving

students' academic, personal-social, and career development.

The Post Nation-at-Risk Reform Era (1980s-Current)

Secretary of Education T. H. Bell created the National Commission on Excellence in

Education on August 26, 1981, directing it to examine the quality of education in the United

States and to make a report to the nation (The National Commission on Excellence in Education,

1983). This report is viewed as a landmark event in American educational history and contains

practical recommendations for educational improvement, as well as reshaping the structure and

functions of schooling. The National Commission on Excellence in Education gave particular

attention to identifying educational programs that result in notable student success in college.

The Commission's charter also assessed the quality of teaching and learning in the Nation's

public and private schools, colleges, and universities. In addition, this report compared American

schools and colleges with those of other advanced nations (The National Commission on

Excellence in Education, 1983).

The general message of the report was that American schools (both K-12 schools and

post-secondary institutions) were failing to raise a new generation of Americans who possessed

the levels of skill, literacy, and training essential to achieve success in the 21st century. As

Fuhrman (2003) asserted, immediately after *A Nation at Risk* was released, federal and state

officials began to put together reform packages, particularly for use in improving students'

academic achievement and college readiness. Armed with these reforms, under the influence of

A Nation at Risk, both secondary and post-secondary institutions developed several interventions

and support programs to help students attend and achieve in college.

As the report *A Nation at Risk* pointed out, the American education system needed to

educate a new generation of students who were literate in science and technology. Parallel to the

findings of this report, Carnevale, Jayasundera, and Hanson (2012) suggested that growing

globalization, computerization, and automation created structural changes in the U.S. economy

and education at the end of the 20th century. As they indicated "the globalization and automation

led to increased demand for skilled workers and more educated workers" (p.10). It is also

claimed that "by 2020, nearly two out of every three U.S. jobs will require some post-secondary

education and training" (p.2). In other words, in the coming decade, the majority of jobs will

require a college education. Students who have a high school education or less will be less likely

to be employed in well-paying and prestigious jobs that require utilizing extensive technology

and having cognitive and adaptability skills (Hodkinson, 1992; Goldin & Katz, 2008). As shown

in Figure 3, there is a growing trend that jobs requiring college degrees are more likely to

increase.
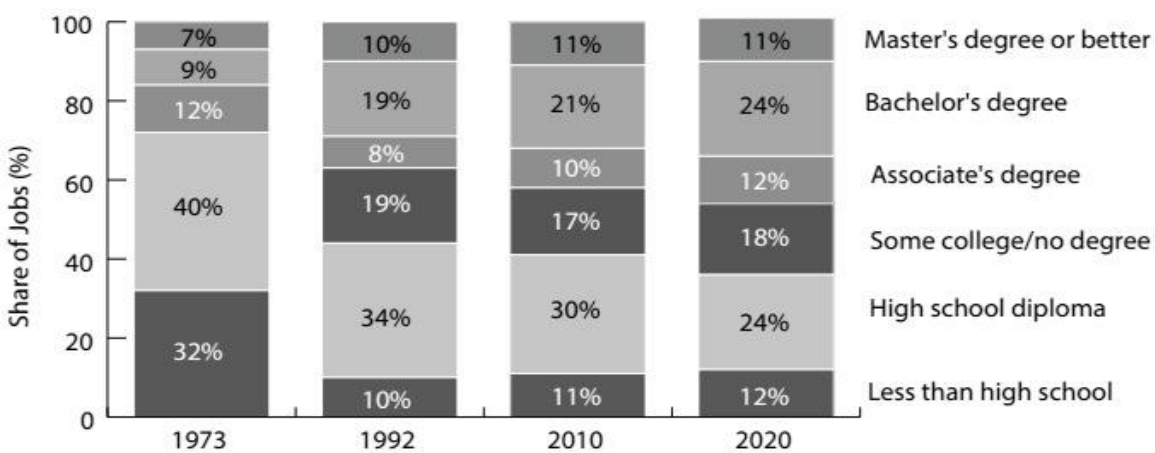
Figure 3. Relationship between share of jobs and post-secondary education and training.

Adapted from "Five Education and Training Pathways That Pay Along the Way to the B.A.," By

A. P. Carnevale, T. Jayasundera, and A. R. Hanson, 2012, p. 2. Copyright 2012 by Georgetown

Public Policy Institute, Center on Education and the Workforce, Georgetown University.

Carnevale and Rose (2011) also reported that by 2025, the United States will need 20

million workers with post-secondary education to economically compete with other nations. Out

of these 20 million workers, it is expected that while 15 million people will hold a bachelor's

degree, 4 million will earn non-degree post-secondary credentials, and 1 million individuals will

have associate's degrees. In addition to the baccalaureate pathway, individuals should show

interest in obtaining career and technical education (CTE) that prepares Americans for secure

middle jobs.

Furthermore, Carnevale, Jayasundera, and Hanson (2012) categorized career and

technical education into the five different pathways at the sub-baccalaureate level: (a) employer-

based training, (b) industry-based certifications, (c) apprenticeships, (d) post-secondary

certificates, and (e) associate's degrees. They reported that there are 29 million middle jobs in

the United States today. They also define middle jobs as "occupations that require some post-

secondary education and training, but not a Bachelor's degree, and have average earnings of

$35,000 per year or more" (p.3). Therefore, the nation needs individuals who possess bachelor's,

associate's, or a career certificate to compete with other nations.

When all things are taken into consideration, getting a college degree, a career, or career

training can be considered a worthwhile investment of one's time and resources because

education helps individuals develop high cognitive skills and find prestigious jobs. Additionally,

over a working life, people who have higher degrees such as a bachelor's, master's, or doctorate

earn more than comparable people who have no college degree (Zumeta, Breneman, Callan, &

Finney, 2012). This means that individuals need post-secondary training, in baccalaureate or

higher, to meet the expectations of the 21st century labor market. Thus, the current policies,

educators, and K-12 schools have a great tendency to guide and prepare students to get into the

post-secondary education after high school.

As mentioned above, over the last century of American history, federal legislations,

educational reforms, comprehensive school improvement plans, and interventions have been

continuously influencing school systems to examine best practices in education and seek whole

school improvement. After the reports *A Nation at Risk,* (1983), and *What Works,* published in

1987, proved that in order to achieve educational equality for all students of America and to

narrow achievement gaps between and among minority groups and their White and Caucasian

Asian-American counterparts, the federal Elementary and Secondary Education Act (ESEA) of

1965 was reauthorized in 2001 as the No Child Left Behind (NCLB) Act (U.S. Department of

Education, 2001).

　　　　With the implementation of NCLB (USDE, 2001), federal legislation has put more

pressure on the K-12 school system in order to increase student achievement and improve the

quality of education. In particular, with the implementation of NCLB, there has been a

significant focus on data-based decision making, standard-based high-stakes testing, standards-

based curriculum, and closing the achievement gap. Furthermore, accountability has become a

driving force in designing and leading comprehensive school counseling services and action

plans to create a positive learning environment for student success (Dahir & Stone, 2012).

　　　　Over the last ten years, NCLB has had a significant influence on K-12 education. While

all stakeholders and K-12 institutions were trying to meet the accountability requirements of

NCLB, the Obama Administration proposed to improve No Child Left Behind in 2009.

Therefore, the Blueprint for Reform was released by the U.S. Department of Education, Office of

Planning, Evaluation, and Policy Development in 2010, and proposed reauthorization of the

Elementary and Secondary Education Act (ESEA). This Blueprint Reform (2010) emphasized

four major areas: (1) improving classroom teachers' and building principals' effectiveness for

student learning; (2) providing information to families to help them evaluate and improve their

children's schools, colleges, and career readiness; (3) implementing college- and career-ready

standards that build toward college and career readiness by the time students graduate from high

school, and high-quality statewide assessments aligned with these standards; and (4) improving

student learning and achievement in America's lowest-performing schools by providing intensive

ongoing support and effective systemic interventions.

In general, the main focus of the Blueprint for Reform (2010) is to ensure that every

student in America graduates from high school and is ready for college and a career, regardless

of their gender or ethnicity, race, socio-economic, or family background. As Dahir and Stone

(2012) noted, this educational agenda can be considered the Civil Rights movement of the 21st

century. With a strong emphasis on the importance of post-secondary education, the Blueprint

for Reform (2010) focuses on implementing college and career-ready standards and developing

common assessments aligned with those standards. Furthermore, as this bill moves through

Congress, educators are still waiting for the new ESEA from the President Obama and Congress.

Aligned with the Blueprint for Reform (2010), President Obama signed into law the

American Recovery and Reinvestment Act of 2009 (ARRA), which is a crucial legislation that

lays the foundation for educational reform by supporting investments in innovative strategies that

are likely to lead to improved results for students, long-term gains in school and the school

system capacity, and increased productivity and effectiveness (U.S. Department of Education,

2009, p.2). As USDE (2009) reported:

> The ARRA provides $4.35 billion for the Race to the Top Fund, a competitive grant
> program designed to encourage and reward states that are creating the conditions for
> education innovation and reform; achieving significant improvement in student
> outcomes, including making substantial gains in student achievement, closing
> achievement gaps, improving high school graduation rates, and ensuring student
> preparation for success in college and careers (p.2).

As the USDE (2009) noted, the purpose of Race to the Top is to reward states and school

districts that have demonstrated success in raising student achievement. Then, these successful

states and school districts will offer models and best practices for others to follow and will

spread the best reform ideas across their states, and across the country.

While the Common Core has been focusing on improving students' skills and knowledge

to successfully prepare them for college, the Common Career Technical Core (CCTC) has been

emphasizing the necessary skills and knowledge that are important to becoming career-ready. In

particular, in June 2012, Career Technical Education (CTE) state officials announced the CCTC,

a set of standards developed by 42 states for each of the 16 career clusters which include: (a)

Agriculture, Food, and Natural Resources; (b) Architecture and Construction; (c) Arts,

Audio/Video Technology, and Communications; (d) Business Management and Administration;

(e) Education and Training; (f) Finance; (g) Government and Public Administration; (h) Health

Science; (i) Hospitality and Tourism; (j) Human Services; (k) Information Technology; (l) Law,

Public Safety, Corrections and Security; (m) Manufacturing; (n) Marketing; (o) Science,

Technology, Engineering, and Mathematics; and (p) Transportation, Distribution, and Logistics.

After the implementation of the college and career readiness standards, school officials have

been trying to implement effective strategies to give families and communities the information

and resources they need to determine whether or not their students are on track toward college

and career readiness, and to evaluate their schools' effectiveness.

As indicated above, the world and American economy has shifted over the last five

decades from agricultural to service and technology-oriented jobs that require high-level

cognitive skills and expertise. Therefore, getting into post-secondary education and earning a

college degree have become crucial for individuals to meet the demands of 21st century jobs. In

short, in today's world, a post-secondary education is considered a very valuable investment for

both individuals and governments. While the importance of higher education has been

significantly increasing, the function, tuitions, environment, and enrollment practices of higher

education over the past two decades have been transformed.

First, in today's times, rising college costs and the affordability of a college degree is a serious concern for students who come from low-income families with no allocated funds to support their children's education. Second, at a time when higher education is critically important, the college admission process and requirements have also been changed. For example, in the past, high school graduation, good academic standing, and passing college entrance exams were the only requirements to be accepted into college. However, colleges and universities have recently been taking a more holistic approach during the college admission process by incorporating both academic and nonacademic factors for student selection. For instance, in addition to academic factors such as high school GPA and SAT scores, college admission offices are requiring that students must submit their college essays, recommendation letters, extra-curricular activities, and leadership and volunteering experience as well.

Another significant change in the college admission process is the college application type. In the past, students used to print out an application and mail it to the colleges. However, recently, many four-year and two-year post-secondary institutions prefer to use the online application system, even though first-generation college-bound students find applying to college through the Internet stressful and very complicated. In order to complete the online application, students must create a user ID and password to begin the online process and submit their applications through the Internet. In addition, around 500 post-secondary institutions in the United States recently collaborated with the Common Application that allows students to submit multiple college applications with the same information put into the system. After students upload their essays and other supplements, they have to send an online request to their teachers and school counselors for their recommendations and transcripts to be uploaded to the Common Application. Even though the online system allows the students to submit and track their

applications through the Internet, many first generation and low-income disadvantaged high

school students are very frustrated with the online application system. Therefore, they prefer to

print out a completed application and mail it to the colleges.

In general, over the past thirty years, while state and national reformers were aiming to

improve the nation's economy, schools were focusing on raising students' academic

achievement. Under the influence of *A Nation at Risk*, the roles and responsibilities of

professional school counselors have also been shifted and redefined. First, by the 1970s and

1980s, school counselors focused on designing and implementing comprehensive school

counseling programs to meet the diverse developmental needs of all students and respond to the

crises or peer conflicts that inevitably occur during the routine school day. Comprehensive

school counseling programs use a holistic and collaborative approach to help students' academic,

personal, and social development. As Brown and Trusty (2005) and Gysbers and Henderson

(2012) reported that the majority of state departments of education have adopted comprehensive

school counseling programs as the model for school counseling programs in their states to

improve all disadvantaged students' academic, personal, social, emotional, and career

development.

Recently, the ASCA Professional School Counseling Journal presented its findings on the

implementation of comprehensive counseling programs and associated benefits for students in

six different states: Connecticut, Missouri, Nebraska, Rhode Island, Utah, and Wisconsin

(Lapan, 2012). These six state-level studies focusing on measuring the impacts of comprehensive

school counseling programs provide valuable evidence of the relationship between positive

student educational outcomes and school counseling program organization, student-to-school-

counselor ratios, counselor time use, and specific school counseling activities such as individual

and group counseling (Carey & Dimmitt, 2012).

In general, it is reported that even though very large implementation gaps exist between

schools in delivering a comprehensive program to all students, comprehensive school counseling

interventions have the capacity to improve a wide range of student outcomes that include higher

ACT test scores, higher state scores in math and reading, higher percentage of ACT takers, lower

disciplinary incidents, better school attendance rates, lower suspension rates, and better

graduation rates (Carey & Dimmitt, 2012; Lapan, 2012). According to the findings of these six

major state studies, when highly trained, professional school counselors deliver ASCA National

Model comprehensive school counseling program services, students receive measurable benefits

in academic, personal, social, and career development.

The Education Trust's Transforming School Counseling Initiative (TSCI), which was

supported by the Dewitt-Wallace-Reader's Digest Fund, focused on promoting high academic

achievement for all students and enhancing career development opportunities for all students at

all levels (Baker, 2000). Third, the American School Counselor Association's ASCA National

Model provides a valuable road map and framework for professional school counselors to

initiate, implement, manage, and evaluate comprehensive counseling programs to help students'

academic, personal-social, mental, and career development. The national model (2003, 2005, and

2012) also encouraged school counselors to partner with key stakeholders in the provision of

academic and counseling services. In general, the ASCA National Model is a very helpful tool in

delivering school counseling services in a systematic way to meet the needs of all students.

Finally, Dahir and Stone's book, *The Transformed School Counselor* (2012), helps school

counselors and all other key stakeholders understand the new vision of 21st century school

counseling by providing very useful information, resources, and real experiences regarding the

multiple roles of professional school counselors in 21st century schools. Dahir and Stone (2012)

assert that in order to improve students' academic, personal/social, and career development,

transformed school counselors should focus their attention on raising student aspirations and

facilitating effective working relationships among stakeholders including students, teachers, and

parents, as well as community members. Furthermore, transformed school counselors should

utilize data to reform their practice and use data-driven decisions to address the complex needs

of today's students and schools. It is also noted that to prepare all students to become career and

college-ready, 21st century professional school counselors should act as leaders, advocates,

consultants, coordinators, collaborators, managers of resources, and facilitators.

Finally, Table 1 summarizes important reforms and their influences on K-16 education

and school counseling profession. When all things are taken into consideration, as federal

legislation focuses on college and career readiness, all individuals need to understand that

earning a college degree or getting post-secondary career training is crucial in finding prestigious

and higher paying jobs. As mentioned above, getting a college degree has advantages for both

individuals and the nation. However, the process of preparing young people to be college and

career-ready is complicated and multi-faceted (Hokeer & Brand, 2009). Therefore, to help all

students going on to college and pursuing their careers, high expectations should be set, and

ongoing support and guidance must be given collaboratively in secondary schools and post-

secondary institutions.

Having that in mind, 21st century professional school counselors are required to have

expertise in providing career counseling, assessments, test preparation, academic advising,

mentoring, and financial aid information, as well as college admissions and effective transition

information. Aligned with these statements, schools and comprehensive school counseling

programs should provide a nurturing environment that helps all students acquire the necessary

knowledge, skills, and attitudes for college and career readiness. In particular, by creating a

community-wide effort, professional school counselors are in a critical position to help students

understand the options they have after high school and maximize their post-secondary

opportunities (Dahir & Stone, 2012).

Table 1.

The Effect of Reform Eras on School Counseling and K-16 Education.

Eras	K-12 Schools	Post-Secondary	School Counseling
Progressive-Era (1890-1940) Post-Industrial Revolution Great Migration World War I Great Depression	Focus on the needs of individual learners Encourage active learning by doing Value scientific strategies	White and African American Students are Segregated College entrance examinations Federal Fund with Morrill Act	Expansion of vocational guidance Started to focus on personal values, personal attributes, aspirations, and interests.
Civil Rights Era (1950-1974) Brown vs. Board of Education Civil Rights Sputnik 1 National Defense Act Higher Education Act	Schools started to have racially diverse student population Schools started to focus more on Science, Technology, Engineering and Mathematics (STEM)	Government provided more financial support Pell grants, educational loan opportunities Colleges started to recruit African American and minority students	ASCA Intelligent & psychological measurements Therapeutic interventions College admission information
Post Nation-at-Risk Era (1980s-Current) A Nation At Risk Report NCLB Race to the Top CCSS PARCC	Globalization, computerization, and automation College and career readiness for all approach Narrowing achievement gaps Accountability	College retention and attainment Financial aid problems Holistic application process Diverse student population	Expertise in college admission, career planning Use Technology leaders, advocates, consultants, coordinators, collaborators

The Social Justice Issues in College Access and College Success

America has been known as "the land of opportunity." In terms of college enrollment
and retention of disadvantaged urban high school students, however, America has been a land of
inequality (Lareau, 2003). One of the most serious concerns in the United States today is the lack
of college access and persistence for disadvantaged urban high school students. With these

thoughts in mind, while the federal government is supporting the states push for college and

career readiness standards and assessments, officials of both K-12 and post-secondary

institutions are exploring effective strategies and interventions to improve the college access and

persistence of students at risk. As Baum and Payea (2004) indicate, despite the progress reforms

have made in improving educational opportunities for minority students, participation in higher

education and graduation from post-secondary institutions differ significantly by family income,

parent education level, and demographic characteristics. The researcher considers this gap in

college enrollment and persistence as a social justice issue that needs to be addressed. In this

dissertation research study, three major groups with low college access and success are of

particular interest: (a) students of color, (b) students from low-income families, and (c) first

generation college students.

Over the last thirty years, (1982 to 2012), minority student enrollment grew at a faster

pace than White enrollment. The representation of minority students in post-secondary

institutions increased from 17% in 1982 to 25.4% in 2012 (NCES, 2012; Smith, 1995). The total

number of minority students increased from 2.06 million to 4.8 million. Demographic

projections indicate that the number of minority students in higher education will continue to

increase (Gordon, 1998). Yet, even though there has been an increase in the number of Hispanic

and Black students who are accepted into college, the gap in college attainment with White, non-

Hispanic student remains large. For example, in 2010, 38.6% of White students earned their

bachelor's degree, African-American and Hispanic students' bachelor's degree completion rates

were 19.4% and 23.3% respectively (NCES, 2011).

Similar to racial and ethnic factors, based on the statistics of the NCES (2008), family

income also plays a crucial role in students' college enrollment and success. According to

information from the U.S. Department of Education datasets, each year, like students of color, students from low-income families are less likely to attend and graduate from college. In other words, income differences among families tend to have a significant impact on the college enrollment rates and success of students. In particular, Bailey (2001) examined data from college graduates in the late 1990s and early 2000s. His study showed that 54 percent of students from wealthy families, or those with a household income in the top quartile, were able to earn their college degrees. On the other hand, only 9 percent of students from low-income households, those with a household income in the bottom quartile, were able complete their degrees.

The limited college access and success of first-generation college students is another national concern that should be considered a social justice issue. It is widely acknowledged by the previous studies that the parents' level of education has a significant impact on their children's college access and attainment (ACT, 2005). In particular, as reported in NCES (2010) students whose parents never enrolled in college are less likely to earn a college degree (40%) compared to students whose parents have a bachelor's degree or higher (69.3%).

When all things are taken into consideration, it appears that there are significant, and in some cases widening, gaps among certain groups of students in terms of college access and persistence. In particular, it is widely recognized that students of color, first generation students, and students from low-income households do not have equal access and opportunities to enter and achieve in college. Therefore, they tend to be underrepresented in public and private post-secondary institutions. This gap is also considered a social justice issue that needs to be addressed across the nation. Furthermore, it is unrealistic to expect that this gap in college enrollment and college success will fully resolve itself without additional intervention and systemic change.

Multi-Level Theoretical Framework

This study relies on four capitals to understand the major barriers that disadvantaged

students encounter while getting into and through college: (a) social capital, (b) human capital,

(c) cultural capital, and (d) financial capital. The literature on each of these is briefly reviewed

below.

Social Capital

The social capital concept, originally proposed by Bourdieu (1986), has since been

elaborated on and refined by numerous researchers. In particular, research finds that providing

social capital, which includes a broad network of ongoing and caring relationships, facilitates

disadvantaged minority students' college access and post-secondary persistence (Tinto, 1975;

ACT, 2005; Perna, 2000; Cates & Schaefle, 2011). In addition, building social capital through an

ongoing and caring relationship plays a vital role in enabling students to gain access to

institutional resources and support that can help students succeed in college (Portes, 1998).

Students with more direct access to supportive personnel and role models who are

knowledgeable about the college admission and financial aid application processes are more

likely to have access to, and succeed in, college (Perna & Tutis, 2005).

It is also noted that the findings and implications of previous college readiness and

college retention research studies also support utilization of the social capital theory to help the

stakeholders understand the challenges of disadvantaged students before and after their college

enrollment. For example, according to Tinto's (1987) theoretical framework, there are various

dynamic factors that affect students' college access, persistence, and attainment. In particular,

aligned with the social capital theory, Tinto (1975) reported that the interaction between students

and institution plays a significant role in students' college persistence and withdrawal behavior.

Overall, it is widely acknowledged that the parents of minority students are less likely to guide, support, and engage their children in the college admission process because they do not have sufficient familiarity with the post-secondary education system and how the college admission and financial aid processes work (Perez & McDonough, 2008). Aside from the lack of parental support, the many children from minority or low-income families enroll in large urban high schools with fever resources to support the college admission process. The Schott Foundation for Public Education (2010) reports that around 80 percent of African American and Hispanic students attend poorly resourced, low-performing schools, and a lack of social capital to navigate the college admission and financial application processes contributes to students failing to enroll in, or dropping out of, college (Bourdieu, 1986; Carbonaro, 1998; Coleman, 1988; Folkman & Lazarus, 1986; Kim & Schneider, 2005)

Even though there is agreement among researchers that building social capital and creating an ongoing, caring relationship with students plays a significant role in disadvantaged students' college access and persistence (Gandara & Bial, 2001; Hossler, Schmit & Vesper, 1999), there is little consensus regarding how to design and lead comprehensive school counseling programs and interventions that improve disadvantaged students' college readiness and success through building social capital. In other words, it seems that insufficient attention has been paid in both secondary and post-secondary institutions to how social capital can be generated.

Human Capital

To identify and define students' college readiness, the researcher thoroughly examined prior research on issues related to the college readiness of students. Reviewing other studies was useful to determine how various college readiness measures have been defined and utilized in

prior research (Rossi, et al., 2004). For example, Kim, Newton, Downey, and Benton (2010) report that the best predictors of college persistence and success have been measures of high school achievement (e.g., grade-point average, achievement tests) followed by generalized measures of achievement or aptitude (e.g., SAT, ACT). These factors, when averaged, generally fell into a range of a .50 correlation with measures of college academic success. Aligned with these previous researches, in this study, the human capital is defined as students' academic preparedness.

In general, it is well documented that students' academic preparedness has a significant influence on college access and post-secondary persistence (ACT, 2005; Berkner & Chavez, 1997; Adelman, 1999). After high school graduation, whether students are headed for four-year universities, community colleges, or vocational or technical schools, it is necessary that they possess the academic foundation and knowledge for getting a degree.

While the academic achievement and academic preparation of students have a significant impact on the students' college success, research shows that disadvantaged students begin college less academically prepared than their counterparts whose parents have college degrees (Bui, 2002; Choy, 2001; Gladieux & Swail, 1999; Thayer, 2000; Adelman, 1999; DeWitt Wallance-Readers' Digest Fund, 1997). Therefore, in this study, disadvantaged students' lack of academic preparedness is explained by having a limited human capital. Similarly, Perna and Titus (2005) identify disadvantaged students' lack of human capital as: (1) Receiving low scores from PSAT/SAT/ACT college entrance exams and state exams, (2) Not taking rigorous college prep courses or curricula during high school years, and (3) Taking remedial courses in the first year of college.

The PSAT serves several functions, including identifying students who might succeed in

Advance Placement (AP) courses and helping students prepare for general and subject SAT tests,

which are cited as one of the most important components for college admission (College Board,

2012; Perna & Titus, 2005). As Vaughn (2010) and Cates and Schaefle (2011) noticed, student

participation in the PSAT reflects some knowledge about their academic readiness and

engagement in the college admission process. In other words, participation in the PSAT indicates

that students are thinking about college in their sophomore and junior years, and are displaying a

predisposition for college attendance (p. 323).

Even though there is a strong emphasis on the importance of the PSAT, previous research

shows that even college-qualified minority students do not tend to take college entrance exams

such as the SAT and PSAT (Berkner & Chaves, 1997). For example, in 2011, only 12.4 percent

of African American students and 13.8 percent of Hispanic students took the PSAT in their

junior year. On the other hand, 58.3 percent of White students took the PSAT in their junior year

in 2011. Like PSAT scores, SAT scores are also used to measure the academic readiness of

students (College Board, 2012). On the 2010 SAT, among racial/ethnic groups in America, both

Blacks and Hispanics scored about 250 points below Whites.

In addition to college entrance exams, a second major indicator of academic readiness is

enrolling in high-level advanced courses during the high school years (Adelman, 1999; Berkner

& Chavez, 1997). Students of color and students from low-income parents are more likely to be

scheduled into low-level academic courses and vocational tracks than their more affluent white

counterparts (NCES, 2008; Gamoran et al., 2011). The College Board (2011) reported that

underserved students are not academically ready for college because many urban high schools

serving disadvantaged minority students are less likely to offer rigorous college prep courses, test

preparation courses, or curricula. Disadvantaged students who lack academic preparedness are

more likely to drop out of college. Thus, failing to enroll in high-level advanced courses during

the high school years can be considered another reason for disadvantaged students' low college

readiness, persistence, and attainment.

Enrolling in remedial math, reading, and writing courses is also a very strong predictor of

college attrition, and it is the most frequently used measure of college academic readiness and

college success (ACT, 2005, 2010). Based on the NCES's (2010) statistics in remedial college

course enrollment, approximately 20 percent of first-year students in public 4-year institutions

and 42 percent of first-year students in public 2-year institutions in the United States are enrolled

in remedial courses. The majority of students who take remedial courses in the first year of

college are minority or first generation students who come from low-income families (NCES,

2010). In particular, while only 18 percent of first-year undergraduate White students took

remedial education courses in 2008, 24.7 percent of African American and 23.3 percent of

Hispanic students took remedial education courses.

Financial Capital

In addition to a lack of social or human capital, previous research has reported that

financial capital is another crucial factor that directly or indirectly affects disadvantaged urban

high school students' college readiness, access, retention, and attainment (ACT, 2004, 2005,

2010; Cabrera, Burkum & La Nasa, 2005; Ishitani & DesJardins, 2002; Grodsky & Jones, 2004;

Holcomb-McCoy, 2010; Paulsen & St. John, 2002). In particular, American College Testing

(ACT) conducted a national study of factors affecting minority students' college attrition (2010).

Hispanic and African American respondents were asked to rate the degree to which student and

institutional factors affected attrition. Based on this report, the attrition factors with the highest

impact on Hispanic and African American student retention include adequacy of personal

financial resources, amount of financial aid available to students, and students' low socio-

economic status, which are highly associated with financial capital.

Based on the previous research cited above, lack of financial capital can be more

specifically defined as: (a) Inability to pay the enrollment and preparation fees of the college

entrance exams, (b) Not having enough funds to participate in college dual enrollment and

summer programs, (c) Having difficulties paying for college tuition and other college-related

expenses. In short, it can be said that the majority of low-income students who lack financial

capital are less likely to be prepared for college.

Consider the following examples: students whose parents have the funds to pay for test

prep programs are more likely to participate in SAT and ACT preparation programs and improve

their test scores (Holcomb-McCoy, 2010). Students whose parents have more financial resources

are more likely to attend colleges' summer enrichment programs and camps to experience the

college campus life and earn college credits while in high school. College summer institutes and

dual enrollments are great opportunities for high school students to become college ready by

gaining a real college experience early. For instance, one of the most well-known summer

programs is Harvard's Secondary School Program, which helps high school students explore

subjects not available at their high schools. However, as reported at Harvard Summer School's

website (2013), if students choose to live on campus during the Harvard's six-week Secondary

School Program, they have to pay $10,690 dollars, which includes tuition for courses, room, and

board fees. It might be very impossible for disadvantaged students who come from low income

families to find over 10,000 dollars for six week long summer program.

Cultural Capital

Cultural capital can be understood as building shared norms, high expectations, beliefs, and values regarding the necessity and importance of post-secondary education which includes four year universities as well as community colleges, vocational schools and military schools, Cultural capital, which includes the encouragement, vision, motivations, beliefs, and values of parents, teachers, counselors, and all other community stakeholders, is considered very valuable for getting into and graduating from college (Bourdieu, 1986; Perna & Tutis, 2005; Dumais, 2002). Salazar (1997) noticed that cultural capital, which includes high expectations and college goals, is more likely to be accrued for higher-income White students than lower-income minority students. Similarly, McDonough (1997) found that middle and upper-class parents possess the most valued forms of cultural capital, which encourages parents to invest in higher education. Low educational expectations and low academic standards at home and school leave disadvantaged minority students less likely to prepare for college and future careers, and less likely to get accepted into a college and complete their college education. A lack of cultural capital is conceptualized as low expectations and a lack of encouragement from: (a) parents, (b) institutions, and (c) community members.

In summary, it is well documented that disadvantaged students do not get proper social, human, financial, and cultural capitals from their families, friends, communities, and institutions. Therefore, the current capital inequality causes disadvantaged students to fall behind in college access, persistence, and attainment. Furthermore, previous studies indicate that disadvantaged students who have limited capitals need more help and ongoing support from their parents and institutions in preparing for college and/or careers.

When all things are taken into consideration, the lack of these four capitals can explain

why many disadvantaged students: (1) leave their high school unprepared for college in terms of

skills and knowledge, (2) lack of academic foundation for college level work, (3) fail to navigate

the college admission and financial aid application processes successfully, (4) have serious

problems adjusting to college, and (5) fail to stay and achieve in college. These are the barriers to

disadvantaged students' college access and success, which the researcher conceptualized into a

theoretical model that includes social capital, cultural capital, financial capital, and human

capital (see Figure 4).
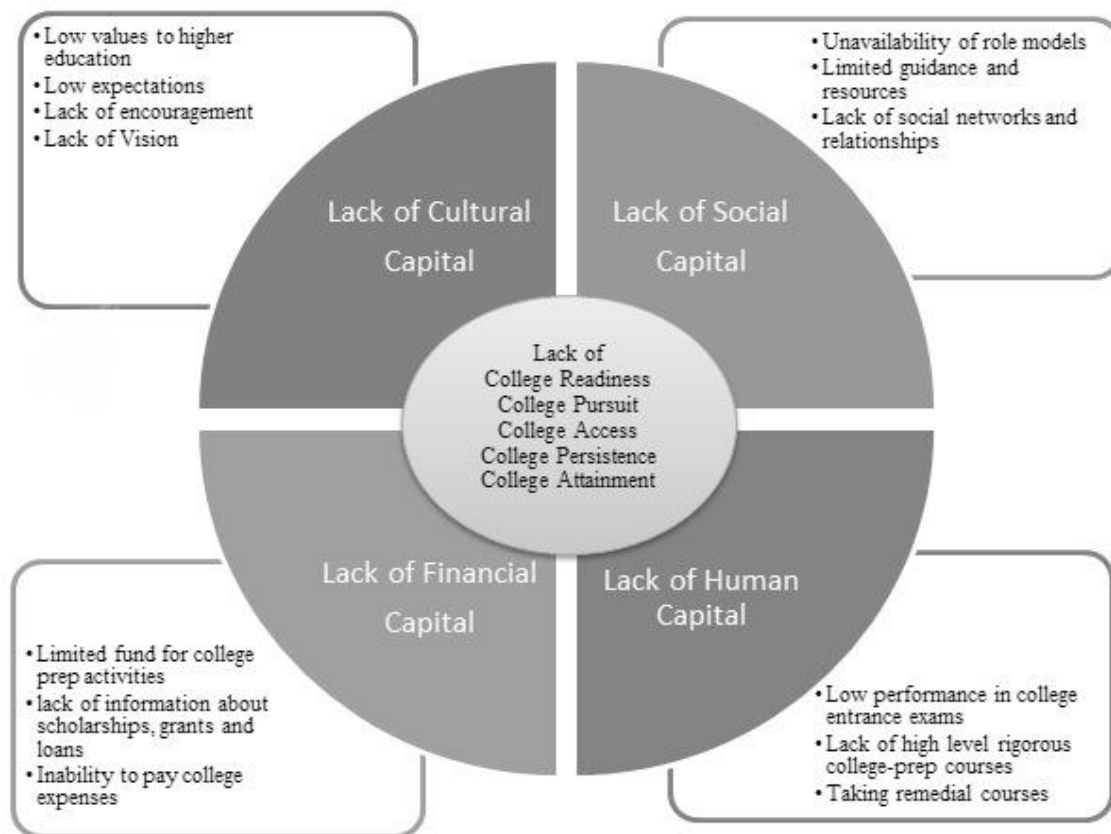
Figure 4. The influence of capitals on student outcomes.

What Works in Improving Disadvantaged Students' College Access, Persistence, and

Attainment?

Over the past three decades, there has been growing attention paid to implementing

alternative college preparation and retention interventions to increase the college access and

success of disadvantaged students. Practitioners, researchers, and policymakers have made

efforts to develop various interventions, treatments, and preventions to improve students' skills,

knowledge, confidence, and aspirations so they can enroll, stay, and succeed in college (Fenske,

Geranios, Keller, & Moore, 1997; Perna & Titus, 2005). In this part of the dissertation, the

researcher investigates recent strategies, trends, and best practices that help disadvantaged

students achieve their college and career goals. Furthermore, it also articulates important

variables relevant to what works in disadvantaged students' college readiness, access, and

success. As Lotkowski, Robbins, and Noeth (2004) note, helping students get ready, get into, and

get through college is a long-term investment that requires systemic approaches and

collaborative efforts. With this statement in mind, the next part of the literature review was

designed to answer the following question: "What are the K-12 practices, services, and

interventions that help disadvantaged minority students improve their college readiness, pursuit,

enrollment, and persistence?"

A significant amount of previous research has emphasized the role of high schools and

pre-college experiences in improving students' college readiness and success. Particularly, they

have revealed that if disadvantaged students receive proper support and guidance during their

high school years, then they are more likely to get into and through college (Adelman, 2006;

College Board, 2010; Lotkowski, Robbins & Noeth, 2004). The review of research regarding the

roles and responsibilities of high schools in promoting disadvantaged students' college access,

persistence, and attainment is organized around the eight components of college and career

readiness counseling developed by the College Board National Office for School Counselor

Advocacy in 2010. The eight components are (1) building and promoting students' college

aspirations; (2) improving students' academic preparation for college; (3) enhancing students'

personal and social development; (4) providing ongoing support in the college and career

exploration and selection processes, (5) conducting college readiness and career assessments; (6)

preparing an individualized college affordability plan; (7) easing the college admission

processes; (8) helping transition from high school to college.

Building and Promoting Students' College Aspirations

First-generation college-bound minority students from low-income families tend to have

low college aspirations that prevent them from accessing post-secondary institutions (Howard,

2003; Pitre, 2006; Toldson, 2009). Studies find that that promoting college aspirations, setting

and maintaining high expectations, encouraging students to attend college, and giving equal

access to college preparatory and advanced placement courses are all very important components

of improving college access for disadvantaged students (Howard, 2003; Toldson, Braithwaite &

Rentie, 2009).

Improving Students' Academic Preparation for College

Developing and delivering high quality instruction and a rigorous high school curriculum

contribute to students' college retention and success (Adelman, 1999; Choy, 2001; ACT, 2004).

Gandara and Bial (2001) examined evaluative data on the effectiveness of K-12 intervention

programs that are specifically designed to increase disadvantaged students' access to post-

secondary education. They found that the K-12 interventions appeared to be most effective in

improving students' college access when they provided high-quality instruction and academic

advisement (Horn & Nunez, 2000).

Similarly, Hooker and Brand (2010) also studied program evaluations by reviewing and

comparing the impacts of interventions that are designed to improve students' college readiness.

In their program evaluation study, the areas of rigor and academic support appeared to be the

most important shared aspects of the programs in promoting college readiness and success. A

limitation of this study is that they did not provide specific and descriptive data regarding the

program implementation. However, this information and strategies may not have been provided

by the studies reviewed.

Enhancing Students' Personal and Social Development

Cabrera and Burkum (2005) provide an overview of college admission criteria employed

in the United States. Based on their study, American colleges and universities employ multiple

admission criteria when screening college applicants including academic performance in college

preparatory courses, high school success and rankings, college entrance exams, written essays,

interviews, recommendations from high school counselors and teachers, involvement in

community service, leadership skills, and participation in work/extracurricular activities.

Parallel to Cabrera and Burkum's (2001) study, in 2001, the National Association for

College Admission Counseling (NACAC) surveyed 1,600 institutions to identify college

acceptance trends. They found that while accepting students, American colleges and universities

put a heavy emphasis on the academic readiness of students, such as grades in college

preparatory courses (77.8%), high school rankings and college entrance exams (57.7%), and

grades in all subjects (42.6%). However, it seems that there are also non-academic factors such

as the ability to pay (0.9%), samples of written essays (19.6%), interviews (10.6%),

recommendations from high school counselors (15.1%) and teachers (14.2%), involvement in

community service (8.1%), and participation in work/extracurricular activities (7%) that all

affect post-secondary admission decisions.

As Cabrera and Burkum (2001) found, the college admission criteria of American

colleges and universities has been changing. In the past, post-secondary institutions focused

solely on test scores and high school GPA. However, in the 21st century, non-academic factors

such as the ability to pay, samples of written essays, interviews, recommendations from high

school counselors and teachers, involvement in community services and participation in

work/extracurricular activities are all taken into consideration when colleges are accepting their

students. With that end, College Board (2012) recommends schools to collaborate with key

stakeholders to incorporate support for enrichment and extracurricular engagement into

academics.

Providing Ongoing Support in College and Career Exploration and Selection Processes

As discussed above, the majority of disadvantaged students have lack of the social and

cultural capitals needed to successfully navigate post-secondary pathways. Therefore, high

school counselors' college and career counseling sessions play a significant role in

disadvantaged students' college access and success. Mahoney and Merritt (1993) found that a

large portion of disadvantaged students considered both high school counselors and teachers to

be important in helping them make college plans. Similarly, White and Sadlacek (1986) found

that the availability of a strong support system improved college access and retention.

Parallel to these statements, the College Board (2010) recommends that secondary

institutions provide early and ongoing exposure to the experiences and information necessary to

make informed decisions when selecting a college or career that connects the students to

academic preparation. To provide this type of individualized support to improve college access

and success among underrepresented populations, ASCA (2012) recommends a 250-to-1

student-to-school-counselor ratio. However, as reported on the ASCA's official website (2012),

the national average was 471-to-1 in the 2010–2011 school year. Without a 250-to-1 student-to-

school-counselor ratio, providing ongoing individualized support for low-income first-generation

students, and preparing them for college and career readiness, does not seem feasible.

Conducting College Readiness and Career Assessments

In recent decades, the advancement of technology and increasing demand for highly

skilled workers has placed a strong and renewed emphasis on the delivery of comprehensive

career development and guidance programs in schools across the United States (Dahir & Stone,

2012, p.419). However, preparing students to select their best career pathways and guiding them

to enroll in an appropriate post-secondary education is not an easy or simple task for educators.

In the USA, there are approximately 4,000 post-secondary institutions, which include four-year

colleges, two-year colleges, career training, and vocational and technical schools. With

thousands of college choices, as well as hundreds of major and minor choices, high school

students face a difficult task in picking a path that is right for them.

Feller (2003) and the U.S. Council on Competitiveness (2007) conclude that the college

and career readiness of students is a very complex situation that requires a collaborative,

systemic approach, as well as a greater investment in comprehensive school counseling and

career guidance programs. This suggests an important role for career assessments and other

career exploration tools to support the students' college and career aspirations comprehensively

(Dahir & Stone, 2012; The College Board, 2010).

Preparing Individualized College Affordability Plans

Each year, a significant number of students are either unable to enroll in college or stop their college education because of financial issues (Burkum & La Nasa, 2005; ACT, 2005). The College Board (2010) recommends that both secondary and post-secondary institutions provide students and families with comprehensive information regarding college costs, options for paying for college, the financial aid and scholarship processes, and eligibility requirements so they are able to plan in advance and afford a college education. Bettinger, Long, Oreopoulos and Sanbonmatsu (2009) also report that students who received systemic assistance with the FAFSA and information about aid are substantially more likely to submit the required financial aid applications, enroll in post-secondary institution the following fall, and receive more financial aid. Therefore, they suggest that simplification of the FAFSA application and providing information for college affordability could be effective ways to improve students' college access.

Easing the College Admission Processes

Due to a lack of contextual information and lack of guidance about college admission processes, many disadvantaged students graduate ready to attend four-year colleges, but never enroll in colleges (Dynarski & Scott, 2007; Hooker & Brand, 2010). Particularly, Griffin, Allen, Kimura-Walsh, and Yamamura (2007) found that many disadvantaged students do not receive sufficient guidance and support to select post-secondary paths that match their academic potential.

Conley (2007) examined the programs and practices of high schools that have evidence of success in preparing underrepresented students for higher education. Nearly 200 schools were identified as candidates for inclusion through a literature review and nomination process. The researchers collected extensive information on each school, and carefully considered the school

type, location, performance indicators, and, in particular, college readiness activities and

practices to identify exemplary programs. They identified 38 high schools throughout the United

States that had consistently graduated college-ready students from underrepresented groups.

After the 38 schools were selected, the following data collection methods were employed:

interviews, focus groups, online questionnaires, document analysis, and site visitations. Conley

(2007) indicated that participating schools fostered college readiness among students by easing

the college admission processes through building partnerships with post-secondary institutions.

Based on this study, Conley (2007) recommends that secondary institutions provide systemic

guidance in college and career exploration, and the selection processes.

Helping Transition from High School to College

Many programs offering early college experiences were developed in recent years to

accelerate students' college and career readiness (Swail & Perna, 2002; Rossi, Lipsey &

Freeman, 2004). In particular, the Early College High School Initiative (ECHSI), which was

launched in 2002 with the support of the Bill & Melinda Gates Foundation, helps disadvantaged

students earn both a high school diploma and an associate's degree, or up to two years of credit

toward a bachelor's degree. ECHSI's priority is to serve low-income, first-generation college

students, and English language learners, all of whom are statistically underrepresented in higher

education. In general, the Early College High School Initiative emphasizes underserved urban

high school students' academic preparation, support, and success in higher education by

providing a comprehensive support system (The Early College High School Initiative, 2009).

It is reported that Early College High Schools have three key features that promote

success for even the most struggling students: (1) small classes; (2) individualized support based

on identified needs; and (3) provisions of a nurturing learning environment. In terms of an

evaluation approach, ECHSI (2009) utilized both qualitative and quantitative data resources to measure the impact of the initiative on students' college readiness. These mixed methods were used to assess intermediate and long-term outcomes for students attending college courses while still in high school. In 2007, over 900 students graduated from 17 ECHSs around the country. Preliminary data showed that: (1) over 65 percent of the graduates were accepted into four-year colleges or chose to complete an associate's degree; (2) more than 85 percent graduated with substantial college credit; and (3) more than 250 early college high school graduates earned merit-based college scholarships. According to the evaluation report, students in the ECHSs are doing well academically at both the high school and college levels.

Overall, the study indicates that ECHSs are helping students become college and career ready. For example, according to American Institutes for Research (2009), Early College students were significantly more like to graduate from high school than comparison students. Specifically, eighty-six percent of Early College students graduated from high school, while 81 percent of comparison students graduated from high school. Moreover, they found that Early College students were significantly more likely to enroll in college than comparison students. It is also reported that during the study period, 80 percent of Early College students enrolled in post-secondary institutions, compared with 71 percent for comparison students. Early College students were also more likely than comparison students to enroll in both two-year and in four-year colleges or universities (American Institutes for Research, 2009).

In terms of evaluation approach, theory, data collection, and analysis, the evaluation report of ECHSs were well structured. The mixed method fit the design and purpose of the evaluation. However, in the evaluation report, there are some parts that could have been completed differently to improve the quality of the ECHSI evaluation. For instance, the

evaluation mostly emphasized positive relationships between ECHSs and colleges; it did not

discuss potential tensions and logistical challenges that are present while establishing these

partnerships. In particular, the method colleges and high schools use to collaborate on recruiting

students who might be academically unprepared was not mentioned. Therefore, the evaluation

could have been improved by focusing on some challenges and tensions of building high school

and college partnerships. Furthermore, providing concrete guidelines and case studies for the

college readiness of underprepared students would help improve the effectiveness of the

evaluation. In addition, not enough information was provided regarding the effective

collaborative efforts of high school teachers and college professors. Instead of only describing

the roles of high school teachers, the evaluation could have been improved by offering practical

strategies that indicate how different stakeholders could plan vertical academic curriculums.

Like ECHSs, Upward Bound is another program that focuses on early college

experiences (Swail & Perna, 2002). Upward Bound is supported by the U.S. Department of

Education with the objective of increasing college-going rates in underrepresented students

(NCES, 2001). Upward Bound targets students whose families have low incomes, or who would

be the first in their families to go to college. Overall, Upward Bound provides academic

instruction in mathematics, laboratory sciences, composition, literature, and foreign languages. A

key aspect of the program is the 6-week summer session hosted by a college campus, where

students receive intensive pre-college academic preparation. Extra academic support is provided

in the form of tutoring and academic courses, usually held on Saturdays or after school. Finally,

in order to make students college-ready, financial aid counseling and college counseling services

are also provided for Upward Bound students (Myers & Schirm, 2009).

The evaluation report of Upward Bound utilized quantitative data to compare Upward Bound students to similar students in the same schools. Evaluation of the program has focused on high school retention and the program's effectiveness in increasing college-going rates. The findings of past researchers vary. Swail & Perna (2002) found that students who stay in the program to completion were more likely to go on to college. Results from the third follow-up data collection suggest that for the average student, Upward Bound (1) increased the number of high school math credits earned by participants; (2) did not affect other measures of high school academic preparation; (3) may have increased enrollment at four-year institutions; and (4) did not affect enrollment at post-secondary institutions more generally when all types of post-secondary institutions were considered.

In conclusion, when all things are taken into consideration, in order to explain what works in improving college readiness of disadvantaged students, the researcher utilized the adaptive version of the Eight Components of College and Career Readiness Counseling are: (1) build and promote students' college aspirations; (2) improve students' academic preparation for college; (3) encourage students' engagement to enrichment and extracurricular activities; (4) provide ongoing support in college and career exploration and selection processes; (5) conduct college readiness and career assessments; (6) prepare individualized college affordability planning; (7) ease the college admission processes; (8) help transition from high school to college by providing early college experiences. These eight components of college and career readiness counseling which were developed by the College Board (2012) have the capacity to provide stakeholders with a very helpful and comprehensive framework to build college and career readiness for all students.

Limitations of Existing Research

While reviewing the literature for college readiness and college success, the researcher

noted that there are still limitations to the existing research. These include: (a) a lack of research

on the partnership between post-secondary institutions and secondary schools; (b) limited use of

theory to interpret findings and propose recommendations; (c) not estimating budget; (d) validity

issues; (e) lack of a needs assessment; (f) limited focus on the implementation process; and (g)

high attrition rate.

The major argument about the existing college retention studies is that they disregarded

the roles of high schools in improving the students' college retention. While the literature is

focusing on students' high school experiences to improve their attainment rates, it was surprising

that the retention studies did not include any strategies that encourage establishing

institutionalized partnerships between post-secondary institutions and secondary schools. In

other words, according to the ACT and College Board retention studies, the role of post-

secondary institutions through policies and practices affecting persistence and graduation is

critical; however, we know little about how both secondary and post-secondary institutions can

work collaboratively and establish institutionalized partnerships to improve disadvantaged

students' college readiness and attainment. To fill this need, this dissertation study will discuss

effective collaborative retention strategies among post-secondary institutions and secondary

schools.

The second drawback of the previous retention studies is that many of them provided

neither the conceptual framework of their modes, nor a comprehensive theoretical background of

their findings and recommendations. Providing the conceptual framework of their modes or

theoretical background could have been helpful to improve the quality of their findings and

recommendations. With that end in mind, this dissertation study seeks to fill this gap by

combining and analyzing various capitals to better explain the needs of disadvantaged students

and help them succeed in college. Moreover, this comprehensive theoretical framework is

expected to contribute to the post-secondary institutions' efforts to increase urban high school

students' college enrollment, persistence, and graduation.

The third limitation of the previous retention studies is that none of them clearly utilized

the programs' economic analysis. The estimation of and comparison between costs and benefits

of educational programs is one of the most important considerations in deciding whether to

expand, continue, or terminate (Lipsey & Freeman, 2004). Previous retention studies mentioned

that post-secondary institutions spent a significant amount of time, effort, and money in

increasing the college persistence and attainment of disadvantaged students, but they did not

provide a frame of reference for relating costs to program results. If costs are too high and

irrational, the reward for making the change might be seen as inadequate (Fullan, 2007). It is

noted that in general, the previous retention studies neglected to report on financial issues. Cost

benefits and effectiveness analyses could have been conducted to provide information to help

administrators make decisions about the cost and allocation of resources. It might also be helpful

to educate readers about the cost of implementation and its expected long-term and short-term

outcomes (Lotkowski, Robbins, & Noeth, 2004).

Validity issues can be considered the fourth limitation of the previous research, which

focused on measuring the impacts of comprehensive school counseling programs. In other

words, when the researchers correlated the relationships between program components and

student outcomes, they did not include or mention the potential effects of the students'

demographics and their initial academic achievement, which might directly or indirectly affect

the positive results. Therefore, this study is different from other studies. While using regression

analysis, the researcher used and included basic student demographics (gender, race, ethnicity,

lunch type, parent's education, special education, and ESL) as well as their initial GPAs.

The lack of a needs assessment is another limitation of previous studies. Needs

assessments are a fundamental component of program evaluations, as a program cannot

effectively ameliorate a social problem if there is no problem to begin with (Rossi, Lipsey &

Freeman, 2004). Even though there is mounting evidence to support the importance of needs

assessments in program evaluations, a majority of the previous studies did not utilize or mention

any version of a needs assessment process. It seems that many institutions are investing a

significant amount of time, energy, and money on the programs' interventions without measuring

the actual needs of the students. Therefore, evaluations of previous programs could have been

improved by receiving input from key informants through needs assessments.

Another noticeable weakness of the previous studies is that the program evaluators did

not give detailed examples and specific explanations about the roles and responsibilities of key

stakeholders. In other words, researchers mostly emphasized the impacts of the programs but

they did not explain the implementation process and the assignments of key stakeholders in

detail. The unclear roles of stakeholders and lack of information about the implementation phase

makes it difficult to generalize the potential effectiveness of these programs to anyone other than

the teachers and counselors who were studied. Instead of describing only the program

components, the generalizability of the programs could have been improved by offering practical

strategies indicating how stakeholders would work collaboratively to implement the

interventions.

Finally, attrition is considered a major problem of research on college readiness intervention programs that are designed to improve the college readiness of minority or underserved students. Few researchers either report or know how many students who begin their program actually complete it (NCES, 2001). For example, in the Upward Bound program, approximately one third of the students who began the program quit by the end of their first year, and only about one third of students actually completed the program. Similarly, ECHSI (2009) did not provide a comprehensive report on how many students who began their program actually completed the Early College High School. In this case, even though the evaluator of the program designed a high-quality comprehensive evaluation plan, it is not possible to measure the full impact of the program because of the high program attrition rate. Because of this gap in data, the opportunity to develop strategies to control and manage the program attrition rate, which could have been utilized to increase the quality and effectiveness of the programs, were lost.

**CHAPTER THREE: COMPREHENSIVE COLLEGE READINESS ACCESS AND
SUCCESS PROGRAM (CRASP)**

As the chair of the PCSST school counseling department, the researcher has developed

and led CRASP to provide all PCSST students with ongoing academic support, assistance with

financial aid issues, and individualized college and career counseling to help them improve their:

(a) college readiness, (b) college pursuit, (c) college access, and (d) college persistence. In

particular, CRASP was framed using the core qualities and components of the ASCA National

Model® (2005 and 2012) that support a research-based and holistic approach. Thus, this chapter

describes how CRASP incorporates the four components of the ASCA National Model

(American School Counselor Association, 2012): Program Foundation, Delivery System,

Management System, and Accountability.

CRASP Foundation

Aligned with the ASCA National Model® (2012), the elements of CRASP's foundation

include beliefs, vision statement, mission statement, and program goals.

CRASP belief statement. As guided by the ASCA National Model (2012), the ultimate

belief behind CRASP is that all students deserve the opportunity to attend post-secondary

institutions to help them succeed in life. CRASP's guiding principle is that all students have self-

worth and an innate potential to achieve in school and throughout their lives. It is the school's

responsibility to treat all students with dignity and encourage them to discover their own

personal and academic strengths.

Previous studies have showed that when schools design and deliver comprehensive

school counseling programs that are aligned with the ASCA National Model, disadvantaged

students receive measurable benefits in their college and career readiness (Carey & Dimmitt,

2012; Brown & Trusty, 2005; Gysbers & Henderson, 2012). Thus, PCSST counselors believe

that implementing comprehensive counseling programs plays a vital role in improving the

academic, personal/social, emotional, and career development of students. In accordance with

these beliefs, it is CRASP's primary focus to ensure that all students receive personalized college

and career guidance and as well as the academic advice to help make decisions, set goals, and

take the necessary actions to achieve their college and career goals.

CRASP vision and mission statements. Building a shared vision and holding every key

stakeholder accountable for creating a college-going culture is also another important component

of the program implementation (ASCA, 2012; Ladson-Billings, 1999). Therefore, the vision

statement of CRASP focuses on helping and guiding the development of effective school

counseling programs and interventions. In particular, both the vision and mission statements

follow PCSST's school-wide mission statement, as well as the ASCA National Standards and

student competencies.

To that end, CRASP's vision is to prepare self-directed college and career-ready students

who have high expectations for their education, career, and life. Aligned with this vision,

CRASP's ultimate goal is to see all of PCSST's students graduate from high school, enroll in

college, and persist and graduate from college. This vision is communicated with all PCSST

stakeholders through professional development and training activities. During the school-wide

meetings and trainings, the message "all students have the potential to get into, achieve, and

graduate from college if the proper guidance, support, and access to resources are provided," is

constantly given. It was also strongly emphasized that partnership among counselors, teachers,

parents, administrators, and community members is crucial in supporting students' college

access, persistence, and attainment.

The mission statement of CRASP is to help all students reach their full potential by developing the essential academic, personal/social, and career skills needed to get ready for college and a career, and become productive citizens of America. Aligned with the program mission and vision, CRASP aims to improve students' academic preparedness for college and provide systemic career information so they can make informed career decisions. In order to reach out to all students and make all of PCSST's counseling programs and supportive services available and accessible, PCSST's counselors play a very proactive role in the school building by being visible and accessible at all times.

CRASP goals. Program goals define how the vision and mission will be accomplished and guide the design of the curriculum and action plans (ASCA, 2012). While developing program goals, Rossi (2004), The College Board (2010), and the ACT (2008) recommend that stakeholders utilize comprehensive need assessments that provide the guidance and support necessary to design and lead systemic academic and counseling services. Therefore, in the beginning of the school year, PCSST school counselors consult with various key stakeholders to identify the program goals as well as the needs of students and stakeholders. The feedbacks of students, teachers, administrators and parents provide a road map for the counselors to develop and plan necessary interventions and counseling services by identifying current program strengths and areas where improvement is needed. Overall, CRASP's goals were developed using the collaborative efforts of the key stakeholders, which include the school administration, teachers, and parents, as well as the students themselves. Program goals that are aligned with students' needs provide the systemic guidance and support necessary for all PCSST students to graduate from high school prepared to get into and through college.

To that end, based on the students' needs, the PCSST team of professional counselors set specific goals in five domains, which include (1) college readiness goals (improving GPA, ACT, SAT, and PSAT scores), (2) college pursuit goals (improving FAFSA applications, scholarship amount, and the number of college application), (3) college enrollment goals (improving the percentage of 4-year college enrollment), (4) college persistence goals (improving 1st year persistence, 2nd year persistence, 3rd year persistence, and 4th year persistence), and (5) college attainment goals (improving the on-time degree attainment rate).

In order to reach these pre-assigned goals, PCSST school counselors, along with administrators and teachers, periodically review available data and modify the goals and plan accordingly. Furthermore, the PCSST counseling department strives to provide ongoing individualized counseling and necessary educational services. During the goal setting process, both short-term goals and long-term plans are considered and investments are allocated accordingly. For instance, CRASP implementation begins in sixth grade. Then, the real impacts of CRASP will be measured after these students graduate from college. This means that stakeholders need to wait for a total of eleven years to see the complete products of their investments.

CRASP Management

The management component of the ASCA National Model (2012) provides PCSST counselors with organizational assessments and useful tools that have been designed to manage CRASP. Aligned with the ASCA National Model (2012), in order to deliver and manage counseling services effectively, PCSST counselors incorporate the following items:

Assessment tools. As the first part of the management component of the ASCA Model (2012), PCSST counselors utilize the School Counselor Competencies Assessment, which helps

school counselors self-assess their knowledge, attitudes, **abilities,** and skills that are necessary to

perform the range of counselor responsibilities in program development, as well as the

foundation, management, delivery, and accountability of CRASP. In addition, the school

counseling program assessment is used to evaluate CRASP. As stated in the ASCA (2012), the

assessment findings help PCSST counselors identify strengths and weaknesses of CRASP and

provide direction for continued program improvement. As the ASCA (2012) indicates, effective

use of time is crucial to implement a successful counseling program to utilize the available

resources efficiently and limit non-counseling duties. In that aspect, PCSST counselors focus on

spending more time on direct counseling services with students, which include systemic

individual counseling sessions and in-class presentations, as well as group counseling sessions

regarding students' college and career readiness.

In particular, PCSST counselors created individual timetables showing their distribution

of total counseling hours and percentages in order to use their time as effectively as possible. As

ASCA National Model (2012) recommends that PCSST school counselors spend 80% of their

time in direct service with students, with 30% of that time spent on guidance curriculum, around

30% for individual student planning, and 20% for responsive services. Furthermore, the

remaining 20% of the time is set aside for program management and school support services,

such as the school counseling program's foundation, management, and accountability tasks (p.

43). After PCSST counselors determine the amount of time necessary in each area of the delivery

system, they develop and publish annual, monthly, and weekly calendars to keep students,

parents, teachers, and administrators informed.

Annual counselor agreements. Another tool of the management component of the

ASCA National Model (2012) is an annual agreement. At the beginning of each school year,

administrators and counselors come together to prepare collaborative agreements which are

aligned with ASCA's tool that prioritize school counseling activities, timelines, and

implementation plans to improve the PCSST students' college access, persistence, and

attainment. The agreements include the counselors' office hours, means of communication,

student assignments, the specific roles and responsibilities of the counselors, distribution of total

school counseling hours, and what materials and supplies are needed. The purpose of these

agreements is to help school counselors ensure to meet each student's academic, personal/social,

and career needs through comprehensive school counseling programs. Furthermore, these

agreements, which are negotiated with and approved by PCSST administrators, address how the

school counseling program is organized, and what will be accomplished during the school year

(ASCA, 2012).

As indicated in the agreements, school counselors' duties are divided by grade level and

vary based on expertise and strengths. However, counselors collaborate as a team to make sure

that we are all aware of various issues pertaining to each grade level. This allows them to

become familiar with all students. The school counseling department also meets weekly to

review each counselor's calendar and make any necessary revisions.

Each PCSST school counselor has an individualized agreement to serve and meet the

needs of each student. In particular, elementary school counselors provide ongoing individual

counseling, elementary character education, academic interventions, and group counseling

services for students' academic, personal/social, and career development. Furthermore, they

maintain positive relationships with parents, teachers, students, and other staff. Additionally,

elementary school counselors act as Intervention and Referral Service coordinators to provide

appropriate services for special education students. They also conduct in-class presentations,

which promote early college and career awareness. Both elementary school counselors also serve

as Harassment Intimidation and Bullying (HIB) specialists.

In addition, the PCSST middle school counselors also provide systemic individual

counseling to each student at least three times during the year, track monthly academic progress,

provide group counseling on academic improvement plans, and expose middle school students to

the college admissions and career planning processes. Likewise, the PCSST high school

counselors provide individual academic planning to each high school student at least three times

a year, track academic progress, provide group counseling on topics such as college admissions,

test strategies, and time management, inform students about college and career planning during

the in-class presentations, register students for the SAT, and aid students during their college and

FAFSA application processes. They also organize on-site college visits and instant decision

days, as well as the dual enrollment program. Moreover, all school counselors conduct home

visits in order to increase parental involvement. Finally, they serve as PCSST College Coaching

Program mentors to prepare students for Ivy League and other selective colleges.

Finally, the K-12 school counseling department chair supervises school counselors, and

coordinates and directs several intervention and counseling programs such as the College Dual

Enrollment Program, College Coaching Program, Scheduling Program, Alternative High School

Assessment Program, Interventions, Educational Learning Plans, SAT Prep Program, Instant

Decision Days, Home Visits, National Honor Society Program, and the Alumni Support

Program. The department chair also conducts in-class college and career readiness presentations,

and organizes college on-site admission days, college enrollment trips, and invitations. He also

serves as a district test coordinator for grades K-12, coordinates state tests, and trains the

teachers. Furthermore, as a school counseling department chair, he also participates in all weekly

administrative meetings to represent the school counselors.

Advisory council. Another tool of the management component of the ASCA National

Model is establishing advisory councils that provide a forum for open dialogue between schools

and communities, and show the perspective of various stakeholders for the counseling program

(Dahir & Stone, 2005). Therefore, as guided by the ASCA National Model (2005), in order to

review and monitor the counseling program activities and make recommendations to improve the

quality of the counseling services, an advisory council is established. The advisory council

represents all key stakeholder groups, which include: (a) a student representative from middle

and high schools, (b) parents, (c) teachers, (d) school counselors, (e) the SAC/HIB coordinator,

(f) administrators, and (g) a community member. Overall, the PCSST advisory council focuses

on initiating, implementing, and sustaining a comprehensive school counseling program that

focuses on improving students' personal, social, and academic development, as well as college

and career readiness.

Plans and calendars. Effective planning and developing systemic action plans are

necessary to develop and deliver meaningful counseling activities (Dahir & Stone, 2012).

Aligned with this statement, PCSST school counselors use action plans. Each year, PCSST

counselors collaboratively prepare comprehensive action plans to systematically provide

counseling activities and services to students. As the ASCA (2012) recommends, each PCSST

action plan contains: (1) goals to be addressed, (2) related domain areas of national standards and

desired student competencies, (3) a description of the activity, (4) the titles of any packaged or

created curriculum, (5) the timeline in which the activity is to be conducted and completed, (6)

who is responsible for delivery, (7) the method of evaluating school success, (8) expected results

for students and (9) reflection. The main focus of the action plans is improving student success,

increasing college awareness, and helping students' SAT preparation, college search, financial

aid, and college applications.

Building a collaborative effort, and designing action plans and calendars play vital roles

in meeting the diverse and complex needs of students in an efficient manner (Dahir & Stone,

2012; College Board, 2012; ASCA, 2012). In line with these focuses, PCSST counselors work

with key stakeholders to address these needs and reach their ultimate goals. They describe the

activities with details in a timeline, and they share responsibilities for expected results.

Moreover, the school data profile, program results data, lesson plans, and monthly and annual

calendars are utilized to outline each counselor's weekly activities, including in-class

presentations, small-group counseling sessions, individual counseling sessions, career fairs,

college trips, SAT preparation programs, character education activities, college spirit days,

professional development days, home visits, testing timelines, college and financial aid

timelines, and evening workshops that contribute to the students' academic, personal/social,

emotional, and career development.

CRASP Delivery System

In reference to the ASCA National Model (2012), the delivery system is the main part of

CRASP that offers both direct and indirect counseling services. The list of CRASP components

and their brief descriptions are listed below:

K-12 school core counseling curriculum. As recommended by the ASCA (2012),

CRASP consists of a K-12 counseling curriculum that is comprehensive in scope, preventive in

nature, and developmental in design. Professional PCSST school counselors organize

developmental workshops, in-class presentations, and structured guidance lessons that are

designed to provide all students with the knowledge and skills required for their college and

career readiness. In order to deliver the K-12 school counseling curriculum, the six full-time

professional PCSST school counselors conduct college and career readiness presentations

systemically for each grade level during the school year. Classroom presentations that are

aligned with the ASCA National Model Standards are infused throughout PCSST's overall

curriculum and are presented systematically throughout the advisory periods. These workshops

and guidance lessons are modified based on the students' needs and categorized into four major

domains which are (1) Character Education & Personal Wellness; (2) Knowledge and Life Skills

Building; (3) Career Development; and (4) College Readiness, Access, and Success.

      Individual learning plans and academic advising. Aligned with the new accountability

standards, all public schools in New Jersey are strongly encouraged to use the Educational

Proficiency Plan (EPP) to document student work required by 6A:8-4(c-d). Academic advising

and individualized learning plans incorporate students' personal strengths, skills, abilities,

values, and areas of interest, matching those personal assets with college and career options that

are the most appropriate fit for each student.

      The New Jersey Administrative Code also defines a Personalized Student Learning Plan

as:

      a formalized plan and process that involves students setting learning goals based

      on personal, academic and career interests beginning in the middle school grades

      and continuing throughout high school with the close support of adult mentors

      that include teachers, school counselors, and parents (N.J.A.C. 6A:8).

      Parallel to the expectations of the New Jersey Administrative Codes, one of the areas

that CRASP focuses on is continuous academic improvement of students in grades K-12.

Therefore, to help all students academically improve, PCSST implement an individual learning

plan that consists of the following components: (1) web-based student information system; (2)

academic data chart that includes students' individual scores in standardized, diagnostic and

benchmark tests; (3) student survey to identify what the student sees as his/her strengths and

challenges in core subjects or in general; (4) individual proficiency plan that includes goal

setting, action plans and specific recommendations for academic improvement plan, (5))

communication chart that shows how teachers, counselors, parents, and students work

collaboratively to prepare the individual learning plans, monitor and evaluate the progress made

during the school year.

In order to implement individualized learning plans, the PCSST school counseling

department takes the following steps. First, all school counselors work together and collaborate

with key stakeholders in order to determine the content and logistics of the implementation of

individualized learning plans. Second, based on standardized test results and teachers'

recommendations, unique needs of each student are determined. Third, during the summer staff

orientation, all teachers receive formal training about the implementation of individual learning

plans. In this training, school counselors also provide teachers with resources and materials.

Fourth, after teachers are matched with students, the program starts. During the school year, both

school counselors and administrators follow up on individual learning plans through individual

student and teacher meetings.

Individual college and career counseling sessions. All PCSST counselors are supposed

to meet with each student in grades K-12 for a minimum of three times during the school year to

assist the student in establishing personalized academic, college, and career goals. As

recommended by the National Office for School Counselor Advocacy's (NOSCA) Eight

Components of College and Career Readiness Counseling, during the individual counseling

sessions, elementary school counselors focus on "early awareness, knowledge and skills that lay

the foundation for the academic rigor and social development necessary for college and career

readiness" (p.2). Then, during the individual counseling sessions, middle school counselors

provide PCSST students with the opportunities and resources to explore and deepen their college

and career knowledge, and the skills necessary for short and long-term goal setting.

Finally, high school counselors help students select high school courses that play a

crucial role in their college and career readiness. They also focus on creating access to college

and career pathways by offering one-on-one support in college and career exploration and the

selection processes. In particular, aside from conducting college and career assessments and

questionnaires, each student receives one-on-one support for financial application, college

admission portfolio preparation, and successful college transition and adjustment during the

individual counseling sessions.

In general, the content of the individual counseling sessions for each grade and each

student is determined based on the students' personalized needs. In order to identify each

student's unique needs, school counselors use several tools that include students' test scores,

assignment report, discipline report, course grades, attendance report, and teachers' referrals. It

was also the department's priority to remain proactive and set up home visits and parent

conferences with early warning signs of little or no college pursuit.

Small group counseling sessions. As a part of the responsive services component of

CRASP, PCSST counselors also organize small group counseling sessions. According to the

students' needs, the selected topics of small group counseling are: (1) Test Anxiety/Test Taking

Strategies; (2) Anger Management Techniques; (3) Family First; (4) Self-Esteem & Motivation;

(5) Time Management, Study, and Organization Skills; (6) Personal Wellness; (7) Peer Conflict.

In general, group size is between 6-8 students and based on the group structure, each group

meets for approximately 40 minutes once a week for 5-6 weeks.

College dual enrollment program. Previous research emphasizes the importance of

early college experiences on students' college readiness, pursuit, and persistence (American

Institutes for Research and SRI International, 2009). The dual enrollment program is the main

way to give students a sense of what college academics are like. In the dual enrollment program,

students who are enrolled in a high school may also be enrolled at a local four-year or two-year

institution. Therefore, to offer early college experience, PCSST has built a partnership with post-

secondary institutions such as Monroe College, DeVry University, and Passaic County

Community College. The college dual enrollment program is designed to allow PCSST students

to receive first-hand college classroom experience by enrolling in several college courses before

they graduate PCSST.   This is not only reflected on their high school transcript, but also

contributes earned credits toward their college transcript. Each year, eligible juniors and seniors

take advantage of the dual enrollment program and get a head start on their college experiences.

SAT preparation program. In order to prepare students for college entrance exams,

PCSST entered a partnership with The Princeton Review, and the SAT Ultimate Courses were

offered to PCSST juniors. The Princeton Review's comprehensive early college preparation

courses introduce students to standardized test preparation techniques and demonstrate the link

between academic subjects and their corresponding question types on college entrance tests. In

order to increase the turnout rate, the SAT Prep Program was offered during school hours.

Students who participated in this program received a SAT preparation guidebook and practice

books. They also had an opportunity to take several full-length SAT practice tests. In general,

this program provided PCSST with supplemental coursework to give their students an advantage

in the college preparation process. In addition to SAT and PSAT tutoring sessions, PCSST

school counselors also provided students and parents with resources and college entrance test

prep materials.

PSAT and SAT credit elective courses. As indicated by the College Board (2010),

Preliminary Scholastic Aptitude Test (PSAT) and Scholastic Aptitude Test (SAT) provide a path

to opportunities for post-secondary, financial support, and scholarships. It is also noted that

college entrance tests keep pace with what colleges are looking for today (College Board, 2013),

measuring the skills required for success in the 21st century. Therefore, PCSST offers 2.5 credits

elective courses for high school students to prepare them for college entrance exams. In addition

to the PSAT and SAT content, students are schooled on "effective test taking" strategies during

these credit elective courses.

Instant decision days. Organizing on-site college admission days is one of the most

important components of CRASP. Thanks to the school counselors' collaborative efforts with

post-secondary institutions, around ten instant decision days are organized with various local

colleges and universities each year. PCSST counselors made applying for undergraduate

admission very easy for students by coordinating on-site admissions. During the on-site

admissions, PCSST students' college application fees are waived. This means that thanks to the

instant decision days, PCSST seniors save an average of 300 dollars on their college

applications. During instant decision days, college admission counselors review seniors'

completed college application files and make acceptances and scholarship decisions on the spot.

The post-secondary institutions that attended PCSST's instant decision days are: New Jersey

City University, William Paterson University, Bloomfield College, Fairleigh Dickinson

University, St. Peter University, Monroe College, Felician College, Dover Business College,

Caldwell College, Berkeley College, DeVry University, Lincoln Technical Institute, Passaic

County Community College, and Bergen County Community College, as well as military

schools.

College fairs and college trips. Starting in middle school, PCSST counselors schedule

field trips for PCSST students to visit college open houses and college fairs. In particular,

counselors take students to national and district college fairs, which usually have representatives

from many colleges across the nation. PCSST counselors believe that college fairs that are

sponsored by NACAC and NJACAC are a good way for students to learn about many colleges

and get a brief snapshot of them. Each year, all PCSST seniors also participate in the Historically

Black Colleges and Universities' (HBCUs) college fair. During the HBCU college fairs, PCSST

senior students get an opportunity to speak to over 50 HBCUs that provide application fee

waivers, scholarship awards, and on-site admissions.

School-wide career day. Each year, the PCSST counseling department holds an annual

Career Day. A total of 485 students from Grade 7 to Grade 12 participated in the Career Day. In

general, PCSST Career Day starts at 8:30 am and ends at 1:00 pm. PCSST school counselors

work collaboratively to invite speakers representing various career fields and various career

schools such as Dover Business School, Berkeley College, DeVry University, Lincoln Technical

Institute, and Passaic County Community College. During the PCSST Career Day, students stay

in their classroom and speakers and presenters from each different career cluster share their

perspective of the career world and give PCSST children first-hand career experience.

Parent-counselor and student conferences. In addition to phone calls, emails, and

letters sent home, each school counselor from grades K-12 arrange individual meetings with

parents and students to address the specific needs of students. In general, during the parent

counselor and student conferences, school counselors go over students' academic progress,

personal graduation plan, test scores, attendance and discipline reports, and individual college,

career, and financial aid plan.

Home visitation. At PCSST, it is noted that many parents have difficulties attending

report card nights and parent events because of various reasons such as their very busy and long

work schedules or transportation issues. Therefore, in order to improve parental involvement, the

home visitation program is designed to allow PCSST school counselors, teachers, and

administrators to reach out to parents. Based on the student's needs, and with the parental

consent, school counselors work with teachers to arrange home visits.

A day also is devoted to professional development activities to train all PCSST staff and

faculty for home visitations. On that day, after the training, all PCSST teachers, administrators,

counselors, and other supportive staff participate in a home visitation. The purpose of the home

visitations is to learn about the student's needs, interests, and concerns to establish

communication and rapport with parents. During these visits, the parents are informed of their

child's academic progress, as well as any pertinent college and career information. During the

visits, teachers and counselors also chat about the school community, school environment,

programs, and their child's overall achievement thus far. These visits are considered a friendly

informational visit to let parents and students know about the academic and counseling support

services and programs offered at PCSST.

Teacher tutoring. In order to improve students' academic development and enhance

student learning, PCSST help students get extra academic support from teachers. In PCSST,

there are three main teacher tutoring services. The first is the intervention period. During the

intervention periods, a small group of students who need additional help meet with their assigned

teachers from 2:44pm to 3:26pm twice a week and get extra academic support. The second

teacher tutoring service is Saturday school, a program that provides a small group of students

with help to meet their academic goals. Saturday school tutors are certified teachers from

PCSST. They come to the school on Saturdays to teach students who face difficulties in their

classes. The third tutoring service is teachers' office hours. PCSST students who need extra

academic support go to their teacher's pre-assigned office hours to ask their questions.

Peer tutoring. In addition to teacher tutoring services, the peer tutoring program is also

designed to help PCSST students who are having difficulties in a course because of a particularly

challenging subject matter, lack of basic foundation, lack of preparation, or other factors. Peer

tutors are PCSST former students or high-achieving volunteer students who have a high level of

knowledge and skill in a specific subject, and are available to all students who are seeking help

to improve. In general, PCSST counselors make arrangements for a high-achieving student to

tutor another student, one who may be doing poorly in a specific class. This sometimes includes

help with homework or project assignments.

High school recognition and reward program. In order to create and promote a school-

wide college-going culture in PCSST and recognize college-ready students, the PCSST school

counselors have implemented several incentives. For example, student college acceptances and

scholarships awards are presented at the (1) Wall of Honor, (2) School Web Site, (3) Graduation

Ceremony, (4) School-wide Assemblies, and (5) Guidance Office. Furthermore, students who

receive a college acceptance are allowed to wear their college t-shirts during certain school days.

Moreover, to encourage and recognize college and career-ready students, one student receives

"the most college and career-ready" award during the graduation ceremony each year.

PCSST's school counseling department also initiated the "GOTCHA" Doing Good

Positive Reward Program to reward students who demonstrate positive behavior and/or good

character on a daily basis. In order to implement this program, teachers and staff members are

provided a "GOTCHA" Doing Good ticket book. All staff and faculty are encouraged to give out

these tickets to students daily, as often as they observe positive actions, kind words, or positive

character traits. These tickets are given out at teacher/staff member discretion. Examples

include: Caught you being respectful, caught you showing kindness, caught you following

directions, or caught you doing your classwork. In general, teachers have the freedom to decide

what he/she feels is positive behavior on an individualized basis. Teachers attempt to reward

progress, not perfection. This means that they will attempt to observe each student exhibiting

positive change instead of rewarding the same students multiple times.

Teachers fill out the front of the "GOTCHA" Doing Good ticket with the name of the

student, grade, and section, and on the back of the ticket they are asked to write the positive

behavior they observed. Then, they give the ticket to the student to place into the "GOTCHA"

box, located in the Guidance Office. Each Friday afternoon, two tickets/winners per grade are

selected. Pictures of winners are taken and displayed along with their names on a slide in the

Monday morning assembly, and are also posted on the Guidance bulletin board. Furthermore,

during the morning assembly every Monday, the winners of the weekly prize are announced.

Winners have the opportunity to pick one of the following prizes: fast pass to the head of the

lunch line, lunch with the principal or school counselor, homework pass, pass to organize locker,

teacher helper, or small school supplies.

In addition, to support students' college application and increase their college knowledge,

PCSST organizes PCSST College Spirit days. Every Thursday during May, school counselors

encourage teachers to wear their alma mater shirts/sweatshirts that represent the college they

attended and/or graduated from. This gets the students to talk to their teachers about college and

hopefully get them interested in learning more about different colleges. It is also a great way for

teachers to show students that they are proud of attending their college and graduating with a

degree. Teachers are also encouraged to share their college experience with each class. In week

one, teachers are asked to give brief information about their college (size, financial aid

opportunities, location, clubs, sport activities, admission requirements, etc.). In week two,

teachers are encouraged to talk about their college preparation, search, and college application

experiences. In week three, they talk about their college, major and career decision process. In

week four, they share their personal experience about how they paid for their college tuition and

other expenses. In the final week of college spirit days, teachers share their specific

recommendations to stay, achieve, and graduate from college and what works in college success.

AP and honor courses. As indicated by College Board, taking AP courses gives the

students the academic knowledge and skills to help them at their college or university. In

addition, if students score well on the AP Exam, they have an opportunity to earn official college

credits. AP Exam scores are reported on a 5-point scale as follows: (5) extremely qualified,

(4) well qualified, (3) qualified, (2) possibly qualified, or (1) no recommendation. In reference to

these scoring, students who score 3 or above are qualified to receive college credit or advanced

placement. In order to prepare students for AP and college level courses, honor course tracks that

require an intensive amount of challenging assignments and exams are designed. The first AP

course was given at PCSST during 2012-2013, however, starting in September 2013, each

academic department, including mathematics, English, social studies, and science, is offering an

AP course.

ACCUPLACER test preparation and practices. Recently, in order to assess the

academic readiness of accepted students, many post-secondary institutions began to administer a

college replacement test known as ACCUPLACER that has a computer-adaptive design,

allowing students to get a detailed analysis of their strengths and weaknesses (College Board,

2013). PCSST used several strategies to prepare students for the ACCUPLACER test. First,

PCSST invited local college representatives and admission counselors who provided students

with information about the content of the ACCUPLACER test and how it works in college.

Additionally, PCSST offered ACCUPLACER practice tests for seniors during the school year.

The purpose of the ACCUPLACER practice tests is to improve PCSST students' skills and help

them become familiar with the style and content of questions asked on an ACCUPLACER test.

Finally, after students complete their preparation, PCSST collaborates with Passaic County

Community College (PCCC) to give senior students the opportunity to take a free official

ACCUPLACER test that provides a personalized analysis of a student's strengths and

weaknesses.

Personalized FAFSA application support. According to previous studies, the

complexity of the FAFSA application and lack of information appear to be two significant

barriers that hinder disadvantaged students' FAFSA application. The research also reported that

many students eligible for aid do not apply for FAFSA (Sturrock, 2002; King, 2004; Bettinger et

al., 2009). Therefore, PCSST school counselors offer individualized assistance with FAFSA

completion to each senior student. During one-on-one individual counseling sessions, school

counselors strive to simplify the process of getting financial aid and provide clear information

about the FAFSA process and grant eligibility.

Providing fee waivers. PCSST school counselors encourage each senior student to apply

to an average of five colleges. With college application fees averaging $35–50 as indicated by

the College Board, applying to several colleges can be expensive for any student. Particularly in

an urban school setting with 90 percent of students enrolled in the free and reduced lunch

program, it may be difficult for many families to subsidize around the $300 college application

fees. Therefore, in order to ease the college application process, PCSST counselors take

advantage of the college application fee waiver program, sponsored by the College Board and

The National Association for College Admission Counseling (NACAC). Each year, counselors

provide eligible PCSST seniors with college application fee waivers so they can complete and

submit their college applications.

In addition, school counselors encourage PCSST students to take the SATs and subject

tests twice. Currently, the fee for general SAT registration is $51. Taking the SAT multiple times

is definitely expensive for the majority of PCSST students. Like college application fee waivers,

the College Board and ACT offer fee waivers to help lower-income students pay for their college

entrance tests. Therefore, PCSST counselors collaborate with the College Board and ACT to

request fee waivers that cover 100% of the registration fees for a single test date. As reported by

the College Board, each eligible PCSST student can use up to two waivers for the SAT and up to

two waivers for SAT Subject Tests, a total of four fee waivers.

Alumni support program. PCSST's counseling department is also focused on

increasing its alumni students' college success. Therefore, in order to improve the college

persistence and attainment of each PCSST-graduated student, the alumni support program was

established. Initially, PCSST enrolled in the National Clearinghouse Student Tracker Program

and graduated PCSST students were hired as alumni coordinators to reach out and monitor each

PCSST alumni. The main role of PCSST alumni coordinators is to support each graduated

student's college success and graduation. Overall, CRASP's vision is to provide ongoing support

and guidance to all PCSST alumni so they can succeed in their schools, career, and life. A full

list of alumni support services includes: (a) Offering personalized career counseling sessions; (b)

arranging summer part-time job opportunities; (c) Helping search for scholarships and grants; (d)

Providing mentoring; (e) Internship arrangements; (f) Offering academic advising and tutoring;

(g) Individualized FAFSA application support; (h) Arranging field trips and network events, (i)

Free Access to the PCSST library, gymnasium, and computer laps.

Responsive services. In addition to individual counseling sessions and guidance

curriculum, as recommended by the ASCA National Model (2005), responsive services are also

established to meet the immediate needs of PCSST students, such as grief counseling, peer

pressure, high anxiety, family problems, peer conflicts, a school-wide harassment intimidation

and bullying program, a substance abuse awareness program, a gang involvement prevention

program, and a school-wide referral program. Aside from traditional students, PCSST school

counselors also identify and meet with each at-risk student who needs extra support.

In particular, while all PCSST counselors conduct responsive services for the students'

immediate needs, a large percentage of those services are conducted by the Student Assistance

Counselor (SAC) and crisis specialist. The SAC provides PCSST students with necessary

interventions, referrals, and character education. The specialist works with the school staff on a

daily basis to identify at-risk students, and remains proactive in devising appropriate individual

interventions. The specialist also acts as a Harassment Intimidation and Bullying (HIB)

coordinator, and attends professional in-services and conducts ongoing research on the changing

New Jersey HIB laws to make sure that school's curriculum reflects the state laws. Finally, the

HIB coordinator uses school data and extensively collaborates with the dean of students to

prevent any behavioral issues.

CRASP Accountability

With the advent of NCLB (2001), teachers, counselors, and administrators are

increasingly challenged to provide evidence of program accomplishment. Therefore, like all

other stakeholders, school counselors are expected to demonstrate the effectiveness of their

school's counseling program in measurable terms. With that end, PCSST school counselors use

measurable units and various assessment techniques and strategies to evaluate the program and

hold it accountable, PCSST counselors collect and utilize several tools that link the program to

student achievement. These monitoring and assessment tools are listed below.

First of all, during the departmental meetings, PCSST counselors prepare a results report,

which includes program impacts on students, what worked well, and what needs to be modified

to improve the effectiveness at the end of the each counseling program. After the results report is

prepared, the school counselors share this report with key stakeholders. Second, as recommended

by the ASCA National Model (2012), PCSST counselors utilize the adapted version of ASCA's

program audit template. These program assessment tools are designed to help counselors

evaluate their own performance and program impacts while delivering counseling services.

In addition, school counselors utilize a six-step accountability process known as

MEASURE to demonstrate the impact of the school counseling program, and to monitor and

evaluate program implementation. Like the program audit tool, MEASURE provides an

accountable data-driven school counseling program to help the counselors collect information

and data to ensure that the PCSST counseling program is comprehensive in design, delivered in a

systemic fashion for all students, and accountable for results (Dahir & Stone, 2012).

CRASP and Collaborative Effort

During the initiation and implementation of CRASP, the school counselors collaborated and partnered with various key stakeholders to develop, maintain, and enhance the total counseling program. In order to make a change and lead the comprehensive counseling program, professional PCSST school counselors focused on establishing a collaborative effort among key stakeholders by participating in teachers' and administrators' meetings. During these meetings, the major barriers and challenges that PCSST may encounter in program initiation and implementation were discussed and identified.

Moreover, the program coordinator worked with school administrators, teachers, and other key stakeholders to deal with these barriers by offering practical suggestions for program implementation that focused on improving disadvantaged students' college readiness, pursuit, access, and persistence. For example, counselor and teacher partnerships play an important role in the design and development of effective counseling activities that help students' college preparation and enrich their high school success. In particular, school counselors work with classroom teachers to arrange classroom guidance activities such as college awareness workshops, test taking strategies, dealing with anxiety, improving study and time management skills, financial aid workshops, and effective interview techniques.

Additionally, PCSST school counselors and teachers work together in order to prepare students for the college entrance tests. While the professional school counselors help students register for SAT and ACT, math and English teachers help PCSST students by teaching useful SAT-taking techniques. PCSST counselors also participate in weekly grade chair committee meetings to review and monitor each student's academic progress with their grade level teachers.

During these grade chair meetings, counselors and teachers work together to determine which

students are in need of some extra academic support and counseling services.

       In addition to collaborating with PCSST teachers, the school counselors work closely

with the school administrators to develop and deliver effective counseling services. For example,

each week, the director of school counseling services attends executive team meetings to

represent all school counselors and inform the school administration team about comprehensive

school counseling programs. The director of school counseling services is considered a

permanent member of the school leadership team.

       During the leadership meetings, the director of school counseling services shares school

counselors' inputs and collaborate with school administrators to initiate and implement

interventions to help get the students ready for college and careers. Thanks to the school

counselors and administration's partnership, several academic and counseling services have been

initiated and implemented. These include a school-wide SAT prep program, after school

programs, Saturday academic success program, tutoring services, college and career fairs,

PCSST positive awards program, college dual enrollment program, character education program,

college coaching program, college and career readiness courses, and mentoring program.

       Furthermore, PCSST school counselors partner with parents. Specifically, the counselors

organize an annual parent workshop series that includes financial aid workshops, college

awareness workshops, and career readiness workshops. Home visits are also arranged for PCSST

students to discuss her/his college and career preparation plans, as well as academic and personal

development activities. The school counselors have prepared a parent handbook to help parents

understand, support, and track the college-bound students' admission and scholarship application

processes. In order to encourage and inform parents about the college and scholarship application

processes, PCSST counselors also arrange parent conferences for PCSST students. During these conferences, important information, materials and resources are shared regarding the students' decision-making processes in career and college choice.

Moreover, PCSST counselors build partnerships with community agencies and local colleges to create and help promote a college-going culture. In particular, school counselors reach out to local hospitals, churches, volunteer organizations, private local agencies, and libraries to arrange community services for students. Counselors also contact small local business owners such as family doctors, dentists, lawyers, architects, and engineering offices to arrange internship hours for the juniors and seniors. Furthermore, local college admissions counselors come to the school for instant decision, college, and career days.

During a school year, to help introduce students to a variety of post-secondary institutions, approximately twenty different college and financial admission counselors are invited to PCSST. College admission representatives from different universities advise students on how to best prepare for the college and career selection processes, and give tips on financing college. In the last part of the collaborative efforts, school counselors become part of several committees, including a child study team, school improvement team, professional development committee, curriculum development committee, Middle State Accreditation committee, grading committee, technology integration committee, and attendance committee.

The Logic Model of CRASP

In order to demonstrate the logical relationships between the resources, activities, goals, and intended outcomes of CRASP, as indicated in Figure 5, the visual conceptual framework is prepared. The first column shows the major program components (Foundation, Management, Delivery, and Accountability). The second column indicates the ultimate goals of CRASP, which

are improving students' college readiness, college pursuit, college access, and college

persistence. Furthermore, the items in the ellipse represent the program's proximal goals, which

are helping students obtain a high level of academic knowledge, academic habits, personal

qualities, social readiness, emotional readiness, mental readiness, career readies, and financial

readiness. Finally, the framework also dictates that some conditions must be present in order to

initiate, implement, and sustain a comprehensive school counseling program. These required

conditions are considered program essentials. The triangles include the essentials of CRASP

which are: Culture of (a) Ongoing Caring; (b) Ongoing Improvement; (c) Ongoing Partnership;

(d) Ongoing Accountability; (e) Ongoing Dedication; (f) Consistency; (g) College-Going; (h)

Technology Integration; (i) Advocacy; (j) High Expectations, and (j) Differentiation

Program Foundation
(Vision, Mission, Beliefs, Pillars, Goals, Standards, Competencies)

Culture of Ongoing Accountability
Culture of Ongoing Improvement
Culture of Ongoing Partnership
Culture of Ongoing Dedication
Culture of Ongoing Caring

College Readiness
(High GPA, High SAT Scores)

Program Delivery
(Individualized, Small Group, Classroom Size, School-wide)

Proximal Goals
High Level of Academic Knowledge
Academic Habits
Personal Qualities
Social Readiness
Emotional Readiness
Mental Readiness
Career Readies
Financial Readiness

College Pursuit
(FAFSA and College Appl ication)

Program Management
(Action Plans, Calendars, Curriculum, Trainings, Budget)

College Access
(College Enrollment)

Program Accountability
(Data Collection, Analysis, Program and Staff Accountability Report)

Culture of Advocacy
Culture of Consistency
Culture of College Going
Culture of Differentiation
Culture of High Expectations
Culture of Technology Integration

College Persistance & Attaintment
(Retention and Graduation)

Figure 5. The conceptual model of the CRASP.

These twelve essentials which are listed above are considered as very important

components of CRASP implementation. In order to develop a successful strategy for creating a

college-going culture for all students, and to have all program essentials, the program

coordinator and professional school counselors collaborate with school administrators, teachers,

parents and other key stakeholders. As it is noted in the literature review there is no quick fix for

improving the college and career readiness of disadvantaged students. Key stakeholders need to

understand that preparing first-generation and low-income students for college, and providing

them with ongoing support until they graduate from college, requires systemic investments and

planning. The visual conceptual framework of CRASP is prepared to provide stakeholders with a

systemic approach to initiate, implement and institutionalize comprehensive school counseling

services.

Developing a visual framework is important in the program design and implementation.

Having a conceptual framework might help stakeholders see the short and long terms goals of

the comprehensive school counseling program. When all things are taken into consideration, as

Lotkowski, Robbins, and Noeth (2004) note, helping disadvantaged students get ready, get into,

and get through college is a long-term investment that requires multifaceted approaches and

collaborative efforts among various stakeholders and institutions. Therefore, as it is indicated in

the visual conceptual framework of CRASP, disadvantaged students need to receive systemic

and ongoing support and guidance during their high school years to be prepared for post-

secondary education and their future careers. This visual framework is expected to provide

professional school counselors, administrators and key stakeholders with a roadmap to improve

disadvantaged students' college readiness, pursuit, access, and persistence.

Theoretical Framework of CRASP

According to the literature, the majority of urban high school students do not have the

proper capitals that are necessary for college readiness and success. Therefore, helping

disadvantaged urban students gain access to these human, social, cultural, and financial capitals

is crucial to helping them fulfill their academic and college goals. Aligned with this approach,

the theoretical framework of the study focuses on creating the collaborative efforts to make these

capitals available for all students so they can develop the coping skills to stay and succeed in

college. As shown in Figure 6, the theoretical approach of CRASP combines and utilizes all four

forms of capital to fully understand what works in the disadvantaged students' opportunities for

college readiness, pursuit, access, and success.

Particularly, as shown in Figure 6, in this study, building social capital is associated with

(a) building caring relationships, (b) establishing social network support, and (c) providing

college resources and knowledge. Second, building cultural capital is associated with (a) setting

high expectations, (b) encouraging and engaging in college and career activities, and (c) building

norms and values for post-secondary education. Third, building financial capital is associated

with (a) subsidizing college entrance test preparation, (b) offering fee-waivers, and (c) preparing

individualized college affordability plans. Finally, building human capital is associated with (a)

offering rigorous college-prep courses and curriculum, (b) preparing students for college

entrance exams, and (c) preparing and monitoring individual learning and graduation plans.
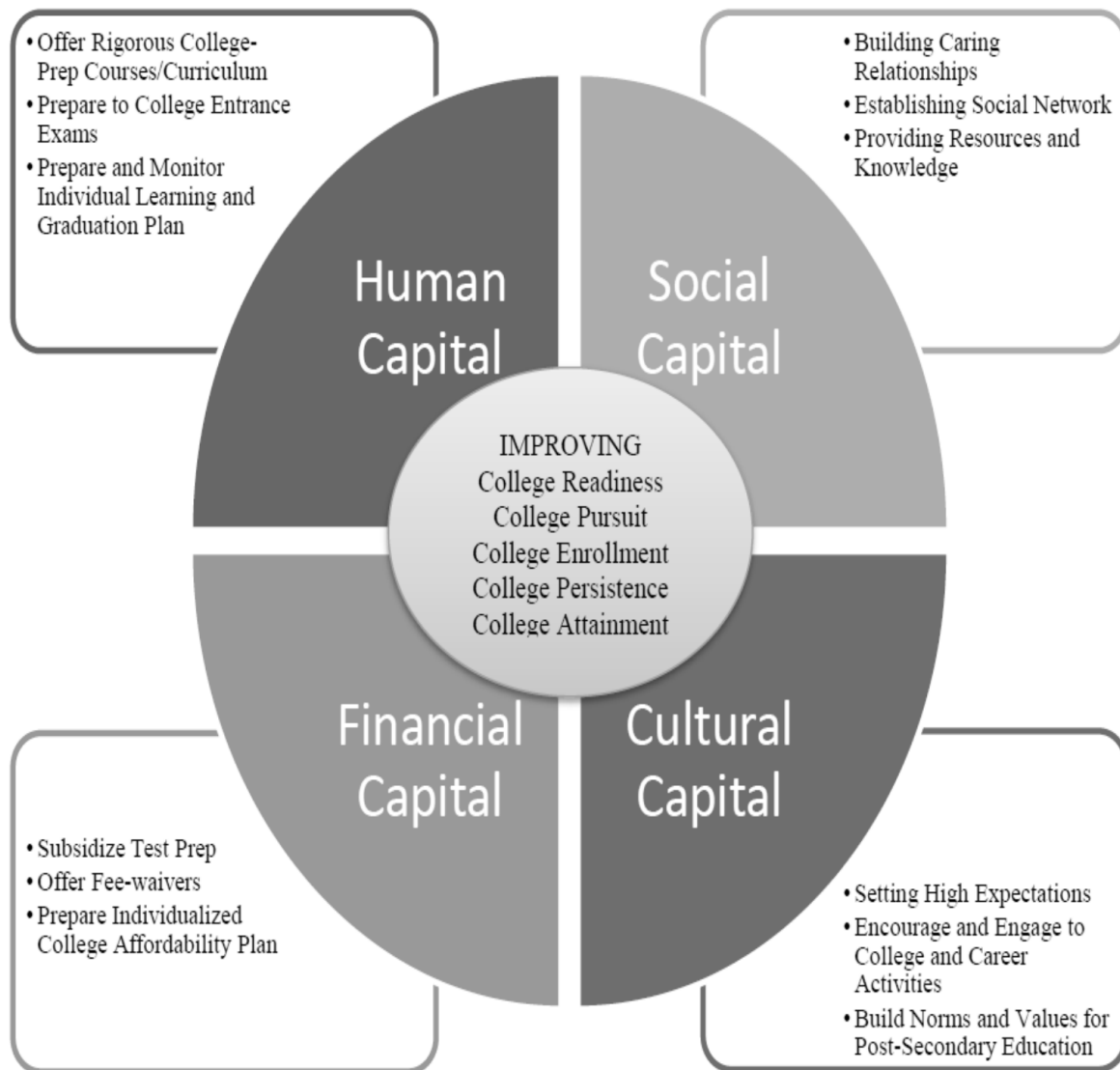
Figure 6. The theoretical model of CRASP.

CHAPTER FOUR: METHODOLOGY

The methodology section contains a detailed description of the research design and

sample selection process, including the data collection, management, and analysis, followed by

the role of the researcher, validity, and reliability issues.

Research Design

The research design and methods for this study are derived from the experiences of a

pilot study conducted in the summer of 2011, which employed quantitative research methods in

order to evaluate the impacts of a comprehensive College Readiness Access and Success

Program (CRASP). Aligned with the research questions, the quantitative data was collected and

analyzed to determine the impacts of CRASP on PCSST students' college readiness, pursuit,

access, and persistence. Particularly, students' cumulative GPA, SAT test scores, college

enrollment, college retention rates, and responses to survey questions are used to measure

graduated PCSST students' outcomes and program impacts.

The data was collected for five years (cohorts 2009, 2010, 2011, 2012, and 2013). The

first cohort (Class of 2009) did not participate in CRASP and serves as the control group. Each

subsequent PCSST cohort had one additional year of CRASP compared to the previous cohort.

This study compares the college experiences and outcomes of PCSST students who participated

in CRASP for different lengths of time (from zero to four years). Archived student data also

provided additional information for student characteristics, including student achievement levels

at high school entry.

While there are some similarities, this is not an interrupted time series because there is

only one pre-test. The design for this study may be viewed as a pre-test followed by multiple

post-tests, similar to an interrupted time series design with only one pre-test point, or as a

treatment dose-response study in which each succeeding cohort received a higher dose. Thus,

one must predict either an abrupt change after the first year or a steady improvement in outcome

with each year.

In addition to the descriptive statistics (Frequencies, Mean, Median, Mode, Standard

Deviation) the inferential statistics that include the t-test, Analysis of Variance (ANOVA),

multiple regression, and binary logistic regression are used to estimate the effects of CRASP,

controlling for student demographics and abilities prior to CRASP. Aligned with these inferential

statistics techniques, for this study, t-tests, correlational analysis, and regression analyses are

used to determine if there were significant differences ($p < .05$, two-tailed) between various

aspects of student college readiness, pursuit, access, and persistence. In addition, this

dissertation study describes the experiences of former PCSST students in post-secondary

institutions, with particular attention paid to problems and challenges that encounter in their first

year of college education.

Pilot Study

A pilot study is considered a very important component of a research study, because it

allows researchers to employ surveys to small samples to study and revise the procedures and

questions for a larger study (Berends, 2006). In that aspect, to validate the survey instruments

and determine the reliability of the questions, a pilot study of the survey instruments was

conducted on a small scale during the summer of 2011. The survey questions were administered

to eight participants, each a student who graduated from PCSST. After the participants

completed the survey, they were asked to share their experiences regarding the length of the

survey, content, wording, and clarity of questions, as well as the format of the survey. Pilot

respondents indicated that they were satisfied with the quality of the questions. In particular,

participants responded that the survey questions were all associated with their college

experiences. However, they pointed out that the length of time it took to complete the survey was

not appropriate. Participants found the seven-page survey too long. The researcher went over all

comprehensive alumni survey items to identify repeating questions. Then, repetitive questions

were eliminated from the alumni survey.

While reviewing the survey items, participants also indicated that some questions were

not clear for them. Therefore, the wording of these questions was changed to improve

readability. Furthermore, section four of the survey contained a list of student and institutional

factors that can affect students' college success; respondents identified that some of the items

were very similar to each other. Then, the items in the section four were clarified and revised.

In addition to graduated PCSST students, survey questions were reviewed by eight

colleagues, each with an educational background, four with master's degrees in school

counseling. All items in the five sections were validated as acceptable. The wording of some

questions was changed. Additionally, a total of eight items in sections three and four were

dropped because they were considered close to other items in the same section of the survey.

Finally, based upon the experiences gained from the pilot study and peer review, the

comprehensive alumni survey (Appendix A) was finalized for data collection.

Context, Setting, and Basic Demographics of Participants

This study was conducted at Paterson Charter School for Science and Technology

(PCSST), located in Paterson, New Jersey. The 2000 Census data shows that less than 9% of the

population in Paterson holds a bachelor degree or higher, and over 25% of families are below the

poverty level, with a median household income of $32,778. According to the NJDOE 2012

school report card, the population of PCSST is 1,039 students, and includes grades K through 12.

As indicated in Figure 7 below, approximately 90% of PCSST students are enrolled in the free

and reduced lunch program. Additionally, 3.4% of the PCSST student population is white, and

85% of the school's population is African American or Hispanic. While 7.2% of PCSST students

are enrolled in special education programs, 4% of PCSST students receive English as a Second

Language (ESL) support.
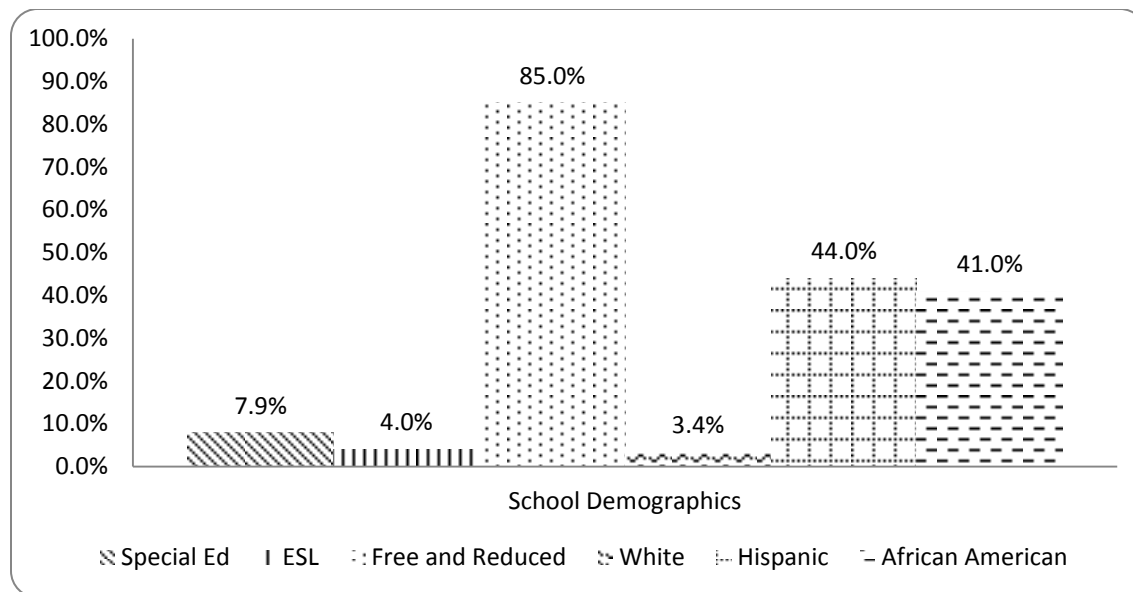
Figure 7. PCSST school demographics in 2011-2012.

Based on the NJDOE 2012 school report card and enrollment data, PCSST and the

Paterson Public School District (PPSD) have somewhat similar school demographics. Both the

Paterson Public School District's and PCSST's populations mirror the demographic trend of

urban communities in New Jersey: around 90 percent of all students are of Hispanic or African-

American origin, and approximately 10 percent are of Caucasian, Middle Eastern, or Asian

descent. The comparison of these demographics is shown in Figure 8, below. As can be seen,

PCSST has a higher percentage of African-American Students than this district as a whole, and a

much lower percentage of ESL and special education students.

	African American	White	Hispanic	Free Reduced	ESL	Special Ed
PCSST	41%	3%	44%	85%	4%	8%
PPSD	28%	10%	62%	86%	16%	16%
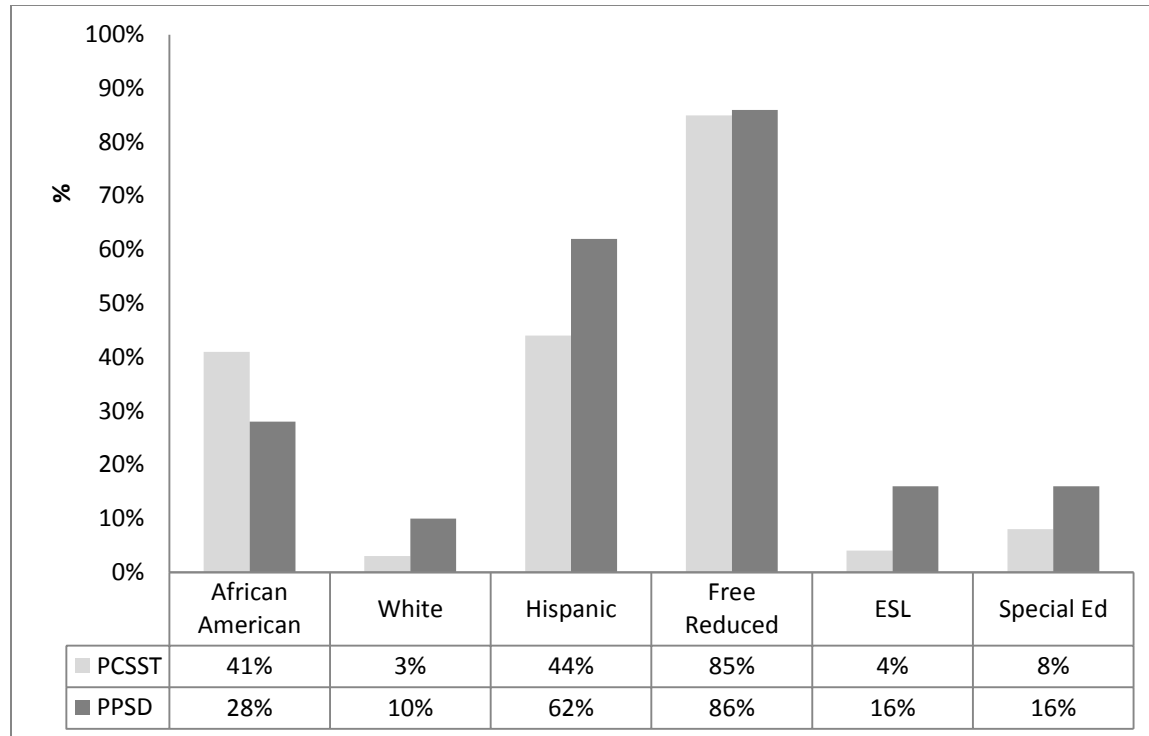
Figure 8. School demographics of PCSST and the Paterson Public School District.

The participants were all cohorts (classes 2009-2013) from Paterson Charter School for Science and Technology (PCSST). The implementation of CRASP began in September 2009. The first cohort graduated from PCSST in June 2009. Each year, an average of 77 senior students graduates from PCSST. The research consists of comparing the basic demographics of the PCSST class of 2009, who never participated in the CRASP, and the class of 2010, 2011, 2012, and 2013, who participated in the program starting in September 2009. In other words, all PCSST students from cohort 2009, 2010 2011, 2012, and 2013 are considered the target population of the study. Table 2 shows the number of students in each cohort, and also gives numbers of transfer-in and out students from each cohort.

Table 2.

The Number of Students in Cohort from 2009 to 2013

Cohort	# of Students	# of Transfer in Students	# of Transfer out Students
2009	77	12	18
2010	79	14	17
2011	75	9	18
2012	74	8	18
2013	79	16	20
Total	384	59	92

PCSST's Admissions and Enrollment Practices

As reported in the 2012 report card, the admission policy and evaluation criterion for

Paterson Charter School for Science and Technology is non-discriminatory and is designed to

ensure equal opportunity for interested applicants, grades K through 12. Enrollment is open on a

space-available basis. PCSST does not discriminate on intellectual or athletic ability, measures of

achievement or aptitude, status as a handicapped person, proficiency in the English language, or

any other basis that would be prohibited if used by a school district (N.J.S.A18A:36A-7).

Each year, during the enrollment process, existing students had first priority for re-

enrollment, regardless of resident status. An existing student refers to a student currently enrolled

in the charter school. In other words, the priority for enrollment is given to existing students and

their sibling(s) residing in the Paterson school district. If all available spaces are not filled by

existing students and their sibling(s) at the close of the initial recruitment period, enrollment is

then made available to resident students.

Non-resident students apply for admission with the understanding that priority for

enrollment is first given to existing students and their siblings, then to those residing in the

Paterson school district. If all available spaces are not filled by existing students, their siblings,

and resident students at the close of the initial recruitment period, enrollment is then made

available to non-resident students.

In the event that there are more applications for admission than there are allotted spaces,

a random process for admission in the form of a Lottery Drawing is used to determine enrollment

at PCSST in accordance with N.J.S.A 18A:36A-8(a). In the event that a lottery process is used to

determine enrollment at PCSST, names of applicants continue to be drawn after all available

grade-level spaces have been filled in order to form an enrollment "waiting list". During the

recruitment period, names remain on the waiting list for enrollment in the subsequent year only.

At the expiration of the waiting list, the parent or guardian is required to apply for admission

again.

Table 3.

PCSST School Enrollment and Waiting List in 2011-2012

Grade Level	Max Enrollment	October 15th Enrollment	Final Enrollment Count	Waiting List
K	80	80	79	164
Grade 1	80	80	80	90
Grade 2	80	80	79	68
Grade 3	80	80	78	73
Grade 4	80	80	79	66
Grade 5	80	80	78	106
Grade 6	80	84	83	116
Grade 7	84	84	80	119
Grade 8	84	84	81	70
Grade 9	84	84	80	166
Grade 10	84	84	82	63
Grade 11	84	82	80	29
Grade 12	84	82	80	7

In order to explore the trends in basic demographics of PCSST graduated students and

CRASP participation from 2009 to 2013, Table 4 and Table 5 were prepared. Table 4 presents

the results of the one way ANOVA, which was used to test for differences between demographic

information of PCSST CRASP participants and non-CRASP participants prior to the study.

According to the one way ANOVA test results, as can be seen in Table 4, there were no

statistically significant differences between the CRASP students and the comparison group, who

never participated in CRASP, on Hispanic, African American, Gender, Transfer In, Lunch Type,

Parent Education, Initial Grade Point Average, Special Education and English second language

learners at the alpha = .05 level (p-value >.05).

Table 4.

ANOVA of Participants' Demographic Information by CRASP Participation

Variables	Participants	N	Mean	SD	Significance
Black	0	77	.506	.503	

			.449	.498	.371
	1	307	.449	.498	.371
	Total	384	.460	.499	
Hispanic	0	77	.389	.490	
	1	307	.423	.494	.591
	Total	384	.416	.493	
Parent	0	77	.220	.417	
Education	1	307	.210	.409	.863
	Total	384	.210	.410	
Transfer In	0	77	.155	.365	
	1	307	.149	.357	.896
	Total	384	.151	.358	
Gender	0	77	.498	.057	
	1	307	.489	.028	.547
	Total	384	.490	.025	
LunchType	0	77	.476	.054	
	1	307	.441	.025	.197
	Total	384	.449	.023	
SpecialESL	0	77	.270	.031	
	1	307	.334	.019	.252
	Total	384	.322	.016	
Initial_GPA	0	77	.793	.090	
	1	307	.851	.048	.085
	Total	384	.842	.043	

In addition, Table 5 has also been prepared to show how participants' basic demographics

and initial GPAs are changed by years spent in CRASP. In reference to Table 5, in terms of years

spent in CRASP, there are statistically significant differences between the students who have

various years of CRASP involvement and the comparison group who did not participate in

CRASP on initial GPA, transfer-in and lunch type. As indicated by Table 5, even though the

demographics mean scores of the CRASP participants and non-participant PCSST students are

slightly different from each other on special education, ESL, gender, parent education, and race,

these differences between the groups are not statistically significant.

Table 5.

ANOVA Table of Participants' Demographic Information by Years Spent in CRASP

Variables	Years in CRASP	N	Mean	SD	Significance
Black	0	77	.504	.502	
	1	90	.444	.499	
	2	83	.505	.503	.841
	3	71	.446	.500	
	4	63	.438	.500	
	Total	384	.473	.500	
Hispanic	0	77	.336	.474	
	1	90	.407	.494	.919
	2	83	.404	.493	
	3	71	.419	.497	
	4	63	.453	.502	
	Total	384	.395	.489	
Parent Education	0	77	.22	.417	
	1	90	.18	.384	
	2	83	.27	.444	.195
	3	71	.27	.446	
	4	63	.13	.336	
	Total	384	.21	.410	
Initial GPA	0	77	2.37	.793	
	1	90	2.73	.901	
	2	83	2.44	.874	.002*
	3	71	2.70	.759	
	4	63	2.30	.773	
	Total	384	2.52	.842	
Special/ESL	0	77	.08	.270	
	1	90	.13	.342	
	2	83	.12	.328	.828
	3	71	.13	.335	
	4	63	.13	.336	
	Total	384	.12	.322	

(table continues)

Variables	Years in CRASP	N	Mean	SD	Significance
Transfer In	0	77	.155	.365	
	1	90	.277	.450	
	2	83	.192	.396	
	3	71	.070	.257	.001*
	4	63	.000	.000	
	Total	384	.151	.358	
Gender	0	77	.57	.498	
	1	90	.61	.490	
	2	83	.67	.471	.554
	3	71	.55	.501	
	4	63	.59	.496	
	Total	384	.60	.490	
Lunch Type	0	77	.34	.476	
	1	90	.39	.490	
	2	83	.23	.423	.009*
	3	71	.15	.364	
	4	63	.25	.439	
	Total	384	.28	.449	

Note. *$p < .05$

The Instrumentation and Data Sources

This research is a pre-specified study. As Krathwonu and Smith (2005) note, in pre-specified studies, the research questions, arguments supporting the inquiry, and specific procedures of data collection and data analysis are worked out at the beginning of the investigation. A pre-prepared alumni survey was sent to a total of 305 PCSST-graduated students. The alumni survey was prepared to gather information to explore the college experiences of PCSST's former students. In that aspect, the questions generally inquired about students' preparation for and knowledge about college admission and financial aid, as well as their attitudes and experiences about interventions that are offered by CRASP and post-secondary institutions. The survey included four major sections, and was composed of closed questions with Likert-type response scales.

The first section, "Background Information and College Data", includes the following

items: (1) name; (2) high school graduation year; (3) enrollment status in

degree/certificate/diploma program; (4) parent's highest level of school completed; (5) number of

college applications; and (6) second-year college enrollment.

The second section of the survey was designed to explore the impact of high school

experiences on getting into and achieving in college. All 19 academic and counseling programs

and interventions in PCSST that may make a possible contribution to students' college goals are

listed in section two. Students were asked to indicate if they participated in these programs when

they were in high school.

The third section of the survey was designed to explore the challenges that students face

while attending college. This section contains a list of student and institutional factors that may

affect students' college success. In this section, students were asked to indicate to what degree

each factor affected their college success. While the researcher was constructing the items in this

section, he reviewed and utilized the PCSST alumni's input that was received and collected over

the last three years.

In addition, the researcher reviewed the findings of past college retention research studies

and found that the majority of items in this section are similar to those examined in previous

studies. Eight of the 19 items were very similar to the survey items that are used in the ACT

(2010) "What Works in Student Retention?" that was administered by ACT (2010). After

students rate the items, they were also asked whether or not they dropped out of college. If they

dropped out of college, they were asked to list the reasons. Finally, the last section of the survey

was designed to explore the impact of college experiences on students' college retention and

success. In this section, the series of programs and interventions that are possibly offered by their

colleges are listed.

In addition to the survey responses, other data sources were also used. For example, the

researcher used the computerized PCSST student information system, which contains each

student's demographic information, contact information, GPA, discipline reports, daily

attendance rate, lunch type situation, test results, and report cards. Second, the official College

Board SAT results were used as another data source. Third, the researcher used the "Student

Tracker", a web-based program designed by National Clearinghouse to help high schools track

their alumni's college enrollment data. Fourth, NJ Standards Measurement and Resource for

Teaching (NJ SMART), a comprehensive statewide longitudinal data warehouse, was also used

in this study. Finally, the researcher's individual counseling logs, as well as alumni follow-up

data, were utilized. Table 6 shows how the various data sources were used to gather data to

address the research questions.

Table 6.
Data Sources and the Number with Data

PCSST Graduated Cohort	Final GPA Data	SAT Data	College App Data	1st Year College Enroll	2nd Year College Enroll	FAFSA Data
2009	77	77	69	77	77	69
2010	79	79	79	79	79	79
2011	75	75	75	75	75	75
2012	74	74	74	74	74	74
2013	79	79	79	79	79	79
Total	384	384	375	384	384	375

Note. Final GPA data collected from archived school data. SAT data collected from College
Board and NJ SMART. Self-Reported college application data collected from survey/counselor
log/alumni follow-up. First and second year college enrollment data collected from
survey/student tracker program/alumni follow-up. Self-Reported FAFSA data collected from
survey/counselors logs/alumni follow-up.

Data Collection

The proposed survey was approved by the Rutgers University Institutional Review Board

in July 2012, and it contains minimal risk to the participants. The researcher began to administer

the survey in August 2012. The researcher followed certain procedures to provide the

participants with the least amount of risk possible, and maintained their comfort throughout the

completion of the alumni survey. For example, it was the participants' decision whether or not

they would like to take part in this study. If they chose to participate, they were able to withdraw

from the study at any time during the research process. Even though the survey does not pose

any psychological, legal, social, or physical harm towards the participants, an electronic letter of

consent was attached to the survey and survey participants were required to electronically

indicate that they had read and consented to participate prior to responding to any further

questions.

The online consent form specified the purpose of the dissertation study, described the

ways in which their contributed information would be used for PCSST programs, and indicated

that participants had the option to withdraw from the study at any time or if they felt any

discomfort. Furthermore, if survey items were not applicable to participants, they were directed

to skip the item or mark the "Does Not Apply" option. Furthermore, if any item requested

information that they did not wish to provide, they were free to omit it.

During the data collection process, a combination of both survey and archived school

data were collected for this investigation. In particular, a mixed-mode strategy that includes

online and in-person was conducted. After the researcher finalized the survey items based on the

pilot study and peer reviews, the survey was prepared in the online Survey Monkey system.

Emails that included the survey link were sent to all PCSST alumni requesting them to complete

the online PCSST Alumni survey. Reminder messages were sent in September, October,

November, and again in December 2012. Besides group and individual emails, reminder

messages were also sent through a Facebook account.

During the data collection process, PCSST alumni coordinators from different cohorts

helped the researcher reach out and recruit the PCSST students to complete the alumni survey.

Of the email messages sent to PCSST alumni, around 20 messages were returned because the

message was undeliverable. It is assumed that approximately 280 alumni received the online

survey link. In order to increase the number of participants, the researcher invited all former

students to a PCSST Alumni Dinner and Network Event on Wednesday, December 19th from

5:30pm to 7:30pm. Consequently, a total of 56% of PCSST alumni (171 out of 305) successfully

completed online survey. Table 7 shows the exact number of students in each cohort and also

gives numbers of survey takers from each cohort. The survey was not sent to the class of 2013

because they were still high school students in the fall of 2013.

Table 7.

Survey Takers by Cohort

Cohort	# of Students	# of Survey Takers
2009	77	44
2010	79	43
2011	75	41
2012	74	43
Total	305	171

After all surveys were collected and coded, results were stored in the alumni tracking

folder that is not available to others. Entry to the survey results requires a passcode. The

information the students supplied on this questionnaire was kept confidential. The participants'

names were requested for research purposes only, and will not be listed on any report. Therefore,

the researcher assigned a specific identification number to each participant. Moreover,

pseudonyms will be used for all participants in any documents made public, for example articles,

research papers, or research presentations.

During the data collection process, the researcher identified discrepancies in participants'

SAT scores. In order to explain what causes the discrepancy in SAT scores, the researcher

consulted with NJ SMART officials. It is noted that NJ SMART reports students' most recent

SAT scores in data warehouse. However, in this study, students' highest SAT scores from each

SAT section are reported. This is because in terms of college admission and financial aid

decision criteria, colleges look at the students' top SAT score. Thus, the researcher did all the

SAT analyses twice to see the differences between highest SAT scores and latest SAT scores.

The second discrepancy noted in NJ SMART college enrollment data was taken from the

National Clearinghouse Student Tracker program. After the researcher consulted with NJ

SMART officials, it was noticed that students who have no social security number are not

included in NJ SMART college enrollment data. It is also noted that students who attend

vocational, technical, career and military schools are not included in the NJ SMART report.

Thus, in order to reach out to students who are not included in the National Clearinghouse

Student Tracker program, data from the PCSST alumni follow-up program was utilized in this

study.

Data Analysis

In order to analyze the quantified data of five different cohorts from 2009 to 2013, the

computer-based SPSS statistics program was used. In order to utilize both descriptive and

inferential statistics, the following steps were taken. First, the closed-ended questionnaires'

responses were numerically coded, and a data set was created in an excel sheet to use the SPSS.

Second, the collected data was compiled according to cohort year. Coded under the student ID

number, the students' GPA's and SAT scores were linked to each other from the school

database. Third, the students' college enrollment, readiness, and persistence data, as well as

achievement data in high school, were systematically added to the data set.

For this study, after the coding process was completed, the researcher used the

descriptive analysis that includes frequencies (sample, independent and dependent variables), the

measures of central tendency (mean, median, mode), and measures of variability (variance and

standard deviation) as the first step in the data analysis, in order to explore and summarize the

critical characteristics of the predictor variables,. Following the descriptive analysis, *t*-tests,

crosstabs analysis, and correlational analysis were used to determine if there were significant

differences ($p < .05$) between various aspects of students' college readiness and college success

as it relates to CRASP activities. In addition to descriptive analyses, both binary logistic

regression and multiple linear regression analyses were administered using the SPSS program to

examine the effect of CRASP activities on former PCSST students' college readiness, pursuit,

access, and persistence.

To determine the extent to which the various independent variables (high school initial

GPA, gender, race, lunch type, special education, ESL education, parent education, CRASP

participation, years spent in CRASP) related to the dependent variable (SAT participation rate,

SAT cumulative score, FAFSA completion rate, and college enrollment and retention rates), as

recommended by Green and Salkind (2008), the researcher particularly used the linear regression

analysis, binary logistic regression, and stepwise to analyze how each predictor independent

variable is associated with the dependent variable.

Variables

This section explains the variables used within the study.

Dependent Variables

As noted in the introduction, this study has been guided by three research questions. The

answers and findings of these research questions will help PCSST administrators, school

counselors, teachers, and other key stakeholders understand how well they are supporting their

students' college readiness, pursuit, enrollment, and persistence. The first cohort (class of 2009)

did not participate in CRASP. Each succeeding cohort had one additional year of CRASP.

Therefore, aligned with the first research question, the following dependent variables were

identified to compare the college experiences and outcomes of PCSST students who participated

in CRASP for different lengths of time (from zero to four years). Table 8 visualizes the domains,

measures, nature of dependent variable, and coding used to analyze the estimated impact of the

program.

Independent Variables

The independent variables that have possible implications on students' college readiness,

persistence, and attainment are summarized in Table 9, which visualizes the

independent variables and coding.

The researcher is also interested in knowing more about what parts of students' high

school and college experiences are most critical to help them stay in college and achieve in

college. In this aspect, the researcher explored the type of interventions or prevention programs

in which students reported they participated and how participation in this program affected their

college readiness, access, and persistence. Table 10 summarizes the CRASP interventions that

can be considered dependent variables influenced.

Table 8.

Dependent Variables

Domains	Dependent Variables (Measures)	Nature of Dependent Variable and Coding
Improve Students' College Readiness	GPA	Continuous Variable
	SAT Takers	Dichotomous Variable Coding: 0: No 1: Yes
	SAT Composite Scores	Discrete Variable SAT: (min 600 – max 2400)
Improve Students' College Pursuit	Number of College Application	Continuous Variable
	Completing FAFSA Application	Dichotomous Variable Coding: 0: No 1: Yes
Improve Students' College Enrollment	Post-Secondary Enrollment	Dichotomous Variable Coding: 0: No 1: Yes
	Post-Secondary Institution Type	Categorical Variable 1:Vocational, 2: Two Year 3: Military, 4: Four Year
Improve Students' College Persistence	Freshman to Sophomore Persistence	Dichotomous Variable Coding: 0: No 1: Yes

Table 9.

Independent Variables

Categories	Independent Variables	Coding
Academic Factors	High School Initial GPA	Continuous Variable
Non-Academic Factors	Education Status	0: General Education, 1: Special Education/ESL
	Parent Education	0: Has no College Degree 1: Has a College Degree
	Lunch Time	0: Free and Reduced 1: Paid
	Gender	0: Male, 1: Female
	Race	0: Black, 1: White 2: Hispanic
Program Related Factors	Participation to CRASP	0: No, 1: Yes
	# of Years in CRASP	0-1-2-3-4

Table 10.

CRASP Components

Individual Student Learning Plan	College Fairs and College Trips
College Dual Enrollment Program	Parent and Counselor Meetings
After School Tutoring	Recognition/Rewards Program
Peer Tutoring	Career Day
SAT Prep Program	Group Counseling Sessions
SAT Elective Courses (Credit)	One on One FAFSA Application
Accuplacer Test Preparation	The Home Visitations
Honor Level Courses	College and SAT Fee Waivers
Individual Counseling Sessions	Instant Decision Days
Classroom Presentations	

The Role of the Researcher

As the chair of the school counseling department, and a professional school counselor, the researcher took an active role during the initiation and implementation of the study. The participants were former students of the researcher. The researcher is well aware that this active involvement is a potential threat to validity. Moreover, he is also aware that this active involvement of the researcher could present a conflict of interest since individual school counseling activities encourage building ongoing and caring relationships between the school counselors and students. Therefore, participants may have wanted to respond and share their CRASP experience in a way that would positively highlight CRASP, when their true CRASP experience might have been negative or differed from what they reported.

As recommended by Lawson (2011), in order to alleviate this potential conflict of interest, the researcher clearly explained to his former students that their honest responses not only aid the school, but would also be appreciated by the researcher. This information was provided in the survey consent form. There was no incentive attached to any response. Furthermore, the researcher used Survey Monkey to conduct the surveys online, allowing participants to share their honest CRASP experience without any pressure. However, it was not anonymous.

Reliability and Validity

Reliability is a measure of how reproducible the survey data is (Litwin, 1995). Therefore, it is important to address the issue of reliability and examine strategies that have been developed to maximize reliability. The validity of a measure is the extent to which it measures what it is intended to measure (Rossi et al., 2004). In that aspect, the researcher focused on ensuring the validity and reliability of the instrument. The list of strategies to ensure the reliability and validity of the study is provided below.

First, the pilot study helped the researcher identify deficiencies. During the pilot study, the input and peer review of colleagues obtained the reliability of the instrument. Furthermore, the researcher was very careful, sensitive, and objective while collecting and reporting the findings. The researcher maintained an active corroboration on the interpretation of collected information with the key stakeholders and intended users, in order to explore what students see and feel about the implementation of the program. In particular, the researcher consulted with other counselors in order to establish validity through collaborative judgment. In other words, he spent time with his colleagues identifying problems and concerns with the instrumentation. During the pilot study, the evaluator also initiated and maintained an active corroboration on the

interpretation of data with the alumni to obtain participants' input in person and comprehend

what they see and feel about their preparedness for college.

Overall, it has been noted that the study includes and utilizes measures such as SAT, high

school GPA, FAFSA, and college applications, which are identified as predictors of college

admission and success (ACT, 2010) and the College Board (2011). Finally, to ensure accuracy in

reporting facts, and to crosscheck the responses of the participants, the researcher utilized a

variety of sources. For example, in order to validate the accuracy of the survey findings and

obtain a more complete picture of the study, the researcher used multiple data sources that

involved: (1) the school's computerized data management system, (2) the College Board official

reports, (3) NJ SMART student and data reports, (4) National Clearinghouse Student Tracker

Program reports, (5) peer input, and (6) logs of individual counseling sessions.

CHAPTER FIVE: FINDINGS

The findings of this study are categorized into three major areas. First, the researcher investigates how participation in CRASP affects PCSST students' college readiness, pursuit, enrollment, and persistence. Second, the researcher indicates which specific components of CRASP are most effective in improving disadvantaged students' college readiness, pursuit, enrollment, and persistence. Finally, in the third part, the researchers explores the challenges that student face in their first year of college. Overall, to explore how student outcomes are influenced by CRASP, the researchers developed four visual models to aid the conceptualization.

Model 1: Effects of CRASP on College Readiness
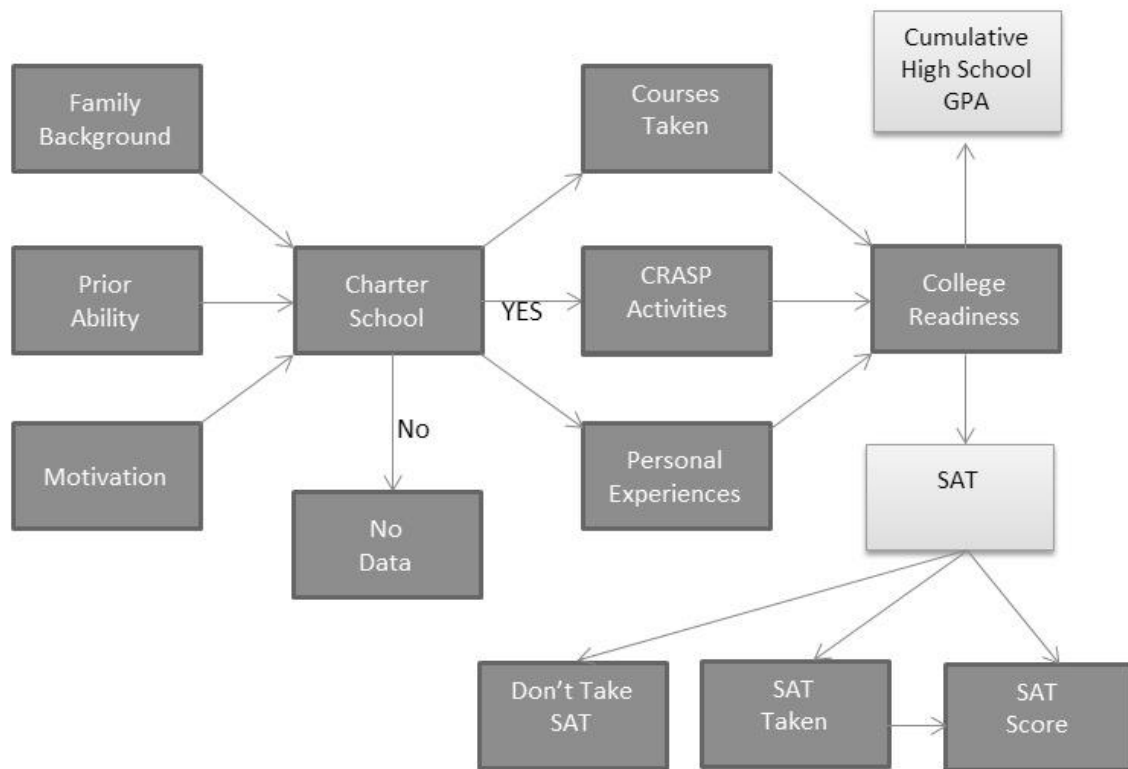
Figure 9. College readiness.

In reference to previous studies, good academic standing (high school cumulative GPA)

and high scores from college entrance exams (SAT and ACT) are considered the strongest

indicators of college readiness (Adelman, 2006; College Board, 2011). Armed with the findings

of previous research, this study uses high school cumulative GPA and SAT scores as the

measures of college readiness. Therefore, as shown in Figure 9, the researcher used both

descriptive statistics and regression techniques to investigate how students' GPA, SAT scores,

and SAT taking rate are associated with CRASP participation from 2009 to 2013.

Effect of CRASP on SAT Taking

First, in order to investigate how students' official SAT taking rate is associated with

CRASP participation, the researcher prepared Table 11, which shows the SAT taking trends by

CRASP participation. As reported in Table 11, without controlling for any other variables or

testing for statistical significance, students' SAT taking rate is positively related with CRASP

participation. In particular, Table 11 indicates that students who participated in CRASP are more

likely to take the SAT compared to students who never participated in the CRASP program. On

average, while 77% of CRASP participants took the SAT, only 40% of non-participating

students took the SAT before they graduated from high school.

Table 11.

SAT Takers by CRASP Participation

Years in CRASP	N	Mean	SD
No	77	0.4	0.494
Yes	307	0.77	0.422
Total	384	0.7	0.461

As also noted in Table 12, the number of years spent in CRASP is associated with

increasing the percentage of SAT takers. Students who stayed in CRASP for a longer period of

time had a greater opportunity than their peers, who did not participate in CRASP, to take the

SAT. Up to four years from the implementation of CRASP, 92 percent of students who

participated in CRASP for four years took the SAT, compared to only 40 percent of comparison

students who did not get a chance to participate in CRASP.

Table 12.

SAT Takers by Years Spent in CRASP

Years in CRASP	N	Mean	SD
0	77	.40	.494
1	90	.70	.461
2	84	.68	.470
3	71	.83	.377
4	62	.92	.275
Total	384	.70	.461

The archived College Board SAT data Tables 11 and 12 showed that CRASP

participation is positively correlated on its own with SAT taking. When the researcher

investigated how participation in CRASP affects PCSST students' SAT taking, he used rigorous

statistical controls for demographic differences among participants. Therefore, in addition to

descriptive statistics, the researcher also conducted the binary logistic model to check whether or

not participating in CRASP is still significant to predict SAT taking when the multiple regression

controls and combines the other related independent variables that include students' basic

demographics (gender and race), education status (special education and ESL), family

background (parent education and lunch type), and transferring status in, as well as their prior

academic standing (initial GPA).

Table 13.

Summary of Binary Logistic Regression Analysis for CRASP Participation and Variables

Predicting the SAT Participation (N=384)

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
Participate CRASP	2.009	.332	36.697	1	.000*	7.455
Parent Education	2.148	.491	19.171	1	.000*	8.569
Initial GPA	.848	.187	20.635	1	.000*	2.334
Gender	-.096	.275	.121	1	.728	.909
Transfer In	-1.146	.349	10.747	1	.001*	.318
Lunch Type	-.058	.309	.036	1	.850	.943
Special ESL	-1.420	.400	12.588	1	.000*	.242
Black	-.950	.549	2.998	1	.083	.387
Hispanic	-.307	.552	.310	1	.578	.736
Constant	-1.981	.791	6.277	1	.012	.138

Note. $R^2 = .395$ and *p < .05

Before the researcher interpreted the impact of variables on SAT participation, the

assumptions for the regression analysis were checked. First, the Omnibus Tests of Model

coefficient was checked, and it is noted that the model is statistically significant at $p < .005$. The

null hypothesis "there is no difference between the model with only a constant and the model

with independent variables" was rejected. Therefore, the existence of a relationship between the

independent variables and the dependent variable (SAT Taking) was supported. Second, the

researcher reported the overall accuracy rate in the classification table. The overall accuracy rate

of the model computed by SPSS is 78.1%. When block 0 and block 1 are compared, it is also

reported that the accuracy rate is increased from 69.5% to 77.6%. Third, the researcher reviewed

the model summary, and it is noted that according to the Nagelkerke R Square, 39.5% of the

variability in the SAT takers is associated with selected predictor independent variables.

Referring back to regression Table 13, it is reported that out of nine predictor variables,

five variables were considered as significant at .05 p-value ($P_{Initial GPA} = .001$, $P_{CRASP Participation} =$

.001, $P_{Parent Education} = .001$, $P_{Transfer in} = .001$ and $P_{Special Ed/ESL} = .001$). While CRASP participation,

initial GPA, and parent education were positively associated with SAT taking, it is noted that

there was a statistically significant inverse relationship between SAT taking and transfer-in,

special education, and ESL.

In addition to the logistics regression with CRASP, the researcher reports a second

logistic regression that controls other independent variables and years spent in CRASP.

Referring back to regression Table 13, it is reported that out of nine predictor variables, four

variables were considered significant at .05 p-value ($P_{\text{Initial GPA}}$ = .001, $P_{\text{Years in CRASP Participation}}$ =

.001, $P_{\text{Parent Education}}$= .001, and $P_{\text{Special Ed/ESL}}$= .001). It is noted that according to the Nagelkerke

R Square, 42.2% of the variability in the SAT takers is associated with selected predictor

independent variables. The effect size of .735 implies that students who stay in CRASP for a

longer amount of time are more likely to take the SAT. Therefore, it is safe to report that the

number of years spent in CRASP has a statistically significant effect on SAT taking when the

multiple regression controls and combines the other related independent variables that include

students' basic demographics (gender and race), education status (special education and ESL),

family background (parent education and lunch type), and transferring status, as well as their

prior academic standing (initial GPA).

Table 14.

Summary of Binary Logistic Regression Analysis for Years in CRASP and Variables Predicting

the SAT Participation (N=384)

Variables	B	S.E.	Wald	Df	Sig.	Exp(B)
ParentEducation	2.030	.478	18.076	1	.000*	7.615
Initial GPA	.933	.192	23.643	1	.000*	2.543
Gender	-.054	.280	.037	1	.848	.948
Transfer In	-.603	.345	3.064	1	.080	.547
Lunch Type	.111	.314	.126	1	.723	1.118
Special ESL	-1.379	.414	11.074	1	.001*	.252
Black	-1.006	.563	3.200	1	.074	.366
Hispanic	-.419	.561	.558	1	.455	.657
How ManyYears	.735	.113	42.059	1	.000*	2.086
Constant	-1.972	.804	6.017	1	.014	.139

Note. R^2=.422 and *p <.05

The binary logistic regression analyses indicated both CRASP participation and the

number of years spent in CRASP are positively associated with SAT taking. However, as this

research study attempts to determine the extent to which specific CRASP interventions help

students the most to take the official College Board SAT, the first two regression models did not

provide enough information regarding the specific effect size of each CRASP component.

Therefore, the researcher conducted the stepwise binary logistic regression model that included

all components of the CRASP and other predictor variables that have the potential to make a

contribution to SAT taking.

Table 15.

Summary of Stepwise Binary Logistic Regression Analysis for Variables Predicting the SAT

Participation (N=171)

Variable	B	S.E.	Wald	df	Sig.	Exp(B)
ParentEducation	1.836	.638	8.292	1	.004*	6.270
Initial_GPA	.843	.282	8.900	1	.003*	2.322
Individual_Learning_Plan	1.900	.510	13.875	1	.000*	6.684
Instant_Decision_Days	.879	.453	3.766	1	.052	2.407
HomeVisits	1.304	.546	5.700	1	.017*	3.684
Constant	-3.119	.781	15.944	1	.000	.044

Note. R^2=.490

In the stepwise binary logistic regression test, it is noted that according to the Nagelkerke

R Square, 49% of the variability in SAT takers is associated with selected predictor independent

variables. The researcher interpreted the coefficient table to identify the significant variables that

are associated with SAT taking. Referring back to stepwise regression Table 15, it is reported

that out of twenty seven predictor variables, only five variables were considered significant at .05

p-value (P $_{\text{Individual Learning Plan}}$ = .001, P $_{\text{Initial GPA}}$ = .003, P $_{\text{Home visits}}$ = .017, and P $_{\text{Parent Education}}$=

.004). Therefore, CRASP components that are individual learning plans and home visits have a

significant effect on SAT taking when the stepwise regression controls and combines the other

related independent variables that include students' basic demographics, education status, family

background, and transferring status, as well as their prior academic standing.

Effect of CRASP on SAT Composite Scores

The SAT score is considered a strong indicator of college readiness (College Board,

2012). To investigate how students' SAT composite scores are associated with CRASP

participation, the researcher prepared Table 16, which shows how students' SAT composite

scores have been changed by CRASP participation.

Table 16.

SAT Composite Scores by CRASP Participation

CRASP Participation	# of Students	# of SAT Takers	Mean	SD
No	77	31	1209.03	263.393
Yes	307	236	1234.83	230.242
Total	384	267	1231.84	233.937

As reported in Table 10, the average SAT score of CRASP students is higher than

students who did not participated in CRASP. In other words, CRASP students performed slightly

better than non-CRASP students on their SAT scores.

Table 17.

SAT Composite Scores by Years Spent in CRASP

Years in CRASP			
	N	Mean	Std. Deviation
0	31	1209.03	263.393
1	63	1209.84	244.115
2	57	1195.79	223.926
3	59	1283.56	205.324
4	57	1251.05	240.109
Total	267	1231.84	233.937

The researcher also prepared Table 17, which shows how students' SAT composite

scores have been changed by years spent in CRASP. The data suggests some increase in SAT

composite scores from the first two to the second two cohorts of CRASP students. The average

SAT composite score of students who participated in CRASP for one or two years is 1203.1. The

average SAT composite score of students who participated in CRASP for three or four years is

1267.6.

When the researcher analyzed achieved SAT data, he realized that there were some

discrepancies between official College Board SAT data and the State report card. The SAT

average composite score in the school report card does not seem to be exactly the same as the

one that is reported in this study. Therefore, the researcher contacted NJ SMART officials to

explain discrepancies between archived College Board SAT data and State report card data. NJ

SMART officials informed the researcher that State report card only reports the most recent

score for students. However, when making decisions in college admission and financial aid, the

majority of colleges look at the students' highest SAT scores from each section instead of the

most recent score. That is why students tend to take the SAT multiple times to improve their

SAT scores. The implications for this study are to do the SAT analyses twice to explore the

difference between the full SAT composite score and the composite SAT score from the last time

the test was taken.

Table 18.

SAT composite scores from the last time the test was taken by CRASP participation

CRASP Participation	# of Students	# of SAT Takers	Mean	SD
No	77	31	1167.42	273.593
Yes	307	236	1187.03	224.351
Total	384	267	1184.76	230.107

Table 18 shows that instead of full SAT composite score, when we report SAT composite

scores from the last time the test, CRASP students' SAT average composite scores decreased

from 1234.76 to 1187.03. Similarly, Non-CRASP students SAT average composite scores

decreased from 1209.03 to 1167.42. In other words, the average composite SAT score of both

CRASP and non-CRASP participants decreased 47.73 and 41.61, respectively.

The descriptive data table showed the average SAT composite scores of CRAP and non-

CRASP participants. However, a true estimate of CRASP's impact must go beyond the

descriptive statistics and be grounded in inferential statistics that control for other predictor

variables and indicate the level of significance of measurable effects. Therefore, the researcher

also conducted a linear regression model to estimate the effects of participating in CRASP,

controlling for independent variables.

Table 19.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting the SAT Composite Score (N=267)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1009.389	69.070		14.614	.000
Transfer In	-45.745	36.491	-.063	-1.254	.211
Parent Education	-3.654	28.293	-.007	-.129	.897
Gender	-43.354	24.430	-.090	-1.775	.077
Lunch Type	-3.830	26.954	-.007	-.142	.887
Special ESL	-174.358	40.732	-.218	-4.281	.000*
Initial GPA	130.711	15.296	.466	8.545	.000*
Participate CRASP	33.943	36.622	.047	.927	.355
Black	-139.366	37.582	-.295	-3.708	.000*
Hispanic	-122.133	36.258	-.259	-3.368	.001*

Note. $R^2 = .343$

It is noted that according to the R Square value, 34.3% of the variability in the SAT

composite score is associated with selected predictor independent variables. Table 19 shows that

CRASP participation is not significant to predict SAT composite scores when the multiple linear

regression controls and combines the other related independent variables including: students'

basic demographics (gender and race), education status (transferring, special education and

ESL), family background (parent education and lunch type), and transferring status, as well as

their prior academic standing (initial GPA). On the other hand, referring back to regression Table

19, it is reported that only four variables were considered significant at .05 p-value ($P_{Initial GPA}$ =

.001, P_{Black} = .001, $P_{Hispanic}$ = .001 and $P_{Special/ESL Education}$ = .001). While there was a statistically

significant positive relationship between SAT composite score and initial GPA, it is noted that

there were a statistically significant inverse relationship between SAT composite score and

Black, Hispanic, special education, and ESL.

The researcher also reports second logistic regression that controls the independent

variables and years spent in CRASP. Referring to regression Table 20, according to the

Nagelkerke R Square, 37.5% of the variability in the full SAT composite scores is associated

with selected predictor independent variables. It is reported that besides initial GPA, Black,

Hispanic, special education, and ESL, the number of years spent was considered significant at

.05 p-value (P $_{\text{Years in CRASP Participation}}$ = .001). The effect size of 33.711 implies that students who

stay in CRASP for a longer amount of time are more likely to receive higher SAT scores.

Therefore, it is safe to report that the number of years spent in CRASP has a statistically

significant effect on the full SAT composite scores when the multiple regression controls and

combines the other related independent variables that includes students' basic demographics

(gender and race), education status (special education and ESL), family background (parent

education and lunch type), and transferring status, as well as their prior academic standing (initial

GPA).

Table 20.

Summary of Linear Logistic Regression Analysis for Years in CRASP and Variables Predicting

the SAT Composite Score (N=267)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	942.510	64.092		14.706	.000
Transfer In	-20.095	36.213	-.028	-.555	.579
Parent Education	5.186	27.558	.010	.188	.851
Gender	-43.654	23.823	-.091	-1.832	.068
Lunch Type	8.657	26.515	.017	.326	.744
Special ESL	-171.337	39.735	-.214	-4.312	.000*
Initial GPA	137.722	15.042	.491	9.156	.000*
Black	-148.540	36.730	-.314	-4.044	.000*
Hispanic	-123.803	35.351	-.263	-3.502	.001*
How Many Years	33.711	8.997	.191	3.747	.000*

Note. R^2=.375

The linear regression analysis indicated that CRASP participation is positively related to

SAT composite scores. However, as this research study attempts to determine the extent to which

specific CRASP interventions help students the most to get higher SAT scores, the first

regression model did not provide enough information about the specific effect size of each

CRASP component. Therefore, the researcher conducted a stepwise regression model that

included the components of CRASP that have the potential to make a contribution to SAT

composite scores. In addition to CRASP components, other independent variables are included in

the stepwise regression model.

Table 21.

Summary of Stepwise Linear Logistic Regression Analysis for Variables Predicting the SAT

Composite Scores (N=171)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Initial_GPA	149.908	17.110	.579	8.761	.000*
SpecialESL	-186.663	53.110	-.232	-3.515	.001*
FAFSA_Support	137.138	40.412	.224	3.393	.001*
Hispanic	-73.693	30.572	-.159	-2.411	.017*

Note. R^2=.496

    Table 21 shows that FAFSA support and initial GPA have a statistically significant

positive relationship with the full SAT composite scores. However, there is a statistically

significant inverse relationship between special education, Hispanic, and the full SAT composite

score.

Effect of CRASP on Cumulative GPA

    According to the research, in addition to SAT and ACT scores, students' cumulative

GPA is also a strong indicator of college readiness (College Board, 2012). Aligned with this

statement, students' cumulative GPAs are considered a very important component of college

admission and academic scholarship decisions by the majority of post-secondary institutions.

Therefore, in order to investigate how participants' high school cumulative GPAs are associated

with CRASP participation, the researcher prepared two tables that show how students'

cumulative GPAs have changed from the PCSST Cohort of 2009 to 2013. As reported in Table

22, the average GPA scores of non-CRASP participants and CRASP participants are calculated

as 2.51 and 2.60, respectively. In other words, the average high school cumulative GPA

difference between non-CRASP participants and CRASP participants is only .11. Referring to

Tables 22 and 23, the researcher also did not notice a steady increase in GPA by CRASP

participation.

Table 22.

Final High School Cumulative GPA by CRASP Participation

CRASP Participation	N	Mean	SD
No	77	2.51	.684
Yes	307	2.60	.722
Total	384	2.58	.715

Table 23.

Final High School Cumulative GPA by Years Spent in CRASP

Years in CRASP	N	Mean	Std. Deviation
0	77	2.51	.684
1	90	2.65	.779
2	84	2.47	.725
3	71	2.69	.701
4	62	2.60	.643
Total	384	2.58	.715

The archived GPA data table shows that the CRASP participants' high school average

cumulative GPA is .11 higher than non-CRASP participants. In addition to descriptive statistics,

the researcher also estimated the linear regression model for the effect of participating in CRASP

on cumulative GPA when other independent variables including students' demographics (gender

and race), education status (special education and ESL), transferring status, family background

(parent education and lunch type), and prior academic standing (initial GPA) are included.

Table 24.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting GPA (N=384)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.945	.102		9.302	.000
Transfer_In	-.170	.052	-.086	-3.274	.001*
ParentEducation	.097	.048	.055	2.007	.046*
Gender	.105	.039	.072	2.704	.007*
LunchType	-.005	.043	-.003	-.118	.906
SpecialESL	-.071	.059	-.032	-1.209	.227
Initial_GPA	.684	.024	.806	27.996	.000*
Black	-.160	.064	-.111	-2.495	.013*
Hispanic	-.064	.063	-.044	-1.005	.316
ParticipateCRASP	-.042	.047	-.023	-.886	.376

Note. R^2=.738

Table 25.

Summary of Linear Logistic Regression Analysis for Years Spent in CRASP and Variables

Predicting GPA (N=384)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.872	.101		8.666	.000
Transfer In	-.154	.053	-.078	-2.899	.004*
Parent Education	.099	.048	.057	2.052	.041*
Gender	.104	.039	.071	2.679	.008*
Lunch Type	.006	.043	.004	.133	.894
Special ESL	-.077	.059	-.035	-1.305	.193
Initial GPA	.683	.024	.804	28.093	.000*
Black	-.161	.064	-.113	-2.528	.012*
Hispanic	-.066	.063	-.046	-1.048	.295
How Many Years	.021	.014	.040	1.484	.139

Referring to both Tables 24 and 25, neither CRASP participation nor years spent in

CRASP was significant to predict final cumulative high school GPA when other independent

variables including students' demographics (gender and race), education status (transferring,

special education and ESL), transferring status, family background (parent education and lunch

type), and prior academic standing (initial GPA) are included. In other words, these regression

analyses indicate that the CRASP participation and years spent in CRASP are not linearly

associated with a higher probability of having a high cumulative GPA. However, these findings

show that initial GPA, parent education, gender, transferring-in, and race are the most significant

direct contributors to predicting variance in high school cumulative GPA, while holding all other

predictor variables constant.

Model 2: Effects of CRASP on College Pursuit

The researcher also designed Model 2 to conceptualize "College Pursuit". In particular,

students' number of post-secondary applications, FAFSA completion, and the type of earned

scholarship were determined as the indicators of "College Pursuit".
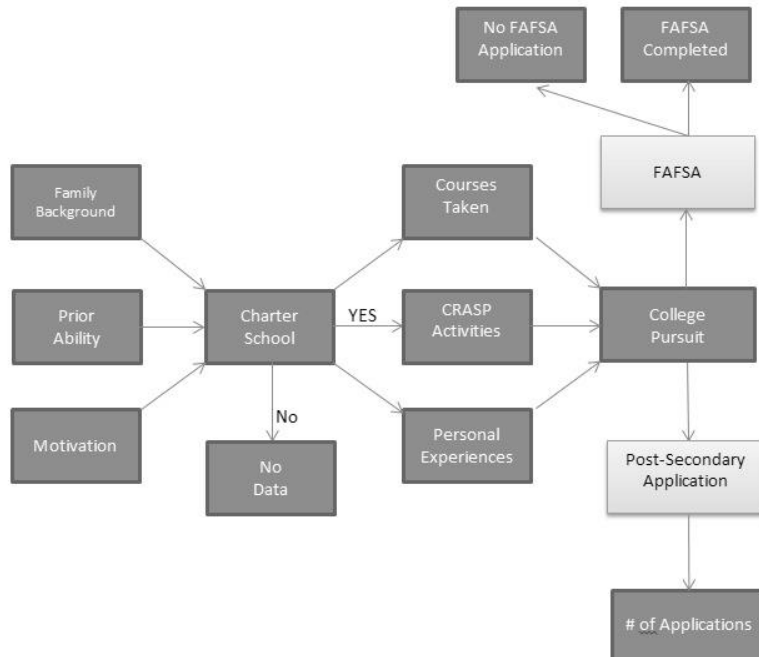
Figure 10. Effects of CRASP on post-secondary pursuit.

Effect of CRASP on Post-Secondary Application

The number of post-secondary applications is considered an important indicator of

college pursuit. To investigate how the number of post-secondary applications is associated with

CRASP participation, the researcher prepared a data table that shows how students' number of

college applications has been changed by CRASP participation. As reported in Tables 26 and 27,

it appears that students who participated in CRASP are likely to apply to more post-secondary

institutions compared to students who never participated in CRASP. Particularly, it appears that

CRASP students had a higher average (4.61) than non-CRASP students (2.04) of the number of

college applications.

Table 26.

Number of Post-Secondary Applications by CRASP Participation

CRASP Participation	N	Mean	SD
No	69	2.04	1.882
Yes	307	4.61	3.005
Total	376	4.14	3.000

Table 27.

Number of Post-Secondary Applications by Years Spent in CRASP

Years in CRASP	N	Mean	SD
0	69	2.04	1.882
1	90	3.41	2.458
2	84	3.98	2.689
3	71	5.92	2.956
4	62	5.69	3.282
Total	376	4.14	3.000

In addition to descriptive statistics, the researcher also estimated linear regression

models. Referring to regression Tables 28 and 29, it is reported that both CRASP participation

and the numbers of years spent in CRASP have a significant effect on the number of post-

secondary applications when other related independent variables that include students' basic

demographics (gender and race), education status (special education and ESL), family

background (parent education and lunch type), transferring status, and prior academic standing

(initial GPA) are included. It appears that PCSST students who stay in CRASP for a longer

amount of time are more likely to have a higher post-secondary application rate. In addition,

initial GPA, lunch type, parent education, special education, and ESL are significantly associated

with post-secondary application rates.

Table 28.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting the Number of Post-Secondary Applications (N=376)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.284	.674		.422	.673
Transfer In	-.823	.347	-.099	-2.370	.018*
Parent Education	.965	.322	.132	2.996	.003*
Gender	.138	.260	.023	.529	.597
Lunch Type	-.668	.289	-.100	-2.312	.021*
Special ESL	-1.446	.396	-.155	-3.656	.000*
Initial GPA	1.254	.163	.354	7.678	.000*
Black	-1.214	.426	-.202	-2.847	.005*
Hispanic	-1.033	.419	-.170	-2.462	.014*
Participate CRASP	2.290	.326	.296	7.017	.000*

Note. R^2=.347

Table 29.

Summary of Linear Logistic Regression Analysis for Years in CRASP and Variables Predicting

the Number of Post-Secondary Applications (N=376)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.276	.610		-.453	.651
Transfer In	-.042	.324	-.005	-.129	.897
Parent Education	.956	.294	.131	3.258	.001*
Gender	.168	.237	.027	.708	.480
Lunch Type	-.328	.266	-.049	-1.235	.217
Special ESL	-1.397	.360	-.150	-3.877	.000*
Initial GPA	1.389	.148	.392	9.381	.000*
Black	-1.315	.389	-.218	-3.381	.001*
Hispanic	-1.110	.383	-.183	-2.901	.004*
How Many Years	1.010	.088	.454	11.542	.000*

Note. $R^2=.457$

The linear regression models indicated that CRASP participation and years spent in

CRASP are positively related with the number of post-secondary applications. However, as this

research study attempts to determine the extent to which specific CRASP interventions help

students the most to apply post-secondary institutions, the first regression model did not provide

enough information about the specific effect size of each CRASP component. Therefore, the

researcher estimated a stepwise linear regression model that includes the components of CRASP

that have the potential to make a contribution to the post-secondary application rate.

In addition to CRASP components, other variables were included in the second

regression model. Table 30 shows that FAFSA support, initial GPA, Hispanic, instant decision

days, dual enrollment program, SAT prep program, and parent education have a statistically

significant relationship with the number of post-secondary applications. Referring back to

stepwise linear regression Table 30, according to the R Square, 65% of the variability in the post-

secondary applications is associated with selected predictor independent variables.

Table 30.

Summary of Stepwise Linear Logistic Regression Analysis for Variables Predicting the Number

of College Applications (N=171)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.661	.487		-1.355	.177
Instant Decision Days	2.090	.312	.358	6.690	.000*
Initial GPA	.891	.162	.280	5.505	.000*
Dual Enroll Program	1.644	.351	.238	4.688	.000*
SAT Prep Prog	1.025	.293	.182	3.495	.001*
Parent Education	.729	.330	.111	2.210	.028*
Hispanic	-.660	.272	-.117	-2.424	.016*
FAFSA Support	.751	.334	.110	2.245	.026*

Note. $R^2 = .650$

Effect of the CRASP on FAFSA Application

As reported in the literature review, minority students are less likely to complete their

financial aid application because they do not have sufficient familiarity with the post-secondary

education system, and how the financial aid processes and FAFSA work (College Board, 2010;

Burkum & La Nasa, 2003; ACT, 2005; Bettinger, Long, Oreopoulos & Sanbonmatsu, 2010).

Therefore, in order to investigate how students' FAFSA completion rate is associated with

CRASP participation, the researcher prepared a data table that shows the percentage of students

who completed their FAFSA applications by CRASP participation. As reported in Tables 31 and

32, it appears that students who participated in CRASP are more like to complete their FAFSA

compared to students who never participated in CRASP. Particularly, while 83 % of CRASP

participants completed their FAFSA application, only 71% of non-participating students

completed their FAFSA application.

Table 31.

FAFSA Completion by CRASP Participation

CRASP Participation	N	Mean	Std. Deviation
No	69	.71	.457
Yes	307	.83	.373
Total	376	.81	.392

Table 32.

FAFSA Completion by Years Spent in CRASP

Years in CRASP	N	Mean	SD
0	69	.71	.457
1	90	.72	.450
2	84	.82	.385
3	71	.92	.280
4	62	.92	.275
Total	376	.81	.392

In addition to descriptive statistics, the researcher also estimated linear regression models. Referring to regression Tables 33 and 34, it is reported that both CRASP participation and the numbers of years spent in CRASP have a significant effect on FAFSA applications when other related independent variables that include students' basic demographics (gender and race), education status (special education and ESL), family background (parent education and lunch type), transferring status, and prior academic standing (initial GPA) are included. It appears that PCSST students who stay in CRASP for a longer amount of time are more likely to complete their FAFSA applications. In addition, parent education, special education, and ESL are significantly associated with FAFSA application.

Table 33.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting the FAFSA Completion (N=376)

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Black	-.830	.558	2.212	1	.137	.436
Hispanic	-.409	.559	.536	1	.464	.664
Transfer In	-.502	.353	2.031	1	.154	.605
Parent Education	1.613	.513	9.872	1	.002*	5.019
Gender	-.062	.286	.047	1	.828	.940
Lunch Type	-.410	.310	1.741	1	.187	.664
Special ESL	-1.094	.397	7.588	1	.006*	.335
Initial GPA	.248	.184	1.827	1	.176	1.282
Participate CRASP	.795	.328	5.875	1	.015*	2.215
Constant	.981	.780	1.582	1	.208	2.668

Note. R^2=.146

Table 34.

Summary of Linear Logistic Regression Analysis for Years in CRASP and Variables Predicting

the FAFSA Completion (N=376)

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Black	-.948	.578	2.694	1	.101	.387
Hispanic	-.531	.575	.852	1	.356	.588
Transfer In	-.215	.359	.359	1	.549	.806
Parent Education	1.623	.514	9.947	1	.002*	5.066
Gender	-.048	.293	.027	1	.870	.953
Lunch Type	-.300	.317	.895	1	.344	.741
Special ESL	-1.140	.408	7.805	1	.005*	.320
Initial GPA	.275	.185	2.200	1	.138	1.317
How Many Years	.472	.116	16.643	1	.000*	1.604
Constant	.771	.797	.937	1	.333	2.162

Note. R^2=.195

The binary regression models indicated that CRASP participation is positively related

with completing FAFSA applications. However, as this research study attempts to determine the

extent to which specific CRASP interventions help students the most to complete their FAFSA

applications, the first regression models did not provide enough information about the specific

effect size of each CRASP component. Therefore, the researcher conducted a stepwise regression

model that includes components of the CRASP that have the potential to make a contribution to

the FAFSA. In addition to CRASP components, other variables were included in the stepwise

regression model.

Table 35.

Summary of Stepwise Binary Logistic Regression Analysis for Variables Predicting the FAFSA

Completion (N=171)

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Parent Education	2.155	1.102	3.828	1	.050*	8.631
Indiv. Learning_Plan	1.852	.653	8.055	1	.005*	6.372
Peer Tutoring	1.601	.827	3.747	1	.053	4.960
Instant Decision_Days	2.306	.636	13.127	1	.000*	10.029
FAFSA Support	3.099	.664	21.752	1	.000*	22.175
Constant	-2.778	.709	15.351	1	.000	.062

Note. R^2=.597

Table 35 shows that FAFSA support, parent education, individual learning plan, and

instant decision days have a statistically significant positive relationship with the FAFSA

application.

Model 3: Effect of CRASP on Post-Secondary Enrollment

According to the New Jersey State Department of Education (2012), high school

students' college enrollment after high school graduation is considered a graduation and post-

secondary indicator. In reference to the U.S. Department of Education Blue Print Reform (2010)

and New Jersey State Department of Education's official public school performance report

standards, in this study, post-secondary enrollment rates in four-year and two-year colleges,

military, vocational, and technical schools are used as the indicators of post-secondary readiness.

The researcher used both descriptive statistics and regression techniques to investigate how

students' post-secondary enrollment rate is associated with CRASP participation from 2009 to

2013.
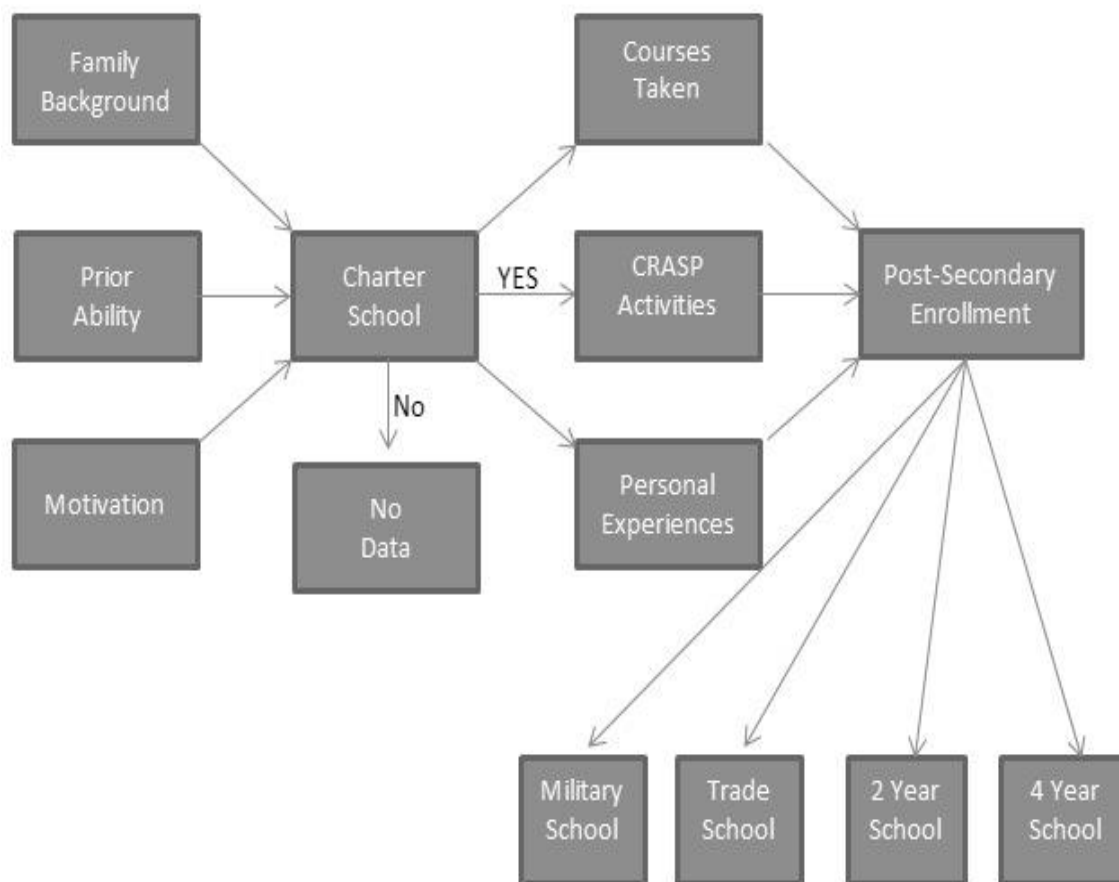
Figure 11. Effects of CRASP on post-secondary enrollment.

First, in order to investigate how students' college enrollment rate is associated with

CRASP participation, the researcher prepared a data chart that shows students' college

enrollment from PCSST Cohort 2009 to 2013. As reported in Tables 36 and 37, it appears that

students' college enrollment rate is positively associated with students' CRASP participation.

Students who participated in CRASP are more likely to enroll in a post-secondary institution

compared to students who never participated in CRASP. On average, while 90% of CRASP

participants enrolled in post-secondary education, 77 % of non-participating students enrolled in

a post-secondary institution between 2009 and 2013.

Table 36.

Post-Secondary Enrollment by CRASP Participation (N=384)

Participate CRASP	N	Mean	SD	Std. Error Mean
No	77	.77	.426	.049
Yes	307	.90	.302	.017

Table 37.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting Post-Secondary Enrollment (N=384)

Years in CRASP	N	Mean	SD	Std. Error
0	77	.77	.426	.049
1	90	.82	.384	.041
2	83	.88	.328	.036
3	71	.96	.203	.024
4	63	.97	.177	.022
Total	384	.87	.334	.017

Besides descriptive statistics, the researcher also estimated binary logistic regression

models. Referring to regression Tables 38 and 39, it is reported that both CRASP participation

and the numbers of years spent in CRASP have a significant positive effect on post-secondary

enrollment when other related independent variables that include students' basic demographics

(gender and race), education status (special education and ESL), family background (parent

education and lunch type), transferring status, and their prior academic standing (initial GPA) are

included. It appears that PCSST students who stay in CRASP for a longer amount of time are

more likely to complete enrollment in post-secondary institutions that include four-year, two-

year, vocational, and military institutions. Referring back to regression Tables 38 and 39, it is

also noted that parent education, initial GPA, special education, and ESL are significantly

associated with post-secondary enrollment.

Table 38.

Summary of Linear Logistic Regression Analysis for CRASP Participation and Variables

Predicting Post-Secondary Enrollment

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Participate CRASP	1.092	.356	9.428	1	.002*	2.980
Transfer In	-.771	.395	3.812	1	.051	.463
Parent Education	1.818	.656	7.685	1	.006*	6.162
Gender	-.423	.343	1.522	1	.217	.655
Lunch Type	-.348	.358	.945	1	.331	.706
Special ESL	-1.104	.460	5.748	1	.017*	.332
Initial GPA	.413	.220	3.529	1	.060	1.511
Black	-.545	.618	.778	1	.378	.580
Hispanic	.263	.643	.167	1	.683	1.301
Constant	.764	.895	.730	1	.393	2.148

Note. R^2=.182

Table 39.

Summary of Linear Logistic Regression Analysis for Years in CRASP and Variables Predicting

the Post-Secondary Enrollment

	B	S.E.	Wald	df	Sig.	Exp(B)
Transfer In	-.470	.397	1.402	1	.236	.625
Parent Education	1.763	.651	7.342	1	.007*	5.831
Gender	-.399	.347	1.320	1	.251	.671
Lunch Type	-.251	.364	.477	1	.490	.778
Special ESL	-1.109	.474	5.473	1	.019*	.330
Initial GPA	.451	.221	4.180	1	.041*	1.570
Black	-.641	.638	1.007	1	.316	.527
Hispanic	.139	.661	.044	1	.834	1.149
CRASP Years	.575	.143	16.175	1	.000*	1.778
Constant	.607	.915	.441	1	.507	1.835

Note. R^2=.225

The binary logistic regression models indicate that CRASP participation and years spent

is CRASP are positively related with post-secondary enrollment. However, as this research study

attempts to determine the extent to which specific CRASP interventions help students the most to

enroll in post-secondary institutions, the first regression models did not provide enough

information about the specific effect size of each CRASP component. Therefore, the researcher

conducted a stepwise regression model that includes the components of the CRASP that have the

potential to make a contribution to post-secondary enrollment. In addition to CRASP

components, other variables are included in the stepwise regression model.

Table 40.

Summary of Stepwise Binary Logistic Regression Analysis for Variables Predicting the Post-

Secondary Enrollment (N=171)

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Parent Education	2.063	1.087	3.604	1	.058	7.872
Peer Tutoring	19.147	5.285	.000	1	.997	206.363
Instant Decision Days	2.041	.725	7.921	1	.005*	7.695
HomeVisits	2.499	1.142	4.794	1	.029*	12.176
Goup Counseling	-2.032	.967	4.410	1	.036*	.131
Constant	.315	.351	.805	1	.370	1.371

Note. $R^2=.437$

Table 40 shows that instant decision days and home visits have a statistically significant

positive relationship with post-secondary enrollment. However, there was a statistically

significant inverse relationship between group counseling meetings and post-secondary

enrollment. This relationship is certainly not an intended effect of group counseling meetings,

and its implications are discussed in the next chapter.

Model 4: Effect of CRASP on Freshman to Sophomore Post-Secondary Persistence
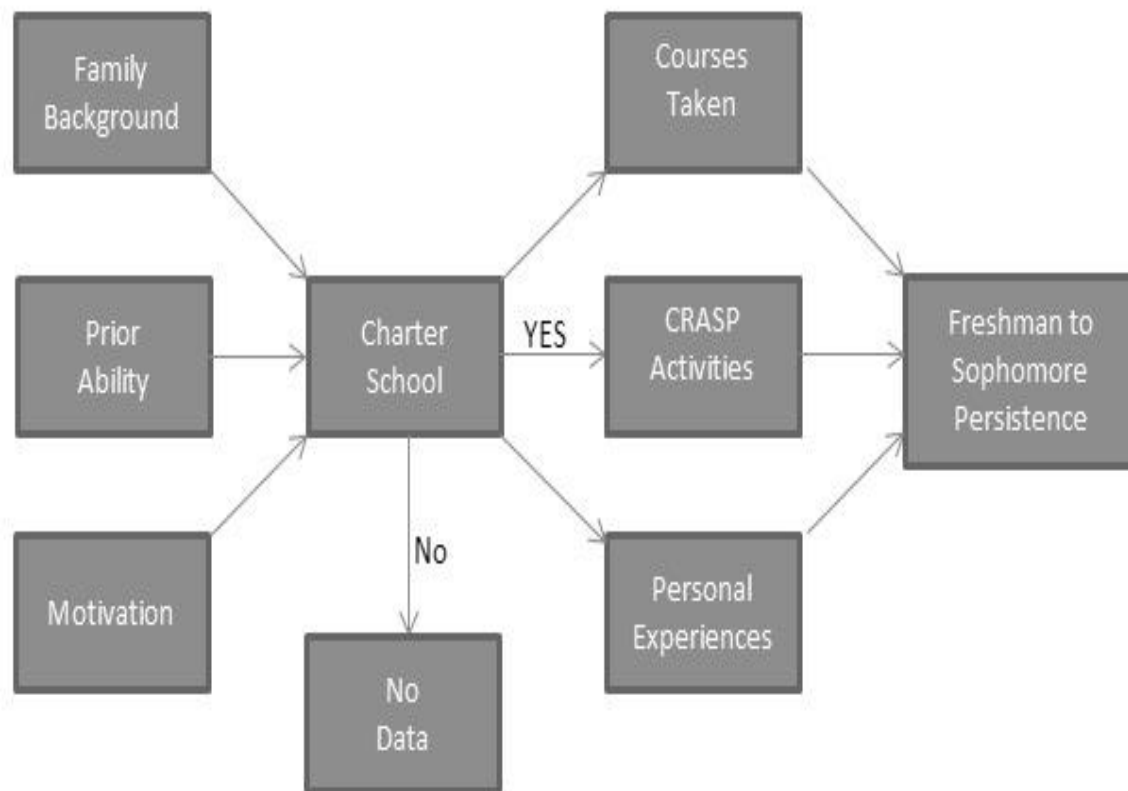
Figure 12. Effect of CRASP on freshman to sophomore post-secondary persistence.

Finally, in order to investigate how students' freshman to sophomore post-secondary persistence rate is associated with CRASP participation, the researcher prepared a data table that shows PCSST students' first year post-secondary persistence from 2009 to 2013. When the researcher conducted descriptive and inferential statistics, he looked at the percentage of students enrolled as freshman who returned as sophomores.

As reported in Table 41, on average, while 80% of CRASP participants enrolled as a sophomore student, only 68 % of non-participating students enrolled in a post-secondary institution as a sophomore student at any time during first three years after high school.

Table 41.

Freshman to Sophomore Persistence by CRASP Participation

Participate CRASP	N	Mean	SE	Std. Error Mean
No	59	.68	.471	.061
Yes	132	.80	.399	.035
Total	190	.77	.423	.031

Table 42.

Freshman to sophomore persistence by years spent in CRASP

Years in CRASP	N	Mean	SD	Std. Error
0	58	.69	.467	.061
1 year	69	.80	.405	.049
2 year	63	.81	.396	.050
3 year	NA	-	-	-
4 year	NA	-	-	-
Total	190	.77	.423	.031

Referring to Tables 43 and 44, neither CRASP participation nor years spent in CRASP

was significant to predict the freshman to sophomore persistence when other independent

variables include students' demographics (gender and race), education status (transferring,

special education and ESL), transferring status, family background (parent education and lunch

type), and prior academic standing (initial GPA) are included. In other words, these regression

analyses indicate that CRASP participation and years spent in CRASP are not linearly associated

with a higher probability of freshman to sophomore persistence. However, these findings show

that only students' academic performance (initial GPA) is the most significant direct contributor

to predicting variance in freshman to sophomore persistence, while holding all other predictor

variables constant.

Table 43.

Summary of linear logistic regression analysis for CRASP participation and variables predicting

freshman to sophomore persistence (N=191)

Model	B	S.E.	Wald	Df	Sig.	Exp(B)
Participate CRASP	.560	.394	2.025	1	.155	1.751
Transfer In	-.228	.530	.185	1	.667	.796
Parent Education	.412	.512	.646	1	.421	1.510
Gender	-.163	.392	.174	1	.677	.849
Lunch Type	.480	.427	1.266	1	.260	1.616
Special ESL	1.176	.830	2.010	1	.156	3.243
Initial GPA	1.143	.273	17.573	1	.000*	3.135
Black	-.495	.851	.338	1	.561	.610
Hispanic	-.040	.863	.002	1	.963	.960
Constant	-1.858	1.124	2.733	1	.098	.156

Note. $R^2 = .266$

Table 44.

Summary of Linear Logistic Regression Analysis for Years in CRASP and Variables Predicting

Freshman to Sophomore Persistence (N=191)

Model	B	S.E.	Wald	df	Sig.	Exp(B)
Transfer In	-.134	.534	.063	1	.802	.874
Parent Education	.396	.515	.593	1	.441	1.487
Gender	-.164	.391	.175	1	.676	.849
Lunch Type	.532	.430	1.533	1	.216	1.703
Special ESL	1.193	.837	2.032	1	.154	3.298
Initial GPA	1.171	.275	18.106	1	.000*	3.226
Black	-.513	.849	.365	1	.546	.599
Hispanic	-.045	.861	.003	1	.958	.956
CRASP Years	.409	.238	2.967	1	.085	1.506
Constant	-1.970	1.134	3.018	1	.082	.139

Note. $R^2 = .273$

Furthermore, in order to explore how participants' post-secondary persistence has been

changed by institution type, the researcher prepared another table that shows the summary of

students' post-secondary persistence rate by institution type.

Table 45.

Freshman to Post-Secondary Persistence by Institution Type and Years in CRASP

Institution Type	N	Mean	SD	Std. Error
Vocational Schools	13	.77	.439	.122
2 Year Community Colleges	114	.67	.473	.044
Military Schools	3	1.00	.000	.000
4 Year Colleges	61	.93	.250	.032
Total	191	.76	.425	.031

As noted in Table 45, while 93% of students persist in four-year colleges and universities, only 67% of students enrolled in community colleges as sophomores at any time during the first three years after high school. Furthermore, students' second year persistence was calculated high in military and vocational schools, but their sample sizes are too small.

The Challenges Disadvantaged Students Face in College

This study also explored the challenges that graduated PCSST students face in their first year of post-secondary education. Particularly, in the alumni survey, PCSST students were asked to indicate which factors affected their post-secondary attendance and persistence. As shown in Table 46, out of 171 participants, 76 percent of PCSST students reported that financial issues were moderate or main challenges in their first year of post-secondary education. It appears that financial problems are the major challenge reported by the participants. Additionally, findings show that time management (51%), lack of support at college (49%), having a job (44%), low commitment (43%), adjustment problems (36%), failing grades (34%), and family problems (33%) are other major challenges PCSST students encounter while trying to earn their college or career degree.

Table 46.

The Rank of Challenges Students Face in College (N=171)

Rank	Challenges students face in the first year of college	%
1	Financial Issues	76%
2	Time Management	51%
3	Lack of Support at College	49%
4	Having Job	44%
5	Low Commitment	43%
6	Adjustment Problems	36%
7	Failing Grades	34%
8	Family Problems	33%
9	Remedial Courses	29%
10	Negative Peer Influence	18%
11	Attendance Issues	18%
12	Transportation Problems	17%
13	Health Problems	16%
14	Pregnancy / Parenting	12%
15	Homesick	9%

Reasons of Discontinuity

Finally, in order to explore the dropout reasons of PCSST students, the researcher asked

discontinued PCSST students why they stopped attending their post-secondary institution. The

reported dropout reasons are categorized into five areas. As shown in Table 47, the rank of these

five main factors that led students to drop out from post-secondary education are: (1) financial

problems (37.5%), pregnancy/parenting (20%), academic problems (19.2%), other personal

problems (15%), and lost interest/commitment (8.3%). It is noted that these reported findings are

also strongly supported by prior research (ACT, 2005; Ishitani & DesJardins, 2002; College

Board, 2012). However, it was surprising to see that 20% of discontinued PCSST students (24

out of 120) stopped their post-secondary education because of pregnancy or parenting. This

relationship is certainly not an intended effect of CRASP and its implications are discussed in the

next chapter.

Table 47.

Dropout Reasons (N=120)

Dropout Reasons	Frequency	Valid Percent
Financial Problems	45	37.5
Pregnancy/Parenting	24	20.0
Academic Problems	23	19.2
Other Personal Problems	18	15.0
Lost Interest/Commitment	10	8.3
Total	120	100.0

CHAPTER SIX: DISCUSSION

This study provides evidence that disadvantaged students' college readiness, pursuit and

access are improved by their participation in the comprehensive College Readiness Access and

Success Program (CRASP). CRASP participation is associated with increased percentages of

students making the necessary preparations to apply to college (number of post-secondary

applications, participation in the SAT, SAT composite scores) and enrolling in post-secondary

institutions. The study did not find a relationship between participation in CRASP, final high

school cumulative GPA, and second-year post-secondary persistence. This chapter moves

beyond these results to describe their implications for practice and policy.

Implication for Practices and Polices in Improving College Readiness

This section suggests specific practices and policies for improving the college readiness

of disadvantaged minority students. Suggested practices and policies are grouped into three

categories based on their immediate goals: (a) improving student participation in college

entrance exams, (b) improving student performance on these exams, and (c) improving student

high school success, as measured by their cumulative grade point average (GPA).

Improving Students' Participation in College Entrance Exams

This study found that students who participated in CRASP were more likely to take the

SAT compared to students who never participated in CRASP. In addition, initial GPA, parent

education, having an individual learning plan, participating in home visits, and participating in

instant decision days were associated with taking the SAT. The relationships between initial

GPA and parent education and SAT are well established (Baum & Payea, 2004; NCES, 2011;

Bailey, 2001; Bui, 2002; Baum & Payea, 2004; Choy, 2001; Thayer, 2000; Berkner & Chaves,

1997). It is not surprising that high-achiever students whose parents have a college degree are

more likely to take the SAT. In terms of school practices to improve the SAT participation rate,

PCSST counselors and key stakeholders should focus more on helping students who have low

GPAs and increase the number of students with individual learning plans, home visits, and

instant decision days

PCSST counselors arrange home visitations for students to discuss the students' college

and career preparation plans, as well as SAT registration requirements and timelines. In addition

to home visits, while school counselors prepare students for instant decision days and develop

individual learning plans, they talk about the importance of the SAT in the college admission

process, and also provide academic advising about effective SAT preparation techniques and the

registration timeline. These three programs may help students develop a stronger belief in the

importance of post-secondary education (Perna & Tutis, 2000; Dumais, 2002).

Another important component of the home visits, individual learning plans and instant

decision days that may explain their effectiveness is that they inform students and parents about

the availability of fee-waivers. The current fee of general SAT registration is $51.00. Taking the

SAT and subject SATs multiple times is definitely expensive for disadvantaged students, which

is why something as simple as fee waivers may help students attend post-secondary education.

Helping and guiding students to use fee waivers can be considered building social and financial

capital for low-income students (College Board, 2012; Cabrera, Burkum & La Nasa, 2005;

Grodsky & Jones, 2004; Holcomb-McCoy, 2010).

Improving Students' Performance on College Entrance Exams

The literature review revealed that students' college entrance test scores are the primary

indicator of academic preparedness, and high SAT/ACT scores have a significant influence on

college access and post-secondary persistence (College Board, 2012; ACT, 2005; Perna & Titus,

2005; Martinez & Klopott, 2005; Berkner & Chavez, 1997; Adelman, 1999; Tyack, 1974). This

study found only three variables - initial GPA, special education, and FAFSA support - with a

significant effect on SAT composite scores. Students with higher GPAs are more likely to have

a strong academic foundation and the necessary skills to get high SAT scores. Therefore,

students who have low GPAs should be encouraged to participate in SAT enrichment programs

at PCSST.

The findings also indicate that special education and ESL students have lower SAT

scores compared to general education students. Therefore, another action for PCSST counselors

and key stakeholders to take is to give extra attention to the needs of special education and ESL

students. Another implication for practice is that PCSST counselors should also pay particular

attention to ensuring that these student populations apply for and receive all the SAT/ACT test

accommodations to which they are entitled through their Individualized Education Plans

("IEPs") or Section 504 accommodations.

Finally, it was interesting to see that individual FAFSA support is associated with higher

SAT scores. The relationship between FAFSA support and SAT composite scores could be

explained by students' motivation to receive full or partial scholarships from post-secondary

institutions. Students who achieve high SAT scores also have an increased likelihood of

receiving academic scholarships, but they must complete their FAFSA application in order to get

these scholarships. Applying this to future practices, PCSST counselors should emphasize the

importance of getting high SAT scores to receive academic scholarships during individual

counseling sessions. If students see the connection between SAT scores and the amount of

expected scholarship, they might work to improve their SAT scores.

Even though the school's SAT average composite scores increased significantly,

PCSST's SAT composite scores from the last time the test was taken by CRASP participation

are still below the NJDOE's expectations. According to the NJDOE's standards (2012), at least

the 40% of the SAT takers must get 1550 or above to meet the state requirements. Based on the

2012-13 performance report, only 5% of PCSST SAT takers received 1550 or above. Therefore,

based on this study's findings and prior research already cited in the Literature Review section of

this paper, in order to improve SAT scores even further, the following recommendations are

suggested.

First, PCSST should offer a more rigorous curriculum along with individual academic

support at every grade level. If PCSST students could take challenging and rigorous classes that

include Advance Placement (AP) and Honor level courses, these opportunities would be the ideal

preparation for improving their achievement levels on college entrance exams (College Board,

2012; Hart, 2005).

Even though PCSST collaborates with a private company to conduct an SAT preparation

program during and after school and on weekends, the findings indicate that the SAT prep

programs sponsored by the school did not have a significant impact on improving SAT scores. In

other words, the study highlights the need to reevaluate these SAT preparation programs. Instead

of relying on one SAT program supported by an external company, PCSST could train its

teachers to integrate SAT curriculum into their lessons. Based on prior research, if trained

mathematics and English teachers provide high-quality instruction and academic advising for the

SATs throughout the high school years, students are more likely to achieve higher SAT

composite scores (Gandara & Bial, 2001). If math and English teachers are knowledgeable about

SAT questions, they could develop self-paced manuals and SAT study guides to prepare students

for the SATs, starting from grade nine. Aside from SAT training, aligned with their needs,

teachers should also participate in other professional development and training activities that will

help them deliver the high quality instruction.

Additionally, PCSST should leverage the fact that each PCSST high school student

receives an iPad from the school, and utilize online test preparatory methods and lessons.

PCSST's IT department should collaborate with PCSST math, English, and guidance counseling

departments to download useful SAT preparation and practice applications. Moreover, the peer

tutoring program could also be used to improve SAT scores of students who are in need of

academic support. Finally, some students might not have enough money to purchase a SAT test

preparation book. Therefore, buying several SAT/ACT preparation books for the school library

might improve students' access to and use of these books to prepare for the SAT/ACT tests.

Improving Students' High School GPA

CRASP students did not have significantly higher GPA. As GPA predicts students'

college readiness and success, improving the academic or cognitive development of students can

be considered one of the most important aspects of K-12 schools. The findings indicate that

Male, African American, and transfer students at PCSST have lower cumulative GPAs compared

to their peers, which suggests that counselors, teachers, and other stakeholders should prioritize

extra support and guidance for these students. In addition to current practices in place, PCSST

stakeholders should explore alternative ways to improve the academic performance of male

students and students of color. For example, PCSST should develop a system to identify at-risk

students who have a low GPA in early grades and prepare intensive individual learning plans that

might help them improve academically (Lotkowski, Robbins, & Noeth, 2004). This process

could start in Grade 3. Therefore, PCSST should utilize systemic early assessment and support

programs to determine which students need extra help in core subjects. In order to increase the

number of high-achieving students whose initial GPA is 3 or above, ongoing extra support and

academic advising should be provided while they are still in elementary school and throughout

high school.

Once at-risk students who have a low GPA are identified, the teachers of these students

should be informed of their requisite areas in need of improvement so they can plan

differentiated instruction and lesson plans accordingly. Each teacher must thus receive proper

training in order to acquire the knowledge and skills to deliver differentiated instruction.

Moreover, aligned with the new performance evaluation requirements that include Student

Growth Objectives (SGOs), each teacher and counselor must be held accountable for each at-risk

student's academic growth.

PCSST implements tutoring services to ensure that all students who are not proficient

receive additional instruction based on their needs. Because of this design, it would be expected

that students would gain from this instruction and that those gains would be measurable on GPA

improvement. However, this study shows that tutoring services at PCSST are not significantly

associated with improvements in students' GPAs. To increase the effectiveness of tutoring

services, PCSST must revisit the design of teacher tutoring sessions that are currently offered

after school or weekends. Students', teachers', and school counselors' feedback must be taken

into consideration while designing effective PCSST tutoring services that could help students

improve their academic performance.

Implication for Practices and Policies in Improving College Pursuit

This section describes specific CRASP practices that could be used by educators to

improve disadvantaged students' pursuit of college entrance. Consistent with the research

findings, the suggested practices are described in two categories of intervention: (a) improving

students' college applications, and (b) improving students' FAFSA completion rates.

Improving Students' College Application

Based on the new NJDOE (2012) school performance assessment standards,

all public schools in New Jersey are held accountable for their post-secondary enrollment and

retention. In order to get students into college, students must complete the first step - college

application. If students do not attempt to apply to a post-secondary institution, they will have no

chance of getting into a college. Therefore, it is crucial to help disadvantaged students

successfully navigate their college application process so they can have the opportunity to get

official college acceptance letters.

This study found that students who participated in CRASP are significantly more likely

to apply to post-secondary institutions compared to students who never participated in the

CRASP program. Particularly, it is reported that in addition to initial GPA and parent education,

individual FAFSA support, the dual enrollment program, SAT prep program, and instant

decision days have a significantly positive effect on the number of college applications when the

multiple regression controls and combinations of other related independent variables are

included in the analysis.

This suggests that PCSST students who participate in instant decision days, FAFSA

support, SAT prep, and college dual enrollment programs apply to significantly more colleges

compared to those who were not involved in these activities. This significant positive impact of

these four CRASP programs can be explained by building social, cultural, and financial capitals

(Bourdieu, 1986; Carbonaro 1998; Coleman, 1988; Folkman & Lazarus, 1986). For example,

during the SAT prep program, in addition to tutoring, instructors provide students with resources,

strategies, and knowledge in order to successfully navigate the college search and admission

process (social and cultural capital).

Furthermore, encouraging students to participate in college dual enrollment programs

could be also considered building a cultural and social capital because it sets high expectations

and establishes values for post-secondary education. While dual enrollment programs help

PCSST students experience and learn about how the college system works, taking college-level

courses outside of the high school could also help students become more self-directed and

independent, willing to take the initiative and responsibility for their own college applications.

Findings also show that similar to the dual enrollment program, students who participate

in instant decision days have a significantly higher rate of college applications. This is not

surprising. The instant decision days could explain this increase in college applications because

during the college instant decision days, PCSST seniors have the opportunity to meet with

official financial aid and college admission counselors in person to gain firsthand knowledge of

the college admissions and financial aid processes. This is also considered building social capital

that helps PCSST students navigate the complex college admission process (Bourdieu, 1977;

Perna & Tutis, 2000; Dumais, 2002). Moreover, while instant decision days ease students'

college applications, they also help build financial capital because undergraduate admissions and

financial aid decisions are now simplified with on-site admissions, and the waiving of PCSST

students' college application fees.

Finally, findings show that there is a statistically significant inverse relationship between

Hispanic students and the number of college applications. This finding is supported by the

previous research that race has a significant impact on students' college applications and post-

secondary education plans (Gamoran et al., 2011). Similar to previous research findings,

Hispanic students' average college application rate is lower than their peers. The implication for practice is that PCSST stakeholders must pay extra-attention to the college applications of Hispanic students by putting them on counselors' priority lists while doing college applications.

Improving Students' FAFSA Completion Rates

FAFSA is the largest provider of student financial aid in the nation. In order to get any type of scholarship, financial aid, grant, or loan, many colleges require students to complete FAFSA applications. The findings of this study indicate that CRASP participation's estimated impact is statistically significant on improving the FAFSA completion rate. Particularly, this study found that participating in instant decision days, individual learning plans, parent education, and FAFSA support are the most significant direct contributors to predicting variance in PCSST students' FAFSA completion rates. The implication of this finding for the stakeholders at PCSST is that the professional school counselors should continue to very proactively help each student complete financial aid applications.

The researcher assumes that if students do not have accurate information regarding scholarships, grants, and loans, they might not develop a realistic college affordability plan. As a consequence, they face serious difficulties paying college tuition and other college-related expenses that cause dropout in the long run. Furthermore, the researcher recommends that instead of starting financial aid counseling sessions in grade 12, counselors should begin to inform parents and students about scholarships in middle school. PCSST counselors should talk to middle school students about the cost of college education and effective strategies to earn scholarships. Students should get the main message that college is expensive, but there are several alternative ways to pay college tuition and other expenses.

Implication for Practices and Policies in Improving Post-Secondary Access

The results of this study assert that CRASP's estimated impact was statistically

significant on improving PCSST students' post-secondary enrollment. Therefore, this section

describes specific practices and policies that can help PCSST stakeholders improve college

access for disadvantaged students. Particularly, the findings of the study show that there is a

statistically significant positive relationship between parent education, instant decision days, and

home visits. The first implication of these findings is that PCSST counselors must be more

concerned about first-generation students who are less likely to receive proper support during

their college application and enrollment process.

Second, instant decision days could explain the increase in PCSST students' post-

secondary enrollment because instant decision days provide PCSST students with an opportunity

to meet directly with college admissions counselors and ask their questions regarding college

admission and financial aid. Furthermore, the instant decision days ease and speed up the PCSST

students' college application process because students get an opportunity to receive an

immediate answer about whether or not they receive college acceptance and academic

scholarship. This support system can be considered building social and cultural capitals that are

necessary for college enrollment. Moreover, as CRASP essentials dictate PCSST and post-

secondary partnership, the findings of this study suggest that the PCSST school counseling

department should continue to organize the instant decision days to improve students' post-

secondary enrollment.

Third, the findings of this study indicate that home visits' impact is statistically

significant on post-secondary enrollment. It seems that students whose homes are visited are

more likely to enroll in post-secondary institutions. During the home visitations, both students

and parents receive information about the college admission process. They are also informed

about the college enrollment process and successful post-secondary education transition.

Therefore, it is expected that parents who are now knowledgeable about the college admission

and enrollment process will encourage their children to enroll in college and are more likely to

do so. Aligned with CRASP's essentials, this parental involvement in and commitment to

improving their student's chances of college enrollment likely results in parental encouragement

for college enrollment, and may explain the significant variance in post-secondary enrollment

rate.

Finally, the findings show that there is a statistically significant inverse relationship

between group counseling meetings and post-secondary enrollment. This relationship is

certainly not an intended effect of group counseling meetings. In general, based on the needs,

referred students who need extensive support participate in systemic, small group counseling

sessions such as test anxiety, test taking strategies, and anger management techniques. In these

small group sessions, school counselors interact with each referred student and build caring

relationships. It is surprising that these students have a significantly lower college enrollment

rate compared to their peers. Thus, the implication of this for the school counselors at PCSST is

that during the group counseling sessions, in addition to selected topics, school counselors

should provide the resources and knowledge that help referred students enroll in post-secondary

institutions.

Disadvantaged students' college readiness and success is a very complex and ongoing

process. Therefore, the causality for college access might not run in one particular direction. It

means there might be multiple explanations for low college access of students who were referred

to small group counseling sessions. For example, it could be that counselors are more likely to meet with students who are in difficulty.

Implication for Practices and Policies to Improve Freshman to Sophomore Post-Secondary Persistence

As indicated in the literature review, disadvantaged minority students are less likely than non-disadvantaged students to stay in college and earn their degree (Stillman, 2009; NCES, 2011). PCSST students' enrollment in post-secondary education does not guarantee their degree attainment. Therefore, it is critical for PCSST administrators, school counselors, and other stakeholders to understand and interpret the college persistence results for practical implications. The findings of this study estimate that CRASP students did not significantly outperform comparison students in freshman to sophomore post-secondary persistence. Most importantly, only initial GPA was found to be statistically significant in estimating PCSST students' freshman to sophomore persistence. The implications of college persistence outcomes and suggestions for policies and practices at PCSST are discussed below.

The findings of this study highlighted two gaps in PCSST students' freshman to sophomore post-secondary persistence. First, it is noted that the first year college persistence of students who attend two-year community colleges is much lower than the students who attend four-year colleges. Particularly, the second-year college persistence of PCSST students who attend to community colleges and four-year colleges are calculated as 67% and 93%, respectively. Therefore, it appears that PCSST students' four-year and two-year persistence rate is not the same. The freshman to sophomore persistence is significantly lower in two-year colleges. The implication for practice is that PCSST must pay extra attention to improving the college retention of students who attend community colleges. Particularly, it is noted that the

majority of students attend the local community college, Passaic County Community College

(PCCC). Therefore, it is important to build an institutionalized partnership with PCCC to

monitor and support its students' college success. Aligned with the mission of the PCSST alumni

support program, PCSST should request an office room to provide PCSST students with

tutoring, advising, career, and financial aid counseling.

Second, the findings indicate that compared to other sub groups, freshman to sophomore

college persistence is significantly lower among students who have a low initial GPA. This is a

crucial finding for PCSST stakeholders because starting from grade 9, PCSST teachers and

counselors can identify and provide long-term systemic support to academically low-performing

students who are less likely to stay and earn their college degree. It is expected that paying extra

attention to and providing academically low-performing students with intensive individualized

support for their academic development may improve their college persistence. While teachers

offer systemic academic support, PCSST school counselors should proactively reach out and

engage these students in college readiness activities by offering individual and group counseling

meetings so they may have a higher chance of getting into and through college.

Helping Disadvantaged Students Deal with Challenges

In this study, students reported financial issues, time management, lack of support at

college, having a job, and low commitment as the top five major challenges PCSST graduated

students encounter while they are trying to succeed in college. By far the most commonly

reported challenge was financial difficulty. Both post-secondary institutions and PCSST should

focus on personalized financial aid counseling services to prepare disadvantaged students

financially for college. While PCSST counselors proactively help students and parents

understand the financial aid process, post-secondary institutions should design simpler college

and financial aid applications.

In addition, both post-secondary institutions and PCSST should focus more on building

time management, study, and organization skills. It is also suggested that in order to help

students utilize the available college resources such as the library, tutoring, and counseling

services, PCSST counselors provide more lessons on effective post-secondary transition. At the

same time, early alert and systemic interventions should be offered by post-secondary

institutions to create nurturing environments for disadvantaged minority students. Instead of one

or two-day regular orientations, ongoing and long-term academic advising and mentoring

services should be provided to disadvantaged minority students during their post-secondary

education.

 Having a part-time or full-time job outside of the college campus is a significant

challenge for PCSST students. Therefore, while PCSST helps seniors arrange a work and school

schedule, post-secondary institutions should find alternative ways to expand their work-study

programs for at-risk students. Finally, the low commitment of students indicates that PCSST

counselors must do more research to find and arrange alternative strategies to improve the self-

motivation of students so they can complete their college education.

In addition to the most commonly reported challenges, it was surprising to see that 20%

of discontinued PCSST students (24 out of 120) stopped their post-secondary education because

of pregnancy or parenting. This suggests that PCSST might revise the preventative programs and

school counseling curriculum by including comprehensive healthy relationship lessons. PCSST

counselors could also invite graduated young parents to share the challenges of taking care of a

child and attending college.

Implication for Counselor Education and State Policy

The findings of this study resonate with previous research clearly indicating that school counselors play a very crucial role in helping students get ready for college, get into college, and get through college (College Board, 2012; Lapan, 2012). Having that in mind, the findings of this study also acknowledge the importance of school counselor education programs and state policies. In order to prepare 21st century professional school counselors, implications for counselor educators and policy makers are discussed below.

First, it is important to take into consideration that preparing disadvantaged minority students for college and a career requires multi-faceted approaches and collaborative efforts. Therefore, federal and state officials should encourage school counselor educators to redesign their curriculum and training activities to help equip future school counselors with the proper skills, resources, and knowledge to meet the needs of a diverse student population. When school counselor educators educate school counseling students about how to implement a comprehensive school counseling program, they should also help school counseling students gain skills and knowledge about preparing and delivering college and career counseling activities. Particularly, besides accountability, leadership, advocacy and collaboration, school counseling curriculum and programs should ensure that future professional school counselors have skills, resources, and expertise in providing career counseling, standardized test preparation, academic advising, mentoring, financial aid information, college admissions and effective post-secondary education transition information (ASCA, 2012; Carey & Dimmitt, 2012; Lapan, 2012).

In addition, as recommended by the six state level studies, professional school counselors need to use comprehensive data, prioritize college and career-readiness counseling activities, and

focus on implementing a differentiated school counseling program delivery that meets the needs

of all students, including special education and ESL students. Particularly, special education

students with a learning disability need systemic and ongoing supportive services. Therefore,

school counseling programs should provide future counselors with proper training so they can

understand the needs of special education students by developing responsive services, guidance

curriculum, and assessing their needs and abilities to make them ready for college and a career

(Carey & Dimmitt, 2012).

In addition, based on the ASCA's statistics, the average ratio of students to counselors in

middle and high schools is around 500 to 1. The American School Counselor Association

recommends a ratio of 250 to 1. However, in urban schools, for one school counselor to provide

ongoing individualized support to 250 low-income first-generation students and prepare them for

college and career readiness does not seem to be a realistic and feasible practice. Therefore, in

order to provide an intensive individualized college and career counseling session for each

student from grades 6 to 12, this study recommends each urban school have one school counselor

for every 160 students.

As emphasized by the ASCA National Model (2012), balancing counseling and non-

counseling duties is also vital in effective program initiation and implementation. In order to

maximize the effectiveness of school counselors, state and district officials encourage school

administrators not to assign professional school counselors non-counseling duties. Instead of

non-counseling assignments, school counselors and the school administration team should come

together to plan the logistics and feasibility of effective delivery of college and career readiness

activities. The researcher recommends that starting from middle school years, professional

counselors should provide each student with intensive individual college and career counseling services to make them well informed regarding their college and career plans.

Recently, while measuring schools' performances in college and career readiness, NJDOE (2012) solely focused on students' participation in college readiness tests such as the SAT or PSAT and in rigorous coursework as defined by participation in AP courses in English, math, social studies, and science. Instead of only relying on students' test participation and test scores, the researcher suggests NJDOE develop an integrated and comprehensive college and career readiness portfolio assessment that requires each student to develop and present his/her own personalized (a) interest profile, (b) ability assessment, (c) job readiness skill assessment, (d) graduation plan, (e) growth plan, (f) personal-social development plan, (g) post-secondary education selection plan, (h) short and long-term life and career goals, (i) research project, (j) personal qualities checklist, (k) leadership project, (l) college affordability plan, (m) community service project, (n) college essay, (o) recommendation letters, (p) standardized test results, (r) resume, and (s) college readiness journal.

Limitation of the Study

As with all studies, in interpreting the results of this study, the reader must take several limitations into consideration. First, 95 percent of the participants are African American or Hispanic, and White and Asian students are not adequately represented in this study. In addition the whole sample was from one school. Students' characteristics and unique institutional factors might account for some of the outcomes. Also, a limitation is that this study looked at PCSST cohorts at one point in time. However, college achievement and retention are progressive concepts that require ongoing monitoring and assessment.

An important methodological limitation is that students were not randomly assigned to attend the charter school or to participate in CRASP different numbers of years, or to participate in the various specific activities of CRASP. Participation in CRASP and the number of years of participation are chosen by the students and their families. As a result the student and family background characteristics that are associated with these choices are potentially confounded with CRASP and its components when estimating their relationships to the program's desired outcomes.

This study attempted to control for pre-existing characteristics of the students and their families that may have been associated with these choices. However, the study cannot guarantee that selection bias due to other unmeasured background characteristics does not affect the results. Particularly, there are two separate problems. First, the sample is not necessarily representative. Charter schools are public schools of choice. Parents chose the charter they thought it would get their children successfully through high school and college. Therefore, the estimates of the effects of CRASP may be biased by selection. After parents and students select to go charter schools, it is their decision to stay or leave charters. Selection bias is cue to who chose to go for different numbers of years. As a result, this study cannot be considered to represent the general population of urban students, even within its geographic location, limiting generalizability of findings beyond the charter school where it was conducted

Another methodological limitation of the study is the use of the self-reported student data in college enrollment, college persistence, FAFSA application, parent education, scholarship type, and number of college applications. However, in order to determine whether respondents gave honest answers to survey questions, as mentioned above, the researcher used multiple resources such as College Board reports, the National Clearing House Student Tracker Program

reports, and peer inputs to verify respondents' answers to many key questions which increase

confidence in the self-report.

A limitation with respect investigation of the effects of participation in specific CRASP

components is that this was measured simply as a yes or no. Additional insights might have been

gained if data had been available on the frequency and the quality of PCSST students'

participation in CRASP. However, this was not measured. The long list of CRASP components

can be also considered another limitation; because of the difficulty students might have recalling

participation in all of them. CRASP has a total of 19 interventions, and during the high school

years students are encouraged to participate in these CRASP activities. Students might

participate in several CRASP activities but they might not necessarily remember the specific

names of the CRASP activities in which they were involved. To address this limitation, the

researcher crosschecked all students' responses with his counseling logs or peers.

Another limitation relates to the research design. There was only one time point prior to

the implementation of CRASP to use to estimate the impact of CRASP. The only cohort who did

not participate in CRASP is the class of 2009. As a result it was not possible to estimate a time

trend prior to CRASP and the number of non-CRASP comparison students is limited. It would

have been better to have more consecutive cohorts who did not participate in program.

There are also two other important limitations of this study. One is attrition bias due to

students leaving PCSST. Based on the school's archived data, around twenty percent of each

cohort who enter leaves PCSST before their graduation and the researcher was not able to follow

up with them in terms of their college enrollment and success. In order to address this limitation,

the researcher conducted an ANOVA to compare the compare leavers and stayers on entry GPA

and family background. According to the ANOVA test results; there were no statistically

significant differences between the leavers and stayers on entry GPA and family background.

The other limitation is that the researcher, who was actively involved in the research, is also the

creator and evaluator of CRASP. This means that he has much knowledge and many insights into

the program, and while this is useful it also can be considered a potential source of bias.

Implications for Future Research

Throughout these findings and discussion, this researcher has attempted to measure the

impact of CRASP. Aligned with this purpose, this study indicates that CRASP participation is

associated with improving the college readiness, pursuit and access of disadvantaged PCSST

students who mostly come from first generation and low-income parents. In addition to the

general effects of CRASP, the individual impact of each CRASP intervention component was

measured. These findings inspired the researcher to ask new questions that can lead to further

research, and these questions may have a broader impact and additional applications for practice.

For example, some important questions remain regarding CRASP's implementation. First, can

CRASP have the same or similar impact on other urban high schools that serve mostly

disadvantaged minority students? Since this study was limited to one location, this researcher

intends to replicate this study at other public urban schools in New Jersey and other states to

investigate whether or not the same or similar results are found.

These findings provided evidence that CRASP has positive effects on disadvantaged

students' college readiness, pursuit and access. However, we don't yet have enough information

about how CRASP affects students' college attainment. Therefore, future research can

investigate the impact of CRASP on college attainment. One avenue of future research would be

to compare the graduation rates of CRASP participants and non-CRASP participants. This

attainment research could be considered as a continuation of this study, and could also provide

valuable information about improving disadvantaged students' college graduation rates. In order

to conduct this future study, this researcher will continue to collect data from graduated students.

Finally, in this study, this researcher only utilized quantitative data such as SAT scores,

GPA, college enrollment, and retention data. Quantitative data analysis techniques were used to

measure the impacts of CRASP on students' college readiness and success. Therefore, future

research might want to utilize a mixed-methods or qualitative method approach to investigate

students' individual experience with CRASP participation. Instead of quantitative measures,

future research might want to use open-ended questions or interviews to explore the ways in

which PCSST students felt CRASP prepared them for college, as well as their own experiences

which fall into the human capital, social capital, cultural capital, or financial capital areas of

exploratory research. Unlike quantitative methodology, a mixed methods or qualitative research

design encourages participants to share their own feelings of college and career readiness due to

their experiences in the CRASP program.

Conclusion

Educators seek to solve problems that interfere with disadvantaged students' low college

readiness, access and persistence. This study offers school counselors, teachers, school

administrators, and policy makers with practical information and strategies in designing and

implementing comprehensive counseling programs. In line with the new college and career

readiness accountability standards, the findings of this study urge for further investigations of

creating research-based and innovative comprehensive school counseling programs that might

cater to the diverse needs of students.

The findings of this research support the view that when highly trained professional

school counselors and educational leaders deliver comprehensive counseling programs such as

CRASP, students receive measurable benefits in their college readiness, pursuit, and access. In addition there is a hint that college persistence is associated with numbers of years of CRASP. Thus, school districts should be aware that to prepare all students to become college and career ready, high expectations should be set and ongoing support and guidance must be given collaboratively through comprehensive school counseling programs (Carey & Dimmitt, 2012; Lapan, 2012; College Board, 2010; Coleman, 1988). Particularly, to design and lead comprehensive school counseling programs, school counselors should also act as leaders, advocates, consultants, coordinators, collaborators, managers of resources, and facilitators so all students can be college and career ready regardless of their gender, ethnicity, race, socio-economic, or family background (Dahir & Stone, 2012).

This study provides insight into what needs to be done to help disadvantaged students get ready for college, get into college, succeed in college, and graduate from college. The American education system faces huge challenges in providing equal access and opportunities for all children across the nation because there are significant, and in some cases widening, gaps among different student populations in terms of college access, retention, and attainment. This study suggests that the origins of the higher education gap for African American, Hispanic, first generation, and low-income students is in a lack of human capital and accessing social, cultural, or financial capitals. This current capital inequality causes disadvantaged students to fall behind in college readiness, access, persistence, and attainment. The researcher considers this gap in college access and success as a social justice issue that needs to be addressed. Comprehensive counseling programs such as CRASP that increase access to these capitals provide promise for reducing the gap in college readiness, pursuit and access.

When all things are taken into consideration, to improve disadvantaged students' college readiness, pursuit, access, and persistence, school counselors, administrators, and all other key stakeholders must work collaboratively address this inequality in our public schools system. It appears that comprehensive counseling programs have the capacity to improve students' college readiness, pursuit and access by offering systemic interventions. To do this, however, national and state officials must mandate all urban high schools to implement comprehensive counseling programs such as CRASP which has four major components: (1) program foundation, (2) systemic delivery system, (3) program management system, and (4) shared accountability. With the contribution of comprehensive school counseling programs, in the near future, America could regain its leadership in education and once again have the highest proportion of college readiness, college access, and college graduation in the world.

REFERENCES

ACT. (2004a). *ACT policy report, the role of academic and non-academic factors in improving*

college retention, Iowa City, IA: Author.

ACT. (2004b). *What works in student retention?* (Research Report). Iowa City, IA: Author.

ACT. (2005). *National college retention and persistence to degree rates*, Iowa City, IA: Author.

Retrieved from www.act.org/research/policymakers/pdf/retain_2005.pdf

ACT. (2007). *National college retention and persistence to degree rates*, Iowa City: Author.

Retrieved from www.act.org/research/policymakers/pdf/retain_2007.pdf

ACT. (2010). *What works in student retention survey?* (Research Report). Iowa City, IA: Author.

Retrieved from

http://www.act.org/research/policymakers/pdf/droptables/AllInstitutions.pdf

Adelman, C. (1999). *Answers in the toolbox: Academic intensity, attendance patterns, and*

bachelor's degree attainment. (PLLI 1999–8021). Washington, DC: U.S. Department of

Education.

Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through*

college. Washington, D.C.: U.S. Department of Education. Retrieved from

www.ed.gov/rschstat/research/pubs/toolboxrevisit/index.html

Altbach, P. G., Berdhal R. O., Gumport, P. J., (2005). Harsh realities: The professoriate faces a

new century. In P. G. Altbach, R. O. Berdahl & P. J. Gumport (Eds.), *American Higher*

Education in The Twenty-First Century: Social, Political, and Economic challenges (pp.

287-314). Baltimore, MD: Johns Hopkins University Press.

American Council on Education (2006). *Missed opportunities: Students who do not apply for*

financial aid. ACE Center for Policy Analysis and American Council on Education Issue

Brief. Retrieved from http://www.nassgap.org/library/docs/missed_opps_revisited.pdf

American Institutes for Research, and SRI International (2009). *Fifth annual early college high*

   school initiative evaluation synthesis report six years and counting: The ECHSI matures.

   Retrieved from http://www.air.org/files/ECHSI_Eval_Report_2009_081309.pdf

American School Counselor Association. (2005). *The ASCA national model: A framework for*

   school counseling programs (2nd ed.). Alexandria, VA: Author.

American School Counselor Association. (2012). *The ASCA national model: A framework for*

   school counseling programs (3rd ed.). Alexandria, VA: Author.

Archibald. R. B. (2002). *Redesigning the financial aid system: Why colleges and universities*

   should switch roles with the federal government. Baltimore, MD: The Johns Hopkins

   University Press.

Arnold, A. (1999). *Retention and persistence in postsecondary education a summation of*

   research studies. Texas Guaranteed Student Loan Corporation. Retrieved from

   http://www.tgslc.org/pdf/persistence.pdf

Astin, A.W. (1984). Student involvement: A developmental theory for higher education. *Journal*

   of College Student Personnel, 25, 297-308.

Avery, C. (2010). *The effects of college counseling on high-achieving, low income students*.

   National Bureau of Economic Research Working Paper No.16359. Retrieved from

   http://www.nber.org/papers/w16359

Baker, R. W. & Siryk, B. (1984). Measuring adjustment to college. *Journal of Counseling*

   Psychology, 31, 179-189.

Baker, R. W. & Siryk, B. (1989). *Student adaptation to college questionnaire manual*. Los

   Angeles, CA: Western Psychological Services.

Baker, S. B. (2000). *School counseling for the twenty-first century*. Upper Saddle River, NJ:

Prentice-Hall.

Bailey, T. R. (2001). Community colleges in the 21st century: challenges and opportunities.

Paper presented at *Workshop on the Impact of the Changing Economy on the Education

System*. National Academy of Sciences,Washington DC.

Baum, S. & Payea, K. (2004). *Education pays: The benefits of higher education for individuals

and society*. Washington, DC: College Board.

Beal, P. E., & Noel, L. (1980). *What works in student retention*? Iowa City, Iowa: American

College Testing Program.

Berkner, L. K., & Chavez, L. (1997). *Access to postsecondary education for the 1992 high

school graduates.* (Statistical Analysis Report, NCES 98-105). Washington, DC: U.S.

Department of Education, Office of Educational Research and Improvement, National

Center for Education Statistics.

Berends, M. (2006). Survey Research Methods in Educational Research. In J. Green, G. Camilli,

& P. Elmore (Eds.), *Handbook of Complementary Methods for Research in Education*

(pp. 623-640). Mahwah, NJ: Lawrence Erlbaum Associates.

Bettinger, E. P., Long, B. T., Oreopoulos, P. & Sanbonmatsu, L. (2009). *The role of

simplification and information in college decisions*. Cambridge, MA: National Bureau of

Economic Research.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of Theory and

Research for the Sociology of Education*, (pp. 241-258). New York, NY: Greenwood

Press.

Brigman, G., & Campbell, C. (2003). Helping students improve academic achievement and

    school success behavior. *Professional School Counseling, 7*, 91-98.

Brown, D., & Trusty, J. (2005). *Designing and leading comprehensive school counseling*

    programs: Promoting student competence and meeting student needs. Belmont, CA:

    Thomson Brooks/Cole.

Bui, K.V.T. (2002). First-generation college students at a four-year university: Background

    characteristics, reasons for pursuing higher education, and first-year experiences. College

    Student Journal, 36, 3-11

Burnham, J. J., & Jackson, C. M. (2000). School counselor roles: Discrepancies between actual

    practice and existing models. *Professional School Counseling, 4*(1), p.41.

Cabrera, A. F., Burkum, K. R. & La Nasa, S. M. (2005). Pathways to a four year degree:

    Determinants of transfer and degree completion. In A. Seidman (Ed.). *College Student*

    Retention: A Formula for Student Success (pp. 155-209). Santa Barbara, CA:

    ACE/Praeger series on Higher Education

Cabrera, A. F. and La Nasa, S. M. (2003). Hispanics in higher education. In J. Forest & K.

    Kinser (Eds.). *Higher Education in the United States: An Encyclopedia* Santa Barbara,

    CA: ABC-CLIO.

Callan, P. M., Finney, J. E., Kirst, M. W., Usdan, M. D. & Venezia, A. (2006). *Claiming*

    common ground: State policymaking for improving college readiness and success. San

    Jose, CA: The Institute for Educational Leadership, The National Center for Public

    Policy and Higher Education, The Stanford Institute for Higher Education Research

Campbell, C. A., & Dahir, C. A. (1997). *Sharing the vision: The ASCA National Standards for*

    School Counseling Programs. Alexandria, VA: American School Counselor Association.

Carbonaro, W. J. (1998). A little help from my friend's parents: Intergenerational closure and

    educational outcomes. *Sociology of Education, 71*, 295-313.

Carey, J. C., & Dimmitt, C. (2012). School counseling and student outcomes: Summary of six

    statewide studies, *Professional School Counselor, 16*(2), 146-153. DOI:

    10.5330/PSC.n.2012-16.146

Carnevale, A. P., Jayasundera, T., & Cheah, B. (2012). *The college advantage: weathering the*

    economic storm. Washington, DC: Georgetown University Center on Education and the

    Workforce. Retrieved from http://cew.georgetown.edu/collegeadvantage/

Carnevale, A. P., Jayasundera, T. & Hanson R. (2012). *Five education and training pathways*

    that pay along the way to the B.A. Washington, DC: Center on Education and the

    Workforce, Georgetown University.

Carnevale, A. P. & Rose, S. J. (2011). *Career technical education & career pathways*.

    Washington, DC: Georgetown University Center on Education and the Workforce.

Carnevale, P. A., Rose, S. J. and Cheah, B. (2011). *The college payoff: education, occupations,*

    and lifetime earnings. Washington, DC: Georgetown University Center on Education and

    the Workforce.

Cates, J., & Schaefle, S. (2011). Examining the relationship between key elements of a college

    preparation program and the college readiness of at risk students. *Journal of Latinos and*

    Education 10(4) 320-334.

Chata, C. C., & Loesch, L. C. (2007). Future school principals' views of the roles of professional

    school counselors. *Professional School Counseling, 11*, 35-41

Choy, S. P. (2001). *Students whose parents did not go to college: Postsecondary access,*

    persistence, and attainment (NCES 2001-126). Washington, DC: U.S. Department of

Education, National Center for Education Statistics. Retrieved from

http://nces.ed.gov/pubs2001/2001126.pdf

College Board. (2010). *The eight components of college and career readiness counseling*.

Retrieved from

http://media.collegeboard.com/digitalServices/pdf/nosca/10b_2217_EightComponents_

WEB_100625.pdfCollege Board (2011).

College Board. (2012). *SAT® report: Only 43 percent of 2012 college-bound seniors are college

ready*. Retrieved from http://press.collegeboard.org/releases/2012/sat-report-only-43-

percent-2012-college-bound-seniors-college-ready

College Board. (2013) *College-bound seniors: Total group profile [national] report, selected

years, 1986-87 through 2009-10.* Retrieved from

http://professionals.collegeboard.com/data-reports-research/sat/cb-seniors-2010.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of

Sociology, 94*, S95-S120.

Conley, D. T. (2007). *Toward a comprehensive conception of college readiness*. Eugene, OR:

Educational Policy Improvement Center.

Cooper, H. (1998) *Synthesizing research: A guide for literature reviews*, (3rd ed.). Thousand

Oaks, CA: Sage Publications.

Crockett, D. S., Habley, W. R., Cowart, S. C. (1987). *The ACT national survey of academic

advising: Preliminary report*. Iowa City, IA: American College Testing Program.

Dahir, C., & Stone, C. (2003). Accountability: A M.E.A.S.U.R.E. of the impact school

counselors have on student achievement. *Professional School Counseling, 6,* 214-221.

Dahir, C. A. & Stone, C. B. (2012). *The transformed school counselor,* (2nd ed.). Thousand

Oaks, CA: Brooks/Cole.

DeWitt Wallace-Reader's Digest Fund. (1997). *Recruiting, preparing, and retaining teachers for*

American's schools: Progress report--Pathways to Teaching Careers. New York, NY:

DeWitt Wallace- Pathways Reader's Digest Fund

Dumais, S., (2002) Cultural capital, gender, and school success: The role of habitus. *Sociology of*

Education, 75(1), 44–68.

Dynarski, S. M., & Scott-Clayton, J. E. (2007). Pell grants on a postcard: A proposal for simple

and predictable federal student aid. Hamilton Project Discussion Paper. Washington,

D.C. The Brookings Institution. Retrieved from

http://users.nber.org/~dynarski/200702dynarski-scott-clayton.pdf

Feller, R. W. (2003). Aligning school counseling, the changing workplace, and career

development assumptions. *Professional School Counseling, 6*(4), 262–271.

Fenske, R. H., Geranios, C. A., Keller, J. E., & Moore, D. E. (1997). *Early intervention*

programs: Opening the door to higher education (ASHE-ERIC Higher Education Report

Vol. 25, No. 6). Washington, DC: George Washington University, Graduate School of

Education and Human Development.

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. (1986). The

dynamics of a stressful encounter: Cognitive appraisal, coping and encounter outcomes.

Journal of Personality and Social Psychology, 50, 992-1003.

Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York, NY: Teachers

College Press.

Fuhrman, S. (2003). Riding waves, trading horses. The twenty-year effort to reform education. In

D. T. Gordon (Ed.), *A Nation Reformed? American Education 20 Years After A Nation At

Risk* (pp. 7-22).Cambridge, MA: Harvard Education Press.

Gamoran, A., Lopez Turley, R. N., Turner, A., & Fish, R., (2011). *Effects of a multi-family

intervention on social capital and child outcomes.* Evanston, IL: Society for Research On

Educational Effectiveness.

Gandara, P. & Bial, D. (2001). *Paving the way to postsecondary education: K-12 interventions

for underrepresented youth.* Washington, DC: National Center for Education Statistics.

Gordon, F. L. (1998). *A study of non-cognitive variables and perception of alienation for

minority students at three 2-year colleges*. (Unpublished doctoral dissertation). Rutgers

University, New Brunswick, NJ.

Gladieux, L., & Swail, W. S. (1999). Financial aid is not enough: Improving the odds for

minority and low-income students. In J. E. King (Ed.), *Financing A College Education:

How It Works, How It's Changing* (pp. 177-197). Phoenix, AZ: Oryx Press.

Goldin, C. D., & Katz, L. F. (2008). T*he race between education and technology*. Cambridge,

MA: Belknap/Harvard University Press.

Green, S. B., & Salkind, N. J. (2008). *Using SPSS: Analyzing and understanding data*. Upper

Saddle River, NJ: Pearson Education, Inc.

Griffin, K., Allen, W., Kimura-Walsh, E., & Yamamura, E. K. (2007). Those who left, those

who stayed: Exploring the educational opportunities of high achieving black and Latina/o

students at magnet and nonmagnet Los Angeles high schools (2001-2002). *Educational

Studies, 42*, 229-247.

Grodsky, E; & Jones, M. (2004). *Real and imagined barriers to college entry: Perceptions of*

    cost. Retrieved from http://escholarship.org/uc/item/7v87v3j0

Gysbers, N. C. (2001). School guidance and counseling in the 21st century: Remember the past

    into the future. *Professional School Counseling, 5*(2), 96.

Gysbers, N. C., & Henderson, P. (2012). *Developing and managing your school guidance*

    program. Alexandria, VA: American Counseling Association.

Habley, W. R. (2004). *The status of academic advising: Findings from the ACT sixth national*

    survey (Monograph No. 10). Manhattan, KS: National Academic Advising Association.

Harper, S. R., Patton, L. D., & Wooden, O. S. (2009). Access and equity for African American

    students in higher education: A critical race historical analysis of policy efforts. *Journal*

    of Higher Education, 80(4), 389-414.

Harvard Summer School (2013), *Secondary School Program.* Retrieved from

    http://www.summer.harvard.edu/programs/secondary-school

Hart, P. (2005). *Rising to the challenge: Are high school graduates prepared for college and*

    work? Washington, DC: Achieve Inc.

Hochschild J. L & Powell B. M. (2008). Racial reorganization and the United States Census

    1850-1930: Mulattoes, half-breeds, mixed parentage, hindoos, and the mexican race.

    Studies in American Political Development, 22(1), 59-96.

Hooker, S., & Brand, B. (2010). College knowledge: A critical component of college and career

    readiness. *New Directions For Youth Development, 127*, 75-85.

Holcomb-McCoy, C. (2007). *School counseling to close the achievement gap: A social justice*

    framework for success. Thousand Oaks, CA: Corwin Press.

Holcomb-McCoy, C. (2010). Involving low income parents and parents of color in college

    readiness activities: An exploratory study. *Professional School Counseling, 14*(1), 115-

    124.

Hodkinson, H. L. (1992). *A demographic look at tomorrow*. Washington, DC: Institute for

    Educational Leadership Inc./Center for Demographic Policy.

Horn, L., & Nunez, A. (2000). *Mapping the road to college: First-generation students' math*

    track, planning strategies, and context of support. Washington, DC: National Center for

    Education Statistics.

Howard, T. C. (2003) A tug of war for our minds: African American High School students'

    perceptions of their academic identities and college aspirations. *The High School Journal,*

    87(1), 4-17.

Hossler, D., Schmit, J., & Vesper, N. (1999). *Going to college. How social, economic, and*

    educational factors influence the decisions students make. Baltimore, MD: Johns

    Hopkins University Press.

Ishitani, T. T., & DesJardins, S. L. (2002, June). *A longitudinal investigation of dropout from*

    college in the United State. Paper presented at the AIR 42nd Annual Forum, Toronto,

    Canada.

Jimerson, S. R. (2001). Meta-analysis of grade retention research: Implications for practice in the

    21st century. *School Psychology Review, 30*, 313-330.

Kim, D., & Schneider, B. (2005). Social capital in action: Alignment of parental support in

    adolescents' transition to postsecondary education. *Social Forces, 84*(2), 1181–1206.

Kim, E., Newton, F., Downey, R., & Benton, S. (2010). Personal Factors Impacting College

    Student Success. *College Student Journal, 44*(1), 112-125

Kluger, R. (1975). *Simple justice: The history of Brown v. Board of Education and Black*

America's struggle for equality. New York: Knopf

Krathwohl, D. R., & Smith, N. L. (2005). *How to prepare a dissertation proposal: Suggestions*

for students in education and the social and behavioral sciences. Syracuse, NY: Syracuse

University Press.

Ladson-Billings, G. (1999) Preparing teachers for diverse populations: A critical race theory

perspective, *Review of Research in Education, 24*, 211–247.

Lapan, R. T., Gysbers, N. C., & Petroski, G. F. (2001). Helping seventh graders be safe and

successful: A statewide study of the impact of comprehensive guidance and counseling

programs. *Professional School Counseling, 6*(3), 186-198.

Lapan, T. R. (2012). Comprehensive School Counseling Programs: In Some Schools for Some

Students But Not in All Schools for All Students. *Professional School Counselor, 16*(2),

DOI: 10.5330/PSC.n.2012-16.84

Lareau, A. (2003), *Unequal childhoods*, Berkeley, CA: University of California Press.

Lawson, L. J. (2011). *AVID Participation for College Readiness and Success*, (Unpublished

Doctoral Dissertation). California State University, Sacramento, CA.

Lazerson, M. (1998). The disappointments of success: Higher education after World War II.

Annals of The American Academy of Political and Social Science, *559*, 64-76.

Litwin, M. (1995). *How to measure survey reliability and validity*. Thousand Oaks, CA: Sage

Publications.

Lotkowski, V. Robbins, S., & Noeth, R. (2004) *The role of academic and non-academic factors*

in improving college retention, Retrieved from www.atc.org/research/policy/index.htlm

Mahoney, J. S.,& Merritt, S. R.(1993). Educational hope of black and white high school seniors

in Virginia. *Journal of Educational Research, 87*(1), 31.

Martinez, M., & Klopott, S. (2005). *The link between high school reform and college access and

success for low-income and minority youth*. Washington, DC: American Youth Policy

Forum and Pathways to College Network.

McDonough, P. M. (1997). *Choosing colleges: How social class and schools structure

opportunity.* Albany: SUNY Press.

McGannon, W., Carey, J., & Dimmitt, C. (2005). *The current status of school counseling

outcome research* (Research Monograph No. 2). Amherst, MA: University of

Massachusetts, Center for School Counseling Outcome Research.

McMahon, W. W. (2009). *Higher learning, greater good: The private and social benefits of

higher education*. Baltimore, MD: Johns Hopkins University Press.

Myers, D. & Schirm, A. (2009). *The Impacts of Upward Bound: Final Report on Phase I of the

National Evaluation.* Retrieved from http://www.ed.gov/offices/OUS/PES

/higher/upward.pdf

National Center for Education Statistics. (2001). *Digest of education statistics.* Washington, DC:

U.S. Department of Education.

National Center for Education Statistics. (2002). *Descriptive summary of 1995-96 beginning

postsecondary students.* (NCES 2003-151). Washington, DC: U.S. Department of

Education. Retrieved from http://nces.ed.gov/pubs2003/2003151.pdf.

National Center for Educational Statistics. (2008a). *America's high school graduates: Results

from the2005 NAEP high school transcript study*. Washington, DC: U.S. Department of

Education.

National Center for Education Statistics. (2008b). *Digest of education statistics*. Washington,

DC: Department of Education.

National Center for Education Statistics. (2010). *2002 Educational Longitudinal Study: Second

follow-up*. Washington, DC: Author.

National Center for Education Statistics. (2011a). *Degrees conferred by public and private

institutions.* Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_dai.asp

National Center for Education Statistics. (2011b). *Postsecondary institutions and price of

attendance in the United States: 2010–11, degrees and other awards conferred: 2009–10,

and 12-month enrollment: 2009–10*. Washington, DC: U.S. Department of Education.

Retrieved from http://nces.ed.gov/pubs2011/2011250.pdf

National Center for Education Statistics. (2011c). *Projections of education statistics to 2020.*

Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/projections/projections2020/figures/figure_01.asp?referrer=li

st

National Center for Education Statistics. (2011d). *Tuition and fees, student loans, and default

rates.* Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_tld.asp.

National Center for Education Statistics. (2012a). *Annual earnings of young adults*. Washington,

DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_er2.asp

National Center for Education Statistics. (2012b). *Characteristics of undergraduate institutions.*

Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_psi.asp.

National Center for Education Statistics. (2012c). *Educational attainment*. Washington: U.S.

Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_eda.asp

National Center for Education Statistics. (2012d). *Elementary and secondary education*.

Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/tables/table-lrs-1.asp

National Center for Educational Statistics. (2012e). *Postsecondary graduation rates.*

Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_pgr.asp.

National Center for Education Statistics. (2012f). *Price of attending an undergraduate*

institution. Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_cst.asp

National Center for Education Statistics. (2012g). *Postsecondary graduation rates*. Washington,

DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_pgr.asp

National Center for Education Statistics. (2012h). *Public high school retention rates*.

Washington, DC: U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_lrs.asp#info.

National Center for Education Statistics. (2012i). *Undergraduate enrollment*. Washington, DC:

U.S. Department of Education. Retrieved from

http://nces.ed.gov/programs/coe/indicator_hep.asp

National Commission on Excellence in Education (1983). *A Nation at Risk: The Imperative for

Educational Reform. A Report to the Nation and the Secretary of Education United

States Department of Education.* Retrieved from

http://www2.ed.gov/pubs/NatAtRisk/index.html

New Jersey Administrative Code *6A:8. (2012) standards and assessment for student

achievement*. Retrieved from

http://www.state.nj.us/education/code/current/title6a/chap8.pdf

New Jersey Department of Education. (2013). *A Guide for implementing for PSLP* Retrieved

from http://www.state.nj.us/education/ser/pslp/PSLPGuide.pdf

NJSMART. (2012). *Student performance. The official web site for the State of New Jersey*.

Retrieved from http://www.nj.gov/education/njsmart/performance/

The Organization for Economic Co-operation and Development. (2006). *Education at a Glance*.

Retrieved from http://www.oecd.org/education/skills-beyond-

school/educationataglance2006-tables.htm

Paulsen, M. B., & St. John, E. P. (2002). Social class and college costs: Examining the financial

nexus between college choice and persistence. *The Journal of Higher Education, 73*(2),

189–239.

Pérez, P. A. & McDonough, P. M. (2008). Understanding Latina and Latino college choice: A

social capital and chain migration analysis. *Journal of Hispanic Higher Education 7*(3):

249-265

Perna, L.W. (2000). Differences in the decision to enroll in college among African Americans,

Hispanics, and Whites. *Journal of Higher Education, 71*, 117-141.

Perna, L. W., & Titus, M. (2005). The relationship between parental involvement as social

capital and college enrollment: An examination of racial/ethnic group differences.

Journal of Higher Education, 76, 485-518.

Perna, L. W., & Swail, W. S. (2002). Pre-college outreach and early intervention programs. In D.

E. Heller (Ed.), *Condition of Access: Higher Education For Lower Income Students* (pp.

97-112). Westport, CT: Praeger Publishers.

Pitre, P. E. (2006). College choice: A study of African American and White students' aspirations

and perceptions related to college attendance. *College Student Journal, 40*(3) 562-574.

Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual

Review of Sociology 24,* 1-24.

Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: A further

update. *Education Economics 12*. 111-134.

Reese, W. J. (2005) *America's public schools from the common school to "No Child Left

Behind"*. Baltimore: The John Hopkins University Press.

Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2004). *Evaluation: A systematic approach* (7th

Ed.)*.* Thousand Oaks, CA: Sage Publications.

Salazar, R. (1997). A social capital framework for understanding the socialization of racial

minority children and youths. *Harvard Educational Review, 67*, 1-40.

Schott Foundation for Public Education (2010). *The Schott 50 state report on public education

and Black males*. Retrieved from http://schottfoundation.org/publications/schott-2010-

black-male-report.pdf

Smith, T. M. (1995). *The educational progress of Hispanic students. Findings from "The*

condition of education 1995," (No. 4). Washington, DC: National Center for Education

Statistics.

Stillman, M. (2009). *Making the case for the importance of student retention*. Retrieved from

www.pacrao.org/docs/resources/writersteam/StillmanMakingTheCaseForStudentRetentio

n.pdf

Stone, C., & Dahir, C. (2004). *School counselor accountability: A measure of student success*.

Upper Saddle River, NJ: Pearson.

Student Tracker for High Schools. (2012). National Student Clearinghouse. Retrieved from

http://www.studentclearinghouse.org/high_schools/studenttracker/

Tannenbaum, A. J. (1958). History of interest in the gifted. In N. B. Henry (Ed.), *The fifty-*

seventh yearbook of the National Society for the Study of Education (pp. 21–38).

Chicago: University of Chicago Press.

Thayer, P. B. (2000). Retention of students from first generation and low income backgrounds.

Opportunity Outlook, May, 2-8.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research.

Review of Educational Research, 45, 89-125.

Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. Chicago:

University of Chicago Press.

Tyack, D. (1974). *The one best system*. Cambridge, MA: Harvard University Press.

Toldson, I., Braithwaite, R., & Rentie, R. (2009), *Promoting college aspirations among school-*

age black American males. Bradford, United Kingdom: Emerald Group Publishing

Limited.

U.S. Census Bureau. (2002). *The big payoff: Educational attainment and synthetic estimates of*

work-life earnings. Retrieved from http://www.census.gov/prod/2002pubs/p23-210.pdf

U.S. Department of Education. (2010). *A blueprint for reform: The reauthorization of the*

Elementary and Secondary Education Act. Washington, DC: Author.

U.S. Department of Education. (2001). *No Child Left Behind Act of 2001 (H.R.1).* Washington,

DC: Author.

U.S. Department of Education. (2009). *Race to the Top Program executive summary*. Retrieved

from http://www2.ed.gov/programs/racetothetop/executive-summary.pdf

U.S. Department of Education. (2010). *2003-04 and 2007-08 national postsecondary student aid*

study. Retrieved from http://www.census.gov/population/www/socdemo/sch_cost.html

U.S. Department of Education. (2012a). *The condition of education 2011* (NCES 2012-045),

Indicator 45. Washington: Author. Retrieved from

http://nces.ed.gov/fastfacts/display.asp?id=40.

U.S. Department of Education. (2012b). *The Census Bureau's annual report on school*

enrollments. Retrieved from

http://www.census.gov/population/www/socdemo/school.html

U.S. Department of Education. (2012c). *The condition of education 2012* (NCES 2012-045),

Indicator 33.

U.S. Department of Higher Education. (1998). *Amendments to the Higher Education Act of 1965*.

Retrieved from http://www.ed.gov/policy/highered/leg/hea98/sec701.html

U.S. Department of Labor. (2003). *Education pays: Unemployment and earnings for full-time*

wage and salary workers age 25 and over, by educational attainment. Retrieved from

http://www.bls.gov/emp/emptab7.htm

U.S. Council on Competitiveness. (2007). *Where America stands*. Retrieved from

http://www.compete.org/images/uploads/File/PDF%20Files

Vaughn, I. (2010). Reform in an urban school district: The role of PSAT results in promoting

advanced placement course-taking. *Education & Urban Society, 42*(4), 394-406.

Watts, A. (2001). *Education and the common good*. Frankfort, KY: Long-Term Policy Research

Center

White, T. J., & Sedlacek, W. E. (1986). Noncognitive predictors of grades and retention for

specially admitted students. *Journal of College Admissions, 3,* 20-23.

Williams, A, & Swail, W. S. (2005). *Is more better? The impact of postsecondary education on

the economic and social well-being of American society.* Washington, DC: Educational

Policy Institute, Inc.

Wittmer, J. (2000). *Managing your school counseling program: K-12 developmental strategies*

(2nd ed). Minneapolis, MN: Educational Media Corporation.

Zumeta, W., Breneman, D. W. , Callan, P. M. &Finney, J. E (2012). *Financing American higher

education in the era of globalization*. Cambridge, MA: Harvard Education Press.

APPENDIX: PCSST ALUMNI SURVEY

Hi PCSST Graduates,

This is Mr. Yavuz, the college guidance counselor.

PCSST school counseling department is looking for ways to help more students in going to college. We need your help so we can do a better job. I will be glad, if you can respond to the items on this alumni survey honestly and as accurately as possible. We will use this information to better serve our students.

If every class helps us out this way, imagine how the school will be in a few years! The information you supply on this survey will be kept confidential. Your name is requested for research purposes only and will not be listed on any report. You may choose not to participate, and you may withdraw at any time during the study procedures. In addition, you may choose not to answer any questions with which you are not comfortable. Thanks for your collaboration

SECTION I—BACKGROUND INFORMATION and COLLE DATA

1. My name is_____ and graduated in _____ (year).

2. After high school, I enrolled in: Vocational/Technical School___, Two-Year College___,

Four-Year College___, Military School___ ,   Did not enroll in any Post-Secondary

Institution___, College but then I dropped out from college____.

3. The highest level of education my family/parent has: Elementary School___, Middle

School___, High School___ Vocational School___, Military School___, 2 Year College___,

Four-Year College___, Master Degree___, Doctoral Degree___, Did not go to school___

4. How many colleges did you apply in your senior year?_____

5. Did you complete the FAFSA application? _____

6. After you completed your first year in college, have you enrolled for a second year?

_____

SECTION II—THE IMPACT OF HIGH SCHOOL PROGRAMS ON GETTING READY FOR COLLEGE

Please indicate if you participated in the following when you were in high school.

Offered Programs, Services and Interventions	Did you participate?	
	YES	**NO**
1. Individual Student Learning & Intervention Plan	Yes	No
2. College Dual Enrollment Program	Yes	No
3. After School or Saturday School Teacher Tutoring	Yes	No
4. Peer Tutoring	Yes	No
5. SAT Prep Program	Yes	No
6. SAT Elective Courses (Credit)	Yes	No
7. Accuplacer Test Preparation in Grade 12	Yes	No
8. Honor Level Courses	Yes	No
9. Individual College and Career Counseling Sessions	Yes	No
10. Classroom Workshops	Yes	No
11. Instant Decision Days	Yes	No
12. College Fairs and College Trips	Yes	No
13. Parent and Counselor Meetings	Yes	No
14. High School Recognition/Rewards Program	Yes	No
15. Career Fairs	Yes	No
16. One on One FAFSA Application Support	Yes	No
17. The Home Visitations	Yes	No
18. Using Fee Waivers	Yes	No
19. Group Counseling Sessions	Yes	No

*PLEASE COMPLETE THE NEXT SECTIONS, IF YOU HAVE ATTENDED/ ARE ATTENDING
A POST-SECONDARY INSTITUTION*

SECTION III: CHALLENGES WHILE ATTENDING COLLEGE

This section contains a list of student and institutional factors that can affect students'

college success. Please indicate to what degree does each factor affect your success?

Factors that may affect students' college success:	1: Main Challenge 2: Moderate Challenge 3: Minor Challenge 4: Not Challenge			
1. Financial Problems	1	2	3	4
2. Attendance Problems	1	2	3	4
3. Lack of Time Management and Study Skills	1	2	3	4
4. Negative Peer Influence	1	2	3	4
5. Lack of Parent Support	1	2	3	4
6. Low level of Commitment to Earn a College Degree	1	2	3	4
7. Having a Job	1	2	3	4
8. Family Problems	1	2	3	4
9. Transportation Problems	1	2	3	4
10. Pregnancy/Child	1	2	3	4
11. Health Problems	1	2	3	4
12. Taking Remedial Courses	1	2	3	4
13. Adjustment Problems	1	2	3	4
14. Home Sick	1	2	3	4
15. Unavailability of Support at College	1	2	3	4
16. Failing Grades in College	1	2	3	4

17. If you dropped out of college, please can you select the reason?

1. Financial Issues_____
2. Pregnancy/Parenting_____
3. Lost Interest in College_____
4. Academic Problems_____
5. Other Personal Problems_____

SECTION IV—THE IMPACT OF COLLEGE EXPERIENCES ON STUDENTS

Listed below is a series of academic and counseling programs, services, and interventions that are
possibly offered by your college.

Please indicate if you participated in the support program at your college.

Academic and Counseling Programs, Services and Interventions	Did You Participate?	
	NO	YES
1. Individual Academic Advising	No	Yes
2. College Instructors' Office Hours	No	Yes
3. Tutoring and Academic Support Services	No	Yes
4. Peer Tutoring	No	Yes
5. Personal Counseling Services	No	Yes
6. Financial Aid Counseling	No	Yes
7. Clubs and Extracurricular Activities	No	Yes
8. College Summer Programs	No	Yes
9. Orientation and Information Sessions	No	Yes
10. Educational Opportunity Fund (EOF) Program	No	Yes
11. Freshman Seminars	No	Yes
12. Remedial Courses	No	Yes
13. Career Center	No	Yes