AN ABSTRACT OF THE DISSERTATION OF

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The number of students enrolling in post-secondary institutions in the U.S. has slowly been rising over the last 10 years, yet gaps continue to exist in terms of who attends college and persists through graduation. Minority and low income students often lack the guidance needed to navigate the college enrollment process and as a result, remain underrepresented at U.S. colleges and universities. The prospect of attending college is frequently ruled-out based on fears surrounding college costs and lack of awareness and exposure to financial aid programs. This dissertation study looked at the impact of increased school counselor outreach on FAFSA completion and college enrollment in a large urban school district in Albuquerque, New Mexico. Researchers found robust treatment effects on both FAFSA completion .103 (sd=.01) and college enrollment .117 (sd=.01) suggesting a strong correlation between student contact with a school counselor and these two essential tasks for successful college matriculation. The opportunity gap was narrowed for all groups measured with the greatest improvement noted for African American, Asian, and Native American students.

Narrowing the College Opportunity Gap: Helping Students and Families Navigate the Financial Aid Process

by
Laura Owen

A DISSERTATION

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APPROVED:

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I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

Laura Owen, Author

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DEDICATION

Forty-four years ago a very special child was born into our family. Kevin taught me more about love and acceptance than any other person or experience could. Though unable to speak a single word his entire life, he communicated in meaningful ways and his gift of unconditional love and joy radiated to all those around him. As his older sister, I frequently had the responsibility to care for him which afforded me multiple opportunities to witness acts of kindness and love for my brother. At times the opposite was true and I came across others who were less than understanding or accepting regarding his disabilities. Kevin taught me immense lessons about compassion and probably, unbeknownst to me at the time, guided me toward my future path in counseling. Kevin helped me see life through different eyes and I believe it is because of him that I am so passionate in my beliefs about the worth of every child. The brain is a gift not to be squandered away or taken for granted and education should be for all, not just those who are born a certain skin color, or into a home of wealth or with extraordinary academic prowess. Every child deserves the opportunity to be loved, to learn and to be encouraged to become the best they can. Thank you for teaching me that, Kevin – I will miss you dearly, but you will always be in my heart!

Kevin Charles Adams

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CHAPTER I: GENERAL INTRODUCTION

Dissertation Overview

The purpose of this dissertation study is to demonstrate scholarly work by using the *manuscript document dissertation format* as outlined by the Oregon State University Graduate School. In following this format, chapter I provides explanation as to how two journal-formatted manuscripts found in chapters II and III are thematically tied and build toward research conclusions pertinent to the counseling field. Chapter II is a literature review, *School Counselors - An Underutilized Resource in College Counseling* and chapter III presents quantitative research results in a manuscript, *Impact of School Counselor Outreach on FAFSA Completion and College Enrollment: Implications for School Counselor Practice*. Both manuscripts focus on the pivotal role school counselors play in providing outreach and support for high school students as they navigate the financial aid and college enrollment process. College going typically refers to all the activities and prerequisites necessary for preparation and entry into post-secondary institutions and includes the myriad of challenges (i.e. financial concerns, social disadvantages, and inadequate academic preparedness) which have contributed to underrepresentation of low-income, African American, Native American, and Hispanic students on college and university campuses. Chapter II provides an overview of the factors that influence college going in general, the school counselor's role in college advising, educational reform measures designed to increase the number of students matriculating to college and

current research on outreach and awareness programs. Chapter III begins with a review of the current research and literature on financial aid and its influence on college going decisions. Students and parents are generally poorly informed about college prices and financial aid opportunities, yet monetary concerns often top the list for making the difference between attending college or not, especially for underrepresented youth. While the research indicates that financial aid can influence post-secondary decisions, many questions still remain unanswered due to a lack of internal, rigorous evaluation of existing outreach and awareness programs. Additional research is required to comprehend how awareness, understanding, and predictions of college prices and financial aid influence the formation of college aspirations, plans, and enrollment.

Chapter III concludes with the results of the dissertation study which found robust treatment effects on both FAFSA completion .103 (sd=.01) and college enrollment .117 (sd=.01) suggesting a correlation between student contact with a school counselor and these two essential tasks for successful college matriculation. The opportunity gap was narrowed for all groups measured with the greatest improvement noted for African American, Asian, and Native American students.

Chapter IV provides general conclusions to this dissertation study and suggests ideas for future research. Many obstacles restrict access to college, especially for lower-income, minority, and potential first-generation college students, yet completion of the Free Application for Federal Student Aid (FAFSA) form appears to increase students' likelihood of enrolling in college. Putting into place comprehensive

programs that support FAFSA completion across the country is one of several vital steps the U.S. Department of Education has implemented to increase college accessibility and affordability for all students. This study enhances our understanding of increasing school counselor contact during the senior year of high school and the impact on FAFSA completion and college enrollment.

Thematic Introduction

Educational reform efforts have called on national, state, and political leaders to prioritize efforts to reestablish U.S. leadership in college completion globally. For this to transpire, it must become a public priority to raise everyone's expectations in order to ensure that all students graduate from high school well-prepared for college and career post-secondary opportunities. Over the last couple of decades we have witnessed a surge of initiatives and policy recommendations aimed at addressing the omnipresent problems in education.

In a recently published Counseling Today article, the authors discussed educational reform initiatives and the transformational approach required to reach the ambitious goal of graduating every child from high school college and career ready by 2020. They noted that most reform initiatives do not mention school counseling as a means to change education, nor do they reference school counselors as essential to increasing student achievement or strengthening college and career readiness. They recommended several key practices for increasing school counselor engagement and connection to educational reform including; centralizing school counselors in school district organizational structure, focusing school counseling practice on advocacy and

outreach, providing adequate school counselor professional development to strengthen their understanding and capacity to implement a systems perspective, and utilizing methods and delivery systems to facilitate school counselor practice aimed at graduating all high school students college ready (Holcomb-McCoy, Lee, Bryan, & Young, 2011).

Numerous studies have looked at the role school counselors play in college access (Gándara, 2001; King & College Board, 1996; McDonough, 2005; Plank & Jordan, 2001; Rosenbaum, Miller & Krei, 1996; Venezia, Kirst, & Antonio, 2008; Perna, 2008). School counselors can impact students' aspirations for and understanding of college, academic preparation for college, and college-related decisions, as well as parents' support for their children's college aspirations (McDonough, 2005, Perna, Anderson, Rowan-Kenyon, Thomas & Bell, 2008).

Schools must think about how they will meet the needs of all students in the school, especially when it comes to the underserved.

> Schools are challenged to improve college counseling not only in the context of fiscal constraints and competing priorities, but also in the context of particular district, higher education, and state policies, practices, and programs. Therefore, efforts to increase the availability of college counseling must not only recognize the school context, but also the contexts of districts, higher education, and the state. In other words, ensuring that all students—not just students who know that they must initiate requests for counseling and not just students who attend particular schools—receive sufficient college counseling requires attention to the positive and negative impacts of external forces on the availability of counseling within a school. (Perna, et al., 2007, pp. 154-155)

Engaging counselors in college and career readiness counseling would cost little if any money, yet relatively little education policy has focused on the key role school counselors have in providing the guidance students need to make informed

decisions regarding post-high school options (Dounay, 2008; Perna et. al, 2007). It is requisite that educational policies include language that addresses the vital role school counselors' play in getting more students in the nation prepared to graduate college and career ready. Focus must shift from a mere implied presence to intentional detailed systemic inclusion. Efforts to expand school counselor horizons will grant opportunities for them to be more faithful to their mission of playing a central role in increasing the educational attainment of all students and educational leaders will understand the transformed role of school counselors (Sciarra & Ambrosino, 2011).

Including specific language in education reform policy will stimulate much needed conversations within educational communities regarding school counselor roles, expectations, and accountability. School counselors, if permitted, can help ensure all students are provided with adequate and appropriate supports at every grade level in preparation for their transition into and out of high school and that all college and career readiness services provided are coordinated by the school counselor who serves as a broker of equitable college access services, seamlessly coordinating college entrance functions for every child thus reinforcing and strengthening the educational reform agenda.

Academic preparation, access to college planning strategies, student's perceptions of self, acculturation, college-going aspirations, familial, school and community environments, social capital, motivation, and financial aid and financial planning have all been found to be correlated with student college readiness (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Cabrera & La Nasa, 2001;

Corwin, Venegas, Oliverez, & Colyar, 2004; Dounay, 2008; Hossler, 2000; Kim & Schneider, 2005; Lapan & Harrington, 2010; Long, 2007, 2010; McPherson & Schapiro, 2007; Nora, 2006; Pascarella, Pierson, Wolniak, & Terenzini, 2004; St. John, 2006a; Seftor & Turner, 2002; Stokes & Somers, 2009; Tierney, Corwin, & Colyar, 2005; Tierney & Venegas, 2009; Zeider, 2006).

The barriers most often addressed by researchers, practitioners, and policymakers as impediments to college entry are costs or affordability and academic preparation. One author wrote:

> Another important culprit that has been increasingly getting attention is information. How much of the college access problem is attributable to lack of information? If students are unaware of the financial resources available to them or the best way to prepare academically for college, then the aforementioned barriers of cost and academic preparation will be made worse by misperceptions, further limiting students. (Long, 2009, p. 17)

The call for everyone to work together to raise student achievement, increase college going, and provide sound financial guidance has sounded. Systems are being put in place to ensure that schools are moving in the right direction and educators are being held accountable for showing academic progress for all students.

The National Office for School Counselor Advocacy (NOSCA), an office in the Advocacy and Policy Center of the College Board, has clearly stated that college and Career Readiness counseling is not just about high school, but it is a K-12 practice where school counselors help prepare all students to graduate college and career ready.

> Elementary school counselors create early awareness, knowledge and skills that lay the foundation for the academic rigor and social development necessary for college and career readiness. Middle school counselors create opportunities to explore and deepen college and career knowledge and skills necessary for academic planning and goal setting. High school counselors

> create access to college and career pathways that promote full implementation of personal goals that ensure the widest range of future life options. (College Board, 2011, p.2)

Many obstacles continue to restrict access to college, especially for lower-income, minority, and potential first-generation college students (Balfanz, 2009; Roderick, Nagaoka & Coca, 2009). Research has demonstrated that access to financial aid clearly influences students' postsecondary decisions, and completion of the Free Application for Federal Student Aid (FAFSA) form significantly increases students' likelihood of enrolling in a four-year college (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2009). Putting in place comprehensive programs that support FAFSA completion across the country is one of several vital steps the U.S. Department of Education has implemented to increase college accessibility and affordability for all students.

Rationale

Financial aid is often the determining factor influencing student decisions to attend college or not (Tierney, et al., 2005).

> Concerns about the low visibility of aid programs and the complexity of the financial aid process have spurred calls to provide more assistance in filling out the Free Application for Federal Student Aid (FAFSA) form and to enhance the visibility of (financial aid) programs by educating students about the availability of financial aid. (Long, 2008b, p. 12)

Little research exists on how to implement school wide efforts in a practical manner and whether attempting to work with every student would truly improve college outcomes and aid receipt (Bettinger, et al., 2009). Students and their parents are often poorly informed about college prices and financial aid, and the implications

of poor awareness and understanding need to be better understood. Additional research is required to comprehend how awareness, understanding, and predictions of college prices and financial aid influence the formation of college aspirations, plans, and enrollment (Perna, 2004).

The purpose of this dissertation is to determine if increased contact with the school counselor can impact FAFSA completion and college enrollment rates. The questions we asked were:

- Did school counselor outreach increase FAFSA completion in 2011?
- Did college attendance increase as a result of the additional focus on FAFSA completion?
- Were there certain subgroups for which the effect of school counselor outreach was the strongest in 2011?
- What was the impact on 2-year versus 4-year college attendance for the class of 2011?

Statement of H_0– *School counselor outreach will not impact FAFSA completion and college enrollment rates for the class of 2011.*

Statement of H_1 – *School counselor outreach will impact FAFSA completion and college enrollment rates for the class of 2011.*

The college completion agenda is an area of high focus and the implications of this research extend well beyond the realm of counselor education and supervision. The research described in these manuscripts, while relevant to counseling and school

counseling, will also be useful for educational reform, educational policy, and economics.

Glossary of Terms

Accreditation — Proof that a college or program meets educational standards established by government or professional organizations.

Adequate Yearly Progress (AYP) — A measurement defined by the United States federal No Child Left Behind Act that allows the U.S. Department of Education to determine how every public school and school district in the country is performing academically according to results on standardized tests.

Articulation agreement — A special agreement between colleges that defines how students transfer from a community college to a four-year college or university.

Assessment Tools — Methods (e.g., tests and evaluations) that are used to measure the effectiveness of programs and/or student performance throughout the course of the year. These tools are used to help determine what has proven successful and/or what may need improvement.

At-risk — Term that is commonly used to refer to those individuals who face economic, cultural, social, societal, and/or educational challenges that may profoundly impact their ability to graduate high school.

Career ready — The Southern Regional Education Board defines career readiness as the ability for high school graduates to read, comprehend, interpret, and analyze complex technical materials, use mathematics to solve problems in the workplace, and pass a state-approved industry certificate or licensure exam in the field.

Class rank — A measure of a student's academic performance compared to all other students in the same grade at the same school.

Coaching — Guidance and/or assistance provided to an individual or group around a specific area or subject.

Collaboration — Institutions, groups and/or individuals working together toward a common goal or cause.

College Access — Requirements and steps needed for entry into postsecondary education as well as the issues and challenges many students face, particularly minority and low-income students in the process.

College-going information — Information about the college admissions and enrollment processes.

College-going population — Elementary and/or secondary school students with the academic skills and potential to start or continue down the path toward college admittance.

College Preparatory — Technically anything that prepares one for college. The term is typically used to describe the type of curriculum, instruction, classes and/or materials provided at an institution.

College Ready — Students graduate high school with the skills needed to qualify for and succeed in entry-level, credit bearing, college-degree courses without the need for remedial classes.

Core Curriculum — The body of information and material that all students are expected to learn.

Cost of attendance — College admissions costs that include the school's tuition and fees, books and supplies, room and board, personal expenses, and transportation.

Diversity — Term that typically refers to the presence of a distinctive group that is representative of a variety of people from various economic, cultural, educational, and religious backgrounds, as well as those with various mental and physical abilities.

Educational Standards — Academic requirements set by the state and/or educational institutions.

Educational Partnerships — Collaborative relationships that have been established typically with the mutual goal of improving education.

Educational Reform — A local, state, or national plan, program, or movement which attempts to bring about some positive change in education.

Enrichment — Activities that are designed to supplement learning outside of the classroom.

Equity — All students are entitled access to a high quality education with the same resources, materials, and supports regardless of socioeconomic or ethnic background.

Expected Family Contribution (EFC) — Amount of money that a family is expected to contribute to their student's education. The EFC is calculated based on a formula that takes into account the student's dependency status, family size, income, assets, expenses, and number of family members enrolled in a higher education institution.

Extracurricular Activities — Supplemental activities that occur in the school or community but usually outside the regular school day. Extracurricular activities may

include sports, clubs, interests, hobbies, performing arts, church, volunteer, and other positive learning experiences.

First-generation student — A student who will be the first person in their immediate family to attend and/or graduate from college.

Free Application for Federal Student Aid (FAFSA) — The form that must be completed and submitted to determine eligibility for federal financial aid. The FAFSA must be submitted every year that financial aid is needed.

Financial need — Financial assistance intended to aid students in reaching their educational goals. This assistance may come in a variety of forms such as grants, scholarships, work-study and loan programs.

General Education Development (GED) — High school equivalency certificate awarded upon successful completion of a standardized test.

Grants — Money typically given to a college or university by the state and/or federal government. Eligible students receive grant awards from the colleges they attend. Grants do not have to be repaid.

Leadership — The art of motivating a group of people to act towards achieving a common goal.

Learning disability (LD) — A condition that interferes with a student's ability to learn.

Limited English Proficiency (LEP) — Students who have not yet achieved mastery in reading, writing, listening, or speaking English but who are fluent in another language.

Loans — Money borrowed from government or private institutions to assist in the funding of educational expenses.

Majors — The area of study in which a student chooses to specialize.

Merit-based aid — Financial aid that is awarded based on a student's abilities and/or performance.

Multicultural Education — Schooling that helps students understand and relate to cultural, ethnic, and/or other diversity issues.

Need-based aid — Financial assistance that is awarded based on a student's economic ability to pay for college tuition.

No Child Left Behind (NCLB) —Refers to the No Child Left Behind Act of 2001, a federal law passed under the George W. Bush administration. NCLB represents legislation that attempts to accomplish standards-based education reform.

"Own the Turf" — is a national campaign developed by The National Office for School Counselor Advocacy (NOSCA), an office in the Advocacy and Policy Center of the College Board, which encourages school counselors to embrace their role in college and career readiness counseling and to take the lead in establishing a college-going culture in their schools, districts, communities, and states. (http://nosca.collegeboard.org/about/own-the-turf)

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Post-Secondary — Refers to higher education institutions that continue to offer opportunities to students learning beyond high school.

Pre-College Programs — Customarily university-based programs that provide college awareness and academic outreach services to students in elementary, middle, and high school. Programs vary by campus, size, duration, population served, and services offered.

Pre-Requisites — Courses that must be taken before a student is eligible to take other courses.

Scholarships — Money that is awarded to students based on certain accomplishments, characteristics, skills, and/or abilities. Many scholarships are given for good grades and for participating in extracurricular activities, but there are others based on very specific areas (i.e. children of victims of 911, students with asthma). Scholarships do not have to be paid back.

Social Capital — Concerns the norms and values people hold that result in, and are the result of, collective and socially negotiated ties and relationships.

Standardized Tests — Evaluation tools used to measure knowledge and/or performance in various academic subjects.

Tracking — Monitoring or following students for a period of time to measure progress and performance.

Work Study — On and off campus employment designed to pay for educational expenses for eligible undergraduate and graduate students. Programs are customarily offered through local school districts, private or nonprofit organizations and local, state, or federal agencies.

SCHOOL COUNSELORS - AN UNDERUTILIZED RESOURCE IN FINANCIAL AID AND COLLEGE COUNSELING

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Abstract

Educational reform efforts have called on national, state, and political leaders to prioritize efforts to reestablish U.S. leadership in college completion globally. For this to transpire, it must become a public priority to ensure that all students graduate from high school well prepared for college and career postsecondary opportunities. Although there is a significant amount of literature associated with educational reform initiatives and awareness and outreach efforts aimed at increasing college enrollment and financial aid opportunities for underrepresented students, the school counselor, an underutilized resource in preparing students to graduate college and career ready, is primarily overlooked, criticized, or discounted.

The National Office for School Counselor Advocacy (NOSCA) has issued a clarion call for school counselors to connect their work with educational reform efforts and to "Own the Turf" for college and career readiness counseling. If school counselors are going to be engaged in the college completion agenda there must be a shift in policy from an implied presence to a more detailed, intentional, and systemic inclusion, transforming the work of school counselors and increasing counselor focus and accountability on getting more students in the nation college and career ready.

Introduction

Educational reform efforts have called on national, state, and political leaders to prioritize efforts to reestablish U.S. leadership in college completion globally. For this to transpire, it must become a public priority to raise everyone's expectations in order to ensure that all students graduate from high school well prepared for college and career postsecondary opportunities. Over the last decade a surge of initiatives and policy recommendations aimed at addressing the omnipresent problems in education have arisen. Billions of dollars are spent annually on college access programs designed to address the many factors believed to influence college going, yet the programs appear to reach a relatively small number of students and little empirical evidence regarding their effectiveness exists. If enrollment of minority and low socioeconomic youth in postsecondary institutions of higher education is to become a reality, we must discover, promote, and customize successful educational practices that address the factors influencing college going for all students. Underrepresented students often lack the social capital needed to navigate the college enrollment process and as a result, are in need of additional support to ensure college matriculation. The school counselor, an often underutilized resource in college, career, and financial aid counseling, may be the key personnel in the school to address and oversee systemic school wide efforts focused on college and career readiness.

Federal Policies to Increase College Readiness

Federal policies such as No Child Left Behind, Achieve 2005, The American Recovery and Reinvestment Act, Blueprint for Reform of the Elementary and

Secondary Education Act, and Accelerating the Agenda have addressed various concerns aimed at increasing college readiness for all students in American schools.

No child left behind.

The No Child Left Behind (NCLB) Act (2001) has become one of the best known educational reform measures of our time and regardless of which side of the road one stands on in relation to its effectiveness, the impact on schools, parents, and students is unprecedented. With the goal of bringing all students up to the proficient level on state tests by the 2013-14 school year, the NCLB act requires implementation of rigorous accountability measures for every public school and attainment monitoring by state departments of education.

All districts and schools receiving Title I funds must meet state adequate yearly progress (AYP) goals for their total student populations and for specified demographic subgroups, including major ethnic/racial groups, economically disadvantaged students, limited English proficient (LEP) students, and students with disabilities (Simpson, LaCava, & Graner, 2004; Sunderman & Kim, 2007). Schools failing to meet AYP goals for two or more years are classified as schools in need of improvement and face consequences such as providing students with school choice and/or supplemental educational services once placed on corrective action or restructuring status.

NCLB neither makes mention of school counselors nor their role in this legislation. Many school counselors report the high-stakes testing required by NCLB has propagated their use as testing administrators and as a result, there is concern that

school counselor time is becoming significantly fragmented, jeopardizing the limited availability school counselors have to work directly with students on other issues (Dollarhide & Lemberger, 2006).

Achieve.

Achieve, Inc. released a series of reports in 2004 which revealed a sizeable gap between the standards students are required to meet to earn a high school diploma and the knowledge and skills they need to be successful in their college and career pursuits after high school. Achieve called it the expectations gap and issued a challenge to national and state leaders to take action to close that gap. In 2005, Achieve sponsored the National Education Summit on High Schools in partnership with the National Governors Association and governors, CEOs, and education leaders from both K–12 and higher education attended the Summit. The Summit made the case to the governors and business and education leaders that schools are not adequately preparing students for college and 21st-century jobs and that aggressive action is needed to address the preparation gap.

Leaders joined with Achieve to form the American Diploma Project Network and committed to a four part policy agenda which included: (1) aligning high school standards with the demands of college and careers; (2) requiring students to complete a college and career-ready curriculum so that earning a diploma ensures that a student is ready for postsecondary opportunities; (3) building college and career ready measures into statewide high school assessment systems; and (4) holding high schools and postsecondary institutions accountable for student preparation and success.

The American recovery and reinvestment act.

The American Recovery and Reinvestment Act (2009) was passed by Congress on Feb 13, 2009 in direct response to the economic crisis in the U.S. According to U.S. lawmakers, the Recovery Act had three immediate goals: (1) create new jobs and save existing ones; (2) spur economic activity and invest in long-term growth; and (3) foster accountability and transparency in government spending. The Recovery Act provided $787 billion in tax cuts and benefits for families and businesses and increased funding for federal contracts, grants, and loans used to fund education, health care and other entitlement programs.

Blueprint for reform.

A Blueprint for Reform, The Reauthorization of the Elementary and Secondary Education Act (ESEA) (US Department of Ed, 2010) was created in response to the American Recovery and Reinvestment Act of 2009 (Congress, 2009) and was designed to: (1) improve teacher and principal effectiveness; (2) provide information so families may evaluate and improve their children's schools; (3) assist educators in improving their students' learning; (4) implement college- and career-ready standards; and (5) improve student learning and achievement in the lowest-performing schools.

As a preface to the Blueprint, President Obama stated:

> We must do better. Together, we must achieve a new goal, that by 2020, the United States will once again lead the world in college completion. We must raise the expectations for our students, for our schools, and for ourselves – this must be a national priority. We must ensure that every student graduates from high school well prepared for college and a career. (U.S. Department of Education, 2010, p. 1)

The blueprint outlines how teachers, principals and parents play a central role in supporting student achievement.

Accelerating the agenda.

The authors of *Accelerating the agenda: Actions to improve America's High Schools* stated that high schools need to "set goals, measure progress, and hold high schools and colleges accountable by developing high school accountability systems tied to college and career-ready measures; and align post-secondary expectations, incentives, and performance to high school expectations" (Harris, 2008, p. 22).

College Outreach and Awareness Programs

Although many federal policies have been put in place to increase college readiness, gaps still exist in terms of who attends college and persists through graduation (Swail & Perna, 2002). Low income, African American, Hispanic, and Native American students continue to be underrepresented at U.S. colleges and universities and among students who qualify for college, those from vulnerable backgrounds are less likely to apply to and enroll in four-year colleges than their more advantaged peers (Swail & Perna, 2002; Roderick, Nagaoka, Coca, & Moeller, 2008).

The federal government encouraged the expansion of pre-college outreach and early intervention programs to advance college going among underrepresented youth. Most of the comprehensive programs were designed specifically to increase postsecondary opportunities for minority and economically disadvantage students.

College access programs.

In their book "Preparing for College: Nine Elements of Effective Outreach", the authors discussed different college access programs being implemented throughout the United States which were designed specifically to identify and assist underrepresented students in their quest for a college education. Programs such as Mathematics, Engineering, Science Achievement (MESA), Up-ward Bound, "I Have a Dream", Advancement via Individual Determination (AVID), Puente College, are discussed in detail. The authors found although all of these programs were well intended, minority students were still underrepresented on college campuses. The authors looked for the most successful practices to increase college enrollment for underserved youth. Their research suggested that students enroll in college through a "complex, longitudinal, interactive process involving individual aspirations and achievements, organizational structuring of opportunity in high school, and institutional admission policies" and recommended having knowledgeable, available counselors at the core of program (Tierney, Corwin & Colyar, 2005, pp. 2-3).

The college opportunity and career help (COACH) project.

The College Opportunity and Career Help (COACH) program provided inner city students (Boston, Charlestown, Dorchester) in Massachusetts with college guidance and then compared them with suburban school (Concord-Carlisle) students on measures of college-going (Avery & Kane, 2004). Harvard students were used to mentor the high school seniors in Boston Public Schools (BPS) and worked with the students specifically to help them navigate the college admission process. Avery and

Kane (2004) analyzed student perceptions regarding the economic benefits of college and the college application and financial aid process. Unlike their suburban counterpart, students in the Boston Public School (BPS) system overestimated tuition as well as the benefits of going to college. Approximately 75% of the students in both the suburban school districts and BPS believed there was value in getting a bachelor's degree.

Most of the students in the COACH program were well behind the suburban students in the college application process at the beginning of the senior year. Many of the students who intended to attend college did not have the academic qualifications to gain admission to a four-year college and only 65% of students with a 3.0 GPA or higher who originally intended to go to a four-year college actually did so.

Avery and Kane (2004) found only mild gaps in college aspirations between the COACH students and the suburban students, yet found significant differences in how the COACH students understood and completed the required college admission steps.

Trio Programs.

The Federal TRIO Programs were designed to provide assistance to low-income individuals, first-generation college students, and individuals with disabilities, supporting their successful academic progress from middle school through college graduation. The total funding allocation for the TRIO Programs in FY 2010 was $904,285,427. The total number of projects was 2,962, and the number of participants served was 840,863. Fiscal Year 2011 estimates for TRIO funding is $848,100,000.

Recipients of TRIO grants are typically institutions of higher education, public and private agencies, and organizations with experience in serving disadvantaged youth and secondary schools. Students served by TRIO programs must meet eligibility requirements to receive services.

Upward bound.

The Upward Bound program focuses on supporting precollege academic success for low-income, first generation college students in hopes that the skills learned at the beginning of the program will transfer to achievement in higher education. The goal of the Upward Bound program is to increase high school graduation and college enrollment rates for low-income first generation college students by providing academic instruction in mathematics, laboratory sciences, composition, literature, and foreign languages. Tutoring, counseling, mentoring, and cultural enrichment are also provided to support student success. Programs and activities are specifically designed for students who are limited English proficient, traditionally underrepresented in postsecondary education, disabled, homeless, in foster care, or considered disconnected.

The Upward Bound program originally focused on high school students, but has since expanded to include middle school students. Students are expected to attend a six-week summer program and participate in activities put in place throughout the school year.

Talent search.

The Talent Search program focuses on academic, career, and financial aid counseling to increase high school graduation and college attendance. The program helps students through the financial aid and postsecondary application process. The goal is to increase the number of students from disadvantaged backgrounds that graduate from high school and matriculate to college.

Talent Search provides an array of services including tutoring, mentoring, counseling, and educational workshops targeting students who are limited English proficient, traditionally underrepresented in postsecondary education, disabled, homeless and students who are in foster care.

Gear UP.

Congress created the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) to focus on at-risk youth. GEAR UP targets entire grade levels of students. Counseling and other support services are provided to students beginning no later than the seventh grade through high school graduation. At least half of the students in the school must be eligible for free or reduced lunch or live in assisted public housing to be selected. The total funding allocated for the GEAR UP Programs in FY 2010 was $323 million and funding for FY 2011 was predicted to remain level.

Outreach programs designed to increase college enrollment often share similar programmatic components such as counseling, academic enrichment, parental involvement, mentoring and tutoring, but little evaluative data regarding the outcomes

is available (Barela & Eisenberg, 2002; Gándara, 2001; Gullatt & Jan, 2003; Heyward, 1997; Swail & Perna, 2002; Tierney, et al., 2005).

The College Board conducted a national survey of outreach programs looking primarily at program characteristics and goals. They found many outreach programs significantly helped disadvantaged students achieve academically, but cautioned that the survey results point out a lack of internal, rigorous evaluation which limits their ability to serve more students effectively (Swail & Perna, 2002). Their findings are supported by other attempts to assess the success of programs aimed at increasing post-secondary opportunities for disadvantaged students (Gullatt & Jan, 2003; Heyward, 1997; Nozaki & Shireman, 2001; Swail & Perna, 2002). "Very little is known about the actual impact of pre-collegiate academic programs in increasing the number of students entering college, and even less is known about which specific program components are effectively assisting students to enter college" (Gullatt & Jan, 2003, p. 7).

Swail and Perna (2002) suggested early intervention and pre-college outreach programs would not be needed if school systems focused on college and career readiness. They placed a challenge on the table to proponents of early intervention programs to provide more evidence of their positive impact and to the critics to show alternatives that better meet the needs of underrepresented populations.

The pathways to college act.

In 2008, the Consortium on Chicago School Research at the University of Chicago released a report, *From High School to the Future: Potholes on the Road to*

College, and concluded that students need more than high aspirations to go to college. Low income students require greater access to structured social support, mentoring, parental involvement, and early college planning. The report revealed two critical steps to improving college enrollment and success; creating a college-going culture in the school and providing students with adequate support and guidance. They suggested that school counselors are in a unique position to do both (Roderick, et al., 2008).

Based partly on the conclusions of this report, Senator Richard Durbin (D-IL) drafted and introduced the Pathways to College Act, to replicate the successes detailed in the report nationwide. The Pathways to College Act emphasized the need to plan academically and financially for college and proposed college preparatory activities commence during the first year of high school.

The Pathways to College Act is currently pending legislation, but if approved would provide competitive grant funds to high need school districts for the purpose of improving college going rates of all students. Eligible grant recipients would be required to develop a school-wide plan to create a college-going culture in the school and to use the grant funds for professional development to prepare high school counselors in postsecondary advising. Grant recipients would also be mandated to develop a postsecondary plan for every student and to provide information to all students and their families on a variety of issues including preparing for college, navigating the college application process and financing college costs.

Social Capital Theory as it Relates to College Going

High quality college and career counselors who possess advanced skills in leadership and advocacy will be needed to bring about the systemic change referred to in the Pathways to College Act. Collaborative relationships with community and business organizations, higher education departments, faculty and administrators, as well as parents and students, will be essential for a college going culture to be created. If school counselors are to play a vital role in college counseling they will also need a firm understanding of social capital theory and the deficits that exist for some students (Simmons, 2011).

Defining social capital.

"Broadly defined, social capital concerns the norms and values people hold that result in, and are the result of, collective and socially negotiated ties and relationships. It is related to human (skills and qualifications), economic (wealth), cultural (modes of thinking), and symbolic (prestige and personal qualities) forms of capital" (Edwards, 2006). Social capital is derived from a range of sources including family, communities, organizations, groups, and individuals (Coleman, 1988).

Social capital deficits.

Families usually serve as a primary source of social capital for students, especially with regard to their education (Hetherington, 1998). First generation and underrepresented youth often have social capital deficits that place them at risk when it comes to endorsing postsecondary educational opportunities and options. Individual

students may, however, compensate for the lack of family or community ties geared toward higher education with extra-familial relationships (Bryan, et al., 2011; Plank & Jordan, 2001; Simmons, 2011).

Simmons (2011) proposed conceptualizing each individual student in possession of an allocation of social capital, both positive and negative, with varying ratios of positive versus negative social capital among individuals and groups. He suggested that "the appropriate question is not simply whether an individual has social capital, but whether someone has sufficient positive social capital to offset the negative" (Simmons, 2011, p.20).

We need to understand the sources of social capital that impact college aspirations and enrollment among students.

> "Efforts at providing better guidance and information do not require a lot of money … they require the amassing of human capital (knowledge of how to navigate a complicated process of searching and choosing) and…social capital (channels of communication by which institutions and adults transmit advice and information to adolescents" (Plank & Jordan, 2001, p. 974).

Sources of social capital.

The relationships that youth build with their families, communities, neighborhoods, and peers have the potential to play a significant role in enabling students to succeed in school. Tierney (2006a) looked at the role of peers in developing social capital and found that peers have the potential to create what is defined as fictive kin, and in this role, peers play a social support role that helps create a culture of success. The author suggests "peer groups—as social relationships that cut

across classroom connections— create a viable solution that helps youth attain access to college" (Tierney, 2006a, p. 1687).

Kim & Schneider (2005) looked at conditions that ease transition to college, especially for disadvantaged students and found "that alignment of parents' and students' goals increases students' odds of attending a postsecondary institution in the year after high school graduation" (Kim & Schneider, 2005, p.1181). They recommended that extra-group ties could bridge the resource and information gap and help parents effectively guide their children to make informed decisions about college and that "active participation in postsecondary school guidance programs by parents is more beneficial to students whose parents have lower levels of educational attainment" (Kim & Schneider, 2005, p.1181). Interestingly, Bryan, Holcomb-McCoy, Moore-Thomas, & Day-Vines (2009) found that students whose parents contacted the school regarding their child's high school plans reportedly received more contact and college information than their peers whose parents did not contact the counselor.

Parents who have not attended college do not have the understanding that would provide them with the experience necessary to guide and prepare their students for college entrance and often must rely upon other sources to provide information about college (Bryan, et.al, 2009, Hossler, Schmit, & Vesper, 1999; Kim & Schneider, 2005; Saenz, Hurtado, Barrera, Wolf & Yeung, 2007). Outreach efforts geared to Latino families have helped ease the transition to college by enhancing parental knowledge, increasing their confidence in interacting with institutions of higher

education, and facilitating dialogue with their children to discuss questions and issues of concern (Auerbach, 2004). Including parents in college preparation planning and programs may ultimately increase the likelihood of student success in college (Bryan, et al., 2009, Tierney & Jun, 2001).

Holcomb-McCoy (2010) found most school counselors believe working with parents concerning college opportunities is a major part of their job. Given that "social capital related to processes such as college application may amass directly to students or may accrue to students through their parents' contact and relationships with school personnel" (Bryan, et al., 2011, p. 190), counselors should consider ways to encourage and enhance collaborative parental relationships.

School-based social capital theory.

School based social capital refers to the social relationships and networks in schools that can be used to improve life outcomes (Lin, 2001). Families are typically the primary source of social capital for students but schools generally serve as dominant extrafamilial institutions and provide a crucial source of social capital for K-12 students (Cabrera & La Nasa, 2000; Holcomb-McCoy, 2007; Hossler, et al., 1999; Hossler & Stage, 1992; Perna & Titus, 2005; Simmons, 2011; Stage & Hossler, 1989; Tierney, 2002).

Bryan, Moore-Thomas, Day-Vines & Holcomb-McCoy (2011) used social capital theory as a framework to examine data from the Educational Longitudinal Study of 2002 (Ingels, Pratt, Rogers, Siegel, & Stutts, 2004) and investigated how student contact with high school counselors about college information and other

college-related variables influence students' college application rates. The researchers wanted to know whether students' contact with school counselors served as a source of social capital for students in the college application process. Gender, academic achievement, parental involvement, school size, school counselor contact, and the number of school counselors in a school were significant predictors of college application rates.

The study suggested that high school college counseling matters. For many students, school counselors may serve as an important source of social capital in the college application process.

> Although a myriad of student and school factors contribute to the college application process, contact with the school counselor for college information provides a positive advantage for students who see the school counselor by 10th grade and for less affluent students throughout their high school years. (Bryan, et al., 2011, p. 196)

The findings underscore the importance of school counselor contact to provide students and their families with ongoing college information, to create a college-going culture for all students, and to make special efforts to provide culturally relevant interventions that support and encourage students and families who historically have had limited access to higher education (Bryan et al., 2011; Farmer-Hinton & Adams, 2006; Hawkins & Lautz, 2007; McClafferty & Nunez, 2002; Perna, Li, Anderson, Thomas, Rowan-Kenyon, & Bell, 2007).

"Vulnerable students often lack access to social networks that provide valuable information to navigate the complex college admissions and financial aid process" (Simmons, 2011, p. 1) and many public schools unfortunately do not provide students

with adequate college counseling necessary to support their most disadvantaged students (Alexander & Eckland, 1977; Coleman & Hoffer, 1987; Coleman, Hoffer & Kilgore, 1982; Hossler, et al., 1999; McDonough, 1994, 1997, 1999; Rosenbaum, Miller, & Krei, 1996; Tierney, et al., 2005).

Simmons (2011) reported that policymakers typically focus on academic preparation and providing financial aid to needy students to close achievement gaps. He suggested that these approaches yield only marginal returns because they fail to address social capital deficits and in response to this concern, he recommended the creation of high school college counseling departments staffed with competent, experienced and well trained professionals who are exclusively focused on college counseling activities.

School Counselors and College Counseling

A recently published Counseling Today article discussed educational reform initiatives and the transformational approach required to reach the 2020 goal of having every child graduate college and career ready. The authors noted that most reform initiatives do not mention school counseling as a means to change education, nor do they reference school counselors as essential to increasing student achievement or strengthening college and career readiness. They recommend several key practices for increasing school counselor engagement and connection to educational reform including: centralizing school counselors in school district organizational structure, focusing school counseling practice on advocacy and outreach, providing adequate school counselor professional development to strengthen their understanding and

capacity to implement a systems perspective, and utilizing methods and delivery systems to facilitate school counselor practice aimed at graduating all high school students college ready (Holcomb-McCoy, Lee, Bryan, & Young, 2011).

Improving school counseling would have a significant impact on college access for low-income, rural and urban students as well as students of color (Gándara, 2001; King & College Board, 1996; McDonough, 2005; Perna, 2008; Plank & Jordan, 2001; Rosenbaum & Miller, 1996; Venezia, Kirst & Antonio, 2008). Engaging school counselors in college and career readiness activities would cost the federal government little if any money, yet relatively little policy has focused on the key role of school counselors in providing the guidance students need to make informed decisions regarding post-high school options (Dounay, 2008).

If counselors are going to be engaged in the college completion agenda there must be a shift in policy from an implied presence to a detailed, intentional, and systemic inclusion, transforming the work of school counselors and increasing counselor focus and accountability on getting more students in the nation college and career ready. "In expanding the horizon of their efforts, school counselors will become more faithful to their mission of playing a central role in increasing the educational attainment of all students" and educational leaders will understand the transformed role of school counselors (Sciarra & Ambrosino, 2011, p. 239).

Policy inclusion will create a new vision ensuring all students at every grade level are provided with adequate and appropriate supports in preparation for their transition into and out of high school, and that all college and career readiness services

provided are coordinated by the school counselor who serves as a broker of equitable college access services, seamlessly coordinating college entrance functions for every child thus reinforcing and strengthening the educational reform agenda.

Although school counselors appear to be the logical school staff member to assist with college access and preparation, in the past, role confusion combined with assignment of other duties, high student to counselor ratios, fiscal constraints, lack of preparation, and inadequate expertise in college admissions have frequently prevented them from fulfilling the college counseling role. Counselors must be available, committed, and knowledgeable if they are to become part of the college completion agenda preparing all students to graduate college and career ready (Bryan, et al., 2009; Holcomb-McCoy, et al., 2011; Perna et.al, 2007; Simmons, 2011; Tierney, 2006b).

Availability.

When counselors are available to students and parents, not only do they help parents support their student's college aspirations, but research has shown that they directly impact student's aspirations, academic preparation for college, and financial aid knowledge (Adelman, 1999; Cabrera & La Nasa, 2001; Corwin, Venegas, Oliverez & Colyar, 2004; Dounay, 2008; Lapan & Harrington, 2010; McDonough, 1997, 2005; Perna et al., 2007; Plank & Jordan, 1997, 2001).

Low income students and students of color have the greatest need for access to a school counselor, yet they are often the least likely to meet with a high school counselor for college admissions or financial aid support, because their counselors tend to be heavily focused on crisis related matters, social emotional concerns,

behavior related and other counseling and/or administrative issues (Bryan, et al., 2009; Cabrera & La Nasa, 2001; Corwin, et al., 2004; McDonough, 2005; Perna et. al, 2007; Plank & Jordan, 2001; Trusty & Niles, 2003). When school counselors are available consistently and frequently to students and families, they can expand students' educational aspirations, increase their educational and cultural capital assets, and raise college enrollment and graduation rates (McDonough, 2005).

Chicago Public School (CPS) district examined how high school preparation impacted postsecondary outcomes for prior CPS graduates and found four key outcomes: (1) students who are interested in furthering their education do not always participate in the college application process and when they do, mistakes are frequently made; (2) attending a high school with a strong college-going culture positively influences their participation in the college application process; (3) filing a FAFSA and applying to multiple colleges increases the likelihood of being accepted to and enrolling in a four-year college and (4) only one-third of CPS students who desired to complete a four-year degree enrolled in a college that matched their qualifications (Roderick, et al., 2008). These key outcomes had huge implications for the work that needed to be done in CPS to prepare every child for a successful transition from high school to postsecondary college opportunities.

School counselors often have high demand jobs with many competing priorities. Administrative and non-counseling duties often impede their efforts to provide college counseling for all students (Chapman & De Masi, 1985; Dounay, 2008; Johnson & Rochkind, 2010; McDonough, 2005; McDonough & McClafferty,

2001; Oliver, Ricard, Witt, Alvarado, & Hill, 2010; Perna et. al, 2007; Tierney, et al., 2005). Despite these obstacles, research has found that school counseling does positively benefit and strengthen student's college decision making process (Adelman, 1999; Boyer, 1987; Dahir & Stone, 2009; Linnehan, Weer, & Stonely, 2006; McDonough, 1997; Plank, et al., 1997; Plank & Jordan, 2001; Roderick, et al., 2008; Tierney, et al., 2005)

Commitment.

Corwin, et al, (2004) suggested that addressing inequities in the quality and accessibility of counseling is vital to enhance a student's chances for educational and career advancement and recommended principals, teachers, and counselors work together in more efficient ways to share important deadlines and information.

In a recent study commissioned by the Bill and Melinda Gates Foundation entitled "Can I Get a Little Advice Here?", it was reported that six in every ten young adults surveyed who had gone on for further education gave their high school counselor poor grades for college advice and felt like "just a face in the crowd." Most of the young adults interviewed reported that they received little, if any, help from their high school counselor. The authors found a correlation between the degree to which students had a good relationship with their school counselor and whether they felt like they ended up at the right higher education institution. They also found that students who got little or poor counseling were more likely to delay attending college and make more questionable higher education choices (Johnson & Rochkind, 2010).

There has been much discussion in counseling journals whether college counseling is even a task high school counselors ought to assume. Some argue that school counselors must only provide resources and cite a lack of training in college counseling as the basis of concern, while others assert that school counselors should spend more time providing mental health counseling not college counseling (Carroll, 1985; Cole, 1991; Perna, 2008).

School counselors have been publically criticized for gatekeeping and research related to gatekeeping practices has indicated that counselors' postsecondary aspirations for students affects how student's access and use college information (Dounay, 2008; Gándara, 2001; Rosenbaum, et al., 1996). This can be especially damaging to low income students and students of color because the school counselor often serves as their sole or prime source of college information and guidance (Bryan, et al., 2009). School counselors bring specific skills to help educate low-income children and they must recognize and be aware of how their perspectives and attitudes influence student perceptions around college going (Amatea & West-Olatunji, 2007; Corwin, et al., 2004).

Rosenbaum, et al., (1996) examined whether the role of school counselors had changed since the 1960's when counselors were given more authority to influence who went to college. They interviewed 27 counselors in eight high schools and found that the counselors did not like to give students bad news about their future academic goals, but they reported that counselors advocated college for all and emphasized addressing personal counseling over college counseling so they could avoid

addressing unpleasant realities. The counselors were criticized for embracing a college-for-all attitude and the authors suggested that this prevented students from getting the information and advice they needed to prepare for their futures.

The National Office for School Counselor Advocacy, a unit in the Advocacy and Policy Center for the College Board, recently announced a national advocacy campaign on their website (http://nosca.collegeboard.org/about/own-the-turf) entitled "Own the Turf". This national advocacy campaign is designed "to galvanize and mobilize school counselors to own the turf of college and career readiness counseling, and to take the lead in establishing a college-going culture in their schools, districts, communities and states". The "Own the Turf" campaign calls on school counselors across America to stand up and own college and career readiness counseling for all students. NOSCA suggests that counselors need appropriate professional development to hone their advocacy and leadership skills, to be prepared to influence policy around college-going, and to serve in capacities that will bring this vision to the forefront of those in power to make the changes necessary to accomplish this goal.

Knowledge.

The Southern Regional Education Board defines college and career ready as follows:

> College ready means a high school graduate has the reading, writing and math knowledge and skills to qualify for and succeed in entry-level, credit bearing, college-degree courses without the need for remedial classes and Career ready means that high school graduates can read, comprehend, interpret and analyze complex technical materials, can use mathematics to solve problems in the workplace, and can pass a state-approved industry certificate or licensure exam in the field. Based on these definitions, one might question what it means for

> school counselors to have the knowledge and skills for college and career readiness counseling. (Richard & Johnston, 2009, p. 9)

The College Board National Office for School Counselor Advocacy (NOSCA) recently released the Eight Components of College and Career Readiness Counseling which provides the mechanism and tools for counselors to obtain the knowledge and skills to "Own the Turf" for college and career counseling.

> The Eight Components of College and Career Readiness Counseling chart a comprehensive, systemic approach for school counselors' use to inspire all students to, and prepare them for, college success and opportunity — especially students from underrepresented populations. The eight components build aspirations and social capital, offer enriching activities, foster rigorous academic preparation, encourage early college planning, and guide students and families through the college admission and financial aid processes. By implementing these eight components, school counselors provide information, tools and perspective to parents, students, schools and their communities that build college and career readiness for all students. (College Board, 2010, p. 2)

College and Career Readiness counseling occurs as school counselors take the NOSCA eight components: (1) student aspirations for college; (2) academic planning for college and career readiness; (3) enrichment and extracurricular engagement; (4) college and career exploration and selection process; (5) college and career assessment; (6) college affordability planning; (7) college and career admission processes; and (8) transitioning from high school graduation to college enrollment and through the use of data and culturally competent practice, work for equitable outcomes for all students (College Board, 2010).

Factors that Influence College Going

If school counselors are going to focus their efforts on college and career readiness counseling, they will need to understand the factors that influence college

going. Research has suggested that academic preparation, access to college planning strategies, student's perceptions of self, acculturation, college-going aspirations, familial, school and community environments, social capital, motivation, and financial aid and financial planning are correlated with student college readiness (Bryan, et al., 2011; Cabrera & La Nasa, 2001; Corwin, Venegas, et al., 2004; Dounay, 2008; Hossler, 2000; Kim & Schneider, 2005; Lapan & Harrington, 2010; Long, 2007, 2010; McPherson & Schapiro, 2007; Nora, 2006; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Seftor & Turner, 2002; St. John, 2006a, 2006b; Stokes & Somers, 2009; Tierney, et al., 2005; Tierney & Venegas, 2009; Zeider, 2006).

Academic preparation.

Clifford Adelman (1999) analyzed high school students' transcripts using longitudinal data collected by the U.S. Department of Education and found high school curriculum was the most significant predictor of postsecondary success. He also found the impact of academically intense high school curriculum was far more pronounced and positive for African American and Latino students than any other pre-college indicators. However, Roderick and Allensworth, researchers at the Consortium on Chicago Schools Research, found that high school GPA matters more than a student's course of study and is one of the strongest predictors of college graduation in Chicago Public Schools (Allensworth & Easton, 2007; Roderick, et al., 2008).

Access to college planning information strategies.

College admissions information is readily available today, but with the overabundance of resources it is unlikely that any two students have the same

information when making decisions about college. For example, we know that low income families frequently do not have access to the internet and although information is available on the internet, it does not mean they have knowledge, access or understanding of what is there or how to discriminate between accurate helpful information vs. harmful guidance on the internet. There are also a growing number of websites that prey on vulnerable populations by promising services such as guaranteed scholarships and college admission if they pay a "small" service fee. Many times these services provide the same information a student could have received for free.

Oreopoulos and Dunn (2003) provided information on post-secondary education to students through the internet and measured how this influenced their interests and expectations in attending college. Students from disadvantaged high schools in Toronto, Canada were asked to go on the internet and take two short surveys. About half of the students were shown a multi-media page at the end of the second survey with a three minute video describing costs and benefits of post-secondary education and how to afford it. A financial aid calculator was also provided to help students calculate their own financial aid eligibility.

Despite large attrition rates, the authors indicated information and the way it is provided matters, and reported:

> Students who were exposed to the additional information about post secondary education were, three weeks later, significantly more likely to say they aspired to complete at least a college degree, had higher expectations of their own returns to post secondary education, were more likely to believe they were eligible for grants, and less likely to believe the main reason students don't go to on to post secondary education was because of costs. (Oreopoulos & Dunn, 2003, p. 4)

The authors stated that the information provided to selected students could be found online and most likely resembled the type of information a school counselor would provide if asked. Most of the students who participated in the survey expected their post-secondary education would increase their earning potential and those in the treatment group anticipated even higher returns. While they found that providing simplified information about post-secondary education to students online could affect short-term interest in going, they were not able to measure whether providing information changed college going plans and the students actually attended. They also questioned if there is a better approach to reach the students who did not bother to go online or watch the video.

Self-efficacy and college going aspirations.

Individual aspirations play a major role in college enrollment, but when looking at student background characteristics, parental encouragement is the best predictor of postsecondary educational aspirations (Cabrera & La Nasa, 2001; Cummins, 2012; Falsey & Heyns, 1984; Hearn, 1984; Hossler & Stage, 1992; Hossler & Vesper, 1999; Sewell & Shah, 1968; Stage & Hossler, 1989; Tillery, 1973). One study found that students who talked the most to their parents about their post secondary plans were more certain of their plans to go to college (Hossler & Vesper, 1999).

> School counselors should be aware of how cultural (e.g., acculturation, gender, ethnic and racial identity, and values), familial (e.g., parental education attainment), and environmental (exposure to poverty, violence, and crime) factors contribute to Black and Latino adolescents' perceptions of attainable careers which ultimately impacts college going decision making patterns.

(Constantine, Erickson, Banks, & Timberlake, 1998; in Constantine, Kindaichi, & Miville, 2007, p. 264)

Counselors can impact student aspirations, plans, enrollment, and financial aid knowledge and meeting frequently with a counselor increases a student's chance of enrolling in a four-year college. If students, parents and counselors work together and communicate, students chances of enrolling in college significantly increases (McDonough, 2005).

Financial aid and financial planning.

The prospect of attending college is often ruled out due to fears concerning the ability to cover college costs and as a result, understanding financial aid often can make the difference between going to college or not (Cabrera & La Nasa, 2001; Heller, 2006; Pascarella, et al., 2004; St. John, 2006a, Paulsen, & Carter, 2005; Tierney, et al., 2005; Tierney, 2006b). In a study by the American Council on Education, King (2004) found during the 1999-2000 school year, half of the 8 million undergraduates enrolled in institutions of higher learning that participate in the federal student aid program did not complete the FAFSA. Yet 850,000 of them were eligible for federal Pell Grant aid in 2000 and of those who did file, more than half missed the April 1st priority deadline (Long, 2008b).

"The Federal Commission on the Future of Higher Education (2006) concluded many students don't enter college because of inadequate information and rising costs, combined with a confusing financial aid system" (Bettinger, Long, Oreopoulos, & Sanbonmatsu, 2009, p. 2), yet research has shown that access to financial aid information influences students' postsecondary decisions, and completion

of the Free Application for Federal Student Aid (FAFSA) form increases students' likelihood of enrolling in a four-year college (Bettinger, 2004; Bettinger, et al., 2009; Long, 2007, 2008a; Oreopoulos & Dunn, 2003; Roderick et al., 2008).

High school students tend to overestimate college tuition costs while underestimating financial aid opportunity (Bettinger et al., 2009; Chen & DesJardins, 2007). High schools can ensure that students take the necessary steps to obtain financial aid by educating students and their parents early in high school about college affordability and the availability of financial aid and by helping them identify potential sources of aid. Students can also benefit from hands-on assistance in meeting financial aid deadlines and completing application forms (Bettinger, et al., 2009; Tierney, Bailey, Constantine, Finkelstein, & Hurd, 2009).

A randomized field experiment provided families help completing and submitting the Free Application for Federal Student Aid (FAFSA) to the U.S. Department of Education (Bettinger, et al., 2009). The study offered assistance in filling out the FAFSA to randomly selected participants who were from low-income households and had not yet completed a college degree. Information was collected from families who had their annual tax forms completed at H&R Block facilities throughout Ohio and North Carolina and was used to fill out about two-thirds of the questions on the FAFSA application. The participants were asked to spend about 10 minutes answering a few more questions regarding parental education, goals, and number of children in the household, to help the tax professional finish completing the form. If all the information needed to complete the FAFSA was obtained in the

interview, they offered to have H&R Block submit the FAFSA electronically at no charge. If more information was needed, families were sent home with a paper FAFSA to be signed and mailed to the Department of Education directly with a pre-paid envelope. A second group of participants had their eligibility estimates calculated using information from the tax return and left the office with an estimate of their grant aid eligibility and a list of tuition costs for four local colleges full or part-time. A third randomly-chosen group of individuals received a brochure with basic information about the importance of college and financial aid, but did not receive help completing the FAFSA.

> Comparing the outcomes of participants in the treatment groups to a control group using multiple sources of administrative data, the analysis suggests that individuals who received assistance with the FAFSA and information about aid were substantially more likely to submit the aid application, enroll in college the following fall, and receive more financial aid. (Bettinger, et al., 2009, p. 2)

Providing information without any assistance completing the FAFSA form had no significant effect on FAFSA submission rates, yet simplifying and supporting families filling out the FAFSA form and supplying financial aid information appear effective ways to improve college access.

Bettinger, et al., (2009) found that pre-populating the FAFSA form with IRS data and providing direct assistance completing the FAFSA had a substantial impact on the likelihood of submitting an aid application and suggested that developing comprehensive programs that support FAFSA completion may be an important step toward making the college experience accessible and affordable for all students.

In 2010, twenty of the largest urban school districts across the United States were selected to participate in the U.S. Department of Education's FAFSA Completion Pilot project. The project allowed school districts to receive current FAFSA completion status on individual high school seniors for the first time in history. Prior to 2010, schools only had student self-reported FAFSA completion information. In 2010, school districts participating in the pilot submitted a report to the Federal Student Aid (FSA) department at the U.S. Department of Education with predetermined identifiers that were then matched with their FAFSA application data base. The districts received a report back from FSA that coded each student based on the following criteria: (1) a student had not begun the FAFSA application or there was no match found; (2) the student had completed the FAFSA application and had a calculated Expected Family Contribution (EFC); or (3) the FAFSA application had been submitted with an error. This information was used to facilitate school counselor outreach designed to assist students in locating financial aid funding for college. The U.S. Department of Education's FAFSA completion project provided a great opportunity for understanding how to implement district wide supports that reached out to all students and which interventions were more effective for certain groups.

In the What Works Clearinghouse practice guide, a panel of experts made five recommendations aimed at enhancing and improving student access to higher education including: (1) offering courses that prepare students for college work; (2) utilizing assessment measures throughout high school so that students are aware of how prepared they are for college; (3) surrounding students with adults and peers who

build and support college-going aspirations; (4) engaging and assisting students in completing critical steps for college entry; and (5) increasing families' financial awareness and helping students apply for financial aid (Tierney, et al., 2009).

The panel recommended that high schools provide workshops and hands-on assistance to students and their families in completing the FAFSA form and that FAFSA completion events be scheduled before major deadlines. Knowledgeable volunteers on FAFSA completion need to be present to provide accurate one-on-one help completing the FAFSA form. Financial aid specialists from local universities and colleges may be able to provide training for teachers or volunteers on FAFSA completion and they might also be willing to help individual students and parents during and/or after the workshop. It is important to communicate to students and parents what information is needed to fill out the FAFSA application ahead of workshops so they have everything they need when they arrive for help. Computer labs are helpful to schedule workshop events so the FAFSA can be completed on site and questions can be answered as they work on the application (Tierney, et al., 2009).

The panel also recommended that adequate time and staffing be provided to support individual assistance as students and families may have questions they would not want to ask in front of a large audience. For schools that have mentoring programs in place, they may want to consider using mentoring services to help with financial aid questions as long as the mentors are knowledgeable on financial aid and able to provide help (Tierney, et al., 2009).

Kennedy, Oliverez, and Tierney (2007), the authors of Cashing in or Cashing Out, warned that just because a financial aid event is held, it does not guarantee that families will attend or that they will receive the information they need to understand the financial aid process. The authors offered ideas to evaluate the effectiveness of financial aid events including taking the time to look at the difference in goals, as well as the advantages and disadvantages of different types of financial aid events (Kennedy, et al., 2007).

Conclusion

There is a significant amount of literature associated with educational reform initiatives and the outreach efforts aimed at increasing college enrollment and financial aid opportunities for students, however very little is actually known about the impact these programs have on assisting students to enter college and the school counselor, an underutilized resource in preparing students to graduate college and career ready, is primarily overlooked or discounted. NOSCA has issued a clarion call to all school counselors to connect their work with educational reform efforts and to "Own the Turf" for college and career readiness counseling.

School counselors must be connected to educational reform initiatives and professional organizations like the American Counseling Association (ACA), the American School Counselor Association (ASCA), the National Association for College Admission Counseling (NACAC), the National Center for Transforming School Counseling (NCTSC) at the Education Trust and the National Office for School Counselor Advocacy (NOSCA) must work together to provide professional

development for practicing school counselors who have little if any training in college and career readiness.

It is essential for school counseling researchers to conduct rigorous studies related to the effectiveness and practice of school counselors in relation to college and career readiness (Holcomb-McCoy, et al., 2011). Research focused on the relationship between routine contact with a school counselor and post-secondary variables such as college aspirations, academic preparation, access to college planning strategies, financial aid and financial planning, and college enrollment is warranted (Bryan, et al., 2009). College attendance is often influenced by perceived available financial resources and "for many students the simple issue of financial aid is the difference between going to college or not and these factors deserve investigation" (Tierney, et al., 2005, p. 197).

Students and their parents are typically poorly informed about financial aid opportunities until the latter years of high school, and how this interacts with decision-making for college enrollment is not very well understood. Perna (2004) suggested at least four areas where additional research is necessary:

> (1)additional research is required to understand the ways in which awareness, understanding, and predictions of college prices and financial aid influence the formation of college aspirations, plans, and enrollment; (2) research should explore the openness of students and parents to information about college prices and financial aid; (3) research is required to understand the ways in which student aid programs design, operations, and marketing influence students; and finally, (4) more research is needed to understand the ways in which elementary and secondary schools, as well as higher education institutions, can ensure that students and parents are knowledgeable about college prices, financial aid, and other college-related requirements and processes. (Perna, 2004, p.3)

If school counselors are to take responsibility for college and career readiness counseling, research measuring the impact of school counselor practices on college aspirations, academic preparation, college enrollment, financial aid planning, and college access is warranted. Financial affordability repeatedly tops the list of concerns identified by students and families when choosing whether to pursue higher education and may naturally serve as a beginning place for school counselors to focus their efforts to increase college going in their schools.

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THE IMPACT OF SCHOOL COUNSELOR OUTREACH ON FAFSA COMPLETION AND COLLEGE ENROLLMENT: IMPLICATIONS FOR SCHOOL COUNSELOR PRACTICE

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Abstract

Utilizing the U.S. Department of Education's Free Application for Federal Student Aid (FAFSA) Completion database and the National Student Clearinghouse (NSC) database, this study measured the impact of a district-wide school counselor driven outreach campaign aimed to increase FAFSA completion and college enrollment. Robust treatment effects were found for FAFSA completion .103 (sd=.01) and College Enrollment .117 (sd=.01) suggesting a strong correlation between school counselor contact and these two essential tasks for successful college matriculation. The college opportunity gap was narrowed for every group measured with the largest increase in enrollment existing for African American, Asian and Native American students.

The Impact of School Counselor Outreach on FAFSA Completion and College Enrollment

Low-income, African American, Hispanic, and Native American populations continue to be underrepresented in institutions of higher education and evidence from college readiness test scores indicate that most students graduate high school unprepared for college and in need of remediation (Bryan, Holcomb-McCoy, Moore-Thomas & Day-Vines, 2009; Heller, 2006; Holcomb-McCoy, 2007; Hossler, Schmidt & Vesper,1999; Nettles & Perna, 1997; Swail & Perna, 2002; Tierney, Corwin & Colyar, 2005; Venezia, Kirst & Antonio, 2008). This is especially true for African American and Hispanic students who also often lack access to social networks and adequate college counseling that supports and provides valuable information to navigate the complex college admissions and financial aid process (Alexander & Eckland, 1977; Bryan, et al., 2009; Bryan, Moore-Thomas, Day-Vines & Holcomb-McCoy, 2011; Coleman & Hoffer, 1987; Coleman, Hoffer &Kilgore, 1982; Hossler, et al., 1999; McDonough, 1994, 1997, 1999; Rosenbaum, Miller & Krei, 1996; Simmons, 2011; Tierney, et al., 2005).

Recent educational reform efforts have called on national, state, and political leaders to prioritize efforts to reestablish U.S. leadership in college completion globally and as a result, policymakers have emphasized the goal that all students graduate high school college and career ready. Factors such as academic preparation, access to college planning strategies, student's perceptions of self, acculturation, college-going aspirations, familial, school and community environments, social capital, motivation, and financial aid and financial planning have all been correlated

with student's college readiness, (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Cabrera & La Nasa, 2001; Corwin, Venegas, Oliverez, & Colyar, 2004; Dounay, 2008; Hossler, 2000; Kim & Schneider, 2005; Lapan & Harrington, 2010; Long, 2007, 2009, 2010; McPherson & Schapiro, 2007; Nora, 2006; Pascarella, Pierson, Wolniak, & Terenzini, 2004; St. John, 2006a, 2006b; Seftor & Turner, 2002; Stokes & Somers, 2009; Tierney, Corwin, & Colyar, 2005; Tierney & Venegas, 2009; Zeider, 2006) yet little research has focused on how to implement systemic school-wide programs to address these factors.

College access programs have been designed to increase college enrollment and financial aid opportunities for students, yet very little is understood regarding the impact these programs have on assisting students to enter college and when these programs are available, they rarely serve all students in the school.

School counselors continue to be primarily overlooked or discounted as resources in preparing students to graduate college and career ready, nonetheless they may naturally be the most prepared to implement school-wide programs to increase college going for underrepresented youth.

Rationale.

Financial aid is often the number one student and family concern when deciding to attend college or not (Tierney, et al., 2005), yet students and parents continue to be poorly informed about college prices and financial aid. Research is needed to understand how knowledge regarding college prices and financial aid opportunities influence college aspirations and college enrollment decisions (Perna,

2004). Recent concerns regarding the intricacies of the aid process have encouraged schools to provide assistance to families and students filling out the Free Application for Federal Student Aid (FAFSA) form. Long (2008b) recommends enhancing the visibility of financial aid programs by educating students on the availability of financial aid. Little if any rigorous research has examined school-wide efforts to increase awareness of financial aid opportunities in a practical manner and if such efforts would truly improve college outcomes and aid receipt (Bettinger, et al., 2009).

Review of the Literature

Breaking the affordability barrier.

The barriers most often identified by researchers, practitioners, and policymakers as impediments to college entry are perceived lack of ability to afford college and student deficiencies in academic preparation. There is also concern regarding the dearth of information made available to students and their families. " If students are unaware of the financial resources available to them or the best way to prepare academically for college, then the…barriers of cost and academic preparation will be made worse by misperceptions, further limiting students" (Long, 2009, p. 17).

Approximately 850,000 college students who were eligible for federal grant aid in 2000 did not complete the Free Application for Federal Student Aid (FAFSA) (King, 2006). That estimate does not include the potential millions of individuals who did not enroll in college because they did not know about the aid they were eligible to receive. Financial aid programs need to be simple and transparent to be most effective (Deming & Dynarski, 2009; Dynarski & Scott-Clayton, 2007). In 2006, the Federal

Commission on the Future of Higher Education concluded that many students don't enter college due to the lack of information on the college enrollment process and rising costs, combined with a confusing financial aid system. Two recent studies have looked at awareness and outreach campaigns designed to inform students and families of financial funding opportunities for college.

Providing information and increasing knowledge.

Oreopoulos and Dunn (2003) provided information on post-secondary education to students through the internet and measured how this influenced their interests and expectations in attending college. Students from disadvantaged high schools in Toronto, Canada were asked to go on the internet and take two short surveys. About half of the students were shown a multi-media page at the end of the second survey with a three minute video describing costs and benefits of post-secondary education and how to afford it. A financial aid calculator was also provided to help students calculate their own financial aid eligibility.

Despite large attrition rates, the authors indicated information and the way it is provided matters. "Students who participated in the survey were significantly more likely to express a desire to complete at least a college degree, had higher expectations of their own returns to post secondary education, were more likely to believe they were eligible for grants, and less likely to believe the main reason students don't go to on to post secondary education was because of costs" (Oreopoulos & Dunn, 2003, p. 4).

The authors felt that one explanation why students reacted to the information they provided was that they were not required to do so. While they found that providing simplified information about post-secondary education to students online could affect short-term interest in going, they were not able to measure whether providing this kind of information changed college going plans and if the students actually attended. They also questioned if there is a better approach to reach the students who did not bother to go online or watch the video.

The role of simplification and information in college decisions

Another randomized field experiment provided families help completing and submitting the Free Application for Federal Student Aid (FAFSA) to the U.S. Department of Education (Bettinger, et al., 2009). The study offered assistance in filling out the FAFSA to randomly selected participants who were from low-income households and had not yet completed a college degree. Information was collected from families who had their annual tax forms completed at H&R Block facilities throughout Ohio and North Carolina. The information was used to fill out about two-thirds of the questions on the FAFSA application. The participants then spent about 10 minutes answering a few more questions regarding parental education, goals, and number of children in the household, to help the tax professional finish completing the form. If all the information needed to complete the FAFSA was obtained in the interview, they offered to have H&R Block submit the FAFSA electronically at no charge. If more information was needed, families were sent home with a paper FAFSA to be signed and mailed to the Department of Education directly with a pre-paid

envelope. A second group of participants had their eligibility estimates calculated using information from the tax return and left the office with an estimate of their grant aid eligibility and a list of tuition costs for four local colleges full or part-time. A third randomly-chosen group of individuals received a brochure with basic information about the importance of college and financial aid, but did not receive help completing the FAFSA. Individuals who received assistance with the FAFSA and information about aid were substantially more likely to submit the aid application, enroll in college the following fall, and receive more financial aid. (Bettinger, et al., 2009)

Providing information without any assistance completing the FAFSA form had no significant effect on FAFSA submission rates, yet simplifying and supporting families filling out the FAFSA form and supplying financial aid information appear effective ways to improve college access.

Cashing in or cashing out.

The authors of Cashing in or Cashing Out (Kennedy, Oliverez, & Tierney, 2007) warn that just because a financial aid event is held, it does not guarantee that families will attend or that they will receive the information they need to understand the financial aid process. Based on three years of research at nine high schools in a large urban high school district, the authors offered ideas to evaluate effectiveness of financial aid events (Kennedy, et al., 2007) and encouraged others to take time to look at the advantages and disadvantages of three different types of financial aid events (conferences, groups workshops, and one-on-one advising).

The effectiveness of financial aid in improving college enrollment.

Years of research support the fact that financial aid can influence student's post-secondary decisions, but questions remain about the best ways to design and implement programs and policies. Long (2008a) looked at research literature on the effectiveness of financial aid and made three suggestions: (1) when designing an aid program, information and simplicity are important; (2) all aid is not equal - it is vital that families understand the differences and consequences between grants and loans; and (3) need-based aid is more effective in increasing access for low-income students than other forms of aid. She also discussed the degree to which financial aid can offset the influence of coming from a disadvantaged background when it comes to college enrollment and suggested that much more research is needed to contribute to the debate about the role of financial aid opposed to other factors in addressing inequality issues in college attainment.

Influence of design, operations and marketing of student aid programs.

"Inadequate awareness and understanding of college prices and financial aid may be one source of the gap between the higher educational expectations that students declare in high school and their lower rates of actual postsecondary education" (Perna, 2004, p. 2). Perna (2004) suggested at least four areas where additional research is necessary to more adequately understand the influence of financial aid on college decision making: (1) additional research is required to understand the ways in which awareness, understanding, and predictions of college prices and financial aid influence the formation of college aspirations, plans, and

enrollment; (2) research should explore the openness of students and parents to information about college prices and financial aid; (3) research is required to understand the ways in which marketing and design of student aid programs influence students; and (4) more research is needed to understand the ways in which elementary and secondary schools, as well as higher education institutions, can ensure that students and parents are knowledgeable about college prices, financial aid, and other college-related requirements and processes.

Helping students navigate the path to college.

In the What Works Clearinghouse practice guide, a panel of experts made five recommendations aimed at enhancing and improving student access to higher education including: (1) offering courses that prepare students for college work; (2) utilizing assessment measures throughout high school so that students are aware of how prepared they are for college; (3) surrounding students with adults and peers who build and support college-going aspirations; (4) engaging and assisting students in completing critical steps for college entry; and (5) increasing families' financial awareness and helping students apply for financial aid (Tierney, et al., 2009).

The panel recommended that high schools provide workshops and hands-on assistance to students and their families in completing the FAFSA form and that FAFSA completion events be scheduled before major deadlines. Knowledgeable volunteers on FAFSA completion need to be present to provide accurate one-on-one help completing the FAFSA form. Financial aid specialists from local universities and colleges may be able to provide training for teachers or volunteers on FAFSA

completion and they might also be willing to help individual students and parents during and/or after the workshop. It is important to communicate to students and parents what information is needed to fill out the FAFSA application ahead of workshops so they have everything they need when they arrive. Computer labs are helpful to schedule workshop events so the FAFSA can be completed on site and questions can be answered as they work on the application (Tierney, et al., 2009).

The panel also recommended that adequate time and staffing be provided to support individual assistance at financial aid events as students and families may have questions they would not want to ask in front of a large audience. For schools that have mentoring programs in place, they may want to consider using the mentoring services to help with financial aid questions as long as the mentors are knowledgeable on financial aid and able to provide help (Tierney, et al., 2009).

Money on the table.

Increasing the numbers of students who participate in financial aid programs has become a critical issue for many states. *Putting Money on the Table: State Initiatives to Improve Financial Aid Participation* highlights the activities of four states to address this issue (Prince, 2006). California devoted state funds to a media campaign promoting the availability of financial aid for students to support additional financial aid staff at the institutional level. Connecticut used technology to improve the efficiency by which financial aid was delivered and dramatically increased the number of students applying for and receiving aid. North Carolina secured funding from the state legislature to pay for an additional financial aid officer in the state's 58

community colleges, as well as at the North Carolina Community College System Office. Texas took steps to increase the availability of financial aid in order to maximize the effectiveness of its outreach campaign to enroll low-income and minority students. The reasons found for the low rates of financial aid completion in these states varied but included: lack of awareness among students, complex types of aid available, and the inadequate capacity at the institutional level conducting outreach to students and processing applications.

Chicago public schools.

A recent study of graduates from Chicago Public Schools found that students who attended a high school with a strong college-going culture were more likely to apply to college and file a FAFSA. They also found that participation in the college application process and filing a FAFSA shaped the students' likelihood of being accepted to and enrolling in a four-year college (Roderick, et al., 2008).

Putting money on the table: information, financial aid and access to college.

The Center for Higher Education Policy Analysis (2009) conducted a study that investigated the divide between available aid and the impact of early commitment aid, looking specifically at programs in California, Nevada, and Kansas for examples. They found large disconnects exist for students who need aid and their understanding of what they need to do to access aid. Also, states can secure more aid when more students are successful in maintaining eligibility and completing the financial aid application process. The implications for practice include: (1) the need to understand the lives of students and their families as they seek student aid; (2) attention to the

inter-relationship of school, home and other influences is critical; and (3) the creation of systematic, longitudinal frameworks for information about financial aid need to be developed and maintained (Tierney & Venegas, 2009).

What is known about the impact of financial aid and implications for policy.

As the research indicates, financial aid can influence post-secondary decisions, but there are still many questions that remain unanswered about the best way to design and implement programs and policies. Long (2008a) reviewed current research regarding the effectiveness of financial aid and its implications for policy with a central goal of improving college access and affordability. She suggested the role of schools, colleges, and universities should not be underestimated and family and community support are also essential in efforts to increase college access, especially for initiatives designed to raise educational aspirations and increase information about aid and the application process. She also recommended careful thought be given to create partnerships across the many stakeholders to address the problems facing students.

Working with the school counselor.

The call for everyone to work together to raise student achievement, increase college going, and provide sound financial guidance has sounded. Systems are being put in place to ensure that schools are moving in the right direction and educators are being held accountable for showing academic progress for all students.

The College Board National Office for School Counselor Advocacy (NOSCA) recently released the Eight Components of College and Career Readiness Counseling

which provides tools for school counselors to obtain the knowledge and skills to "Own the Turf" for college and career counseling.

> The Eight Components of College and Career Readiness Counseling chart a comprehensive, systemic approach for school counselors' use to inspire all students to, and prepare them for, college success and opportunity — especially students from underrepresented populations. The eight components build aspirations and social capital, offer enriching activities, foster rigorous academic preparation, encourage early college planning, and guide students and families through the college admission and financial aid processes. By implementing these eight components, school counselors provide information, tools and perspective to parents, students, schools and their communities that build college and career readiness for all students. (College Board, 2010, p. 2)

The Eight Components of College and Career Readiness "charts a comprehensive, systemic approach for school counselors' to inspire all students and prepare them for college success" (College Board, 2010, p. 2). College and Career Readiness counseling occurs as school counselors take NOSCA's eight components which include: (1) student aspirations for college; (2) academic planning for college and career readiness; (3) enrichment and extracurricular engagement; (4) college and career exploration and selection process; (5) college and career assessment; (6) college affordability planning; (7) college and career admission processes; and (8) transitioning from high school graduation to college enrollment and through the use of data and culturally competent practice, work for equitable outcomes for all students. To implement each component successfully, NOSCA's transformative delivery focuses on the context of the diverse populations in the school and community, encourages multilevel interventions involving students, parents, schools, and community, and uses data effectively (College Board, 2010, p.5). "By implementing the eight components of college and career readiness counseling, school counselors

provide information, tools and perspective to parents, students, schools and their communities that foster college and career readiness for all students" (College Board, 2010, p. 2).

Many obstacles continue to restrict access to college, especially for lower-income, minority, and first-generation college students. Research suggests a relationship exists between access to financial aid and students' postsecondary enrollment. Awareness appears to be a major barrier as many students and families lack accurate information about higher education costs and financial aid (Long, 2008a). This coupled with misinformation about financial aid underscores the need for program development to address these concerns and provide support to families and students in navigating the financial aid process. Receiving assistance completing the Free Application for Federal Student Aid (FAFSA) form seems to increase students' likelihood of receiving financial aid and enrolling in college (Bettinger et al., 2009) suggesting that comprehensive programs supporting FAFSA completion may substantively impact college enrollment especially for underrepresented youth who otherwise would be unable to attend.

In 2010, the U.S. Department of Education unveiled the FAFSA Completion Project, a program designed to encourage and support FAFSA completion in some of the largest school districts across the country. The high school FAFSA Completion Project was implemented as a pilot project in 20 large urban school districts in 2010-2011 which enabled school districts to request and receive FAFSA completion information from the US Department of Education's office of Federal Student Aid

(FSA) for individual high school students. This information was released to encourage the development and facilitation of school-wide outreach programs aimed to assist students and their families in finding financial aid funding for college with the hope that increased knowledge of financial aid opportunities would ultimately encourage and increase college enrollment.

Methods

This quantitative study looked at the impact of school counselor outreach on FAFSA completion and college enrollment in Albuquerque Public Schools. The interventions were designed to tackle several barriers addressed in the literature that prevent underrepresented youth from attending college including: providing access to a school counselor, increasing awareness of financial aid programs, simplifying submission of the FAFSA form, and navigating the financial aid process. To quantify the effects of school counselor outreach on FAFSA completion and college enrollment, we tracked FAFSA completion and college enrollment using data from two national longitudinal data bases, the U.S. Department of Education's (DOE) Federal Student Aid (FSA) Free Application for Federal Student Aid (FAFSA) completion data base and the National Student Clearinghouse (NSC) data base.

The questions asked were:

- Did school counselor outreach increase FAFSA completion in 2011?
- Did college attendance increase as a result of the additional focus on FAFSA completion?

- Were there certain subgroups for which the effect of school counselor outreach was the strongest in 2011?
- What was the impact on 2-year versus 4-year college attendance for the class of 2011?

The hypotheses were as follows:

H_0 *School counselor outreach will not impact FAFSA completion and college enrollment rates for the class of 2011.*

H_1 *School counselor outreach will impact FAFSA completion and college enrollment rates for the class of 2011.*

Research design.

The outreach campaign was implemented as part of the school district's involvement with the U.S. Department of Education's FAFSA Completion Project. A school counselor led campaign to provide support for families and students navigating the financial aid process was implemented for the entire senior class of 2011. To evaluate the impact of the counselor outreach, the researchers used difference of differences analysis looking at FAFSA Completion and College Enrollment for the class of 2010 and 2011 and focused on two key outcomes – FAFSA completion and college attendance. Two national longitudinal data bases, the U.S. Department of Education's (DOE) Federal Student Aid (FSA) Free Application for Federal Student Aid (FAFSA) completion data base and the National Student Clearinghouse (NSC) data base were used to quantify the effects of school counselor outreach on FAFSA completion and college enrollment.

To measure FAFSA completion rates, data from the U.S. Department of Education's FSA database was used to determine if a student had submitted a FAFSA form to the U.S. Department of Education. To gather the relevant data, the school district submitted the names, birthdates, and zip codes for the graduating seniors in 2010 and 2011 to the U.S. Department of Education (DOE). The DOE then matched each student's information to their FAFSA record and returned FAFSA information to the district with four possible options coded for each student. A student with a coded "0" reflected a match had not been found in the DOE's FAFSA completion database, a "1" revealed a missing signature, a "2" indicated the student had filed and completed the FAFSA with their expected family contribution (EFC) calculated, and a "3" signaled the student had begun the process at some point but had not fully completed the FAFSA application. Status information was returned to the school district along with the date the student filed the FAFSA.

The research team offered assistance to the school district in submitting student records to the National Student Clearinghouse (NSC) which tracks approximately ninety-two percent of college enrollments nationwide helping districts identify which students matriculate to college. NSC returned the coded FAFSA completion data back to the school district for 2010 and 2011 high school graduates. Once the district received the FAFSA and NSC data they eliminated all student identifiers, assigned a random identification number to each student and submitted student level demographic, FAFSA, and NSC data to the research team. The data was analyzed to determine if differences in FAFSA completion and college enrollment existed between

the 2010 and 2011 graduates. Comparisons were made across all students and then for relevant subgroups, including minority students, free/reduced lunch participants and low-achieving students.

Participants.

The sample for this study was taken from Albuquerque, NM and is comprised of 8,655 high school graduates across 21 schools including 14 traditional and seven alternative high schools in the Albuquerque Public School (APS) district. The control group is comprised of all graduates from the class of 2010 and the treatment group from the class of 2011. The mean age of the graduates was 18.77 (*sd* = .007). Demographics show a total population average of 4.2 % African American, 4.6% Native American, 3% Asian, 56.2 % Hispanic, and 32 % white. Special education services were received by 12.6 (*sd* = .004) % of the students.

Treatment.

Several steps were developed to increase FAFSA completion. To begin, the U.S. Department of Education contracted with MAYA, an international advertising company focused on reaching out to minority students, to develop branded materials for the FAFSA Completion project. The belief was that families and students would recognize these branded logos and in the same way that one associates shoes with the Nike symbol, they would begin to connect the FAFSA logos with billions of dollars available to fund education and recognize schools as centers of support for completing the FAFSA and college applications. MAYA developed customized materials for APS which were placed at each of the traditional high schools throughout the district, the

school district headquarters, the district website, and throughout the city. Bus stops and city busses were used to advertise the FAFSA completion project and a logo (Figure 3.1) was developed to brand the FAFSA completion project.

Figure 3.1. FAFSA Logo

The logo was made into window decals, large posters, and banners for the side of city transit authority vehicles. In addition to the logo, banners, point-of-purchase displays, PSAs, uniforms, signage, decals and other posters were developed, printed and placed throughout the district and city. The mayor in Albuquerque donated bus space where banners were placed on the sides of the city buses informing families and students about the financial aid available to fund education along with encouragement to contact their local school counselor for more information. Bus shelters housed five foot posters advertising FAFSA events throughout the city. When customers called into the transit authority, a message announcing how to access help on financial aid and FAFSA completion was relayed and these messages directed families and community members to their school counselors.

The second step of the initiative was to hold a FAFSA Summit which occurred on February 10, 2011 and was the launching event for the FAFSA initiative. The

Summit allowed partners and stakeholders to unite, pledge their commitment to the campaign, and become informed about all the different FAFSA activities scheduled throughout the district and city. Prior to the Summit, fifteen radio and 5 television interviews were completed to advertise the summit and explain the project to the community. Media coverage prior, during and after the summit was extensive. The superintendent and mayor kicked off the FAFSA outreach project at the summit where school, community and political leaders joined together to commit their support for the FAFSA completion project. Local congressional offices were represented at the summit.

The third step was to provide education and training on the FAFSA. In January 2011, the U.S. Department of Education's Federal Student Aid (FSA) office sent trainers to APS, who trained approximated 85 school counselors, state college access staff, and university financial aid representatives in preparation for their involvement with the project. The trained counselors and volunteers were prepared to provide one-on-one support for families needing assistance completing the FAFSA form.

The fourth step consisted of peer-to-peer activities targeting the class of 2011 which began in May 2011. College and high school students were hired to advertise the FAFSA completion events and hand out flyers and information at important events traditionally highly attended by seniors.

The fifth step in the plan involved the unveiling of 15 trusted centers throughout the city. The district established a goal to increase FAFSA completion by ten percent from 2010 to 2011, and to support that goal, the district set up "trusted

centers" at all of its high schools and the local community college and university where trained school counselors provided assistance to students and families filling out the FAFSA application. Over 185 FAFSA Completion Events were held between February 2011 and June 2011. These events were advertised on the radio, TV, newspaper, via the web, and through the use of an automated telephone messaging system designed to contact parents and students in their native language.

The sixth step involved acknowledging everyone who helped with the campaign. The awards ceremony occurred in October 2011 and served as the culminating event for the 2011 FAFSA Completion Project. All the stakeholders who had been involved in the FAFSA awareness and completion initiatives, including the mayor's office and the superintendent were invited to attend and were recognized for their efforts to increase FAFSA completion throughout the city and district.

Counselor-to-student ratios were reconfigured in 2010 so that thirteen school counselors could be assigned to increase college and career readiness throughout the district. The counselor positions were pre-K-12 positions and were designed to increase support for students on college and career readiness by allowing the school counselors to spend one hundred percent of their time providing college counseling. A full time college and career readiness counselor was placed in every traditional high school throughout the district.

Finally, an unexpected delay from the U.S. Department of Education's Financial Student Aid office prevented the school district from utilizing the intended weekly lists designed to provide information needed for school counselors to target

outreach to specific students based on their FAFSA completion status. The delay resulted in the first list being received by the school district during graduation week (May 15, 2011). To take advantage of the information that was now available, howbeit late for the class of 2011, school counselors were hired to work during the summer months of June and July with students who as of graduation had not completed a FAFSA. Selected students received calls from school counselors over the summer months to provide support on FAFSA completion and college transition issues. Funding for the summer outreach work was provided by a generous grant from the Gates Foundation and the school district.

Results

Treatment fidelity.

Supports were provided to the entire class of 2011 and records were maintained at the district school counseling office to monitor treatment fidelity. Counselor logs tracking attendance at FAFSA completion events and individual meetings were turned into the district school counseling office at the end of the project. The school district utilized its website to advertise events to the school community. All television, radio, and newspaper media events covered the school district boundaries, ensuring all families and students equal opportunities to be informed of services being offered. Every high school held a minimum of eight FAFSA completion events and advertised these events in multiple ways (school marquee, flyers, automated phone messages, signage, in person at end of the year, student led conferences). In addition, parents and students were invited to attend

FAFSA completion events at a local community college and university as well as two congressional offices. These were made available in case families felt more comfortable accessing services outside the public school setting. The school district received no reports of deviation from advertised events or complaints from support provided.

Additionally, every high school counselor in the district was trained by the U.S. Department of Education Federal Student Aid office on the FAFSA form itself and a post-test was given after the training to test counselor skills and knowledge needed to adequately support families. All counselors passed the post-test, demonstrating proficient knowledge and understanding of information required to provide individual support to students and families.

School counselors were informed of FAFSA on the Web, a live, secure online service, where counselors, families and students could access customer service representatives in a chat session format to ask questions about the FAFSA form and/or process. This service was available Monday through Friday from 8:00 a.m. to 11:59 p.m. (Eastern Standard Time). A 24 hour phone support line, 1-800-4-FED-AID, was also available to the counselors, students, and families where recorded information and some business information was available 24/7 and live operator support was obtainable Monday – Friday from 8:00 a.m. – 11:59 p.m. (Eastern Standard Time).

Descriptive statistics.

Descriptive statistics are available in Table 3.1 where we report the basic statistics for eight key groups: African American, Asian, Native American, Hispanic,

Free/Reduced Lunch status, Age, GPA, and Special Education students. For each group, we report the means for the full sample and the differences (and their standard errors) for the control (2010) and the treatment (2011). While one might expect some small discrepancies between the two years, we should observe that there are no significant differences between the 2010 and 2011 graduates.

As shown in Table 3.1, there are no significant differences between groups for race and special education, however for Free and Reduced Meal Status (FARMS) a significant difference is noted. In 2011, the school district changed their free and reduced meals program policy. Students in specific schools with high overall levels of disadvantage were *all* given access to free and reduced meals. Unsurprisingly, many families did not submit paperwork to receive formal free and reduced meals status and as a consequence, many students who were eligible for free and reduced meals were not coded as such in the 2011 school year. To deal with this data issue, all models have been run with and without the free and reduced meals indicator to show that the results are robust to this error. Both age and GPA do have statistically significant differences; however the difference in age is .08 (less than a month) and the difference in GPA is .03 which is equivalent to one letter change in one course over the four years of high school.

Empirical Framework.

Using the FAFSA completion, National Student Clearinghouse and student level data, we adopt the framework for causal inference as formulated by Rubin (2005) and described below.

Dependent variables

We employ four dependent variables:

1. FAFSA Completed: whether or not a student entirely completed his or her FAFSA.
2. FAFSA Initiators: whether or not a student completed *or* partially completed a FAFSA.
3. Attended Any College: whether or not a student attended any college, whether 2- or 4-year.
4. Attended College: whether or not a student attended a 2-year college, a 4-year college, or no college at all.

Covariates include:

- Race/Ethnicity: Student's race identifier in school district student information records (possible values include White, Black, Asian, and Native American)
- Hispanic: Indicator variable for Hispanic (Race/ethnicity-status and Hispanic-status are not mutually exclusive in this data set).
- Free/Reduced Lunch: Indicator variable of whether or not one has received free or reduced lunch services.
- Age: Students age in years (centered around the mean).
- High GPA: Indicator variable for whether student has a high GPA (≥ 2.5

Ideally, to estimate a treatment effect we would measure each student's outcome under treatment and the counterfactual case, control. The difference between each of these values would be the treatment effect for each case. Averaging all these

differences would provide the average treatment effect. It is impossible, however, to measure a subject's outcome under both treatment and control – we can only observe one of these. To get around this problem, we must then construct comparable groups for treatment and control. Ideally, this is done using random assignment. However, when random assignment is not feasible, other methods must be employed.

In this study, we approximate the experimental ideal by providing treatment to all members of the 2011 graduating class and no members of the 2010 graduating class. Specifically, in 2011, an intervention designed to help students complete a FAFSA was implemented. Every 2011 graduate was offered the opportunity to receive support completing the FAFSA form. The supports put in place were not available to students in 2010, thus the 2011 graduates form the treatment group while 2010 graduates form the control group. Our treatment effect is the differences observed between these groups.

The size of causal effect is formalized in Equation 1, where T_x = effect size, *Outcome* = dependent variable outcome (e.g., FAFSA completed, college attended), T = treatment, and C = control. Therefore, $E(p(Outcome)|T)$ is the expected probability of success on an outcome, e.g., FAFSA completion, given being a member of the intervention group (treatment) and $E(p(Outcome)|C)$ is the expected outcome given being a member of the control group. To the extent that the students from the graduating classes of 2010 and 2011 have, on expectation, similar outcomes with and without treatment, the differences between the two groups can be given a causal interpretation.

Modeling strategy.

To estimate the treatment effect of the FAFSA intervention program on the dependent variables, regression models were built using a stepwise procedure, with models including the following variables:

Model 1. Treatment status

Model 2. Add race/ethnicity and Hispanic status

Model 3. Add free/reduced meals status

Model 4. Add age

Model 5. Drop free/reduced meals status (to test for robustness to free/reduced lunch coding changes from 2010 to 2011)

Model 6. Add High GPA and re-add free/reduced meals.

Model 7. Drop free-reduced meals (to test for robustness to free/reduced lunch coding changes from 2010 to 2011)

Model 1 provides an estimate of the treatment effect only. Each model thereafter adds covariate values, resulting in treatment effects adjusted for covariates. Models 6 and 7, one should note, are estimated on the basis of a smaller sample due to GPA data being missing for a subset of students due to data collection problems.

Because our five dependent variables are all categorical and can only take two values, success (e.g, FAFSA completed, college attended) or failure (FAFSA not completed, no college attended), it is helpful to conceive of the latent probability of each dependent variable. While this is not directly observed for each student, we can

estimate the expected probability for the entire *group* using Equation 2: Expected probability of an outcome taking on a binomial distribution.

$$E\big(p(Outcome)\big) = \frac{n_{Outcome=1}}{n}$$

Knowing nothing else, this value is the expected probability – our best guess – of a "successful" outcome for any student. That is, *E(p(Outcome))* is an estimate of the latent probability of having a "successful" outcome. We can obtain covariate-adjusted latent predicted probabilities by using regression models.

Three regression modeling strategies are used: linear probability, logistic, and multinomial logistic.

Linear probability models.

Linear probability models use the Ordinary Least Squares estimator to model an outcome that takes a binomial distribution (e.g., 1=success, 0=failure) as a function of one or more independent variables. The linear combination of the coefficients and a specific set of covariate settings sums to an estimated probability of success. Since we only observe 1 or 0, this probability is *latent*.

The benefit to the linear probability model is that the interpretation of all coefficients is straightforward: all else equal, a one-unit increase in an independent variable leads to a *coefficient-size* increase in the latent probability of achieving success or failure on the dependent variable. The major drawback to the linear probability model is that predicted probabilities can take on values less than 0 or greater than 1. That is to say, the linear probability model can predict an impossible probability. Nevertheless, when the linear probability model performs similarly to

other models that restrict the outcome to a certain range of plausible values (such as logistic regression models), it is a sensible modeling choice given its easy interpretation. We estimate and report linear probability models for dependent variables 1-3 (FAFSA completion, FAFSA initiated, any college attendance).

Binomial logistic regression models.

The binomial logistic regression model (often referred to simply as the logistic regression model) is a type of generalized linear model where the outcome takes a binomial distribution and the link function is the logit function (see Equations 3 and 4).

Equation 3. Logit function expressed as log odds.

$$logit = \log\left(\frac{p}{1-p}\right)$$

Equation 4. Logit function expressed as probability.

$$p(Outcome) = \frac{1}{1+e^{-t}}$$

The logit function is useful for modeling binomial categorical functions because the predicted probabilities are restricted to values between 0 and 1. Specifically, the log odds (Equation 3) is modeled as a linear combination of a set of covariate values multiplied by their coefficients. Using Equation 4, the linear combination (log odds) can be solved to obtain a predicted probability.

The trade-off in comparison to the linear probability model is that the interpretation is slightly more complicated. All else equal, a one-unit increase in an independent variable leads to a *coefficient-size* increase in the log odds of success or

failure. By exponentiating the coefficient (i.e., $e^{coefficient}$), we can ascertain the associated increase, all else equal, in the *odds* of success or failure on the outcome given a one-unit increase in an independent variable.

A more natural interpretation of a logistic regression model involves estimating the change in predicted probability of success or failure of the outcome with respect to change in one independent variable. This is called the "marginal effect" and can be attained by solving for the partial derivative of the estimated logistic function given a certain covariate setting (typically, the mean of each independent variable). The result is an interpretation that takes the form, a one unit increase in an independent variable for a case with the specified covariate settings results in a change in predicted probability of a certain size.

We estimate logistic regression models for dependent variables 1-3 (FAFSA completion, FAFSA initiators, any college attendance) and we calculate marginal effects at the mean setting of each independent variable to demonstrate that the linear probability model performs similarly to the logistic regression function.

Multinomial logistic regression models.

The multinomial logistic regression model is equivalent to the binomial logistic regression model in form, except we estimate logistic functions for multiple *pairs* of outcomes (e.g., 4-year college attendance vs. no college attendance, 4-year college attendance vs. 2-year college attendance, and so forth). This modeling strategy is useful when the dependent variable is categorical but can take on more than two possible values (i.e., when the outcome takes a *multinomial* distribution). The logit for

pairwise estimates is provided in Equation 5, where m = the category of interest and M = the "base- category."

Equation 5. Multinomial logit function expressed as log odds.

$$logit = \log\left(\frac{p_m}{p_M}\right)$$

All interpretations for the multinomial logistic model are equivalent to those of the logistic model, except that the resulting odds, log odds, or probabilities are calculated in reference to category *pairs*.

We estimate a multinomial regression model for college attendance, where the dependent variable in our data can take three values: 4-year college attendance, 2-year college attendance, and no college attendance.

Program Effects

For dependent variables 1-3, we interpret the linear probability models, since their interpretation is simplest and most "natural." However, we make comparisons to the equivalent logistic regression model to show that the results are robust to modeling choice. For dependent variable 4, we estimate a multinomial logistic regression model.

Models 3, 4, and 6 include free and reduced meal status. These results should be interpreted with caution because of the change in free-reduced meals coding status from year 2010 to 2011. They do, however, provide evidence that free and reduced meals matter a great deal, despite data problems which would in all likelihood *reduce* the coefficient size for free/reduced meals in these models.

Because of these data problems, Models 4 and 6 are not directly interpreted.

FAFSA completion.

For the FAFSA completion dependent variable, we estimate the following models:

Equation 6. Linear probability model for FAFSA completion.

$$p(fafsa_{complete}) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i + \epsilon_i$$

Equation 7. Logistic regression model for FAFSA completion.

$$\log\left(\frac{p(fafsa_{complete})}{1 - p(fafsa_{complete})}\right) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i$$

Model results for Equation 6 are available in Table 3.2. Model results for Equation 7 are available in Table 3.3. Marginal changes in probabilities for Equation 7 for a one-unit increase in one independent variable, setting all other independent variables at their means, are presented in Table 3.4. Exponentiated coefficients representing the change in odds for a one-unit increase in the independent variable, holding all else equal, are presented in Table 3.5.

A comparison of Table 3.2 to 3.4 shows that the linear probability model and the logistic regression model perform similarly and we are justified in interpreting the linear probability model. The magnitude of treatment effect and intercept is robust to addition of covariates, suggesting that the 2010 and 2011 groups are, on expectation, similar. This provides evidence that our assumption of baseline equivalence between groups is met.

Model 1 provides us with the estimated probability of completing a FAFSA in full for 2010 high school graduates, the control group: .40. We estimate a treatment effect of .103 for members of the treatment group: intervention recipients, on expectation, have a .10 higher probability of completing a FAFSA than non-intervention recipients.

In Model 2, we find that race/ethnicity has no effect on the model with the exception of Hispanic students. Hispanic students, all else equal, have a predicted probability of FAFSA completion of .06 less than non-Hispanic students. The addition of free and reduced meal status to the model (Model 3) leaves the other coefficients more or less unchanged. Students coded as recipients of free and reduced meals have, on expectation, a .045 lower probability of completing a FAFSA.

In Model 5, we add age to the model. For each year above the average graduation age, one's expected probability of completing a FAFSA drops by .09. Substantively, this suggests that students, who are significantly older than the average graduation age, suggesting potential academic difficulties while in school, are less likely to complete a FAFSA. This is an unsurprising result.

Finally, in Model 7, we add an indicator variable for high GPA, which captures academic performance and engagement. More than any other variable, GPA predicts FAFSA completion. Students with a GPA 2.5 and higher have a .15 higher probability of completing a FAFSA than students with GPAs less than 2.5. With the addition of GPA, the coefficient for Hispanic drops from significance, suggesting that Hispanic

students are more likely to have low GPAs, and this may explain outcome differences that appear to be attributed to GPA in Models 1-5.

FAFSA initiations.

For the FAFSA Initiation dependent variable, we estimate the following models:

Equation 8. Linear probability model for FAFSA initiations.

$$p(fafsa_{initiate}) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i + \epsilon_i$$

Equation 9. Logistic regression model for FAFSA initiations.

$$\log\left(\frac{p(fafsa_{initiate})}{1 - p(fafsa_{initiate})}\right) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i$$

Model results for Equation 8 are available in Table 3.6. Model results for Equation 9 are available in Table 3.7. Marginal changes in probabilities for Equation 9 for a one-unit increase in one independent variable, setting all other independent variables at their means, are presented in Table 3.8. Exponentiated coefficients representing the change in odds for a one-unit increase in the independent variable, holding all else equal, are presented in Table 3.9.

A comparison of Table 3.6 to 3.8 shows that the linear probability model and the logistic regression model perform similarly and we are justified in interpreting the linear probability model. The magnitude of treatment effect and intercept is robust to addition of covariates, suggesting that the 2010 and 2011 groups are, on expectation,

similar. This provides evidence that our assumption of baseline equivalence between groups is met.

Model 1 provides us with the estimated probability of initiating a FAFSA for 2010 high school graduates, the control group: .567. We estimate a treatment effect of .067 for members of the treatment group: intervention recipients, on expectation, have a .067 higher probability of initiating a FAFSA than non-intervention recipients.

In Model 2, we find that race/ethnicity has no effect on the model with the exception of Hispanic students. Hispanic students, all else equal, have a predicted probability of FAFSA initiation of .034 less than non-Hispanic students. The addition of free and reduced meal status to the model (Model 3) leaves the other coefficients more or less unchanged. Students coded as recipients of free and reduced meals have, on expectation, a .038 lower probability of initiating a FAFSA.

In Model 5, we add age to the model. For each year above the average graduation age, one's expected probability of initiating a FAFSA drops by .115. Substantively, this suggests that students, who are significantly older than the average graduation age, suggesting some academic difficulties, are less likely to begin the FAFSA. This is an unsurprising result.

Finally, in Model 7, we add an indicator variable for high GPA, which captures academic performance and engagement. More than any other variable, GPA predicts FAFSA initiation. Students with a GPA 2.5 and higher have a .16 higher probability initiating a FAFSA than students with GPAs less than 2.5. With the addition of GPA, the coefficient for Hispanic drops from significance, suggesting that Hispanic students

are more likely to have low GPAs, and this may explain outcome differences that appear to be attributed to GPA in Models 1-5.

Any college attendance.

For the FAFSA completion dependent variable, we estimate the following models:

Equation 10. Linear probability model for Any College Attendance.

$$p(attend\ college) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i + \epsilon_i$$

Equation 11. Logistic regression model for Any College Attendance.

$$\log\left(\frac{p(attend\ college)}{1 - p(attend\ college)}\right) = \beta_0 + \beta_1 treat_i + \beta_2 black_i + \beta_3 asian_i + \beta_4 nativeamerican_i + \beta_5 hispanic_i + \beta_6 freereduced_i + \beta_7 age_i + \beta_8 highgpa_i$$

Model results for Equation 10 are available in Table 3.10. Model results for Equation 11 are available in Table 3.11. Marginal changes in probabilities for Equation 11 for a one-unit increase in one independent variable, setting all other independent variables at their means, are presented in Table 3.12. Exponentiated coefficients representing the change in odds for a one-unit increase in the independent variable, holding all else equal, are presented in Table 3.13.

A comparison of Table 3.10 to 3.12 shows that the linear probability model and the logistic regression model perform similarly and we are justified in interpreting the linear probability model. The magnitude of treatment effect and intercept is fairly robust to addition of covariates, suggesting that the 2010 and 2011 groups are, on

expectation, similar. This provides evidence that our assumption of baseline equivalence between groups is met. There is, however, slightly more variation between models than in the FAFSA models. This is unsurprising, given that the treatment was directed directly at FAFSA completion, not college attendance.

Model 1 provides us with the estimated probability of attending any college for 2010 graduates, the control group: .576. We estimate a treatment effect of .117 for members of the treatment group: intervention recipients, on expectation, have a .117 higher probability of attending any college than non-intervention recipients.

Different than the FAFSA models, in Model 2 we find that race/ethnicity is significantly negatively associated with college attendance. African Americans, holding all else equal, have a .12 less probability than whites of attending any college. Native Americans have a .167 lower probability. Hispanic students, all else equal, have a predicted probability of college attendance of .124 less than non-Hispanic students. The addition of free and reduced meal status to the model (Model 3) slightly reduces the other coefficients (by about .03). Students coded as recipients of free and reduced meals have, on expectation, a .163 lower probability of attending college.

In Model 5, we add age to the model. For each year above the average graduation age, one's expected probability of attending college drops by .146. Substantively, this suggests that students who are significantly older than the average graduation age, suggesting some academic difficulties, are less likely to attend college. This is an unsurprising result.

Finally, in Model 7, we add an indicator variable for high GPA, which captures academic performance and engagement. More than any other variable, GPA predicts college attendance. Students with a GPA 2.5 and higher have a probability of over .26 higher than low-GPA students of attending. With the addition of GPA, the coefficient for age drops slightly, suggesting there is some overlap between academic performance age. Race/ethnicity coefficients also attenuate slightly.

College attendance by level.

Equation 12. Multinomial logistic regression model for College Attendance.

$$\log\left(\frac{p_m}{p_M}\right) = \beta_{0m} + \beta_{1m}treat_i + \beta_{2m}black_i + \beta_{3m}asian_i + \beta_{4m}nativeamerican_i + \beta_{5m}hispanic_i + \beta_{6m}freereduced_i + \beta_{7m}age_i + \beta_{8m}highgpa_i$$

Where m = category of interest (e.g., 2-year attendance). M = base category (no college).

Model results for Equation 12 are available in Table 3.14 and 3.15. Marginal changes in probabilities for Equation 12 for a one-unit increase in one independent variable, setting all other independent variables at their means, are presented in Table 3.16. Exponentiated coefficients representing the change in odds for a one-unit increase in the independent variable, holding all else equal, are presented in Table 3.17 and 3.18.

Both the 4-year vs. no college and 2-year vs. no college pairwise comparisons show statistically significant treatments effects. In both the treatment-only and full model, being in the treatment group is associated with an about .07 increase in probability of attending a 2-year college vs. no college at all. Being in the treatment

group is associated with a .05 increase in probability of attending a 4-year college vs. no college at all; in the full model, this probability increase is .067.

The full model comparing the odds of attending a 2-year college vs. no college at all indicate that age, free-lunch status, and high GPA significantly correlate with college attendance. There are no statistically significant racial differences. For each year over the average age in the sample, one's odds of attending a 2-year college vs. no college at all *decrease* by a factor of .63 (equivalent to a -.025 drop in probability for each year). Free and reduced meal status, on the other hand, is associated with a slightly *higher* probability -- all else equal – of attending a 2-year college. Furthermore, having a high GPA, all else equal, is associated with a .16 drop in the probability of attending a 2-year college vs. nothing at all. These results provide support to prior studies indicating that students from disadvantaged backgrounds tend to be more likely to attend 2-year vs. 4-year programs and less academically-inclined students may be more predisposed to attend 2-year colleges where they are guaranteed admission regardless of high school academic performance.

When comparing 4-year college to no college attendance, race becomes a factor. African Americans, Native Americans, and Hispanic students are all less likely to attend college, with respective associated drops in probability in the full model, all else equal, of .096, .16, and .14. Poverty also has a negative association: in the full model including free and reduced meals status, those students – all else equal – have a predicted probability of 4-year college attendance vs. no attendance at all of .17 lower than non-free reduced meals students. For each year over the average age in the

sample, one's odds of attending a 4-year college vs. no college at all decreases by a factor of .47 (equivalent to a -.12 drop in probability for each year). Finally, academic performance matters a great deal. In the full model, all else equal, students with a high GPA have a .44 higher probability of attending a 4-year college vs. no college at all compared to low-GPA students. Enrollment at 4-year colleges vs. no college at all is driven primarily by academic factors and secondarily by economic and race/ethnicity factors.

Closing the enrollment gap.

The college opportunity gap, as presented in Table 3.19, was narrowed significantly for every group measured. African American students had the largest increase (.204) in college enrollment from 2010-2011, with Asian (.163), Native American (.157), and Hispanic (.122) students following closely behind. Due to the lack of accurate data on free and reduced lunch status students, we were unable to determine the impact on enrollment based on socioeconomic status. Special education, high GPA (2.5 and over) and low GPA (under 2.5) status students also showed increased college enrollment in 2011. It appears that lower performing students were steered to community college enrollment as there was a decrease in the 4 year enrollment and a large increase in the 2 year enrollment for students whose GPA was under 2.5. This would make sense given access to a school counselor who could properly advise students on their best options for success and the fact that students with a GPA under 2.5 would be less likely to qualify for entrance into 4 year programs.

Discussion

In this study, student level, FAFSA completion and college enrollment data from 8655 high school graduates was analyzed to determine if FAFSA completion and college enrollment improved after a district wide, school counselor driven outreach campaign was implemented to support students and families navigating the financial aid process. The results suggest a strong positive correlation between school counselor contact and FAFSA completion and college enrollment. The robust treatment effects represent roughly a twenty-five percent increase in the total number of submitted FAFSA's and a twenty-one percent increase in college attendance from 2010-2011 allowing us to reject the hypothesis that school counselor outreach would have no impact on FAFSA completion or college enrollment. The results also indicate that academic achievement, socioeconomic status, and race/ethnicity factors are the primary drivers of college attendance at four-year programs. Students with lower overall high school academic performance tend to enroll more often at two-year colleges vs. their counterparts. Low socioeconomic status is negatively correlated with attendance at 4-year programs and race still plays a role in college enrollment with African American, Native American, and Hispanic students being significantly less likely to attend 4-year programs. While these gaps are still present, the opportunity gap was significantly decreased for every group measured. Despite the contributions this study makes concerning the impact of counselor outreach on FAFSA completion, college enrollment and college going in general, the study is not without limitations.

Limitations.

A primary threat to internal validity of this study comes from selection threat or the possibility the 2010 and 2011 graduating classes differ, either systematically or randomly. While possible, large differences between the groups appear to be implausible. Baseline measures across groups, including race/ethnicity, special education status, and graduation rate are comparable. Furthermore, besides the FAFSA intervention, no other major policy changes were implemented between 2010 and 2011. Thus, systematic differences between the groups seem unlikely. Random differences are, of course, plausible – even likely. However, the size of effects found seems unlikely to be the sole result of random error given the otherwise similar characteristics of the graduating cohorts. Furthermore, the magnitude of the treatment effect on FAFSA completion and college enrollment remains relatively constant even after adding covariates, suggesting balance across the groups

The history threat was present given it was possible an event outside of the treatment occurred during the course of the participants' treatment that resulted in the achieved results. The effects of history can be minimized by the use of a control group, selected from the same population as the experimental group(s). The local community college and university that serve as the feeder schools for approximately ninety percent of students who matriculate to college from this school district have reported decreases in college enrollment from fall 2010- 2011decreasing the likelihood of a large unknown history threat. As well, recently released results from a collaborative analysis of the American Association of Community Colleges and the

National Student Clearinghouse (Mullin & Phillippe, 2011) showed after a number of years of enrollment growth at the nation's community colleges, a national enrollment decrease of almost 1% from fall 2010 to 2011 occurred again suggesting the unlikely scenario of an unknown event outside of the treatment impacting such a significant increase in college enrollment for this school district.

Another limitation to this study was the use of multiple school counselors in the delivery of outreach activities. To address this potential limitation, each school counselor received training from the U.S. Department of Education's Federal Student Aid office on FAFSA Completion. Pre- and post-tests were administered to assess baseline and post training understanding of FAFSA completion. All counselors passed the post-test exam and showed significant increases in learning after the training.

Implications for practitioners.

The implications of this study for practitioners are extensive. Efforts to provide assistance to students and their parents as they navigate the financial aid process can result in large increases in college going and financial aid receipt. School counselors, as sources of extra social capital, must work collaboratively to put in place systems designed to address key tasks necessary to increase college going.

As advocates for all children, school counselors need to have vision to creatively address equitable educational access for college readiness for every child. Coordinating with parent, business, and community partners to deliver a seamless stream of resources supporting students through the college going process will require consultation skills, patience and perseverance as best practices are discovered,

leveraging every possible source of social capital. Opportunities to educate school counselors, parents, and the community on issues of college readiness will be essential to advance college readiness for all students.

School counselors must also be connected to educational reform initiatives and professional organizations like the American Counseling Association (ACA), the American School Counselor Association (ASCA), the National Association for College Admission Counseling (NACAC), the National Center for Transforming School Counseling (NCTSC) at the Education Trust and the National Office for School Counselor Advocacy (NOSCA) must work together to provide professional development for practicing school counselors who have little if any training in college and career readiness.

Finally, successful interventions in one community many not be the most effective in another community, so patience and perseverance will be required as best practices leveraging every possible source of social capital are discovered and evaluated for impact.

Implications for researchers.

The implications of this study for researchers are also extensive. While statistically robust results were found on FAFSA completion and college enrollment, the results show that academic achievement, socioeconomic status, and race/ethnicity factors are the primary drivers of college attendance in 4-year programs. Race drops out in significance for 2-year programs suggesting the need for continued research on these variables.

Although the opportunity gap was narrowed for all groups, more research is needed to understand what supports and interventions have the greatest chance of closing the opportunity gap and will the opportunity gap continue to close as efforts focus on this in future years.

Timing is also an important consideration and future research is needed to understand the K-12 practices necessary to increase college going. This study focused on interventions that occurred during the senior year and the summer after high school graduation, but college readiness practices must begin in kindergarten and research is needed to evaluate and better understand the most promising practices.

The project was not designed to distinguish between the relative effectiveness of different outreach activities, but we hope that future research can look at the impact of specific interventions to determine what aspects of outreach have the highest impact on college going decision making.

Similar to findings in the H&R Block Study, it remains to be seen if the enrollment effects translate into real long-term benefits (Bettinger, et al, 2009, p. 27). One concern is that the support may have encouraged students to enroll in college, but questions remain regarding persistence through college graduation. Issues of college persistence were not addressed in this study, but the research team has asked for six years of NSC data to track persistence information for the class of 2010 and 2011, with the hope to gain understanding of the long term benefits and present this information at a future date.

Navigating large urban school district policies around research and program implementation can be somewhat daunting so planning ahead and developing a system for addressing concerns is important.

Finally, challenges exist when it comes to matching Hispanic names with both the DOE and NSC database. With the growing number of Hispanic students in the US, this issue is one that ought to be given high priority.

Table 3.1 Descriptive Statistics and Differences by Treatment Group

	Full Sample		Control (2010)		Treatment (2011)		Mean Difference	t^	p(diff. $\neq$ 0)
	N	Mean	N	Mean	N	Mean			
Dependent variables									
FAFSA Complete	8655	.453	4365	.402	4290	.505	-.103	-9.703	.000
		(.005)		(.505)		(.008)	(.011)		
FAFSA Initiators	8655	.601	4365	.567	4290	.635	-.067	-6.426	.000
		(.005)		(.007)		(.007)	(.010)		
Attended college	8655	.634	4365	.576	4290	.693	-.117	-11.388	.000
		(.005)		(.007)		(.007)	(.010)		
Attended 2-year college	8655	.260	4365	.226	4290	.293	-.067	-7.147	.000
		(.005)		(.006)		(.007)	(.009)		
Attended 4-year college	8655	.375	4365	.350	4290	.400	-.050	-4.803	.000
		(.005)		(.007)		(.007)	(.010)		
Independent variables									
African American	8655	.042	4365	.041	4290	.042	-.001	-.3295	.742
		(.002)		(.003)		(.003)	(.004)		
Asian	8655	.030	4365	.030	4290	.030	.000	.046	.963
		(.002)		(.003)		(.003)	(.004)		
Native American	8655	.046	4365	.044	4290	.048	-.004	-.844	.399
		(.002)		(.003)		(.003)	(.004)		
Hispanic	8655	.562	4365	.555	4290	.569	-.014	-1.347	.178
		(.005)		(.008)		(.008)	(.011)		
Free/Reduced Meals*	8655	.241	4365	.311	4290	.170	.141	15.516	.000
		(.005)		(.007)		(.006)	(.009)		
Age	8655	18.77	4365	18.81	4290	18.72	.083	5.611	.000
		(.007)		(.012)		(.009)	(.015)		
High GPA ($\geq$ 2.5)	7113	.718	3871	.733	3242	.700	.034	3.174	.001
		(.005)		(.007)		(.008)	(.010)		
Receives Special Education Services	8655	.126	4365	.129	4290	.123	.006	.892	.372
		(.004)		(.005)		(.005)	(.007)		

*** In 2011, the school district changed their Free and Reduced lunch classification policy. Students in specific schools with high overall levels of disadvantage were *all* given access to free and reduced meals. Unsurprisingly, many students did not submit paperwork to receive formal free and reduced meals status. As a consequence, many students who are eligible for free and reduced meals were not coded as such in the 2011 school year. This explains the major difference in proportions of free-and-reduced meals between years. ^ Equal variances assumed**

Table 3.2 Linear probability model: Estimated coefficients of FAFSA Complete as a function of treatment status and covariates

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b/se	b/se	b/se	b/se	b/se	b/se	b/se
Treatment	0.103***	0.104***	0.098***	0.091***	0.097***	0.097***	0.102***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
African American		-0.037	-0.029	-0.025	-0.033	0.012	0.006
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Asian		0.037	0.041	0.042	0.038	0.041	0.037
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Native American		-0.003	0.008	0.028	0.018	0.047	0.039
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Hispanic		-0.059***	-0.050***	-0.046***	-0.055***	-0.009	-0.016
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Free/Reduced Meals			-0.045***	-0.041**		-0.036*	
			(0.01)	(0.01)		(0.01)	
Age				-0.090***	-0.090***	-0.071***	-0.072***
				(0.01)	(0.01)	(0.01)	(0.01)
High GPA (≥ 2.5)						0.156***	0.159***
						(0.01)	(0.01)
Constant	0.402***	0.435***	0.443***	0.442***	0.435***	0.305***	0.296***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
R^2	0.011	0.015	0.016	0.031	0.030	0.044	0.043
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.3 Logistic Regression model. Estimated log odds coefficients of FAFSA Complete as a function of treatment status and covariates.

	Model 1 b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
Treatment	0.418***	0.424***	0.398***	0.377***	0.401***	0.406***	0.428***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
African American		-0.153	-0.119	-0.105	-0.135	0.051	0.025
		(0.11)	(0.11)	(0.11)	(0.11)	(0.13)	(0.12)
Asian		0.150	0.166	0.168	0.153	0.170	0.153
		(0.13)	(0.13)	(0.13)	(0.13)	(0.14)	(0.14)
Native American		-0.013	0.033	0.124	0.084	0.204	0.170
		(0.11)	(0.11)	(0.11)	(0.11)	(0.12)	(0.12)
Hispanic		-0.242***	-0.202***	-0.189***	-0.225***	-0.037	-0.069
		(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Free/Reduced Meals			-0.185***	-0.167**		-0.152*	
			(0.05)	(0.05)		(0.06)	
Age				-0.444***	-0.448***	-0.350***	-0.355***
				(0.04)	(0.04)	(0.05)	(0.05)
High GPA (≥ 2.5)						0.659***	0.671***
						(0.06)	(0.06)
Constant	-0.399***	-0.263***	-0.233***	-0.249***	-0.277***	-0.829***	-0.863***
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.07)	(0.07)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.4 Marginal change in probability for coefficients in logistic regression models in Table 3.3.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Treatment	.1032914	.1046184	.0982351	.0930889	.098914	.100477	.1058064
African American		-.0374728	-.0293739	-.025909	-.0330592	.0126609	.0061745
Asian		.0372265	.0414473	.0418266	.0379562	.042238	.0381215
Native American		-.0031707	.0081558	.0307389	.0207522	.05094	.0422563
Hispanic		-.0600694	-.0501262	-.0467032	-.0557242	-.009125	-.0171533
Free/Reduced Meals			-.0455118	-.0410775		-.0373458	
Age				-.1098391	-.1108987	-.0866855	-.0879732
High GPA						.1588984	.1616322

Table 3.5 Logistic Regression model. Estimated change in odds ratios of FAFSA Complete as a function of treatment status and covariates.

	Model 1 b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
Treatment	1.519***	1.528***	1.489***	1.458***	1.493***	1.501***	1.534***
	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.07)	(0.08)
African American		0.859	0.888	0.900	0.874	1.052	1.025
		(0.10)	(0.10)	(0.10)	(0.10)	(0.13)	(0.13)
Asian		1.161	1.181	1.183	1.165	1.185	1.165
		(0.15)	(0.15)	(0.16)	(0.15)	(0.17)	(0.16)
Native American		0.987	1.033	1.132	1.087	1.227	1.185
		(0.10)	(0.11)	(0.12)	(0.12)	(0.15)	(0.14)
Hispanic		0.785***	0.817***	0.828***	0.798***	0.964	0.933
		(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Free/Reduced Meals			0.831***	0.846**		0.859*	
			(0.04)	(0.05)		(0.05)	
Age				0.642***	0.639***	0.705***	0.701***
				(0.02)	(0.02)	(0.03)	(0.03)
High GPA (≥ 2.5)						1.934***	1.957***
						(0.11)	(0.11)
Constant	0.671***	0.768***	0.792***	0.779***	0.758***	0.436***	0.422***
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.6 Linear probability model: Estimated coefficients of FAFSA Initiators as a function of treatment status and covariates

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
	b/se	b/se	b/se	b/se	b/se	b/se	b/se
Treatment	0.067***	0.068***	0.063***	0.053***	0.058***	0.056***	0.059***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
African American		0.010	0.017	0.022	0.016	0.067*	0.063*
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Asian		0.069*	0.073*	0.074*	0.071*	0.072*	0.069*
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Native American		-0.009	0.001	0.026	0.018	0.042	0.037
		(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Hispanic		-0.034**	-0.026*	-0.021	-0.028*	0.016	0.011
		(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Free/Reduced Meals			-0.038**	-0.034**		-0.023	
			(0.01)	(0.01)		(0.01)	
Age				-0.114***	-0.115***	-0.087***	-0.088***
				(0.01)	(0.01)	(0.01)	(0.01)
High GPA (≥ 2.5)						0.166***	0.168***
						(0.01)	(0.01)
Constant	0.567***	0.584***	0.591***	0.590***	0.584***	0.446***	0.441***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
R^2	0.005	0.007	0.008	0.034	0.033	0.045	0.044
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.7 Logistic Regression model. Estimated log odds coefficients of FAFSA Initiators as a function of treatment status and covariates.

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se
Treatment	0.282***	0.285***	0.262***	0.231***	0.250***	0.244***	0.258***
	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)	(0.05)	(0.05)
African American		0.044	0.073	0.100	0.075	0.296*	0.278*
		(0.11)	(0.11)	(0.12)	(0.12)	(0.13)	(0.13)
Asian		0.308*	0.323*	0.337*	0.324*	0.328*	0.317*
		(0.14)	(0.14)	(0.14)	(0.14)	(0.15)	(0.15)
Native American		-0.037	0.002	0.121	0.087	0.188	0.165
		(0.11)	(0.11)	(0.11)	(0.11)	(0.12)	(0.12)
Hispanic		-0.143**	-0.108*	-0.089	-0.120*	0.067	0.046
		(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)
Free/Reduced Meals			-0.155**	-0.135*		-0.096	
			(0.05)	(0.05)		(0.06)	
Age				-0.527***	-0.531***	-0.403***	-0.407***
				(0.04)	(0.04)	(0.05)	(0.05)
High GPA (≥ 2.5)						0.689***	0.696***
						(0.06)	(0.06)
Constant	0.272***	0.342***	0.368***	0.363***	0.340***	-0.232***	-0.254***
	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.07)	(0.07)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.8 Marginal change in probability for coefficients in logistic regression models in Table 3.7.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Treatment	.0674966	.0681471	.0627701	.0552339	.0599166	.0579099	.0612811
African American		.010578	.0172542	.0236022	.0179238	.0681659	.0642951
Asian		.0711543	.0744266	.0776337	.0747874	.0752557	.0728698
Native American		-.0088522	.0004674	.0285787	.0207745	.0439214	.0387657
Hispanic		-.0341961	-.0258964	-.0213899	-.0286291	.0160853	.0109871
Free/Reduced Meals			-.0374898	-.0325494		-.0230747	
Age				-.1262594	-.1271202	-.0962413	-.0970923
High GPA						.1671367	.1690395

Table 3.9 Logistic Regression model. Estimated change in odds ratios of FAFSA Initiators as a function of treatment status and covariates.

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se
Treatment	1.326***	1.330***	1.300***	1.260***	1.285***	1.276***	1.294***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
African American		1.045	1.075	1.105	1.078	1.344*	1.321*
		(0.12)	(0.12)	(0.13)	(0.12)	(0.18)	(0.17)
Asian		1.360*	1.381*	1.401*	1.383*	1.389*	1.374*
		(0.19)	(0.19)	(0.20)	(0.20)	(0.21)	(0.21)
Native American		0.964	1.002	1.128	1.091	1.207	1.180
		(0.10)	(0.11)	(0.13)	(0.12)	(0.15)	(0.14)
Hispanic		0.867**	0.897*	0.914	0.887*	1.070	1.047
		(0.04)	(0.04)	(0.05)	(0.04)	(0.06)	(0.06)
Free/Reduced Meals			0.856**	0.874*		0.908	
			(0.05)	(0.05)		(0.06)	
Age				0.590***	0.588***	0.668***	0.666***
				(0.02)	(0.02)	(0.03)	(0.03)
High GPA (≥ 2.5)						1.991***	2.006***
						(0.11)	(0.11)
Constant	1.312***	1.408***	1.445***	1.437***	1.405***	0.793***	0.776***
	(0.04)	(0.06)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.10 Linear probability model: Estimated coefficients of Any College Attendance as a function of treatment status and covariates

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se
Treatment	0.117*** (0.01)	0.120*** (0.01)	0.096*** (0.01)	0.084*** (0.01)	0.107*** (0.01)	0.094*** (0.01)	0.115*** (0.01)
African American		-0.120*** (0.03)	-0.091*** (0.03)	-0.084** (0.03)	-0.113*** (0.03)	-0.065* (0.03)	-0.091** (0.03)
Asian		0.021 (0.03)	0.036 (0.03)	0.037 (0.03)	0.023 (0.03)	0.017 (0.03)	0.001 (0.03)
Native American		-0.167*** (0.03)	-0.127*** (0.03)	-0.095*** (0.03)	-0.133*** (0.03)	-0.072** (0.03)	-0.107*** (0.03)
Hispanic		-0.124*** (0.01)	-0.088*** (0.01)	-0.082*** (0.01)	-0.117*** (0.01)	-0.043*** (0.01)	-0.075*** (0.01)
Free/Reduced Meals			-0.163*** (0.01)	-0.158*** (0.01)		-0.147*** (0.01)	
Age				-0.146*** (0.01)	-0.148*** (0.01)	-0.106*** (0.01)	-0.110*** (0.01)
High GPA (≥ 2.5)						0.247*** (0.01)	0.260*** (0.01)
Constant	0.576*** (0.01)	0.657*** (0.01)	0.684*** (0.01)	0.683*** (0.01)	0.657*** (0.01)	0.485*** (0.02)	0.451*** (0.01)
R^2	0.015	0.033	0.052	0.096	0.078	0.134	0.119
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.11 Logistic Regression model. Estimated log odds coefficients of Any College Attendance as a function of treatment status and covariates.

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se
Treatment	0.508***	0.529***	0.433***	0.401***	0.498***	0.475***	0.571***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.05)
African American		-0.534***	-0.413***	-0.399***	-0.516***	-0.325*	-0.442***
		(0.11)	(0.11)	(0.12)	(0.12)	(0.13)	(0.13)
Asian		0.110	0.182	0.203	0.130	0.101	0.018
		(0.15)	(0.15)	(0.15)	(0.15)	(0.16)	(0.16)
Native American		-0.733***	-0.568***	-0.443***	-0.602***	-0.362**	-0.512***
		(0.11)	(0.11)	(0.11)	(0.11)	(0.13)	(0.13)
Hispanic		-0.558***	-0.405***	-0.391***	-0.544***	-0.224***	-0.377***
		(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)
Free/Reduced Meals			-0.681***	-0.676***		-0.667***	
			(0.05)	(0.06)		(0.06)	
Age				-0.749***	-0.762***	-0.558***	-0.577***
				(0.04)	(0.04)	(0.05)	(0.05)
High GPA (≥ 2.5)						1.105***	1.140***
						(0.06)	(0.06)
Constant	0.307***	0.674***	0.792***	0.797***	0.679***	-0.064	-0.203**
	(0.03)	(0.05)	(0.05)	(0.05)	(0.05)	(0.07)	(0.07)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.12 Marginal change in probability for coefficients in logistic regression models in Table 3.11.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Treatment	.117066	.1214946	.0994342	.0918961	.1141434	.1056972	.1269003
African American		-.129377	-.0992323	-.0956946	-.124628	-.0760287	-.1046054
Asian		.02504	.0407955	.045227	.0294346	.0224366	.0040896
Native American		-.1786936	-.1375579	-.1063611	-.1460701	-.0849666	-.1218823
Hispanic		-.1267538	-.0924642	-.089101	-.1234852	-.0501697	-.0841738
Free/Reduced Meals			-.1622861	-.1609237		-.1559315	
Age				-.1722425	-.1755512	-.1255178	-.1298445
High GPA						.2587479	.2671806

Table 3.13 Logistic Regression model. Estimated change in odds ratios of Any College Attendance as a function of treatment status and covariates.

	Model 1 b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se	Model 6 b/se	Model 7 b/se
Treatment	1.662***	1.698***	1.542***	1.493***	1.645***	1.608***	1.770***
	(0.07)	(0.08)	(0.07)	(0.07)	(0.08)	(0.09)	(0.10)
African American		0.586***	0.661***	0.671***	0.597***	0.723*	0.643***
		(0.07)	(0.08)	(0.08)	(0.07)	(0.10)	(0.08)
Asian		1.117	1.199	1.225	1.139	1.107	1.018
		(0.16)	(0.18)	(0.19)	(0.17)	(0.18)	(0.17)
Native American		0.481***	0.567***	0.642***	0.548***	0.696**	0.599***
		(0.05)	(0.06)	(0.07)	(0.06)	(0.09)	(0.08)
Hispanic		0.573***	0.667***	0.676***	0.581***	0.799***	0.686***
		(0.03)	(0.03)	(0.04)	(0.03)	(0.05)	(0.04)
Free/Reduced Meals			0.506***	0.509***		0.513***	
			(0.03)	(0.03)		(0.03)	
Age				0.473***	0.467***	0.572***	0.562***
				(0.02)	(0.02)	(0.03)	(0.03)
High GPA (≥ 2.5)						3.019***	3.126***
						(0.18)	(0.18)
Constant	1.359***	1.963***	2.208***	2.218***	1.972***	0.938	0.817**
	(0.04)	(0.09)	(0.10)	(0.11)	(0.09)	(0.07)	(0.06)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.14 Multinomial Logistic Regression model. Estimated log odds coefficients of 2-Year College Attendance as a function of treatment status and covariates. Base: no college attendance.

	Model 1 b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
2-year vs. No college							
Treatment	0.584***	0.586***	0.541***	0.510***	0.554***	0.524***	0.580***
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
African American		-0.162	-0.109	-0.100	-0.150	-0.177	-0.244
		(0.14)	(0.14)	(0.14)	(0.14)	(0.16)	(0.16)
Asian		-0.097	-0.055	-0.024	-0.067	-0.108	-0.162
		(0.20)	(0.20)	(0.20)	(0.20)	(0.21)	(0.21)
Native American		-0.079	-0.009	0.087	0.018	-0.035	-0.114
		(0.12)	(0.13)	(0.13)	(0.13)	(0.14)	(0.14)
Hispanic		-0.069	0.000	0.006	-0.065	0.037	-0.052
		(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)
Free/Reduced Meals			-0.277***	-0.280***		-0.347***	
			(0.06)	(0.06)		(0.07)	
Age				-0.552***	-0.558***	-0.444***	-0.456***
				(0.05)	(0.05)	(0.06)	(0.06)
High GPA ($\geq$ 2.5)						0.145*	0.153*
						(0.06)	(0.06)
Constant	-0.630***	-0.574***	-0.518***	-0.487***	-0.542***	-0.537***	-0.610***
	(0.04)	(0.06)	(0.06)	(0.06)	(0.06)	(0.08)	(0.08)

Table 3.15 Multinomial Logistic Regression model. Estimated log odds coefficients of 4-Year College Attendance as a function of treatment status and covariates. Base: no college attendance.

4-year vs. No college	**Model 1** b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
Treatment	0.456***	0.489***	0.353***	0.317***	0.458***	0.429***	0.560***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.06)	(0.06)
African American		-0.786***	-0.603***	-0.595***	-0.774***	-0.406*	-0.582***
		(0.13)	(0.13)	(0.14)	(0.14)	(0.16)	(0.16)
Asian		0.181	0.298	0.320*	0.201	0.231	0.101
		(0.15)	(0.16)	(0.16)	(0.16)	(0.18)	(0.18)
Native American		-1.292***	-1.065***	-0.948***	-1.164***	-0.703***	-0.936***
		(0.14)	(0.14)	(0.14)	(0.14)	(0.17)	(0.16)
Hispanic		-0.877***	-0.666***	-0.655***	-0.870***	-0.425***	-0.640***
		(0.05)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)
Free/Reduced Meals			-1.080***	-1.085***		-1.062***	
			(0.07)	(0.07)		(0.08)	
Age				-0.955***	-0.962***	-0.718***	-0.736***
				(0.05)	(0.05)	(0.07)	(0.06)
High GPA ($\geq$ 2.5)						2.727***	2.746***
						(0.10)	(0.10)
Constant	-0.190***	0.352***	0.516***	0.502***	0.335***	-1.854***	-2.027***
	(0.04)	(0.05)	(0.05)	(0.06)	(0.05)	(0.11)	(0.11)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.16 Marginal change in probability for coefficients in multinomial logistic regression models in Table 3.14 and 3.15.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
2-year college vs. No college							
Treatment	.0671152	.0653675	.0711453	.0700566	.0638252	.0692105	.0669758
African American		.032965	.0302543	.0314712	.0341612	-.0026612	-.0034334
Asian		-.0355923	-.0397914	-.0368929	-.0324474	-.0438239	-.0417254
Native American		.0817633	.0837209	.0982527	.0962689	.0496088	.0469401
Hispanic		.0724685	.065083	.0653973	.0729647	.0479171	.0501999
Free/Reduced Meals			.0369091	.0363116		.0132018	
Age				-.0161428	-.0155769	-.0253626	-.025182
High GPA						-.1591693	-.1591918
4-year college vs. No college							
Treatment	.0499507	.0567764	.0290364	.0228573	.05149	.0424575	.0663376
African American		-.150155	-.1185909	-.1164026	-.1467586	-.0673348	-.0958826
Asian		.0527621	.0768097	.0787189	.054427	.0624321	.0376325
Native American		-.2343866	-.203729	-.1897789	-.2191395	-.1291647	-.161198
Hispanic		-.1980682	-.1548737	-.1516477	-.1954176	-.095592	-.1351828
Free/Reduced Meals			-.2044164	-.2025713		-.178061	
Age				-.1654543	-.1680441	-.1130824	-.1172586
High GPA						.4300827	.4367544

Table 3.17 Multinomial Logistic Regression model. Estimated change in odds ratios of 2-Year College Attendance as a function of treatment status and covariates. Base: no college attendance.

	Model 1 b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
2-year vs. No college							
Treatment	1.793***	1.796***	1.717***	1.665***	1.741***	1.689***	1.786***
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.11)	(0.11)
African American		0.851	0.897	0.905	0.860	0.838	0.784
		(0.12)	(0.12)	(0.13)	(0.12)	(0.13)	(0.12)
Asian		0.907	0.946	0.976	0.936	0.898	0.850
		(0.18)	(0.19)	(0.19)	(0.19)	(0.19)	(0.18)
Native American		0.924	0.991	1.091	1.018	0.966	0.892
		(0.12)	(0.12)	(0.14)	(0.13)	(0.14)	(0.13)
Hispanic		0.933	1.000	1.006	0.937	1.038	0.949
		(0.06)	(0.06)	(0.06)	(0.06)	(0.07)	(0.07)
Free/Reduced Meals			0.758***	0.756***		0.707***	
			(0.05)	(0.05)		(0.05)	
Age				0.576***	0.572***	0.642***	0.634***
				(0.03)	(0.03)	(0.04)	(0.04)
High GPA ($\geq$ 2.5)						1.156*	1.165*
						(0.07)	(0.08)
Constant	0.532***	0.563***	0.595***	0.615***	0.581***	0.584***	0.543***
	(0.02)	(0.03)	(0.04)	(0.04)	(0.03)	(0.05)	(0.04)

Table 3.18 Multinomial Logistic Regression model. Estimated change in odds ratios of 4-Year College Attendance as a function of treatment status and covariates. Base: no college attendance.

	Model 1 b/se	**Model 2** b/se	**Model 3** b/se	**Model 4** b/se	**Model 5** b/se	**Model 6** b/se	**Model 7** b/se
4-year vs. No college							
Treatment	1.579***	1.630***	1.423***	1.373***	1.581***	1.536***	1.751***
	(0.08)	(0.08)	(0.08)	(0.07)	(0.08)	(0.10)	(0.11)
African American		0.456***	0.547***	0.551***	0.461***	0.666*	0.559***
		(0.06)	(0.07)	(0.08)	(0.06)	(0.11)	(0.09)
Asian		1.199	1.347	1.377*	1.223	1.260	1.106
		(0.18)	(0.21)	(0.22)	(0.19)	(0.23)	(0.20)
Native American		0.275***	0.345***	0.387***	0.312***	0.495***	0.392***
		(0.04)	(0.05)	(0.06)	(0.04)	(0.08)	(0.06)
Hispanic		0.416***	0.514***	0.520***	0.419***	0.654***	0.527***
		(0.02)	(0.03)	(0.03)	(0.02)	(0.04)	(0.03)
Free/Reduced Meals			0.340***	0.338***		0.346***	
			(0.02)	(0.02)		(0.03)	
Age				0.385***	0.382***	0.488***	0.479***
				(0.02)	(0.02)	(0.03)	(0.03)
High GPA ($\geq$ 2.5)						15.290***	15.581***
						(1.60)	(1.62)
Constant	0.827***	1.422***	1.675***	1.651***	1.398***	0.157***	0.132***
	(0.03)	(0.07)	(0.08)	(0.09)	(0.07)	(0.02)	(0.01)
N	8655	8655	8655	8655	8655	7113	7113

* for p<.05, ** for p<.01, and *** for p<.001

Table 3.19 The College Enrollment Gap

			Attended Any College		Attended 2-year College		Attended 4-year College	
	N	% All	% Yes	% All	% Yes	% All	% Yes	% All
All students								
2010	4365	100.0%	57.6%	57.6%	22.6%	22.6%	35.0%	35.0%
2011	4290	100.0%	69.3%	69.3%	29.3%	29.3%	40.0%	40.0%
White (non-Hispanic)								
2010	1504	34.5%	66.1%	22.8%	18.5%	6.4%	47.6%	16.4%
2011	1385	32.3%	77.8%	25.1%	23.7%	7.7%	54.1%	17.5%
African American								
2010	149	3.4%	47.3%	1.6%	22.1%	0.8%	25.5%	0.9%
2011	152	3.5%	67.7%	2.4%	31.6%	1.1%	36.2%	1.3%
Asian								
2010	126	2.9%	65.1%	1.9%	19.8%	0.6%	45.2%	1.3%
2011	124	2.9%	81.4%	2.4%	15.3%	0.4%	66.1%	1.9%
Native American								
2010	164	3.8%	46.3%	1.7%	26.8%	1.0%	19.5%	0.7%
2011	187	4.4%	62.0%	2.7%	36.4%	1.6%	25.7%	1.1%
Hispanic								
2010	2422	55.5%	53.3%	29.6%	25.0%	13.9%	28.4%	15.8%
2011	2442	56.9%	65.5%	37.3%	32.5%	18.5%	32.1%	18.3%
Low GPA (<2.5)								
2010	1033	26.7%	32.7%	7.7%	31.5%	8.4%	7.1%	1.9%
2011	975	30.1%	48.3%	11.0%	43.6%	13.1%	4.7%	1.4%
High GPA (≥2.5)								
2010	2838	73.3%	67.3%	49.3%	19.6%	14.4%	47.7%	35.0%
2011	2267	69.9%	79.8%	55.8%	23.5%	16.4%	56.3%	39.4%
Received Special Education Services								
2010	564	12.9%	43.4%	5.6%	19.0%	2.5%	23.4%	3.0%
2011	527	12.3%	58.1%	7.1%	28.5%	3.5%	29.6%	3.6%

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Chapter IV: Narrowing the College Opportunity Gap: Utilizing School Counselors to Help Students and Families Navigate the Financial Aid Process

Two manuscripts thematically linked in examining the impact of school counselor driven outreach on FAFSA completion and college enrollment were included in this dissertation.

Educational reform efforts have called on national, state, and political leaders to prioritize efforts to reestablish U.S. leadership in college completion globally. For this to transpire, it must become a public priority to raise everyone's expectations in order to ensure that all students graduate from high school well prepared for college and career post-secondary opportunities. Although there is a significant amount of literature associated with educational reform initiatives and awareness and outreach efforts aimed at increasing college enrollment and financial aid opportunities for students, the school counselor, an underutilized resource in preparing students to graduate college and career ready, is primarily overlooked, criticized or discounted. Recent literature has issued a clarion call for school counselors to connect their work with educational reform efforts and to "Own the Turf" for college and career readiness counseling. If school counselors are going to be engaged in the college completion agenda there must be a shift in policy from an implied presence to detailed intentional systemic inclusion, transforming the work of school counselors and increasing counselor focus and accountability for getting more students in the nation college and career ready.

A careful review of the literature also revealed students and their parents are typically poorly informed about financial aid opportunities until the latter years of

high school and how this interacts with decisions making for college enrollment has not been clearly understood. Lack of access to a school counselor, combined with student deficiencies in awareness and support navigating the complex financial aid system have also been recognized as barriers to college enrollment especially for minority and first generation youth.

This study provides empirical evidence supporting the utilization of school counselors, as sources of extra social capital, in helping students and families navigate the financial aid process. While statistically robust results were found on FAFSA completion, college enrollment, and closing the opportunity gap, the results show that academic achievement, socioeconomic status, and race/ethnicity factors continue to be primary drivers of college attendance in 4-year programs. Race drops out in significance for 2-year programs suggesting the need for continued research on these variables. Research is warranted to determine if the gap can be further narrowed by continuing this outreach.

More research is also needed to understand what supports and interventions have the greatest chance of closing the opportunity gap. Because this was the first year of a district-wide effort to support FAFSA completion and college enrollment, it remains to be seen what the overall impact will be on increasing college going for minority and lower income students.

Timing is also an important consideration and future research is needed to understand the additional K-12 practices necessary to increase college going. This study focused on interventions that occurred during the senior year and the summer

after high school graduation, but college readiness practices must begin in kindergarten and research is needed to evaluate and better understand the most promising practices.

School counselors must advocate for all students and look for opportunities to advance influence policy and educational reform efforts addressing equity and access issues for all.

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