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Environmental Factors or Individual Characteristics? What is Needed to Get High Achieving Latino Youth to Successfully Apply to Four-year Colleges?

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Environmental Factors or Individual Characteristics? What is Needed to Get High Achieving Latino Youth to Successfully Apply to Four-year Colleges?

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Education

by

Gwendelyn Rivera

2012

ABSTRACT OF THE DISSERTATION

Environmental or Individual Factors? What is Needed to Get High Achieving Latino Youth to Successfully Apply to Four-year Colleges?

By

Gwendelyn Rivera

University of California Los Angeles, 2012

Professor Sandra Graham, Co-Chair

Professor Ronald Gallimore, Co-Chair

This study investigated how well environmental factors and individual characteristics predicted college-going behavior for Latino/as who were college eligible. The study addressed the following research questions; 1) Is there a relationship between individual characteristics (e.g. agency and self–efficacy) and college–going behavior (e.g. applied to college and took a college entrance exam before the onset of 12^{th} grade) after controlling for environmental factors (e.g. peers and school practices)? 2) What are the relative contributions of self-efficacy and agency to college-going behavior while controlling for environmental factors? 3) If the individual characteristics (e.g. agency and self–efficacy) are correlated with college–going behavior among college-capable Latino/as, are those relationships independent of environmental factors (peers and school practices), or is there an interaction between individual characteristics and environmental factors?

The participants for this mixed-methods study included 124 college–eligible Latino/a students from immigrant backgrounds and eight school counselors, all located within the same urban high school. Established and newly developed scales assessing individual characteristics

(agency, self–efficacy, and help–seeking) and environmental factors (school college–going practices and peer resources) were utilized. The qualitative component of this study included interviews with the school counselors to contextualize and better understand the students' self–reported findings. Binary mediation analysis and modified grounded theory analysis were used to answer the research questions.

Results demonstrated that for college eligible Latino/a seniors, agency and peer resources had a significant and positive relationship with applying to a four–year college. In addition, peer resources mediated the effect of agency on the likelihood of a student submitting a college application. These findings demonstrated that for any given student, the odds of submitting a college application is dependent on a combination of their agency scores and peer resources, with peer-resources serving a meditational role. While a direct link between the qualitative findings and the quantitative findings cannot be made, the findings from the counselor interviews provided insight into the role played by peer resources and individual characteristics for some students. Specifically, agency and peer resources may interact to have more utility for students enrolled in schools with a weak college–going environment. This finding suggests that the investigation of college–going cultures and processes might be enhanced by the consideration of individual resilience characteristics and peer resources. Implications for school and schools districts are also discussed.

The dissertation of Gwendelyn Rivera is approved.

Patricia McDonough

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University of California, Los Angeles

2012

DEDICATION

Francisco Rivera

1956 - 2012

and

Carmen Fontes

I would like to dedicate this dissertation to my father and mother. Thank you for teaching me how to have big dreams and the life lessons needed to achieve them.

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ACKNOWLEDGEMENTS

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Someone told me that you only need one friend to help you get through graduate school, I was fortunate to have a few. Eddy Alvarez, Shannon Calderone, Delia Padilla Kellemeyn, Cinthya Ramirez, Natasha Rivers, Sirinda Sicharoen, and Fanny Yeung, thank you for entering my life when you did and providing me with unconditional support. Many thanks to my "weekend dissertation warriors," Basirat Alabi, Cheri Hodson, and Nora Obregon, I could not have finished the dissertation or the program if it were not for the countless weekends spent studying together. Daniel Lawrence, thank you for your support and encouragement during this long process. I appreciate being able to discuss my work with you, and that you did not judge my failures or how long it took me.

As an 18 year old, away from ones family for the first time, others' opinions of you have the ability to make an impact on how you see yourself. Richard Vasquez, you were one of the first people outside of my immediate family who made me believe that I could become a "professional" or "someone." Thank you for encouraging me to take advantage of the riches that higher education has to offer, pursue a graduate degree, and encouraging me throughout the years. I hope you write the book on how to support Latinas through graduate school!

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Rivera, W. & Gallimore, R. (2006, March). Latina adolescents' career choices: What matters to them when they decide? Final findings presented at the biannual meeting of the Society of Research on Adolescence, San Francisco, California.

Rivera, W. & Gallimore, R. (2004, April). Latina adolescents' career choices: What matters to them when they decide? Preliminary findings presented at the meeting for the American Educational Research Association Annual Conference, San Diego, California.

Rivera, W., Rodríguez, C., Dennis, J. & Phinney, J. (2004, March). Ethnic identity development and achievement characteristics of ethnic minority college freshmen. Poster session presented at the biannual meeting of the Society of Research on Adolescence, Baltimore, Maryland.

Environmental factors or individual characteristics? What is needed to get high achieving Latino youth to successfully apply to four-year colleges?

My nemesis throughout middle school and high school was a straight "A" student from Guatemala named "Fatima." As two of a small number of Latino students in honors classes we always helped each other study, but at the end of each semester she was the one with better grades. Despite her obvious academic success, she did not apply to a four-year college—an outcome I found perplexing. She successfully met the University of California and other college entrance requirements, and received better grades than me, but she did not take the SAT or complete the college applications—I did. I went to college and she did not. Fatima was not alone; in my high school class there were others like us, Latino/as who were able and prepared to go to four-year colleges—some did and some did not. Some researchers might describe Fatima as lacking the necessary degree of academic resilience to stay on the path to higher education.

Explanations of differential rates of Latino academic resilience have relied mainly on two environmental influences: school and family resources. School resources have been documented to influence academic outcomes (Contreras, 2005; Oakes, 1985). For example, Latino and African American youth are more likely to have un-credentialed teachers (Cheng, 2001). It has also been documented that a teacher's ability to serve as a mentor and to convey caring about students—known in the research literature as a caring adult—provides an environment that promotes trust, allows students to develop academic goals, and obtain crucial information that enables students to obtain their goals (Contreras, 2005; Stanton-Salazar, 2001; Valenzuela, 1999).

In addition to environmental influences, a second set of influences on Latino academic attainment are individual characteristics associated with high levels of achievement that may confer resilience in the face of environmental barriers. More resilient youth appear to possess one or a combination of the following characteristics: adaptability, a strong sense of one's locus

of control (Yates, 2003), self–efficacy (Szalcha, Erkut, Garcia Coll, Fields, Alarcon & Ceder, 2003), self-esteem, and a positive self-perception (Spencer, Dupree & Hartman, 1997). Although the presence of these characteristics, and demonstration of high academic performance during the K-12 school years, do not guarantee continued involvement in education by Latinos (National Center for Education Statistics, 2008; California Postsecondary Education Commission, 2009), there is sufficient theory and evidence to warrant further investigation of the role of individual characteristics. To date, individual characteristics have not been as fully explored as environmental influences, an observation particularly true of Latinos/as.

The research that is available tends to focus on either environmental influences or on individual characteristics associated with resiliency either independently of each other or with greater emphasis on one and not the other. This limits the understanding of how these components interact with each other and how possible variations in these interactions inhibit or prohibit academic resilience. Understanding this interaction might help explain why some Latino/a students who have demonstrated academic resilience in high school do not continue to a four -year colleges. Perhaps a better understanding of how environment influences and individual characteristics interact might help improve efforts to assist capable youth who otherwise may slip through the cracks of academia?

Certainly the evidence suggests many do slip through the cracks. Latinos made up 18 % of the college age population in 2006 (U.S. Department of Education, 2007) however, their completion of high school has not surpassed 39% (its highest) in over 30 years (NCES, 2008), and while there have been gains in the enrollment of Latinos in college, they do so at much lower rates than their European American, African American, and Asian American peers. In California, this can be explained by the fact that Latinos have been less likely to meet the eligibility criteria to the University of California (UC) than most of their peers (African Americans are only .6%

behind) and less likely to actually enroll in a UC (CPEC, 2009). These findings demonstrate that while it is possible for some Latinos to extend their academic pathways into higher education, there is still a need to investigate factors that contribute to the abrupt ending in the academic pathway for many.

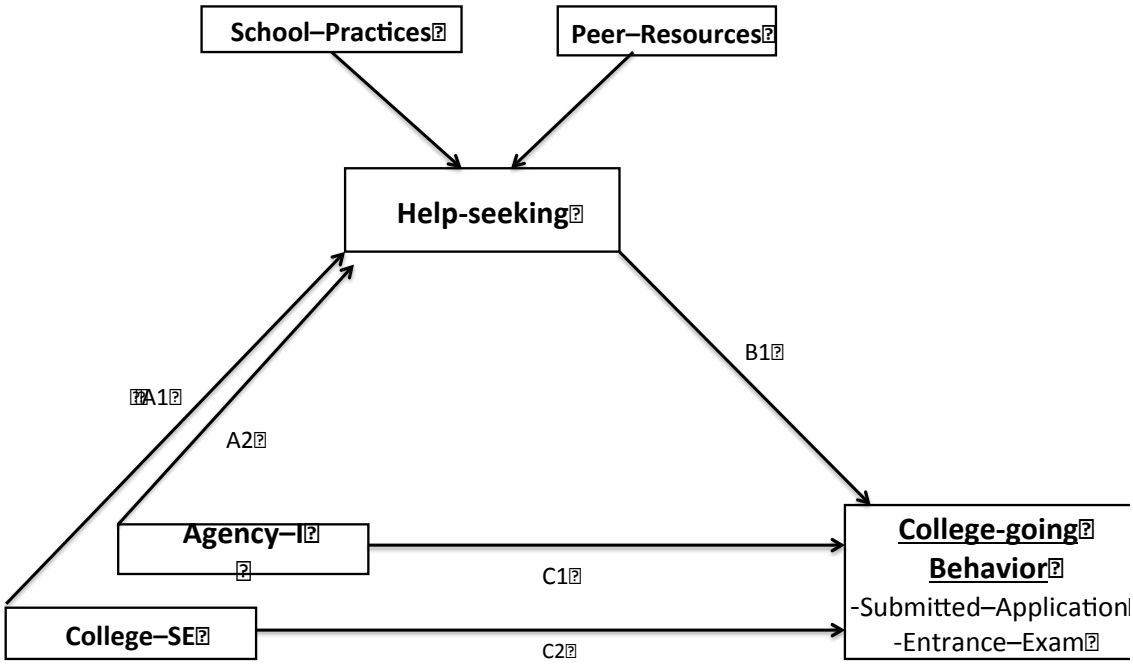
Overview of the Study

As the preceding review suggests, a number of dependent variables have been used to measure academic resilience (e.g. grades, college enrollment, and standardized test performance). In addition to these forms, "college-going behavior" has been defined as a form of academic resilience. In this study, college-going behavior was defined as school practices and principles that encourage all students to consider attaining a college education and that prepare students to make informed decisions about their plans after high school. College-going behavior reflects students' progress towards attaining college eligibility, and making a well–informed decision about college (e.g. exploring various college and financial aid options).

The primary goal of this study was to investigate how well environmental factors and individual characteristics predict college-going behavior for Latino/as who are college eligible. The study is divided into two parts. Part A of the study utilized the student survey to test a binary mediation model. Figure 1 specifies the outcome dependent variables "College–going behavior" (e.g. applying to college and taking the SAT before the beginning of 12^{th} grade). It was hypothesized that the two independent variables, "environmental factors" (i.e. school factors and peers) and "individual characteristics" (i.e. agency and self-efficacy), would predict college-going behavior. "Help-seeking" (seeking help in regard to learning about the admission requirements, college exploration, and attaining assistance in the college application process) was proposed as a mediating variable between the predictors and the outcome. Part B of the

study utilized interviews with the counseling personnel to contextualize and better understand the students' self–reported findings.

Figure 1. Environmental Factors and Individual Characteristics Mediation Model for High Academic Achieving Latino Youths' College-Going Behavior.



Research Questions

This dissertation research explored the following questions:

1) Is there a relationship between individual characteristics (agency and self–efficacy) and college–going behavior (e.g. applied to college and took a college entrance exam before the onset of 12th grade) after controlling for environmental factors? It was hypothesized that students with higher self-efficacy and agency who experienced a college–going environment and whose peers provide instrumental assistance and emotional encouragement were more likely to successfully apply to college than their peers.

2) What is the relationship between the individual characteristics self-efficacy and agency and college-going behavior while controlling for environmental factors? It is hypothesized that after controlling for environmental factors, individual characteristics will have a positive effect with college-going behavior, and this effect will be mediated by help-seeking.

3) If the individual characteristics (agency and self–efficacy) are correlated with college–going behavior among college-capable Latino/as, are those relationships independent of environmental factors (peers and school practices), or is there an interaction between individual characteristics and environmental factors? A possible hypothesis is that there may be an interaction between individual characteristics and environmental factors, and this interaction may moderate the mediating variable. For example, it is possible that some students with high levels of self-efficacy and agency who experience high levels of a college-going environment with many resources may exhibit low levels of help-seeking behavior but still demonstrate college-going behavior.

This study focused on 124 first and second generation Latino immigrant 12th graders who were on track to meet the University of California (UC) A-G requirements at the end of their 11th

grade school year. For the purpose of this study the term immigrant background is restricted to Latino students who were born outside of the U.S. or are children of foreign- born parents. Eight counselors from both the magnet and general school program, and the college counselor were also included and interviewed. Details on the sample and sampling procedure are presented in a later section.

A mixed methods approach was employed; the principal method was the student survey—Part A of the study. Scales used in previous studies, and those developed specifically for this study, were employed. Part B of the study utilized a qualitative perspective to contextualize and better understand the students' self–reported findings. Interview questions from McDonough's (1997) interview protocol were used. In addition, the principal investigator composed several of the interview questions.

Literature Review

As summarized in Figure 1, this study focused on two hypothesized influences on college-going behavior: environmental factors and individual characteristics. Figure 1 also identifies the specific variables within each of these broad influences that will be operationalized and investigated below. For environmental factors, these general school environmental resources are a college-going atmosphere in the school and peer influences. These factors will be reviewed first, and then the individual characteristics self–efficacy and agency will be reviewed. While past research has identified various other individual characteristics associated with the academic resilience of ethnic minority youth, such as ethnic identity (Oyserman, Brickman & Rhodes, 2007), motivation (Graham, 1994), and self-esteem (Portes and Raumbaut, 2001), there has not been as much research on the proposed individual characteristics and academic achievement, and, to my knowledge, even less on their relationship with college going.

Environmental Influences.

General School Environmental Resources.

College eligibility requires concrete and conscientious actions; one has to actively pursue entry into college by taking required classes, which calls for strategizing as early as middle school, doing well in these courses, and taking standardized tests—these requirements will be described in more detail below. Immigrant Latinos are less likely to be aware of these requirements, as well as how to fund college, in large part because they are not a part of environments, and/or do not have access to the information that promotes college-going. As a result of this environmental and/or information exclusion, they develop concerns about paying for their education (Grubb, Lara &Valdex, 2007). Because of the lack of access to this knowledge regarding higher education, immigrant Latino students are at risk of not properly strategizing their academic pathways and becoming ineligible for entrance into four-year colleges at the freshmen level (Cooper, Cooper, Azmitia, Chavira, & Gullatt, 2002).

Experiencing an educational environment that provides youth with information on the college entry process can help promote college-going, extend the academic pathway into college, and serve as a protective factor for Latino youth who have limited access to this type of information outside of school (e.g. course advising, access to individuals who have attained a college degree, and test preparation). Unfortunately, it is common for ethnic minority and low–income students to attend large schools where the curriculum focuses on a minimal performance threshold, behavioral issues, and remedial courses. In addition, there is also a disproportionate ratio of counselors to students that causes the dissemination of information to be distributed in a mass format and according to track placement, instead of individual and comprehensive counseling (Conchas, 2006; McDonough, 1997, 2005b; Stanton-Salazar, 2001). Participating in

smaller learning communities within a large school, such as a magnet and other special programs aimed to promote academic achievement, increases the opportunities to access and cultivate college related information through a positive learning environment and a college-going culture. However, entry procedures into these learning communities are not widely known by parents unfamiliar with the U.S. educational system and may be highly selective (Conchas, 2006). Thus, it is not surprising that the some of the critical points where urban students encounter obstacles in their path toward higher education are in the college–search, the application process in which they more likely not to apply or apply to only one school, and the financial aid application process (Roderick, Nagaoka & Coca, 2009).

College-going Environment.

There are many factors in and outside of the school environment that contribute to college–enrollment. A major factor is the school environment, specifically school practices that promote college–going. Key school components identified as having a major impact on students' college enrollment are: 1) A college preparatory curriculum, 2) A college culture that includes high academic expectations and formal and informal communication networks that promote college expectations, 3) Commitment from all of the school personnel to advise and counsel students towards meeting their college goals, 4) Providing resources towards counseling and advising students, 5) College knowledge (information on the college application process), and 6) Non–congitive skills such as self–awareness or regulation (McDonough, 1997; Roderick, et al., 2009). Unfortunately, a lot of the responsibility of implementing these key components lies on the shoulders of the academic and college counselors.

College counselors have a great impact on the post–high school outcomes of students. The primary responsibilities for college–counselors are: to provide students with information on

how to access a college preparatory curriculum, assist them with the college–search and application process, and access financial aid. In addition, they are expected to not only inform students, but also guide them through the choices available to them. Lastly, they are also looked to as a resource in the structuring and upkeep of a college–going environment (McDonough, 2005a; Grubb et. al. 2007).

For many immigrant and first–generation college-bound youth, the counselor serves as their "vertical tie"; they are the link to college related information and resources that are common to middle and upper class families (Monkman, 2005). In addition, such populations may require additional services such as equipping parents with college related information so that they can support and better prepare their children in reaching their academic goals, and incorporating a focus on cultural enrichment (Villalpanido & Solorzano, 2005). Therefore, the role of the counselor and other school personnel is critical in the college–enrollment for these and other underserved youth.

Unfortunately, the interaction between counselors (and other school personnel) and underserved youth does not always lead to the acquisition of college–related capital. Bryan, Moore–Thomas, Day–Vines & Holcomb–McCoy (2011) found that Latino students who saw their counselors for college–information after the 10th grade were less likely to apply to two or more colleges than students who *did not* see their counselors at all. A possible explanation for these findings is that Latino students who are receiving college information may be receiving it from other sources. In addition, they found that seeing counselor for college–related information before the 10th grade was a stronger predictor of applying to college than seeing a counselor after the 10th grade. Thus, the timing of when students receive college information effects if and how students apply to college. Past research has documented that Latino students do not always

obtain the needed information to apply to college or obtain this information too late in their high school careers from counselors and school personnel to successfully apply or even submit an application (McDonough, 1997; Stanton–Salazar, 2001). Research has also documented that when counselors successfully provide first–generation college–bound and immigrant populations with a college–going environment and the additional resources they needed (e.g. providing family members with information) students will mirror middle class (and in some cases surpass) other students in reaching the milestones needed to become college–eligible and college–going (Grubb et. al 2007). Thus, the effects of the role of counselors can vary depending on the type of counseling that is implemented.

To ensure that students are well equipped with the information needed to successfully apply to college, a school cannot depend on the counselor alone to provide students with the needed information or sustain the structure for a college–going environment at the whole school level. Therefore, McClafferty, McDonough, & Nuñez, (2002) and Tierney, Bailey, Finkelstein & Hurd (2009) developed guidelines for educational institutions and school personnel to establish and sustain a "college–going culture," which promotes students' interests and future participation in college. College–going culture is sustained by nine practices and principles practiced by school personnel:

1) *College talk* is composed of verbal and non-verbal forms of communication about college between school personnel, students, and families. Examples of college talk may be posters of SAT registration dates, allocating time to discuss college requirements, or activities geared at meeting college application requirements (i.e. writing college essays as an assignment).

2) *Setting clear expectations* that all students are to be prepared for post-secondary options can take form in the following ways: presenting a clear mission statement (for school personnel), and verbal communication of expectations by school personnel to the students.

3) *Information and resources* entail providing comprehensive, easily accessible, up-to-date information on the requirements for entry into higher education. One example is providing college workshops at various times throughout the week for students and parents.

4) *Comprehensive counseling* occurs when *all* counselors and teachers provide students with college counseling and information via daily interactions, and assist in crucial decisions regarding coursework and careers, with college in mind. For example, teachers may provide information and counseling to a student who is a year behind in meeting their A-G requirements; this also includes engaging students and providing them with assistance during the application process.

5) *Curriculum, Testing and Assessment* entails providing a curriculum that guarantees college eligibility, and allows students to become *competitive* college applicants. Schools can utilize their yearly standardized tests and to assess students' abilities in courses required for college eligibility (e.g. PSAT and SAT), performance on standardized tests which are also required for college entry, and provide interventions to help them master these tasks.

6) *Faculty involvement* is key to the sustainability of a college-going environment, as faculty are direct sources of information to both students and their families, and have the decision power to implement, and support college going practices through activities in and outside of the classroom. For example, school personnel in addition to the college counselor, teachers can attend college requirement workshops.

7) *Family involvement* is needed to sustain and transfer the college-going culture from school to the home. This requires school personnel to become accessible to answer parents' questions, create opportunities for parents to become aware that college is attainable for their children, and knowledgeable on how to better assist their children meet college eligibility requirements.

8) *College partnerships* entail establishing and sustaining relationships between schools and local colleges, universities, and independent academic outreach organizations. For example, students from the local colleges can provide students with entrance requirements, and share their own college experience. This is important because it helps facilitate and reinforce the idea of pursuing a higher education and attain the resources needed to achieve that goal.

9) *Articulation* is the practice of promoting college-going behavior at every school transition (e.g. elementary to middle school), as it informs, motivates, prepares, and keeps students on track for higher education.

While the nine guidelines can be implemented in many schools, Latino students are less likely to experience such rich learning environments, as they and African American students are more likely than their European American peers to have teachers that are not fully credentialed (Cheng, 2001). Thus, ethnic minority students are less likely to have teachers who are experienced in the ways of supporting students who may need additional resources and information. While some students report experiencing positive relationships with school personnel (e.g. liking teachers), such relationships do not guarantee that students will receive instrumental support (Reynolds, 1999; Rivera & Gallimore, 2006). Zarate and Gallimore (2005) found that Latino students who are perceived as and/or are higher performing are more likely to report receiving detailed and in depth information on how to best pursue their educational goals.

These findings raise the following questions; Do teachers decide to transfer information regarding college and careers primarily to high achieving students or is it that more self-efficacious and agentic students proactively seek information? It is often assumed that the key initiators of behaviors that increase college access are the teachers and not the students. But there are hints in the literature reviewed later that perhaps suggest that in some cases it is the students who are active initiators (Zarate & Gallimore, 2005).

Peers

The role of peers has been documented as key and instrumental in the academic achievement and resilience of ethnic minority youth. High achieving students have been identified as someone other students admire, respect, or as someone peers strive to be like (Graham, Taylor, & Hudley, 1998). Thus, it is not surprising that additional studies have found that peers influence the academic behavior and performance, and positive social behavior of low-income, immigrant, and ethnic minority students (Fuligni, 1997; Chen, Chang & He, 2003; Ream, 2005).

Peers also play a significant role in the college–going of immigrant high school youth. Peers not only provide emotional support and encouragement for academic achievement and college–going behavior, they also provide instrumental guidance, and information about how to navigate the U.S. educational system (Stanton-Salazar, 2001). However, because immigrant Latino youth attend homogenous (e.g. immigrant and low income) schools, they are limited in their ability to access information through more knowledgeable peers who could provide instrumental support and guidance (i.e. the sorts of classes to take, when and how to sign up for college entrance exams). There are many contextual factors that contribute to the role of peers in promoting college–going behavior (e.g. family economic status, quality of schooling, and

mobility). However, it has documented that when a consistent college-going environment is provided such as the one the Puente programs provides their students, Latino youth do serve as a source of emotional and instrumental support for other Latino high school students (Gandara, 2005).

The role that peers play and the methods they use to promote and sustain a college–going culture has been documented in the research mentioned above. What remains to be understood is the clear–cut understanding of the influence of peers on the college–going of low–income urban youth (Tierney & Coylar, 2005). Qualitative studies have illustrated how peers played a crucial role in sustaining college–going practices and enrolling in post-secondary institutions (Gandara, 1982; Grubb, Lara & Valdez, 2002). However, there is limited research demonstrating a statistically significant direct relationship between peers and college–going. The findings from such studies have demonstrated significant relationships between peer engagement, peers' post–secondary plans and Latino youths' post–secondary enrollment at the two and four–year college level (Horn & Chen, 1998; Sokath, 2006). It is also important to further understand the role of peers across the various stages of the college–going process (e.g. meeting college requirements, and the application process; Tierney & Coylar, 2005; Sokath, 2006), as past research has demonstrated that the role of peers can fluctuate between positive and negative across grade levels and the process of meeting college eligibility requirements (Azmitia & Copper, 2001). Lastly, providing statistical evidence that peers effect college–going at the high school level would support the qualitative findings above, and provide additional evidence for the need to incorporate peers / peer mentoring into college–going practices at the middle and high school level (Tierney & Coylar, 2005; Schneider, 2007).

In summary, available evidence suggests that features of the school environments may affect college-going behaviors in a number of ways. It is important to keep in mind that schools are not homogenous environments because of with-in campus variations, such as tracking and the provision of smaller academic units within the same complex. For example, in the district in which the proposed study will be situated, often on the same high school campus there is a traditional program for students in the neighborhood plus smaller, special units known as magnet schools. These are open to all students in the larger district by application, and they were created to provide enhanced learning opportunities for students with special interests in subjects such as mathematics, science, medical studies, environmental studies, and social justice. Thus, within in the same facility it is possible there is variation in the richness of environmental factors shown by previous research to affect college-going behavior. An illustration of this is presented in Concha's (2006) research on a school in northern California in which he found that the smaller learning environments were segregated by race and ethnicity, the quality of instruction and resources varied by the different learning environments, and ultimately they mirrored tracking practices. In addition, within the small learning environments there is a variance between individuals that contribute to the variance in academic outcomes. Therefore, it is possible that on a single campus there might be "micro-environments," such as officially organized small learning communities, that vary in the degree to which they foster college-going behavior.

Individual Characteristics

This study focused on three individual characteristics for which there is some evidence they may influence academic resilience defined as college-going behavior; self-efficacy, agency, and help-seeking.

Self–efficacy.

Self–efficacy is the belief in one's ability to master or perform effectively. This concept captures individuals' perception about what one believes they are capable of, not what they can presently do or will do in the future (Zimmerman & Kitsantas, 2005). It is formulated by judgments of how well one can execute the actions necessary to successfully complete a task (Bandura, 1982). Perceived self–efficacy influences the types of anticipatory behaviors that one imagines as they decide to take on a task, choices in activities and/or goals, and the amount of effort put towards that goal (Bandura, 1989).

Self–efficacy has been applied to the domain of academic performance to better understand differential academic outcomes across individuals. Zimmerman, Bandura, & Martinez-Pons (1992) found that academic self–efficacy beliefs and perceived self–efficacy for self-regulated learning are positively correlated with academic outcomes and goals. To better understand the role of self–efficacy in academic achievement, Zimmerman and Kitsantas (2005) extended the concept into learning, self–regulation, perceived responsibility for one's academic motivation and outcomes, and comportment. They reported the relationship path from self–efficacy to perceived responsibility to GPA to be significant and substantial. Thus, self–efficacy and related constructs can be important predictors of positive academic outcomes.

It is important to understand what promotes and hinders self–efficacy given its relationship with academic outcomes. According to Bandura (1982) self–efficacy in a social learning environment is based on four sources: performance attainment, vicariously observing the experiences of others, verbal persuasion by influential individuals and allies, and physiological states individuals associate with appraisal across various situations. Self–efficacy in a learning context can be developed and demonstrated in the following ways: a student can

achieve high performance attainment by earning high grades; vicarious observation can be developed in the school setting through the representation of positive experiences by individuals who share commonalities with underrepresented youth; college-going self–efficacy can be developed through verbal encouragement for academic advancement by peers, school personnel, and family; and lastly, schools can teach students to regulate physiological states that can serve as cues for vulnerability, which can trigger cognitive appraisal and affect one's perceived self–efficacy by allocating time for practice exams similar to college entrance exams.

Causing hindrance to the development of self–efficacy are social practices such as gender discrimination against women and past historical oppression (Bandura, 2006a). While Bandura discussed these obstructions as they applied to women as a minority in male dominated fields, it is reasonable to assume his logic is applicable to ethnic minority groups who share analogous historical experiences of oppression and marginalization.

The demands to become more autonomous and one's own advocate, especially against institutional practices that derail marginalized youth from the college track, require immigrant youth to be more efficacious in obtaining resources and building relationships that produce information associated with college-going. Therefore, it is possible that even high achieving students who have been tracked into and performed well in college preparatory courses may not feel efficacious enough to seek help for the college application process or to attend a four year college directly after high school if they have experienced discouragement or discrimination (Conchas, 2006; Stanton Salazar, 2001). Thus, a key hypothesis was that high achieving students may not successfully complete their application process if they do not demonstrate high levels of self–efficacy. It is also possible that a high achieving student in a school environment with low

college–going practices, but with high levels of self–efficacy may obtain the resources needed to successfully apply to college.

Forms of Agency in Relation to College-going Behavior.

Agency is a cognitive process in which self–evaluation, meaning / intention and decision lead to action. However, taking action alone does not qualify as agentic behavior. According to Bandura (2006a) individual agency must have the following: 1) there must be intention which includes a plan of action or strategies to realize one's intention (i.e. understanding the task vs. completing the task rapidly, 2) temporal extension of forethought that includes future directed plans which serve as a present motivator and guide (i.e. going to college), 3) self–regulation of actions (i.e. allocating time to study), and 4) self–examination of one's own action and self–efficacy levels (i.e. evaluating one's grades and abilities). The series of these four components requires one to engage in a cognitive process and decide if they will engage in the college application process.

During adolescence youth become agents of their own education (Bandura, 2006a) as they are presented with some level of independence on the types of courses to take in preparation for their post-secondary plans. Zimmerman and Kitsantas (2005) found that most youth are aware of what is required of them to do well academically. However, there is variance across individuals' actions to do well and beliefs about their ability to utilize school personnel and resources. What remains to be understood is what accounts for this variance in proactive efforts to pursue higher education, among other goals. Specifically, among Latino students who have demonstrated academic ability and promise to enter a four-year college, to what extent is agency a factor during the college application process?

Help-seeking

In his "Back to school" speech (2009) President Obama encouraged students to seek help:

> "Don't be afraid to ask questions. Don't be afraid to ask for help when you need it. I do that every day. Asking for help isn't a sign of weakness; it's a sign of strength. It shows you have the courage to admit when you don't know something, and to learn something new. So find an adult you trust - a parent, grandparent or teacher; a coach or counselor - and ask them to help you stay on track to meet your goals… even when you're discouraged, and you feel like other people have given up on you – don't ever give up on yourself. "

President Obama's speech includes environmental influences (i.e. a caring adult, discouragement by others) and individual characteristics (i.e. goals and agency, and the act of seeking help)—all of which contribute to student academic resilience and are also included in this study. As Bandura (2006a) noted, discrimination can hinder the development of one's self–efficacy; thus, students who are discriminated against may perceive themselves as less able to attend four-year or competitive colleges.

In turn, students who have low self–efficacy may feel too discouraged or timid to seek help, as President Obama noted. For students to not give up, even when others have given up on them, and they have been discouraged to pursue a direct path to a four-year college, they may have to possess high(er) levels of self–efficacy in order to execute the agentic behavior to seek the help needed to stay on track to meet their goals. The received help can mediate students'

college going behavior, as they attain information, properly assess their abilities, and make a well-informed decision about their post-secondary plans.

Why Environmental Factors and Individual Characteristics Matter for the Academic Resilience of Latino/a High School Students.

Low-income parents view education as a means to professions that will foster their children's economic and social mobility. To foster their children's prospects, Latino parents communicate high educational aspirations and expectations to their children (Reese, Gallimore, Goldenberg & Balzano, 1995; Lipman, Guzman, Dombrowski Keith, Kinukawa & Shwalb, 2008). However, for immigrant families with limited information and resources on how to navigate the U.S. educational system, transforming high aspirations into specific actions is highly dependent on educational institutions and its personnel to help their children gain access to higher education and technical training.

Information and resources needed to navigate institutional pathways such as college entrance has been referred to as human or *social capital*. Parents from another country, with limited education themselves, might not know that preparation for college begins long before high school and crucial details of the application process. They might not realize that certain courses must be completed to be on the pathway to college or what level of effort is required to become college-ready and eligible. As a result, immigrant youth possess fewer levels of the type of social capital needed to strategically prepare for college in their familial networks, neighborhood, and communities than the non-immigrant peers they must compete with for the limited number of admission spaces at the college level.

The term social capital has been used broadly in part because of its use in specific areas of study, and there is no one, concise definition (Kao & Taggart Ruthernford, 2007). In

considering immigrant families' reliance on educational institutions and personnel as sources of social capital, and their utilization of extended family and community members as resources towards gaining social and economic advancement, Stanton-Salazar's (2001) definition of social capital is perhaps most appropriate for the study proposed here;

> "…A set of properties existing within socially patterned associations among people that, when activated, enable them to accomplish their goals or to empower themselves in some meaningful way. Such associations occur in various ways: between two individuals, between individuals in a group and between groups within a community" (p.265).

This definition emphasizes the importance of meeting one's goals, empowerment, and the inclusion of groups and communities, not just individuals, all of which are key in helping immigrant youth gain access to higher education. It also encompasses central principles included in Coleman's (1988, p.98) original definition of social capital, such as the facilitation of actions that could not have been possible without the assistance of individual(s) within a structure or association (i.e. schools).

Immigrant Latino parents' reliance on educational institutions as sources for social capital is not always a dependable solution. These institutions do not always reliably transfer social capital to ethnic minority and immigrant families. The traditional pathway of social capital via parental involvement in educational institutions (i.e. parent organizations) and intergenerational closure leave Latino and Asian immigrant students, as well as many Black students, with and different access to social capital than their White peers (Kao & Taggart, 2007). This may be in part because immigrant parents' involvement in their children's education

is more likely to take place in the home or their work place (Lopez, 2001), and language limitations may not allow them to communicate and build relationships with nonimmigrant parents who possess the most amount of social capital. In addition, even when Latino students have access to environments that are rich in human and social capital, such as advanced placement courses, they still lag behind their White and middle class peers on standardized test scores (Contreras, 2005).

Thus, many high achieving ethnic minority and immigrant youth like Fatima, my high school classmate, are not accessing the information needed to gain access to higher education and achieve economic and social mobility. Yet, there are students who, despite the odds, possess individual characteristics; they are able to tap into the fluid streams of social capital in rich school environments that are available to a select tracked few.

This study focused on two means that might activate the transference of the social capital needed to promote college-going for immigrant Latino students. The first is through *environmental means*—through school environments and peer influences. Environmental factors have been documented as a means to social capital (see citations above), however, this study targets environmental factors that have been identified to specifically promote college-going. The second set of means were *individual characteristics*; for example, those that increase access to social capital through forming connections with individuals who are able and willing to transfer the information that promotes college-going (e.g. student and teacher relationships).

Together these two means can be united theoretically with the concept of social capital. Through the interaction of environmental resources and individual characteristics, youth might better accumulate social capital to obtain access to higher education than by solely having access to environmental resources. Although theoretically possible, there is limited evidence in the

literature for the proposition that individual characteristics such as self-efficacy and agency by themselves affect college-going behavior and college-access, or an interaction with environmental factors. Most of the available evidence on social capital has focused on environmental resources (e.g. type of learning environment) or individual demographic characteristics (e.g. native language). It remains to be seen how much contribution, if any, individual characteristics make to college-going behavior and college-access.

Part A

Study Focus and Questions

This study explored the contributions of environmental influences and individual characteristics to college going behavior in a sample of first and second generation Latino immigrant 12th graders who were on track to meet the University of California (UC) A-G requirements at the end of their 11th grade school year. 124 students participated in the study. For the purpose of this study, the term *immigrant background* was restricted to Latino students who were born outside of the U.S. or are children of foreign–born parents. The model in Figure 1 was utilized to explore the following research questions and hypotheses;

1) Is there a relationship between individual characteristics (agency and self–efficacy) and college–going behavior (e.g. applied to college and took a college entrance exam before the onset of 12th grade) after controlling for environmental factors? It was hypothesized that students with higher self-efficacy and agency who experienced a college–going environment and whose peers provide instrumental assistance and emotional encouragement were more likely to successfully apply to college than their peers.

2) What is the relationship between the individual characteristics self-efficacy and agency and college-going behavior while controlling for environmental factors? It is hypothesized that

after controlling for environmental factors, individual characteristics will have a positive effect with college-going behavior, and this effect will be mediated by help-seeking.

3) If the individual characteristics (agency and self–efficacy) are correlated with college–going behavior among college-capable Latino/as, are those relationships independent of environmental factors (peers and school practices), or is there an interaction between individual characteristics and environmental factors? A possible hypothesis is that there may be an interaction between individual characteristics and environmental factors, and this interaction may moderate the mediating variable. For example, it is possible that some students with high levels of self-efficacy and agency who experience high levels of a college-going environment with many resources may exhibit low levels of Pre-college-going /help-seeking (hereafter, help-seeking) but still demonstrate college-going behavior.

Method

Rationale for Selection of Study Site

Promise High School (pseudonym) is a public school located in the greater Los Angeles area and is part of the Los Angeles Unified School District (LAUSD). It was selected as the study site because on a single campus it provides learning environments likely to vary in the levels of a college-going atmosphere. The reason for its selection: to investigate the role of learning environments and individual characteristics on the college-going behavior of Latino immigrant youth requires (1) a school that offers multiple learning environments, (2) has an ethnically diverse student population, and (3) has a large enough Latino population to allow for individual variance within Latinos and across the different learning environments. Promise High School has three magnet programs and a traditional residential program that represents multiple

learning environments. The school is reflective of LAUSD's student population with its high proportion of Latinos, significant number of students from other ethnic groups (e.g. European and Asian Americans), and is economically diverse. Therefore, it has a potential for an exchange of resources and information among the student population (Gándara & Contreras, 2009).

Because there are multiple magnet programs at the school, the school has resources that enrich the students' learning environment and promote their academic outcomes (e.g. a large number of honors and AP courses, opportunities to gain on-site experience, and technological equipment). While Latino students are underrepresented in the three magnet programs there is a large enough sample to help explore the contributions of the different learning environments on college-going and possibly on the individual characteristics themselves. These factors allow for the school setting to be the proper site to answer the study's research questions.

The School Setting

The participants in the study were sampled from the traditional residential program as well as Promise's magnet programs. The school's surrounding community has a large immigrant Latino population. The community has prevalent signs of the Latino population via storefronts with Spanish language signs, restaurants serving food from Latin American countries, and services specific to immigrants such as banks associated to those in Latin America, and legal immigration services. The community is low-income as the medium income per family is $34,266, 73% rent their homes, and 42% have less than a high school education (Promise High School's Western Association of School & Colleges Committee Leadership Team, 2010).

The campus of Promise High School includes four large building structures, a cafeteria, gymnasium, a football field, outdoor track, a stage room, three computer rooms, auditorium, and numerous classroom bungalows. At the center of the school are a large quad area and an

additional designated eating area where many students convene during the nutrition and lunch break.

The main building holds many of the administrative offices, including those of the principals', magnet and non-magnet counselors, college counselors, and the career counselor. The first floor contains display cases of sports trophies, exhibitions of student theatrical performances, and other artifacts demonstrating school spirit. At times there are flyers advertising college preparation workshops. However, they could be easy to miss when the students fill the hallways between classes. This building has air conditioning however; other structures (not including the bungalows) do not. Therefore, at times it becomes extremely hot in some classrooms; as a result, the lights in the classrooms are turned off to reduce the heat, and the teachers and students can become fatigued by the heat as instruction continues behind the sound of a fan. Overall, the school does not have signs of graffiti and the amount of school security seems to be equal to what has been observed at other Los Angles City schools (e.g. visitor sign–in counter, staff with walkie- talkies).

The school had 2,996 students enrolled in the 2010-2011 school year. There were 1,753 students enrolled in the traditional program and 1,243 students enrolled in the three magnet programs (to be discussed in detail below). The ethnic composition of the school for the 2010-2011 school year was the following: 62% Latino, 11% European American, 21% Asian American (including Filipino), 4% African American, and 1% Other. See Figure 1. in Appendix A. This distribution is reflective of the LAUSD district population as a whole, with one major exception: African American students make up 11% of LAUSD students (Los Angeles Unified School District, 2010ab). Thus, it suggests an ethnically diverse school that might afford some degree of access to social capital (Gándara & Conteras 2009).

Promise High School houses one traditional program. School personnel and students refer to the traditional program as the "residential program" for students who live in the local area. The traditional program has four small learning communities: Arts, Media and Entertainment, Humanities, Mind and Body Academy, and Technological Arts. The small learning communities are new to the school, and from observations and information provided by the counselor interviews (to be discussed in detail below) this new initiative has yet to be fully implemented and is in "name only."

In addition, on the same campus there are three different magnet programs—mathematics and sciences, performing arts, medical career—and a general program. Entrance into a magnet program is formally done through the "Choices" program, and it requires the submission of an application. The application is accessible by mail and at the schools themselves. Some magnet programs may require the student to take an entrance exam (e.g. math and science programs). Extra consideration is given to sibling pairs who wish to attend the same school. It is not uncommon for non-magnet students who demonstrate potential in an area related to the magnet program to be recruited or nominated by school personnel and join the magnet.

The performing arts magnet was established in 1981, and it provides students with an opportunity to learn drama and theatre arts, vocal and instrumental music, dance, video production, stagecraft, and concert sound. Students are allowed to participate in multiple disciplines. The curriculum of the program includes the conventional high school level academic courses with an option of honors and advanced placement level courses; one performing arts class is required per year. Students in the performing arts magnet are also encouraged to participate in other educational opportunities offered at the school (e.g. the math and science magnet courses). A brochure for the program states that it is recommended that students have at

least a “B” average in all academic subjects and have a reading level at or above grade level. In 2010-2011 there were 420 students enrolled in the Performing Arts Magnet. The ethnic composition included 19% (n = 81) European American, 26% (n =111) Asian American, 44% (n = 182) Latino, 9% (n = 36) African American, 1% (n = 4) American Indian, and 1% (n = 1) Other. See Figure 2. in Appendix A.

The medical magnet program was established in 1981 and has a partnership with local hospitals. The program targets students who are interested in healthcare related fields. The program emphasizes activity-based instruction and the opportunity to develop a research project. The curriculum of the program includes the conventional high school level academic courses with the option of honors and advance placement courses (which are taken at the hospital). In addition, medical magnet students are required to complete physics/physiology, an independent studies/ research project class, and a minimum of 100 hours of volunteer work at a local hospital. In 2010-2011 there were 225 students enrolled in the program. The ethnic composition included 29% (n = 65) European American, 27% (n = 60) Latino, 41% (n = 92) Asian American, 2% (n = 5) African American, and 1% (n = 2) American Indian. See Figure 3 in Appendix A.

The math/science magnet program was established in 1981. According to a school brochure it is one of the districts “flagship magnets,” and it places among the top SAT scoring high schools in the LAUSD. The program is geared at students interested in math, science and technology. The program is affiliated with the local community college thus, allowing students to take college level courses. In addition, on its website, LAUSD notes that the school has one of the largest Advanced Programs in the state, and is one of America’s best high schools. The curriculum of the program includes the traditional high school level academic courses with the option of honors and advance placement courses. It is important to note that one of the feeder

middle schools has a math and science magnet program, and many of the students who participated in that program continue in the math and science program at Promise High. In 2010-2011 there were 598 students enrolled in the program. The ethnic composition of the program consisted of 59% (n = 352) Asian American, 16% (n = 94) European American, 21% (n = 126) Latino, 2% (n = 13) African American, 1% (n = 3) American Indian, 0% (n = 2) Pacific Islander, and 1% (n = 8) other. See Figure 4. in Appendix A.

All three of the magnet programs advertise that students can take part in and benefit from any of the extracurricular activities at the school, such as sports, community service, clubs, student government, and performance groups. Both students in magnet and traditional (non-magnet) programs have the opportunity to participate in the same extracurricular activities.

School Academic Performance

Promise High School had an Academic Performance Index (API) base score of 716 out of 1000 for the 2009-2010 school year (PHS-WASCCLT, 2011). While there is room for improvement, the school obtained a higher API score than LAUSD's base score of 693, and tied for the highest score of the nine schools in the regional district (PHS-WASCCLT, 2011). Thus, compared to other LAUSD schools in its geographical region, Promise High School is a relatively well performing school that has room for academic improvement. Interestingly, compared to other ethnic groups, Latinos were the only group to have a lower API score than the previous year.

Participants

The sample consisted of 124 adolescents who were recruited from Promise High School. The participants met the criteria of being a first-generation (foreign born) or second-generation

(having at least one parent born in Latin America), and were on track to meet the University of California and California State University A-G eligibility requirements at the onset of their 12th grade. The participants were compensated five dollars and entered into a raffle to win one of two iPods for their participation. The sample was composed of 93 (75%) female and 31 (25%) male students, age range: 17-19 (M = 17 SD = .52), and all were in the 12th grade at the time of participation. The majority of the participants were second-generation immigrants (84% n = 104). However, the majority of the parents were born in Mexico (mothers 52%, n = 65, fathers 55%, n = 67). In addition, 16 different countries were named as the parental place of birth. Most of the participants reported that their parents had a high school degree or less. A majority of the participants (90%) reported that they qualified for, or participated in, the free or reduced school meal program. See Tables 1-3 and Figures 5-8 in Appendix A for the demographic distribution on student sample.

Student Sampling Procedure

The identification of Latino students who were potentially college bound at the onset of the 12th grade year was based on analysis of student transcripts. Transcripts allowed for the identification of students who were on track to meet the UC and CSU A-G requirements at the end of the11th grade, and could potentially apply to the UC and CSU campuses the following fall. It is important to note that the CSU system has similar requirements, yet the threshold is lower and an entrance essay is not required. The college counselor conducted this analysis. In addition, fliers listing participant eligibility and study contact information were posted on the school grounds. All of the students who met the A-G eligibility requirements were included in the sampling pool.

Each student in the initial sampling pool received a parent and youth consent form, a demographic questionnaire regarding their ethnic background, home language, and immigrant generation (i.e. first, second, and third), and were asked if they were on track to meeting the UC A-G requirements when they were in the 11th grade (this was verified with transcripts).

There were a total of 127 students who met the following criteria and were invited to complete the main survey: Latino immigrant 12th graders who were born outside of the U.S. or are children of foreign born parents, and were on track according to their transcripts to meet the UC A-G requirements at the end of their 11th grade school year. Of the 127 students who were eligible to participate in the study, 124 students agreed to participate. The possibility of a confounded sample has been considered specifically, that students who were able to enroll in a magnet may have higher levels of resilient individual characteristics than those who were not enrolled in the magnet. Analyses demonstrate that individual characteristics are not confounded by learning environment (details are presented in the results section).

Scales and Measures

Dependent Variables: Measures of College-Going Behavior.

Submitted–Application.

College application submission status was assessed by asking the student participants if they had submitted an application to a four-year college. The question was coded using a dichotomous yes/no scale.

Entrance–Exam.

Taking a college entrance-exam (e.g. SAT, ACT and the subject SAT; hereafter Entrance–Exam) before the beginning of 12th grade was assessed by asking the student

participants if they took any of the college entrance exams and when they took the exam. The question regarding taking the entrance–exam was coded using a dichotomous scale. The date of the exam was coded using a dichotomous scale after the 12th grade / before the 12th grade.

While there are many other factors that contribute to attending a four-year college—for example, extracurricular activities (Gándara & Contreras, 2009), community service, and achieving good grades (Contreras, 2005)—if one fails to successfully complete an application and exams for admissions all other factors will not be considered. The second question assessing who had taken college entrance exams is being used because many four-year colleges, including the University of California and other competitive colleges, require the exam and have a minimum score threshold. Therefore, the actual taking of the exams and the time in which they were taken are crucial as it allows a student to become eligible to apply to college, and provides time to retake the exams for a higher score if necessary (Gandara, 2002, 2005).

Independent Variables.

Measures of Environmental Factors Affecting College-Going Behavior.

McClafferty, et al. (2002) and Tierney, et al. (2009) developed guidelines for educational institutions and school personnel to establish and sustain a college-going culture. College going cultures in secondary schools have been found to promote student interest in college, prepare them to meet eligibility criteria, and provide information about financial aid to make a well informed decision about their future participation in college.

Unless otherwise noted, the survey and interview questions were composed by the principal investigator and guided by the college going culture research of McClafferty, et al.

(2002) and Tierney, et al. (2009). The questions were intended to assess if and how practices known to promote preparedness and participation in higher education are present in the school.

Also taken into consideration during the construction of the questions were the principal investigator's preliminary observations of students and the school personnel and interactions with the students during the college application time period for the past three fall semesters. These observations influenced how the questions were framed and worded. The inclusion of additional constructs, e.g. the inclusion of peer support was based on findings from these observations). Lastly, preliminary questions were piloted on a non-Latino sample at the school for clarity and time completion. The student feedback was included in the modification of the questions.

School–Practices Scale.

The School–Practices scale assessed student perceptions of staff implementation of college–going practices by using a 28-item scale. The School–Practices scale is based on the constructs by McClafferty et al. (2002) and Tierney et al. (2009): college talk, information and resources, comprehensive counseling family involvement, and expectations. The construct "curriculum, testing, and assessment" was not included because the alpha for this subscale was below the acceptable standard ($\alpha = .62$). The 28 items were standardized at the mean and averaged to create a mean composite score for each individual ($\alpha = .85$). An example item is "How often at your time in this school did teachers, counselors, and/or school staff at this school provide you with information about college?" (1 = Never and 4 = Weekly). See Appendix C for the complete scale.

The constructs "articulation," "college partnerships" and "faculty involvement," were not included in the student survey because they are specific school personnel.

Peer–Resources.

Peers–Resources consisted of a 10-item scale that assessed if peers provided college related resources and information. The 10 items were standardized at the mean and averaged to create a mean composite score for each individual ($\alpha = .90$). An example item is "How often have your friends encouraged you to speak to teachers and other adults to get help with your goals?" (1 = Never and 4 = A lot). See Appendix C.

Measures of Individual Characteristics.

Self–efficacy.

The decision and act of pursuing higher education partly depends on one's level of self–efficacy. The college application process requires one to self–evaluate one's academic ability, which leads to a cognitive process of deciding to apply to college, and choosing to actively take steps to submit a college application. Self–efficacy has been applied to better understand learning practices and how they relate to academic outcomes and goals (Bandura, 1989; Zimmerman, et. al., 1992). However, in review of past research, none was located that explored the role of self–efficacy as it applies to college-going behavior, and *actually* applying to college. Therefore, I was unable to locate measures assessing the role of self–efficacy as it relates to an important if not the most important outcome of measure of academic achievement at the end of high school, applying to and/or enrolling in college.

Bandura (2006b), who has extensively researched self–efficacy, and provided guidelines that allow one to construct self–efficacy measures across various domains of behavior. The following are the guidelines and criteria that Bandura (2006b) provided, and the ones that the measures of self–efficacy proposed for this study will follow.

1) Self–efficacy scales must have a good conceptual analysis of the relevant domain's functioning (e.g. for college going this would entail gathering information about colleges and, application deadlines) and tailored questions that probe about activities tailored to that specific domain.

2) The items should represent various levels of challenging and demanding tasks for that domain.

3) The items should include various steps; having too few steps makes the scale less reliable.

4) The questions should inquire about the respondents' perceptions about what they can do *now*.

5) The response scale should ask participants to record the strength of their ability to execute the presented activities.

College-Self-Efficacy.

College-Self-Efficacy was defined as one's perceived abilities specific to activities that are part of the college application process. College-Self-Efficacy (hereafter College-SE) was assessed using a three-item scale. The three items were averaged to create a mean composite score for each individual ($\alpha = .73$). An example item is "Rate how confident you feel now in your ability to work on your college applications and essays (if required) with enough time to prepare them to the best of your ability," using a 10 point scale (1 = not confident and 10 = very confident). See Appendix C.

Agency–Intention.

Similar to self–efficacy, questions designed to measure agentic behaviors should be domain specific, in this case the questions were contextualized to the goal of applying to college and academic and employment plans after high school (e.g. academic and employment). Unlike self-efficacy agency is not measured by one's perception of their ability but by actual behavior. Agency can be assessed by asking individuals what they would do in a presented situation, but a more valid measure is to assess *actual* past behavior. Agency–Intention is based on intentionality, one of Bandura's (2006a) key features of human agency, and was defined "as proactive behavior with the intent of learning about the college application process." Agency–Intention (hereafter Agency-I) was assessed using a three-item scale. The three Agency-I items were averaged to form a mean composite score for each individual ($\alpha = .63$). An example item is "I attended workshops and college fairs to learn about the different colleges (including junior colleges)," (1 = Never to 4 = Weekly). See Appendix C for the complete scale.

Help–Seeking.

Help–Seeking was assessed using a modified version of Morris's et al. (2008) Help–Seeking Scale and a scale composed by the principal investigator specifically assessing Help–Seeking during the college application process. Morris's et al. (2008) Help–Seeking scale was modified to assess Help–Seeking on college-going practices by high school students. The two scales were combined into one 27-item scale. The 27 items were averaged to create a mean composite score for each individual ($\alpha = .72$). An example item is "During this past semester how often did you ask questions about college or financial aid?" (1 = Never to 5 = Regularly). See Appendix C for the complete scale.

Results

Preliminary Analyses

Individual Characteristics, Schools-Practices, and Peer Resources Scales Across School Programs

Because the participants were enrolled in four different programs at Promise High School, differences on key variables were investigated to determine if the independent variables varied across school program placement.

Three separate one-way ANOVAs were conducted to assess if there was a difference in the levels of individual characteristics (e.g., Agency–I, Help–Seeking, College–SE) across students in the four learning programs (e.g., traditional, performing arts, medical, and math and science). There was no significant difference at $p < .05$ on any of the individual characteristics scales by type of school program. This indicates that students in the four programs did not differ on Agency–I, Help–Seeking, and College–SE.

Two separate ANOVAS were conducted to assess levels of School–Practices and Peer–Resources experienced by students across the different school programs (e.g., traditional, performing arts, medical, and math and science). There was no significant difference at $p < .05$ on any of the environmental factors scales by type of school program. This indicates that students reported similar levels of School–Practices (exposure to college–going behavior) by personnel across the four types of school programs. Similarly, students' reports of their Peer–Resources did not vary across the four types of school programs.

Descriptive and Preliminary Results

Individual characteristics and environmental factors scales.

The descriptive findings on the individual characteristics and environmental factor scales are displayed below.

Table 1

Statistical Description of Individual Characteristics Scales (N = 124)

Scale	Minimum	Maximum	Mean	SD
Agency–I	1	4	2.32	.59
Help–Seeking	1	5	3.40	.41
College–SE	1	10	6.62	1.74
Peer–Resources	- 2	2	.003	.72
School–Practices	- 2	.2	-.003	.44

*Peer–Resources and School–Practices were standardized.

Submitted–Application and Entrance–Exam.

Of the 124 student participants 76% (n = 95) reported that they applied to a four-year college. Only 79 student participants answered the question assessing if they had taken a college entrance exam before the onset of their 12th grade school year. Of those who did answer the question 63% stated that they took an entrance exam before the beginning of 12th grade.

Table 2

Percentage of Students Who Applied to a Four–Year College and Entrance–Exam (Before the 12th Grade)

Item	Percent
Four–Year College	76
(N=124)	(n = 95)
Entrance–Exam	63
(N = 79)	(n = 50)

Chi–square analysis results demonstrated that there was no significant difference in the number of students who applied to a four–year college by type of high school program (traditional vs. type of magnet program) in which they were enrolled [$\chi^2(3, N = 124) = 4.87$, p = n.s.]. While not statistically significant, magnet programs had a slightly higher percentage of students apply to a four–year college than the traditional program.

Table 3

Submission of a Four–Year College Application by Program

Program	Did **Not** Apply (Percent)	Did Apply (Percent)
Traditional	30 (n = 21)	70 (n = 48)
Performing Arts	10 (n = 2)	90 (n = 19)
Medical	20 (n = 3)	80 (n = 12)
Math & Science	16 (n = 3)	84 (n = 16)

Correlations Across Scales

Pearson correlations were conducted between the individual characteristics (Agency–I, College–SE, and Help–Seeking), and the environmental factors (Peer–Resources and School–Practices). Considering the correlational relationships as whole, it appears that Peer–Resources and School–Practices have significant relationships with the individual characteristics.

Table 4

Pearson Correlations Between Individual Characteristics (Agency–I, College Self–Efficacy, and Help–Seeking) and Environmental Factors (Peer–Resources and School–Practices)

Measure	Agency–I	College–SE	Help–Seeking	Peer–Resources	School–Practices
Agency–I	---				
College–SE	.30**	---			
Help–Seeking	.43***	.38***	---		
Peer–Resources	.45***	.35***	.58***	---	
School–Practices	.38***	.40***	.40***	.50***	---

***p* < .01, **** p* < . 001

A point–biserial correlation was conducted between the individual characteristics Agency–I, College–SE, and Help–Seeking, the environmental factors Peer–Resources and School–Practices, and the outcome variables Submitted–Application and Entrance–Exam. The results indicated that Entrance–Exam did not have a significant correlation with any of the individual characteristics and environmental factor variables. While not very strong, Submitted–Application did have positive significant relationships with all of the individual characteristic and environmental factor variables.

Table 5

Point–Biserial Correlations Individual Characteristics (Agency–I, College Self–Efficacy, and Help–Seeking), and Outcome Measures (Entrance–Exam and Submitted–Application)

Measure	Entrance–Exam	Submitted–Application
Agency–I	-.01	.38***
College–SE	-.10	.28**
Help–Seeking	.04	.35***
Peer–Resources	.08	.42***
School–Practices	-.13	.26**
Entrance–Exam	---	---
Submitted–Application	---	---

** p <.01, *** p <.001

Lastly, a Cramer's V correlation was conducted on the two dichotomous variables Submitted–Application and Entrance–Exam. The correlation between the two variables was very low and non–significant (r =.03, p >.05).

Research Question One

1) Is there a relationship between individual characteristics and applying to a four–year college after controlling for environmental factors?

To answer this question, three separate partial correlations were conducted between each of the three separate individual characteristics (Agency–I, Help-Seeking, and College–SE) and the variable applying to a four-year college while controlling for School–Practices and Peer–Resources. Partial correlations were used because it allows for the assessment of the degree of association between two variables while controlling for all other variables. Table 6 presents the

results of these correlational analyses. There was not a significant correlation between Help–Seeking and applying to a four-year college or College–SE and applying to a four-year college. However, there was a significant positive correlation between Agency–I and applying to a four-year college.

Table 6

Partial Correlations between Individual Characteristics and Applied to a Four-year College when Controlling for School–Practices and Peer–Resources

Individual Characteristic Scale	Applied to a four-year college
Help-seeking	.14
College–SE	.14
Agency–I	.23*

* p <. 05.

Is there a correlation between individual characteristics and taking an entrance exam before the onset of 12th grade after controlling for environmental factors?

The results from the point–biserial correlations presented earlier indicated that Entrance–Exam did not have a significant relationship with any of the predictor variables. Thus, this variable was not included in the partial correlation analysis.

Research Question Two

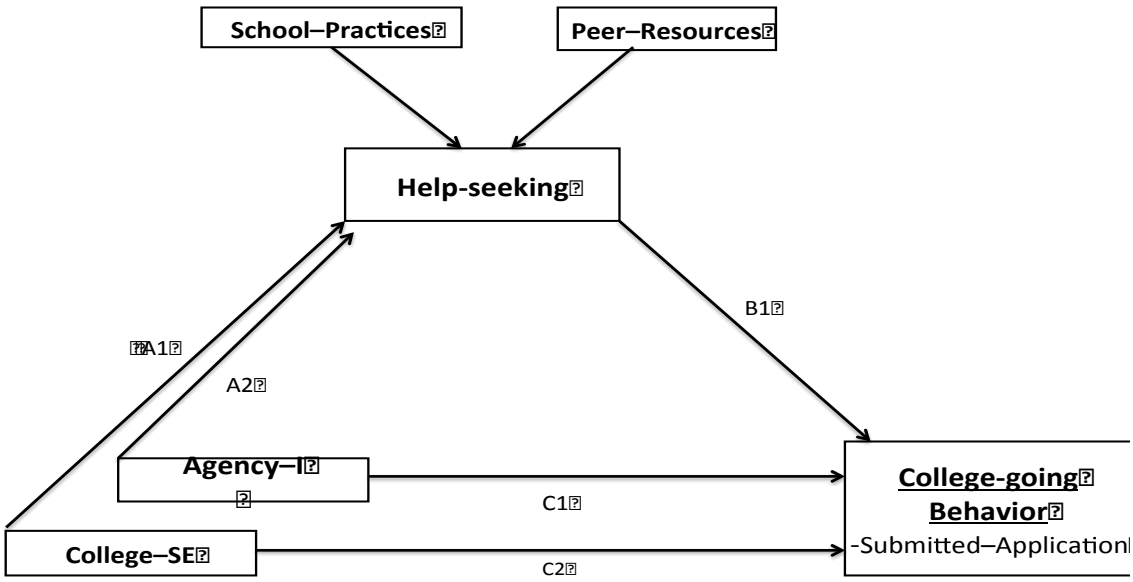
What is the relationship between the individual characteristics self-efficacy and agency and college-going behavior while controlling for environmental factors?

Question two was investigated using a binary mediation analysis (Kenny, 2009). A mediation or indirect effect occurs when the causal effect of the independent variable (Agency–I and College–SE) on the dependent variable (Submitted–Application) is mediated by another

variable (Help–Seeking) (Preacher, Rucker, & Hayes, 2007). In this study, the goal of the mediation analysis is to assess the odds of submitting an application as mediated by Help–Seeking.

The hypothesized model included Submitted–Application as the dependent variable, Agency–I and College–SE as independent variables, Help–Seeking as the mediating variable, and School–Practices and Peer–Resources as covariates. This model was investigated using binary mediation analyses (Kenny, 2009) with covariates, utilizing a series of ordinary least squares and logistic regressions. Bias–corrected bootstrapping was employed to test the significance of the model because of the limited sample size and because it does not require the need to meet assumptions about the shape of the sampling distribution when conducting inferential tests (Preacher, et al., 2007). Figure 2 displays the full model.

Figure 2. Binary Mediation Model Submitted–Application by Individual Characteristics Mediated by Help–Seeking While Controlling for School–Practices and Peer–Resources



Binary Mediation Model: Submitted–Application by Individual Characteristics Mediated by Help–Seeking While Controlling for School–Practices and Peer–Resources.

Direct Effect / C Path

A logistic regression with the predictors Agency–I and College–SE by Submitted–Application while controlling for Peer–Resources and School–Practices was conducted [Likelihood ratio (4, N = 124) = 33.81, p <.001]. The purpose of this analysis was to determine if there is a relationship between Agency–I and College–SE against Submitted–Application.

Agency–I had a significant positive relationship with Submitted–Application. However, College-SE did not. Interestingly, the covariate Peer–Resources had a significant positive

relationship with Submitted–Application. The coefficients, standard errors, *p* values, and confidence intervals are displayed in the table below.

Table 7

Direct Effect / C Path - Logistic Regression Analysis for Submitted–Application By Associated with Agency–I and College–SE, Controlling for Peer–Resources and School–Practices

Variable	B	Standard Error	P	95% Confidence Interval	
				Lower	Upper
Agency–I	1.29	.51	.01*	.30	2.3
College–SE	.16	.15	.28	-.13	.46
Peers–Resources	1.30	.47	.01*	.37	2.23
School–Practices	-.03	.71	.96	-1.42	1.36

* $p < .05$

A–Path

The second step of the analysis utilized an OLS regression to establish a relationship between Agency–I and College–SE and the mediating variable Help–Seeking (the A path), while controlling for Peer–Resources and School–Practices. Results in Table 8 demonstrate that Agency–I had a significant positive relationship with the mediating variable Help–Seeking. However, College-SE did not have a significant relationship with Help–Seeking. In addition, the covariate Peer–Resources had a positive significant relationship with the mediating variable Help–Seeking [F (3, 120) = 25.92, $p = 0.000$].

Table 8

A–Path OLS Regression Analysis for Help–Seeking by Agency–I and College–SE, Controlling for Peer–Resources and School–Practices

Variable	B	Standard Error	P	Standardized Regression Coefficient
Agency–I	.12	.05	.03*	.18
College–SE	.03	.02	.06	.15
Peers–Resources	.23	.05	.000***	.41
School–Practices	.05	.08	.50	.06

*** $p < .001$, * $p < .05$

B–Path and Total Effect.

A logistic regression with all of the predictors Agency–I, College–SE, and Help–Seeking against Submitted–Application, while controlling for Peer–Resources and School–Practices was conducted [Likelihood Ratio (5, N = 124) = 34.36, p < .001].

Results presented in Table 9 demonstrate that Help–Seeking did not have a significant relationship with the outcome variable Submitted–Application. Failure to establish a statistically significant relationship between Help–Seeking (the mediator) and the Submitted–Application (the outcome variable) demonstrates that Help–Seeking does not mediate the effect of the individual characteristics (Agency–I and College–SE) on Submitted–Application.

Table 9

Total Effect and B–Path of Mediation Analysis Using a Logistic Regression Analysis for Submitted–Application by Agency–I and College–SE, Controlling for Peer–Resources and School–Practices

Variable	B	Standard Error	P	95% Confidence Interval	
				Lower	Upper
Help–Seeking	.55	.74	.46	-.90	2.01
Agency–I	1.24	.52	.02*	.22	2.26
College–SE	.14	.15	.34	-.15	.45
Peers–Resources	1.16	.51	.02*	.16	2.17
School–Practices	-.07	.72	.13	-9.24	1.17

* Significant at $p < .05$

Table 10 demonstrates the results of the bootstrap analyses for significance. Bootstrap analysis confirms that the indirect effect (the mediation) is not significant, as the confidence interval includes zero.

To briefly summarize, Agency–I had a significant positive relationship with Submitted–Application; however College–SE did not. Help–Seeking did not have a significant relationship with Submitted–Application, and bootstrap analysis demonstrated that the mediating relationship (indirect effect) was not significant, confirming that Help–Seeking does not serve as a mediator.

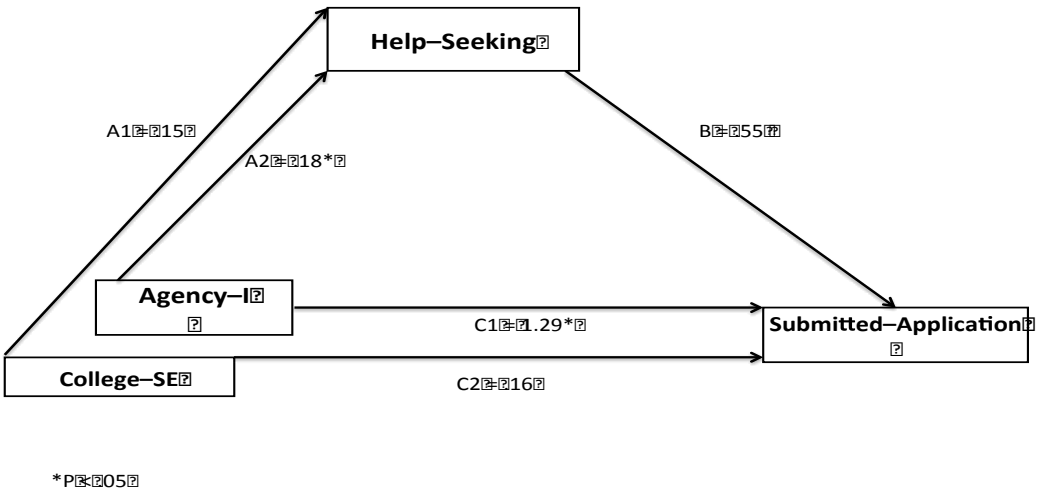
Table 10

Bootstrap Coefficients, Standard Errors, and Confidence Intervals of the Total Indirect, Direct, Total Effect, and Ratio to Indirect Effect

Effect	B	Bootstrap Standard Error	Percentile-95% Confidence Interval	
			Lower	Upper
Total Indirect Effect	.02	.03	-.03	.10
Direct Effect	.36*	.16	.01	.66
Total Effect	.38*	.15	.07	.66
Ratio to Indirect Effect	.05			

*Significant at $p < .05$

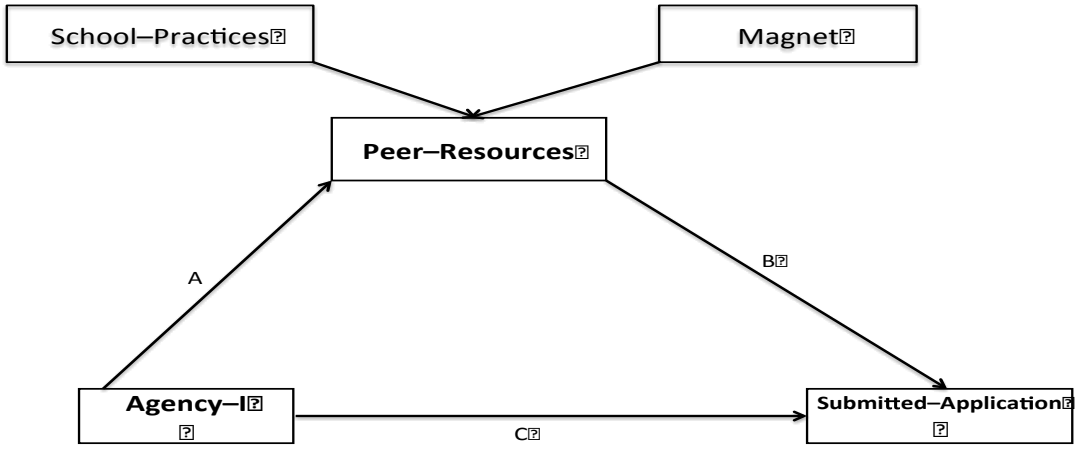
Figure 3. Mediation Model of Individual Characteristics (Agency–I and College–SE) by Submitted–Application as Mediated by Help–Seeking.



Alternative Model: Binary Mediation Model Submitted–Application by Individual Characteristics Mediated by Peer–Resources While Controlling for School–Practices and Peer–Resources

Peer–Resources consistently demonstrated a positive and significant relationship with Submitted–Application in the exploratory analyses. This suggested exploring Peer-Resources as a possible mediator. This alternative hypothesis was explored using the following model: Submit–Application as the dependent variable, Agency–I as the independent variable, Peer–Resources as the mediating variable, and School–Practices and Magnet Program enrollment as covariates. Magnet was introduced as a covariate in this alternative model because exploratory analysis demonstrated that while not statistically significant, magnet compared to traditional students had slightly higher levels of Agency–I. To control for even a small amount of variance, Magnet was treated as a covariate. College-SE was dropped from the model because it did not have a significant relationship with the outcome variable Submitted-Application.

Figure 4. Binary Mediation Model Submitted–Application by Agency–I Mediated by Peer–Resources While Controlling for School–Practices and Magnet



C Path Direct Effect.

A logistic regression with the predictor variable Agency–I on Submit–Application while controlling for Magnet and School–Practices was conducted [Likelihood ratio (4, N = 124) = 26.88, p < .001]. The results revealed that Agency–I and the covariate Magnet had a significant relationship with Submit–Application. The coefficients, standard errors, p values, and confidence intervals are displayed in the table below.

Table 11

Direct Effect / C Path Logistic Regression Analysis for Submitted–Application by Agency–I, Controlling for Magnet and School–Practices

Variable	B	Standard Error	P	95% Confidence Interval	
				Lower	Upper
Agency–I	1.77	.50	.000***	.78	2.75
Magnet	1.05	.51	.04*	.04	2.06
School–Practices	.64	.57	.26	-.48	1.77

***Significant at $p <$. 001, * Significant at $p < .05$

A Path.

The second step of the analysis utilized an OLS regression to establish the relationship between Agency–I and the mediating variable Peer–Resources, while controlling for Magnet and School–Practices. Results in Table 12 demonstrate Agency–I and the covariates Magnet and School–Practices had significant and positive relationships with Peer–Resources [F (3,120) = 26.43, p = 0.000].

Table 12

A–Path OLS Regression Analysis Peer–Resources by Agency–I While Controlling for Magnet and School–Practices.

Variable	B	Standard Error	P	Standardized Regression Coefficient
Agency–I	.40	.10	.000***	.33
Magnet	.24	.11	.02*	.17
School–Practices	.57	.13	.000***	.35

*** $p < .001$, * $p < .05$

B Path/ Indirect and Total Effect.

A logistic regression was conducted to assess the relationship between the mediator Peer–Resources and Submit–Application, including Agency–I, and the covariates Magnet and School–Practices [Likelihood Ratio (4, $N = 124$) = 34.94, $p < .001$]. Results demonstrated that Peer–Resources had a significant relationship with Submitted–Application, and thus the former succeeded as a mediator. See Table 13 for the coefficients, standard error, *p* values, and confidence intervals.

Table 13

B Path - Logistic Regression Analysis for Submitted–Application by Agency–I, Peer–Resources, Controlling for Magnet and School–Practices

Variable	B	Standard Error	P	95% Confidence Interval	
				Lower	Upper
Peer–Resources	1.25	.48	.01*	.31	2.20
Agency–I	1.45	.51	.005**	.44	2.45
Magnet	.80	.54	.13	-.25	2.00
School–Practices	.08	.67	1.0	-1.23	1.40

* Significant at $p <. 05$, ** Significant at $p <. 01$

Bootstrap analysis was utilized to test the significance of the indirect, direct, total effect, and ratio to indirect effect. The bootstrap analysis indicated that the indirect effect is significant, as the confidence interval does not include zero. Thus, the binary mediation model, specifically, the relationships between the included variables are statistically significant beyond chance. Therefore, it can be said that Peer–Resources mediates the relationship between Agency–I and the odds of Submitted–Application. The various effects of the bootstrap analysis are described below in Table 14.

The total effect assesses the effect between the independent variable Agency–I and the dependent variable Submitted–Application; the effect between these two variables is .48. See Table 14.

Table 14

Bootstrap Coefficients, Standard Errors, and Confidence Intervals of the Total Indirect, Direct, Total Effect, and Ratio of Indirect to Direct Effect (Agency–I, Magnet, Submitted–Application, School–Practices, Peer–Resources)

Effect	B	Bootstrap Standard Error	Percentile 95% Confidence Interval	
			Lower	Upper
Total Indirect Effect	.12*	.05	.03	.25
Direct Effect	.36*	.13	.08	.60
Total Effect	.48*	.001	.24	.71
Ratio of Indirect to Direct Effect	.35			

* Significant at $p < .05$

The direct effect is the size of the effect between Agency–I and Submitted–Application *with* Peer–Resources taken into account in the regression. The direct effect is .36, smaller than the total effect, the independent and dependent variable alone.

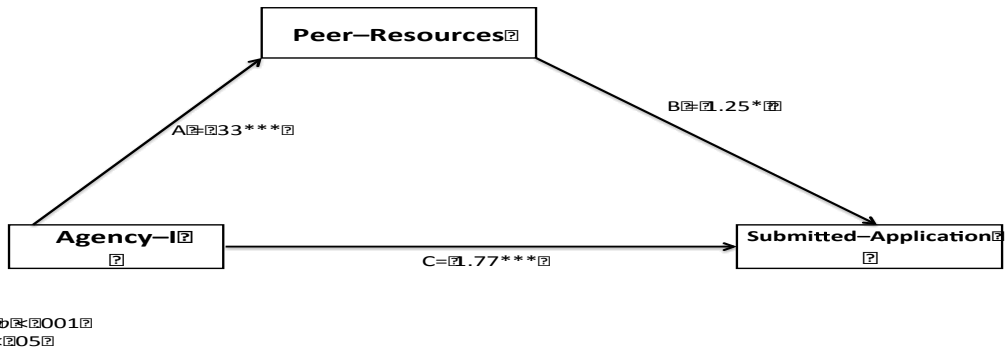
The indirect effect (the mediation) in this model is .12. Contextualized in the model, .12 of the effect between Agency–I and Submitted–Application is mediated by Peer–Resources.

The ratio of indirect to direct effect assesses the size of the mediation relative to the direct effect (the effect between Agency–I and Submitted–Application). In this model the ratio of indirect to direct effect is .35; meaning the mediation is approximately a third of the direct effect.

The ratio of the indirect effect by the total effect assesses how much of the independent variable Agency–I is mediated by the mediator variable Peer–Resources (in this case, .12/ .48).

The results demonstrate that ratio of indirect to total effect is .25. When converted to a percentage, 25% of the effect of Agency–I on Submitted–Application is mediated by Peer–Resources, and 75% of the effect of Agency–I on Submitted–Application is direct. Contextualized in the model, it can be said that for any given individual the effect of Agency–I on the odds of submitting an application to a four–year college is a combination of a direct effect (the effect between Agency–I and Submitted–Application *with* Peer–Resources) and the indirect effect (the mediation, the amount of the effect between Agency–I and Submitted–Application that passes through the mediator to Submitted–Application).

Figure 5. Binary Mediation Analysis – Agency–I by Submitted–Application as Mediated by Peer–Resources While Controlling for Magnet and School–Practices



The role of gender was explored in a separate binary mediation analysis. Gender was used as the predictor variable, Peer–Resources as the mediator, Submitted–Application as the outcome variable, and School–Practices and Magnet as covariates. The results demonstrated that gender did not have a significant relationship with Submitted–Application.

Lastly, the possibility that School–Practices was the true independent variable was explored. School–Practices was treated as the predictor variable, Agency–I as the mediator, Submitted–Application as the outcome variable, and School–Practices and Magnet as covariates. The results demonstrated that School–Practices did not have a significant relationship with Submitted–Application.

Research Question Three

If the individual characteristics (agency and self–efficacy) are correlated with college–going behavior among college-capable Latino/as, are those relationships independent of environmental factors (peers and school practices), or is there an interaction between individual characteristics and environmental factors?

This analysis for this question was not pursued because the analyses above demonstrated that 1) Help–Seeking did not function as a mediator, 2) Peer–Resources is the true mediator between individual characteristics and Submitted–Application, 3) The relationship between Agency–I, Peer–Resources, and Submitted–Application proved to be a mediating relationship, and 4) Due to the limited sample size more advanced and limited analysis such as a moderation analysis cannot be performed.

Part B

Summary of the Findings from Part A of the Study

Contrary to the hypothesized binary mediation model tested in Part A, Help–Seeking did not significantly mediate the effect of Agency–I on Submitted–Application. The hypothesized model failed because Help–Seeking (the mediator) and Submitted–Application were not directly and significantly related—a requirement of a binary mediation model. However, the direct relationship between Agency–I and Submitted–Application was positive and significant. An

alternative exploratory model indicated that Peer–Resources mediated the effects of Agency–I on Submitted–Application. The findings demonstrated that for any given individual the odds of submitting an application to a four–year college is affected by a combination Agency–I and Peer–resources–specifically the direct effect (Agency–I and Submitted–Application with Peer–Resources) and the indirect effect (the amount of the effect between Agency–I and Submitted–Application that is mediated by Peer–Resources).

Introduction

The quantitative findings from Part A of the study demonstrated that agency and peer–resources contributed to college–going outcomes, specifically submitting an application to a four–year college. The quantitative study is limited to testing for a statistical effect, and provided no information on the context in which agency functions for this particular population, namely Agency–I geared towards learning about the college application process and the role peer–support plays in the process. A qualitative perspective was used to contextualize and better understand the students' self–reported findings. The qualitative perspective is provided mainly by structured interviews with counselors at Promise High, supplemented by observations and conversations with students and school personnel recorded during the investigation. Counselors were chosen as the primary informants because of their potential impact on promoting and sustaining college–going practices, students post–high school outcomes, and are greatly needed to help first–generation college–bound and low–income students (McDonough, 1997, 2005b; Grubb, et.al., 2002; Bryan & Thomas, 2011). Hopefully by adding a qualitative perspective, it will be possible to provide a better understanding of the relationship between student agency, peer resources, and college–going behavior and to aid in interpretation of the statistical results of Part A of the study.

What emerged from the interviews and other sources were some interesting contrasts between the Traditional and Magnet programs. Although Part A found no significant differences between students in the two programs on School–Practices and Peer–Resources, there were some trends that suggest differences between the programs. In brief, Traditional counselors reported a more passive role as far as college counseling, relying mainly on "intercom" announcements to reach potential college applicants. Unless students took individual initiative to seek out college information, Traditional counselors focused more on one of the school district's priorities: increasing high school graduation rates by focusing on seniors who could graduate on time if in their last year they complete missing courses. Magnet counselors also focused on high school graduation, but they were more active as far as supporting individuals pursuing college application and information–seeking.

A caveat. No attempt is made to link counselor interview reports with the quantitative results. Although tempting to suggest that low counselor proactivity was somehow linked to higher individual student agency, or made individual agency more of a necessity, the data collected do not warrant making such a specific connection. At best the information provided by the counselors helps contextualize the environment in which student agency plays out, but it offers no insight into the actions of specific individuals who participated in Part A of the study.

Method

The data collected from the counselor interviews was used to describe the types of counseling and resources available to students at Promise High, specifically assessing for practices identified to promote college–going (McClafferty et al., 2002; Tierney, et al., 2009). In addition, the counselors' perspective on student agency and peer–resources towards college–going was documented.

Participants

Participants included all of the counseling staff in the Magnet and Traditional program, and the college counselor (N = 8). The years of counseling experience for the groups as a whole varied greatly from three years to 26 years. The years that the each of the counselors had worked at Promise High also varied greatly, as the years ranged from two to 26 years. The demographic, training background, and counselor distribution is displayed in Table 1 in Appendix B.

Counselor Sampling Procedure

The counseling staff consisted of seven academic counselors and one college counselor. All eight of the counselors were asked to participate. They received fliers in their mailboxes inviting them to participate in the study, to contact the principal investigator if they were interested in participating, and to arrange a meeting time and location of their choice. All eight of the counselors agreed to participate in the study. The participants were informed of their rights in accordance with human subjects' regulations. Consent was attained before the onset of the interview. The interviews were conducted in the counselors' offices, audio recorded, and averaged approximately one hour.

Analysis of the Interviews

Triangulation was used to establish construct validity. Triangulation is a common technique that compares and cross-references various sources of data with each other (Jick, 1979). This method was used to establish construct validity and validity of the survey findings. The interview data was cross-referenced with the information provided by students and observations by the principal investigator. For example, practices of disseminating information mentioned in the counselor interviews were validated using observation notes and information gathered through informal conversations with students. In addition, information gathered

through interactions with the students and observations were inquired about during the counselor interviews. This allowed for a comprehensive understanding of the school and counseling practices.

All of the interviews were transcribed and analyzed using Atlas.ti qualitative data analysis software (ATLAS.ti Scientific Software Development). The data were analyzed using a modified grounded theory approach, utilizing college–going constructs as the guiding themes in the initial reading and coding of the interviews (Glaser & Strauss, 1967; McClafferty, et al., 2002; Tierney, et al., 2009).

The data was analyzed on three different levels (Miles & Huberman, 1994). At the first level of analysis, the data was categorized into broad codes according to the constructs identified in the college-going literature (McClafferty, et al., 2002; Tierney, et al., 2009). Agency was also included as a construct. For example, providing information and resources to students and parents is one of the constructs. Thus, an interview segment was categorized "information and resources" when the counselors discussed the topic of providing information and resources. The codes were influenced by the college–going constructs of McClafferty, et al., (2002) and Tierney, et al., (2009).

At the second level of analysis, the coded constructs were categorized into sub-codes to identify emergent themes. Again, using the example of information and resources, a theme that was included was "general/broad" (e.g. flyers) information versus "detailed information" (e.g. going over A-G requirements). This involved the use of constant comparison methods (Strauss & Corbin, 1990) in an iterative process.

Finally, at the third level of analysis, a cross-case analysis was conducted. At this level the analysis became "closer" or "clearer," and it provided a better understanding of the actions

and the purposes behind the participants' college–related activities. Using the example of information and resources, within the sub-code a theme emerged that illustrated detailed information disseminated at the individual level versus the whole class or a large group. The principal investigator and faculty mentor met regularly to discuss the codes, triangulation, and data analyses (Miles & Huberman, 1994). An advising committee member was also consulted to establish a final coding list. Based on the established themes and codes, the principal investigator and advising faculty member coded approximately 10% of the interviews until a minimum 80% coding agreement was achieved.

Measures and Codes

The college–going constructs developed by McClafferty, et al, (2002); Tierney, et al., (2009) guided the counselor interviews questions and the first level of coding analysis. The constructs are described in the table below.

Table 15
College–Going Construct Definitions

Construct	Definition
College talk	College talk is composed of verbal and non-verbal forms of communication about college between school personnel, students, and families. For example, taking time to discuss college requirements or activities geared at meeting college application requirements (i.e. writing college essays as an assignment).
Setting clear expectations	Setting expectations that all students are capable to attend college by school personnel. For example, school personnel verbally telling students that they ought to pursue education after high school specifically, higher education.
Information and resources	Entails providing comprehensive information on the requirements for entry into higher education. An example is providing college workshops at various times throughout the week for students and parents.
Comprehensive counseling	Occurs when *all* counselors and teachers provide students with college counseling and information, assist in crucial decisions regarding coursework with college in mind. For example, teachers may provide information and counseling to a student who is a year behind in meeting their A-G requirements.
Curriculum, Testing and Assessment	Entails providing a curriculum that guarantees college eligibility, and allows students to become competitive college applicants. For example, utilizing the PSAT exams to identify students who are having difficulty with the exam, and provide them with assistance.
Faculty involvement	Is demonstrated by school personnel who learn about current college requirements and new resources, and transfer this information to students and their families. For example, school personnel in addition to the college counselor, teachers can attend college requirement workshops.

Family involvement C	Is needed to sustain and transfer the college going culture from school to the home. For example, school personnel can reach out to parents and provide workshops on the college application process, and send literature home on what they can do to provide their children assistance.
College opartnerships u	Entails establishing and sustaining relationships between schools and local colleges, universities, and independent academic outreach organizations. For example, college students can provide high school students with entrance requirements, and share their own college experience.
Articulation n	Is the practice of promoting college going behavior at every school transition (e.g. elementary to middle school). For example, high schools can establish partnerships with the feeder middle schools to establish practices that help students arrive at high school ready to take the A-G required courses.
sPeer– Resources	Entails peers providing instrumental and emotional support. For example, peers can provide information about college requirements.

Counseelor Interview College–Going Questions.

The counselor interview protocol addressed each of the college–going constructs listed above. Interview questions from McDonough's (1997) interview protocol were utilized. In addition, the principal investigator composed some of the interview questions. See Appendix D. for the interview protocol.

Results

Counselors' Description of the Student Population by Program

The counseling staff in the traditional program described students in the traditional population as predominately Latino and from a low-income, working class background. When speaking of the population, as a whole, all of the counselors described it as struggling academically or as failing. However, one counselor described the students in the Traditional program as motivated to go to college but not equipped with the information to get them there.

> "…[The students are] Motivated to go to college. Some of them are not exposed to college life, or what their options are after high school…They have no clue what the difference [is] between a CSU, UC, and a community college…They have very good social skills…some of them are very talented, [it] might not be academically, but in other ways."

The Traditional counselors acknowledge that the students aspire to attend college; however, the students lack even the basic knowledge of which type of college to aspire to attend, let alone how to meet the requirements. Thus, the counselors doubt the students' seriousness and abilities to pursue a four–year college education.

Magnet counselors described students within the three magnet programs as ethnically and economically diverse, and they ranged from low to high on academic achievement. However, the math and science magnet students were considered to be the most homogenous of all the magnet groups. Unlike the performing arts and the medical magnet program, the math and science program requires that students demonstrate high competency in math and science subjects.

Counseling Goals

The counseling staff was asked to define the goals of the counseling department and their own goals. While the counselors in the traditional program included helping their students gain access to four–year colleges as one of their goals, ensuring that the students in the 12th grade met the *minimum* high school and A–G requirements was prioritized. In contrast, the goals held by the magnet counselors went beyond ensuring that the students met the minimum high school and A–G requirements. The Magnet counselors included making sure the students challenged themselves academically, and found the schools that best matched their interests as part of their goals.

Information and Resources

At the school–wide level (for both the Magnet and Traditional programs) general information about college was distributed in what could be categorized as "intercom counseling." Using the intercom heard throughout the campus, personnel distributed general

college information. The dissemination of general information included bulletin postings, a school wide assembly, a college fair, and folders that contain college related information on college entry requirements, visiting representatives from various colleges and universities, and scholarships and workshop opportunities held in the college counselors' offices.

The dissemination of college related information at the individual level was done systematically twice during the academic year, when students met with their counselors for 10 - 15 minute sessions to discuss their progress and select courses for the next semester. The Traditional program's approach to disseminating detailed college information at the individual-level is dependent on the student having expressed interest in attending a four-year college. One of the counselors provided an example:

> Interviewer: On average, how much time do you spend with each student who plans to attend a four-year college?
>
> Counselor: Probably the most 10 minutes, because they should see the college counselor…If they ask me, [tell me] they want to go to UC or CSU or the University of Southern California; or ask me 'Do you know the requirements?'
>
> Interviewer: But, they have to ask you?
>
> Counselor: …I ask them, 'What are your plans after high school? Are you going to a university or CSU or community college and then transfer to a university?'

The students in the Magnet program were also exposed to "intercom counseling," and had the same limited time with their counselors. However, the dissemination of information was not solely dependent on students expressing a desire to attend a four–year college. Magnet counselors were more proactive; they used additional modes of disseminating information not mentioned by the traditional counselors. For example, e-mailing students, sending letters to their

classrooms, and helping students navigate the internet to sites relevant to individual interests. The Magnet counselors demonstrated more proactive behavior than the Traditional counselors by reaching out to students in various forms to provide them with information.

The interviews with both sets of counselors illustrated that they wanted to provide students with information on how to become college–eligible. However, given the large student population and the counselor to student ratio, "intercom counseling" is initially utilized. When asked what the school as a whole could do to help improve to prepare students for a four-year college, a counselor in the Traditional program said the following:

> Put more attention to the Traditional kids…We need to do more college search [activities] and involve them in it, and not wait for them…to come and ask. We need to do more in our activities regarding the colleges, this way they can get more involved.

In the Traditional program detailed information and comprehensive counseling was done at the individual level *when* students expressed the desire to learn more about four–year college eligibility requirements. In contrast, magnet counselors provided all of their students with this information. Taking into consideration the quantitative findings, this suggests that students in the traditional program have to demonstrate more agentic behavior to gather detailed college information about the college–application process.

Comprehensive Counseling

Comprehensive college counseling does not begin at the onset of high school for all of the students in the traditional program. One reason for this is that counselors prioritized 12th graders to ensure that they have enough credits to graduate high school, rather than focus on eligibility and college access. This was driven by a policy emphasis in LAUSD to raise high

school graduation rates. Although college preparation was also a LAUSD policy, in the traditional program counselors were operating on a "first things first" approach. First make sure you graduate, and then let's work on college readiness. This implied, but not explicitly reported, approach was reflected in the comments of some counselors who perceive students in the traditional program as not able to successfully transition into high school *and* work on their college requirements. The following quote by a counselor in the Traditional program is illustrative:

> Interviewer: …You said that they [students] all want to try [to go to] a UC or a four–year college. Do you think they all know the requirements in ninth grade?
>
> Counselor: The kids who are college bound in ninth grade do, they're usually in the magnet programs.
>
> Interviewer: So, all of your ninth graders are not college bound?
>
> Counselor: I'm not saying that…In ninth grade some know and some don't know [the requirements]…I would say 75% of them don't know…High school is a big change for them, socially, emotionally, and some are having a hard time with that so, to add college requirements…In 10th grade we start talking to them about it.

Providing students who have limited knowledge of college–eligibility requirements in the beginning of the 10th grade puts them at–risk for not meeting the eligibility requirements for a four–year college, limits possible interventions available to the student if they do fall behind on course requirements, and structures the counseling program to function in "triage" format to ensure that the 12th graders are on track to meet the *minimum* eligibility requirements.

The counselors in the Magnet program also focused time and effort on the 12th graders. However, they also provided information on course requirements at *all* grade levels. One of the

Magnet counselors incorporated the practice of surveying students online prior to their scheduled meeting. Via the online survey students identity their educational goal, select classes available to them at their grade level, and learn what classes they need to take to attend a four–year college at each grade level. The counselor reviews the courses the student selected and their educational goal prior to seeing the student. This allows for a "richer" counseling session in which the counselor can provide more detailed information.

The Magnet counselors informed students about the A–G requirements beginning in 9th grade. This was also done for students that expressed the desire to attend a community college after high school. Thus, it increases the likelihood of students knowing the A–G requirements, strategizing their courses and extracurricular activities to become "competitive applicants," and have more educational and career options after the 12th grade.

The evidence above also supports the statistical relationship between agency and applying to a four–year college. The qualitative data added the following findings; a student in the Magnet program who has limited college–going knowledge can attain this information at the onset of their high school career. A student with similar levels of college–going knowledge in the Traditional program may become at–risk of not obtaining information that will enable him/her to strategize their courses to meet eligibility or become a "competitive applicant" (most likely to be accepted to the UC or admitted to their top choice school; UCOP, 2012). If a student wants to obtain comprehensive counseling in the Traditional program he/she might have to demonstrate agency by informing the counselor that they are aware of the eligibility requirements in order to properly strategize their academic pathway at the onset of high school.

College Search

Counselors in the Traditional program stated that students in the traditional program do not know the difference between a CSU, UC, or a community college. Counselors encouraged students to look beyond the immediate community and four–year colleges nearby, and to find schools that provide them with the best educational training in their area of interests. In addition, they encouraged students to visit the college–office, meet with college representatives, and search online for information. However, discussion of college exploration was limited unless students took action to seek information.

The counselors in the Magnet program reported conducting similar practices as those in the Traditional program. However, Magnet counselors provided students with detailed information about programs and resources offered at the different colleges, including at the junior college level. As illustrated in the quote below, if a student desires to attend a junior college after high school, the Magnet counselors provide them with information on the various community colleges and how to succeed in reaching their goals.

> Counselor: I first go with the interest of the student…I have a student who wants to go to trade school… What I always do in a case like that is not diminish their interests, but I try to expand their views. So I'll say 'You may choose to do this, but let's look at the long–term opportunities in that area, and what you are capable of doing.' If a student comes in and says 'I am just going to a community college' I'll tell them, 'I'll treat you like you are going to a four–year college in case you change your mind later.' I highly emphasize a certain cumulative GPA so that they can qualify for the honors programs [in the junior college], and I explain to

them how that works. I give them information about transferring to four–year universities…

In conversations with students, some of them mentioned selecting a junior college other than the one in their immediate community because of the transfer rate to the four–year college of their choice, or because it offered programs of interests to the students.

Students in the Magnet program are provided with guidance on the college–search. Counselors probe them about their interests, schools they are interested in, and provide them with resources offered at the school to help them reach their goal. Counselors in the Traditional program have structured the college search so that it is student driven. The Traditional counselors encourage students to look for information and identify schools that match their interests. Thus, if a student truly wants to identify the best school for him/her, or even compare the immediate local colleges it is up to them to find the proper information.

College Application and Financial Aid Process

In general, the Traditional counselors' role in college counseling can be described as "hands off." Traditional counselors activities were limited to providing students with their GPA, occasionally writing a letter of recommendation, and referring students to workshops and the college counselor. A reoccurring theme in the interviews with the Traditional counselors was this: because there was a college counselor on site (one), students should go to her for information on the college application process.

Counselor: After all of these years, I don't know what the college application looks like. All I know is that it's online…Usually the college counselor is the one that goes over the application with the students. It's up to us to tell them that the college counselor is here to help you with the application.

The Magnet counselors were more proactive than traditional counselors regarding college going. In addition to performing similar activities as the traditional counselors, Magnet counselors contacted colleges on students' behalf to obtain information beyond that provided on the college website. During the financial aid process both Traditional and Magnet counselors recognized many students had limited family financial resources, expressed limited knowledge of the FAFSA application, therefore, they referred students to school-provided workshops. However, again, Magnet counselors were generally more proactive. For example, Magnet counselors communicated that financial resources are available to bridge the gap between limited family financial resources and the cost of a post–secondary education. They communicated this message through systematic methods to all of their students, by disseminating scholarship information as early as the spring of the junior year, because that is when some scholarships for entering college freshmen begin accepting applications. They also e-mailed all of their students with scholarship information. For those who do not use e-mail they sent individual letters to their classrooms. The Magnet counselors also provided financial information to undocumented students, as described by one counselor:

> Counselor: … We (the student and the counselor) are looking at their family resources, and if they feel it is too expensive I will remind them that scholarships are available…I try to let them know the opportunity is there, even for undocumented students. We are not allowed to ask, but I'll send them information about [scholarships for] undocumented students, and what opportunities they have.

In contrast, counselors in the Traditional program mentioned lack of income and legal immigration status as reasons why students do not pursue a four–year college education, and

engage in very little discussion of financial aid resources. In addition, counselors in the Traditional program tended to provide scholarship information only to students they are familiar with and whom they believed match the scholarship criteria. They were apparently much less active in this regard than Magnet counselors.

The examples above communicate different messages about college. Magnet counselors communicate that a college education is attainable to their students. Evidence of this is that students are not asking them *if* college is attainable for them, but applying their agency towards obtaining detailed information on the colleges of their choice. Whereas, students in the Traditional program have to apply their agentic behavior towards finding the resources that supports the idea that college is attainable.

Agency

Counselors in both programs have a unique access to observe student agency related to college-going. Although they do not use the term, sprinkled throughout their comments are observations about individuals who exhibit and do not exhibit agency as well as generalizations about the population as a whole. In this case the reference is Agency–Intention–defined as proactive behavior with the intent of learning about the college application process.

Traditional Program.

In the Traditional program a student has to explicitly express that they would like to attend a four–year college to obtain detailed information about the A-G course requirements and college related information. The methods employed to disseminate this information are geared towards reaching a large population and provides general information. The school does offer college related resources for students, but it is up to the students to seek out these resources. An example of this type of agency is illustrated below by a counselor:

Interviewer: So, you see more students who have more behavioral problems?

Counselor: Yes, and there are the other ones who I know, who are more independent; they will come to me with questions about college, 'Should I take this class?'

During observations at the school it was observed that a particular student was receiving individual tutoring for the SAT. Because this was not observed before, I inquired about this practice with a counseling assistant. Below are notes from the observation illustrating the role of agency in the attainment of college related resources:

I asked why the SAT tutor had come just for him.

Counselor's assistant: Freddy's counselor got him a private tutor. He's getting *a lot* of help.

I asked her why he is getting so much help.

Counselor assistant: I noticed that if the student has the interest and wants to go to college, shows interest, has potential, and the counselor must like you. We've (the college office) done a lot of things for him and with the application essay.

The anecdote is an outlier as far as what I saw during my time on campus. However, it is consistent with counselor comments. It illustrates that if a student "shows interest" as many counselors have mentioned throughout the various interviews, school personnel will provide them with information. The anecdote demonstrates that school personnel are able to assist students with the information and resources needed to assist students apply to college. However, this is dependent on a student demonstrating "interest" or expressing interest in attending a four-year college. If this kind of student agency comes too late in high school they may become at-risk of becoming ineligible for college or not applying at all even if they are eligible. The

reliance on student agency is consistent with the quantitative findings: student agency might be critical for some individuals. However, it remains to be determined how a lack of counselor proactivity plays into the impact of student agency.

Magnet Program.

Magnet counselors did not discuss student agency in the same manner as the counselors in the Traditional program. Students in math and science program have been described as very high achieving and having very high expectations. They have been exposed to a rich learning environment that provided them with the information and support to attend a four–year college. Yet, they still demonstrated agentic behavior. One Magnet counselor described the students in the following way:

> Counselor: They come in and say, "O.K., Ms. —, how can you service me so that I get into the best college?' They are very much 'in my face'; they are demanding, and I love it. How else am I going to know if they need help? [Latino students do it too, and] I think it is the environment and the company they keep.

A counselor in another magnet program describe similar behavior from their students:

> Counselor: If it is a student that is a little more proactive they do e-mail me, and I offer my services before school, lunch, nutrition, and after school…They know I am available at those times and they'll come talk to me or they'll e-mail me.

In addition, a Magnet counselor presents the theory that students' agency is rooted from a combination of their parents' socialization, and innate motivation.

> Counselor: I think a lot of it is innate motivation. I talk to the kids about what keeps you motivated, I have gotten a lot of interesting answers…A lot of it is their parents, [they] have instilled this kind of drive. I think some of it is who they are,

> innately motivated, and that is something you cannot really account for in a tangible way…it's kind of innate motivation. I do think that a lot of its environmental. I had a girl who graduated last year…[She] was doing very well…She was motivated but her mom was very involved. So, I think it is a combination.

The explanations by the counselors above provide possible reasons why some students demonstrate agentic behavior are various, but key variables are that students believe that a college education is attainable and have the parental support to do well academically.

Both sets of counselors provided evidence that student agency plays a role in college–going behavior. The differences lie in the purpose and types of agentic behavior students demonstrate. As illustrated by the examples provided the counselors in the Traditional program, because students in the Traditional program are provided with general and limited college information, students have to demonstrate agentic behavior to learn and acquire basic knowledge on college eligibility requirements (e.g. the types of courses to take). On the other hand, students in magnet programs are provided with comprehensive and personalized information are able to seek (and in some instances demand) assistance from school personnel to get into the *best* college. The sources of student agency were briefly explored with both Traditional and Magnet counselors. The two major theories on what fosters agency is parental socialization and that it is an innate trait. This question might be explored in the future.

Peer Support

Although not part of the interview protocol, on limited occasions and in passing counselors in both Traditional and Magnet programs spontaneously mentioned the role of peer supports in the college-going behavior of their counselees. These references, as few as they were,

mentioned peers providing instrumental and emotional support, e.g. peers providing information about college requirements.

According to the counselors in the Traditional Program peers have played an instrumental role in some students' ability to successfully apply to a four-year college, as they provided instrumental and emotional support. A Traditional counselor described how some students encouraged each other to enroll in honors and advance placement (AP) classes; "I think the students themselves hear about AP and honors courses. They tell their friends that they should take these [classes] too, they pick and choose."

The counselors stated that the college application process is stressful for students, even if they are prepared and have taken the right steps. However, peers have played a valuable role by providing emotional support.

> Traditional Counselor: I ask them after I see their programs and classes 'What are you trying to do after high school?'… They kind of think about it and say 'Probably university'; they are hoping on it. I ask them if they have taken the SATs and all of these requirements they have to fulfill, college applications, everything. I think it is too much work for them.
>
> Interviewer: Do they seem overwhelmed?
>
> Counselor: Yes. For universities it is overwhelming for them, but they know ahead of time what they have to do. And they have friends who are in the same position, and they do it together….
>
> Interviewer: Are you saying that the students who already know all of the requirements, they also seem overwhelmed, but they have friends?

Counselor: I think they have support, I think they know where to get their support. They have friends, college night, [and] counselors.

The above quote suggests that even if the students know the steps and requirements to attend a four-year college, they need the support of their friends to get them through the application process.

Peers have also promoted agentic behavior towards becoming eligible and "competitive applicants" for college. As one of the counselors in the Magnet program reported, some students have a self-awareness of their academic performance and how it relates to their college eligibility. However, some choose to demonstrate agency and others do not. The following Magnet counselor was probed about why some students who are not meeting high academic expectations or are on track to meet the A-G requirements, and are self–aware of their eligibility standing, but do not demonstrate agentic behavior to improve. The Magnet counselor's response was the following:

> Interviewer: What is the difference between the students who are self–aware but not meeting the expectation and a student who is also self–aware and is meeting the expectations?
>
> Counselor: I think it is their choice in peers. I mean, I am not out there doing any kind of studies on it, but I get a sense that if they are spending time with students who are competitive and goal oriented, they tend to be competitive and goal oriented. I have students who do not have the skills or management style to succeed in AP classes…and because their friends are all in AP and honors classes they fight me tooth and nail to get into these classes…[I tell them] if you can get this grade in this class (non–honors/AP) we can work our way up here.

Peers have also fostered agentic behavior by helping establish relationships with counselors and other school personnel for resources. Latino students are a minority in the math and science magnet, and, unlike the Traditional program, there is no counselor of Latino background. Peers provided the emotional support and encouragement to students who were unfamiliar with a counselor or felt shy because they have not established a relationship with their counselor. A Magnet counselor in the quote below illustrates this:

> Interviewer: Let's say you have two Latino kids; they're both in the magnet and your students. Is there one you see more than the other? Are some more proactive than others?
>
> Counselor: Yes, definitely…It is a trickle down effect. If they see students coming in, they'll come in packs…They will come with their friends initially, but by the end of their junior year they'll come on their own, and feel comfortable enough to come to me. One thing, for some of them, not all, they feel that I show favoritism—that is just an assumption. With my Asian kids, they see me, we share the same last name, we identify, and the comfort level is established. With the Latino kids it takes a little time to establish, but once it is established they will come to me. It is a good working relationship that develops.

In summary, the above observations and quotes from the counselors provide some evidence that peers can play a critical role in Latino students' ability to successfully become eligible and submit an application to a four-year college. The counselor interviews and observations provided anecdotal evidence that:

1) Peers brokered relationships between their friends and school personnel so that students may obtain college related information

2) Peers provided instrumental support in regards to providing information about courses, the application process, and resources.

3) Peers provided emotional support by encouraging other students to enroll in honors and AP courses and the actual application process. This is also true even for students who have taken the appropriate steps to become eligible, as the application process can be overwhelming.

These reports are consistent with the results of the mediation analysis in Part A, specifically that peers mediate the relationship between agency and applying to a four–year college.

Agency and Cultural and Human Capital

The importance of possessing college specific human capital emerged as a theme throughout the counselor interviews. Human capital is defined as education and training investments (Becker, 1997); for example, knowing the A-G requirements or forms of cultural capital. Cultural Capital: A tool kit of skills, the means by which strategies of action are constructed…but differentially available to members of different groups via parents' skills and the socialization of their children, as well as peer group pressures, is used to bridge the gap between human capital and cultural capital perspective (Swindler, 1986); for example, a clear and well-defined expectation that they have to attend a four–year college after high school.

Entering high school with some form of human and cultural capital prompted students to navigate the interactions with the counselors and their course offerings. As a result, they gained the critical information to not only become college-eligible but competitive.

Traditional counselor: I think the difference is somebody in their world, their parents, older brother or sister, somebody in the family has planted that seed [of going to college] and nourished it, and here they are [in the counseling office asking for information]. They

> know right away they are going to college…they already know they have to have the two to three years of a foreign language, the higher level of math… they are very competitive. [The students say,] 'I have to get the best grades, because I want to go there [a specific college] I know that I have to get better than a B.'—their whole persona is different. You know which ones are the ones who are going to do it; it is amazing…It takes a village to raise a child, and it takes a village to encourage them to do what they want to be.

This counselor's perspective suggests that students whom they perceive as college bound arrive at their office equipped with outside school, college knowledge (the required A-G courses), and other forms of college related capital. Possessing these types of capital allows students the opportunity to receive more detailed information about becoming college–eligible and "competitive applicants" from the counselors. Per the counselors, this type of exchange is "triggered" when the students demonstrate that they have this knowledge either by explicitly stating that they know the requirements and/or want to attend a four–year college.

The relationships between the different forms of capital are intertwined and complex when contextualized in the college–going process, and they are even more complex when an individual–characteristic, such as agency, in incorporated. Given the contextual information about the Traditional program's structural practices, it is necessary for students to enter high school with some college–going human and cultural capital to be perceived as a serious and promising student in order to obtain a return of comprehensive counseling on their agentic behavior. By the nature of the application process to enroll in a Magnet program, it is highly likely that the students in magnet programs enter high school with some amount of human and cultural capital. In addition, the structural counseling practices of the Magnet program such as, providing students with comprehensive college counseling at the onset of high school, regardless

of the levels of agency or their post high school plans, allows students to attain and increase their college–going capital.

Summary of Findings

Counselors interviews and informal observations were used to contextualize the students' self–reported findings. Specifically, why agency geared towards learning about the college application process and peer–support matter for this particular population. The interviews revealed both similarities and differences in the counselors' support of college–going practices. Because the school is very large, the first level of disseminating information across all the programs and counselors is done through a form of "intercom counseling." The differences fall at the detailed and individual levels of counseling, suggesting a complexity that only a mixed methods approach can unpackage.

Perhaps, because counselors in the Traditional program perceive students as less committed to academics, ambivalent about college, and deficit in their knowledge of the college requirements they tend to defer talk of course strategizing and college related resources until the latter part high school years. Some do report being more active with the students who have strongly expressed that they are serious about pursuing a college education, but the impression made is that these are the exceptions and not the rule. In either event, it seems Traditional counselors do not describe themselves as very proactive and imply they rely on student agency to provide more than "intercom counseling." While the reason for these practices was not assessed, the findings demonstrate that students in the Traditional program are more likely to have to demonstrate agency to learn detailed information about applying to college. Examples of agentic behavior, as described, included students doing the following: telling them they would like to attend a four–year college, knowing the A–G requirements, stopping by their office to inquire

about which classes to take. While these qualitative findings cannot be directly linked to the student survey findings they do support the relationship between Agency–I and applying to a four–year college.

The relationship between Agency–I and applying to a four–year college appeared different for students in the magnet program. Perhaps it was because the Magnet counselors dealt with populations that were likely to enter high school knowing the college eligibility requirements, or that they began to inform their students about the requirements at the onset of high school that the agentic behavior of the students in the magnet program was described differently. While students also sought out the counselors for information, the type of assistance and information they sought was not about learning about the requirements, but geared towards making educated decisions about which schools to apply to and how the counselors were going to help them achieve their goals. Thus, this allowed the counselors to go beyond providing information and actually provide counseling.

Lastly, the data addressing the role of peers was limited. This is in part because in the original design of the study it was not treated as a primary factor but a covariate. Therefore, the role of peers was not incorporated in the interview protocol. Fortunately, the role of peers was spontaneously mentioned by the counselors. Counselors in both of the programs described peers as playing a supportive role in the college–going process. However, the differences appeared in their context and what they were supporting. According to Traditional counselors, peers were described to be supportive by encouraging the taking of honors and AP courses and the college application process. Magnet counselors also described peers as supportive. However, peers also sustained a competitive environment in which taking challenging courses and getting into the best schools was encouraged.

The findings from the counselor interviews supported the statistical findings of the relationship between Agency–I and applying to a four–year college, and that Peer–Resources does function as a mediator. While a direct link between these qualitative findings and the quantitative findings cannot be made, it does provide insight into why they play an important role for some students. Specifically, the role of Agency–I and Peer–Resources *may* have a greater impact for students who are not rich in college–going environments where it is up to them to navigate the school offerings (e.g. workshops, counselor visits) to successfully apply to college.

Discussion

The primary goal of this study was to investigate how well environmental factors and individual characteristics predict college-going behavior for Latino/as who are college eligible. This was explored through the use of a binary mediation model. The overall objectives of the study were partially met. A number of limitations of the study require the interpretation of results to be done with caution. These caveats will be discussed below, but first a brief summary of the main statistical findings.

As predicted, Part A of the study demonstrated that for college eligible Latino/as high school seniors, an individual characteristic—a particular form of student agency—was significantly related to the outcome variable–completing an application to a four-year college. Contrary to the hypothesized binary mediation model tested in Part A, the individual characteristic College–SE and the mediator Helping–Seeking did not have a significant relationships with the dependent variable, Submitted-Application.

The direct relationship between agency and submitted application was positive and significant, and it prompted exploratory investigation of an alternative model. The results of the

exploratory model tested demonstrate that agency and peer–resources had significant and positive relationship with submitting an application. In addition, peer–resources mediated the effect of agency on submitted application. For any given student the odds of submitting a college application are dependent on a combination of their agency and peer resources—peer–resources serving a meditational role. The finding that peer resources mediated the relationship between agency and applying to a four–year college coincides with past research documenting that the peers can play an emotional supportive and instrumental role in the college–going behavior by Latino/a students (Azmitia & Cooper, 2001; Grubb, et al., 2002; Gandara, 2005; Sokath, 2006). The combination of these two findings provide a better understanding of how individual characteristics (Agency–I) and peer resources contribute to Latino/a students applying to a four–year college. The findings demonstrate that for Latino/a students to successfully apply to college they need to do more than take the appropriate courses and get good grades; they also have to demonstrate agency towards learning about the college application process, and have the support of peers.

Qualitative Study: The Meaning of Agency

The counselor interviews summarized in Part B provided some possible insight into the statistical relationships obtained in Part A, specifically the direct relationship of Agency–I with Submitted–Application, and the partial mediation effect of Peer–Resources. The counselor materials indicated that agency (not be mistaken as Agency–I) varies across the different learning environments at the high school, suggesting a complex intertwined relationship between learning environment and agency that only further quantitative and qualitative research can unpack.

Counselors' descriptions of the students' behavior suggested that students in the Traditional program tended to demonstrate more Agency–I around learning detailed information about applying to college. Examples of Agency–I type behavior reported by counselors included students doing the following: telling them they would like to attend a four–year college, knowing the A–G requirements, and stopping by their office to inquire about which classes to take. While these qualitative findings cannot be directly linked to the student survey findings, they are generally consistent with the statistical findings of Part A.

When Magnet counselors talked about the agency that Magnet students demonstrated, a different picture emerged. Similar to the Traditional counselors, the Magnet counselors reported that Magnet students engaged in Agency–I type behaviors such as seeking information about the college application process. But, in addition, Magnet students focused their efforts on getting help from counselors to make educated decisions about which schools to apply to and how to best utilize the counselors as a resource to help them achieve their goals.

This type of agency differs from Agency–I (actions taken to learn about the application process). The Magnet students already knew the college eligibility requirements, therefore the type of agency they exhibited reflected what Bandura (2006a) refers to as proxy agency—actions driven by the desire to obtain their goal by gaining access to resources and expertise or influencing others (e.g. counselors) to act on their behalf to aid them in reaching their goals. A Magnet counselor stated that her students were "In her face and demanding." They had a sense of entitlement and asked her what she could do for them hence, they were demonstrating proxy agency by trying to enlist her to act on their behalf so that they could become closer to obtaining their goal of obtaining entry into a four–year college.

A possible explanation for the differences in the type of agentic behavior displayed by the students in the different programs is that individual agency is constructed by and dependent on the school practices that the students are exposed to. Specifically, because Traditional and Magnet programs varied in their organizational structure and cultural practices, they required different forms of agency from their students. For example, Traditional counselors reported, they did not systematically begin talking to students about college at the onset of high school and typically waited for the students to come to them. Therefore, students in the Traditional program had to be agentic to learn about the application process early in high school. In contrast, students in the Magnet program experienced a richer college–going environment and were better equipped with the basic college–knowledge. Therefore, Magnet students' agentic behavior was geared at getting access to resources, expertise or influencing counselors to act on their behalf to aid them in reaching their goals.

These findings mirror those of McDonough (1997), as she also found that colleges–bound students had to self–navigate the college search and application process in schools with a weak college–going environments. In contrast, in schools where a strong college–going culture was present, students were aware that counselors and other school personnel were there to help them meet their goals and expected their assistance.

The Role of Peers

Past research has demonstrated that peers affect the college–going behavior and outcomes of low–income, ethnic minority immigrant youth (Azmitia & Cooper, 2001; Horn & Chen, 1998; Sokath, 2006). Among these populations of youth, there is a need for a clear–cut understanding of how peers support or suppress enrollment in post-secondary education (Tierney & Colyar, 2009). The results from Part A demonstrated that Peer–Resources had a direct

relationship with applying to a four–year college. In addition, Peer–Resources mediated the effects of Agency–I on applying to a four–year college for this urban Latino sample.

In Part B of the study, counselors in both Traditional and Magnet programs described peers as playing a supportive role in the college–going process. However, differences appeared in the type of support and what peers were supporting across the different programs. Traditional counselors described peer resources by the following actions: providing instrumental support and encouragement to take steps towards becoming college–eligible, enrolling in honors and AP courses, and submitting an application to a four–year college. It may be that Traditional students have to provide each other with the emotional and instrumental support to successfully gather information on how to apply to college as a result of weak college–going environment.

Magnet counselors stated that peers also provided resources. However, the resources peers provided were not geared at gathering information on how to apply to a four–year college, but on how to become what is referred to as "competitive applicants," and most likely to be accepted to the UC or admitted to their top choice school (UCOP, 2012). Students in the magnet program encouraged each other to enroll in as many honors and advanced placement courses, strive to obtain high scores on college–entrance exams, and encouraged each other to attend a selective college. Students in the Magnet program are provided with a strong college–going environment at the onset of high school therefore, they are able to promote the types of activities that allow one to become a "competitive applicant" and strive to attend the best four–year colleges.

The college–going culture in the Magnet programs socialized students into becoming "competitive applicants" by conveying the message that entry into a four–year college after high–school was a realistic option for them, and equipping them with the information needed to

achieve this goal. In turn, students' college–going practices became normative and they expected their peers to enroll into a four–year college. For students in the Traditional program, where a college–going culture was not strong, the resources peers provided were concentrated on *learning* how to apply to college.

These findings illustrate that peer resources specifically, the aims of peers support (learning how to apply and meet eligibility requirements versus becoming "competitive applicants") are a product of school practices and a college-going culture (or lack there of). Specifically, the roles that peers play depend on the different types of learning environments the students' experience (strong college–going versus weak college–going). Per the counselor interviews this phenomenon took place independent of counselors' interventions and formal school practices (e.g. formal peer–mentoring program).

While a direct link between these qualitative findings and the quantitative findings cannot be made, the findings from Part B of the study provide insight into why the type of resources measured by the Peer–Resources and resilient characteristics played an important role for some students. Specifically, agency–and peer–resources may interact to have more utility for students enrolled in schools with a weak college–going environment. In these types of schools, more of the responsibility is left to students who, with the help of peers, navigate the pathways to post–secondary opportunities.

Having Capital to Gain Capital

It was originally expected that human capital would play a critical role in the college-going for students of immigrant background. Specifically, students with limited college related human capital would obtain the human capital they lacked through the interactions with their counselors. An unexpected finding from the counselor interviews was that counselors were more

likely to perceive students to be college bound if they already possessed college related human capital; in turn, the counselors would provide students with more detailed information. Students who entered high school with no or limited amounts of human capital were less likely to be perceived as college bound or "serious" about attending a four–year college. Therefore, because these students lacked the capital to ask detailed questions pertaining to four–year colleges (e.g. course requirements, fee waivers for the application) they obtained less information and comprehensive college–counseling than students who had college related resources outside of the school (e.g. family members who attended college). This practice promotes the undemocratic cycle of having to possess capital to obtain capital. The practice also makes it difficult for underserved and first generation college-going students to achieve educational and economic mobility.

Limitations of the Study

The study was limited by reliance on newly composed scales, which had been subjected to limited psychometric refinement. For example, the Help-seeking and College–SE were disappointing, as they did not demonstrate a significant relationship with the outcome variable. It is not certain if these outcome are due to the constructs not having a valid relationship with the outcome variable, or because the scales were not sensitive or refined enough to capture the intended characteristics.

The College–SE scale was intended to assess students' perceptions of their ability to complete tasks required to apply to college (e.g. study for the entrance exams, work on college applications). The scale might not have had enough variance to produce a correlation with other variables. The scores were clustered together at the middle of the scale (M = 6.62 SD = 1.74 on a 10 point scale). It is possible that students do feel efficacious in the various steps of application

process, but they might have an inaccurate perception and limited knowledge base of what is required to successfully submit a college application. This may be especially true for students in the Traditional program whose counselors state that they enter high school with very little college–knowledge, and do not receive college information until the later years in high school. Therefore, the students continue in a cycle of receiving limited information, causing them to have a false sense of knowledge and confidence. However, this possible explanation cannot be confirmed until more psychometric development is completed. Therefore, the most plausible explanation is a failure of the items developed for the purposes of this study.

The Help–Seeking scale also had measurement limitations that may explain why it failed to be significantly related to Submitted–Application. The scale included a mix of items including attitudes about help–seeking as well as reports of actual help–seeking behavior. In addition, when students stated they asked for help, they were not consistently asked whom they approached for help. Help–Seeking scores are clustered together (M = 3.40 SD = .41 on a 5 point scale), indicating a lack of discrimination. Thus, the scale might not have had enough variance to produce a correlation with other variables. This lack of variance plus a mix of attitudes and behavioral report items points to the need for scale development.

The outcome measures had limitations as they were too general and did not capture the complexity of college–going. While a large percentage of the sample (76%) reported applying to a four-year college, it is not known how strategic the students were during their application process. Based on observations it is possible that an outreach program "herded" a large group of students to submit an application to a local four–year college, without providing students with the comprehensive college counseling needed to make an educated decision on which schools to apply to. It is also not known how many students who achieved UC eligibility or could have been

considered “competitive applicants” only submitted applications to a CSU (which is less competitive). A crucial factor that could have also influenced this outcome but was not addressed is legal immigration status. While the majority of the students were born in the United States (84%), their parents were foreign born. It is possible that some students did not apply to a four–year college because they themselves do not have a legal immigration status, believe they are not eligible for financial aid because of their parents’ legal status; or fear making their parents visible to the federal government by applying for financial aid. Therefore, a future next step is to develop methods to unpackage the multiple levels of student eligibility and compare them to where students actually apply, and explore the role of immigration status on college-going behavior at the high school level.

Sampling from a larger number of school sites is an important future step. For example, the suggestive findings that there might be a difference in the dynamics of agency and resources by peers in the Magnet versus Traditional programs could be fully explored with a larger sample of students, and the sampling of more campuses with varied arrangements of programs. In addition, a larger sample size would permit the application of powerful statistical techniques that might help clarify the roles and possible interactions of individual characteristics across different learning environments on college–going behavior.

Implications

Research Implications.

This study was motivated by suggestive findings in the literature that mapped onto individual experiences and observations. Although individual factors such as agency and self-efficacy have been studied in the academic resilience literature, much less is known about their role in the post-secondary enrollment by Latino/as and other disadvantaged populations.

Although limited for several reasons, the results of Part A and B taken together support the claim that more investigation of individual agency and other individual resiliency factors is warranted. In addition, there has been a call for additional research on the role and utilization of peers on college–going practices during the various stages of the college–going process and as early as middle school (Tierney & Colyar, 2009). To gain a better a understanding of the effects of a college–going culture it is recommended that student individual resilience characteristics be incorporated at various stages of the of the college–going process.

School and School District Implications

Develop valid indicators assessing college readiness.

Findings from the study indicated that the Traditional counselors were not proactive in providing students with comprehensive information, especially before students' senior year. According to the counselors, this was because they used the following self–selected indicators of who was college–bound: students' knowledge of the eligibility requirements and students' direct assertions of a desire to attend a four–year college. Developing more valid indicators assessing college readiness such as grade point average, coursework, and achievement test scores that mirror admission requirements (Roderick, et al., 2009), might help counselors be more proactive in disseminating information and providing guidance. This might also allow counselors to identify who is college–bound, but also appropriately address where students are lacking in preparation, and aid them in becoming college ready.

Apply a whole school approach to college counseling.

Certainly the results of Part A and B support a whole school approach to college counseling that has been advocated elsewhere (McClafferty et al., 2002; Tierney et al., 2009). When school personnel, such as teachers, assistants, and coaches, are equipped with college–

knowledge they are able to provide students with college information. This also increases the number of identified resources that students have accessible to them. It also increases the visibility of a college–going culture for all students. Incorporating a whole school approach can be achieved by implementing the college–going constructs by McClafferty et al. (2002) and Tierney et al. (2009).

Improve counselor training on college counseling and financial aid.

Traditional counselors had limited knowledge on college–counseling. For example, they were not familiar with the current applications to the local colleges, and were more likely than the Magnet counselors to refer students to the college counselor when students inquired about the college application process. Both sets of counselors also stated having limited knowledge on financial aid. Therefore, it is suggested that counselors obtain training on the various components of the college application process (e.g. from meeting course eligibility to the financial aid application process). This would allow students to have multiple sources of information regarding the college application process.

Provide comprehensive counseling at the onset of high school.

Traditional counselors did not begin speaking to their students about college until the 10th grade. As Bryan et al. (2011) demonstrated, seeing a counselor to obtain college information before the 10th grade is a strong predictor of applying to college and applying to two or more colleges. In addition, it allows students to properly strategize their courses to become "competitive applicants" and the time to utilize interventions if needed.

Incorporate peer groups into the college–going practices.

Peers can have a great impact on student academic and college–going outcomes of Latino youth (Tierney & Colway, 2009). Both the quantitative and qualitative findings demonstrated

that peers mediate college–going, specifically applying to a four–year college. Peers can be incorporated into the structure of a college–going environment through the use of a multi–tiered mentoring program (Schneider, 2007). This could entail older students mentoring younger students by providing them with information about course requirements, and additional forthcoming requirements. In addition, schools can structure student led group activities pertaining to college–going.

Incorporate students as college representative in classrooms (McDonough, 1997): By making students responsible for disseminating college information to their peers, it allows the student representative to learn about college eligibility requirements and resources, and develop a college and "expert" identity. In addition, it helps sustain and support a college–going culture by normalizing the discussion of college among peers. It is recommend that students who are average or slightly above average take on these roles because it would bring attention to a student who would otherwise go unnoticed, and allow both the student representative and peers to increase their levels of college–self–efficacy (Bandura, 2006a; McDonough, 1997).

However, based on the interviews and impressions formed during the research, it would be overly optimistic to believe that better information and more training would change the pattern of counselor practices in schools such as the one in this study. The counselors said they are focused on insuring that high school seniors who could still graduate take missing requirements. In other words, no matter what was found in this study, without a lower counselor–to–student ratio it's doubtful the present findings, even if widely disseminated in local schools, would have the potential to increase the time counselors spend on college-going practices for students in their early high school years (McDonough, 1997, 2005ab). Perhaps more counselors would allow for more students to obtained comprehensive counseling, but in a time of

reduced budgets that is probably not likely to happen—due to budget cuts, Promise High had to eliminate a counselor for the academic year after the study. Therefore, increasing the student–to–counselor ratio.

Future Research

Although limited in scope, this study suggested the value of future investigation of the role of individual characteristics as factors affecting post-secondary education of Latino/as and other disadvantaged populations. Researching and developing better measures of academic resilience such as individual agency and efficacy is certainly a high priority. As the review of the literature presented in the Introduction concluded, there is only a limited list of psychometrically sound measures available for this line of research. The measures developed for this study, although based on the literature and psychometrically reliable, were narrow in scope, and the self-efficacy measure yielded too little variance to be of value.

In addition, including a larger sample by incorporating additional schools and other ethnic groups might be a worthy next step. Because it is not uncommon for African American/Black and Latino students in urban areas to attend the same schools or schools that are very similar in size. They are likely to share similar learning environments. Therefore, I would like to incorporate African American/Black students into the study to broaden the potential generalizability of the findings and theory across ethnic groups. This would also allow for the identification of potential differences of the effects of environmental factors and resilient characteristics to be brought to light.

A third objective is to re-visit my dissertation research questions utilizing a theoretical model that incorporates environmental and resilient characteristics simultaneously such as the Phenomenological Variant of Ecological Systems Theory (PVEST; Spencer, et al., 1997;

Spencer & Tinsley, 2010). The PVEST is one of the few developmental theoretical models that address the interaction between environmental factors and individual characteristics. Applying the PVEST model allows further exploration of the role of resilience on college-going by underrepresented students. Due to my small sample size (N = 124) I was only able to test a limited number of constructs associated with academic resilience. I would like to include additional constructs associated with resilience theory, such as the role of an achievement identity embedded self–perception (Oyserman, et al., 1995) and external challenges such as discrimination.

Finally, the hours I spent at Promise High brought me in contact with students that reminded me of the anecdote with which I began this dissertation. I saw other "Fatimas," who, like my high school classmate, had the grades and coursework to attend a UC, but they never applied. Although I will never be completely certain why I applied and she did not, this study has suggested a possible reason why some "Fatimas" never apply.

Looking back I now realize that I did not experience a strong college–going culture. While Fatima and I attended a school structured like Promise High, and were fortunate to participate in a program that had a strong college–going environment for some students, we did not receive the same type of counseling as other non–Latino students even though we got good grades in college–track courses. We heard the buzz about college and the SATs, but we did not receive the detailed counseling allowing us to properly map out our academic pathways. We received direct and indirect messages that we were not perceived as college–going, and if we were, it was assumed that we would attend a local state or community college. Given our limited college–going capital and these messages, the option of attending a four–year college of the caliber of a UC right after high–school seemed mythical.

While not completely certain, I now see a possible reason for our different outcomes and why my efforts to provide her with information and encouragement fell short. I was urging her to invest her efforts on something that was not tangible to her. From a logical perspective, it was not the smart thing to do. I, on the other hand, decided to apply my efforts to chase a dream. Perhaps if she had the combination of my peer support and college–going practices targeting *her*, she would have believed that entry to a UC was a reality, applied her ability to be proactive on completing her application, and gained entry into UCLA to begin her path towards a medical degree that she dreamed of pursuing.

Appendix A - Result Figures and Tables

Figure 1. School Wide Enrollment by Ethnicity 2010-2011by Percent

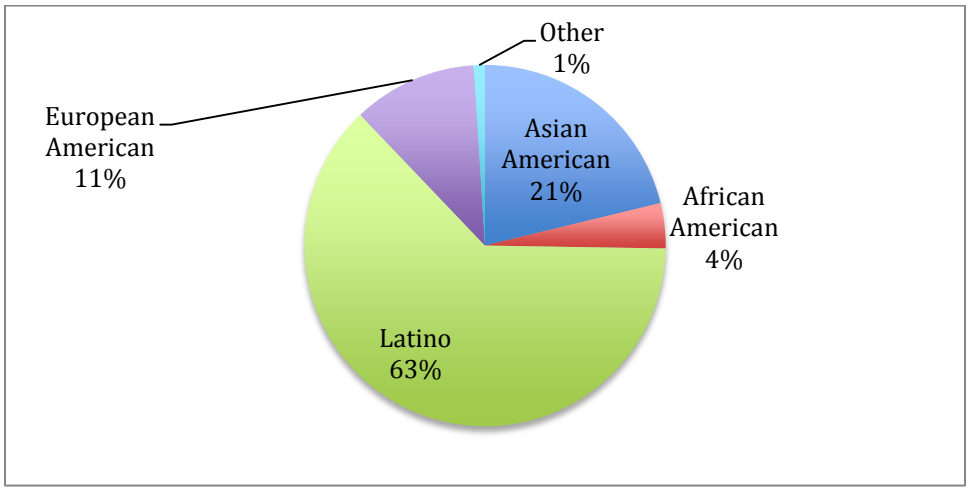


Figure 2. Performing Arts Magnet Ethnic Participation 2010-2011 by Percent

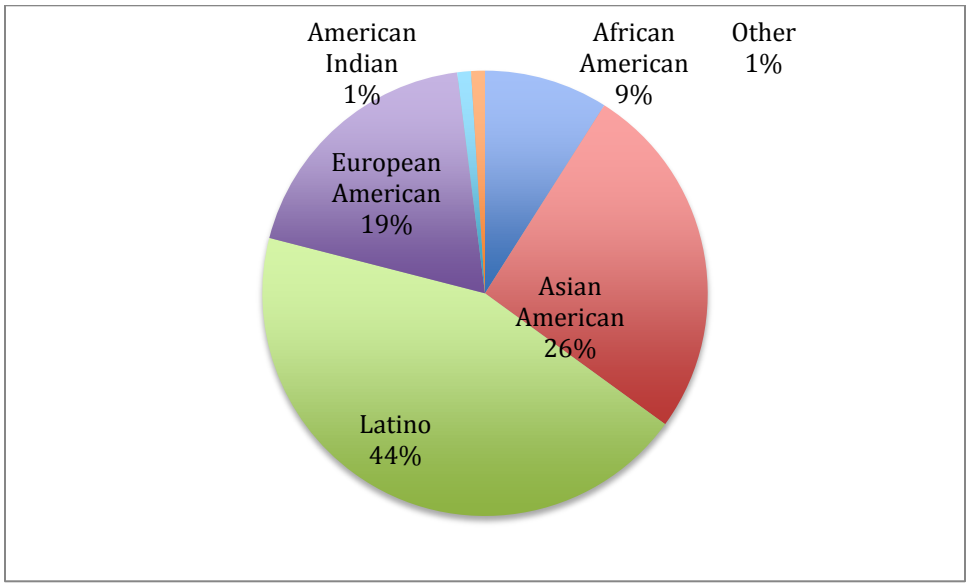


Figure 3. Medical Careers Magnet Ethnic Participation by Percent

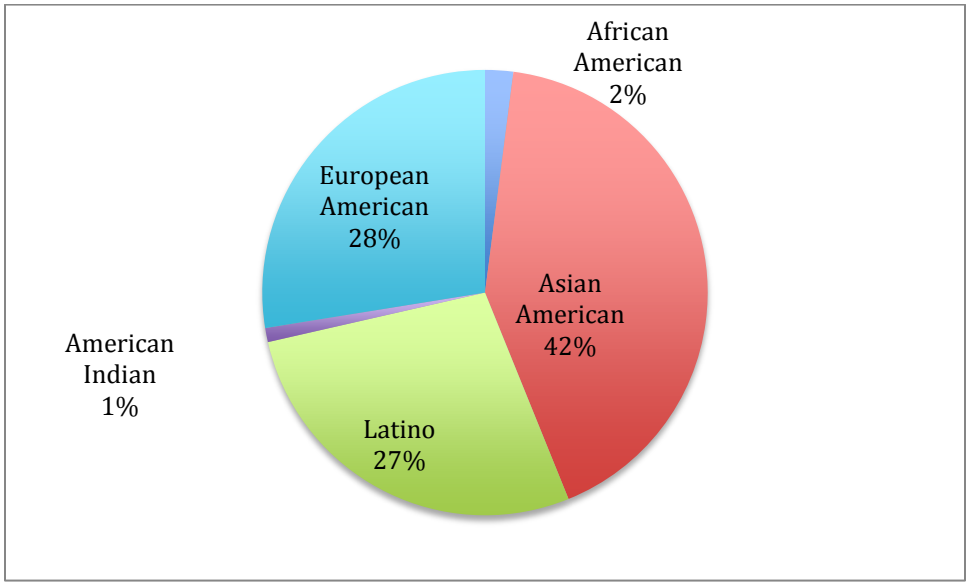


Figure 4. Math/Science Ethnic Participation by Percent

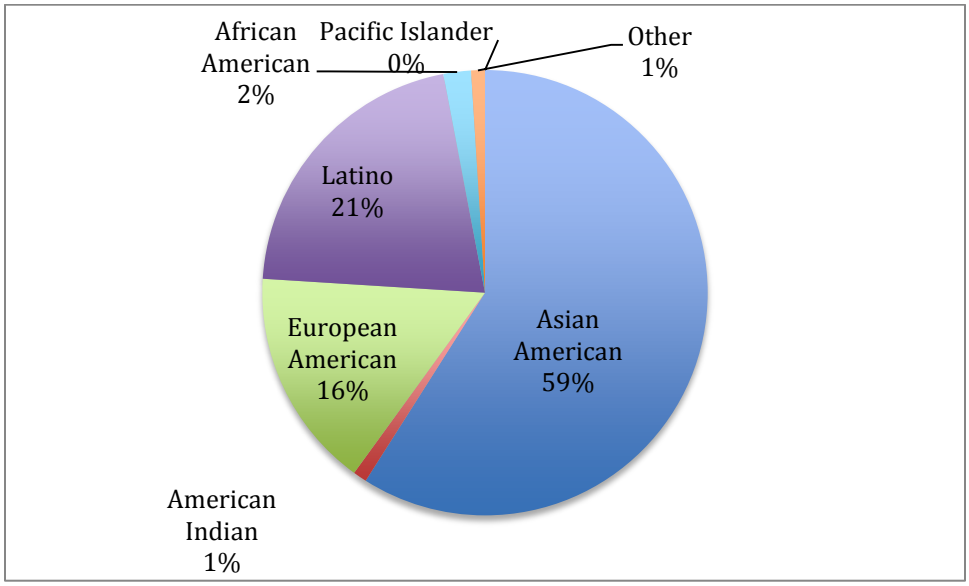


Table 1

Participant, Mother, and Father Country of Birth by Percent

Country of Birth	Participant (n = 124)	Mother (n = 124)	Father (n = 122)
Belize		1	1
Bolivia		1	1
Chile			1
Colombia	1	1	1
Costa Rica		1	
Ecuador		1	
El Salvador	5	23	18
Guatemala	1	9	10
Honduras		1	
Iran			1
Korea			1
Mexico	9	52	55
Nicaragua		1	1
Panama		1	1
Peru		3	3
United States	84	5	6

Table 2

Participant Demographic Items by Percent

Demographic Item	n	Percent
Gender	124	
Male		25 (n = 25)
Female		75 (n = 93)
Age	124	
17		68 (n = 84)
18		30 (n = 37)
19		2 (n = 3)
Mother's highest level of education attained	118	
No schooling		0
Elementary / Junior high school		38 (n = 45)
Some high school		17 (n = 20)
Graduated from high school		24 (n = 29)
Some college		12 (n = 14)
Graduated from college		7 (n = 8)
Law, medical, or graduate school		2 (n = 2)
Father's highest level of education attained	109	
No schooling		2 (n = 2)
Elementary / Junior high school		40 (n = 43)
Some high school		17 (n = 19)
Graduated from high school		26 (n = 28)
Some college		6 (n = 7)
Graduated from college		7 (n = 8)
Law, medical, or graduate school		2 (n = 2)
Mother attended school in the U.S.?	116	
Yes		28 (n = 33)
No		72 (n = 83)
Father attended school in the U.S.	112	
Yes		23 (n = 26)
No		77 (n = 86)

Qualify for free/reduced program	122	
Yes		90 (n = 90)
No		10 (n = 10)
Siblings / close family member attend four-year college	120	
Yes		41 (n = 49)
No		59 (n = 71)

Table 3

Participant School Enrollment and Program Participation by Percent

School / program participation	n	Percent
Grades Attended Promise High		
9th grade	123	89 (n =111)
10th grade	123	94 (n = 117)
11th grade	123	98 (n = 122)
12th grade	124	100 (n = 124)
School program participation 9th grade	121	
Traditional		60 (n = 72)
Performing Arts		12 (n = 15)
Medical		11 (n = 14)
Math/Science		17 (n = 20)
School program participation 10th grade	123	
Traditional		58 (n = 71)
Performing Arts		15 (n = 19)
Medical		12 (n =14)
Math/Science		15 (n = 19)
School program participation 11th grade	124	
Traditional		56 (n = 69)
Performing Arts		17 (n = 21)
Medical		12 (n = 15)
Math/Science		15 (n = 19)
School program participation 12th grade	124	
Traditional		56 (n = 69)
Performing Arts		17 (n = 21)
Medical		12 (n = 15)
Math/Science		15 (n = 19)

Figure 5. Participant Country of Birth by Percent

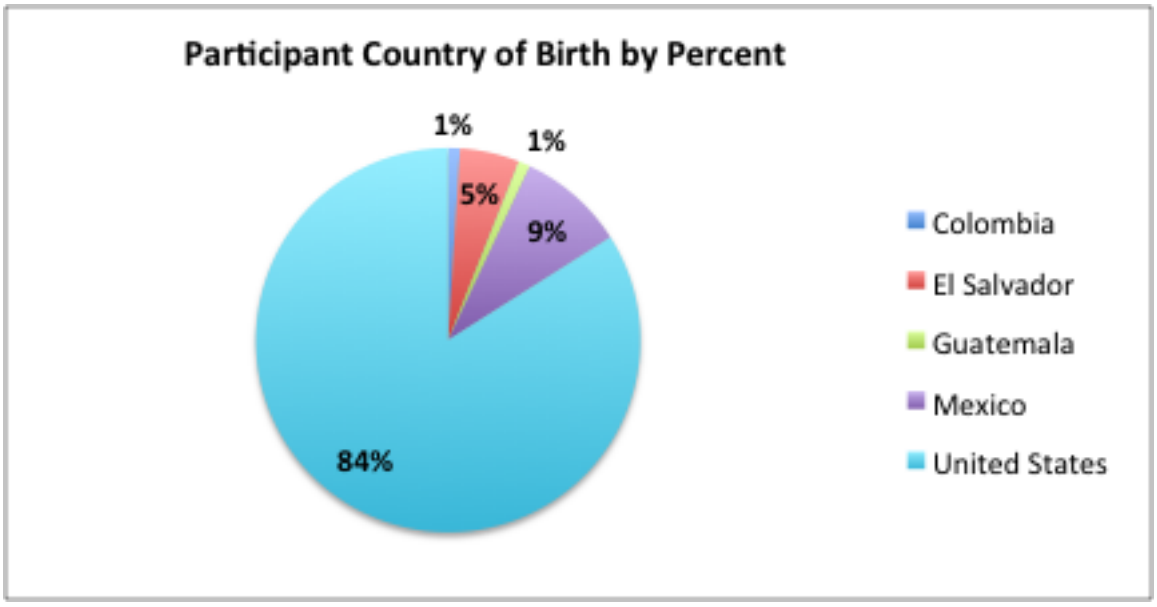


Figure 6. Mother Country of Birth by Percent

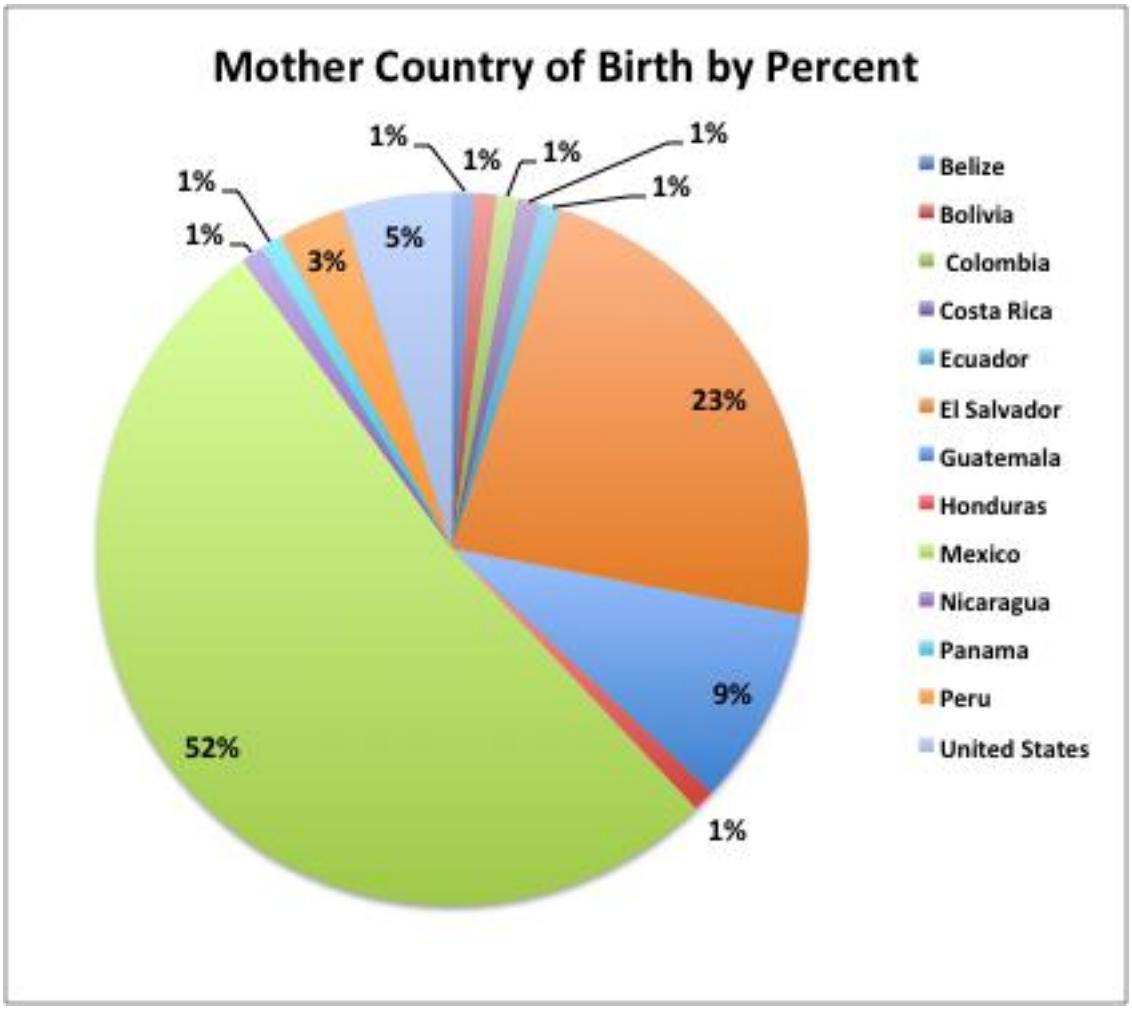


Figure 7. Father Country of Birth by Percent

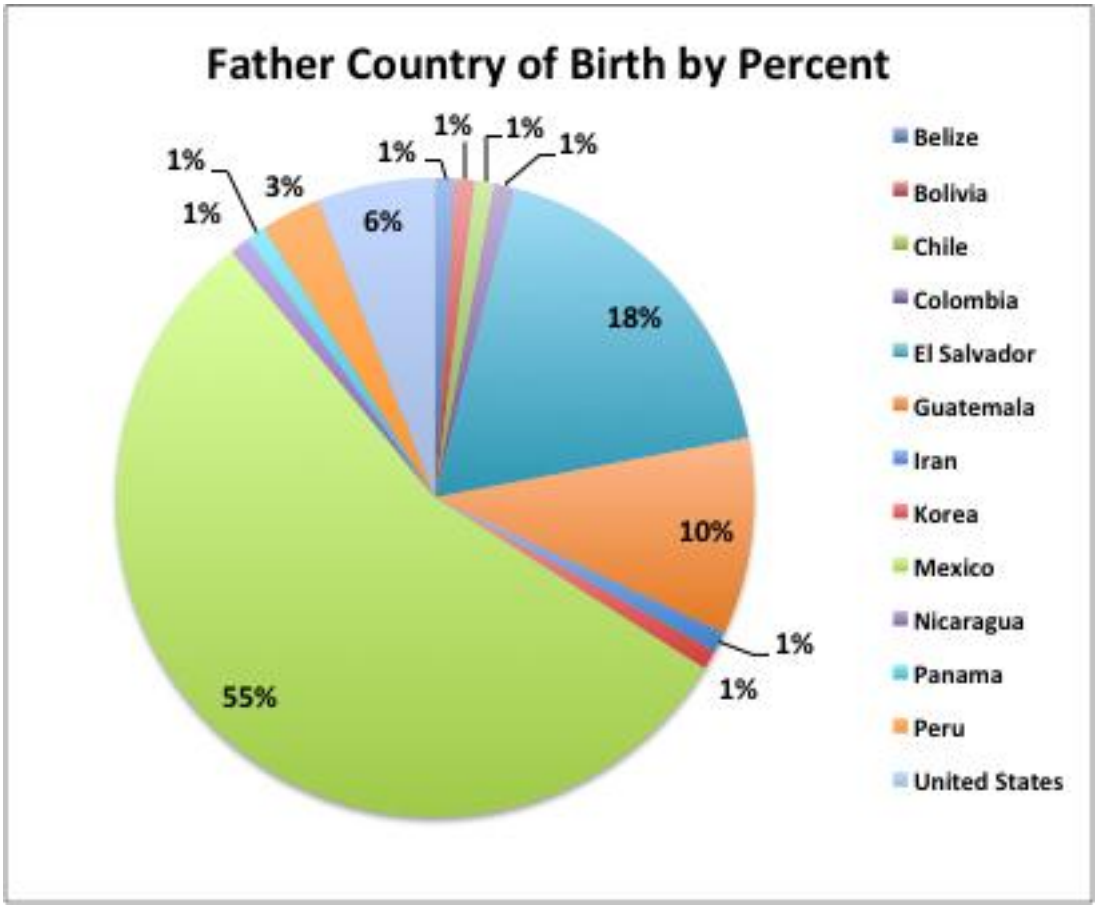
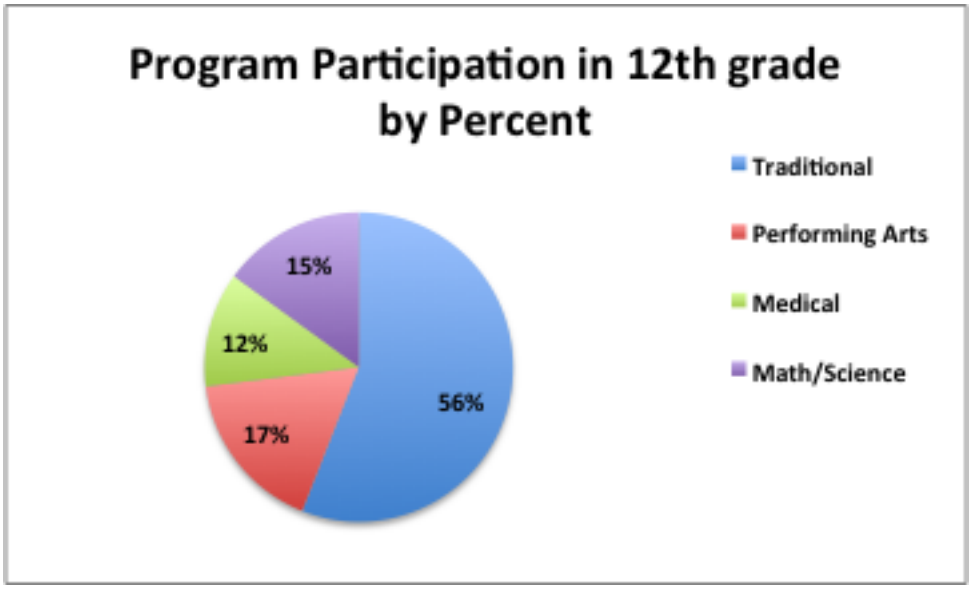


Figure 8. Program Participation in the 12th grade by Percent



Appendix B - Counselor Background

Table 1

Counselors' Ethnic and Training Background, Full–Time Status, and Number of Counselors per Program

Ethnicity:	N
European American	3
Asian	2
Latino	2
Armenian	1
Counseling Degree	8
College–Counseling Certificate/Degree	2
Full–Time Counselors	8
Traditional Counselors	4
Magnet Counselors	3
College Counselors	1

Appendix C - Environmental and Individual Characteristics Scales

School Practices Scale ($\alpha = .85$)

At some schools, teachers counselors, and other school staff try to encourage students to attend college in many different ways, give students information and resources for college (for example, information on requirements and suggestions on how to prepare for them), and communicate with parents, and at some schools they do not do the above as much.

Did your teachers, counselors, and/or school staff ***at this school…***	**Yes**	**No**
93. …Try to encourage you to attend a four-year college / university?	❑	❑
94. …Provide you with information about college?	❑	❑
95. …Provide your family with information about colleges?	❑	❑

If you marked yes above how OFTEN during your time *at this school* did they…	**Never**	**Once or twice a year**	**A few times a month**	**Weekly**
96. …Try to encourage you to attend a four-year college / university?	❑	❑	❑	❑
97. …Provide you with information about college?	❑	❑	❑	❑
98. …Provide your family with information about colleges?	❑	❑	❑	❑

Did the school staff at your school …	**Yes**	**Somewhat**	**No**
99. …Provide you with *enough* information about the course requirements needed to go to a four-year college / university?	❑	❑	❑
100. …Provide you with *enough* information about the different types of colleges you could apply to?	❑	❑	❑
101. …Provide you with *enough* information to prepare for the SAT or ACT?	❑	❑	❑
102. …Provide you with *enough* information about scholarships and financial aid?	❑	❑	❑
103. …Prepare you to eventually attend a private 4-year university if you chose to do so?	❑	❑	❑
104. …Prepare you to eventually attend a community college if you so chose to do so?	❑	❑	❑
105. …Prepare you to eventually attend a University of California campus if you chose to do so?	❑	❑	❑
106. …Prepare you to eventually attend a California State University campus if you chose to do so?	❑	❑	❑
107. …Work with your parents to help you prepare for college?	❑	❑	❑

	Very Easy	**Easy**	**Somewhat difficult**	**Difficult**	**Very difficult**
108. Overall, how easy was it to obtain the information you received?	❑	❑	❑	❑	❑

The following questions will ask you if the school staff have done any of the following activities to help your parents and family learn about college, the application process, and financial aid.

Did school staff…	**Yes**	**No**	**D/K**
109. …Have college information workshops for parents?	❑	❑	❑
110. …Send information home about the SAT or ACT?	❑	❑	❑
111. …Provide information about the A-G requirements to your parents?	❑	❑	❑
112. …Have workshops on how to apply to college that parents could attend?	❑	❑	❑
113. …Provide workshops on scholarships and financial aid that parents could attend?	❑	❑	❑
114. …Provide any of the above information in Spanish or have a Spanish speaker translating at the workshops?	❑	❑	❑

Who helped you decide **which courses** to take to become eligible to apply to a UC, CSU or other four-year college?

	Yes	**No**
119. My counselors	❑	❑
120. My teacher(s)	❑	❑

Who has provided you with other information about college such as how to choose a school, how to apply, and other college related activities?

	Yes	**No**
129. My counselors	❑	❑
130. My teacher(s)	❑	❑

Peer–Resources Scales ($\alpha = .90$)

Please mark how often you have done the following activities with your friends ***since this school year started***.

How often have your friends…	**Never**	**Once in a while**	**Frequently**	**A lot**
152. …Asked you about your plans for the future?	❑	❑	❑	❑
153. …Given you information about your goals (for ex. reminded you of upcoming deadlines, new resources)?	❑	❑	❑	❑
154. …Visited the college counselor's or any other counselor's office together?	❑	❑	❑	❑
155. …Encouraged you to speak to teachers and other adults to get help with your goals?	❑	❑	❑	❑
156. …Talked about college?	❑	❑	❑	❑
157. …Looked for information about college (for ex. on the internet, counselor's office)?	❑	❑	❑	❑
158. …Friends helped each other study for the SAT or ACT?	❑	❑	❑	❑
159. …Worked on college applications together?	❑	❑	❑	❑

Who helped you decide **which courses** to take to become eligible to apply to a UC, CSU or other four-year college?

	Yes	**No**
117. My friend(s)	❑	❑

Who has provided you with other information about college such as how to choose a school, how to apply, and other college related activities?

	Yes	**No**
127. My friend(s)	❑	❑

College–Self–Efficacy Scale ($\alpha = .73$)

Imagine that you are going through the college application process **AT THIS TIME**. Answer the following questions as if you were applying or considering applying to college *now.* Please mark the box next to the number that corresponds to how confident you feel completing the following tasks.

Rate how confident you feel *now* in your ability …	**Not Confident**					**Somewhat Confident**				**Very Confident**
55. … To study for college entrance exams (SAT or ACT) regularly (three or more times a week).	1❑	2❑	3❑	4❑	5❑	6❑	7❑	8❑	9❑	10❑
56. … To work on your college applications and essays (if they were required) with enough time to prepare them to the best of your ability.	1❑	2❑	3❑	4❑	5❑	6❑	7❑	8❑	9❑	10❑
57. … To get information about college from teachers and counselors.	1❑	2❑	3❑	4❑	5❑	6❑	7❑	8❑	9❑	10❑

Agency–Intention Scale ($\alpha = .63$)
During the 12th grade some students obtain more information than other students about what to do after high school, and some students obtain less information.
Think about this **past fall semester;** please mark how often you did the following activities.

	Never	**Once during the semester**	**A few times a month**	**Weekly**
1. I attended workshops and college fairs to *learn about* the different colleges (including junior colleges).	❑	❑	❑	❑
2. I attended workshops and presentations to learn *how to apply* to college (including junior colleges).	❑	❑	❑	❑
3. I looked for information on scholarships and financial aid.	❑	❑	❑	❑

Help–Seeking Scale (α = .72)

Please read each statement below and mark the box next to the number that corresponds to how much you disagree or agree with the statement.

	Strongly Agree		**Agree**		**Strongly Disagree**
10. When I do my homework, I like to work alone.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
11. If I was having trouble on my homework, I would have no problem asking my teacher for help.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
12. I like to work with other students when I do my homework.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
13. I feel uncomfortable asking my teachers for help with my homework.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
14. Working with other students on homework is more trouble than it is worth.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
	Strongly Agree		**Agree**		**Strongly Disagree**
15. It would help me learn if I had someone to discuss the class material with.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
16. I don't think it would make a difference if I went to my teachers for help.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
17. I don't think I would do any better in school, even if I did work with other students.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
18. I feel more confident when I do homework with other students.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
19. When I don't understand something in class, I rarely ask my teacher to explain the material again.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
21. If I needed help, I wouldn't mind working with my teacher outside of class.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
22. I get better grades when I do my homework with other students.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
23. I am intimidated by my counselor.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
24. My counselor encourages the class to ask him/her questions and seek help from him/her when needed.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑

25. I would only ask my counselor for help as a last resort.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
26. I don't think my counselor would help me even if I asked.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
27. I find I always learn a lot more when I can work with someone on my homework.	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑

Please read each statement below and mark the box next to the number that corresponds to how often you did the following activities this past ***fall*** semester.

During this past fall semester how often did you…	**Regularly**		**Once in a while**		**Never**
36. ...Go to the college office?	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
37. ...Ask questions about college or financial aid?	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
38. ...Work with a friend (s) on college applications?	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
39. ...Ask for advice / counseling on college?	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑
40. …Go to a college related workshop(s)?	5 ❑	4 ❑	3 ❑	2 ❑	1 ❑

Please mark an X in the box that describes how many times you asked a teacher, other school staff, friends, family members, and anyone else for help with the following activities during this past ***fall semester.***

How often did you ask for help this past FALL SEMESTER …	**Did not need help**	**Could have used help but never asked**	**Asked for help once during the semester**	**Asked for help once a month**	**Asked for help weekly**	**N/A**
41. …When trying to figure out which colleges to apply to?	❑	❑	❑	❑	❑	❑
42. …When you were completing your college applications?	❑	❑	❑	❑	❑	❑
43. … When you were preparing for the college entrance exams (SAT or ACT)?	❑	❑	❑	❑	❑	❑

How often did you ask for help this past FALL SEMESTER …	**Did not need help**	**Could have used help but never asked**	**Asked for help once during the semester**	**Asked for help once a month**	**Asked for help weekly**	**N/A**
44. …when you "got stuck" on finding scholarships and financial aid?	❑	❑	❑	❑	❑	❑

Appendix D – Counselor
Interview Protocol

McDonough's (1997) "Creating a college counselor questionnaire," and "School counselor interview protocol" were used as the primary source of the interview questions. Questions composed by the principal investigator are by marked with a star.

We are interested in learning about your experiences and activities as a counselor, and greatly appreciate you taking a few minutes to help us by participating in this survey. There are no right or wrong answers.

Your answers will be kept completely confidential and none of your answers will be linked to you. Your participation in this study is voluntary and only you will have knowledge of whether you did or did not participate.

Opening questions

1. What is your racial and/or ethnic background? (Please check all that apply.)
   - ☐ White
   - ☐ African American
   - ☐ Latino/a
   - ☐ Asian/Pacific Islander
   - ☐ Native American
   - ☐ Other (Please specify: _____)

2. How many years in total have you been…

A school counselor? _____

A counselor at your current school? _____

3a. Are you a full time counselor? Yes ☐ No ☐

3b. Do you hold a counseling certificate or credential? Yes ☐ No ☐

4. Are you a designated college counselor? Yes ☐ No ☐

*5. Can you provide a general description of the types of students that you interact with as part of your job (e.g. communities they come from, common academic strengths and weaknesses among the students at this school)?

Duties / Practices

6. Please think about the time that you spend working with students, whether one-on-one or in larger group settings. What percentage of your time do you spend on each of these types of activities with students?

	% of Time Spent with Students
College counseling	
Other activities	
TOTAL	

7. Describe for me the college application process [AT THIS SCHOOL] and your specific role in each student's application?

   AIM OF QUESTION: To understand school wide practices in the application process and if the counselor does something out of the "norm" or goes out of his/her way to help students).

Counseling Philosophy

8. What criteria do you use to help students and families decide between further education or direct entry to the labor market or military enlistment after graduation from high school? (Examples, Student Interest*, GPA, Test Scores, Course Pattern, Fam. Income, Motivation)

9. What would you say are the goals of the counseling and guidance program at your school? (Check all that apply, and then circle the three that you think are generally considered to be the top priorities.)

	1st	2nd	3rd
Increase daily attendance			
Increase HS grad rate			
Improve college access			
Facilitate college app. process			
Academic imp/remedial			
Increase college prep enroll			
Crisis counseling			
Drop out prevention			
Psych counseling			
Other			

10. What would you say are <u>your own</u> *top three* goals, in order of priority?

11. What would you say are <u>your principal's</u> *top three* goals for your department, in order of priority? (Same scale as above)

Disseminating information

12. What kinds of strategies do you offer students as it relates to applying for college?

(Probe: - During the college search, application period, financial aid, and deciding)

(Probe: Do your strategies differ by student?)

(Probe: How do you decide which strategy to use on the students? Is there something specific about the students that stands out or something that they do to help you decide which strategy to use?)

13. On average, how much time do you spend with each student who plans to apply to college?

14.What are the greatest challenges you face in providing up-to-date college information to students?

Setting clear expectations – Ask ONLY IF THEY HAVE NOT BEEN ANSWERED

15. How do you or the school communicate the idea of college to the students?

*16. What do you do to communicate the expectation for students to go to college?

16a. How do you decide for which students to hold these expectations?

16b. How does this differ from general school practices?

Information & resources & raising awareness for families (include financial aid)

17. How do you communicate information about college costs?

Comprehensive counseling and assisting with the college application process (ONLY ASK IF IT HAS NOT BEEN ANSWERED)

*18. What are the sources of college counseling that students are offered?

*19. How do you or the school prepare students for college entrance exams?

*20. How do you or the school assist students with the college search?

20a. What is done to make sure that students apply to the best colleges for them?

21. How do you or the school assist with college and financial aid applications? (Slightly modified).

22. What colleges/universities do students from this school most frequently apply to?

Curriculum, Testing and Assessment

*23. What do you or the school do to make sure that the students stay on track to meet eligibility for four-year colleges?

*24. Are there interventions that take place if they fall off track from college eligibility? Who decides to implement these interventions?

* 25. What do you or the school do with the results of the yearly standardized testing, including the PSAT?

*26. Specifically, how are these exams used when counseling and preparing students to meet college eligibility?

Faculty involvement

27. How do you prepare and keep up to date on college requirements and information? (Slightly modified)

Family Involvement

28. What do you perceive are the major concerns of students/parents about applying to college?

29. What do you perceive are the major concerns for students/parents about paying for college?

College partnership

*30. Do you currently have any partnerships with colleges and/or outreach programs?

30a. If so, which ones and how were they established?

*31. What is their role in regards to helping students become eligible for college?

*32. What is their role in regards to helping students complete their college applications?

Articulation

*33. Can you explain what the process is for transitioning students from their feeder middle schools to this school?

*34. What communications take place with the school personnel from these feeder schools?

*35. Does the high school cooperate with feeder schools and local colleges and universities in regards to sharing goals and plans about college readiness?

36.What are the things that this school does well when it comes to preparing students for college? What are the areas in which this school could improve?

*37. Do you have any questions for me or want to share something that you think is important for me to know?

THANK YOU SO MUCH FOR PATICIPATING !! ☺

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