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THE EFFECT OF COLLEGE ROLE MODELS, PARENTAL INVOLVEMENT IN ACADEMICS AND ACADEMIC SELF-ESTEEM ON ACADEMIC ASPIRATIONS

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ABSTRACT

Post-secondary education has become increasingly important for obtaining a high-paying job in today's society. This study focuses on factors that can improve academic aspirations for low-income, high-achieving, Latino, first-generation college students. The sample for this study is made up of three groups of students. Two of the groups are students enrolled in a college access program, the Campbell Scholars Program (CSP). The first contains students who have been through at least one summer session in CSP. The second group includes CSP students who had not yet taken part in a summer in CSP at the time of the study. The third group of students is made up of a national sample of students surveyed by the National Center for Education Statistics (NCES). Findings suggest that summers in CSP improve students' academic aspirations. College role models and academic self-esteem act as partial mediators for the relationship between summers in CSP and academic aspirations. Parental involvement in academics, however, does not. Gender tends not to have a significant effect on any of these variables except for students' academic self-esteem.

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Chapter 1

Literature Review

Introduction

A large and persistent gap in college enrollment exists between low-income and high-income students. Not only is this gap persistent, it is widening (Duncan & Murnane 2011). For example, the achievement gap between low- and high-income students for children born in 2001 is about 30 - 40% larger than it was for children born in the mid-1970s (Duncan & Murnane 2011). Some of this growth may be attributed to growing economic inequality, but this is not the dominant reason (Duncan & Murnane 2011). Rather, income has become more highly correlated with academic achievement (Duncan & Murnane 2011). In recent years, family income has become almost as strong a predictor for children's academic achievement as is a parent's level of education (Duncan & Murnane 2011).

These findings are worrisome because of the increasing importance of a college degree in order to attain economic stability as an adult in today's society. Those who obtain a Bachelor's degree tend to earn 84% more, over a lifetime, then those with high school diplomas (Carnevale, Rose & Cheah 2009). This means that over the span of one's life, a Bachelor's degree is worth about 2.8 million dollars (Carnevale, Rose & Cheah 2009).

Based on this research, it is important to determine what can be done to reduce the educational attainment gap and increase college attendance and completion for vulnerable groups. Existing research shows that parental involvement in academics, a student's academic self-esteem, and having role models who attend or have attended a four-year college are incredibly important factors in increasing academic aspirations. Studies have also found that

higher academic aspirations can increase actual academic success. In this study, I focus on evaluating the effectiveness of an intervention program that works to increase parental involvement, academic self-esteem, and exposure to role models in order to ensure its students attend and graduate from a four-year college.

Specifically, the Campbell Scholar's Program (CSP) is a program that aims to increase children's exposure to role models, academic self-esteem and parental involvement by working with students beginning the summer after 6th grade all the way through high school. Students partake in a month-long program during the summers and have year-round optional tutoring and bi-monthly mandatory meetings.

CSP provides students with role models or mentors who are either in or recently graduated from selective 4-year colleges. Each cohort of students - about 20 students – has five mentors who help out during math and English, lead projects and advise the students. These mentors allow students to build close relationships with people who have successfully made it to college. The mentors come from a diverse set of colleges and expose students to the numerous options available for post-secondary education.

CSP also works to improve students' academic self-esteem. Each summer, students take math and English classes and participate in a number of academic projects, such as mock trial and robotics. Classes are structured so that students get a look at topics that they have yet to learn in school. Teachers in the program make clear to students that they are learning about subjects above their grade level and that failure is okay. Students are taught to persist through difficulty with a math problem or an English paper. Through these experiences, they learn how to continue working when the work is difficult instead of feeling beaten up when they cannot get a correct answer.

In order to increase parental involvement in CSP students' academics, parents are brought in each summer for information sessions about both the program and important milestones occurring in their students' academic lives. For example, parents of rising 8th graders participate in a meeting on selecting a high school for their student. Parents are also contacted regularly and often asked to meet with the program director when their children are struggling academically.

In what follows, I will first review existing research that estimates the effect of exposure to college role models, the effect of academic self-esteem, and the effect of parental involvement on students' academic expectations. I will then discuss my research in which I seek to evaluate each component of the program. I will do this by comparing one cohort of CSP students, whom I surveyed, to themselves before and after one summer in the program and by comparing three cohorts of CSP students, whom I surveyed, to a national sample of similar students. I hypothesize that I will find that students in CSP have more involved parents, higher academic self-esteem, more college role models, and thus higher academic expectations.

Social Capital Theory

James Coleman's social capital theory states that social networks are crucial for success in our society. People gain social capital by being exposed to social networks (Coleman, 1988). This theory is relevant to my research because gaining social capital is important for students' achievement.

Students can gain social capital through a number of networks. One form of social capital looks at the relationships between parents and their children (Coleman, 1988). When parents lack expectations about their children going to college, dropout rates increase significantly (Coleman,

1988). Thus, in order to improve academic success, it is important to increase social capital in families by improving expectations among parents and kids about achievement.

Social capital can also be gained in networks outside the family. Groups can create social capital that individuals can draw on to increase their own human capital (Coleman, 1988). By increasing this form of social capital students will have higher expectations for one another, increasing success (Coleman, 1988).

Academic aspirations

Ideally, I would like to see the effect of college role models, academic self-esteem and parental involvement on whether a student graduates from a four-year university or not. CSP, however is still in its beginning years and the oldest cohort of students are in 9th grade. Because of this, I will be using a student's academic aspirations as my dependent variable. One study found that students with high academic aspirations tend to be optimistic and ambitious. Students with these characteristics often persevere through difficult situations. The same study found that the effects of high educational aspirations vary based on the education system in which they participate (Brandilynn 2015). High educational aspirations do tend to be positively correlated with educational achievement in the U.S. (Brandilynn 2015). These findings lead me to believe that academic aspirations is a valuable outcome to study given that I do not yet have information about the actual academic level reached for the CSP students.

Effect of access to college role models on academic aspirations

Students with access to mentors or role models who have gone to or are enrolled in college tend to have greater academic aspirations. One study looked at first-generation college

students who partook in pre-college programs. This study found that many of the enrolled students did not believe they could graduate from college because they hadn't known anyone who had done so (Engle, Bermeo & O'Brien 2006). Those students later felt that college was more of a possibility after being introduced to other first-generation students who had gone to college (Engle, Bermeo & O'Brien 2006). These students, after having been introduced to role models, expressed a stronger sense that going to college would give them the opportunity to make better lives for their families (Engle, Bermeo & O'Brien 2006). Another study suggested that the current research on these types of mentors is limited. The study did, however, find that a long-term relationship with a mentor, whether it be a counselor, program director, or college-aged mentor, was important for success (Gandara & Bial 2001).

Although the existing research on mentors for students not yet enrolled in college is limited, there is more extensive research on mentorship programs for students already enrolled in college. These programs work to ensure that students graduate from the four-year institutions they are enrolled in. One study looked at at-risk Latino freshmen who were mentored by upperclassmen or graduate students. The study found that these mentoring relationships decreased psychological risk factors for the mentees.

These studies support my hypothesis: the presence of college role models will mediate the relationship between summers in CSP and academic aspirations. CSP provides its students with access to college-age role models. Through this exposure, the program should increase students' academic aspirations.

Effect of academic self-esteem on academic aspirations

Students who view themselves as strong students tend to be stronger students than those who view themselves as weak students. A study found that first-generation college students tend to have lower academic self-esteem than non-first-generation college students. The same study found that lower self-esteem can decrease college GPA and increase college dropout rates (Aspelmeier, Love, McGill, Elliott & Pierce, 2012). In order to increase the college graduation rate for first generation college students, it is essential to raise students' self-esteem. One study found that a number of first-generation college students do not work towards going to college because they do not think that they are capable of being college students (Engle, Bermeo & O'Brien 2006). Studies have also found that increased self-esteem has positive effects for first generation college students. A study tested first-generation college students on self-concept testing in math and verbal skills. Students with higher self-concept scores in those areas also tended to have more academic success (Defreitas & Rinn, 2013).

These studies support my hypothesis: Academic self-esteem will mediate the relationship between summers in CSP and academic aspirations. CSP works to build up students' self-esteem in the classroom. CSP teachers work to ensure that each student feels smart and confident in an academic setting. Because of this, CSP students should have higher academic self-esteem and through that, higher academic aspirations.

Effect of parental involvement on academic aspirations

Parental involvement plays a key role in a student's academic success. Parental encouragement and involvement were the strongest predictors of postsecondary academic success in a number of studies (McCarron & Inkelas 2006). A study by McCarron and Inkelas

found a positive relationship between parental involvement and academic aspirations (McCarron & Inkelas 2006). Variance in academic aspirations for first-generation college students was explained first by students' perception of the importance of good grades and second by parental involvement (McCarron & Inkelas 2006). In addition to improving academic aspirations, parental involvement in a student's academics may also decrease the culture shock that student experiences when entering college (McCarron & Inkelas 2006).

A lack of parental involvement or encouragement in a students' academics can have a negative effect. For tudents that come from families with cultural backgrounds that expect those students to help support their families, college is not always seen as a goal. Students who come from these backgrounds were shown to be less prepared for college in a study (Dennis, Phinney & Chuateco 2005).

These studies support my hypothesis: parental involvement would mediate the relationship between summers in CSP and academic aspirations. CSP works with parents to educate and involve them in their children's academic endeavors. Thus, the students in the program should have greater parental involvement and through that, higher academic aspirations.

Chapter 2

Data and Methods

Sample

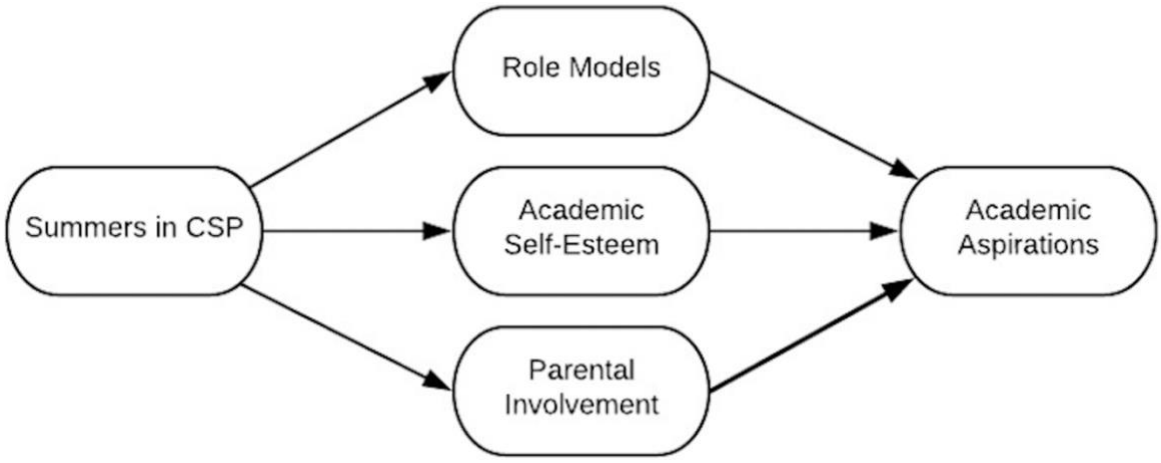
This study used data collected from two sources. The data provided three samples of students. For the first source of data, I used a survey instrument to collect data from 52 students enrolled in CSP. These students are rising 7th, 8th and 9th graders who have participated in at least one summer in CSP. All the students in the sample are low-income (qualify for free and reduced lunch), high-achieving, Latino, first-generation college students. These students make up one sample group, returning CSP students.

The same survey instrument was given to the rising 7th grade cohort from the previous sample in July, 2017, before they ever took part in a summer in CSP. This group has 19 students. These students make up the second sample group, new CSP students.

The second source of data was collected by the National Center for Education Statistics (NCES) and produced the third sample. NCES collected the data using a survey instrument given to 8th grade students in 2007. Students surveyed were a nationally representative sample of students from both public and private schools. The sample is representative of students from different socioeconomic groups and racial backgrounds. In order to match this sample to the CSP samples, the group was narrowed down to Latino, high achieving, first-generation college students from low socioeconomic backgrounds (household income below $75,000 a year). This makes up the third sample of students, the national sample of students.

Variables

Figure 1. Conceptual Diagram of Dependent and Independent Variables



Independent Variables

My first independent variable is summers in CSP. This variable can be seen in figure 1 as an independent variable expected to increase role models, academic self-esteem, and parental involvement. Students were asked the highest grade level they had completed on the CSP survey. Rising 7th graders had completed no summers in the initial survey and one summer in the second survey, which was conducted two months later. Rising 8th graders had completed two summers and rising 9th graders had completed three summers. Involvement in CSP was measured with the question: What is the highest grade level you have completed? Students could answer 6th, 7th or 8th grade. On the initial survey, 6th grade was coded as 0 summers. In the second survey, 6th grade was coded as 1 summer, 7th grade as 2 summers, and 8th grade as 3 summers.

Mediating Variables

I expect access to college role models, academic self-esteem, and parental involvement to mediate the relationship between the number of summers in CSP and a student's academic aspirations. This is shown above in figure 1. These variables were all measured on the CSP surveys.

Access to college role models was measured with the questions:

1. How many people do you know, other than your teachers, who attend or have attended a 4-year college? Students could answer with any number.
2. Do you feel close to anyone, other than your teachers, who attended or is attending a four-year college? If so, how many people? Students could answer with any number.

Students' answers were averaged to measure college role models.

Academic self-esteem was measured with the question:

1. Do you continue to try to complete work even when you feel like you're not good at it? Students answered on a scale of 1- "No" to 5- "Yes".

Parental involvement was measured with two questions.

1. Would your parents be helpful in helping you apply to college or high school? Students answered on a scale of 1- "No" to 5- "Yes"
2. How confident are you that your parents understand the process of getting you into a top college? Students answered on a scale of 1- "Not confident at all" to 5- "very confident"

Students' answers were averaged to measure parental involvement.

Control Variables

In my survey I controlled for both grade level and gender. I controlled for gender with the question: What is your gender? Students could answer male or female. Gender was then coded as

a dummy variable. Female was assigned the value 0 and male was assigned the value 1. Grade level was controlled for using the question: What is the highest grade level you have completed. Students could answer 6th, 7th or 8th.

Dependent Variable

The dependent variable in this study is academic aspirations. This variable can be seen as the dependent variable in *figure 1*. Both the CSP survey and the NCES survey measured this variable. Academic aspirations were measured with the question: As things stand now, how far in school do you think you will go? Students could choose from the following options: less than high school graduation, high school graduation or GED only, attend or complete a two-year program in community college or vocational school, attend college, but not complete a 4-year degree, graduate from a 4-year college, obtain a master's degree or equivalent, obtain a Ph.D., M.D., or other advanced degree, and don't know. These answers were scored from 1, less than high school, to 7, obtain a master's degree or equivalent, obtain a Ph.D., M.D., or other advanced degree, with "don't know" scored as 0.

Data Analysis

After the data were collected I ran descriptive statistics, frequencies, linear regressions and two-sample t-tests to compare the samples. In order to compare the 19 new CSP students, the control group, to the 51 returning CSP students, the experimental group, I ran six linear

regressions. First, I ran three linear regressions with summers in CSP as the independent variable and gender as a control variable. The regressions were:

(1) role models = summers in CSP + gender
(2) academic aspirations = summers in CSP + gender, and
(3) parental involvement = summers in CSP + gender.

Next I ran linear regressions predicting academic aspirations. In these models, role models, academic self-esteem, and parental involvement were treated as independent variables, gender as a control variable, and academic aspirations as the dependent variable (academic aspirations = role models + academic self-esteem + parental involvement + gender). I then ran the same model, but added summers in program to represent the entire model shown in *figure 1* (academic aspirations = role models + academic self-esteem + parental involvement + gender + summers in CSP). Finally, I ran a regression with summers in CSP as the independent variable, gender as a control variable, and academic aspirations as the dependent variable (academic aspirations = summers in CSP + gender).

Next, I ran the same six linear regressions again without the 8^{th} and 9^{th} grade cohorts of CSP students in the experimental group. This way, I was able to compare the 19 rising 7^{th} grade students to themselves before and after one summer in CSP.

To compare the national sample of students to CSP students, I ran two-sample t-tests. First I compared college aspirations for new CSP students to college aspirations of the national sample of students through a two-sample t-test. Next, I did the same with returning CSP students and the national sample of students. Finally, I ran a regression on the students from all three samples. I looked at summers in CSP's effect on students' academic aspirations. I controlled for grade level, and gender.

Chapter 3

Findings

Table 1 displays the descriptive statistics for all the independent, control, and dependent variables in the study. The mean values of the number of college role models a student has, students' academic aspirations, and students' academic self-esteem are all higher for returning CSP students than for new CSP students. Returning CSP students have an average of 4.1 college role models, while new CSP students only have an average of 0.8 role models. Additionally, the mean for students' academic aspirations is higher for CSP students than for the national sample of students. Academic aspirations were based on the question: As things stand now, how far in school do you think you will go? The scale ranged from 1 (less than high school) to 7 (obtain a Ph.D., M.D., or other advanced degree) with "I don't know scored at 0. New CSP students have the lowest average academic aspirations at 4.2. The national sample averages at 4.7 for academic aspirations. Returning CSP students have the highest average academic aspirations at. 6.1. These contrasts all suggest that the number of summers a student spends in CSP may have an impact on number of college role models, students' academic self-esteem and students' academic aspirations. The mean for parental academic involvement, however is lower for returning CSP students than for new CSP students. This suggests that summers in CSP will not increase parental academic involvement. However, these results do not test for statistical significance and do not include basic demographic controls. For that, we turn to the next section.

Table 1. Descriptive Statistics of all Variables

	Returning CSP Students		New CSP Students		National Sample	
Number of Children	51		19		194	
Students' Gender	72.5% F	27.5% M	63.2% F	36.8% M	46.8% F	53.1% M
Students' Grade Level	Rising 7th, 8th and 9th		Rising 7th		8th	
Summers in CSP	1.9		0		0	
# of College Role Models	4.1		0.8			
Students' academic Self-Esteem	4.8		3.8			
Parental Academic Involvement	4.0		4.2			
Students' Academic Aspirations	6.1		4.2		4.7	

Table 2 displays the results of linear regression models comparing new CSP students to all returning CSP students. These models correspond with each of the paths shown in Figure 1, and each model controls for gender. Starting with the left side of Figure 1, the results suggest that more summers in CSP is associated with an increase in two of the intervening variables – college role models and academic self-esteem. Specifically, Model 1 shows that summers in CSP is significantly associated with an increase in the number of college role models a student has ($p < .001$). Model 2 shows that Summers in CSP is also significantly related to an increase in a student's academic self-esteem ($p < .001$). This suggests that participating in CSP provides students with more role models as well as improves their academic self-esteem. Additionally,

gender is not significantly related to a student's exposure to role models, but it is significantly correlated with a student's academic self-esteem ($p < .05$). Male students tend to have higher academic self-esteem, which is consistent with current literature. This is consistent with a study that found that male students have higher self-esteem than female students across a number of academic subjects (Wigfield 1991). Finally, Model 3 shows that neither summers in CSP nor gender are significantly correlated with parental involvement.

Moving to the right side of Table 2, Model 4 shows that summers in CSP is significantly associated with higher academic aspirations ($p < .05$) when gender is the only other variable in the model. When all variables except summers in program are included in the model, none of the intervening variables (role models, academic self-esteem, and parental involvement) significantly correlate with academic aspirations (Model 5). Finally, Model 6 shows that when all variables are included in the model, no variable is significantly related to academic aspirations. Additionally, the coefficient for summers in CSP drops to .306 in model 6. In model 4 it was .457. This suggests a mediating relationship, whereby the positive relationship between summers in CSP's effect with students' academic aspirations (seen in Model 4) is at least partially mediated by the number of college role models a student has and a students' academic self-esteem.

Table 2. Regression of Variables for New CSP Students and Returning CSP Students

	# of College Role Models (Model 1)	Students' academic Self-Esteem (Model 2)	Parental Academic Involvement (Model 3)	Students' Academic Aspirations (Model 4)	Students' Academic Aspirations (Model 5)	Students' Academic Aspirations (Model 6)
Students' Gender	-.206	-.428*	.335	-.867	-.736	-.819
Summers in CSP	1.390***	.297***	-.158	.457*		.306
# of College Role Models					.166	.081
Students' academic Self-Esteem					.462	.272
Parental Academic Involvement					.247	.267
Constant	1.310	4.209	4.193	5.184	2.338	2.813

* p < .05
** p < .01
*** p < .001

The results in Table 2 that were just discussed compared CSP students who had been in the program longer with a different set of students who had just started the program. I next estimated a similar set of models in Table 3, only I compared new CSP students to themselves after one summer in CSP. In other words, the "Summers in CSP" coefficient in these models represents how the children changed over time as they spent more time in the program.

Table 3 tends to show similar results as those shown in table 2. Again, more summers in CSP tends to increase exposure to role models (Model 1) and students' academic self-esteem (Model 2). This suggests that after just one summer in the program, students typically have more college role models and their academic self-esteem is improved. Model 3 shows that summers in program does not significantly correlate with parental involvement. Each of these models also shows that gender is not significantly related to role models, academic self-esteem, or parental involvement.

Model 4 also shows that the number of summers in CSP is significantly associated with higher academic aspirations ($p < .01$) when gender is the only other variable in the model. This suggests that just one summer in CSP will likely improve a students' academic aspirations. Model 5 shows that when all variables except summers in program are included in the model, none of the intervening variables are significantly correlated with academic aspirations. Unlike table 2, in table 3, model 6 shows that when all variables are included in the model, summers in CSP remains significantly correlated with academic aspirations ($p <.05$). In fact, summers in CSP has a higher coefficient in model 6 than in model 4. This increase suggests that college role models and academic self-esteem do not mediate the relationship between summers in CSP and academic aspirations. There may be some other variable mediating this relationship that is not accounted for in this study.

Table 3. Regression of Variables for New CSP Students Before and After One Summer in CSP

	# of College Role Models (Model 1)	Students' academic Self-Esteem (Model 2)	Parental Academic Involvement (Model 3)	Students' Academic Aspirations (Model 4)	Students' Academic Aspirations (Model 5)	Students' Academic Aspirations (Model 6)
Students' Gender	.325	.474	-.416	1.358	1.289	1.608
Summers in CSP	2.288***	.836***	.023	2.147**		2.641*
# of College Role Models					.381	-.034
Students' academic Self-Esteem					.234	-.482
Parental Academic Involvement					.230	.024
Constant	.181	3.043	4.860	1.848	.364	3.206

* $p < .05$
** $p < .01$
*** $p < .001$

The results shown so far suggest that students experience a number of changes the longer they participate in the CSP program: increasing the number of role models, increasing academic self-esteem, and increasing educational aspirations. But perhaps these students might have experienced these changes anyway, without having participated in the program. I therefore compared the CPS students to their peers in a national sample who did not participate in the CSP program.

Tables 4 and 5 compare the educational aspirations of new CSP students and returning CSP students to the national sample of students. Here, the idea is to see how different CSP students are from their peers even before they started the program. If they are different, this would suggest that the children who were selected into the CSP program are different from other students from the beginning. However, if they are similar to their peers in the national sample at before they participated in the program, but different after participating in the program, this would lend further support to the idea that program had a significant effect on children's educational aspirations.

Table 4 displays college aspirations for new CSP students versus the national sample. The national sample of students did not have significantly different college aspirations than new CSP students. This means that both new CSP students and the national sample of students have similar academic aspirations. Table 5 displays college aspirations for returning CSP students versus college aspirations for the national sample of students. Returning CSP students have significantly higher academic aspirations than the national sample do ($p < .001$). This means that once students have been through a summer in CSP their college aspirations increase and are higher than those of the national sample of students. Overall, the results show that students who have been through summers in CSP tend to have higher academic aspirations than student who have not been through any summers in CSP, including their peers in the national sample.

Table 4. Two-Sample T-Test for New CSP students and National Sample of Students

	New CSP Students	National Sample	Difference
Mean	4.16	4.69	-.528

* p < .05
** p < .01
*** p < .001

Table 5. Two-Sample T-Test for Returning CSP students and National Sample of Students

	Returning CSP Students	National Sample	Difference
Mean	6.10	4.69	1.412***

* p < .05
** p < .01
*** p < .001

The results in tables 4 and 5 are interesting because they show that the mean for academic aspirations for students who have been through a summer in CSP increases by a large amount, but they do not adjust for age or gender. To do this, I ran a regression on a pooled sample that include the new and returning CSP students and the Latino children in the national sample. The regression estimates the relationship between summers in CSP and academic aspirations, while controlling for gender and grade level. The results are shown in Table 6. Even with gender and grade level included as controls, summers in CSP significantly increase students' academic aspirations ($p < .01$). Students' gender also has a significant effect on academic aspirations ($p < .01$). Students' grade level, however, does not have a significant effect on academic aspirations. Even when gender and grade level are controlled for, the number of summers a student spends in CSP still has an impact on how far students believe they will go in school.

Table 6. Regression for Academic Aspirations for New and Returning CSP students and National Sample of Students

	Summers in CSP
Students' Gender	.729**
Summers in CSP	.458**
Grade Level	-.137
Constant	4.682

* p < .05
** p < .01
*** p < .001

Chapter 4

Discussion and Conclusion

The first hypothesis I examined was: participation in CSP will be associated with an increase in students' exposure to college role models, academic self-esteem, and parental involvement in academics. CSP was associated with an increase in both the number of role models a student has and students' academic self-esteem when looking at new students compared to themselves and when looking at new students compared to all returning students. However, CSP was not associated with an increase in parental involvement in academics. These results help identify whether or not CSP effectively provides its students with factors that have been shown to be important for academic success.

My second hypothesis was: summers in CSP will be associated with an increase in students' academic aspirations. This relationship proved consistently to be significant. Returning CSP students had significantly higher academic aspirations than new CSP students and the national sample of students. This remained true when controlling for gender and grade level. These findings are important in determining the effectiveness of CSP as a college access program because academic aspirations are strongly related to actual educational achievement for students in the United States (Brandilynn 2015). Furthermore, if CSP's methods are effective in increasing academic aspirations, CSP can be used as a model for other college access programs. To understand why students' academic aspirations increase as a result of CSP, it is important to

determine what, if any, variables mediate the relationship between CSP and academic aspirations.

My third hypothesis was: the presence of college role models will mediate the relationship between summers in CSP and academic aspirations. College role models did partially mediate this relationship along with other intervening variables, but only in the analyses that compared children who had participated in the program with those who were just starting the program. The idea that educational intervention programs providing students with role models will improve academic aspirations is consistent with current literature. A study found that first-generation students felt college was more of a feasible opportunity after engaging in a program in which they were introduced to college role models (Engle, Bermeo & O'Brien 2006).

My fourth hypothesis was: Academic self-esteem will mediate the relationship between summers in CSP and academic aspirations. Academic self-esteem did act as a partial mediator, but only in the analyses that compared children who had participated in the program with those who were just starting the program. This is consistent with literature about first-generation college students' self-esteem. First-generation college students typically have lower academic self-esteem (Aspelmeier, Love, McGill, Elliott & Pierce, 2012). Low academic self-esteem can lead to high college dropout rates and low college GPAs (Aspelmeier, Love, McGill, Elliott & Pierce, 2012).

My fifth hypothesis was: parental involvement would mediate the relationship between summers in CSP and academic aspirations. Parental involvement did not act as a mediator as expected. This is inconsistent with current literature. Multiple different studies found that Parental encouragement and involvement was the clearest predictor of academic success in a higher institution (McCarron & Inkelas 2006).

This study had a number of strengths. One strength of this study was that I was able to compare the new CSP group of students to themselves after a summer in CSP. In doing this, I was able to see the direct effects of the program on the same students before and after one summer. Another strength was that my sample was representative of the population. All students in both the new and returning CSP groups and the national sample were low-income, high-achieving Latino students who would be the first people to go to college in their families. The national sample of students was collected from students from all over the country.

This study had multiple limitations. One limitation was that CSP is a fairly new program and because of that actual academic success was difficult to measure. Ideally, I would be able to look at whether or not CSP students attend and graduate from selective universities at a higher rate than similar students who are not in CSP. To compensate for this, I measured students' academic aspiration, which are related to students' actual achievements. Neverthless, measuring actual achievements would have been ideal. Another limitation of this study was that the national sample of students were given a survey by the NCES that did not ask about role models, academic self-esteem, and parental involvement. Because of this I could not compare CSP students to the national sample with those variables. I was only able to compare CSP students' academic aspirations with those of the students from the national sample. I was, however, able to look at role models, academic self-esteem, and parental involvement when comparing new CSP students to returning CSP students. Finally, the national sample only contained 8th grade students, the sample of new CSP students only contained rising 7th grade students and the returning CSP sample contained rising 7th, 8th, and 9th grade students. Ideally, each sample would have been composed of students of the same age.

Conclusion

Future research should look at programs like CSP that have been around for longer so that actual academic achievement can be measured. In the future, when CSP students are old enough to have attended and graduated college, a similar study could be done to measure actual achievement of those students. Additionally, future studies could continue to look into which variables mediate the relationship between college access programs and academic aspirations or achievement. This study found that college role models and academic self-esteem partially mediate this relationship for CSP. Social capital theory discusses increasing networks in order to increase human capital (Coleman, 1988). CSP allows students to expand their networks through connecting with mentors who act as role models. It allows students to improve their human capital through gaining skills like academic self-esteem. Coleman's theory of social capital helps explain why students' academic aspirations are improved through the variables role models and academic self-esteem. These variables, however did not completely mediate the relationship when looking at new CSP students before and after a summer in the CSP. One mediator that may have been acting as another mediator is a support system of peers with similar goals. CSP students are introduced to a cohort of students that come from similar backgrounds and have similar goals to theirs. Students participate in a number of bonding activities and experiences. These students act as a support system for one another on their pathways to college. One study found that ethnic minority, first-generation college students who do not have a strong peer support group tend to have difficulty adjusting to college (Dennis 2017). This would be a useful variable to explore in future studies.

Overall, this study found that summers in CSP significantly increase a student's role models and academic self-esteem. Role models and academic self-esteem partially mediate the relationship between summers in CSP and academic aspirations. CSP, however, does not significantly increase parental involvement in a child's academics.

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- Mentored and advised 7th 8th & 9th grade students
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