

Cultural Capital and Students' Experiences in College:
The Role of Parents in Facilitating Students' Success

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ABSTRACT

Although college is popularly considered a path to upward mobility, even when students from socioeconomically disadvantaged families gain access to higher education they are less likely to graduate than their more advantaged peers. To explain persisting gaps in college completion, researchers have increasingly turned to exploring what happens inside higher education institutions, including students' academic engagement. Building on cultural capital theory, I conceptualize academic engagement as a dimension of cultural capital, and consider ways in which parents could help to encourage students to engage with faculty and staff. While parents are central to research on social class inequality and cultural capital in K-12 education, they are rarely considered after students enter college.

To investigate the role of socioeconomically disadvantaged parents in facilitating greater academic engagement of students during college, I designed a text-message-based parent intervention to encourage parent-student conversations about students' engagement with faculty and staff. The intervention was implemented as a randomized controlled trial with 617 families (approximately 75 percent low-income, 66 percent first-generation, and 70 percent Latinx students) during students' first year in college. Student surveys at two points during the academic year and parent and student interviews before and after the first year of college are used to explore the effects of the intervention.

The results indicate that the parent intervention significantly increased parent-student discussions related to academic engagement, improved student attitudes toward academic engagement, and increased students' intent to persist into their second year of college. Since effects of the parent intervention show that parents from socioeconomically disadvantaged backgrounds can contribute to the success of college students, this type of intervention may reduce inequality as those students are less likely to engage with faculty and staff and persist through college.

Furthermore, the results indicate that Latinx students experienced unique effects of the intervention—including increased parental support and less positive evaluations of interactions with faculty and staff. Interviews reveal that these treatment effects may be due to the closer relationships Latinx students experience with family members and in turn expect of faculty during college. These findings provide insight into the relationship between familism and college success for Latinx students, the fastest growing college population.

By engaging socioeconomically disadvantaged parents in their children's college success, this study makes several contributions to the cultural capital research on social reproduction and mobility. First, analyses show that socioeconomically disadvantaged parents can engage in college conversations more common among socioeconomically advantaged families, and can do so in response to a light-touch intervention. Moreover, socioeconomically disadvantaged parents, who are often omitted in studies of college students' success, can act as agents of change and facilitate their children's greater academic engagement. Finally, the findings show notable variation by race/ethnicity, which is rarely attended to in the cultural capital literature. The findings also highlight the importance of familism and relationships in fostering student success, which are important to consider in future cultural capital research.

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DEDICATION

Für meinen Vater, Paul Deutschländer,
der den Erfolg, zu dem er beigetragen hat,
nicht sehen wird.

CHAPTER 1

STUDENTS' CULTURAL CAPITAL IN COLLEGE: EXPLORING THE POTENTIAL ROLE OF PARENTS

Although the U.S. higher education system expanded substantially over the course of the 20th century, social class gaps in college entrance and degree attainment have remained stable, and by some estimates even increased (Astin and Oseguera 2004; Bailey and Dynarski 2011; Ellwood and Kane 2000; Kane 2001; Kane 2002; Roksa et al. 2007). Students from socioeconomically disadvantaged families are less likely to enter higher education, and when they do, they are less likely to graduate (Bowen, Chingos, and McPherson 2009). Ample literature investigates the role of academic preparation and financial supports in social class inequality (e.g., Cabrera, Nora, and Casteneda 1992; Bound, Lovenheim, and Turner 2010; see also a review by Grodsky and Jackson 2009). These factors, however, do not entirely account for the class gap in college completion (Carnevale and Strohl 2010; Bowen, et al. 2009; Roderick, Coca, and Nagaoka 2011).

Sociological studies of higher education have increasingly turned to cultural capital, typically defined as the knowledge and practices that facilitate successful interaction with social institutions such as colleges and universities, as a contributor to social class inequality (Bourdieu 1973; Bloom 2007; Lareau 2011; Lareau and Weininger 2008; Stephan and Rosenbaum 2013). These studies, however, tend to focus on K-12 education and more recently the transition into college, and not student experiences after college entry. Moreover, while parents are central to research on social class inequality and considered a central conduit of cultural capital in K-12 education as well as the transition into college, they are rarely considered after students enter higher education (for recent exceptions, see Auerbach 2007; Hamilton 2016).

Despite the popular media's attention to "helicopter parents," Hamilton's (2016) work indicates that many parents, especially those from socioeconomically disadvantaged backgrounds, struggle in their efforts to support their students during college. The central question guiding this study is: how can and do parents from socioeconomically disadvantaged backgrounds support their children in the first year of college? More specifically, I develop and evaluate an intervention that targets parents' conversations with students to encourage activities associated with college success, such as speaking with faculty and utilizing institutional resources. As such, this project makes contributions to sociological understanding of the role of parents in college student success as they transition into college. By investigating the role of cultural capital in college success, this project can also contribute to the development of policies, intervention programs, and practices to improve educational outcomes of less advantaged students.

LITERATURE REVIEW

Theoretical Framework: Cultural Capital

Bourdieu's theory of cultural capital has played a key role in the sociological understanding of social inequality in education. Bourdieu argued that children develop subconscious, classed dispositions (habitus) that influence their behavior. They also acquire knowledge, norms, and practices that facilitate successful interaction with dominant social institutions, termed cultural capital (Bourdieu 1973; Bourdieu and Passeron 1990). Within the past two decades, numerous studies have reported a positive relationship between cultural capital and academic achievement at all levels of education (e.g., Dumais 2002; Horvat et al. 2003; Jaeger 2011; Lareau 2011; Lareau and Weininger 2003; McNeal 1999; Roksa and Potter 2011). For example, cultural capital is positively related to student GPA, test scores (DiMaggio 1982; Downey 1995; Roscigno and

Ainsworth-Darnell 1999; Sullivan 2001; Dumais 2002; Cheadle 2008; Jaeger 2009; Covay and Carbonaro 2010) and teachers' evaluations of students' language and mathematics skills (Bodovski and Farkas 2008; Dumais 2006). Also, higher amounts of cultural capital are associated with higher levels of educational attainment, (Kalmijn and Kraaykamp 1996; Aschaffenburg and Maas 1997; DeGraaf et al. 2000).

According to Bourdieu, and cultural reproduction scholars more broadly, cultural capital is transmitted from generation to generation primarily within the family (Bourdieu and Passeron 1990). Since children acquire cultural capital from their families during childhood, scholars believe it is difficult for individuals to intentionally acquire cultural capital later, and even more difficult to use these resources successfully. As a result, benefits to cultural capital accrue primarily to individuals from more advantaged family backgrounds. Even if students from less advantaged family backgrounds manage to acquire cultural capital, they will have greater difficulty converting their cultural capital into academic success. Research supports this argument, showing that disadvantaged students receive either limited or no benefit from cultural capital (e.g., Roscigno and Ainsworth-Darnell 1999; Lareau and Horvat 1999; Perna 2000).

However, while Bourdieu theorized that cultural capital develops at an early age within families, several studies have suggested that cultural capital can be acquired later in life and can serve as a means of cultural mobility, not simply cultural reproduction (see Aschaffenburg and Maas 1997; De Graaf et al. 2000; DiMaggio 1982; Dumais 2006). DiMaggio (1982) argued that cultural capital is acquired through status culture participation, not status group membership, thus extending the opportunity for acquisition. This potential for later acquisition creates an opportunity for disadvantaged groups to both acquire and benefit from cultural capital. Since the appropriation of cultural capital is not confined to inheritance during childhood, individuals raised in resource-

poor families might be able to acquire and benefit from cultural capital later in life. Indeed, several studies indicate that the returns to cultural capital may be at least equal to (Aschaffenburg and Maas 1997; DiMaggio 1982; Perna 2000), or relatively greater for disadvantaged groups (De Graaf et al. 2000; DiMaggio and Mohr 1985; Dumais 2006).

The conceptualization and operationalization of cultural capital has evolved since Bourdieu first introduced the term in the 1970s. Initially, following DiMaggio (1982), many used measures of children's or parents' participation in highbrow cultural activities (such as going to museums, concerts, or taking arts classes) to represent cultural capital in quantitative studies (e.g., Aschaffenburg and Maas 1997; Kalmijn and Kraaykamp 1996). More recently, the definition of cultural capital has expanded from more specific highbrow practices to encompass parenting practices more generally related to education (Lareau and Weininger 2003). As such, cultural resources are now often considered skills and habits that induce an affinity for, understanding of, and comfort with the education system more broadly. Examples of these resources or practices that facilitate the transmission of these resources are educational resources in the home (e.g., De Graaf et al. 2000; Downey 1995; Roscigno and Ainsworth-Darnell 1999; Sullivan 2001; Teachman 1987), extra-curricular activities (e.g., Covay and Carbonaro 2010; Kaufman and Gabler 2004; Lareau 2003), and the frequency of parental discussions about cultural, social, and political issues (e.g., Downey 1995; Jæger 2009) and the frequency of parental contact with school organizations or staff (Calarco 2014; Lareau 2011; Lee and Bowen 2006). These different indicators are proxies for dimensions of cultural capital that are broadly considered a type of parenting Lareau has termed 'concerted cultivation' (Lareau 2011).

One defining characteristic of Bourdieu's initial conception of cultural capital is its arbitrary nature. The norms, attitudes, and behaviors characterized as cultural capital are not

intrinsically valuable, but rather they represent the attitudes and dispositions that are beneficial in interacting with dominant social institutions. For example, there is nothing intrinsically better about a ‘concerted cultivation’ style of parenting than an ‘accomplishment of natural growth’ style, but concerted cultivation practiced by middle-class families prepares students to interact more effectively with social institutions such as schools (Lareau 2001; see also Calarco 2018). Some scholars have thus referred to cultural capital as “dominant cultural capital” (Jack 2016) and recognized the norms, attitudes, and behaviors that are beneficial to less-advantaged groups (Carter 2005; Rios-Aguilar and Kiyama 2012; Yoso 2005). While a range of attitudes and behaviors might be valuable in other national, cultural, or historical contexts, I restrict my focus to those that are considered beneficial in the American educational context and refer to them as cultural capital.

Cultural Capital in Higher Education

Recent studies of students’ transition into postsecondary education indicate that cultural and social resources contribute to social class inequality (Bloom 2007; Lareau and Weininger 2008; McDonough 1997; Stephan and Rosenbaum 2009). The role of cultural capital is pronounced in higher education for at least two reasons. First, the sociological literature on higher education demonstrates the complex information and skills necessary to navigate the higher education system. For example, students need to determine when to begin searching for colleges and what criteria to consider when choosing between colleges (Deil-Amen and Turley 2007; McDonough 1997; Roderick et al. 2011; Stephan and Rosenbaum 2009). Once in college, they need to choose classes (Deil-Amen and Rosenbaum 2003), meet faculty expectations (Collier and Morgan 2008), decide what to do when a class is a poor fit (Jack 2016; Lareau and Weininger 2008), and choose a major (Armstrong and Hamilton 2013). Socioeconomically disadvantaged students have less cultural capital helpful to successfully navigate these decisions.

Second, students depend primarily on their family and friends for the cultural capital necessary to navigate postsecondary educational institutions (Coburn and Treeger 1997; Lareau and Weininger 2003). These institutions presuppose, recognize, and reward the possession of cultural capital, but do not explicitly teach it (Bourdieu and Passeron 1990). As a result, class inequalities are exacerbated through institutional norms that obscure and complicate the steps necessary to succeed in higher education (Armstrong and Hamilton 2013; Rosenbaum, Deil-Amen, and Person 2006; Scott-Clayton 2015; Stephens, Hamedani, and Destin 2014). Deil-Amen and Rosenbaum (2003) note that many institutions create barriers such as bureaucratic obstacles, confusing choices, student-initiated guidance, limited counselor availability, and poor advice from staff that hamper less advantaged students' progress in college. Students who enter college without the skills and knowledge to navigate these bureaucratic obstacles find it more difficult to succeed.

Academic Engagement

One form of cultural capital, academic engagement, is especially important in higher education. Research suggests that when college students interact with faculty and staff this improves learning and academic performance they are significantly (Kuh et al. 2010). However, students from less advantaged backgrounds are less likely to interact with faculty (Collier and Morgan 2008; Kim and Sax 2009; Yee 2016) compared to their more advantaged peers. This is remarkable given that academic interactions appear to be particularly beneficial for college success among first-generation and minority college students (Anaya and Cole 2001; Cole 2007; Fischer 2007; Lundberg and Schreiner 2004; Pascarella et al. 2004).

There are a variety of reasons that students' college engagement strategies may vary by social class, two of which are relevant to the present study. First is a lack of knowledge. Students with limited knowledge of higher education often do not recognize they need help and once they

do they are unfamiliar with where to obtain it. Upper- and middle-class students compared to low-income students more frequently seek out help while in college, in part because they know what is available and how to access resources when necessary (Lareau 2011; Stuber 2011). This research suggests that students from advantaged backgrounds who struggle in college will be aided in their struggle. While the minor problems of less advantaged students become large problems as they wade through college, a disproportionate extent of the time, without institutional help. For example, Lareau (2011) describes one student who could not afford a course textbook. Instead of discussing her problem with the professor, she stopped attending class. Unaware that she should (or could) withdraw from the class, she received a failing grade. One relatively minor financial problem turned into a larger problem that needlessly tainted her academic record with a failing grade, not because of academic struggles or directly because of substantial financial problems, but because of lack of knowledge of postsecondary education and how to seek assistance and resources.

Prior research also suggests that knowledge may not be the only reason students do not make connections with faculty or staff on campus. Working class students often display a pattern of independence and hesitancy when interacting with institutional agents (Aires and Seider 2005; Bloom 2007; Calarco 2014; Jack 2014; Jack 2016; Lareau 2011; Stanton-Salazar 2001; Stephan and Rosenbaum 2009; Stuber 2009). This occurs in part because less advantaged students often do not feel entitled to ask for help or may see a request for help as a sign of weakness (Calarco 2011; Lareau 2015; Jack 2016). One working class student at an elite institution identified a class divide in entitlement to seek help from faculty and staff, “[middle-class students] have that sense of entitlement instilled in [them]. I didn’t know that I could complain and get something done . . . didn’t know the school had a duty to me. I still feel bad about seeking help” (Jack 2016). In sum,

not only are students unaware that institutional agents are available to help them, but once they do know this, they are still uncomfortable reaching out.

Intervention research suggests that students may need an extra incentive to make these social connections. Angrist and colleagues (2009) found that students who were given access to support services tied to a scholarship increased their grades relative to students who received nothing. However, students who were made aware of support services, but not provided with the financial incentive to seek them out did not improve their grades. In addition, student use of services ceased after the incentives were removed (Angrist et al. 2009). Other experimental studies have also had difficulties encouraging students to use the services provided to them, which invariably involve interacting with faculty and staff (MacDonald et al. 2009; Schwebel et al. 2012). The limited treatment effects that are found appear to dissipate once the intervention ends, suggesting that these interventions are not changing student behavior in the long-term (Angrist et al. 2009; MacDonald et al. 2009; Scrivener and Weiss 2009). This research suggests that students need additional motivation to seek out these types of services. The question is whether parents can help to provide the impetus for students to engage with higher education institutions.

The Role of Parents

Sociological research on K-12 education demonstrates the integral role parents play in student achievement (Cheadle 2008; Coleman and Hoffer 1987; Greenman, Bodovski, and Reed 2011; McNeal 1999). Parental organization of student leisure activities (Cheadle 2008; Lareau 2011) and involvement at school (Cheadle 2008; McNeal 1999) can partially explain class and race gaps in academic achievement. Despite ample evidence of the importance of parents to

elementary and secondary student achievement, there has been less attention dedicated to parents' roles once students transition into college.

The limited sociological research on parents and higher education has suggested that parents from less advantaged backgrounds have difficulty providing students with information about entering or navigating college (Lareau and Weininger 2008; Grodsky and Jones 2007; Hamilton 2016). This research suggests that less advantaged families may not have the necessary cultural capital to pass on to their children after they enter higher education. However, literature outside of sociology suggests there are several reasons parents might be important catalysts in students' cultural capital development in college.

There is much descriptive research on general patterns of parental engagement, which suggests that parents are indeed important to consider. Seventy percent of students communicate "very often" with at least one parent, usually their mothers, most often about personal issues, academic performance, and family matters (NSSE 2007; see also Gemmill and Peterson 2006; Wolf, Sax, and Harper 2009). On average, students at two separate institutions, in Vermont and Michigan, communicated 13.4 times per week with their parents, with little-to-no variation by parental income and with both students and parents initiating contact (Hofer 2011). Research at one Midwestern university suggests that half of students reach out to parents when making important decisions (Pizzolato and Hicklen 2011). Students also often report feeling less stressed after communicating with family members (NSSE 2007).

The benefits of parental support during college are not confined to higher-SES students. Parents from less advantaged backgrounds can also be an important source of support for students who are not in the demographic majority on campus (Guiffrida 2006; Melendez and Melendez 2010). In addition to direct assistance in making decisions, parents can shape students' educational

goals, identity, and behavior. For example, first-generation students often see their decision to attend college not only as a fulfillment of their own goals, but also those of their parents (Lehmann 2014). Parents also help students develop a self-concept as learners (Auerbach 2007; Bank, Slavings, and Biddle 1990; Desforjes and Abouchaar 2003). This research suggests that even parents who are not familiar with higher education can support their children during college.

Parents may be an untapped resource to improve student success in college, not only because they often serve as a source of emotional support for students, but also because parents can and do adopt new forms of cultural capital throughout their lives. Although sociological literature has largely assumed that parents pass on a set of static cultural skills and resources to students, which rarely changes, two sociological studies suggest that mothers who move up in the educational hierarchy, even after the birth of a child, adopt cultural capital and parenting practices similar to their more educated peers (Attewell and Lavin 2007; Domina and Roksa 2012). By extension, this implies that parents may be able to pass on newly developed cultural capital to their children.

In addition, parents seem to be more attentive to education-related information and use this information to make decisions, more so than students themselves. For example, one university that sent fliers to both parents and students found parents were more likely than students to remember the information they received (Daniel et al. 2009). Parents are also more likely than students to use new information to make decisions (Bettinger et al. 2012; Loeb and Valant 2014). Since parents are more likely to retain and use helpful information than students, they can play an important role in helping students navigate postsecondary institutions. This is especially important given the significant role trust plays in determining whether students accept new information (Stanton-

Salazar and Dornbusch 1995). As a result, parents may be able to more readily influence student behavior than others since they have long-standing relationships with students.

Finally, research on educational interventions in K-12 education suggests that parents can use information they receive to influence student behavior. For example, Kraft and Dougherty (2013) found that daily teacher-parent phone calls increased student homework completion and increased in-class participation during a week-long segment of summer school. Additional research, using light-touch methods such as text messages, has similarly positive findings. An intervention with high school students in summer school sent weekly messages from teachers to parents (Kraft and Rogers 2014). Students of parents who received a message indicating what their child could do to improve their grades were less likely to drop out of the summer remediation program. Bergman and Chan (2017) found that an intervention which informed parents of a child's absences, missed assignments, and low grades via text message had significant impacts on student GPA, with the highest impacts among the poorest performing students. In addition, there is suggestive evidence that a text messaging program would work for low-income students. Bergman (2015) found that sending parents, from a low-income, majority-Latinx school district in Los Angeles, text messages when their children were missing assignments resulted in significant gains in GPA, tests scores, and measures of student engagement. The question that remains is whether these types of interventions could be effective in the higher education context.

PRESENT STUDY

The central question guiding this study is: how can and do parents from socioeconomically disadvantaged backgrounds support their children's pursuit of a college degree? To address this question, I designed a randomized controlled trial (RCT) to consider whether and how parents may

be able to facilitate student success (as measured by their intent to persist) by fostering greater engagement with faculty and other institutional agents. I combine multiple methods to illuminate how this parent intervention facilitates greater student engagement with institutional resources during college. More specifically, I conducted surveys during students' first and second semesters in college, as well as interviews with students and parents after high school and again after students' first year of college.

Sample and Institutional Partner

In order to investigate the research questions posed above, I collaborated with a non-profit college access and success organization, All Can Achieve (ACA, a pseudonym). ACA works to help high school students gain access to higher education. To participate in ACA's college access program, students must apply by completing a simple form and essay in the 11th grade of high school. Students must have a GPA that puts them in the top sixty percent of their high school class and either a) qualify for the national school lunch program or b) be a first-generation student (i.e. their parents do not hold Bachelor's degrees, but their siblings may have enrolled in college). Students who do not meet these requirements may seek special nomination by a high school counselor or teacher to apply to ACA.

After admittance to the ACA program, each student is paired with a coach who recently graduated from college and who offers them personalized support and resources necessary to apply to college. Students also participate in twice-weekly meetings, held at their respective high schools, to help them prepare college applications. Upon enrollment into a two- or four-year college, these students may choose to enroll in ACA's college success program. This program includes a college coach available via text, phone, and in some cases, in-person. Students who

attend one of the eleven Texas colleges ACA serves also have the option to participate in a campus peer-mentor program.

ACA's mission and population of students make it well-suited for a parent intervention. First, ACA explicitly recognizes the role that parents play in the college access process. They provide two workshops for parents while students are in high school. However, they have yet to implement a parent program once students enter college. Second, since the majority of ACA students are Latinx, family may be especially crucial to this population. Latinx students are more likely to remain engaged with their family during this transition than other college-bound students. For example, Latinx families experience higher levels of parent-student communication during the college search and application process than non-Latinx families (Myers and Myers 2012). First-generation, Latinx students often credit their families for motivating them and giving them the fortitude to persist in their educational goals despite obstacles (Auerbach 2007). Finally, this population (lower-income, first-generation, and Latinx students) might be most in need of a college success intervention (for research on lower income students see Collier and Morgan 2008; Jack 2016; Yee 2016, for research on Latinx students see Auerbach 2007; Fischer 2007).

Although there are several reasons research on Latinx students is especially valuable, there has been limited research on Latinx college students in the past (for a review see Reyes and Nora 2012). First, Latinx students are the largest and fastest growing minority group in the United States. They are predicted to comprise 30 percent of the population by 2050 (National Conference of State Legislatures 2011). Second, the number of Latinx students attending college is also increasing, and grew by a record 24 percent between 2009-2010 (Fry 2011). In fact, the share of Latinx high school graduates enrolled in college immediately after high school reached 49 percent in 2012, surpassing that of whites at 47 percent (Fry and Taylor 2013). Third, the proportion of Latinx

students who are first-generation students is higher than any other group. Approximately 50 percent of Latinx students who enroll in college are the first in their families to do so (NCES 2010). Finally, this population of college students has particularly low college completion rates. Only 36 percent of first-time, full-time Latinx students earn a degree within six years, compared with 49 percent of whites (NCES 2011). As a result, 21 percent of Latinx adults hold a two-year degree or higher compared with 44 percent of whites and 30 percent of African Americans (Liu 2012). As Latinx students become an increasing segment of the college-going population, understanding how families contribute to college success is crucial to increasing the proportion of the population with four-year college degrees.

The population for this intervention consists of 617 students, and their parents, from the ACA cohort that graduated high school in the spring of 2016. Students attended high school at two different cities within Texas, with most enrolling in postsecondary institutions within the state. Table 1 shows that 64 percent of the sample is female. Approximately 70 percent of students in the sample are Latinx, while approximately 18 percent are African American, and 8 percent are white. Students report an average GPA of 3.16 (with the majority falling between 2.6 and 3.7). As expected, based on ACA's application requirements, over 90 percent of students are in the top 60 percent of their graduating class in their junior year of high school. On average, students attended 53 percent of the after-school classes that ACA provided to help students complete college applications. A majority of students come from less educated backgrounds—over 65 percent would be the first in their family to earn a bachelor's degree. Nearly 75 percent of students qualified for free/reduced price lunch in high school. Also, approximately one quarter report that their parents' preferred language is Spanish, with only 29 percent reporting their parents prefer

English. Finally, 31 percent of students enrolled in a two-year college and 46 percent enrolled in a four-year college. For the remainder of students, college type was unknown.

The ACA sample is different from other high school students in the 2016 graduating cohort in several ways. First, perhaps partly due to an early decision to enter college, which is required to join the ACA program in the junior year of high school, ACA students graduated from high school at a higher rate (100 percent) than other students. Students nationally graduated at a rate of 84 percent, 89 percent in Texas (NCES 2017b), and 93 percent in ACA school districts (TEA 2016b). The ACA cohort is also lower-income than most high school students, with 74 percent of the ACA students qualifying for FRPL, whereas 52 percent of all U.S. public school students qualified in 2015 (the most recent year for which data were available, NCES 2016b), 59 percent of Texas school students (NCES 2016b; TEA 2016a), and 63 percent of students in the school districts served by ACA (TEA 2016b). In addition, while 26 percent of U.S. public school students identified as Latinx (NCES 2016a), 52 percent of students in Texas (TEA 2016a), and 62 percent of students in ACA school districts identified as Latinx (TEA 2016b), while 69 percent of ACA students identified as Latinx. Overall, while the students in the sample clearly planned for college, applied for the ACA program, and completed high school, they were more likely to be low-income and Latinx, both demographic characteristics associated with lower college completion rates (NCES 2011).

ACA students also differ from their peers who completed high school. Of the 2016 high school graduates in the United States, 70 percent enrolled in college immediately after high school (BLS 2017; and 63 percent in 2014, NCHEMS 2014). In Texas, 59 percent enrolled in college after high school in 2014 (when the most recent data was available, NCHEMS 2014). Following trends from previous years, the Texas enrollment rate likely increased by 2016. However, ACA

enrollment rates were still substantially higher, with 96 percent of the ACA class of 2016 enrolling in college immediately after high school. Immediate entry into higher education is notable given that delayed enrollment is associated with lower rates of four-year college attendance and college completion (Bozick and DeLuca 2005; Niu and Tienda 2013; Roksa and Velez 2012).

Moreover, ACA students are different than their college-going peers. In the U.S. higher education system Latinx students represent 19 percent of the student body, with white and African American students representing 56 and 14 percent respectively (NCES 2017a). In Texas, 37 percent of the 2016 entering college cohort are Latinx, with 36 percent white, and 13 percent African American (THECB 2017). In comparison, Table 1 shows that the ACA sample has higher proportions of Latinx students, 69 percent, and lower proportions of white students, 8 percent, than both the U.S. as a whole and the state of Texas. In addition, 56 percent of the U.S. and college populations are female (NCES 2017a), while 64 percent of the ACA sample identify as female.¹

By design, the sample is more socioeconomically disadvantaged than students in the general population. At the same time, ACA students – as a result of their application and participation in the program and as indicated by their immediate college enrollment – may have planned for college more than the general population. As a result, academic difficulty in college may not be as acute for this group as for other students from lower socioeconomic status backgrounds. Therefore, the discussion of this intervention in subsequent chapters should be considered in light of this sample, which while disadvantaged, is arguably more motivated,

¹ While a comparison of income status between the ACA class of 2016 and the national college cohort of 2016-2017 would be informative, this is not possible given that ACA low-income indicators come from secondary education. Secondary and postsecondary educational institutions do not rely on the same indicators of low-income status. Research on secondary education typically relies on free and reduced price lunch status (Snyder and Musu-Gillette 2015) as an indicator of poverty, while research on postsecondary education often relies on Pell Grant status (Delisle 2017).

prepared, and higher achieving than other students from lower-socioeconomic status backgrounds. In addition, while the large proportion of Latinx students among the ACA sample does not match the current population of college students in the United States, it is more representative of the predicted future student population (Fry 2011; Fry and Taylor 2013). Thus, it may be useful to consider findings from this dissertation as suggestive of potential trends among a growing Latinx population.

Table 1: ACA Class of 2016 Summary Statistics

VARIABLES	Mean	Std. Dev.
Female	0.64	
Race/ethnicity		
Latinx	0.69	
White	0.08	
African American	0.18	
Other	0.05	
High School		
Junior GPA	3.16	0.53
Top 60% of class	0.91	
ACA Attendance [†]	0.53	0.23
Family Background		
First-generation	0.66	
Free/Reduced Price Lunch	0.74	
Language: Parents Prefer English	0.29	
Language: Parents Prefer Spanish	0.26	
College Type		
2-year College	0.31	
4-year College	0.46	
College not specified	0.21	
N	617	

[†] Rate of attendance at ACA's afterschool college-access classes.

Intervention

The RCT was conducted during the 2016-2017 academic year. To identify whether parents can have a causal effect on student attitudes and behaviors, I randomly assigned ACA parent-

student pairs to treatment and control groups.² Treatment group parents received an introductory letter (see Methodological Appendix A; Spanish version available upon request) that illustrates how parents can support students in college. This initial communication called upon parents, as a vital source of comfort and support, to help their students succeed in college. Social-psychological literature suggests that whether or not parents intervene is closely tied to their role perception and self-efficacy (Desforges and Abouchaar 2003; Hoover-Dempsey and Sandler 1995; Whitaker and Hoover-Dempsey 2013). Role perception refers to what parents think they are *supposed* to do in relation to their student's education. Parental self-efficacy refers to parents' confidence in their ability to fulfill this perceived role. Therefore, this letter indicates to parents both that part of their role is to talk to their students about college, and that what is being asked of them is simple enough that they can be successful.

Following, parents received information via text related to specific topics and issues to discuss with their children throughout the year. A set of three texts, sent bi-weekly, (in either English or Spanish) from August 2016 to May 2017, targeted the content of parents' conversations with their students by identifying particular college engagement strategies. These texts describe how students could engage in their college environment and encourage parent-student conversations about these types of engagement, in order to demonstrate to students that their parents support these types of engagement.

² ACA collects information from each student who applies to the program. This students-level information includes student gender, high school GPA, free/reduced price lunch status, language spoken at home, and parental education level. Using both bivariate regressions of these student-level covariates on the treatment indicator as well as multiple regression analyses to determine whether the covariates jointly explain variation in treatment status, I examined whether randomization produced treatment and control groups that were statistically equivalent at baseline (see Chapter 2 for a further discussion).

The text-message model used here is based on York and Loeb's (2014) three-message model. Messages follow a consistent pattern of providing: 1) specific information about student experiences, 2) encouragement on how to talk to students about this topic, and 3) reinforcement on the importance of the suggested behavior. The first texts are designed to help parents recognize the importance of a particular skill or set of skills. The second texts are intended to maximize parents' self-efficacy. They present a manageable task for parents to complete in order to help their students. This task is a short, simple, and highly specific question parents can ask their students. The final texts reinforce the importance of the task by reminding parents of the intrinsic reward of supporting their student's college success.

Overall, texts cover a wide range of student engagement strategies (e.g., initial faculty and staff outreach, the role of faculty outside of the classroom, how to reach out to faculty and staff for discrete pieces of information, and building faculty mentoring relationships). Text topics are re-introduced throughout the year for reinforcement. All of the text messages used are included in the Methodological Appendix B.

Student Surveys

Survey data was collected to examine whether and how the parent intervention altered students' attitudes and interactions with key institutional agents on campus. All students, in both the treatment and control groups, from the ACA high school class of 2016 were asked to complete a survey in October of 2016 (their first semester in college) and again in March 2017 (their second semester in college). Both surveys are provided in the Methodological Appendix D.

By comparing the treatment group responses to the control group responses, the aim of these surveys is threefold: first, to identify whether the parent intervention changed the content of

parent-student discussions during college. Since parents were not surveyed; the results represent student perception of parental behavior. Second, survey questions were also designed to investigate whether the intervention changed students' predispositions to engage with faculty and staff, students' actual academic engagement behavior, as well as their evaluations of their experiences with faculty. Finally, students were asked to report their intentions of transferring to a different institution, as well as their intent to persist in college more generally. Survey measures are included in Table 2 below.

All students from the ACA class of 2016 for whom contact information was available (a total of 574 for Wave I and 587 for Wave II), received survey requests during their first year of college in the November, 2016 (Wave I) and March, 2017 (Wave II).³ Outreach yielded a response rate of 51 percent for both Wave I and Wave II surveys. Table 3 compares survey respondents in Waves I and II to the respective non-respondents for each survey wave. Regression results show that women disproportionately responded to Wave I (69 percent) and Wave II (68 percent) surveys. There are no statistically significant racial/ethnic differences between survey respondents and non-respondents in either survey wave. There are, however, other significant differences. Specifically, survey respondents appear to be higher achieving students compared to non-respondents. Survey respondents have higher GPAs (3.23 in Wave I and 3.30 in Wave II). In addition, they were more likely to be among the top 60 percent of their class and attend more of the ACA after-school program classes. These differences are unsurprising given that survey research regularly reports that women and higher achieving students are more likely to respond to surveys than others (Porter

³ Students were given the option to opt out of the survey if they had not yet enrolled in college. There were seven respondents from Wave I and eight respondents from Wave II who attempted to complete the survey, but had yet to enroll in college and were therefore excluded from the survey sample.

Table 2: Descriptive Statistics for Survey Measures Wave I, Fall 2016 and WaveII, Spring 2017		WAVE I		WAVE II	
Parent-Student Discussions		Mean	SD	Mean	SD
How frequently do you communicate with your parents via text, phone, email, etc.? ^		6.28	1.12	5.46	1.69
When you communicate with your parent(s) or guardian(s), how often do the following topics come up in conversation? Items on a 5-point scale: (1) never, (2) rarely, (3) about half of the time, (4) most of the time, (5) always.					
Academic services (for example, tutoring or the writing center)		2.21	1.21	2.29	1.31
Your academic advisor		2.07	1.13	2.16	1.19
Meetings with your academic advisor		2.13	1.14	2.24	1.16
Your classes		3.48	1.24	3.45	1.20
Studying/preparing for class		3.33	1.24	3.27	1.19
Class assignments		3.04	1.29	3.00	1.18
Your professors		2.37	1.17	2.49	1.25
Your relationships with your professors outside of class		1.96	1.12	2.10	1.19
Parental Support					
Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s). Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.					
My parents really try to help me.		5.17	1.15	5.01	1.16
My parents provide me with the emotional help and support I need.		4.87	1.34	4.79	1.28
My parents are people who I can talk with about my problems.		4.53	1.49	4.52	1.46
My parents are willing to help me make decisions.		4.94	1.25	4.88	1.19
Parent Institutional Commitment					
Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s). Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.					
My parents support my choice to attend this college/university.		5.38	0.96	5.29	1.04
My parents encourage me to continue attending this college/university.		5.32	1.01	5.17	1.10
My parents would prefer that I attend another college/university.		2.70	1.65	2.73	1.55
Student Institutional Commitment					
Please rate how strongly you agree or disagree with the following statement. Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.					
I will stay here to finish my degree (BA or AA).		4.86	1.54	4.71	1.54
I am pleased with my decision to go to college.		5.52	0.79	5.36	0.79
I am pleased with decision to go to <i>this</i> college.		5.30	0.94	5.03	1.03
Student Intent to Persist					
Please rate how likely or unlikely you find the following statement: I will attend college next semester (Spring 2017 / Fall 2017). Items on a 5-point Likert scale: (1) very unlikely -- (5) very likely.		4.77	0.81	4.73	0.71

^ Wave I uses a 7-point scale: (1) not at all, (2) less than once a month, (3) once a month, (4) a few times a month, (5) once a week, (6) a few times a week, (7) at least once a day; Wave II uses an 8-point scale: Items on an 8-point scale: (1) not at all, (2) a few times a month, (3) once a week, (4) a few times a week, (5) once a day, (6) 2-3 times a day, (7) 4-5 times a day, (8) every 2 hours or more.

* Reverse coded.

Table 2: Descriptive Statistics for Survey Measures Wave I, Fall 2016 and WaveII, Spring 2017, Continued...

	WAVE I		WAVE II	
Student Help-Seeking Attitudes	Mean	SD	Mean	SD
Please rate how much the following statements are like you or not like you. Items on a 5-point Likert scale: (1) not at all like me -- (5) very much like me.				
If I don't understand a course assignment, I ask the professor to explain it to me.	3.39	1.07	3.44	1.01
I talk to professors outside of class time if I need (for example, during office hours).	3.18	1.13	3.28	1.13
If I am struggling with course material that I do not understand, I ask a professor, teaching assistant, or staff member for help to understand the material.	3.47	1.05	3.49	1.03
If I need help with something in college, I ask a professor, academic advisor, teaching assistant, or staff member for help.	3.52	1.05	3.51	1.03
Student Engagement Attitudes				
While in college, how important is it that students do the following? Items on a 5-point Likert scale: (1) not at all important -- (5) very important.				
Talk with professors or teaching assistants (TAs) during class.			3.82	0.95
Talk with professors or TAs about academic performance in class.			4.01	0.91
Talk with professors or TAs one-on-one outside of class.			3.90	0.95
Go to a professor or TA's office hours.			4.02	0.94
Ask professors, TAs, or other staff for advice or help.			4.08	0.87
Develop a relationship with a professor, TA, or staff member.			3.97	0.94
Student Engagement Behaviors				
Have you: [^]				
Talked to a professor or teaching assistant outside of class?*	3.32	0.96	1.98	1.21
Talked to an academic advisor?	3.71	0.67	1.95	1.07
Talked to other staff (a tutor, librarian, etc.)?	3.19	1.13	1.75	1.22
Visited the academic support center (here students can find tutoring, study groups, etc.)?	2.81	1.14	1.41	1.36
Visited the writing center.	2.57	1.04	0.83	1.03
Student Experiences with Faculty/Staff				
How would you describe your experiences this semester (Spring 2017)? Items on a 5-point Likert scale: (1) mostly negative -- (5) mostly positive.				
Talking to a professor or TA outside of class			3.86	0.97
Talking to an academic advisor			4.03	0.94
Talking to other staff			3.80	0.89
Student Perception of Professors				
Please rate how much you agree or disagree with the following statement. Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.				
I don't think professors want to talk to me.			2.53	1.32
Even if I wanted to talk to a professor, I'm not sure how to start a conversation.			3.34	1.50
I think a professor would take the time to talk to me if I needed help.			4.79	1.02
I think a professor would understand my difficulties if I shared them.			4.41	1.12

[^] Wave I uses the following question structure: *Think about your experiences in college so far. Have you:* Response scale: (1) no, I didn't know I could, (2) no, but I new I could, (3) yes, and I had a bad experience (4) yes, and I had a good experience;
Wave II uses the following question structure: *In college this semester (Spring 2017), how many times have you:* Response scale: (0) 0, (1) 1, (2) 2-3 times, (3) 4-5 times, (4) 6 or more.

* Wave I question did not include reference to teaching assistants.

Table 3: Wave I and Wave II Survey Sample Statistics

VARIABLES	Wave I		Wave II	
	Survey Respondents	Non-Respondents ^a	Survey Respondents	Non-Respondents ^a
Female	0.69*	0.59	0.68*	0.59
Race/ethnicity				
Latinx	0.70	0.68	0.67	0.71
White	0.06	0.09	0.08	0.08
African American	0.17	0.19	0.18	0.18
Other	0.07	0.04	0.07 [^]	0.04
High School				
Junior GPA	3.23*	3.08	3.29***	3.01
Top 60% of Class	0.93 [^]	0.89	0.94 [^]	0.89
ACA Attendance [†]	0.57***	0.50	0.57***	0.50
Family Background				
First-generation	0.70 [^]	0.63	0.69	0.64
Free/Reduced Price Lunch	0.78*	0.70	0.77	0.72
Language: Parents Prefer English	0.28	0.31	0.33 [^]	0.26
Language: Parents Prefer Spanish	0.31**	0.21	0.28	0.23
College Type				
2-year College	0.30	0.33	0.27 [^]	0.35
4-year College	0.58***	0.34	0.52***	0.36
College not specified	0.12***	0.32	0.21***	0.29
N	292	325	299	318
Response Rate	50.87%		50.94%	

Notes: Columns 1 and 2 show regression results indicating whether survey response from Wave I predicts student characteristics. Column 3 and 4 show regression results from Wave II survey respondents and non-respondents. Individual regression analyses omit students who are missing data. Statistical significance levels indicate whether the survey sample is statistically different from the non-respondents at the following levels: [^]p<.10; *p<0.05; **p<0.01; ***p<0.001.

The response rate was calculated based on the available contact information for the experimental sample during Wave I (574) and Wave II (587) survey outreach.

[†] Rate of attendance at ACA's afterschool college-access classes.

^a This also includes students who were not sent the survey due to missing contact information.

and Whitcomb 2005). Importantly, Wave I survey respondents appear to be more socioeconomically disadvantaged than non-respondents. Seventy percent are first-generation students, 78 percent qualify for free/reduced price lunch, and 30 percent of their parents prefer communications with ACA in Spanish. Interestingly, Wave II survey respondents appear to be from similar socioeconomic backgrounds. The only statistically significant difference related to family background is that parents of survey respondents are more likely to report they prefer

communication in English, which could indicate that they are actually more advantaged. Finally, ACA is more likely to possess complete college data for survey respondents than non-respondents, as a lower percentage of survey respondents are missing *college-type* data than non-respondents.⁴

Student and Parent Interviews

To explore parent-student relationships, as well as parent and student cultural capital related to academic engagement, I conducted semi-structured, one-hour interviews with parent-student pairs in the summer of 2016 after students finished high school and again in the summer of 2017 after students completed their first year of college. I selected a sample of 35 families to participate in the interviews in the summer of 2016, 25 of whom were able to participate in follow-up interviews the summer of 2017 (with three partial family interviews: one student whose mother could not participate and two parents whose daughters could not participate). This sample was drawn from the ACA college access program student participants in the spring of 2016. I sampled interviewees along one main dimension, parental education level. Families represented three different parental education levels: 1) degree holders (parents with an associate's or bachelor's degree); 2) some college (parents who had taken a course or two, but not completed a degree); no college (parents who had a high school degree or less).

⁴ ACA typically collects the college-type from its college coaches at their various high schools. When the class of 2016 graduated from high school, several high schools did not report college-type for any of their students. These schools are part of ACA, but located in a different city with a satellite location of ACA, not the headquarters. The ACA program director reported that these coaches reported student enrollment data later than the rest of high school staff, and hypothesizes that students from these high schools may be less connected to college coaches and therefore less amenable to a request to complete an ACA college survey. As a result, it is not unusual that students whose coaches had previously reported their college-type were more likely to complete both Wave I and Wave II surveys.

The descriptive statistics of the interview sample are included in Table 4. Interviewees are largely similar to the ACA class of 2016. Specifically, 62 percent are female and 65 percent are Latinx, 18 percent African American, and 12 percent white. Interviewees report grade point averages similar to the entire class (3.14 and 3.16 respectively). Interviewees do show statistically significant differences among other high school measures. Specifically, 97 percent of interviewees are among the top 60 percent of their class (versus 91 percent among the population). Also, the rate of ACA attendance is 10 percentage points higher among interviewees than the rest of the ACA class of 2016. Interviewees are from similar socioeconomic backgrounds as the rest of the ACA class. For example, 66 percent students are from first-generation backgrounds and approximately 75 percent qualify for free/reduced price lunch among interviewees and non-interviewees. Unsurprisingly, fewer interviewees come from families in which their parents report they prefer Spanish. While a number of interviews with parents were conducted in Spanish, invitations to parents and students were in English. As a result, families might have self-selected out of interviews if parents did not speak English. Finally, ACA data on college attendance was more complete among interviewees, with 74 percent listed as attending a four-year college. Among the entire class 26 percent of students were missing specific data related to college-type.

I reached out to students and parents through ACA via email and then through phone and text communication. The interviews were conducted in person, either at families' homes or a nearby coffee shop. Students and parents were interviewed separately. A Spanish-speaking interviewer was used to conduct five parent-interviews in Spanish. Parents provided student consent for interviews during the summer of 2016 if students were under the age of 18 at the time.

Interviews explored parent-student relationships and expectations and understandings of college. The topics are similar for parents and students and are described in Methodological

Table 4: Interviewee Sample Summary Statistics

VARIABLES	Interviewees	Non-Interviewees
Female	0.62	0.64
Race/ethnicity		
Latinx	0.65	0.69
White	0.12	0.08
African American	0.18	0.18
Other	0.06	0.05
High School		
Junior GPA	3.14	3.16
Top 60% of Class	0.97*	0.91
ACA Attendance†	0.64**	0.53
Family Background		
First-generation	0.66	0.66
Free/Reduced Price Lunch	0.75	0.74
Language: Parents Prefer English	0.35	0.29
Language: Parents Prefer Spanish	0.15*	0.26
College Type		
2-year College	0.24	0.32
4-year College	0.74***	0.42
College (not specified)	0.03***	0.26
N	35	582

† Rate of attendance at ACA's afterschool college-access classes.

Statistical significance levels indicate whether the survey sample is statistically different from the non-respondents at the following levels: ^p<.10; *p<0.05; **p<0.01;

***p<0.001.

Appendix C. For example, students and parents were asked to describe a conversation they had about college that was difficult. In addition, students were asked about specific experiences in high school and their expectations for college. Later, in the second round of interviews, students were asked to reflect on specific experiences in college and whether these met their expectations.

Data generated from these interviews was analyzed through an iterative, multi-stage process, which began at the start of data collection (Burawoy 1998; Emerson, Fretz, and Shaw 1995; Strauss and Corbin 1990). The first stage of analysis occurred during each interview. Although interviews were recorded, I made notes of interviewee behavior and responses that appeared especially salient. After each interview, I documented my initial observations, reactions to, and impressions of the interview in analytic memos. Memos served as records of my analysis,

thoughts, interpretation, questions, and directions for further data collection (Strauss and Corbin 1990). In this way, each interview informed subsequent analyses. The second stage of analysis involved an auditory and visual review of the interviews. As I listened to and read each interview numerous times, I searched for emerging themes.

Subsequent analysis of interviews involved Dedoose qualitative analysis software. This coding software allows for an iterative process that involves coding parents' and students' words repeatedly, looking for common ideas, emotions, and processes. This coding process has been described as both "open" and "focused" (Emerson et al., 1995; Strauss and Corbin 1990). It is open in the sense that coding is initially done without regard to ultimate organization of, or messages that may emerge from, the data, but with the intent to recognize the significant meanings transmitted by each interviewee. Subsequently, fine-grained analysis allows the researcher to search for themes that have already been identified by previous research or experience in the field. In this case, the interviews were coded for representations of cultural capital. Dedoose allows users to continually update codes, combining codes, creating new codes, or discarding unhelpful codes. Interview transcripts were also compared across demographic variables to examine whether certain codes were more prevalent among one group than others. Finally, codes were compared in order to recognize common themes in the data. Themes serve to both highlight a larger argument and link data with existing literature (Emerson et al. 1995). In-depth analytic memos were then used to identify broader themes in the data.

OVERVIEW OF DISSERTATION

This dissertation is divided into three stand-alone, empirical chapters. While written for submission to separate journals (and different audiences), each chapter has a similar objective—

to bring the unspoken rules and expectations of the education system to the fore of discussions on educational inequality. To do this, I focus on the role of parent-student relationships in academic engagement and cultural capital among students from different groups. By focusing on the role of parents in higher education, this work illuminates sociological processes often overlooked in analyses of educational inequality.

Education researchers focused on parental involvement have yet to fully understand how parents, particularly of socioeconomically disadvantaged students, can facilitate success during college. Chapter 2, targeted for an education policy journal, investigates the main effects of the parent RCT through an analysis of student survey data. The results show positive effects of the intervention on parent-student discussions, student attitudes, behaviors, and intent to persist into the second year of college. These results indicate that parents from socioeconomically disadvantaged families can indeed play an important role in student success in college and encourage behaviors that are typically considered indicators of cultural capital. Given that students from socioeconomically disadvantaged backgrounds are less likely to engage with faculty and staff and persist through college, finding that parents can facilitate their success can contribute to reducing inequality. Importantly, the effects are more pronounced in the second semester of implementation, indicating that cultural capital development may be a longer process. In addition, there is suggestive evidence that the effects may be more pronounced among the most educationally disadvantaged families.

The focus shifts to Latinx students and parents in Chapter 3, which examines how this intervention might work for different racial/ethnic groups. In this chapter, I highlight the differences between Latinx and non-Latinx parent-student relationships, and suggest that faculty-student relationships are also characterized differently for Latinx and non-Latinx students. Survey

results highlight that in the treatment group, Latinx students feel more supported by their parents than non-Latinx students. In addition, interviews suggest that Latinx parents and students experience a tighter-knit relationship than non-Latinx parents and students. In addition, Latinx students had different expectations of faculty in college and in general had less positive perceptions and relationship than other racial/ethnic groups. The intervention, which encouraged students to engage with faculty, exacerbated these negative perceptions.

The final chapter of the dissertation investigates *how* the parent intervention created the effects investigated in chapters 2 and 3. Using simultaneous equations models (SEM) I find that the intervention did not work through the anticipated pathways. Parent-student discussions were affected by the content of the parent program, and parent-student discussions were strongly related to student attitudes about how important it is to engage with faculty/staff and whether students feel they are the type of person that would do so, as well as their engagement behaviors (how often they talk with faculty/staff). However, these mechanisms explained very little of the impact of the intervention. The chapter also explores variation in mechanisms by race/ethnicity and gender.

Taken together, these three chapters contribute to the sociological understanding of parents and cultural capital in college. While some studies consider the role of parents and cultural capital during the transition to college (e.g. Lareau 2011; for a review see Deil-Amen and Turley 2007), there is little sociological research about the role of parents once students enter college (for recent exceptions, see Hamilton 2016; Hamilton, Roksa, and Kelly 2018). This dissertation indicates that the role of socioeconomically disadvantaged parents in higher education is indeed much more complex and impactful than may have been previously assumed. While cultural capital research implies that socioeconomically disadvantaged parents play a limited role, if any, in their students' success in higher education, presented findings show that a parent intervention can have a causal

effect on student success. Parents from socioeconomically disadvantaged families can indeed facilitate student engagement in behaviors typically regarded as indicators of cultural capital. This not only contributes to a more nuanced understanding of the transmission of cultural capital but also opens opportunities for further research and intervention work that can engage socioeconomically disadvantaged parents in facilitating student success in college.

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CHAPTER 2

THE EFFECTS OF THE PARENT INTERVENTION

While the share of first-generation and low-income students enrolled in higher education has increased over time, they continue to experience less desirable outcomes than their more advantaged peers (Bailey and Dynarski 2011; Bowen, Chingos, and McPherson 2009). Ample literature investigates the role of academic preparation and financial supports in socioeconomic inequality (e.g., Cabrera, Nora, and Casteneda 1992; Bound, Lovenheim, and Turner 2010; see also a review by Grodsky and Jackson 2009). These factors, however, do not entirely account for the socioeconomic gap in student experiences and college success (Carnevale and Strohl 2010; Bowen, et al. 2009; Roderick, Coca, and Nagaoka 2011).

Studies of higher education have identified interaction with faculty and staff as important contributors to postsecondary success (Angrist, Lang, and Oreopoulos 2009; MacDonald, Malatest, Assels, Baroud, and Gong 2009), in part because students develop vital college knowledge through these relationships (Collier and Morgan 2008). However, socioeconomically disadvantaged students are less likely to talk with faculty and staff in part because they are uncomfortable or unfamiliar with the expectations of the middle-class college context (Collier and Morgan 2008; Lareau and Weininger 2008; Jack 2016). While prior interventions have tried to provide information directly to students, and encourage their greater engagement with faculty and staff, I shift the focus to consider whether parents from disadvantaged backgrounds can encourage students to engage with institutional agents (i.e., faculty and staff).

While parents are the most significant source of students' knowledge of the college system, and communicate frequently with students when they are in college (NSSE 2007), most research

on higher education has failed to consider parental influence. Research in K-12 education, however, shows that parents are attentive to education-related information while their children are in high school (Daniel et al. 2009), and that they use this information to make decisions, more so than students themselves (Bettinger et al. 2012; Valant and Loeb 2015). Moreover, parents also use this information to change student behavior (Bergman 2015; Kraft and Dougherty 2013; Kraft and Rogers 2014). The question remains whether parents can help to facilitate student engagement in college.

I developed and evaluated an intervention that targets parents' conversations with students, enlisting parents to prompt students to contact faculty/staff during college. The sample (N=617) was approximately evenly split between experimental and control groups. Results based on student surveys indicate that this low-cost, light-touch, parent text-message intervention had an effect on parent-student discussions, how important students believe it is to engage with faculty and staff, and students' intent to persist into the second year of college. There is also suggestive evidence that the impact of the intervention may be stronger for students from the least educated families. These results both document how parents who have little or no experience with college themselves can influence college knowledge and encourage their students to engage with faculty and staff during college and have significant policy implications for future interventions intended to reduce inequality.

LITERATURE REVIEW

The Role of Parents

Research on K-12 education demonstrates the integral role parents play in student academic success (Dumais 2006; Greenman, Bodovski, and Reed 2011; Jaeger 2011; Potter and

Roksa 2013). Parental involvement in school partially explains socioeconomic and racial/ethnic gaps in academic achievement (Cheadle 2008; Lareau 2011; McNeal 1999). Similarly, research on the transition into college highlights the important role of parental information and resources in college choice and enrollment (Deutschlander 2017; Grodsky and Jones 2007; Lareau and Weininger 2008; Roksa and Deutschlander forthcoming). Yet, once students enter higher education, few studies examine the role of parents in fostering academic success (for recent exceptions, see Auerbach 2007; Hamilton 2016; Roksa, Deutschlander, and Whitley 2016).

Parents may be an untapped resource to improve student success in college. Seventy percent of students communicate “very often” with at least one parent (NSSE 2007), even as much as thirteen times per week, with both students and parents initiating contact (Hofer 2011). Students often report feeling less stressed after communicating with family members (Gemmell and Peterson 2006; Wolf, Sax, and Harper 2009). Significantly, parents are an especially important source of support for students who are not in the demographic majority on campus (Guiffrida 2006; Melendez and Melendez 2010).

In addition to serving as a source of emotional support for students, parents also seem to be more attentive to education-related information and use this information to make decisions, more so than students themselves. For example, one postsecondary institution that sent fliers to both parents and students found parents were more likely than students to remember the information they received (Daniel et al. 2009). Parents are also more likely than students to use new information to make decisions (Bettinger et al. 2012; Valant and Loeb 2015). Since parents are more likely to retain and use helpful information, they can play an important role in helping students navigate postsecondary institutions.

Notably, research on educational interventions in K-12 education suggests that parents can use information they receive to influence student behavior in school. For example, one intervention with secondary school students sent weekly messages from teachers to parents. Students of parents who received a message indicating what their child could improve were less likely to drop out of the summer remediation program (Kraft and Rogers 2014). Similarly, Kraft and Dougherty (2013) found that frequent teacher-parent phone calls increased student engagement as measured by homework completion, in-class behavior, and in-class participation during a summer school program. Bergman (2015) also found that sending parents text messages when their child was missing assignments resulted in significant gains in GPA, tests scores, and measures of student engagement. The question remains whether these types of interventions could be effective in the higher education context.

Cultural Capital in College

Building on Bourdieu's conception of cultural capital, which includes knowledge, norms, and practices that facilitate successful interaction with dominant social institutions (1973; Bourdieu and Passeron 1977), recent studies of students' experiences in college indicate that cultural capital may contribute to socioeconomic inequality (Lareau and Weininger 2008; Stephan and Rosenbaum 2009). Complex information and skills are necessary to navigate the higher education system and meet expectations of faculty and staff (Armstrong and Hamilton 2013; Collier and Morgan 2008; Deil-Amen and Rosenbaum 2003; Jack 2016; Lareau and Weininger 2008; Rosenbaum, Deil-Amen, and Person 2006; Scott-Clayton 2015; Stephens, Hamedani, and Destin 2014). For example, confusing choices, and student-initiated guidance hamper less advantaged students' progress in college. Moreover, institutions presuppose, recognize, and

reward the possession of cultural capital, but do not explicitly teach it (Bourdieu and Passeron 1977).

Although higher education institutions largely presume that students enter with certain skills and knowledge, research suggests that colleges and universities can also be a place where students engage with others to gain valuable cultural capital. For example, when students seek out peers, professors, and institutional support staff during college, they develop social ties with individuals who may have valuable skills and information (Chambliss and Takacs 2014).

Students from less advantaged backgrounds, however, are less likely to interact with faculty and other institutional agents compared to their more socioeconomically advantaged peers (Collier and Morgan 2008; Kim and Sax 2009). Students' college engagement strategies vary by SES in part due to a lack of knowledge and feelings of discomfort. Students with limited knowledge of higher education often do not recognize they need help, and once they do, they are unfamiliar with where to obtain it. Low SES students less frequently seek out and find help while in college, in part because they do not know what is available and how to access resources when necessary (Lareau 2011; Stuber 2011). For example, Lareau (2011) describes one student who could not afford a course textbook. Instead of discussing her problem with the professor, she stopped attending class. Unaware that she should withdraw from the class, she received a failing grade. One relatively minor financial problem turned into a larger problem that needlessly tainted her academic record with a failing grade, not because of academic struggles or directly because of financial problems, but because of lack of knowledge of postsecondary education.

Prior research also suggests that knowledge is not the only reason students do not make connections with faculty or staff on campus. Low-SES students often display a pattern of independence and hesitancy when interacting with institutional agents (Aires and Seider 2005;

Jack 2016; Lareau 2011; Stanton-Salazar 2001; Stephan and Rosenbaum 2009; Stuber 2009). This occurs in part because less advantaged students often do not feel entitled to ask for help or may see a request for help as a sign of weakness (Lareau 2015; Jack 2016). A low-SES student at an elite institution identified a class divide in entitlement to seek help from faculty and staff, “[middle-class students] have that sense of entitlement instilled in [them]. I didn’t know that I could complain and get something done . . . didn’t know the school had a duty to me. I still feel bad about seeking help” (Jack 2016).

Previous Student Engagement Interventions

To aid less advantaged students on their journeys through higher education, a number of studies have investigated the effects of engagement with academic services. Experimental studies that investigate the effect of increased availability of academic services on grades and graduation rates have shown mixed results, mainly because of variation in student engagement with faculty and staff. These studies suggest that informing students of available services is not sufficient to encourage engagement. For example, Angrist and colleagues (2009) found that students who were given access to support services paired with a scholarship increased their grades relative to students who received nothing. However, students who were made aware of support services and staff help, but not provided with a financial incentive to seek them out did not improve their grades, suggesting that students need additional motivation to seek out these types of services. Similarly, Scrivener, Sommo, and Collado (2009) found that the offer of academic services did not meaningfully affect student academic outcomes unless students were required to visit academic services. Another intervention that encouraged student interaction with advisors, via email and phone outreach, had no effect on student persistence (Schwebel, Walburn, Klyce, and Jerrolds

2012). The authors argue that the limited amount of increased interaction with advisors was not substantial enough to affect student outcomes (Schwebel et al. 2012). These college success interventions have been marked by poor engagement with institutional agents.

Students who actually interact with faculty and staff through advising, academic support, etc. show improved postsecondary success, such as higher grades and persistence (MacDonald et al. 2009; Scrivener and Weiss 2009). Scrivener and Weiss (2009) showed that students who received 150 dollars per semester for meeting with a guidance counselor had small but significant improvements in grades and persistence. MacDonald et al. (2009) found that at-risk students (who needed a developmental English course; were concerned about integrating into college life, or were uncertain about their academic program/career options) generally do not take advantage of mentoring, tutoring, workshops or other services. However, when students participated in tutoring, mentoring or other services, they were twice as likely to graduate. Notably, additional services benefited low-income, ESL, and less academically prepared students the most.

In this study, I consider whether parents can provide an impetus for students to engage with higher education institutions. This research fills two gaps in the field. First, it attempts to improve low levels of student engagement that has contributed to the mixed results in previous college student interventions. Second, despite the significant role that parents play in student cultural capital development, there is a dearth of research on how parents from low-SES backgrounds can support their students during college. To address this, I develop and evaluate an intervention that targets parents' conversations with students—enlisting parents to prompt students to engage with faculty and staff during college, helping students form relationships that can help them develop cultural capital in college.

PRESENT STUDY

The Intervention: A Parent Text-Message Program

While there has been a proliferation of advising programs intended to guide students through college, there are few programs that explicitly recognize and engage parents. The intervention reported here provided parents with an introductory letter at the beginning of students' first year of college that called upon them, as a vital source of comfort and support, to help their students engage with faculty/staff. Research suggests that whether or not parents intervene is closely tied to their habitus and cultural capital (Lareau 2011). Habitus shapes what parents think their role is and what they are *supposed* to do in relation to their student's education. Parents' cultural capital is related to having information and knowledge about education system that facilitates their fulfilling the perceived role. The introductory letter aims to indicate to parents that part of their role is to talk to their students about college and the task they are asked to complete is simple enough that they can successfully complete it.

Following, parents received information via text about specific topics and issues they could discuss with their children throughout the year. A set of three texts, sent bi-weekly, (in either English or Spanish) from August 2016 to May 2017, targeted the content of parents' conversations with students by identifying particular college engagement strategies. Following York and Loeb's (2014) three-message model, each text-set contained: (1) an initial message providing parents with specific information about the importance of certain school-related behaviors; (2) a second message encouraging parents—through a short, specific, and manageable task—to talk with students about the given topic; and (3) a final message reinforcing the value of discussing the suggested topic. Overall, fifteen text-sets were sent bi-weekly throughout the 2016-2017 academic year and covered a range of student engagement strategies. For example, texts described initial

faculty and staff outreach, the role of faculty outside of the classroom, how to reach out to faculty and staff for discrete pieces of information, and the importance of building faculty mentoring relationships, among other topics. Text topics were re-introduced throughout the year for reinforcement. An example text set on the topic of professor engagement is italicized below:

Information Text: Professors can be intimidating to students, but building close relationships with professors can help students do better in their classes.

Engagement Text: Ask your student who their favorite professor is and whether they've gone to talk to them outside of class.

Encouragement Text: By acknowledging that students talk to professors outside of class, you're helping your student adjust to professor expectations.

Sample and Institutional Partner

A non-profit organization serving low-income, first-generation, and Latinx students in a southern state, referred to as All Can Achieve (ACA, a pseudonym), executed the parent intervention during the 2016-2017 academic year. ACA works with high school students who apply for the program during their junior year of high school. To participate in ACA's college access program students must apply by completing a simple application and essay in the 11th grade of high school. Students must have a GPA that puts them in the top sixty percent of their high school class and either a) qualify for the national school lunch program or b) be a first-generation student (i.e. neither parent holds a bachelor's degree, although their siblings may have enrolled in college or completed a degree).

Given the application requirement to participate in ACA, the families participating in this study are likely not representative of the nationwide population of low-income and/or first-generation families since either parent or student initiative was necessary to join the high school program. Also, while ACA targets low-income and first-generation students, their geographic location means that many of the participants are Latinx students. While the number of Latinx

students in this study may be disproportionate to the nation as a whole, Latinx students are the largest and fastest growing minority group in the United States (Fry 2013). The share of Latinx high school graduates enrolled in college immediately after high school reached 49 percent in 2012, surpassing that of whites (Fry and Taylor 2013). Importantly, the proportion of Latinx students who are first-generation students is also higher than any other group—approximately 50 percent (NCES 2010). Moreover, this population of college students has particularly low college completion rates, with only 36 percent of first-time, full-time Latinx students earning a degree within six years, compared with 49 percent of whites (NCES 2011).

Table 1 shows that approximately 70 percent of students in the sample are Latinx, while 8 percent are white, and approximately 18 percent are African American. Also, nearly one quarter reported that their parents' preferred language was Spanish. A majority of students come from less educated backgrounds—over 65 percent would be the first in their family to earn a bachelor's degree. Nearly 75 percent of students qualified for free/reduced price lunch in high school. As expected, based on ACA's application requirements, these students reported an average GPA of 3.0 (the majority falling between 2.5 and 3.5), with over 90 percent in the top 60 percent of their graduating class in their junior year of high school. The majority of students are female (nearly 65 percent).

The experimental sample consists of 617 families from the ACA class of 2016 cohort. In mid-August of 2016, ACA families were randomly assigned to treatment or control conditions (control $n = 309$, treatment $n = 308$). Subsequently, ACA reached out to and implemented the intervention with 308 treatment group parents and guardians of the 2016 cohort. Initial letters went out to 306 families (addresses were unavailable for 2 families). Text messages were sent to 256 families—37 families did not have parent cell information and 15 students did not have a parent

on file. Accurate contact information is often difficult to collect among less advantaged groups, therefore this amount of missing data is not surprising. For 57 percent of the families receiving text messages, ACA had contact information for, and sent messages to, two parents. Over the course of the academic year, 44 parents opted out of text messages. Of these, approximately half still had a spouse receiving messages. As a result, only 17 out of 256 families receiving text messages left the study completely – an opt-out rate of less than 7 percent. Of the 308 families in the sample, 235 received the full intervention (letters and text messages) throughout the year. The analytic sample is based on a subset of this experimental sample—students surveyed in spring 2017.

Table 1: Experimental Sample Summary Statistics

VARIABLES	Mean	Std. Dev.
Female	0.64	
Race/ethnicity		
Latinx	0.69	
White	0.08	
African American	0.18	
Other	0.05	
High School		
Junior GPA	3.16	0.53
Top 60% of class	0.91	
ACA Attendance†	0.53	0.23
Family Background		
First-generation	0.66	
Free/Reduced Price Lunch	0.74	
Language: Parents Prefer English	0.29	
Language: Parents Prefer Spanish	0.26	
College Type		
2-year College	0.31	
4-year College	0.46	
College not specified	0.21	
N	617	

† Rate of attendance at ACA's afterschool college-access classes.

Analytical Strategy

In order to evaluate the impact of the parent intervention, I randomly assigned students, and their families, to treatment and control conditions and tested for baseline equivalence on student characteristics before the start of the intervention. Table 2 presents the results of regression analyses predicting student baseline covariates with an indicator reflecting assignment to treatment. There is no statistically significant imbalance on observable characteristics between treatment and control groups.

Table 2: Treatment-Control Group Balance Tests

VARIABLES	Control Mean	Treatment Mean
Female	0.645	0.625
Race/ethnicity		
Latinx	0.691	0.686
White	0.084	0.095
African American	0.158	0.045
Other	0.067	-0.027
High School		
Junior GPA	3.174	3.143
Top 60% of class	0.917	0.906
ACA Attendance [†]	0.522	0.547
Family Background		
First-generation	0.651	0.676
Free/Reduced Price Lunch	0.730	0.753
Language: Parents Prefer English	0.317	0.267
Language: Parents Prefer Spanish	0.239	0.205
College Type		
2-year College	0.285	0.325
4-year College	0.470	0.452
College not specified	0.228	0.188
N	309	308

Notes: Statistically significant differences between control and treatment group means are indicated by the following symbols: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

[†] Rate of attendance at ACA's afterschool college-access classes.

I use straightforward Ordinary Least Squares regression techniques to estimate the intent-to-treat (ITT) effects of the intervention on students' outcomes.¹ ITT analyses compare mean outcomes of groups as randomized. This type of analysis is appropriate given that in most cases it is not possible to know whether the parents actually received, read, or discussed the text messages with their children. The analytic model is specified as follows:

$$Y_i = \beta_0 + \beta_1 TREATMENT_i + \gamma X_i + \varepsilon_i$$

where Y_i is a vector of the various outcomes incorporated into this analysis, such as student persistence, for student i ; $TREATMENT_i$ is a binary indicator for whether students' parents have been randomly assigned to participate in the parent intervention or to the control group; X_i is a vector of student-level demographic, socioeconomic, and academic baseline covariates collected from the ACA application, for both treatment and control students; and ε_i is a residual error term. In this model β_1 provides an unbiased causal estimate of the impact² of the offer to participate in the intervention on students' college outcomes.³

In addition to estimating main effects, I also test for heterogeneous effects to determine whether or not the parent intervention had a differential effect for particular families. Given that parental education level is linked to student engagement in college (Collier and Morgan 2008; Jack 2016), and students in the sample come from varying educational backgrounds, students may

¹ Since all outcome measures consist of Likert scales, I also estimate logit and multinomial logit models to check the robustness of OLS analyses. Supplemental analyses show similar patterns as the OLS estimates reported here. OLS estimates are presented for ease of interpretation. Multinomial logit analyses are available from author upon request.

² Due to the small sample size coefficients that reach a $p < .10$ level are referred to as statistically significant.

³ Observing actual persistence (as opposed to just students' intention to persist) would be another desirable outcome measure in part because it can bypass many problems with survey response attrition. However, at the time of writing this dissertation the National Student Clearinghouse (NSC) data on college enrolment was not available from the ACA organization for the students in this study.

experience differential effects based on family educational background. Given concerns of power, I do not test for the possibility of other heterogeneous treatment effects. To test for the effect parental education, I add interactions terms to the fully specified models. For example, to test whether or not the parent intervention had a stronger effect on students from families with different educational backgrounds, I estimate the following model:

$$Y_i = \beta_0 + \beta_1 TREATMENT_i + \beta_2 Ed_i + \beta_3 TREATMENT_i * Ed_i + \gamma X_i + \varepsilon_i$$

where Y_i is a vector of the various outcomes incorporated into this analysis for student i ; $TREATMENT_i$ is the binary indicator for parent treatment status; Ed_i is a categorical variable representing parental education level; $TREATMENT_i * Ed_i$ is an interaction of treatment status and parental education; X_i is a vector of student-level demographic, socioeconomic, and academic baseline covariates; and ε_i is a residual error term. In this model β_1 provides an unbiased causal estimate of the impact of the offer to participate in the intervention on students' college outcomes. Given the statistical power of this study, I combine parental education levels into two categories: (0) some college, AA degree, and BA degree or more and (1) high school diploma or less.

Survey Attrition, Data, and Measures

To investigate the effects of the parent intervention, this study employs survey data from both treatment and control students collected during their first and second semesters in college (collected in November 2016 and March 2017, respectively). The survey data from March 2017 will be the focus of this paper. The survey yielded a response rate of 51 percent,⁴ resulting in a survey sample of approximately 300 students. With a study like this, which relies on survey data for analysis, the difference in the share of students included in the experimental sample and survey

⁴ This percentage only includes students for whom contact information was available.

samples represents attrition from the experiment. Attrition can lead to biased estimates of impact if the types of treatment group students who attrited (did not respond to the survey) are systematically different than the type of control group students who attrited in a way that is related to survey measures outcomes.

To analyze attrition in the student survey data, I test whether survey response differs by treatment status. Specifically, I regress a binary variable that equals 1 if a student responded to the survey and 0 if not on treatment status. I find no evidence that the rate of attrition (survey response) differs between the treatment and control groups (Table 3; see the Appendix for further attrition analyses).

There are two reasons the survey response rate and potential attrition should not affect treatment effects. First, the intervention is not likely to affect who decides to complete the survey because most students were unaware that their parents received messages from ACA. Interviews with a subsample of treatment parents suggest that many parents worked the topics of text messages into regular conversations and did not tell students that these were suggested by ACA. Correspondingly, treatment assignment does not predict whether or not students report that their parents received messages from ACA during the academic year. Since most students are unaware of their treatment status, they are unlikely to feel more or less compelled to complete the survey. Second, if higher academic achievers are more likely to complete the survey and treatment status affects academic success in college, then any effects would be understated. This is because poorer performers and students less engaged with ACA are less likely to be engaged with faculty and staff in college. If they were less likely to complete the survey then they would not bring the control group average down as might be expected. As a result, the sample from the survey is not likely to bias results in a way that would artificially inflate treatment estimates.

Survey respondents differ from non-respondents on important demographic characteristics, which limits generalizability of the survey sample to the overall experimental sample. As Table 3 indicates, compared to non-respondents, survey respondents are disproportionately female, younger, higher academic achievers, and four-year college attendees. Across the experimental sample and survey sample the proportion of students from various racial/ethnic groups is similar.

Table 3 also shows that survey respondents were split between treatment and control group students, with 53.5 percent of the survey sample from the control group and 46.5 percent from the treatment group. Also, the characteristics of the respondents are similar across treatment and control groups, which supports the internal validity of survey measures. There is only one statistically significant difference between treatment and control responders on baseline characteristics—treatment responders had higher rates of ACA attendance in high schools (attending 60.9 percent of classes instead of 53.7 percent in the control group).⁵

Survey respondents answered questions that investigate whether the intervention impacted the content of parent-student conversations, as well as student attitudes and behaviors related to faculty and staff engagement. Students were asked how often they communicate with their parents and how often they discuss the following college topics: professors, academic advisors, meetings with advisors, relationships with professors outside of class, course assignments, etc. Parental discussions were measured on a five-point Likert scale from *never* - *always*. Students also reported

⁵ One way to examine whether ACA attendance may bias treatment effects is to consider the degree to which the size of treatment effects changes when a measure of ACA attendance is introduced to the regression models. This examination suggests that ACA attendance is not more strongly related to treatment effects than other control measures. While Table 4 shows that treatment effects generally attenuate as control variables are included, no one control variable is responsible for the majority of this effect, rather each additional control variable reduces treatment effects slightly. The change of treatment effects from Model 1 to Model 2 is therefore due to the total effect of controls on treatment, not one particular variable.

Table 3: Survey Attrition, Samples, and Descriptive Statistics

	<u>Non-respondents</u>	<u>Respondents</u>		
Test of Differential Attrition	0.52	0.45		
VARIABLES	Respondents			
			<u>Control</u>	<u>Treatment</u>
Female	0.59	0.68*	0.68	0.68
Race/ethnicity				
Latinx	0.71	0.67	0.68	0.66
White	0.08	0.08	0.09	0.06
African American	0.18	0.18	0.16	0.21
Other	0.04	0.07^	0.07	0.07
High School				
Junior GPA	3.01	3.29***	3.25	3.33
Top 60% of Class	0.89	0.94^	0.93	0.94
ACA Attendance ^a	0.50	0.57***	0.54	0.61**
Family Background				
First-generation	0.64	0.69	0.69	0.68
<u>Parental Education</u> ^b				
Some College, AA, BA or more			0.35	0.37
High School Graduate or Less			0.54	0.47
Missing			0.11	0.17
Free/Reduced Price Lunch	0.72	0.77	0.77	0.76
Language: Parents Prefer English	0.26	0.33^	0.35	0.30
Language: Parents Prefer Spanish	0.23	0.28	0.26	0.30
College Type				
2-year College	0.35	0.27^	0.29	0.28
4-year College	0.36	0.52***	0.54	0.58
College not specified	0.29	0.21***	0.17	0.13
N	318	299	160	139
Response Rate	50.94%			

Notes: The test of differential attrition was calculated by regressing a binary variable equal to one if a student responded to the survey on treatment status, to determine if treatment assignment could predict survey response. Column 1 of the test of differential attrition shows the proportion of non-respondents who are in the treatment group. Column 2 shows the difference between survey non-respondents and respondents. Individual regression analyses omit students who are missing data. The response rate was calculated based on the available contact information for the experimental sample during survey outreach (N=587).

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

a. Rate of attendance at ACA's afterschool college-access classes.

b. Data available for survey sample only since ACA only collects data that indicates whether parents have a bachelor's degree.

their attitudes toward engagement, measured on a Likert scale indicating how important it is to talk with and meet with faculty and teaching assistants during college. Students also reported their

actual engagement with faculty and staff, measured through how many times students talked to professors, academic advisors, visited the writing center, etc.

Student intent to persist is measured with a question indicating how likely students are to return to college in the fall 2017. Closely related to persistence, student goal and institutional commitment are captured with measures that ask whether students agree or disagree with the statement that they are pleased with their decision to attend college and in particular their current institution. Finally, select models include six sociodemographic controls: indicator variables for female students, Latinx students, and two-year college attendance, as well as a categorical measure of parental education level and continuous measures of students' high school GPA as well as rate of attendance at ACA's afterschool college-access classes.

FINDINGS

Analyses of a fall 2016 survey suggest that while parent-student discussions of academic topics increased for treatment students, student engagement with faculty and staff⁶, and persistence were not affected. This is not surprising given the limited duration of the intervention at the point of the fall survey distribution. At the time of the fall survey, the intervention had been in the field for two to three months. Parents had received an introductory letter and between 4-6 text-sets. Because of these limited effects in the fall, the results presented here focus on the spring 2017 survey, which was administered after the intervention was in the field for more than six months.

To test the fidelity of implementation of the intervention, I first investigate parental discussions with students. Table 4 reports the difference between treatment and control group

⁶ The measure of behavior used in the fall survey was relatively coarse. A more nuanced measure was developed for the spring 2017 survey.

students' survey responses. As expected, students report that on average they communicate with parents multiple times a day, with most students communicating with their parents between 1-3 times a day. Survey responses show that students in the treatment group are not more likely to talk to their parents than control students, but rather their topics of conversation differ. On average, students in the control group reported they *rarely* discussed academic services, their academic advisor, their professors, or relationships with their professors outside of class. Treatment group students reported an increased likelihood of having these conversations with parents. Coefficients are reduced as academic and sociodemographic covariates are added in Model 2, but most of the differences persist. Model 2 indicates that treatment students show one-quarter of a standard deviation increase in conversations about academic services, nearly one-third of a standard deviation increase in conversations about their academic advisors, and one-quarter of a standard deviation increase in conversations about meetings with academic advisors. In addition, students show approximately one-third of a standard deviation increase in conversations about professors and relationships with professors outside of class. Overall, this intervention generated awareness of important elements of postsecondary institutions among parents and students.

To investigate whether student attitudes toward faculty engagement changed, students were asked about the importance of various types of engagement. The analyses presented in Table 4 show that on average control students think it is *important* to reach out to faculty and teaching assistants. Despite a high degree of agreement with the importance of engagement among the control group, treatment students were still significantly more likely than control students to report that talking with professors and teaching assistants about academic performance in class and going to professors' office hours are important (with nearly one-third and one-fifth of a standard deviation increase respectively). Moreover, all other coefficients that represent the importance of

Table 4: Effect of Treatment Assignment on Parent-Student Discussions, Student Attitudes, & Behaviors

	Control	Treatment Effects	
	Mean	Model 1	Model 2
Parent-Student Discussions			
How frequently do you communicate with your parents via text, phone, email, etc.? <i>Scale from 1-8: Not at all (1), A few times a month (2), Once a week (3), A few times a week (4), Once a day (5), 2-3 times a day (6), 4-5 times a day (7), Every 2hrs or more (8).</i>	5.450	0.025	-0.018
How often do you talk about: <i>Scale from 1-5: Never (1), Rarely (2), About half the time (3), Most of the time (4), Always (5).</i>			
Academic services (e.g., tutoring/writing center)	2.150	0.303*	0.253
Your academic advisor	2.000	0.353*	.315*
Meetings with your academic advisor	2.106	0.297*	.253^
Your classes	3.388	0.130	0.098
Studying/preparing for class	3.200	0.153	0.098
Class assignments	2.925	0.161	0.103
Your professors	2.294	0.481**	.358*
Your relationships with professors outside of class	1.918	0.384**	.320*
Student Attitudes			
While in college, how important is it that students do the following? <i>Scale from 1-5: Not at all important (1), Not very important (2), Somewhat important (3), Important (4), Very important (5).</i>			
Talk with prof./TAs during class.	3.737	0.176	0.140
Talk with prof./TAs about academic performance in class.	3.869	0.312**	.311**
Talk with prof./TAs one-on-one outside of class.	3.812	0.195^	0.172
Go to a prof./TAs office hours.	3.912	0.225*	.197^
Ask professors, TAs, or staff for advice.	4.006	0.160	0.154
Develop a relationship with a prof., TA, or staff member.	3.906	0.144	0.107
Student Behaviors			
In college this semester (Spring 2017), how many times have you: <i>0, 1, 2-3 times (2), 4-5 times(3), 6 or more (4).</i>			
Talked to a professor or TA outside of class?	1.887	0.206	0.202
Talked to an academic advisor?	1.988	-0.088	-0.107
Talked to other staff?	1.650	0.221	0.211
Visited the academic support center?	1.346	0.132	0.109
Visited the writing center?	0.912	-0.173	-0.185
Student Intent to Persist			
I will attend college next Fall 2017.†	4.631	0.218**	.195*
I am pleased with my decision to go to college.††	5.300	0.132	0.128
I am pleased with my decision to go to <i>this</i> college. ††	5.006	0.044	0.013
Model Inclusions:			
Controls			YES
Sample Size	299	299	299

Controls: female, indicator for Latinx, parental education level, student high school GPA, student attendance in the ACA HS program, indicator for 2-yr college attendance.

Notes: The coefficient terms come from separate regressions. I estimated a different model for each survey outcome of interest.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001

† Scale from 1-5: Very unlikely (1), Somewhat unlikely (2), Undecided (3), Somewhat likely (4), Very likely (5).

†† Scale from 1-6: Strongly disagree (1), Disagree (2), Somewhat disagree (3), Somewhat agree (4), Agree (5), Strongly agree (6).

interacting with faculty are positive, but too small to be statistically significant with this size sample.

While student attitudes have changed in response to the intervention, there is no statistically significant effect on any indicator of student behavior with respect to interacting with faculty and staff. At the same time, treatment students are significantly more likely to report that they plan to attend college in the Fall 2017 (their second year of college). This is especially noteworthy given that the control group already reports a high likelihood of persistence—4.6 on a five-point scale. Treatment students experienced a one-fifth of a standard deviation increase in persistence above control students who reported they were between *somewhat likely* and *very likely* to persist.

Heterogeneous Effects

Table 5 examines whether there are differential effects of the intervention for students from more and less educated families (those whose parents had at least some college experience vs. those whose parents had a high school diploma or less). In other words, Table 5 reports the effect of the parent program on students from less-educated families above and beyond the effect of the parent program on students from more-educated families. The first portion of the table shows that there are no significant interactions between treatment and parental education with respect to parent-student discussions. At the same time, the size and direction of interaction coefficients suggest that less-educated parents may have been talking to their students more about studying/preparing for class, class assignments, and professors than parents from more-educated families. Supplemental analyses (see Appendix Table 3) of separate regression analyses by parental education level show different control group means among different student groups. Moreover, additional analyses show that there is a statistically significant difference between

Table 5: Heterogeneity of Treatment Effects by Parental Education, Interaction Effects

	Treatment X Parental Ed ^a
Parent-Student Discussions	HS Diploma or Less
How frequently do you communicate with your parents via text, phone, email, etc.? <i>Scale 1-8: Not at all (1), A few times a month (2), Once a week (3), A few times a week (4), Once a day (5), 2-3 times a day (6), 4-5 times a day (7), Every 2hrs or more (8).</i>	-0.072
How often do you talk about: <i>Scale 1-5: Never (1), Rarely (2), About half the time (3), Most of the time (4), Always (5).</i>	
Academic services (e.g., tutoring/writing center)	0.017
Your academic advisor	-0.089
Meetings with your academic advisor	-0.046
Your classes	0.088
Studying/preparing for class	0.431
Class assignments	0.186
Your professors	0.326
Your relationships with professors outside of class	-0.250
Student Attitudes	
While in college, how important is it that students do the following? <i>Scale 1-5: Not at all important (1), Not very important (2), Somewhat important (3), Important (4), Very important (5).</i>	
Talk with prof./TAs during class.	0.417 [^]
Talk with prof./TAs about academic performance in class.	0.146
Talk with prof./TAs one-on-one outside of class.	0.302
Go to a prof./TAs office hours.	0.268
Ask professors, TAs, or staff for advice.	0.390 [^]
Develop a relationship with a prof., TA, or staff member.	-0.002
Student Behaviors	
In college this semester (Spring 2017), how many times have you: <i>0, 1, 2-3 times (2), 4-5 times (3), 6 or more (4).</i>	
Talked to a professor or TA outside of class?	-0.025
Talked to an academic advisor?	-0.389
Talked to other staff?	0.047
Visited the academic support center?	0.037
Visited the writing center?	-0.321
Student Intent to Persist	
I will attend college next Fall 2017. [†]	0.374 [*]
I am pleased with decision to go to college. ^{††}	0.332 [^]
I am pleased with decision to go to <i>this</i> college. ^{††}	0.414 [^]
Model Inclusions:	
Controls	YES
Sample Size	257

a. Reference: Some college, AA, BA, or more

Controls: female, indicator for Latinx, student high school GPA, student attendance in the ACA HS program, indicator for 2-yr college attendance.

Notes: The coefficient terms come from separate regressions. I estimated a different model for each survey outcome of interest.

Statistical significance levels: [^]p<.10; ^{*}p<0.05; ^{**}p<0.01; ^{***}p<0.001.

[†] Scale 1-5: Very unlikely (1), Somewhat unlikely (2), Undecided (3), Somewhat likely (4), Very likely (5).

^{††} Scale 1-6: Strongly disagree (1), Disagree (2), Somewhat disagree (3), Somewhat agree (4), Agree (5), Strongly agree (6).

control group students from more-educated and less-educated backgrounds in how frequently parents and students discuss studying/preparing for class and professors. More-educated families discuss these academic topics more frequently than less-educated families. However, treatment students from less-educated families report that they discuss these topics as frequently as students in more-educated families. In these instances, the intervention appears to reduce the gap in academic discussions typically seen between families of different parental education levels.

The parent intervention did have some differential effects on students' attitudes depending on parents' educational background. More specifically, treatment students from less-educated families experienced a stronger change in their attitudes about faculty engagement than treatment students from more-educated backgrounds. Students from less-educated backgrounds more strongly agreed that 1) talking with professors or teaching assistants during class and 2) asking professors and teaching assistants for advice is important.⁷ Other attitudes regarding interaction with faculty and staff are not differentially affected by the treatment for students from different educational backgrounds.

The treatment did not have a differential effect on behavior for students whose parents had more vs. less education. However, the treatment had a statistically significant effect on persistence, goal commitment, and institutional commitment for students whose parents have a high school diploma or less. Appendix Table 3 shows that this is partly due to the lower means among the control group students from less-educated backgrounds. These students were less likely to indicate that they are happy with their college choice, with their choice to attend college, and plan to persist

⁷ Appendix, Table 3 reports individual regression analyses for each parental sub-group and shows that while treatment students from more-educated families report no statistically significant change in attitudes, students from less-educated families report a statistically significant one-third of a standard deviation increase in how important they rated these various engagement strategies.

into their second year of college. These interaction analyses suggest that the intervention had the most significant effect on students' intent to persist among treatment students from less-educated families.

DISCUSSION

While the share of first-generation and low-income students enrolled in higher education has increased over time, they continue to graduate at lower rates and are more likely to leave after the first year than their more advantaged peers (Bowen et al. 2009). Studies of higher education have thus increasingly investigated the knowledge and practices that facilitate successful interaction with social institutions, specifically engagement with faculty and staff—as a contributor to socioeconomic inequality (often referred to as cultural capital, Lareau 2011). Importantly, students with less college knowledge, often the first in their family to go to college, are less likely to interact with faculty and staff (Jack 2016). In order to encourage socioeconomically disadvantaged students to engage with faculty and staff during college, I developed and evaluated an intervention that targets parents' conversations with students, enlisting parents to prompt and remind students to contact faculty and staff.

The intervention significantly increased the number of conversations between parents and students about college throughout the year, changed student attitudes, and positively influenced their intent to persist into their second year of college. This suggests not only that parent-student conversations during college matter, but also that they can have a causal effect on student attitudes. This is remarkable given the light-touch character of the intervention, which was administered through letters and text-messages to parents during students' first year of college.

The results of this parent intervention have important implications for practitioners, researchers, and policy-makers interested in student engagement and reducing inequality in college persistence. First, the longer-term assessment of the intervention, provided by the spring 2017 survey, was crucial to understanding the effect this intervention had on first-year college students. The lack of significant changes in student attitudes and persistence in the fall of 2016 and significant changes in the spring of 2017, indicate that this type of intervention may need more than one semester to make an impact. Changing student engagement is likely a longer process.⁸

Second, the analyses of heterogeneous effects suggest there may be some variation among students from different educational backgrounds. In particular, the positive effects on intent to persist are more pronounced among ACA students whose parents do not have an AA or a BA. Since students whose parents have less experience with higher education may benefit more, it may be important to target these groups in future interventions.

Especially noteworthy for future intervention research, this study suggests that parents can influence college students' behavior despite their own limited experience with college. While previous research suggested that parents could change high school students' behavior (Bergman 2015; Kraft and Dougherty 2013; Kraft and Rogers 2014), it was unclear to what degree parents could change college students' behavior. The effects reported here are especially surprising given the low-cost, light-touch nature of this intervention. The cost of a year-long parent intervention is approximately \$9,250, which breaks down to nearly \$30 per family. This per-family rate would

⁸ Parent-student discussions, however, appear to be easier to change. Not only did Wave I survey results indicate that parents in the treatment group had changed the conversations they were having with students in the first semester, but supplementary analyses also indicate that parent-student discussions among the treatment group changed from the fall to the spring semester. As seen in Table 4A, treatment parents increased the frequency of their discussions related to academic services, academic advisors and from Wave I to Wave II. This suggests that parent-student discussions may be especially malleable.

decrease for larger scale interventions, as texting costs would decline for longer-term and larger-sample programs. This type of intervention could be paired with interventions more common in the higher education context—in which institutions increase outreach to students to raise awareness of available academic services or provide additional academic resources to target groups. For example, the significant increase in parent-student conversations and second-semester effects on faculty/staff engagement, might suggest that persistent, continual prodding is necessary to change student behavior. This could be more effective than previous interventions that use intermittent email and phone prompts to encourage student action (Schwebel et al. 2012). Since the effect of academic support and service interventions is often limited by student engagement with faculty and staff, this parent intervention could provide help at a crucial intervening step. Additional ways to amplify the effects shown here could be to extend the duration of the intervention or add a concrete component to the intervention. For example, an intervention that combines parental encouragement with models for how students might engage with faculty and staff via email or in-person meetings would likely be more powerful.

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Appendix: Results of Attrition Analysis

I found no evidence that the rate of attrition or the characteristics of respondents differed between the treatment and control groups (see Table 3). However, additional interaction analyses in Appendix, Table 1 suggest modest evidence that the treatment and control group attriters vary systematically. As Table 1 illustrates, more students with high academic performance and high ACA attendance during high school left the treatment group than the control group in the survey data. (In other words, higher academic achievers are over-represented among the control group of survey respondents.)

Appendix, Table 1: Differential Effects of Treatment Status on Attrition

VARIABLES

Female x Treatment Status	0.045
Race/ethnicity	
Latinx x Treatment Status	-0.022
White x Treatment Status	-0.113
African American x Treatment Status	0.012
Other x Treatment Status	0.285
High School	
Junior GPA x Treatment Status	0.180*
Top 60% of Class x Treatment Status	0.106
ACA Attendance^ x Treatment Status	0.391*
Family Background	
First-generation x Treatment Status	-0.074
Free/Reduced Price Lunch x Treatment Status	-0.072
Parents Prefer English x Treatment Status	-0.019
Parents Prefer Spanish x Treatment Status	-0.005
College Type	
2-year College x Treatment Status	-0.102
4-year College x Treatment Status	0.070
College not specified x Treatment Status	0.015

To assess the direction of potential bias driven by differential attrition in the surveys, I examine whether or not HS GPA or ACA attendance is correlated with survey outcomes. First, I estimate a set of models in which I regress survey outcomes on a continuous variable that

represents student HS GPA. I then repeat the process estimating models using a continuous measure of student ACA attendance.

Among all of the outcome measures (see Table 4), I find no relationship between ACA attendance and survey outcomes. There are several outcomes for which there is a significant relationship between HS GPA and survey measures (see Appendix, Table 2). Student HS GPA is negatively related to discussions with parents. High school GPA also positively predicts how important students think it is to ask faculty/staff for help or develop a relationship with them, however it is negatively related to whether students visit an academic support center. These results suggest that differential attrition may bias the effects of the parent intervention in the following ways: First, the effect of the treatment on parent-student discussions may be upwardly biased – true effects could be smaller. Second, the treatment effect of student attitudes toward professors may be downwardly biased – true effects could be greater. Third, student discussions with professors outside of class may be downwardly biased, while student visits to the academic support center and the writing center may be upwardly biased. Finally, there is likely no bias on measures of student intent to persist.⁹

⁹ If parents in the treatment group shared texts with parents in the control group, then results are likely biased. I am unable to test for experimental contamination; however, this type of contamination would negatively bias estimates, therefore, the estimates reported here can be viewed as lower-bound estimates of the effects of the parent intervention.

Appendix, Table 2: Student HS GPA Predicting Survey Outcomes**Parent-Student Discussions**

How frequently do you communicate with your parents via text, phone, email, etc.??*	-0.434^
How often do you talk about:	
Academic services (e.g. tutoring/writing center)	-0.459*
Your academic advisor	-0.386*
Meetings with your academic advisor	-0.277^
Your classes	--
Studying/preparing for class	--
Class assignments	--
Your professors	--
Your relationships with professors outside of class	--

Student Attitudes

While in college, how important is it that students do the following?	--
Talk with prof./TAs during class.	--
Talk with prof./TAs about academic performance in class.	--
Talk with prof./TAs one-on-one outside of class.	--
Go to a prof./TAs office hours.	--
Ask professors, TAs, or staff for advice.	0.324*
Develop a relationship with a prof., TA, or staff member.	0.285*

Student Behaviors

In college this semester (Spring 2017), how many times have you:	
Talked to a professor or TA outside of class?	0.423*
Talked to an academic advisor?	--
Talked to other staff?	--
Visited the academic support center?	-0.466*
Visited the writing center?	-0.395**

Note: Dashes indicate insignificant coefficients.

Appendix, Table 3: Heterogeneity of Treatment Effects by Parental Education, Individual Regression Analyses

	Some College or More		HS Diploma or Less	
	Control Mean	Treatment	Control Mean	Treatment
Parent-Student Discussions				
How frequently do you communicate with your parents via text, phone, email, etc.? <i>Scale 1-8: Not at all (1), A few times a month (2), Once a week (3), A few times a week (4), Once a day (5), 2-3 times a day (6), 4-5 times a day (7), Every 2hrs or more (8).</i>	5.500	0.003	5.430	-0.045
How often do you talk about:				
<i>Scale 1-5: Never (1), Rarely (2), About half the time (3), Most of the time (4), Always (5).</i>				
Academic services (e.g., tutoring/writing center)	2.071	0.278	2.093	0.290
Your academic advisor	1.964	0.469*	1.906	0.287
Meetings with your academic advisor	2.089	0.306	2.023	0.243
Your classes	3.518	0.120	3.280	0.149
Studying/preparing for class	3.429	-0.056	2.988	0.323^
Class assignments	3.018	0.060	2.849	0.171
Your professors	2.446	0.224	2.116	0.498*
Your relationships with professors outside of class	1.839	0.514**	1.917	0.219
Student Attitudes				
While in college, how important is it that students do the following?				
<i>Scale 1-5: Not at all important (1), Not very important (2), Somewhat important (3), Important (4), Very important (5).</i>				
Talk with prof./TAs during class.	3.786	-0.520	3.640	0.334*
Talk with prof./TAs about academic performance in class.	3.875	0.238	3.860	0.399**
Talk with prof./TAs one-on-one outside of class.	3.893	0.066	3.709	0.335*
Go to a prof./TAs office hours.	3.982	0.062	3.859	0.319*
Ask professors, TAs, or staff for advice.	4.089	-0.006	3.919	0.347*
Develop a relationship with a prof., TA, or staff member.	4.018	0.103	3.849	0.036
Student Behaviors				
In college this semester (Spring 2017), how many times have you:				
<i>0, 1, 2-3 times (2), 4-5 times(3), 6 or more (4).</i>				
Talked to a professor or TA outside of class?	1.911	0.239	1.802	0.246
Talked to an academic advisor?	1.839	0.101	2.070	-0.250
Talked to other staff?	1.625	0.114	1.651	0.239
Visited the academic support center?	1.161	1.447	1.447	0.161
Visited the writing center?	0.804	-0.075	0.988	-0.400*
Student Intent to Persist				
I will attend college next Fall 2017.†	4.786	-0.025	4.535	0.336**
I am pleased with decision to go to college.††	5.464	-0.032	5.163	0.302*
I am pleased with decision to go to <i>this</i> college. ††	5.214	-0.199	4.791	0.179
Model Inclusions:				
Controls	YES		YES	
Sample Size	106		151	

Controls: female, indicator for Latinx, student high school GPA, student attendance in the ACA HS program, indicator for 2-yr college attendance.

Notes: The coefficient terms come from separate regressions. I estimated a different model for each survey outcome of interest.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

† Scale 1-5: Very unlikely (1), Somewhat unlikely (2), Undecided (3), Somewhat likely (4), Very likely (5).

†† Scale 1-6: Strongly disagree (1), Disagree (2), Somewhat disagree (3), Somewhat agree (4), Agree (5), Strongly agree (6).

Appendix, Table 4: Comparison of Wave I and Wave II Parent-Student Discussions

	Mean	Mean	Difference
How often do you talk with your parent(s) about?	Wave I	Wave II	
Academic services (e.g., tutoring/writing center)	2.27	2.49	0.22 [^]
Your academic advisor	2.14	2.42	0.28*
Meetings with your academic advisor	2.14	2.45	0.31**
Your classes	3.59	3.51	-0.09
Studying/preparing for class	3.45	3.32	-0.12
Class assignments	2.98	3.04	-0.04
Your professors	2.40	2.73	0.33**
Your relationships with professors outside of class	1.98	2.24	0.26**

N= 105 (treatment students who completed both Wave I and Wave II surveys)

Statistical significance levels: [^]p<.10; *p<0.05; **p<0.01; ***p<0.001.

Scale 1-5: *Never (1), Rarely (2), About half the time (3), Most of the time (4), Always (5).*

CHAPTER 3
THE ROLE OF RELATIONSHIPS:
LATINX AND NON-LATINX STUDENT EXPERIENCES IN THE FIRST YEAR OF
COLLEGE

Students from socioeconomically disadvantaged backgrounds are less likely to persist and complete college than their more socioeconomically advantaged peers (Bailey and Dynarski 2011; Bowen, Chingos, and McPherson 2009). Academic preparation and financial support for college are contributing factors to social class inequality (see a review by Grodsky and Jackson 2009); however, they do not entirely account for the class gap in college completion (Carnevale and Strohl 2010; Bowen, et al. 2009). Research indicates that cultural capital —knowledge of the norms and expectations within the higher education system – can also play a role (Dumais and Ward 2010; Jack 2016; Yee 2016). One element of cultural capital is students’ engagement with faculty and staff, which can increase their grades and persistence (MacDonald et al. 2009), thereby contributing to successful degree completion.

Students typically acquire cultural capital from their parents, who promote skills and habits that induce an affinity for, understanding of, and comfort with the education system (Bourdieu and Passeron 1990; see a review in Lareau and Weininger 2003). Importantly, parents from working-class backgrounds tend to be less engaged in their children’s education, during both K-12 schooling (Lareau 2011) and college (Hamilton 2016). While these class differences may shape how parents interact with their children during college, prior research in higher education has rarely paid attention to potential variation by race/ethnicity among students from working class backgrounds.

In this project, I examine whether parents' interactions with students during the first-year of college vary between Latinx and non-Latinx students from socioeconomically disadvantaged backgrounds. This comparison is important in light of the prior research describing the tight-knit nature of Latinx families (Segal et al. 2011). While scholars have examined how these close relationships are related to college entry (Desmond and Turley 2009; Turley 2006), the same attention has not been dedicated to students' experiences during college (see Reyes and Nora 2012 for a review). In addition, I examine whether a program that provides socioeconomically disadvantaged parents with tips to encourage their children's academic engagement is more effective among Latinx or non-Latinx students.

The survey results indicate that the parent program had a stronger effect on Latinx students with respect to parent-student discussions, student perception of parental support, and parent and student institutional commitment. The interview results reveal a potential mechanism for this difference: Latinx parents are much more engaged in their children's lives in college. There is a tradeoff, however. Latinx students appear to translate the close relationships they have with their families into what they expect from faculty. In the more formal college environment, where their expectations for personal, caring relationships with professors are less likely to be met, they have a much more negative perception of their interactions with faculty than non-Latinx students. These findings have significant implications for both understanding the role of cultural capital in college for students of various racial/ethnic backgrounds as well as for research on Latinx college students specifically.

LITERATURE REVIEW

Cultural capital provides a framework for understanding social class inequality in college experiences and outcomes. Working-class families and students typically possess less cultural capital—the knowledge, norms, and practices that facilitate successful interaction with dominant social institutions—than their middle-class peers (Bourdieu and Passeron 1990; see also Lareau and Weininger 2003 for a review). This discrepancy in cultural capital contributes to class inequality in college as institutional norms obscure and complicate the steps necessary to succeed in higher education (Rosenbaum, Deil-Amen, and Person 2006; Scott-Clayton 2015; Stephens, Hamedani, and Destin 2014). Students from socioeconomically disadvantaged backgrounds struggle in college partly as a result of their unfamiliarity with the unspoken norms and rules (Collier and Morgan 2008; Lareau and Weininger 2008; Jack 2016).

Moreover, less advantaged students often do not recognize they need help; once they do, they are often not sure where to obtain it. In comparison to working-class students, upper- and middle-class students more frequently seek help while in college, in part because they know what is available and how to access resources when necessary (Jack 2016; Stuber 2011). Working-class students on the other hand, often display a pattern of independence and hesitancy when interacting with institutional agents (Jack 2016; Lareau 2011; Stanton-Salazar 2001; Stephan and Rosenbaum 2009; Stuber 2011). This occurs in part because less advantaged students often do not feel entitled to ask for help or may see a request for help as a sign of weakness (Lareau 2015; Jack 2016).

Although a large portion of working-class students identify as Latinx (Simms, Fortuny, and Henderson 2009) much research on working-class students does not differentiate analyses by race/ethnicity. In addition, most investigations of Latinx students do not differentiate by class (for

a review see Reyes and Nora 2012).¹ While working-class, Latinx students may be wary of institutional agents as the cultural capital literature suggests, research on the experiences of Latinx students in secondary education suggests that they may feel differently about forming relationships with faculty and staff than non-Latinx students. Valenzuela's (1999) in-depth account of Latinx secondary students describes a model of education in Latinx families premised on respectful, caring relations between teachers and students. In turn, Latinx students desire close relationships with teachers. College access research has also demonstrated the importance of institutional agents, such as teachers, guidance counselors, and college admissions officers, for Latinx students (Ceja 2004, 2006; Farmer-Hinton 2008; Perez and McDonough 2008; Valadez 2008). Since supportive relationships with institutional agents are especially valuable to, and sought after by Latinx youth, Latinx college students' interaction with institutional agents may differ from their working-class peers from other racial/ethnic groups.

Different expectations of relationships with institutional agents reflect broader patterns of collectivism and familism in Latinx culture. Collectivist cultures focus on the interdependence of members and the fulfillment of social roles within a group rather than autonomy and assertiveness among individuals. Familism—the importance of strong family connection—is often seen as a form of collectivism (Schwartz et al. 2010). Collectivism is more commonly valued in Latinx culture than among other groups (Rinderle and Montoya 2008; Segal et al. 2011). Latinx individuals also value interdependence, as well as family support and obligations, more than whites (Fuligni, Tseng, and Lam 1999; Harrison et al. 1990; Sabogal et al. 1987). As a result, they report

¹ This is surprising, given that in the 2007-08 academic year 50 percent of Latinx college students claimed that their parents had not completed a bachelor's degree compared to 28 percent of white students (Santiago 2011). As a result, investigating the experiences of working-class Latinx students is especially important.

higher degrees of familial cohesion and intimacy than whites (Niemann, Romero, and Arbona 2000; Sabogal et al. 1987; Steidel and Contreras 2003; Valenzuela and Dornbusch 1994). Latinx relationships are cultivated and nurtured through family rituals, exchange relations, and kinship networks, which result in strong social bonds.

The role of Latinx familism has been documented in the college choice process. Latinx families have a strong influence on whether their children attend college and which colleges they choose (Ceja 2006; Perez and McDonough 2008; Turley 2006; Desmond and Turley 2009; Valadez 2008), partly because Latinx families communicate more during the college search and application process than non-Latinx families (Myers and Myers 2012). In addition, the pull of family connections and obligations often drive Latinx students to forgo more selective college in favor of postsecondary choices close to home (either less selective colleges or immediate employment) more so than non-Latinx students (Desmond and Turley 2009; Turley 2006). After college entry, Latinx students report that their parents are an important source of support and motivation (Auerbach 2007; Guiffreda 2006; Melendez and Melendez 2010). These family bonds may persist thus during college in a different way than bonds among non-Latinx families.

Building on this literature, I examine how relationships in general, and familism in particular, are manifested among socioeconomically disadvantaged Latinx and non-Latinx college students in the first year of college. Through in-depth interviews at the end of the first year of college, I explore how Latinx and non-Latinx students describe their interactions with parents. Furthermore, I examine whether a parent program that supports parents in fostering greater student interactions with faculty is more effective for Latinx vs. non-Latinx students.

DATA AND METHODS

Data in this study come from a broader project that examines the success of socioeconomically disadvantaged students during their first year of college. In that work, I partnered with a non-profit organization serving lower-income students in a southern state, referred to as All Can Achieve (ACA, a pseudonym). More specifically, I worked with ACA's class graduating from high school in the spring of 2016. Table 1 shows that nearly 70 percent of students in the class are Latinx, while 8 percent are white, and approximately 18 percent are African American. A majority of students come from less educated backgrounds—over 65 percent would be the first in their family to earn a bachelor's degree. Nearly 75 percent of students qualified for free/reduced price lunch in high school. The majority of students are female (nearly 65 percent). In the Fall of 2016, 96 percent reported they were enrolled in college. Among college entrants, 31 percent reported attending a two-year college (for 20 percent of the sample, ACA does not have data indicating whether the college a student attended is a 2-year or 4-year college).

Parents from the ACA class of 2016 were randomly divided into two groups, one of which received tips from ACA about helping their students during the 2016-2017 academic year—their first year of college (treatment, $N = 308$), the other group did not (control, $N = 309$).² ACA provided parents in the treatment group with an introductory letter at the beginning of students' first year of college that called upon them to encourage their students to engage with faculty and staff. Following, parents received information via bi-weekly texts in English or Spanish about specific topics and issues they could discuss with their students throughout the year. Messages were sent between August 2016 to May 2017 and targeted the content of parents' conversations

² At the start of the intervention, student college enrollment data was not available. Therefore, all students and families were randomly assigned to treatment and control.

with students by identifying particular college student engagement strategies. For example, texts described initial faculty and staff outreach, the role of faculty outside of the classroom, how to reach out to faculty and staff for discrete pieces of information, and the importance of building faculty mentoring relationships, among other topics. Text topics were re-introduced throughout the year for reinforcement. A more detailed account of this program and a quantitative analysis of main effects is provided in Deutschlander (2017).

Table 1: ACA Class of 2016, Wave I Survey, and Wave II Survey Statistics

VARIABLES	ACA Class 2016	Survey Wave I	Survey Wave II
Female	0.64	0.69**	0.68*
Race/ethnicity			
Latinx	0.69	0.70	0.67
White	0.08	0.06^	0.08
African American	0.18	0.17	0.19
Other	0.05	0.06^	0.07*
High School			
Junior GPA	3.16	3.23**	3.29***
Top 60% of Class	0.91	0.93*	0.93*
ACA Attendance†	0.53	0.57***	0.57***
Family Background			
First Generation	0.66	0.70*	0.69
Free/Reduced Price Lunch	0.74	0.78*	0.77^
College			
Attending 2-year college	0.31	0.30	0.28^
N	617	292	299
		50.87%	50.94%

Notes: Columns 2 and 3 show the difference between the ACA class and Wave I and II survey respondents. Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

The response rate was calculated based on the available contact information for the experimental sample during Wave I (574) and Wave II (587) survey outreach.

† Rate of attendance at ACA's afterschool college-access classes.

Survey Data Analysis

All students from the ACA class of 2016 for whom contact information was available (a total of 587), received survey requests in the fall (Wave I) and spring (Wave II) of their first year

of college.³ Outreach yielded a response rate of 51 percent each for fall and spring survey waves. Table 1 shows a comparison between the entire ACA class and participants in Waves I and II. Women had a higher representation in the survey (69 percent in Wave I and 68 percent in Wave II) than in the entire ACA class (64 percent). The proportion of Latinx students was similar in the entire ACA class (69 percent) and survey samples (70 percent and 67 percent, respectively). Survey respondents for both Wave I and Wave II were higher academic achievers than the ACA class as a whole. The class had a mean GPA of 3.157, while Waves I and II had a 3.23 and 3.30 average GPA, respectively.

Surveys included information on students' academic engagement as well as their interactions with parents. Table 2 reports descriptive statistics for all dependent variables, separately for Latinx and non-Latinx students. Students were asked how often they communicate with their parents and how often they discuss the following college topics: academic advisors, meetings with advisors, professors, relationships with professors outside of class, classes, preparing for class, course assignments, as well as academic services. Parental discussions were measured on a five-point Likert scale from *never* - *always*. In addition, I measure the extent to which students report feeling supported by their parents, using a subscale of family support developed by Zimet and colleagues (1988). I also assess students' reports of parental institutional commitment which consists of three items indicating parental support for the student's college choice (adapted from Nora and Cabrera 1996). Students were also asked about their institutional commitment (adapted from Pascarella and Terenzini 1980). In the spring of the first-year of

³ Students were given the option to opt out of the survey if they had not yet enrolled in college. There were seven respondents from Wave I and eight respondents from Wave II who attempted to complete the survey, but had yet to enroll in college and were therefore excluded from the survey sample.

college, students also reported their evaluation of their experiences interacting with faculty and staff on campus. Students responded on a five-point Likert scale (from *mostly negative* to *mostly positive*) to the following prompt, “How would you evaluate your experiences this semester:” talking to a professor or teaching assistant, an academic advisor, or other staff. In addition, students reported on a six-point Likert scale whether they agree or disagree with the following statements: 1) I don’t think professors want to talk to me; 2) Even if I wanted to talk to a professor, I’m not sure how to start a conversation; 3) I think a professor would take the time to talk to me if I needed help; 4) I think a professor would understand my difficulties if I shared them. These survey questions were specifically developed for this project.

I use survey data to estimate whether the effect of the parent program varies between Latinx and non-Latinx students. I estimate the intent-to-treat effects of the parent program comparing the means of students whose parents received tips from ACA to students whose parents received no tips.⁴ To test for whether or not the parent program had a stronger effect on Latinx students than other students, the analytic model is estimated as follows:

$$Y_i = \beta_0 + \beta_1 TREATMENT_i + \beta_2 Lx_i + \beta_3 TREATMENT_i * Lx_i + \gamma X_i + \varepsilon_i$$

where Y_i is a vector of the various outcomes incorporated into this analysis for student i ; $TREATMENT_i$ is the binary indicator for parent treatment status; Lx_i is a binary variable indicating whether the student is Latinx; $TREATMENT_i * Lx_i$ is an interaction of treatment status and Latinx status; X_i is a vector of student-level demographic, socioeconomic, and academic baseline covariates (indicators for female students, students whose parents prefer language other than English, students who qualify for free/reduced price lunch, students in top 60% of HS graduating

⁴ See Deutschlander (2017) for tests that demonstrate baseline equivalence of treatment and control groups.

class, first-generation college students, students enrolled in 2-year colleges, and students who live at home during college, as well as measure of student high school GPA, and student attendance at the ACA high school program); and ε_i is a residual error term. In this model β_3 provides an unbiased causal estimate of the impact the parent program on students' college outcomes for Latinx students compared to non-Latinx students.

Descriptive data in Table 1 indicated that the survey sample differed from the high school class of 2016 population. Survey attrition can lead to biased estimates if the treatment group students who did not respond to the survey (in other words, attrited) are systematically different than the control group students who responded in a way that is related to survey measures outcomes. I thus test whether survey response differs by treatment status. Specifically, I regress a binary variable that equals 1 if a student responded to the survey and 0 if not on treatment status. Appendix Table 1 reports no evidence that the rate of attrition (survey response) differs between the treatment and control groups (further attrition analyses available in Chapter 2 Appendix).

Interview Data Analysis

A total of 35 families were drawn from the ACA class in the summer before students' first year of college. Families were chosen to represent a range of experience with higher education, and therefore the following three groups were equally represented among interviewee families: a) families in which one or more parents held an associate's degree or bachelor's degree; b) families with some college, but no degree; and c) families with a high school diploma or less. Twenty-eight of the original 35 families were able to participate in follow-up interviews during the summer after students' first year in college. Students among the interviewee families were largely Latinx (nearly 75 percent), and majority female (60 percent). As a sign of appreciation for their time, each student

and parent received a twenty-dollar gift card for participating in a semi-structured interview, averaging one-hour in length. The interviews were conducted with students and parents separately at their homes. These interviews explored parent and student relationships, as well as expectations and experiences with college. For example, students and parents were both asked to describe a difficult and enjoyable conversation they had with the other. These types of questions can prompt story telling that reveals how elements of college life met, did not meet, or changed student expectations.

Interviews were analyzed through an iterative, multi-stage process. The first stage of analysis occurred during each interview. While interviewees were audio recorded during each interview, notes of interviewee behavior and responses that were especially salient along with my analysis, interpretation, and questions were documented in analytic memos. The second stage of analysis involved an auditory and visual review of the interviews. After interviews were transcribed, I listened to and read each interview numerous times, searching for emerging themes. In subsequent analysis of interviews, I employed Dedoose qualitative analysis software. Each transcript was coded in two rounds, using open and closed coding methods. The first phase of data analysis followed the inductive, analytic process of open coding described by Corbin and Strauss, whereby codes are used to “uncover, name, and develop concepts” in order to highlight key findings from the interviews (2008: 102). This coding is initially done without regard to ultimate organization of, or messages that may emerge from, the data, but with the intent to recognize the significant meanings transmitted by each interviewee. Subsequently, I conducted closed or “focused” coding to engage deductively with topics that are “identified as being of particular interest” by the research questions (Emerson, Fretz, and Shaw 1995: 172). In this case, the interviews were coded for representations of parent-student relationships, as well as student

experiences with faculty. Dedoose allows users to continually update codes, combining codes, creating new codes, or discarding unhelpful codes. Themes that emerge from these codes then serve to both highlight a larger argument and link data with existing literature (Emerson et al. 1995).

Limitations

Several limitations are worth noting with respect to this unique research sample. First, this research is based on families from one southern state. While, this sample may present a reasonable picture of Latinx students, since more than 50 percent of the nation's Latinx population resides in southern states (California, Florida, and Texas) (HACU 2017), the comparison group may not be especially representative. Due to small sample size, I combined all non-Latinx students into one category. Thus, the comparison category is not majority white students (as is typical), but rather consists of a majority African American students, with some white and bi-racial students. Future research would benefit from larger samples that would allow for comparisons of specific racial/ethnic groups.

In addition, the sample in this study is drawn from a group of students who may be more motivated and possess more cultural capital than their peers (since they applied for the ACA program).⁵ While the ACA application process is not overly rigorous, requiring a 3.00 GPA, a simple application, and an essay (no students are rejected based upon the content of the essay), the application requirement itself means that the students in this program are a self-selected group of students. This type of intervention could be even more effective with a broader range of students

⁵ Students learn about the ACA program from college access coaches assigned to individual high schools.

who are not already seeking help through ACA. Finally, parents are also required to sign-off on the student application. This requirement may eliminate students a) who have a strained relationship with their parents, that may prohibit parental support of the ACA application or b) whose parents do not believe college is an appropriate or desirable postsecondary choice. This type of program may be less successful with students whose parents are less involved in, or supportive of, their transition to college.

FINDINGS

Impact of the Parenting Program on Discussions and Support

To examine whether the parent program, which sent text messages to parents, seeking to change their conversations with, and facilitate greater academic engagement among, students, had a differential effect on Latinx vs. not-Latinx students, I begin by considering parent-student discussions. Table 2 reports the effect of the parent program on Latinx students above and beyond the effect of the parent program on non-Latinx students. In other words, does the parent program have different effects on Latinx students than non-Latinx students? Interaction coefficients, show the difference between Latinx and non-Latinx treatment students, including African American, white, and Asian students, as well as students who identify with multiple racial/ethnic groups. The results indicate that not only were Latinx students in the treatment group talking to their parents more frequently as a result of the program (by more than one-third of a standard deviation),⁶ but they were also discussing the academic topics suggested in the text messages sent to parents to a greater extent than non-Latinx treatment students. Latinx students reported a one-half standard

⁶ There are no statistically significant differences between Latinx and non-Latinx control group means. Both groups of students indicated they communicate with parents a few times a week (see Table 3).

Table 2: Effect of Treatment Group Assignment on Parental Measures and Institutional Commitment (Wave I)

Parental Discussions	<i>Treatment X Latinx^a</i>
How frequently do you communicate with your parents via text, phone, email, etc.?	0.394*
How often do you talk about?	
Your professors	0.613**
Your relationships with your professors outside of class	0.525**
Your academic advisor	0.256
Meetings with your academic advisor	0.300
Your classes	0.138
Studying/preparing for class	0.516**
Class assignments	0.531**
Academic services (for example, tutoring or the writing center)	0.264
Parental Support	
My parents really try to help me.	0.491*
My parents provide me with the emotional help and support I need.	0.396
My parents are people who I can talk with about my problems.	0.311
My parents are willing to help me make decisions.	0.223
Parent Institutional Commitment	
My parents support my choice to attend this college/university.	0.490**
My parents encourage me to continue attending this college/university.	0.465*
My parents would prefer that I attend another college/university.	-0.022
Student Institutional Commitment	
I will stay here to finish my degree (BA or AA).	0.470*
I am pleased with my decision to attend this college.	0.586**
Sample Size	292

a. Reference: Non-Latinx Students

Controls: female, parents prefer language other than English, student qualifies for free/reduced price lunch, student in top 60% of HS graduating class, HS GPA, student attendance at ACA afterschool program, first-generation college student, enrolled in 2-year college, student lives at home during college.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

Each row represents a separate OLS regression. Coefficients are in standard deviation units.

deviation increase in discussions with parents about professors, relationships with their professors outside of class, as well as class preparation and assignments above and beyond rates reported by other treatment group students.⁷

⁷ Latinx students among the control group report significantly fewer academic conversations with parents related to professors, relationships with professors, studying for class, and class assignments, than their non-Latinx peers.

Following, to consider whether the parent program had an effect on parent-student relationships, students were asked to rate how strongly they agree or disagree with statements indicating parental support, parent institutional commitment (to the student's specific college), and students' own institutional commitment. Table 2 shows that Latinx students in the treatment group felt more supported by their parents than non-Latinx students in the treatment group, by nearly one-half standard deviation.⁸ The interaction terms for other measures of parental support are also positive, but not statistically insignificant. In addition, Latinx treatment students perceived an increase in their parents' institutional commitment (as indicated by two separate measures), while reporting an increase in their institutional commitment as well. Latinx students in the treatment group were approximately one-half standard deviation more likely to say that their parents support their choice of college and encourage them to continue attending their current college than non-Latinx treatment students.⁹ Latinx students reported one-half standard deviation increase in institutional commitment above and beyond other treatment students.¹⁰

⁸ Within the control group, Latinx students report marginally significant lower rates of parental support than non-Latinx students (with Latinx students reporting they *agree* that their parents really try to help them and non-Latinx students reporting between *agree* and *strongly agree*).

⁹ Among the control group, Latinx students report significantly lower rates of parental institutional commitment than non-Latinx students (although student reports of parental institutional commitment are relatively high for both groups—falling between *agree* and *strongly agree* for both groups for both measures of parent institutional commitment that show interaction effects). Also of note, these interaction effects are confined to the first semester of college. Latinx students do not experience more parental support than non-Latinx students during the spring semester. This is likely because the first semester is the most crucial point of adjustment for college students. Therefore, it is unsurprising that parental support would be especially salient and noticeable to students at this point in time. However, by the second semester students have often developed friendships that they can rely on for support in college so parental support may not be as salient for students second semester.

¹⁰ Latinx control group students reported marginally significant lower rates of agreement with the following statement: I will stay at my current institution to finish my degree than their non-Latinx peers, who reported they *agree* or *strongly agree* with the statement. In addition, Latinx students reported statistically significant lower rates of agreement with the statement: I am pleased with my decision to attend this college.

Table 3: Control Group Means, Separately for Latinx and Non-Latinx Students

Variable	Description	Latinx Control Mean	Non-Latinx Control Mean
Wave I, Fall 2016			
Parent- Student Discussions	How frequently do you communicate with your parents via text, phone, email, etc.? <i>Items on a 7-point scale: (1) not at all, (2) less than once a month, (3) once a month, (4) a few times a month, (5) once a week, (6) a few times a week, (7) at least once a day.</i>	6.24	6.27
	How often do the following topics come up in conversation?		
	Your professors	2.15*	2.73
	Your relationships with your professors outside of class	1.65*	2.25
	Your academic advisor	1.83	2.20
	Meetings with your academic advisor	1.93	2.41
	Your classes	3.35	3.66
	Studying/preparing for class	3.05*	3.61
	Class assignments	2.64*	3.51
	Academic services (for example, tutoring or the writing center)	1.99	2.27
<i>Items on a 5-point scale: (1) never, (2) rarely, (3) about half of the time, (4) most of the time, (5) always.</i>			
Parental Support	Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s).		
	My parents really try to help me.	5.13^	5.37
	My parents provide me with the emotional help and support I need.	4.81	4.95
	My parents are people who I can talk with about my problems.	4.50	4.68
	My parents are willing to help me make decisions.	4.94	5.07
<i>Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.</i>			
Parent Institutional Commitment	Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s).		
	My parents support my choice to attend this college/university.	5.21*	5.59
	My parents encourage me to continue attending this college/university.	5.21	5.39
	My parents would prefer that I attend another college/university.	2.83^	2.44
<i>Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.</i>			
Student Institutional Commitment	Please rate how strongly you agree or disagree with the following statement.		
	I will stay here to finish my degree (BA or AA).	4.77^	5.20
	I am pleased with my decision to attend this college.	5.17*	5.59
<i>Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.</i>			
Wave II, Spring 2017			
Experiences with Faculty/Staff	How would you describe your experiences this semester (Spring 2017)?		
	Talking to a professor or TA outside of class	3.85	3.92
	Talking to an academic advisor	3.97	4.06
	Talking to other staff	3.75	3.74
<i>Items on a 5-point Likert scale: (1) mostly negative -- (5) mostly positive.</i>			
Student Perception of Professors	Please rate how much you agree or disagree with the following statement.		
	I don't think professors want to talk to me.	2.36*	2.66
	Even if I wanted to talk to a professor, I'm not sure how to start a conversation.	3.11	3.22
	I think a professor would take the time to talk to me if I needed help.	4.75	4.68
	I think a professor would understand my difficulties if I shared them.	4.30	4.30
<i>Items on a 6-point Likert scale: (1) strongly disagree -- (6) strongly agree.</i>			

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

The Relationship with Parents

To illuminate potential mechanisms that may be related to the stronger effects of the parent program on Latinx students revealed in the survey results, I draw on interviews with both students and parents at the end of students' first year of college. Interviews reveal that non-Latinx parents have qualitatively different conversations with their children than Latinx parents, both in relation to the frequency with which they discuss college topics and in terms of parents' degree of involvement, for example, whether and how they offer advice.

Non-Latinx students described how they and their parents limited the content of conversations during college. For example, Sean, a white student, said the following when asked to describe what he tells his parents about college, "Whatever they ask I guess. I don't really [...] I don't actively withhold information, [...] I would [tell them] if something really interesting happened." However, when prompted he had a hard time recalling any conversations with his parents related to college. His parents explained why they do not actively ask him about college during their interview. His father, Pat, explained that, "He takes responsibility for it. I don't bug him about it and he just takes care of it. He knows what he needs to do and he takes care of it." His mother added that,

"[Sean] knew that from the beginning that we were not going to be micromanaging his college experience. So, it was like well, if you want the grades and you want to move on, and you want to do a career and all that, then you know what you've got to do. I'm not there. I'm not in the classes so you do your thing. We definitely don't micromanage. Nope. We don't even ask to see grade cards or nothing. It's just, it's his life. At this point it's his life so we're okay with that."

An African American student, Brianna, explained that she chose not to discuss much of college with her parents because they did not understand how difficult it was. "My first semester, I know I did bad. They was like 'you need to do better.' This is my first time in college! What you expect me to get—a 4.0? No! So I be like, it's hard." When asked how her relationship with her

parents has changed from high school to college she explained that she is able to avoid her parents more easily now by simply not talking to them. Although she described talking to her parents every day, she explained that, “I really don't tell them nothing about college. Be like, ‘how you doing, what you doing?’ Everyday thing, but I don't really talk to them, especially my dad, about it.” While Brianna talked to her parents frequently she learned to limit the content of their discussions to topics she was more comfortable with.

In contrast, interviews with Latinx parents and students revealed a wider channel of communication. For example, when asked to describe what she told her father about her experiences in college a Latinx student, Penelope, responded,

“I actually tell him a lot of things. I tell him everything with my professors and my roommate. [...] Telling him made me feel better about everything, because he would either give me advice, or be like, ‘Oh, well just try and do this.’”

When asked how their relationship had changed, she said,

“Actually, it’s a big difference, because even though I don’t live with him, I actually feel like our relationship is closer, because I talk to him a lot. Because when I do live here, especially right now, in the summer, I’m not really home. Because he always knows where I’m at. I’m always at work, or at the gym, or hanging out or doing something. He always knows. I’ll just see him in the mornings and then at night. And I won’t really say anything, because he already knows where I’m gonna be at and all that. But in college, I would call a lot, and I would tell him about everything, because he wasn’t there. He didn’t know. We talk more, and he would go visit me and stuff like that. So we actually got closer.”

Because Penelope’s father did not have the same degree of information about her daily activities in college as in high school, she spent a significant amount of time providing him with that information, which served to strengthen their relationship.

Contrary to Brianna’s experience, in which she actively withheld information about her college grades from her parents, even Latinx students who may have had the same reservations about sharing grades, were less successful at keeping this information from their parents. For

example, Monica, a Latinx student, described how her mother found out about her failing grade through an email notification the college sent to Monica's email account. Since her mother kept her old computer (with her email account login saved) when Monica left for college, she had regular access to Monica's email. As a result, her mother saw when the school sent Monica an email notifying her of her failing grade. Monica did not think her mother reading her email was unusual or problematic, laughing as she told the story. At another point in the semester, Monica confessed to her mother that she had been having difficulty with her courses because a relationship had distracted her. Monica explained that, "I feel like I told her everything. I feel like there were sometimes, like at one point I didn't need to tell her about certain things, but I ended up telling her." While Monica did not initially intend to share her college difficulties with her mother, she eventually did.

Not only did Latinx parents appear to get more information from students, they also shared their opinions more openly with their children than non-Latinx parents. For example, Rosa, explained that, "when it comes to my personal life, [my parents] get very, very involved. It used to be with my career, too. They would get really onto me." Rosa was referring to her father's preference for her to become a nurse instead of a dental hygienist (which was her stated preference). This type of involvement was seen as typical among the Latinx students I spoke with.

Latinx parents were quick to provide advice to their children. For example, Carmen described a conversation she had with her mother about talking to professors,

"At the beginning, I was afraid to go because I was, 'what if it's weird?' or 'what if there's not much to talk about?' I questioned it at first. Then I after I failed that first test, I called my mom and she was, 'Well, you need to go review your test, maybe that will help you.' She was like, 'Why don't you go talk to the office hours.' I was, 'Well, that's kind of weird. No one does that. I'm going to be that student.' She was, 'It's going to be fine because you're doing it for your benefit of yourself, not somebody else.'"

Carmen explained that this conversation convinced her to seek out her professor. She also described another instance in which her mother convinced her seek out a college mental health counselor although she was hesitant.

“My mom. She was, ‘I think you should go. It will help you. Maybe they can give you some stuff to not ...’ that was towards the beginning, that was definitely first semester, but more so the beginning, the first half of first semester. [...] She was, ‘I think you should go.’ [...] I kept telling her, ‘I’m not going to go. I hate when people tell me how to handle something, I don’t like that, I want to figure it on my own.’ She’s like, ‘Yeah, but I think they’d be able to help you. They help students all the time, they know.’ I’m, ‘Yeah, but the other guy knew too.’ She’s, ‘But this is different. These are college counselors, they work with just college students. You should go.’”

While parents were not always successful at changing their students’ minds, that did not keep them from letting their children know how they felt. For example, Penelope explained that it took her months of ongoing discussions, multiple times a week, to convince her father to let her choose a major other than nursing.

“He asked me why. And I told him I saw other stuff. I’m actually doing Criminal Justice now [...] And I told him that I went to switch, and he was like, ‘No, just stay Nursing. You’re gonna make a lot more money.’ And other stuff like that. And I kept telling him it wasn’t about the money, necessarily. It was just, I didn’t want to do it anymore, and I want to do something else, and I would like more. And he was like, ‘No no no.’ He was like, ‘Just stay like that.’ And we talked about it for a long time [...] He kept telling me, ‘Are you still gonna change it? Why do you wanna change it?’ And I would tell him the same thing. And he would just be like, ‘No, don’t change it, because you’re not gonna make as much money.’ He just kept saying how it was about the money, but I told him how it wasn’t. It was because I wanted to do something that I like. I would enjoy more, and he’ll be like, ‘Well ... just think about it, because I don’t think you should.’ And I was like, ‘Well, okay.’ But I still did it.”

Parents used their close relationships, and students’ desire for approval, to push students to succeed. For example, Penelope recounted one conversation that she remembered with her father.

“There was this one [conversation that] made me work harder when I had to tell my dad ... it was one of my first tests [...] I was kinda hurt, but it made me work harder, because I thought I did really good. I got an 88, and I told my dad, ‘Oh my God, I got an 88 on one of my first college tests!’ And I thought it was really good. And

he's like, 'Oh, why didn't you get a 90?' And I was like, 'What?!' And he was like, 'Why didn't you get a 90? It's like one more question.' He's like, 'Why did you miss that question?' He's like, 'You could've gotten an A.' And I was like, 'Oh okay.' And after that, I worked so hard. And I was like, 'Oh, guess what? I got an A!' And he was like, 'Oh that's better.' And then he'll be like, 'Why didn't you get an A+?' And I was like, 'Oh my God, okay.' It made me work harder throughout the year and all that. I was kinda hurt at first, but it made me better.”

Penelope then explained that this conversation was also the impetus for her meeting with a professor outside of class. She explained why she chose to attend a study session the professor offered,

“I feel like even though you’re prepared and all, you should still go see your professor, because they’re the one that made the exams. [...] Every time I think of this I think of my dad telling me [about] that one question [between an 88 and a 90], you never know. Whatever she says can help you on that one question.”

This level involvement was not as readily accepted by non-Latinx students. Non-Latinx students were more likely to express indifference when their parents expressed interest in the college activities. Emily described how she ignored her parents’ attempt to intervene in her college plans.

“They just asked who's my roommate and I'm just like, 'I don't know.' I used to have one but then she's not going to this school anymore. Now I'm doing the random search. They're like, 'You can go on the website and there's people requesting you.' [My mom] gets on it, but she doesn't want to touch anything because, I don't know, I might want that person or not. She's like, 'You need to go on there.' I'm like, 'I don't want to. I don't want to pick someone. I just want someone.’”

Non-Latinx students focused more on the independence they received from parents once enrolled in college. Sean described how his relationship with his parents had changed once he enrolled in college (although he still lived at home).

“Well, I’d say in high school usually the parents have to be more invested, so you can get better grades to get in the better college. You usually talk to them a lot more about what’s happening in the school and everything. But now it’s just like they said, I could drop out and they’d still like me. It’s like it’s all my responsibility and all my business. [...] I feel more personally responsible.”

When asked if he could think of a time his parents really demonstrated that they support him, Sean replied, “I guess just in the beginning when they told me that I could do whatever I wanted and that they'd support me.” This independence also came with less advice from parents when students shared what was happening in college. Sean recounted what it was like to tell his parents he wanted to switch majors.

“I just brought it up casually in conversation again. We were out moving a washing machine and dryer with my dad and my brother. The guy we were moving it for was like ‘What are you doing at [the community college]?’ And I was like ‘Oh, well, I'm thinking about changing to a biology major.’

Sean said his father responded simply, “Oh, I can't tell you anything about that. I don't know anything about it.” He also went on to explain that his parents were “cool with” his decision. This is a much more hands-off approach compared to the intense involvement many Latinx students described when discussing their major with their parents.

Expectations and Perceptions of Faculty

While the first round of coding focused on students’ relationships with parents, reviewing student interviews made it clear that the importance of tight-knit relationships for Latinx students was not confined to their families. Latinx students also appreciated professors with whom, as one student put it, they had a “friend-type of relationship.” These students valued above all else personal relationships with their professors and this shaped their evaluation of their experiences with faculty.

Latinx students described experiences in which they tried to connect with faculty, only to find professors to be cold and unhelpful. The negative experiences students described centered around an inability to connect with professors on a personal level. Daniel describes his attempt to start a conversation with one of his professors.

“I don't know how to describe him. He's just very ... His personality is almost monotone. I introduced myself and he was writing things on a note and he looked up and shook my hand. And then just went right back down without introducing himself. And I was just like, "Okay. This is awkward now." And so, as the semester went on, he would open up a bit more and be a bit more friendly. Still very "I'm here to teach and that's about it."

As Luis explained, a professor, “helped me, but, like, he was just—I don’t know—really strange. Like he had, like, a wall. [...] I felt like he was covering something. He was like really weird.” What was most noteworthy for Luis during this interaction was not the help he received with coursework, but rather that he felt that there was a barrier to more personal interaction during the meeting. Luis characterized this interaction as negative although the professor answered his question. Similarly, Anthony explained that he had not talked to his chemistry professor first semester because, “I was so intimidated. I was just a freshman.” However, second semester when he experienced trouble understanding the difference between acids and bases he went to his professor’s office and told him he was struggling. Anthony was deeply dissatisfied with his experience. With a tone of disbelief, he recounted that the professor had suggested he search the Internet for additional resources, and pointed him to an appropriate webpage. “[The meeting] was over in five [minutes]. I was very upset. [...] I felt like I was in a vulnerable position.” He went on to describe how he had a much better relationship with his teaching assistant in the course.

“I definitely connected on a personal level with one of them, that was from [my hometown]. She was just really nice already to begin with and she was really laid back and cool. She was more personable than some of the other TA’s.”

Anthony described how he needed the personal-level connection he found with his teaching assistant that was lacking from his brief interaction with his professor. Experiences with professors who appeared to be cold or impersonal had a significant impact on Latinx students. One student, Ana, even described professors who teach and do not develop personal relationships with their students as “heartless.”

Latinx students' desire for personal relationships was even clearer when they described their favorite professors, which they did in terms of caring, not perceived teaching skill. When prompted to describe their favorite professors, or professors they had good experiences with, Latinx students repeatedly mentioned how important it was for them that professors care about them as individuals. As Monica explained, "I always felt better knowing that they thought...they cared." Rosa described her favorite teacher in the following way, "I think she was the most understanding, like another grandma to me." The positive experiences Latinx students described were more likely to involve personal connections with faculty (hence the reference to a family member). Multiple Latinx students talked about professors they liked as similar to family members. Jacinta described one professor as, "more like a mom." Going on to say, "I told her my whole story." Jacinta was surprised that the professor also shared personal family stories, saying, "I really got to know her a lot.... That was a really nice meeting." Jacinta's favorite professor was also "a motherly figure. She was always giving me advice. She was always helpful." Then she described another professor she had,

"There was my British Literature class. I met with her a few times too. She was like really old, really adorable. She had like that shaky voice, so sometimes you couldn't really understand her. [...] She likes to giggle a lot at herself. She likes to laugh at herself a lot. [...] It was kinda like sitting with your Grandmamma. Storytime, you know? It was just like that."

Diana described her favorite professor in the following way,

"He's like, maybe 10 or 15 years older than my dad. I don't know why—their personalities—he was really funny. He was really chill [...] He reminded me of my dad. He was a good professor, too."

She used personal relationships as a yard stick to measure quality, rather than the professor's teaching methods or coursework. Diana's reference to whether the professor was good at his job comes at the end, clearly less important than the other characteristics. She even explicitly stated

that she would chose her favorite professor based on how relatable he or she was during office hours, not in class.

Diana: Everyone that's taken her class loves her. She's really nice. [...] She's really kind. She's always promoting love. [...] She'd always have funny stories. *She'd treat us like not students, but like real people* [emphasis added].

Interviewer: What's the difference?

Diana: Professors, they don't really tell you much about their personal lives. They don't try to relate to you, but she really tried to relate and tell a lot about her life. She'd get really emotional. One time we were talking about cleft palates and like how little kids, and she would just start crying. She'd make all of us really emotional. Then she's like 'go out there and spread love and just be nice'. She was really nice."

While Latinx students told stories about the personal relationships and connections they built in college or their failed attempts at personal connection, non-Latinx students talked about good professors in more impersonal terms. These students saw their relationship with professors in a more instrumental and less personal light. Summar, an African American student, believed that interacting with professors was important, in part so they could be aware of specific circumstances and potentially be more lenient when it comes to being absent form class or needing to retake assignments. For example, she described her interactions with professors as such,

"When I go in the class, I let them know that I'm in the band. So that they know that sometimes I'm not gonna be in class or things like that. So I let them know that, and I tell them my name and stuff, and greet them. And I greet them usually every class so they can get to know my face. But we don't have a personal, personal relationship, I don't just go to their office all the time. But we talk enough to where I could go talk to them about serious things, with my grade, and they'll be able to help me out and they'll know who I am."

She also believed that in reality professors tend to help students who have shown initiative and effort. For Summar, the relationship students develop with professors was business-like and focused on getting assistance with grades, not about friendship.

When asked who their favorite professors were, non-Latinx students placed more emphasis on teaching quality and classroom performance, rather than relationships. An African American

student, Lauren, said her favorite teacher was the one that taught her the most about the subject matter. Another student, Amina, even chose to have class with a biology professor she characterized as rude because she thought the professor taught better than another professor she knew, who simply read from slides during class. Other students also criticized professors for teaching skills, but not friendliness. For example, an African American student Rashad, justified his choice for his least favorite professor by explaining that she provided poor answers to questions in class. “Whenever you'd ask her a question it was more or less her repeating exactly what was on the slide, not necessarily helping you.” For these students, the personal relationship was not the most salient characteristic of their interactions. Unless, as Lauren, an African American student, described, the faculty “are too personal, [discussing things] that nobody wanted to hear and know about.”

Even non-Latinx students’ descriptions of caring or uncaring professors included references to classroom performance instead of personal relationships. When describing the difference between caring and uncaring professors, Brianna, an African American student, said,

“They didn’t care if you got it, they going to teach their material regardless. They’re not going to break it down if you ask a question during lecturing. [My political science professor] would ask for questions, but he wouldn’t really answer it. My biology [professor], she did break it down some, but it was just like she broke it down the same way she was doing it. So, it’s just like you really not breaking it down. [...] But I had a few that actually cared about us learning it. If we weren’t getting it, they would slow down or we wouldn’t do a chapter. We would throw out a chapter just to make sure they get that one because the next one goes right into it so you have to get that one.”

Even when non-Latinx students came in contact with professors they characterized as not caring, they were not overly troubled by this. For example, Rashad recognized that professors and students had a limited relationship and was not bothered by it. He said, unemotionally, “It didn’t really seem like they cared all that much. It’s more like, you pay money for my class and I’m just

going to teach you the stuff. You do what you do with it.” Brianna, also spoke in a matter-of-fact manner about the role that professors have. In response to the question, do you think professors would take the time to talk to you if you needed help, she said,

“I would say half and half. They always be like it’s their job, it’s their duty to talk to you, but some of them just don’t care. Just feel like they just in there for the money some of them.”

In student descriptions, the professor’s role was confined to the classroom. Part of their indifference to emotional connection may be related to their perceived responsibility. Non-Latinx students often believed that they were responsible for taking the initiative to reach out before professors would or should engage with them. One student, J.P., a Native American and white student, described the professor-student relationship as such, “Yeah, most of them will be like, ‘If you don’t care, we don’t care. But if you care, we will help you.’” Another student described a similar sentiment. When asked if she thought professors would take the time to talk to her if she needed help, Jessica, an African American student, explained,

“I think if I bugged them, they would, but I think a lot of the professors at [state flagship university], they just have too many students to really care. [...] I think a lot of the times, they wouldn’t go out of their way to help me, but if you bugged them, they would have no choice. That’s the way that I see it. If you bug them, then they’re going to see that you really care, and then they’re going to be like, ‘Oh, okay. Well, let me get her off my back.’”

For these students, it was reasonable for a professor to ignore students or fail to accommodate to their requests unless students took the initiative to show a professor that they were serious about their education.

Overall, Latinx students evaluated interactions with professors by different standards than non-Latinx students. What students defined as meaningful interactions and what they found salient in their experiences with faculty varied depending on their cultural background. Non-Latinx students were content with the impersonal relationships they developed with professors as long as

they could call on them for help when necessary. They also believed that they played a crucial role in showing professors that they were serious about college before professors would in turn help them. Latinx students on the other hand prioritized the personal relationship as a prerequisite descriptor of a good professor. The relationship took precedence over teaching quality in their mind, and when that did not develop, they felt rebuffed.

Impact of the Parenting Program on Students' Perceptions of Faculty

Given that the importance of personal relationships was not confined only to the family, but also transferred to faculty by Latinx students, this raised the question of whether the parent program, which aimed to encourage students to talk to faculty, may potentially have a negative impact on these students. Interaction results in Table 4 consider whether Latinx students in the treatment group experienced differential effects of the parent program than non-Latinx students with respect to their experiences with and perceptions of faculty. Latinx students in the treatment group, whose parents were asked to encourage them to interact with faculty, reported less positive and more neutral evaluations of their experiences than non-Latinx treatment students. Specifically, Latinx students in the treatment group reported experiences talking to professors or teaching assistants outside of class that are nearly two-thirds of a standard deviation less positive than those of their non-Latinx peers.¹¹

¹¹ Among the control group, there are no statistically significant differences between Latinx and non-Latinx students in their evaluations of their experiences with professors and teaching assistants outside of class (on average control group students reported an average of a 3.9 on a five-point Likert scale, indicating an evaluation *more positive than negative*).

Table 4: Effect of Treatment Group Assignment on Experiences with and Perceptions of Faculty (Wave II)

Experiences with Faculty/Staff	<i>Treatment X Latinx^a</i>
How would you describe your experiences this semester (Spring 2017)?	
Talking to a professor or TA outside of class	-0.617**
Talking to an academic advisor.	-0.175
Talking to other staff.	0.006
Perception of Professors	
I don't think professors want to talk to me.	0.838***
Even if I wanted to talk to a professor, I'm not sure how to start a conversation.	0.456*
I think a professor would take the time to talk to me if I needed help.	-0.675**
I think a professor would understand my difficulties if I shared them.	-0.113
Sample Size^b	270

a. Reference: Non-Latinx Students

b. Student who did not indicate their race/ethnicity in the Wave II Survey are excluded from analyses.

Controls: female, parents prefer language other than English, student qualifies for free/reduced price lunch, student in top 60% of HS graduating class, HS GPA, student attendance at ACA afterschool program, first-generation college student, enrolled in 2-year college, student lives at home during college.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

Each row represents a separate OLS regression. Coefficients are in standard deviation units.

In addition, Latinx treatment students reported more than three-fourths of a standard deviation increase in the belief that professors do not want to talk to them compared to non-Latinx treatment students.¹² Latinx students disagreed one-half of a standard deviation less strongly with the statement that they are not sure how to start a conversation with professors¹³ and agreed two-thirds of a standard deviation less strongly with the statement that they believe a professor would take the time to talk to them if they needed help.¹⁴ Overall, their results indicate that Latinx students

¹² Descriptive analyses of the control group in Table 3 indicate that there is a mean difference between Latinx and non-Latinx students' perception of professors. Latinx students more strongly claim that they do not believe professors want to talk to them. Interaction results reported in Table 4 indicate that the parent program exacerbates this initial difference.

¹³ There are no distinguishable differences between Latinx and non-Latinx students in the control group, who report on average that they *somewhat disagree* when asked whether they agree or disagree with the following statement: I am not sure how to start a conversation with a professor.

¹⁴ There is no mean difference between Latinx and non-Latinx students in the control group, who report that on average they *agree* that professors would take the time to talk to them if they needed help.

in the treatment group, whose parents were asked to encourage them to interact with faculty, ended up evaluating faculty more negatively than non-Latinx students in the treatment group.

DISCUSSION

Students from socioeconomically disadvantaged families face challenges navigating the complex college system in part because of their limited cultural capital— the knowledge, norms, and practices that facilitate successful interaction with social institutions (Bourdieu and Passeron 1990; Jack 2016; Lareau and Weininger 2008). While ample literature considers class differences in cultural capital, studies of cultural capital in higher education rarely consider variation by race/ethnicity. Drawing on the literature on Latinx familism (Desmond and Turley 2009; Esparza and Sanchez 2008; Garcia-Reid et al. 2005; Valenzuela and Dornbusch 1994), I examine variation in family relationships and interactions of Latinx and non-Latinx students from socioeconomically disadvantaged backgrounds during their first year of college. Moreover, I consider whether a parenting program, which asked parents to encourage students to interact with faculty, has a differential effect on the two groups.

The results indicate that socioeconomically disadvantaged Latinx students have unique experiences that are not fully explained by the patterns documented in the cultural capital literature. Previous research suggests that parents from less advantaged backgrounds are not extensively involved in children's lives once in college (Hamilton 2016). However, this study shows that the patterns of parental engagement vary between Latinx and non-Latinx students. Although all students in this study were from socioeconomically disadvantaged backgrounds, Latinx parents were notably more involved in their children's lives during the first year of college than parents from other racial/ethnic groups. Latinx parents were more likely to request frequent updates, get

feedback on student performance (through student confessions or ‘accidentally’ through shared technology), and provide persistent advice than non-Latinx parents. This suggests that Latinx students are more integrated with their family than other students might be, which supports the pattern of familism documented in secondary education (Esparza and Sanchez 2008; Fuligni, Tseng, and Lam 1999; Stanton-Salazar 2001).

Findings also suggest that Latinx parents who participated in the parent program, urging them to encourage their children to engage with faculty in college, increased how often they had specific academic discussions with their children more than non-Latinx parents who participated in the same program. This suggests that programs designed to help college students by providing their parents with targeted information may be especially effective for Latinx students. It is likely that the intensity of the relationships between Latinx students and their parents served as a crucial factor in explaining these differences in treatment effects. Latinx treatment students felt more supported by parents than non-Latinx treatment students. In addition, the stronger treatment effects included increased institutional commitment among both Latinx parents and students.

Of particular note, Latinx students not only expected close relationships with families, they also expected to have personal relationships with faculty and were disappointed if these did not develop. Although Latinx students stated that they had been informed that professors may be cold and distant, they still evaluated their interaction with professors based on a model of relationships closely tied to the Latinx concept of familism. The impersonal and instrumental relationships they experienced with faculty were described as inadequate, disappointing, and at times even hurtful. As a result, while Latinx students benefited more from the parent program in terms of conversations with and support from parents, they simultaneously reported more disappointment with their interactions with professors than non-Latinx students.

These findings not only suggest an extension of familism logic to other relationships outside of the immediate and extended family, but indicate an aspect of inequality unique to working-class Latinx students. Other research has suggested that supportive relationships with institutional agents are especially important for Latinx youth. A number of studies have shown that positive experiences with adults in elementary and secondary school can set the stage for later academic engagement among Latinx youth (Hamre and Pianta 2001; Stanton-Salazar, Chavez, and Tai 2001; Suárez-Orozco et al. 2007). For example, increases in student perception of teacher responsiveness and supportiveness have been linked to increases in Latinx students' confidence in high school completion (Valenzuela 1999) and a decrease in student dropout (Croninger and Lee 2001). College access research has demonstrated the importance of a variety of relationships for Latinx students, including immediate and extended family, peers, teachers, guidance counselors, college admissions counselors, financial aid officers, and others (Ceja 2004, 2006; Farmer-Hinton 2008; Perez and McDonough 2008; Valadez 2008).

The importance of relationships for Latinx students can have negative consequences when teachers and faculty do not share their interpretation of the teacher-student relationship or are not aware of the additional support Latinx students expect. Valenzuela (1999) argued that teachers believe their role in the secondary education system is to impart their expert knowledge. This is likely even more pronounced in higher education where professors often identify as experts in their field, original research is common, and professors interact with students to a much more limited extent. While teachers, and educational institutions more broadly, support a more abstract and instrumental commitment to education, Latinx students are committed to an understanding of *educación* premised on respectful, caring relations between teachers and students (Valenzuela 1999).

In addition to the importance of familism and the cultural mismatch between Latinx students and college faculty, there may be other factors that influenced student perception and evaluations of faculty during the 2016-2017 academic year. Students in this study entered college in the fall of 2016—the tail end of the 2016 campaign season and amidst the election of President Donald Trump. During President Trump’s campaign, racially inflammatory rhetoric and fearmongering related to Latinx immigration was used to provoke the electorate (Newman, Shah, and Collingwood 2018). Specifically, polls taken after Trump’s newsworthy remarks related to building a wall along the Mexican border to keep out “rapists” made in June 2015, showed an increase in support for Trump among Republicans residing in areas with a large Latinx population (as is characteristic of the ACA research site). Given the ideologically heated nature of his campaign and the focus on Latinx immigrants, it is likely that Latinx individuals in general, and college students in particular, experienced increased hostility. Indeed, the Federal Bureau of Investigation crimes report from colleges and universities noted twice as many reports of hate crimes in November of 2016 than the previous year, with race motivating the majority of the reported hate crimes (Bauman 2018). As a result of the negative context surrounding Latinx immigration in the wake of President Trump’s election, the Spring 2017 survey may have captured an increase in general racial/ethnic hostility on college campuses and tensions in the relationships between students and faculty.

Latinx students’ dissatisfaction with student-faculty interactions is problematic because such feelings can alienate students, making them less likely to reach out to professors in the future. This is of notable concern given that socioeconomically disadvantaged students more generally (Collier and Morgan 2008; Kim and Sax 2009; Yee 2016) and Latinx students in particular (Rios-Aguilar and Deil-Amen 2012) experience fewer connections with faculty in college. When

students do seek out professors and institutional support staff during college, for example, through tutoring, mentoring, or career services, they are significantly more likely to graduate (MacDonald et al. 2009). Thus, the norms and expectations surrounding academic engagement exacerbate the disadvantage that working-class Latinx students experience within the higher education system.

These findings have significant implications for inequality, as the disconnect between Latinx students and faculty is not likely to improve in the immediate future. Although Latinx teachers, like students, adhere to a model of education motivated by relationships built on notions of mutual respect and social responsibility (Darder 1995; Valenzuela 1999), the number of Latinx faculty remains dismally low. At the start of the 2015 academic year, only four percent of all full-time faculty at degree-granting postsecondary institutions were Latinx (NCES 2017). Therefore, although the number of Latinx students in college has increased dramatically, their chances of interacting with faculty who share their image of student-professor relationships is quite low.

The success of Latinx students is not solely about cultural capital. It is also intricately tied to what students expect of the relationships they develop once in college. Impersonal experiences with faculty are more salient for Latinx students, because these students place a high value on personal relationships. While the influence of familism serves to help students by making them feel more connected and supported by their parents, it poses challenges when applied to relationships with faculty. Based on these findings, there are several implications for policy and practice that may bridge this cultural disconnect. If Latinx students expect more personal, caring interactions from faculty then colleges could hire staff to fill this crucial role for students. Supplemental analyses of interviews with Latinx students suggest that even one satisfying relationship with a faculty or staff member in college can have an impact on how students think about and evaluate other interactions with faculty. For example, students who described a positive

interaction with an institutional agent in college, were more likely to talk about reaching out to other faculty, even in the face of previously unsatisfying interactions with faculty. Therefore, positive interactions with faculty and staff may be high impact for this group of students, even if hard to come by, in college.

Indeed, research from the field of psychology suggests that natural mentoring relationships¹⁵ may have the greatest impact on students from historically underrepresented racial and ethnic groups and students from lower-income backgrounds in secondary school (Erickson, McDonald, and Elder 2009). Stanton-Salazar and Spina (2003) provide numerous examples of how advice, emotional support, and role modeling from mentors help Mexican-American youth. In addition, during the transition to college, first-generation, low-income, and underrepresented racial/ethnic minority students have fewer symptoms of depression and anxiety when they are able to maintain more of their mentoring relationships from high school (Hurd, Tan, and Loeb 2016). For these disadvantaged groups, a strong emotional connection appears to be a key characteristic of faculty they identify as mentors (Schreiner et al. 2012).

Moreover, research among the more general student population provides evidence of the importance of student-teacher relationships in the education system. Starting in elementary school affective ties with teachers promote educational success (Birch and Ladd 1998; Pianta, Steinberg, and Rollins 1995). Middle school students who believe that their teacher care about them are more motivated to try hard and pay attention in class, and earn higher grades (Wentzel 1997). In addition, positive teacher–student relationships during high school are associated with increased student engagement (Engels et al. 2016) and achievement over time (Gregory Weinstein 2004), whereas

¹⁵ Mentoring relationships in which the relationship develops naturally, for example with a teacher or coach, and is not determined by an external mentoring program.

negative teacher–student relationships are related to less engagement (Gregory and Weinstein 2004). Also, Dubois and Silverthorn (2005) show that benefits of teacher-student relationships span beyond high school completion and college attendance to include reduced violent behavior and increased psychological well-being. As a result, fostering stronger faculty-student relationships is likely to benefit all students, not just Latinx students.

Another strategy may be to try and temper the specific expectations Latinx students have in order to align them with institutional norms within higher education. While it may appear to be a simpler method to address the cultural discord unearthed here, it may be less successful. Although Latinx students in this sample reported that they expected professors to be more distant than high school teachers, they were nonetheless disappointed with the quality of their professor-student relationships once they entered college. In fact, supplementary interview analyses suggest that many students heard from high school teachers that they should not expect the same type of relationship with college professors that they experienced with high school teachers, describing that student-teacher interactions in college would be more reserved. As a result, additional attempts to change student expectations in this way may not result in changes in student satisfaction with professor-student relationships. Institution-level changes to higher education may be more successful at improving Latinx students' experiences, although this route has its own barriers.

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Appendix, Table 1: Survey Attrition, Samples, and Descriptive Statistics

VARIABLES	Wave I: Fall 2017				Wave II: Spring 2017			
	Non- Respondents		Respondents		Non- Respondents		Respondents	
	0.46	0.49			0.52	0.45		
Test of Differential Attrition								
VARIABLES	Respondents				Respondents			
	Control	Treatment			Control	Treatment		
Female	0.59	0.69*	0.72	0.65	0.59	0.68*	0.68	0.68
Race/ethnicity								
Latinx	0.68	0.65	0.70	0.70	0.71	0.67	0.68	0.66
White	0.09	0.06	0.07	0.06	0.08	0.08	0.09	0.06
African American	0.19	0.17	0.16	0.18	0.18	0.17	0.16	0.21
Other	0.04	0.07	0.07	0.06	0.04	0.07	0.07	0.07
High School								
Junior GPA	3.08	3.23*	3.18	3.27	3.01	3.29***	3.25	3.33
Top 60% of Class	0.89	0.93 [^]	0.91	0.95	0.89	0.94 [^]	0.93	0.94
ACA Attendance [†]	0.50	0.57***	0.55	0.59	0.50	0.57***	0.54	0.61**
Family Background								
First Generation	0.63	0.70 [^]	0.71	0.69	0.64	0.69	0.69	0.68
Free/Reduced Price Lunch	0.70	0.78*	0.79	0.77	0.72	0.77	0.77	0.76
Language: Parents Prefer English	0.31	0.28	0.31	0.25	0.26	0.33 [^]	0.35	0.30
Language: Parents Prefer Spanish	0.21	0.31**	0.29	0.33	0.23	0.28	0.26	0.30
College Type								
2-year College	0.31	0.30	0.30	0.31	0.33	0.28	0.29	0.28
4-year College	0.36	0.58***	0.57	0.58	0.37	0.56***	0.54	0.58
College not specified	0.30	0.11***	0.13	0.09	0.27	0.15***	0.17	0.13
N	325	292	142	150	318	299	160	139
Response Rate	50.87%				50.94%			

Notes: The test of differential attrition was calculated by regressing a binary variable equal to one if a student responded to the survey on treatment status, to determine if treatment assignment could predict survey response. Column 2 of the test of differential attrition shows the proportion of non-respondents who are in the treatment group. Columns 3 shows the difference between survey non-respondents and respondents. Statistical significance levels: [^]p<.10; *p<0.05; **p<0.01; ***p<0.001.

The response rate was calculated based on the available contact information for the experimental sample during Wave I (574) and Wave II (587) survey outreach.

Individual regression analyses omit students who are missing data.

CHAPTER 4
HOW CAN PARENTS INFLUENCE COLLEGE STUDENTS?
INVESTIGATING MEDIATORS AND MODERATORS OF A PARENT
INTERVENTION

Persistent inequality within the higher education system has long occupied scholars, practitioners, and policymakers alike. In particular, socioeconomically disadvantaged students who enroll in college are less likely to persist and graduate than their more advantaged peers (Bailey and Dynarski 2011; Bowen, Chingos, and McPherson 2009; Engle and Tinto 2008). While academic preparation and finances play an important role, they do not explain all of the gap in completion rates between more and less advantaged students (Carnevale and Strohl 2010; Bowen, et al. 2009; Roderick, Coca, and Nagaoka 2011).

In response, researchers have begun to explore student experiences in college in more depth (Jack 2016; Lehmann 2007; Yee 2016). One factor that is related to students' experiences in college, and scholars believe contributes to socioeconomic inequality, is cultural capital (Collier and Morgan 2008; Jack 2016; Lareau 2015; Yee 2016). Cultural capital encompasses the norms, attitudes, and predispositions helpful in navigating social institutions, such as schools (Bourdieu 1977). More socioeconomically advantaged students typically possess more cultural capital than their less advantaged peers, aiding them in navigating the higher education system (Lareau 2011; Lareau and Weininger 2008). One dimension of cultural capital examined in the higher education context is interaction with faculty and staff, which is thought of as form of academic engagement (Collier and Morgan 2008; Jack, 2016; Lawson and Lawson 2013; Yee 2016).

In order to encourage academic engagement among first-generation and low-income students, I developed a program that encourages parents to discuss academic engagement with their first-year college students. Prior work has indicated that this parent intervention is effective at influencing students' intent to persist into the second year of college (Deutschlander 2017b). The current paper relies on simultaneous equation models (SEM) to examine the mechanisms through which the parent intervention influences student intent to persist. More specifically, I examine three dimensions of cultural capital: parent-student discussions, students' attitudes toward engagement, and students' actual engagement behaviors in college. The results indicate that the hypothesized pathways do not explain how the parent intervention influences persistence, leaving most of the effect unexplained. Despite limited explanation of the intervention pathways, the SEM analyses provide insights into how parent-student discussions are related to student attitudes and behaviors and how those are in turn are related to persistence.

In addition, I examine whether the mechanisms linking parental intervention to student intent to persist vary across students from different racial/ethnic groups and those from different family backgrounds. These moderation analyses suggest that the intervention is not related to student intent to persist among continuing-generation students, although among first-generation students the intervention has a direct effect on student intent to persist. Among Latinx and non-Latinx students there is no statistically significant differences in effects of the intervention. The limited statistical significance, but different coefficients among the moderation analyses suggest further research into cultural capital mechanisms across racial/ethnic groups of larger sample sizes may be informative.

LITERATURE REVIEW

Theoretical Framework: Cultural Capital

The knowledge and skills needed to navigate college can be understood as a component of cultural capital, which is broadly defined as the knowledge, dispositions and practices that facilitate successful interaction with dominant social institutions, such as colleges and universities (Bourdieu and Passeron 1990). Dominant class groups strategically rely on these attitudes, skills, and behaviors to navigate the education system. In schools, student attitudes and behaviors, encompassing the subjective perceptions, preferences, and appropriate actions that individuals draw on to interpret their surroundings and function in their day-to-day social interactions, reflect cultural capital. Most studies operationalize cultural capital in terms of student behaviors (Aschaffenburg and Maas 1999; Calarco 2011; Dumais and Ward 2010; Roscigno and Ainsworth-Darnell 1999) or parent behaviors (DeGraaf, DeGraaf, and Kraaykamp 2000; Dumais and Ward 2010; Lee and Bowen 2006). For example, interactions with key gatekeepers to access educational information and resources, such as guidance counselors (Dumais and Ward 2010) and participation in structured status-enhancing extra-curricular activities (Lareau 2011) are types of student behaviors typically examined in the literature on cultural capital. A few studies also include attitudes, along with behaviors, in their consideration of cultural capital (DiMaggio 1982; DiMaggio and Mohr 1985; Lareau 2011; Jack 2016).

Cultural capital is believed to promote educational success as students interact with institutional agents (faculty and staff) within an educational system that is designed to recognize and reward cultural capital. Since institutional agents are more responsive to the cultural orientations of the dominant class than other cultural attitudes and behaviors, these orientations become both rewarded and required within educational contexts to be successful (Lareau and

Weininger 2003). This leads to comparatively better academic performance of more socioeconomically advantaged students, due to preferential treatment and additional attention from faculty and staff. Students who do not share the culture capital recognized by the education system experience school as a hostile environment and are disadvantaged in navigating the system (Lamont and Lareau 1988). Since institutions often presuppose, recognize, and reward the possession of cultural capital, but do not include it in the official curriculum, students from socioeconomically disadvantaged backgrounds experience particular difficulty (Bourdieu and Passeron 1977; Rosenbaum, Deil-Amen, and Person 2006). As a result, cultural capital is a key mechanism of cultural reproduction, which helps to maintain the link between class of origin and future class position (Bourdieu and Passeron 1990).

Academic Engagement

Students' interaction with faculty and staff, which is one dimension of academic engagement, is widely considered to be both culturally informed behavior and unequally distributed among students from different socioeconomic backgrounds (Calarco 2011; Jack, 2016; Lareau and Weininger 2008; Yee 2016). Specifically, students from socioeconomically disadvantaged backgrounds are less likely to interact with faculty and other staff compared to their more socioeconomically advantaged peers (Collier and Morgan 2008; Kim and Sax 2009; Pike and Kuh 2005). These less advantaged students often display a pattern of independence and hesitancy when interacting with institutional agents (Aries and Seider 2005; Bloom 2007; Calarco 2014; Jack 2016; Lareau 2011; Stanton-Salazar 2001; Stephan and Rosenbaum 2009; Stuber 2009).

Student engagement with faculty and staff in college may depend on several different

factors. First, some students are unaware of the importance of academic engagement. While both less advantaged and more advantaged students expend great energy to succeed in college, less advantaged students often toil individually, while more advantaged students use strategies that draw in others to help them (Jack 2016; Yee 2016). Yee (2016) describes how more advantaged students recognize that proactive engagement with faculty is important in college since faculty are less available than high school teachers. They rely on interactions with professors to get individualized attention and improve their grades in courses by re-writing essays, re-taking exams, receiving personalized tips on upcoming exams, or receiving additional points to curve a final grade. Less advantaged students are less likely to realize that engagement with faculty plays an important role in their successful completion of coursework, instead relying on individual hard work and perseverance to succeed.

Second, students, regardless of whether they deem engagement with faculty/staff to be important or not, may not see themselves as entitled to one-on-one help or as the type of student who can assert themselves and ask for this type of help. While help-seeking is a critical mechanism for accessing support from faculty and other institutional agents (Stanton-Salazar 1997), less advantaged students often do not feel entitled to ask for help or see requests for help as a sign of weakness (Calarco 2011; Lareau 2015; Jack 2016). For example, Jack (2016) describes how first-generation students with limited cultural capital did not believe that the college they were attending, or the individuals working within it, was responsible for helping them succeed in college.

In an effort to increase student academic engagement in college, particularly for students from socioeconomically disadvantaged backgrounds, scholars and practitioners have designed interventions that provide students with additional information about the availability of college

support services. However, these interventions have had minimal success. Evaluations of programs that provide supplemental academic support, access to staff case managers, and resources to students show that few students use the services offered to them (Angrist, Lang, and Oreopoulos 2009; MacDonald et al. 2009; Schwebel et al. 2012; Scrivener, Weiss, and Teres 2009).¹ While two studies have used financial incentives to address this concern, they have had mixed success. MacDonald and colleagues (2009) designed a program with two treatment groups, one offering services, another tying use of services to a scholarship. They found that among both treatment groups, students' use of services declined with each successive semester of the program, although to a lesser extent among the group receiving financial incentives (MacDonald et al. 2009). Angrist and colleagues (2009) found that service use ceased altogether after financial incentives were removed (Angrist et al. 2009).² Since it is common for even minimal effects on use of academic services and academic engagement to dissipate during the life of an intervention or after interventions end (Angrist et al. 2009; MacDonald et al. 2009; Scrivener et al. 2009), the long-term efficacy of such programs is not clear.

Parents

Instead of intervening with students directly, the current study is based on a program designed to relay information to socioeconomically disadvantaged parents, who are tasked with encouraging new attitudes and behaviors regarding engagement with faculty/staff among their

¹ In some cases, treatment effects are driven solely by women's use of services, such as meeting with an advisor or attending organized study groups (Angrist et al. 2009). The authors hypothesize that greater service use was driven by the higher number of female advisors serving students, given that both male and female students were less likely to meet with advisors of the opposite sex. MacDonald and colleagues (2009) also found greater effects among women.

² Although treatment effects on women's grades persisted up to one year afterward (Angrist et al. 2009).

children. Relying on parents to influence student academic engagement may be effective given that parents are students' primary source of cultural capital. Parents pass on cultural capital to their children, either passively as children are exposed to parents' cultural capital or actively via parents' deliberate efforts to transfer cultural capital to children (Calarco 2014; Lareau 2011).

In addition, parents are a vital source of information for students. Parents are attentive to new education-related information (Daniel et al. 2009), and use this information to make decisions, more so than students themselves (Bettinger et al. 2012; Valant and Loeb 2015). Moreover, prior research indicates that parents can use new information to change student behavior in secondary education (Bergman 2013; Kraft and Dougherty 2013; Kraft and Rogers 2014). There is suggestive evidence that this pattern may hold in college, as well. One university that sent fliers to both parents and students found that parents were more likely than students to remember the information they received (Daniel et al. 2009).

Also, most students consider their parents to be a vital source of support and encouragement during college (Wartman and Savage 2008; Wolf, Sax and Harper 2009), with many reaching out to parents when making important decisions (Pizzolato and Hicklen 2011). Emotional support from parents during the first year of college is related to student adjustment to college (Wintre and Yaffe 2000), academic integration and performance (Cabrera et al. 1993; DeBerard, Spielmans, and Julka 2004; Harper, Sax, and Wolf 2012), institutional commitment (Kinsley 2014; Roksa, Deutschlander, and Whitley 2016), and goal commitment (Strom and Savage, 2014). Therefore, parents may be effective in facilitating greater academic engagement of students.

Transmission of Cultural Capital Among Various Groups

Although parents serve an important role in student cultural capital formation, the process of cultural capital transmission may not be the same among all families. Based on the literature discussed above, the parental intervention implemented in this study is expected to alter parent-student interactions and in turn, student attitudes and behaviors related to academic engagement. The extent to which these mechanisms play an important role in explaining the relationship between a parent intervention and academic outcomes may vary across students from different socioeconomic backgrounds and racial/ethnic groups.

Parent-Student Discussions

The parent intervention's influence on parent-student discussions may depend on the amount of cultural capital already transmitted from parents to students. Cultural capital theory suggests that parents from different socioeconomic backgrounds have varying amounts of cultural capital to pass on to their children, with socioeconomically advantaged families having more cultural capital to transmit (Bourdieu and Passeron 1990). For example, prior research suggests that students from less advantaged backgrounds consult their parents about college-related topics less frequently than their more advantaged peers (Deil-Amen and Turley 2007; Deutschlander 2017a; Grodsky and Riegle-Crumb 2010; Lareau 2011). While encouraging parents to discuss academic engagement with their children may change conversations among less advantaged families, the change may be muted among more advantaged families that have experience with higher education and are already encouraging academic engagement with their college-going children.

Previous research also suggests that parents are a particularly important source of support for students who are in the racial/ethnic minority on campus (Guiffrida 2006; Melendez and

Melendez 2010). As a result, racial/ethnic minority students may be more likely to rely on their parents than white students. A related body of research suggests that Latinx families create a uniquely supportive community, different from non-Latinx families (Aguayo et al. 2011; Kiyama 2010; Valenzuela and Dornbusch 1994). As a result, Latinx families may have higher rates of communication and support than non-Latinx families, which implies that discussions related to academic engagement encouraged by the intervention may be more prevalent among Latinx families. Indeed, college choice research shows that Latinx students regularly choose colleges closer to home or forgo college altogether, in part because of parental wishes (Desmond and Turley 2009).

The Role of Students' Attitudes and Behaviors

Changes in students' attitudes and behaviors may not have the same effect on college student success for different groups. Students from socioeconomically disadvantaged backgrounds may be less likely to effectively utilize cultural capital than their more advantaged peers (Bourdieu and Passeron 1990; Lareau and Horvat 1999; Lareau and Lamont 1988). Even if less advantaged students do acquire knowledge, skills, and strategies that reflect cultural capital, they may not necessarily acquire the natural familiarity of those born into more socioeconomically advantaged positions (Lamont and Lareau 1988). For example, Lareau and Horvat (1999) found that parents were more or less successful in using cultural capital to gain advantages for their children (in particular, getting children placed in higher ability learning groups in middle school).

Moreover, how institutional agents perceive students from socioeconomically disadvantaged backgrounds may void the effectiveness of their cultural capital. For example, Rist's (1970) study of elementary school teachers found that teachers use initial differences in appearance to identify students' status position. They then develop higher expectations of, and

provided additional attention to, students from socioeconomically advantaged families. Therefore, student changes in attitudes and behaviors may not necessarily change institutional agents' perceptions of students. Students from less advantaged family backgrounds may thus have greater difficulty converting their cultural capital into academic success. Farkas and colleagues (1990) argued that middle school teachers' perceptions of students have a significant impact on their course grades.³ Other studies suggest that that students from socioeconomically disadvantaged backgrounds receive either limited or no benefit from cultural capital (e.g., Perna 2000; Roscigno and Ainsworth-Darnell 1999).

There is, however, an alternative theory of cultural mobility, which argues that cultural capital benefits all children (DiMaggio 1982) or potentially that cultural capital is particularly beneficial for children from socioeconomically disadvantaged backgrounds (DiMaggio and Mohr 1985). Research supporting this argument suggests that students from both more and less advantaged backgrounds can benefit from cultural capital (Lee and Bowen 2006) or that students from disadvantaged backgrounds benefit more (DeGraaf, DeGraaf, and Kraaykamp 2000; Deutschlander 2017a). Since academic engagement is lowest among students from less advantaged backgrounds (Jack 2016; Yee 2016), an intervention designed to increase academic engagement may be most effective among this group of students. In addition, one intervention study found that effects were greater among a sub-group of women whose parents had not attended college (Angrist et al. 2009).

The relationship between students' attitudes/behaviors and academic outcomes may also differ across racial/ethnic groups. In particular, research on college access among Latinx students

³ Dumais (2006) on the other hand, found that cultural capital in the form of high arts participation did not affect teacher perceptions of students.

indicates the importance of relationships, including family, teachers, guidance counselors, college admissions counselors, financial aid officers, and others, across each stage of the college preparation process (Ceja 2006; Perez and McDonough 2008; Valadez 2008). Moreover, research shows that the development of close relationships with educators is especially important for educational success among Latinx students (Valenzuela 1999; Valenzuela and Dornbusch 1994). Therefore, an intervention that encourages academic engagement—and relationship building with faculty and staff—may be especially effective at encouraging persistence among Latinx students, more so than their non-Latinx peers.⁴

RESEARCH DESIGN

The data for this analysis is drawn from a randomized controlled trial of a parent intervention that occurred during the 2016-2017 academic year. A non-profit college access and success organization, referred to as All Can Achieve (ACA, a pseudonym), randomly assigned 617 new college students and their families to treatment and control conditions. ACA serves less advantaged students who are either low-income or will be the first generation in their family to

⁴ There is also reason to believe that the mechanisms of the intervention may work differently among men and women. For example, women appear to be more willing to involve their parents in college choice discussions and decisions during the transition to college (David et al. 2003), as well as communicate with their families more frequently once in college (Gemmell and Peterson 2006; Sax and Weintraub 2014; Wolf et al. 2009). In addition, women who communicate with their parents more often or are more attached to their parents report higher adjustment to college (Wintre and Yaffe 2000) and increased emotional well-being (Kenny and Donaldson 1991; Sax, Bryant, and Gilmartin 2004) with no such relationships among men. Previous intervention research also suggests that not only are women more likely to use academic services during college, but they benefit more from the use of these services (Angrist et al. 2009; MacDonald et al. 2009). Therefore, one might anticipate stronger effects of the intervention among women; however, supplemental analyses suggest non-significant gender effects. As a result, they are not included here. Additional research with a larger sample of students may serve to more effectively illuminate gender effects.

earn a bachelor's degree. Parents in the treatment group received an introductory letter and subsequent bi-weekly texts from August 2016 until May 2017. See Deutschlander (2017b) for a further discussion of the program.

Data

To investigate how this parent intervention influenced students' academic engagement and their intent to persist in college, this study employs survey data from both treatment and control students collected during their second semester of first year in college (March 2017). As Table 1 shows, the survey yielded a response rate of 51 percent, resulting in a survey sample of approximately 300 students.⁵ The first two columns of Table 1, show that survey respondents differ from non-respondents on important demographic characteristics, which reduces the generalizability of the survey sample to the overall experimental sample. Compared to non-respondents, survey respondents are disproportionately female, younger, higher academic achievers, and four-year college attendees. The proportion of students from various racial/ethnic groups is not significantly different between the respondents and non-respondents.

The final two columns of Table 1 show that 53.5 percent of the survey sample was in the control group and 46.5 percent in the treatment group. Importantly, characteristics of the respondents are similar across treatment and control groups, which suggests higher internal validity of survey measures. There is only one statistically significant difference between treatment

⁵ With a study like this, which relies on survey data for analysis, the difference in the share of students included in the experimental sample and survey samples represents attrition from the experiment. Attrition can lead to biased estimates of impact if the types of treatment group students who attrited (did not respond to the survey) are systematically different than the type of control group students who attrited in a way that is related to survey measures outcomes. I find no evidence that the rate of attrition (survey non-response) differs between the treatment and control groups. See the main impact paper for analyses of attrition (Deutschlander 2017b).

and control responders on baseline characteristics—treatment responders had higher rates of ACA attendance in high schools (attending 60.9 percent of classes instead of 53.7 percent in the control group). ACA attendance, along with other characteristics discussed below, is controlled for in all analyses.

Table 1: Descriptive Statistics of Spring 2017 Survey Sample

VARIABLES	Non-respondents	Respondents	Respondents	
			Control	Treatment
Female	0.59	0.68*	0.68	0.68
Age (at high school completion)	18.10	17.97***	17.97	17.97
Race/ethnicity				
Latinx	0.71	0.67	0.68	0.66
White	0.08	0.08	0.09	0.06
African American	0.18	0.19	0.16	0.21
Other	0.04	0.07	0.07	0.07
High School				
GPA	3.08	3.39***	3.40	3.37
Top 60% of class	0.89	0.94^	0.93	0.94
ACA attendance†	0.50	0.57***	0.54	0.61**
Family Background				
First-generation	0.64	0.69	0.69	0.68
Free/Reduced Price Lunch (FRPL)	0.72	0.77	0.77	0.76
Parents prefer non-English language	0.24	0.30	0.28	0.32
College				
Student attending 2-year college	0.33	0.28	0.29	0.28
N	318	299	160	139
Response Rate		50.94%		

Notes: Response rate calculated based on students with available contact information in the experimental sample (N=587).

Individual regression analyses omit students who are missing data.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

† Rate of attendance at ACA's afterschool college-access classes.

Measures

The survey asked students several questions about their experiences with parents, as well as their experiences in their first year of college. See Table 2 for a complete list of measures. To explore parental influence, students reported the frequency of college-related discussions with their parents. Survey respondents indicated how often (on a five-point Likert scale from *never* to

always) they discuss the following college topics: academic advisors, meetings with advisors, professors, relationships with professors outside of class, classes, preparing for class, course assignments, as well as academic services. These measures were averaged to create a measure of parent-student discussions (Cronbach's $\alpha = .916$). Students also reported how supportive their parents are. The scale of parental support is a subscale of family support developed by Zimet and colleagues (1988) in their multi-dimensional scale of perceived social support. This subscale is a four-item scale (Cronbach's $\alpha = .884$), which includes the following questions: my parents really try to help me; my parents provide emotional support; I can talk with my parents about problems; my parents are willing to help me make decisions.

Several measures capture academic attitudes and behaviors. A scale of student attitudes toward engagement, *1. Engagement Attitudes*, reports how important students think it is to do the following during college: talk to a professor or teaching assistant during class, outside of class, or during office hours; ask professors or teaching assistants for advice; and develop a relationship with professors, teaching assistants or staff (Cronbach's $\alpha = .902$). A scale of student attitudes toward help-seeking, *2. Help Seeking Attitudes*—modeled after psychological measures of help-seeking (for examples see Pajares and Cheong 2004; Skaalvik and Skaalvik 2005)—captures how likely students think they are to seek help if they are struggling with coursework in college (Cronbach's $\alpha = .877$). Students also reported their academic engagement during the spring semester of their first year in college, *3. Engagement Behaviors*. Specifically, students reported how many times they: talked to a professor outside of class; visited an academic advisor; talked to other staff; and visited the academic support center. These measures were averaged to create a composite measure of engagement (Cronbach's $\alpha = .704$). The outcome examined in this study is student intent to persist into fall 2017 (their second year of college), which is measured on a six-

Table 2: Component Items and Descriptive Statistics for the Outcome and Independent Variables

Variable	Description	Mean	SD
Parent-Student Discussions	When you communicate with your parent(s) or guardian(s), how often do the following topics come up in conversation? Academic services (for example, tutoring or the writing center)	2.63	0.96
alpha= .916	Your academic advisor Meetings with your academic advisor Your classes Studying/preparing for class Class assignments Your professors Your relationships with your professors outside of class <i>(1) never, (2) rarely, (3) about half of the time, (4) most of the time, (5) always</i>		
Parental Support	Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s). My parents provide me with the emotional help and support I need.	4.80	1.10
alpha= .884	My parents are people who I can talk with about my problems My parents are willing to help me make decisions. My parents really try to help me. <i>Items on a 6-point Likert scale: (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) somewhat agree, (5) agree, (6) strongly agree</i>		
1. Engagement Attitudes	While in college, how important is it that students do the following? Talk with professors or teaching assistants (TAs) during class. Talk with professors or TAs about academic performance in class.	3.97	0.76
alpha= .902	Talk with professors or TAs one-on-one outside of class. Go to a professor or TA's office hours. Ask professors, TAs, or other staff for advice or help. Develop a relationship with a professor, TA, or staff member. <i>Items on a 5-point Likert scale: (1) not at all important, (2) not very important, (3) somewhat important, (4) important, (5) very important</i>		
2. Help-Seeking Attitudes	Please rate how much the following statements are like you or not like you. If I don't understand a course assignment, I ask the professor to explain it to me.	3.43	0.90
alpha= .877	I talk to professors outside of class time if I need (for example, during office hours). If I am struggling with course material that I do not understand, I ask a professor, teaching assistant, or staff member for help to understand the material. If I need help with something in college, I ask a professor, academic advisor, teaching assistant, or staff member for help. <i>Items on a 5-point Likert scale: (1) not at all like me, (2) not much like me, (3) somewhat like me, (4) mostly like me, (5) very much like me.</i>		
3. Engagement Behaviors	Think about your experiences in college this semester (Spring 2017). How many times have you: Talked to a professor or teaching assistant outside of class?	1.77	0.89
alpha= .704	Talked to an academic advisor? Talked to other staff (a tutor, librarian, etc.)? Visited the academic support center (here students can find tutoring, study groups, help with study skills, etc.)? <i>(0) 0, (1) 1, (2) 2-3, (3) 4-5, (4) 6 or more</i>		
Intent to Persist	Please rate how likely or unlikely you find the following statement. I will attend college next Fall 2017.	4.73	0.71
	<i>Items on a 5-point Likert scale: (1) very unlikely, (2) somewhat unlikely, (3) undecided, (4) somewhat likely, (5) very likely</i>		

point Likert scale from *very unlikely* to *very likely*.⁶

Analytic Approach

I investigate this study's research questions by estimating a series of simultaneous equation models (SEM). An SEM model is effectively a series of related equations with theoretical linkages among endogenous, exogenous, and mediating variables. All of the measures in the presented model are observed – an SEM model with observed measures is also referred to as a path model, and can be estimated using the SEM command in STATA. SEM allows for the assessment of indirect effects of parent-student discussions and student attitudes and behaviors on the effectiveness of the intervention as measured by student intent to persist.

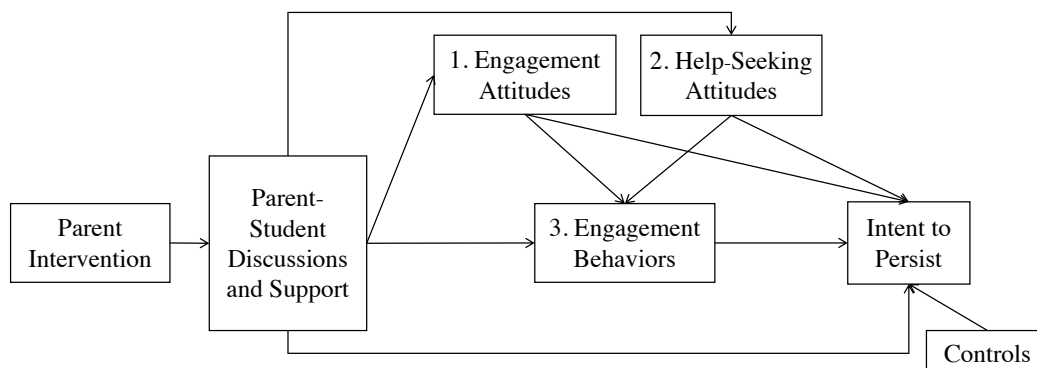
To model the complex relationship between the parent intervention and student attitudes and behaviors, I use the conceptual model in Figure 1. The conceptual model treats parental support and discussions with students as a necessary step for the parent intervention to affect student attitudes and behaviors.⁷ Parent-student discussions of academic matters have often been used in prior research as an indicator of parent cultural capital (Deutschlander 2017a; Dumais and Ward 2010; Lareau 2011; Roksa and Potter 2011). In addition, recent research has suggested that

⁶ Since the variable that measures student intent to persist is highly skewed, I considered recoding it into a binary outcome and running logit SEM models. However, this removes variation in the data and complicates interpretation of the SEM results. SEM logit models in STATA (with the `gsem` command) do not allow for standardized variables, calculation of fit indices, indirect effects, or group comparisons, which hinders evaluation of the model and interpretation of the results. As a result, although I have conducted a supplementary analysis with intent to persist as a binary outcome, since the results for the direct effects replicate those reported herein, this paper presents models treating intent to persist as a continuous measure.

⁷ As the parent intervention is intended to influence students, but is only administered to parents, it must work through some parental action. While having additional measures of parenting and parent-student relationship would be valuable, parent-student discussions and parental support were the only two parent measures collected in the spring survey.

parental support may be related to college student success in college (DeBerard et al. 2004; Harper et al. 2012; Kinsley 2014; Roksa et al. 2016; Strom and Savage 2014; Wintre and Yaffe 2000). While those are the two primary mechanisms postulated, it is possible that the parent intervention affects student intent to persist through mediating variables that are not represented among the measures represented here. To consider this possibility, I test models that include parent-student discussions and parental support, as well as an additional direct pathway between the parent intervention and student intent to persist. Based on modification indices, I include this additional direct pathway in the final model.⁸ In addition, I allow student engagement attitudes and help-seeking attitudes to covary in the final model.

Figure 1: Conceptual Model of Mediators of Parent Intervention



All models include nine control variables: indicators for female students, Latinx students (reference: white, African American, and students who claim other racial/ethnic identification), first-generation students (whose parents do not have experience with higher education), students with free-reduced price lunch status during high school (FRPL), students whose parents prefer a language other than English. In addition, analyses include student reported high school grade point

⁸ A statistically significant and strong direct pathway between the parent intervention and student intent to persist suggests that there are likely other unmeasured mechanisms through which parents influence student persistence that are not captured in the two parental measures examined here.

average, an indicator for students in the top 60 percent of their high school junior class, an indicator for ACA class attendance during high school, and an indicator for students attending 2-year colleges.

While the ACA sample overall is socioeconomically disadvantaged, there is variation within the sample that is worth considering. Students come from families with a range of experience in higher education, from none (some parents with elementary level education) to advanced graduate degrees. Given the close relationship between parental education and cultural capital (Bourdieu 1977; Lareau 2011), it is important to investigate potential variation in mechanisms of the parent intervention by parental education. In addition, findings in Chapter 3 suggested the importance of considering variation by race/ethnicity (and more specifically between Latinx and non-Latinx students). To consider moderation by parental education and race/ethnicity, I estimate models separately for first-generation and continuing-generation students, as well as Latinx and non-Latinx students.

RESULTS

The conceptual model in Figure 1 proposes that the relationship between parental intervention and student intent to persist is mediated through parent-student discussions and support. In addition, the influence of parental support and parent-student discussions on student intent to persist is mediated by student attitudes and behaviors. I begin by presenting correlations among the key variables of interest in Table 3. Correlations provide a preliminary indication of whether the variables proposed in Figure 1 are suitable mediators. To be a mediator, a variable has to be related to the outcome and to the key predictor (see Baron and Kenny 1986). The results in Table 3 show that while the parent intervention is strongly related to parent-student discussions,

suggesting that it could be a potential mediator, the parent intervention is not related to the parental support ($r=0.041$, $p>0.10$). Therefore, parental support would serve as a poor mediator between the parent intervention and student persistence. Indeed, when included in the model, parental support does not mediate the relationship between the parent intervention and student intent to persist, nor does it improve model fit (Chi-squared= 49.83, $p=0.401$). Table 3 also shows that student attitudes are correlated with parent-student discussions and student intent to persist, suggesting these measures may serve as good mediators between parent-student discussion and the outcome.⁹ This descriptive data lends empirical credibility to a conceptual model that includes parent-student discussions as well as student attitudes and behaviors as mediators.

Table 3: Correlations Between Key Variables of Interest

	1	2	3	4	5	6
1. Parent Intervention	1					
2. Parent-Student Discussions	0.147*	1				
3. Parental Support	0.041	0.418***	1			
4. Help-Seeking Attitudes	0.090	0.407***	0.191**	1		
5. Engagement Attitudes	0.134*	0.309***	0.210***	0.437***	1	
6. Engagement Behaviors	0.037	0.349***	0.048	0.377***	0.299***	1
7. Intent to Persist	0.154**	0.066	0.225***	0.133*	0.280***	0.038

Statistical significance levels: * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

With empirical support for the conceptual model in Figure 1 (except for the parental support measure), I turn to specifying the path model, which allows for a simultaneous consideration of the various influences postulated in Figure 1. The final model was informed by

⁹ Although correlations suggest that there might be a direct relationship between the parent intervention and student attitudes and behaviors, including this pathway does not improve model fit (Chi-squared=36.87, $p=0.429$). Therefore, in the interest of parsimony, these direct pathways are excluded. Moreover, the direct pathway from the parent intervention to student attitudes and behaviors would still be missing an intervening variable that would capture the way in which parents' communication or relationship with students connects the treatment with these attitudes/behaviors. Without being able to capture those intervening variables, I include only the direct pathway from the parent intervention to student intent to persist.

the conceptual model and correlations presented above, as well as fit statistics. I estimated models sequentially, balancing commonly considered criteria, including theoretical coherence, fit to the data, and parsimony (Kline 2011), to arrive at the final model presented here.

In Figure 2, which displays the final path model, solid arrows represent statistically significant coefficients at $p < 0.10$ and dashed lines represent non-statistically significant coefficients. The numbers associated with each arrow represent standardized coefficients. The model fit the data well along multiple indicators: Chi-squared, χ^2 is 39.63 ($N=298$, $df = 39$, $p = .442$), indicating a good model fit, as well as the Root Mean Square Error of Approximation (RMSEA)= .007; Comparative Fit Index (CFI)= .997; Standardized Root Mean Square Residual (SRMR)=0.032 measures. A value of zero along the SRMR measure indicates perfect fit and any value less than .08 is considered a good fit (Hu and Bentler 1999).

Understanding the Relationship Between the Parent Intervention and Student Persistence

The results presented in Figure 2 show that the parent intervention is related to parent-student discussions ($\gamma=.140$), as well as to student intent to persist ($\gamma=.108$). Notably, parent-student discussions influence how important students think it is to talk with faculty and staff, whether they believe they are the kind of person who seeks help, and their actual academic engagement behaviors. The strong positive relationship between the measure of parent-student discussions and the three measures of student attitudes and behaviors (1: $\gamma=.310$, 2: $\gamma=.410$, and 3: $\gamma=.175$) indicate that as conversations with parents about faculty, advisors, and academics increase, students are more likely to report that they believe engagement is important, that they would seek help from faculty/staff, and that they have engaged with faculty and staff. Net of these mediators, parent-student discussions have no statistically significant direct relationship to intent

to persist. Therefore, the link between parent-student discussions and student intent to persist is entirely indirect.

Figure 2 also shows that while parent-student discussions are strongly related to student attitudes and behaviors, neither help-seeking attitudes nor engagement behaviors predict student intent to persist. Only student engagement attitudes are related to intent to persist. Specifically, the more important students think engagement is, the more likely they are to report that they plan to enroll in their second year of college ($\gamma=.275$).

Figure 2: SEM Analysis of Parent Intervention Mediators

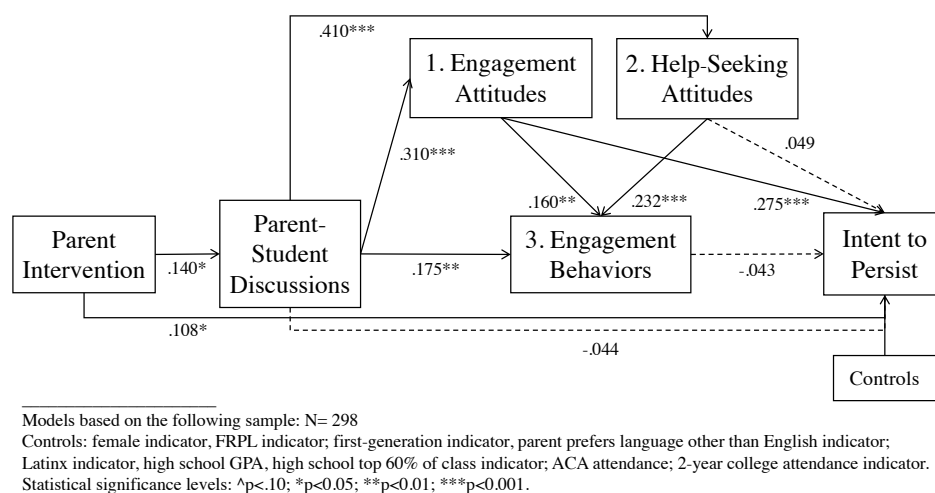


Table 4 disaggregates direct and indirect effects, specifying the extent to which the proposed mediators explain the relationship between parental intervention and student intent to persist. Contrary to the conceptual model, the entire effect of parental intervention on student intent to persist is direct. The total effect of the parent intervention on intent to persist is .115 and Table 4 shows that .108 of this effect is direct. There is virtually no indirect effect (.007, $p>0.10$). The lack of indirect effects of the parent intervention suggests that parental discussion does not mediate the effect of parental intervention on student intent to persist. Instead the parent intervention affects student intent to persist in a way that is not explained by the current model.

However, even absent a mediating role in the parent intervention, parent-student discussions are related to student attitudes, behaviors, and intent to persist. The entire positive effect of parental discussions on student intent to persist (.091, $p < .01$) is indirect, i.e., mediated through student attitudes and behaviors, making the total effect = .047, $p > .10$ (as the direct effect is negative = -.044, $p > .10$). Parents also have a strong influence on student behaviors: over half of the total effect of parent-student discussions on student engagement behaviors is direct. Similarly, although the parent intervention does not appear to be related to student intent to persist indirectly, it is indirectly related to student attitudes and behaviors (1. Engagement attitudes = .043; 2. Help-seeking attitudes = .057; 3. Engagement behaviors = .045), working through parent-student discussions.

Table 4: Direct & Indirect Effects of Mediating Variables

Direct Effects	Std. Coef.	P-value	Indirect Effects	Std. Coef.	P-value
Intent to Persist <-					
Parent-Student Discussions	-0.044	0.473	Parent-Student Discussions	0.091	0.005
Engagement Attitudes	0.275	0.000	Engagement Attitudes	-0.007	0.483
Help-Seeking Attitudes	0.049	0.452	Help-Seeking Attitudes	-0.010	0.476
Engagement Behaviors	-0.043	0.468			
Parent Intervention	0.108	0.049	Parent Intervention	0.007	0.442
Engagement Attitudes <-					
			Parent Intervention	0.043	0.025
Parent-Student Discussions	0.309	0.000			
Help-Seeking Attitudes <-					
			Parent Intervention	0.057	0.020
Parent-Student Discussions	0.410	0.000			
Engagement Behaviors <-					
			Parent Intervention	0.045	0.024
Parent-Student Discussions	0.175	0.002	Parent-Student Discussions	0.144	0.000
Engagement Attitudes	0.160	0.006			
Help-Seeking Attitudes	0.232	0.000			

Variation in Mediation Pathways Across Groups

I further examine whether the parental intervention is mediated differently for students from different backgrounds, including first-generation vs. continuing-generation students (Figure

3) and Latinx vs. non-Latinx students (Figure 4). Models A and B in Figure 3 suggest that the parent intervention had different direct effects on persistence for first-generation ($\gamma=.164$, $p<.05$) and continuing-generation students ($\gamma=-.071$, $p>0.10$). This difference is statistically significant.¹⁰ There is no indirect relationship between the parent intervention and intent to persist for first-generation nor continuing-generation students (in other words, the parent intervention is not mediated by parent-student discussions). Therefore, the intervention had a direct effect on first-generation students' intent to persist and no effect on continuing generation students' intent to persist.

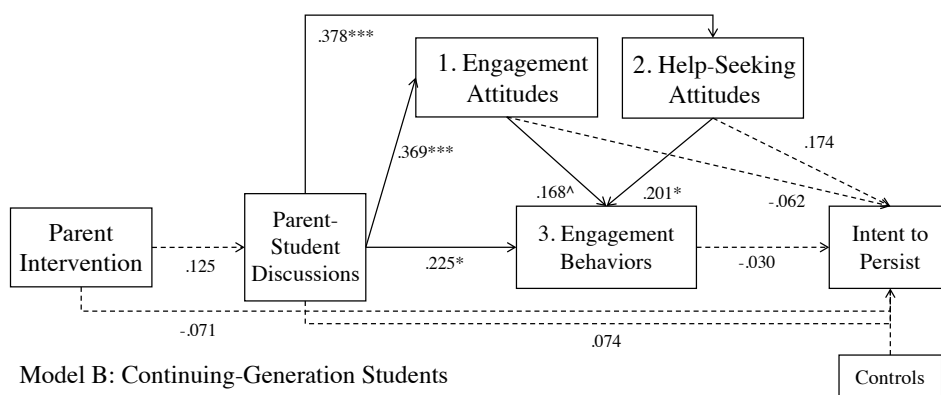
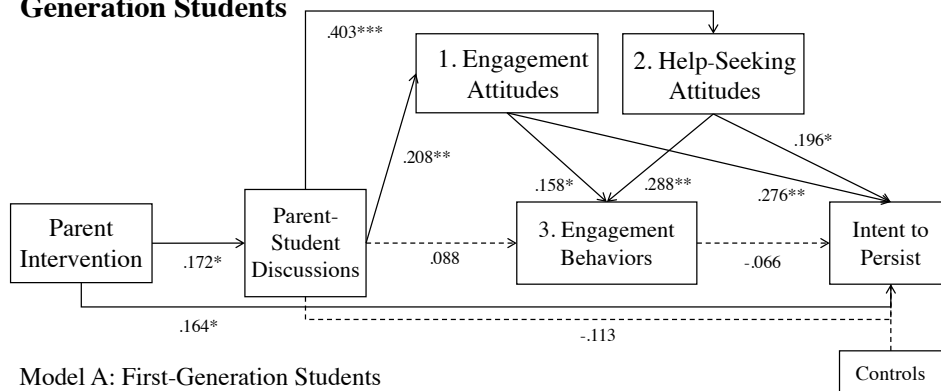
Previous research suggests that parents from less-advantaged backgrounds have fewer college-related conversations with their children than parents from more-advantaged backgrounds (Deutschlander 2017a; Dumais and Ward 2010; Grodsky and Riegle-Crumb 2010). Therefore, the parent intervention may affect parent-student discussions differently among first-generation students than continuing-generation students. Figure 3, Model A shows that for first-generation students, the parent intervention has a strong and significant effect on parent-student discussions ($\gamma=.172$, $p<0.05$), while this pathway appears to be muted for continuing-generation students ($\gamma=.125$, $p>0.10$). The differences between the two coefficients, however, are not statistically significant.

It is also worthy of note that parent-student discussions among first-generation students are related to engagement attitudes ($\gamma=.208$) and help-seeking attitudes ($\gamma=.403$), which in turn are related to student intent to persist ($\gamma=.276$ and $\gamma=.196$ respectively). This suggests an indirect pathway from parent-student discussions to student persistence among first-generation students

¹⁰ Although the SEM command in Stata does not allow for a test of statistical significance of coefficients across groups, I conduct t-tests to compare coefficients across the two groups.

(indirect effect= .121, $p<.05$; total effect= .008, $p>0.10$, which includes the statistically insignificant negative direct effect, $\gamma=-.113$, $p>0.10$ in Model A). There is no indirect effect from parent-student discussions to intent to persist among continuing-generation students (indirect effect= .032, $p>0.10$).¹¹

Figure 3: Moderation Analysis of First-Generation and Continuing-Generation Students



Models based on the following sample: N=257

Controls: female indicator, FRPL indicator, Latinx student indicator, parent prefers language other than English indicator, high school GPA, high school top 60% of class indicator, ACA attendance, 2-year college attendance indicator.

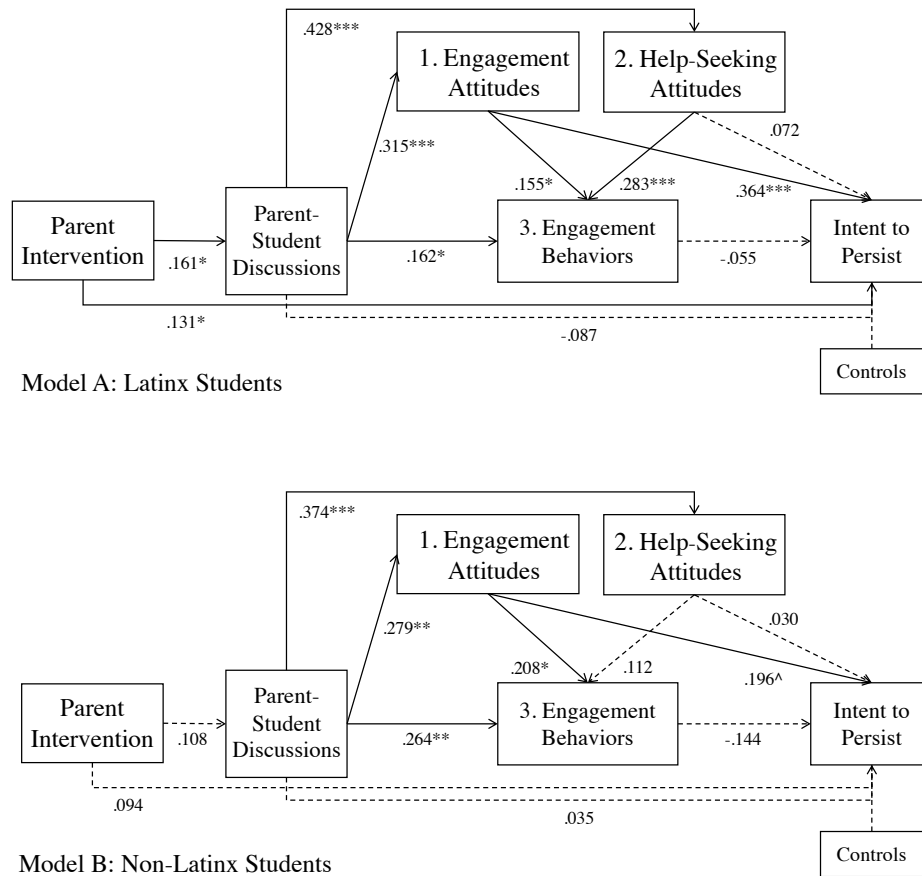
Statistical significance levels: ^ $p<.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

¹¹ Although, interestingly among continuing-generation students, parent-student discussions have a strong and significant relationship to student attitudes and behaviors, but those are not related to student intent to persist. According to t-tests, the indirect effect of parent-student discussions on intent to persist is statistically different between first-generation and continuing-generation students ($p<0.10$).

Previous research has continually debated whether students from socioeconomically advantaged or disadvantaged backgrounds benefit more from cultural capital, operationalized here as attitudes and behaviors related to academic engagement. Moderation analyses suggest that student attitudes may be more strongly related to intent to persist among first-generation students than continuing-generations students. Among first-generation students both engagement and help-seeking attitudes are related to student intent to persist (1. Engagement attitudes $\gamma = .276$, $p < 0.05$ and 2. Help-seeking attitudes $\gamma = .196$, $p < 0.05$). Among continuing-generation students there is no statistically significant direct positive relationship between student attitudes and their intent to persist (1. Engagement attitudes $\gamma = -.062$ and 2. Help-seeking attitudes $\gamma = .174$). Comparing coefficients across the two groups indicates that the relationship between engagement attitudes and student intent to persist is statistically different between first-generation and continuing-generation students ($p < 0.01$), but the relationship between help-seeking attitudes and intent to persist does not differ across groups.

There is also reason to believe that the parent intervention may work differently for students from different racial/ethnic backgrounds, and in particular Latinx vs. non-Latinx students. Figure 4 provides the final model specified separately for Latinx (Model A) and non-Latinx (Model B) students. These analyses show that there is an effect of the parent intervention on Latinx intent to persist, and virtually all of this effect is direct (total effect = $.138$, $p < .10$; $\gamma = .131$ direct effect). There is no significant effect of the parent intervention on student intent to persist among non-Latinx students, neither direct nor indirect (total effect = $.099$, $p > 0.10$; of which, $\gamma = .094$ is direct). However, t-tests indicate that the difference between the total effect for Latinx and non-Latinx students is not statistically significant. Therefore, while the magnitude of coefficients suggests there may be a difference in effect, those coefficients are statistically indistinguishable.

Figure 4: Moderation Analysis of Latinx and Non-Latinx Students



Models based on the following sample: N=270

Controls: female indicator, FRPL indicator, first-generation indicator, parent prefers language other than English indicator, high school GPA, high school top 60% of class indicator, ACA attendance, 2-year college attendance indicator.

Statistical significance levels: ^p<.10; *p<0.05; **p<0.01; ***p<0.001.

Figure 4 also suggests that the role of parent-student discussions in influencing student attitudes and behaviors, as well as intent to persist, may be different for Latinx students than non-Latinx students. First, the effect of the parent intervention on parent-student discussions ($\gamma=.161$, $p<.05$) is statistically significant among Latinx students, but weaker and not statistically significant among non-Latinx students ($\gamma=.108$, $p>0.10$). Although this suggests that the intervention is more strongly related to parent-student discussions among Latinx families than non-Latinx families, the difference in parent-student discussion coefficients is not statistically significant between Latinx and non-Latinx students. Additionally, the model suggests an indirect effect of parent-student

discussions on Latinx student intent to persist (indirect effect= .128, $p < .05$; total effect= .040, $p > .10$, which includes the statistically insignificant negative direct effect, $\gamma = -.087$, $p > .10$ in Model B), that is not present among non-Latinx students. However, this difference in indirect effects between Latinx and non-Latinx students is not statistically significant ($p = .12$).

Also of note, based on Figure 4, Latinx students appear to show added benefits of engagement and help-seeking attitudes, with significant effects of engagement attitudes on intent to persist ($\gamma = .364$, $p < .01$) and significant effects of help-seeking attitudes on student engagement behavior ($\gamma = .283$, $p < .01$). Among non-Latinx students the relationship between engagement attitudes and intent to persist is muted ($\gamma = .196$, $p = .10$) and there is no effect of help-seeking attitudes on engagement behaviors ($\gamma = .112$, $p > .10$). T-tests indicate that the difference between Latinx and non-Latinx students in the effect of help-seeking is statistically significant ($p < .10$), while the difference in the effect of engagement attitudes is not ($p = .11$).¹²

DISCUSSION

While more socioeconomically advantaged students often enter college with the knowledge, skills, and predispositions beneficial to navigating complex social institutions—referred to as cultural capital, socioeconomically disadvantaged students often enter college without this advantage (Jack 2016; Lareau and Weininger 2008; Yee 2016). This can pose challenges for academic success of less advantaged students as cultural capital facilitates

¹² Figures 3 and 4 indicate that Latinx and first-generation students benefit from similar SEM pathways. These two groups are similar: 66 percent of Latinx students are first-generation students as well, while only 33 percent of non-Latinx students are first-generation. Therefore, there is a possibility that parental education may be driving the effects for both groups. However, first-generation status is included as a control in the Latinx/non-Latinx moderation models. As such, the Latinx/non-Latinx differences are observed net of parental education.

congruence between students' and faculty expectations about college. In this study, I enlisted parents in an attempt to increase students' cultural capital – more specifically to foster attitudes and behaviors related to engagement with faculty and staff. Using simultaneous equations models, this paper investigated the mediating and moderating effects of this parental intervention on student intent to persist.

SEM analyses show that although the parent intervention had an effect on parent-student discussions, the effect of the parent intervention on student intent to persist does not work through the mechanisms proposed in this chapter, but rather through other unidentified mechanisms. More specifically, almost all of the effect of the parent intervention on student intent to persist is direct, and almost none of it is mediated by parent-student discussions. There are several potential explanations for these patterns. First, the outcome measure (intent to persist) has very limited variance: most students in the sample agree or strongly agree with the statement that they plan to persist into their second year of college. Second, there could be other pathways that mediate the relationship between the parent intervention and student intent to persist. For example, the parent measure employed in the study represents the frequency with which students discuss academic topics with their parents. The key element of the intervention may not be how frequently parents and students discuss academic topics, but the character or quality of these conversations. While parental support, which is more likely to represent the quality of parent-student relationships, was investigated in preliminary analyses, it was not sufficiently correlated with the parent intervention to be included in SEM analyses. Perhaps the parental support measure was not specific enough. Previous research suggests that one dimension of parental support—validation—is particularly relevant for persistence of socioeconomically disadvantaged students (Roksa et al. 2016). More specifically, when parents encourage students to do their best and excel in college and emphasize

the importance of a college education for achieving their goals students are more likely to intend to persist. Therefore, a crucial element might be *how* parents talk about the academic topics suggested in the parent intervention. For example, a measure that captures how students think their parents feel about academic engagement and the relationship between academic engagement and success may link the parent intervention more strongly to student persistence.

In addition, while some students were unaware that their parents were enrolled in the parent intervention, others were aware because their parents directly forwarded text messages to them. As a result, the direct effect of the parent intervention on student intent to persist, which does not work through parent-student discussions, could be the result of this unintended transmission of intervention content to students (although the mechanism is unclear). Future research is needed to more closely examine how different dimensions of parent student discussions and relationships may be related to their intent to persist, as well as other academic outcomes.

Moderation analyses comparing first-generation vs. continuing-generation and Latinx vs. non-Latinx students present mixed results, likely related to small sample size. Some of the pathways are statistically significant for one group but not the other, while at the same time the t-tests for coefficients across groups suggest that those differences are not statistically significant. There are a few relationships, however, that show a statistically significant difference across groups, and these in particular deserve more attention in future research.

For example, moderation analyses suggest that there is a difference between first-generation and continuing generation students in the direct pathway from the parent intervention to student intent to persist was non-existent among continuing-generation students, supporting findings in Chapter 2, suggesting that first-generation students accrue the most benefits from parent-student discussions. In addition, among socioeconomically disadvantaged students, parent-

student discussions are related to engagement attitudes which are in turn related to student intent to persist, suggesting that parents who have not completed a college degree can positively impact students' academic engagement attitudes, and consequently their persistence. As academic engagement is often considered a dimension of cultural capital, these findings support DiMaggio's (1982) theory of cultural mobility since socioeconomically disadvantaged students experience more benefit from their conversations with parents, as well as from their engagement attitudes.

While the model for Latinx students indicates that the intervention had a larger impact on parent-student discussions, and that those discussions had more of an effect on student attitudes and behaviors, t-tests comparing Latinx and non-Latinx coefficients are not statistically significant. Thus, there were no definitive differences between Latinx and non-Latinx students. Overall, while moderation analyses shed limited light on mediation pathways between the parent intervention and student persistence for students from various family backgrounds, they do suggest that future research employing larger sample sizes may be fruitful.

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CHAPTER 5

PARENTS AS AGENTS OF CHANGE

College is popularly considered a path to upward mobility. Often missing from this discourse is the recognition that even when students from socioeconomically disadvantaged families gain access to higher education they do not always graduate, and they are substantially less likely to complete college than their more advantaged peers (Bailey and Dynarski 2011; Bowen, Chingos, and McPherson 2009). Prior research indicates that academic preparation and financial supports, while important, do not account for the entire class gap in college completion (see Grodsky and Jackson 2009 for a review).

Sociologists have increasingly turned to cultural capital (or the knowledge and practices that facilitate successful interaction with social institutions) to understand social class inequality (Bourdieu 1973; see Lareau and Weininger 2003 for a review). To date, this literature has been limited in several respects. First, the majority of cultural capital research has focused on K-12 education, and more recently transition into college. Fewer studies have examined students' experiences after college entry. Moreover, while parents are central to research on social class inequality in K-12 education and college entry, they are rarely considered after students enter college (see Hamilton 2016; Hamilton, Roksa, and Kelly 2018; Roksa and Silver forthcoming). Attention to parents from socioeconomically disadvantaged backgrounds is particularly lacking (for an exception, see Kinsley 2014).

This project investigated how parents from socioeconomically disadvantaged backgrounds could support their children during college. More specifically, I designed a parent intervention to encourage students to engage with faculty and staff during their first year of college. The

intervention was implemented by a non-profit organization, All Can Achieve (ACA, a pseudonym) whose mission is to help students from socioeconomically disadvantaged backgrounds enter and complete college. The parent intervention consisted of biweekly text messages sent in English or Spanish to parents throughout the 2016-2017 academic year, as well as two letters, sent at the beginning and end of the first semester. The text messages were designed to prompt conversations between parents and students that would in turn encourage students to engage with faculty and staff. To evaluate this intervention as a randomized controlled trial (RCT), 617 students, from ACA's high school graduating class of 2016, and their parents were randomly assigned to treatment and control conditions (half of the families received the intervention and half did not). Students were surveyed at two points during their first year of college, November during the fall semester and March during the spring semester. Surveys investigated discussions between parents and students, student attitudes and behaviors regarding academic engagement, as well as student intent to persist into their second year of college. Parents and students were also interviewed the summer before college entry and the summer after they had completed their first year of college. These interviews were designed to explore parent-student relationships, as well as parent and student cultural capital related to academic engagement. Following the summary of the findings presented in each chapter, I consider their collective contribution to research and practice.

SUMMARY OF FINDINGS

Chapter 2 relied on survey data from the fall and spring of students' first year of college to investigate whether the parent intervention had an effect on student attitudes and behaviors regarding academic engagement, as well as their intent to persist into the second year of college. While fall survey results indicated that there were significant changes to parent-student

conversations, there were no statistically significant changes to student attitudes or behaviors. Spring survey results, on the other hand, show that the parent intervention significantly increased the extent of conversations between parents and students, changed student attitudes about academic engagement, and positively influenced their intent to persist into their second year of college. These findings suggest that a parent intervention can have a causal effect on college students' academic attitudes and outcomes. This is remarkable given that the intervention was very light touch - it was administered solely through letters and text-messages and involved no face-to-face contact with parents.

These significant findings from the spring survey paired with the non-significant results from the fall survey, indicate that this type of intervention may need more than one semester to make an impact. Moreover, the fall survey impacts on parent-student discussions also suggest that parents were able to change their behavior immediately, while the null effects on student attitudes and behaviors in the fall and more muted effects in the spring suggest these may require additional time to change.

In addition, chapter two considered whether the parent intervention was more or less effective for students whose parents had different levels of education. The results suggested that the positive effects of the intervention may have been more pronounced among students whose parents had no experience with higher education. While the analyses of heterogeneous treatment effects are underpowered, so no definitive conclusion can be made, stronger effects among first-generation students suggest that this type of intervention could reduce inequality by increasing persistence among a group that is generally less likely to persist in college.

Chapter 3 employed survey data from students' fall and spring semesters, as well as interview data with parents and students during the summer of 2017 (after students' first year of

college). This data was used to explore differences between Latinx and non-Latinx students and their families. Prior research has proposed that familism—the importance of strong family connection—is central to Latinx culture and the main reason Latinx individuals report higher degrees of familial cohesion and intimacy than whites (Niemann et al. 2000; Sabogal et al. 1987; Steidel and Contreras 2003; Valenzuela and Dornbusch 1994). Findings presented in this chapter show that Latinx students from this socioeconomically disadvantaged group have unique experiences compared to their non-Latinx peers. Interviews showed that Latinx parents remained heavily involved in their children's lives once in college, more so than non-Latinx parents. They requested frequent updates, received feedback on student performance, and provided advice more so than non-Latinx parents.

Importantly, interviews also revealed that Latinx students expected not only close relationships with families, but also close, personal relationships with faculty. Many were disappointed when these types of relationships did not materialize. Latinx students interpreted their interactions with professors based on a model of relationships closely tied to the Latinx concept of familism. The impersonal and instrumental relationships they experienced with faculty were described as inadequate, disappointing, and at times even hurtful. In addition, survey results showed that Latinx treatment students more negatively evaluated their experiences with faculty than non-Latinx treatment students, suggesting that Latinx students do indeed have unique expectations of and experiences with faculty in college.

The final empirical chapter used student survey data from the spring semester and simultaneous equations models (SEM) to explore how parent-student discussions and student attitudes and behaviors mediate the relationship between the parent intervention and student intent to persist into their second year of college. Analyses showed that although the parent intervention

had a direct effect on parent-student discussions and student intent to persist, there is no indirect effect. In other words, the effect of the parent intervention on student intent to persist did not work through parent-student discussions, but rather through other unidentified mechanisms.

In addition, Chapter 4 investigated whether parent-student discussions and students' academic engagement attitudes and behaviors had differential effects on student persistence, as well as whether they differentially mediated the relationship between parental intervention and students' intent to persist for students from different backgrounds (first-generation vs. continuing-generation and Latinx vs. non-Latinx). As was the case for the sample as a whole, the parent intervention had a direct effect on student intent to persist for first-generation students. At the same time, this relationship was non-significant among continuing-generation students. Also, among first-generation students, parent-student discussions were related to engagement attitudes, which were in turn related to student persistence. These relationships were non-significant among continuing-generation students. There were no statistically significant differences in intervention mechanisms between Latinx and non-Latinx students. Although moderation analyses in Chapter 4 indicate that the cultural capital mechanisms do not explain much of the relationship between treatment and student intent to persist for any of the student groups, they do suggest that both the extent of parent-student discussions and their influence on students' academic engagement may differ across groups in ways that potentially benefit first-generation students.

CONTRIBUTIONS TO RESEARCH

Overall, this project examined how a parent intervention could influence students' academic engagement during their first year of college. The logic of the intervention was derived from the cultural capital literature, aiming to change interactions between parents and students

(often regarded as parental cultural capital in prior literature) as well as students' attitudes and behaviors regarding academic engagement (often described as an aspect of students' cultural capital). The study makes three notable contributions to the broader cultural capital literature. First, the results show how parents can develop cultural capital later in life, and do so in response to a light-touch intervention. Second, the results of the RCT indicate that socioeconomically disadvantaged parents can act as agents of change with their children. Finally, the findings illuminate how cultural capital transmission and accumulation varies among families from different racial/ethnic backgrounds. Collectively, these findings expand cultural capital arguments about social reproduction and mobility.

Cultural Capital Development Across the Life Course

Cultural capital theory postulates that cultural capital is transmitted from parents to children (Bourdieu 1977). This is important given that that success within the education system is thought to be built upon the early foundation of cultural capital inherited during childhood. Research suggests that particular parenting practices are the mechanism by which parental cultural capital is passed on to children, and serves to provide continual advantages to middle- and upper-class students throughout their educational careers (Calarco 2014; Hamilton et al. 2018; Lareau 2011). For example, Calarco (2014) and Lareau (2011) have both shown how parents teach their children classed patterns of interaction with teachers. Lareau demonstrated that one element of middle-class parenting is teaching students to be assertive with institutional agents, such as teachers. Calarco further revealed that middle-class parents instill a sense of entitlement in their children, by encouraging them to request help from teachers. The combination of entitlement and assertiveness lead to significantly higher rates of academic engagement among middle-class

students compared to their less advantaged peers (Jack 2016; Yee 2016). This is problematic for socioeconomically disadvantaged students, as students who engage with faculty and staff reap substantial benefits when they face challenges within the educational system that they are unable to overcome on their own (Calarco 2011; Jack 2016; Lareau 2011; Lareau and Weininger 2008; Yee 2016). As a result, middle-class students experience increased attention and support from teachers within the school system (Calarco 2011; Jack 2016; Yee 2016). Quantitative studies confirm that these types of middle-class parenting practices are positively related to students' academic achievement (e.g., Cheadle 2008; DeGraaf et al. 2000; DiMaggio and Useem 1978; Jæger 2011; Kraaykamp and van Eijck 2010; Roksa and Potter 2011).

One aspect of parenting that plays an important role in transmitting cultural capital involves conversations between parents and their children. Parent-child discussions are often used as a measure of parents' cultural capital (Deutschlander 2017; Dumais and Ward 2010; Lareau 2011; Roksa and Potter 2011) as well as a measure of how parents transmit cultural capital to children (Calarco 2014; Jæger 2009). More specifically, researchers have conceptualized a range of parent-student discussions as indicators of cultural capital, including discussions about school work and school experiences (Roksa and Potter 2011), discussions of political or social issues, books, or visual media (Jæger 2009), discussions about colleges (Deutschlander 2017; Dumais and Ward 2010), as well as discussions that teach children how to interact with institutional agents (Calarco 2014; Lareau 2011).

Much research on cultural capital assumes that parents' cultural capital is static, as parents pass along a set of skills and predispositions to children that reinforce their class position. As a result, parents who have limited experience with higher education are thought to play a muted role in their students' higher education experience, as they do not possess cultural capital needed for

success in college (e.g., Lareau and Weininger 2008). First-generation students experience a greater disconnect from friends and family at home than more-advantaged students during the transition to college (Lee and Kramer 2013; Lehmann 2014). In addition, Hamilton (2016) described parents who have not been to college themselves as “bystanders” due to their relatively limited involvement in their children’s college experiences. As a result, parents without college experience have been largely overlooked in attempts to improve the academic success of less advantaged college students.

Contrary to assumptions in the prior cultural capital literature, socioeconomically disadvantaged parents in this study who received information encouraging them to talk to their children about academic engagement changed what they discussed with students. Indeed, students reported that they were more likely to discuss professors and academic advisors with their parents as a result of the parent intervention. This confirms other research which suggests that cultural capital can be developed throughout the course of one’s life (see also Attewell and Lavin 2007; Domina and Roksa 2012; Roksa and Potter 2011). For example, Domina and Roksa (2012) reported that changes in maternal education predict changes in parenting practices. What is notable about the present study is that parent-student discussions changed as a result of a light-touch intervention, not a prolonged exposure to education. Parents’ cultural capital may thus be much more malleable than presumed in the prior literature.

This study also shows a direct causal relationship between new information and parent behavior. Attewell and Lavin (2007), for example, suggested that education influences women’s parenting practices both by giving them access to new information relevant to parenting and by exposing them to a wider range of peers. Researchers, however, were not able to disentangle whether changes to parenting practices were the result of information or peer effects. This study

captures changes to parenting behaviors based on additional information and is able to isolate this effect from potential peer effects. As such, I confirm, along with a small, but growing literature in education policy (Bergman 2014; Bergman and Chan 2017; Kraft and Dougherty 2013; Kraft and Rogers 2014; Mayer et al. 2015; Rogers and Feller 2016; York, Loeb, and Doss 2017), that parents are attentive to and use new information to inform their interactions with their children.

The finding that parenting practices (and therefore, parents' cultural capital) can be malleable in targeted ways has significant theoretical implications for understanding cultural capital and social mobility across the life-course. First, presented results challenge the unified construct of parenting practices (and cultural capital more broadly) often assumed (or at least not questioned) in the recent education literature. Recent cultural capital research has focused on broad parenting styles such as concerted cultivation (Lareau 2011), assuming that a range of parenting activities add up to a coherent parenting strategy. Even when scholars examine specific parenting practices, various practices are considered just an indicator of an underlying construct and thus regarded as complementary. Whether individual parenting practices are aligned is not reported, but left for the reader to assume (Dumais and Ward 2010; Kraaykamp and van Eijck 2010; for an exception see DeGraaf, DeGraaf, and Kraaykamp 2000). Overall, prior research treats parenting as a coherent construct, which does not encourage the theoretical or empirical disaggregation of individual parenting practices. Results presented in this study challenge this unified construct of parenting practices and show that interventions can be targeted at a specific dimension of parenting practices and that such targeted interventions can have an impact on students' outcomes. Thus, parenting practices – and cultural capital more broadly – may be much less of a unified construct than assumed by the prior literature.

Second, the results indicate that cultural capital can change in response to less intensive

and comprehensive interventions than previously studied (Attewell and Lavin 2007; Domina and Roksa 2012; Roksa and Potter 2011). Prior research has discussed changes in cultural capital resulting from large, comprehensive interventions, such as attending a private high school (Jack 2016) or attending college (Domina and Roksa 2012; Lehmann 2014; Roksa and Potter 2011) (for an exception see Kisida 2014). While this research suggests that cultural capital can change, it implies a need for a substantial and long-term intervention. Moreover, limited attention to this issue leaves the question of how cultural capital changes largely unanswered.¹ This study shows that cultural capital can change in response to a very light-touch intervention, indicating that sociologists have previously overlooked a path of mobility within cultural capital. This study offers an alternative process for cultural capital development, one that is marked by smaller incremental changes, rather than the changes brought on by immersion in comprehensive institutions such as the family and the higher education system.

In line with this argument, I suggest that future life-course analyses of cultural capital may be especially illuminating. Measurement of cultural capital at various points in time would illuminate how cultural capital develops over the life-course and which events in an individual's life are most strongly related to cultural capital development. In addition, it would be valuable to implement longitudinal investigations of other social programs that might also change cultural capital. For example, many early childhood programs intend to teach parents parenting skills along with providing care for children. Parents may develop cultural capital during their participation in this program that may also have long-term effects.

¹ Also, although other cultural capital research has suggested that cultural capital acquired early in life has waning significance for later educational contexts (Aschaffenburg and Maas 1997; Dumais and Ward 2010), few, if any, have taken this as a call to investigate cultural capital change over the life course in more detail.

Transmission of New Cultural Capital from Parents to Children

Although much research in the cultural capital tradition has focused on social reproduction, a body of research has also shown that cultural capital can play a role in social mobility (Aschaffenburg and Maas 1997; DeGraaf et al. 2000; Deutschlander 2017; DiMaggio 1982; Dumais 2006; Perna 2000). This research on cultural mobility has focused on the role of educational institutions and specialized educational programs. For example, Kisida and colleagues (2014) found that students who participated in a program designed to introduce K-12 students to high-arts cultural capital expressed increased interest in engaging with art and attending art museums compared to students who did not participate. Similarly, higher education programs have often targeted student behaviors regarded as cultural capital such as attending advising sessions or utilizing academic services (Angrist et al 2009; Bettinger and Baker 2014; Jeschke et al. 2001; Kot 2014; MacDonald 2009; Schwebel et al 2012). More generally, sociological studies have suggested that students' cultural capital can change by being in a particular type of high school (Jack 2016) or attending college (Lehmann 2014; Lee and Kramer 2013). These studies largely imply that the primary way of enhancing cultural capital of students from socioeconomically disadvantaged backgrounds lies outside of the family.

This study challenges the presumption that working-class students must develop new cultural capital outside of the home by showing that parents from disadvantaged backgrounds can contribute to students' cultural capital development. Instead of documenting the limited knowledge of socioeconomically disadvantaged parents (e.g., Grodsky and Riegle-Crumb 2010; Hamilton 2016), this study shows that they can be effectively engaged in enhancing students' cultural capital. This finding is consistent with other recent interventions in K-12 education policy research (e.g., Bergman 2014; Bergman and Chan 2017; Kraft and Dougherty 2013; Kraft and

Rogers 2014), but that research has yet to affect sociological thinking about social mobility or cultural capital. This study shows that parents from disadvantaged backgrounds can play a significant role in increasing students' cultural capital after childhood. Moreover, the form of cultural capital studied here—academic engagement—has significant implications for student success. Engaging with faculty and staff in college is positively related to students' access to institutional resources (Collier and Morgan 2008; Lareau and Weininger 2008; Stephens et al. 2012), grades (Angrist et al. 2009; Kuh et al. 2008; Webber, Krylow, and Zhang 2013), persistence (Kuh et al. 2007; Pascarella & Terenzini, 2005), and employment prospects (Rivera 2015). Therefore, parents from socioeconomically disadvantaged backgrounds may be able to have a significant effect on students' educational success.

While students changed their attitudes as a result of the parenting intervention, additional research is necessary to further understand how exactly parents exert their effects. Additional research would benefit from considering more extensive measures of the relationship and interaction between students and parents that would allow scholars to specify the mechanisms through which parents convey valuable information to their children and thereby change student attitudes.

Variability in Cultural Capital Among Different Racial/Ethnic Groups

Most investigations of cultural capital have been confined to class-based comparisons. There has been almost no investigation of racial/ethnic differences in cultural capital (for exceptions see Kalmijn and Kraaykamp 1996; Lareau and Horvat 1999; Roscigno and Ainsworth-Darnell 1999). While Lareau (2011) argued that racial/ethnic background makes little difference in parenting practices, Cheadle and Amato (2011) suggested that race may be more significant

than Lareau initially suggested. In their investigation of the Early Childhood Longitudinal Study, they showed that while socioeconomic status (SES) influenced parenting practices, racial and ethnic differences in parenting practices remained even after controlling for SES. Moreover, research outside of the cultural capital tradition has recognized that students of different racial/ethnic backgrounds experience interactions with teachers differently than white students (Dee 2004; Dee 2005; Gast 2018; McGrady and Reynolds 2013). Cultural capital research, however, has been slow to integrate research on race/ethnicity, and in particular, offers no insights on Latinx students.

Given the current contentious state of immigration in the United States, as well as the increasing enrollment of Latinx students in higher education (NCSL 2011), the experience of Latinx parents and student is especially worthy of investigation. Presented findings suggest that Latinx students have unique experience with cultural capital in higher education, different than might be predicted based on previous research comparing white and African American students. While previous cultural capital research has considered teachers' evaluations of students (Dumais 2006; Farkas et al. 1990; Rist 1970), this study suggests that students' interpretations of teachers may vary in significant ways as well. Latinx students in the study reported less positive experiences with faculty and staff as a result of the parenting intervention that encouraged student engagement with faculty and staff. Interview analyses suggested that this may be tied to different cultural expectations of faculty-student relationships between Latinx and non-Latinx students.

These findings contribute both to literature on Latinx familism and cultural capital. First, this study shows that familism can have effects that reach beyond family relations, and can affect other relationships Latinx students develop, such as relationships with faculty and staff during college. As a result, Latinx students may not be only impacted by teachers' perceptions of their

performance, but their success may also be intricately tied to what they expect of teachers. In the same way that Latinx familism was related to students experiences in college in this study, there may be implications for other areas, such as, for example, employment (Rivera 2015).

Also, while Latinx literature has regularly employed the concept of familism to explain the experiences Latinx individuals have within the family, much research on Latinx students does not provide a non-Latinx comparison group (e.g., Auerbach 2006; Kiyama 2010; Stanton-Salazar and Dornbusch 1995; Suarez-Orozco, Pimentel, and Martin 2009; Valenzuela 1999; for exceptions see Desmond and Turley 2009; Turley 2006; Valenzuela and Dornbusch 1994). As such, this literature, while documenting the experiences of Latinx students, provides limited evidence as to whether their experiences are unique. This study shows that familism does indeed provide unique family experiences for Latinx students, marked by deeper involvement during college, as well unique experiences outside of the family, characterized by different expectations for student-faculty relationships in college.

Cultural capital literature would benefit from explicitly recognizing the potential role of familism. Familism may impact how cultural capital is transmitted, as well as how effective it is. Specifically, Latinx students in this study showed greater changes in parent-student discussions and perception of parental support as a result of the intervention than their non-Latinx peers. Thus, familism—and other cultural expectations and dynamics within families—deserve careful attention in future cultural capital research.

Moreover, while recognizing a unique role of familism is important for understanding racial/ethnic differences, cultural capital theory would also benefit from greater attention to the literature on relationships more broadly. To date, sociologists studying education have largely considered relationships in instrumental terms, as a form of social capital, which serves to transmit

norms (Carbonaro 1998; Coleman 1988; Dika and Singh 2002; Portes 1998) or cultural capital (Bourdieu 1977; Mohr and DiMaggio 1995; Lamont and Lareau 1988). This instrumental focus has overshadowed the potential emotional nature of relationships within the education system. While several studies in the cultural capital tradition have investigated the emotional aspects of belonging within higher education (Baxter and Britton 2001; Lee and Kramer 2013; Ostrove 2003; Ostrove and Long 2007), these scholars have focused on the one-sided development of habitus among working-class students, and not on the development of relationships themselves.

This dissertation, which reveals the importance of relationships, suggests several avenues of further investigation and elaboration of the social and cultural capital frameworks. First, the emotive characteristics of relationships appeared to be a key element of this cultural capital intervention—which provided parents with additional information to prompt their children to engage with faculty and staff. While this was most apparent among Latinx students who reported more negative experiences with faculty, the emotional experiences of all students are worth investigating. Although the emotional aspects of relationships have been underappreciated in the social and cultural capital literatures, they are robust in an interdisciplinary literature on mentoring and student-teacher relationships in secondary education. The development of strong, supportive connections is important for students from the beginning of elementary school (Birch and Ladd 1998; Hamre, Pianta, Stuhlman 2003; Pianta, Steinberg, and Rollins 1995) into middle school (Engels et al. 2016; Gregory and Weinstein 2004; Wentzel 1997) and high school (Crosnoe, Johnson, and Elder, 2004). For example, student-teacher relationships that involve emotional connection provide academic benefits to students (DuBois and Silverthorn 2005). Moreover, research on college enrollment suggests that the emotive elements of mentoring relationship are more important than the more instrumental help mentors can provide. Specifically, Reynolds and

Parrish (2017) found that for high school students, emotional encouragement and role modeling served to increase college attendance more than advice or practical help.

Second, the majority of research that examines social class inequalities in help-seeking as a form of cultural capital conceives of help-seeking (and academic engagement more broadly) as largely an individual, student-initiated process (Calarco 2014; Jack 2016; Lareau 2011; Yee 2016). Findings from this study suggest the importance of focusing on relationships and recognizing engagement as a two-way process. For example, research on mentoring suggests the length of a relationship contributes significantly to whether or not it is beneficial to the student (Schwartz et al. 2013). Studying high school students, Schwartz and colleagues found that the act of students identifying a mentor that resulted in a short-term relationship did not provide benefit. In other words, the key element appears to be the development of a relationship, not simply the help-seeking or assertiveness required to identify or seek out a mentor.

Finally, student expectations of faculty-student relationships may be more important than previous investigations of academic engagement and cultural capital more broadly recognize. Chapter 3 reported that Latinx students, who are especially predisposed to avoid contact with faculty during college (Rios-Aguilar and Deil-Amen 2012), were more likely to believe that faculty did not want to engage with them. Moreover, additional research from this project suggests that student expectations of faculty relationships may be tied to student engagement among disadvantaged groups of students more broadly (Deutschlander and Wang 2018). These preliminary findings suggest not only that the emotional aspects of relationships matter, but that student expectations of the emotional character of relationships are likely consequential. Some literature in psychology provides further indication that this is a fruitful avenue for future research. For example, Schwarz and colleagues (2011) found that students who reported a history of low-

quality parent and teacher relationships prior to participating in a mentoring intervention did not benefit from the intervention; however, students who reported relationships of average quality with parents and teachers prior to the intervention significantly improved academic performance and pro-social behavior as a result of participating in the mentoring intervention. The authors hypothesized that children draw on early experiences to develop expectations of adult relationships, which then in turn influence the effectiveness of future relationships.

Overall, this literature, along with the findings of this dissertation, highlight the importance of developing and relying on relationships, not just information, for student success. Cultural capital literature to date has largely neglected the micro-level interactions and the quality of relationships that make cultural capital transmission possible, both within the family and outside of the family. Thus, future research would benefit from further consideration of the connection between relationships and cultural capital.

CONTRIBUTIONS TO PRACTICE

Although many postsecondary institutions today reach out to parents, many of these efforts come from the development office in an attempt to fundraise, or are driven by institutional efforts by college staff to provide parent-related programming that is rarely grounded in empirical research (Keup 2007). The findings presented in this study have several implications for higher education practice.

First, higher education institutions that aim to increase academic engagement of socioeconomically disadvantaged students would benefit from adding a component related to parents. Parent interventions could be paired with interventions more common in the higher education context in which institutions increase outreach to students to raise awareness of available

academic services or provide additional academic resources to targeted groups. Presented findings indicate that parents can be helpful in changing student attitudes and behaviors. Therefore, a paired intervention with messaging from parents could be more effective than previous interventions that used only email and phone prompts to students (Schwebel et al. 2012). Since prior studies indicate that the effects of programs that aim to increase students' use of academic services are often limited due to low student engagement (Angrist et al. 2009; Jeschke et al. 2001; MacDonald 2009; Schwebel et al. 2012), adding a parent intervention could provide a crucial intervening step that could increase student engagement.

Given the particularities of the ACA sample, this intervention may work best with traditionally aged college students who are motivated to attend college (in that they plan to attend college before the completion of high school), were successful in high school (with at least a 3.00 grade point average), low-income, first-generation, and Latinx students. As a result, this parent intervention may help colleges retain a student population that have historically had lower success rates in college. As a result, this type of intervention could serve to lessen inequality in higher education. In this same vein, targeting Latinx students may also be especially high-impact as the Latinx student population grows—given that they traditionally experience worse outcomes than their non-Latinx peers. Findings from this study imply that programs designed to reach out to Latinx parents may be especially effective at changing parent-student conversations and influencing parents' as well as students' institutional commitment. While previous research has suggested that outreach to Latinx parents can be successful (Auerbach 2004; Downs et al. 2008), it did not indicate how outreach to Latinx parents might compare with parents from other racial/ethnic groups.

Finally, findings related to the poor experience Latinx students report with faculty have significant implications for higher education institutions as they consider ways to improve experiences and outcomes of this growing population. While faculty are often considered integral for students' success in college, results of this study suggest that there may be a disconnect between Latinx students' expectations and experiences with faculty. Previous research in secondary education suggests that Latinx teachers and students share critical elements of Latinx culture that help them develop successful relationships within the education system (Valenzuela 1999). While Latinx faculty may be able to develop relationships with Latinx college students that more closely align with their expectations, currently only four percent of full-time faculty at degree granting postsecondary institutions are Latinx (NCES 2017). Therefore, the likelihood of Latinx college students' interacting with Latinx faculty is low. Apart from hiring additional Latinx faculty, colleges and universities may be able to accommodate Latinx students by providing additional professional development to understand Latinx students' expectations or reducing class sizes. Reducing class size would both reduce the grading load for faculty and provide a more intimate classroom environment for Latinx students. Previous research has found that students enrolled in larger classes had significantly fewer interactions with professors about course material than students enrolled in smaller classes during the first year of college (Beattie and Thiele 2018). Moreover, Beattie and Thiele (2018) connected larger class sizes with poorer outcomes for less advantaged (first-generation, Latinx, and African American) students. As a result, reducing college class sizes could not only serve to encourage relationships that appear to be desirable among Latinx students, but also encourage improved outcomes among other disadvantaged groups as well.

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METHODOLOGICAL APPENDIX

METHODOLOGICAL APPENDIX A: PARENT PROGRAM LETTERS

Parent Program Letter: August 2016

We helped them get into college....

....Now let's help them GRADUATE!

Dear [REDACTED]

As students start college they are adjusting to many life changes. You can play a vitally important role in this transition and their college success by discussing college with them. They want to share the experiences they're having with you.



"If I were to start college again I would tell my parents more about the things that I do here. There is more to college than just attending classes."

Maria, college graduate of Texas A&M

College is different than high school, academically and socially. Even students who excelled in high school need to take time to adjust to college life. You know your child the best and they will likely turn to you for support. We can help you provide that support!

One way you can help your child is by letting them know that college is not something they have to figure out on their own. Students who are the most successful in college make connections with professors, academic advisors, and staff on campus. These people want to help students succeed. They can create a community of support for your child.

During the school year we will send you text-messages with tips. Each series of texts will include information about common college experiences students have, a question for you to ask your student, and an explanation of how talking to your student about this topic can help them in college. These tips can help your child develop a community of support in college. Students don't need to be on their own in college.

Sincerely,



ATTENTION!

If your cell number has changed please let us know [REDACTED]

This ensures that you get tips throughout the year.

All parents who update their cell phone numbers by August 29th can enter their child into a lottery to receive \$100 to pay for textbooks.



- Ask them what college is like. Be open to their descriptions being different than your expectations.
- Encourage them to develop relationships with professors and other staff on campus. Sitting in the front of the class is a way students can make sure professors know them. Building a community that cares about them can be important when your child faces challenges.

"Always ask the professor before the problems start. Once the problems start, like, 'Oh, I don't get this,' go to the professor immediately or go get tutoring. Don't wait until you're halfway through the semester and then you don't get any of the stuff you went over and you have an exam that goes over everything. You don't understand it, then you have to drop the class. I didn't do that enough. The teacher was really knowledgeable about the subject. I could have gotten help, but I didn't. I didn't get his feedback."

Thomas, second year student at University of Texas- Austin

- Many students must re-learn how to manage their time and how to prioritize coursework once in college. Encourage them to talk with other students and professors to get helpful suggestions.
- Remind your student that setbacks and difficulties can be a learning experience. They do not mean they don't belong in college.

"You know, it's not the same as high school here. It's like more people than my high school. Your class is full, and maybe you and two other students are the only freshmen. And I was intimidated and I felt like the other students knew more than I did. At my high school we didn't read as many books as people did at other high schools. I talked to my advisor and I like cried and told her about it. And it was nice, and then I started participating. And now it's different, and this semester I'm actually talking and I'm actually comfortable now."

Michael, first year student at Texas State-San Marcos

- The most successful students experience setbacks (like failing an exam or a class), seek out help, and try new study methods when their current way of doing things fails.
- The first semester is a time of great adjustment for students. Struggling to adjust is normal. Second semester is often easier. By acknowledging that it takes time to adjust to college, and that some changes are exciting and hard, you're helping make their transition easier.

We'll send you tips throughout the year!

Parent Program Letter: December 2016

Congratulations!

You're halfway through the first year!

Dear [REDACTED]

As students come home for winter break they are re-adjusting to life at home. You can play an important role in this transition.

Returning home — although promising time with friends and family — can often be a difficult adjustment for students after living on their own for months and making their own rules. Students may be used to coming and going as they please and making their own decisions.



"As a freshman I came home for winter break wanting to prove I was independent. But the longer I was in college the less I needed to do that. I've learned to appreciate my time with family because I don't get to see them as often. Now I value being home a lot more and just respecting rules and being with family. I just think it's one of those things that as you're away from home more being home becomes more valuable, because, your family, they're the ones supporting you."

David, Sophomore at Baylor University

Students may have very different lives in college than they do at home. If you ask them how their life in college is different than high school it acknowledges that they are having an experience unfamiliar to you. This helps to validate their experience and help them adjust.

Many things in college require a long process to be completed. For example, if students fail an exam they often need to sign-up to meet with the professor, discuss the exam with them, plan to see a tutor, go see the tutor, and take the next exam to see if they've improved. Part of the college experience is learning how to navigate complicated processes like these.

Helping students recognize this helps them recognize how impressive their work up to this point has been.

Sincerely,



ATTENTION!

If your cell number has changed let Stephanie Hernandez know to ensure you get tips throughout the year



As students return to college...

Remind them that developing strong relationships takes time. Students often need to work harder in college to meet and get to know teachers than they did in high school.

"Join something: join a club, a singing group, anything. If you are having a hard time finding a solid group of friends, joining organizations is definitely the way to go, and will improve not only your social life, but also your academics in the form of a support system."

Alexander, second year at Texas State

"I thought I would be lonely the whole time I was here. I felt as though nobody would understand the sense of abandonment I felt, and that I wouldn't be able to make friends due to a busy schedule. My second semester allowed me more free time to join clubs where everyone is really supportive and empathetic, while still being active in school life. I'm becoming a lot more involved and meeting much more people than I originally thought I would."

Tammy, first year at Southwestern University

If they are having a problem encourage them to seek out help on campus. Although they may need help, they may have trouble asking for it.

"Ask for help. Attend your professors' office hours or even just email them. A lot of them are willing to help."

Jason, first year student at Baylor University

"Once I came to college, I realized that I didn't have to be strong all of the time and that most people had no expectations of me besides trying my best and putting in effort in classes. After that, I realized that there was no shame in struggling or asking for help. It was a huge step forward in my life. Over time, being able to use my professors and peers as resources was incredibly helpful. Seeking advice from them was a source of comfort and they especially helped me with deciding what classes to take or how to deal with any personal dilemmas I was having."

Sofia, first year student at Texas A&M

"Take advantage of the services and various offices your school provides. I have great people in my corner and they have helped me tremendously. It is important to become close with faculty because they have helped me on a much more personal level."

Matt, second year at Austin Community College



METHODOLOGICAL APPENDIX B: PARENT PROGRAM TEXTS

Parent Program Texts: Fall Semester 2016

Introduction Text: August 26th

1. This is the beginning of a series of texts from [REDACTED] to help parents support their children through college.
2. Would you like texts in Spanish? Text Español or Spanish
¿Desea recibir sus mensajes en español? Enviar español
Response to STOP, CANCEL, UNSUBSCRIBE: Would you like to receive these tips less frequently? If so, please text, LESS. If you would like to stop all messages text STOP again.

Set 1: August 29th

1. [REDACTED] Info: Many students are uncomfortable talking to professors or other staff; they need encouragement to seek out help.
2. [REDACTED] Question: Have you talked with [student name] about how comfortable they are talking to professors & staff in college?
3. [REDACTED] Tip: Encouraging [student name] to reach out to professors & staff will help them adjust to college life.

Set 2: September 12th

1. Students should study 2-3 hours at home for every hour in class. If they study this much & fail exams, studying more may not help.
2. Do you know how much time [student name] spends studying? Have they tried a variety of different ways to study?
3. By recognizing that studying more may not improve grades, you can encourage [student name] to explore different study strategies.

Set 3: September 26th

1. Professors may intimidate students, but going to a professor's 'office hours' creates a one-on-one relationship that's important for help.
2. Has [student name] talked to any professors one-on-one? This could happen during "office hours" or students can set up a meeting.
3. By acknowledging that students talk to professors individually, you're helping [student name] adjust to professor expectations.

Set 4: October 10th

1. Students choose classes every semester. Academic advisors help students choose classes that satisfy requirements for graduation.
2. Who is [student name] academic advisor? Has [student name] talked with them? What does their academic advisor think about their classes?
3. By encouraging [student name] to ask their advisor questions, you are helping them build a community to help them succeed in college.

Set 5: October 24th

1. There are free campus resources available to all college students.

2. Does [*student name*] know of the multiple groups on campus that can help them, like academic advisors, writing center, tutoring, etc.?
3. Reminding [*student name*] that everyone uses these resources will encourage them to seek out help when they need it.

Set 6: November 7th

1. Students must complete final papers & exams at the end of the semester. Colleges provide study help students during this time.
2. Does [*student name*] know where they can get help with writing or studying on campus?
3. Encouraging [*student name*] to think about where resources are on campus enables them to get help when they need it.

Set 7: November 21st

1. Most students change how they study in college. Professors can help students decide how to study for up-coming exams.
2. Has [*student name*] talked to each of their professors about how best to study for the final exam?
3. Acknowledging that students talk to professors about how to study helps them discover learning styles that work for them in college.

Set 8: December 5th

1. Building relationships with college faculty and staff can help students succeed.
2. Which faculty and staff did [*student name*] meet during their first semester? Do they have a favorite?
3. By talking about faculty and staff relationships, you're encouraging [*student name*] to build lasting relationships.

Set 9: December 19th

1. Part of the college experience is learning how to navigate a complicated organization like a college.
2. Help [*student name*] see that they are becoming more familiar with the college environment. They know things now that they didn't know 3 months ago.
3. By helping [*student name*] look back and see the progress they've made, you're helping them recognize how successful they can be in college.

Parent Program Texts: Spring Semester 2017

Introduction Text: January 16th

1. [student name] did a [REDACTED] survey last fall. The survey helped us create tips for parents to make sure students finish their first year strong!
2. It's important students hear these tips from you :) Family can provide encouragement and reminders at just the right time!

Set 10: January 16th

1. Successful students talk to their professors often. Making a plan for when to talk with professors can help new college students take this step.
2. Does [student name] have a plan for when they'll talk to their professors this semester (before class, after class, a meeting...)?
3. Encouraging and reminding students to plan meetings with professors helps them do this important task.

Set 11: January 30th

1. Professors may intimidate students, but going to a professor's 'office hours' creates a one-on-one relationship that's important for help.
2. Has [student name] talked to any professors one-on-one? This could happen during "office hours" or students can set up a meeting.
3. By reminding [student name] to talk to professors individually, you're helping them adjust to professor expectations.

Set 12: February 13th

1. College students often have difficulty asking for help, but asking for help is how students learn how to succeed in college.
2. Has [student name] asked a professor, advisor, or other staff member for help (even if it's a simple question or minor problem)?
3. By encouraging [student name] to ask for help frequently, you are teaching them to take advantage of opportunities in college.

Set 13: February 27th

1. Students should talk to professors & staff on campus even if they don't need help. These people may know about scholarships, jobs, etc.
2. Has [student name] talked to any staff or professors outside of class?
3. By encouraging [student name] to talk to professors, you are helping them build a community.

Set 14: March 13th

1. Students may find meeting with academic advisors annoying, but these people have a lot of information about college.
2. Has [student name] talked to their academic advisor about course choices for the Fall 2017 semester? Have they learned anything new from their advisor?
3. Encouraging [student name] to meet with their advisor helps them to learn about the college system.

Set 15: March 27th

1. Most students experience some challenges during college, but by asking professors and staff for help students can overcome challenges and graduate.
2. Does [*student name*] have an adult they are comfortable going to for help in college? Every student should have someone on campus they have a good relationship with.
3. By encouraging [*student name*] to think about who can help them, you're reminding them of resources on their college campus.

Set 16: April 10th

1. If students want to know how they are doing in class, they need to ask professors.
2. Has [*student name*] gotten feedback from faculty on their academic performance in class?
3. By encouraging [*your student*] to directly ask professors questions, you are helping them learn how to succeed in college.

Set 17: April 24th

1. Many students keep in touch with professors even semesters after they're no longer in their class.
2. Has [*student name*] kept in touch with any professors from last semester or plan to keep in touch with any from this semester?
3. By encouraging [*student name*] maintain ties with professors, you are helping them develop a support network on campus.

Set 18: May 8th

1. Professors are a great source of information, and not just about class material.
2. Has [*student name*] talked to a professor about their summer plans?
3. By encouraging [*student name*] to talk about future plans, you are helping them get crucial advice.

Final Text: May 15th

1. The [REDACTED] Parents Tips have ended. Completing this 5-min. survey will help us improve the program for future parents & students.
2. Thank you for your help! Follow this link to the survey: (bit.ly link)

METHODOLOGICAL APPENDIX C: PARENT AND STUDENT INTERVIEW GUIDES

Interview Guide: Summer 2016 After High School

Student Interview Cover Sheet

Full Name: _____

Parents' Names: _____

Permanent Address: _____

Phone Number: _____

Email Address: _____

Ethnicity:

- a) Latino
- b) non-Latino

Race:

- a) White
- b) African American
- c) Asian
- d) Native American
- e) Multi-racial
- f) Other

High School GPA: (on a 4.00 scale) _____

SAT/ACT score: _____

How often do you plan on talking to your parents when you're in college?

- a) Every day
- b) Several times a week
- c) Once a week
- d) A couple times a month

Student Interview Protocol

Warm-up:

- Could you begin by telling me a little about your family background and how you came to this point (i.e. planning to attend college in the fall)?

Section 1: Parent-Student Relationship

- When was the last conversation you had with your parents about college? Can you describe that conversation? Was this a typical conversation? If so, how? If not, how so?
 - Who starts your conversations about college (i.e. do you call them or do they call you)? Can you provide an example?
 - What are the conversations you start about?
 - What are the conversations your parents start about?
 - Do you ever go to your parents for advice about school (high school or college)? If so, what kind of advice?
- Have your parents/guardians made any comments about college that have really stuck in your mind over the past few weeks? What was the context in which these comments came about?
- What conversations have you had with your parents about college that you've enjoyed?
- Which conversations about college are most difficult?
- Have you and your parents ever disagreed during a conversation about college?
- Are your parents supportive of your decision to attend college? How can you tell?
- How might your relationship with your parents will change once you start college?

Section 2: General Expectations of College

- What are you doing to prepare for college?
- What part of preparing for college is at the forefront of your mind right now?
 - Is there anything you're nervous about?
- How would you describe what college is like?
- What do you think a typical weekday look like when you get to college?
- What will be the biggest difference between high school and college?
 - (Besides not living at home, what would the biggest difference be?)
 - What do you think will be the best thing about college?
 - What do you imagine will be the hardest thing about college for you?

Section 3: Vignettes

Catalina is a freshman college student. She has enrolled in her first college science class. She was a pretty good student in high school (with a B average). She has the mid-term exam coming up. In high school, if Catalina wanted to do well on science tests she would pay attention in class, take a few notes, and then skim these before the exam. She studies this way for her college exam, but gets a failing grade.

- Talk me through how you would react to this situation.
- What could she do in this situation?
- What would you do in this situation?
- What would you recommend she do?

- Thinking about yourself, what do you think your parents would say? *(This question should indicate how parents might influence student expectations of their behavior in college and whether student perception of parental expectations might be off. This will also show contrast between treatment and control groups).*
- How successful do you think this student will be in college?

Tomas is trying to pick out his first semester of classes. In high school he had to take a lot of required classes, but now it's not clear to him whether there are any classes that are required. He isn't sure which classes to take. There are too many to choose from. Tomas is frustrated.

- Talk me through how you would react to this situation.
- What could he do in this situation?
- What would you do in this situation?
- What would you recommend he do?
- What would your parents say?
- How successful do you think this student will be in college?

Section 4: Specific Expectations of College

Teachers

- What kind of relationship do you have with your high school teachers?
 - Do you have a favorite teacher?
 - If so, how often do you talk with them?
 - What do you talk to them about?
 - What are your relationships like with other teachers?
- In what ways do you think college instructors may be different from your high school teachers?
- What do you think your relationships with instructors will be like in college?
 - How do you think that relationship will develop (will you approach the instructor, etc.)?

Help-Seeking

- Tell me about a time you struggled to complete your classwork.
 - Why were you having difficulty?
 - Did you reach out to anyone for help? If so, who?
 - How were you able to complete the work?
 - How did that make you feel?

Parent Interview Cover Sheet

Full Name: _____

Status:

- a) Mother or legal guardian
- b) Father or legal guardian

Son or Daughter's Name: _____

Permanent Address: _____

Phone Number: (____)_____ Email Address: _____

Race:

Mother

- a) White
- b) African American
- c) Asian
- d) Native American
- e) Multi-racial
- f) Other

Father

- a) White
- b) African American
- c) Asian
- d) Native American
- e) Multi-racial
- f) Other

Ethnicity:

Mother

- a) Latino
- b) Non-Latino

Father

- a) Latino
- b) Non-Latino

Approximate Annual Family Income for 2015:

- a) Below 20,000
- b) 20,000 - 30,000
- c) 30,001 - 40,000
- d) 40,001 - 50,000
- e) above 50,000

How often do you plan on talking to your son/daughter when they are in college?

- a) Every day
- b) Several times a week
- c) Once a week
- d) A couple times a month

Parent Interview Protocol

Warm-up:

- Could you begin by telling me a little about your family and how your son/daughter came to this point (i.e., planning to attend college in the fall)?

Section 1: Parent-Student Relationship

- Can you describe the last conversation you had with your son/daughter about college? Was this a typical conversation? If so, how? If not, how so?
 - Who starts your conversations about college (i.e. do you call them or do they call you)? Can you provide an example? Why did they or you reach out?
 - What are the conversations you start about?
 - What are the conversations your son/daughter start about?
 - Do they ever ask you for advice?
- What have you enjoyed talking to your son/daughter about in regards to college?
- Which conversations about college are most difficult?
- Have you and your son/daughter ever had a disagreement about college?
- How do you think your relationship with your child will change once they start college?

Section 2: General Expectations of College

- What do parents do to prepare for college? What are you doing to prepare for college?
- What part of preparing for college is at the forefront of your mind right now?
 - Do you know what your son/daughter is thinking about?
 - Is there anything you're nervous about?
- What will be the biggest adjustment for your son/daughter?
- What do you think their day-to-day life will look like in college?

Section 3: Vignettes

Catalina is a freshman college student. She has enrolled in her first college science class. She was a pretty good student in high school (with a B+ average). She has the mid-term exam coming up. In high school, if Catalina wanted to do well on science tests she would pay attention in class, take a few notes, and then skim these before the exam. She studies this way for her college exam, but gets a failing grade.

- What could Catalina do in this situation?
- As his parent, what would you tell him to do?
- How successful do you think this student will be in college?

Tomas is trying to pick out his first semester of classes. In high school he had to take a lot of required classes, but now it's not clear to him whether there are any classes that are required. He isn't sure which classes to take. There are too many to choose from. Tomas is frustrated.

- What could Tomas do in this situation?
- As his parent, what would you tell him to do?
- How successful do you think this student will be in college?

Your son or daughter student calls home from college next year and tells you s/he doesn't like college.

- What would you tell her?
- Does she have any other options in this situation? If so, what?
- What would you do in this situation?

Section 4: Specific Expectations of College

- Who do you think will help your son or daughter the most in college?
 - Why?
- Tell me about a time your son or daughter struggled to complete their schoolwork. What did you tell them to do?
 - How did it work out?
- If your son or daughter struggled with schoolwork in college what would a conversation between the two of you look like?
 - What would you tell them?

Interview Guide: Summer 2017 After First Year of College

Student Interview Protocol

Section 1: Expectations

The high school questions listed above will also be asked during the college interviews to identify how parent-student relationships have changed and expectations of behavior in college have changed.

Section 2: Adjusting to College

- Could you begin by describing what your first year in college has been like?
- Tell me about your first month on campus.
- Tell me about your first conversation with your parents after you'd left for college.
- What have you said to your parents about your experience in college?
- Now that you've completed your first year of college, what do you wish you would have known going into your freshman year?
- Have your parents played any role in your adjustment to college? If so, how? If not, who has?
- What have you done this year during college that you were most uncomfortable doing? Why did you do it? What was the outcome?
- What part of college has been the most difficult for you to adjust to?
- What has been the best part of college?

Section 3: Vignettes

As Maria's professor was handing back essays the class wrote, she told Maria that she should come to office hours.

- What do you think Maria and her professor will talk about?
- If one of your professors said this to you what do you think you would end up talking about when you went to their office hours?
- What would you want to talk about, but might be nervous to ask?

OR

Maria has a professor who has mentioned several times that students can come talk with her during office hours.

- Talk me through how you would react to this.
- What could she do in this situation?
- What would you do in this situation?
- What would you recommend she do?

Parent Interview Protocol

Section 1: Expectations

The high school questions listed above will also be asked during the college interviews to identify how parent-student relationships have changed and expectations of behavior in college have changed.

Section 2: Adjusting to College

- Could you begin by describing what the last year has been like with your son/daughter in college?
- Tell me about your first conversation with your son/daughter after they started college.
- Now that your son/daughter has completed their first year of college, looking back, what do you wish you would have known going into this year?
- When do you and your son or daughter fight on the phone?
- When do you hang up the phone with a smile on your face?

Section 3: Vignettes

As Maria's professor was handing back essays the class wrote, she told Maria that she should come to office hours.

- What do you think Maria and her professor will talk about?
- If one of your student's professors said this to them what do you think would happen?

OR

Maria has a professor who has mentioned several times that students can come talk with her during office hours.

- What could she do in this situation?
- What would you do in this situation?
- What would you recommend she do?

METHODOLOGICAL APPENDIX D: STUDENT SURVEYS

Student Survey: Fall 2016

This survey is part of the research we're doing at [REDACTED] to improve the college preparation program for future [REDACTED] students.

What we'll learn from your college experiences is extremely valuable as we work to help students like you not only get into college, but succeed once you're there. The results of this first semester survey, and a second survey in the spring after your first year, will help us prepare future [REDACTED] students for a successful college experience.

The survey is easy, fast, and confidential. It should take approximately 10 minutes to complete (5 pages). Participation is voluntary, and you can choose to skip any question you do not wish to answer. All data collected will be stored in a secure location and used only for research purposes. If you have any questions or concerns about this survey, you can contact us by email at [REDACTED].

Your participation is important to the success of [REDACTED]. We appreciate your input!

- ☐ Yes, I have enrolled in college and I would like to continue and complete the survey. (1)
- ☐ No, I would prefer not to complete the survey OR I have not enrolled in college. (2)

Think about your experiences in college so far and rate the following statements.

	Completely Untrue (1)	Mostly Untrue (2)	Equally Untrue/True (3)	Mostly True (4)	Completely True (5)
I could contact another student from class if I had a question about an assignment. (1)					
Other students are helpful in reminding me when an assignment is due or when tests are approaching. (2)					
If I miss class, I know students who I could get the notes from. (3)					
I have met with classmates outside of class to study for an exam. (4)					
I discuss events that happen outside of class with my classmates. (5)					
I invite people I know from class to do things socially. (6)					
I have developed personal relationships with other students in class. (7)					
I have discussed personal matters with students who I met in class. (8)					
It is difficult to meet other students in class. (9)					

Within the past month, how often have you:

	Never (1)	1-2 Times this Month (2)	3-4 Times this Month (3)	5-6 Times this Month (4)	More than 6 Times this Month (5)
Decided not to buy something that is required for school because it costs too much, for example a computer, books, or other supplies? (1)					
Decided not to go out with friends because it costs too much? (2)					
Sent money back to your family at home? (3)					
Thought you might not have adequate financial resources for the school year? (4)					
Worried that you may have to take a break from college to earn money? (5)					
Worried that you may not have enough money to pay for completing college? (6)					

Think about your experiences in college so far. Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
I see myself as part of the campus community. (1)				
I feel that I am a member of the campus community. (2)				
I feel a sense of belonging to my campus. (3)				

Please rate how strongly you agree or disagree with the following statements about the professors and staff (people who work for the college, but don't teach courses) at your institution.

	Strongly Disagree (1)	Disagree (2)	Agree (3)	Strongly Agree (4)
Professors empower me to learn here. (1)				
At least one staff member has taken an interest in my development. (2)				
Professors believe in my potential to succeed academically. (3)				
Staff encourage me to get involved in campus activities. (4)				
Staff recognize my achievements. (5)				
At least one professor has taken an interest in my development. (6)				

Please rate how strongly you agree or disagree with the following statements about your instructors (professors, teaching assistants, and others who teach your courses).

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
Instructors are able to determine my level of understanding of course material. (1)					
Instructors provide me with feedback that helps me judge my progress. (2)					
I feel like my contributions are valued in class. (3)					
Instructors encourage me to meet with them after or outside of class. (4)					
I receive recognition for my work. (13)					
Instructors encourage me to ask questions and participate in discussion. (5)					

Please rate how strongly you agree or disagree with the following statements about your interaction with professors outside of the classroom.

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)
My non-classroom interactions with professors have had a positive influence on my personal growth, values, and attitudes. (2)					
My non-classroom interactions with professors have had a positive influence on my intellectual growth and interest in ideas. (3)					
My non-classroom interactions with professors have had a positive influence on my career goals and aspirations. (4)					
Since coming to this college I have developed a close, personal relationship with at least one professor. (5)					
I am satisfied with the opportunities to meet and interact informally with professors. (6)					

Think about your experiences in college so far. Have you:

	No, I didn't know I could (1)	No, but I knew I could (2)	Yes, and I had a bad experience (3)	Yes, and I had a good experience (4)	Not applicable (5)
Talked to a professor outside of class? (1)					
Talked to a teaching assistant outside of class? (2)					
Talked to an academic advisor? (3)					
Talked to other staff (people who work for the college, but don't teach courses)? (4)					
Visited the academic support center? (5)					
Visited the writing center? (6)					

Please rate how much the following statements are like you or not like you.

	Not at all like me (1)	Not much like me (2)	Somewhat like me (3)	Mostly like me (4)	Very much like me (5)
If I do not understand a course assignment, I ask the professor to explain it to me. (1)					
I do not ask for help from professors or teaching assistants, even when I need it. (2)					
I talk to professors before or after class. (3)					
I talk to professors outside of class time if I need (for example, during office hours). (4)					
If I am struggling with course material that I do not understand, I ask a professor, teaching assistant, or staff member for help to understand the material. (5)					
I don't ask in class, even when the coursework is too hard to complete on my own. (2)					
If I didn't understand something during class, I would guess rather than ask someone for help. (3)					
If I am struggling in class, I get help from a tutor on campus. (4)					
If I need help with something in college, I ask a professor, academic advisor, teaching assistant, or staff member for help. (5)					
I would rather do worse on an assignment I couldn't finish, than ask for help. (6)					

	Not at all like me (1)	Not much like me (2)	Somewhat like me (3)	Mostly like me (4)	Very much like me (5)
If I need help with something in college, I ask my parents, siblings, or another relative. (4)					
If I am struggling with a writing assignment, I go to the writing center on campus. (1)					
I don't ask for help completing essays, even when the writing assignment is too hard to complete on my own. (2)					
If I am unsure of which courses to take in a given semester, I ask an academic advisor, professor, or other staff for help. (3)					
I talk with professors, academic advisors, or other staff about courses I'll take in the future. (5)					

Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I am confident in my scholastic abilities. (1)						
I do well in school. (2)						
I learn new concepts quickly. (3)						
I am successful. (4)						
I am confident in my ability to succeed in school. (5)						

How frequently do you communicate with your parent(s) or guardian(s) via phone, text, email, instant message (SnapChat, etc.)?

- ☐ At least once a day (6)
- ☐ A few times a week (1)
- ☐ Once a week (2)
- ☐ A few times a month (3)
- ☐ Once a month (4)
- ☐ Less than once a month (5)
- ☐ Not at all (7)

When you communicate with your parents, how often do the following topics come up in conversation?

	Never (1)	Rarely (2)	About half the time (3)	Most of the time (4)	Always (5)
Friends in college (1)					
Clubs or organizations (2)					
Career/job advisors or services (3)					
Academic services (for example, tutoring or the writing center) (4)					
Your academic advisor (5)					
Meetings with your academic advisor (6)					
Your classes (7)					
Studying/preparing for class (8)					
Class assignments (9)					
Your professors (10)					
Your relationships with your professors outside of class (11)					

Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s).

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
My parents really try to help me. (1)						
My parents provide me with the emotional help and support I need. (2)						
My parents are people who I can talk with about my problems. (3)						
My parents are willing to help me make decisions. (4)						
My parents expect that I will complete a college degree. (5)						
My parents support my choice to attend this college/university. (6)						
My parents would prefer that I do not attend college at all. (7)						
My parents would prefer that I attend another college/university. (8)						
My parents encourage me to continue attending this college/university. (9)						

Highest level of education your mother (stepmother, grandmother, or female guardian) completed:

- High School or Less (1)
- High School Diploma (2)
- Some College (3)
- Associate's Degree (4)
- Bachelor's Degree or More (5)
- Not applicable (6)

Highest level of education your father (stepfather, grandfather, or male guardian) completed:

- ☐ High School or Less (1)
- ☐ High School Diploma (2)
- ☐ Some College (3)
- ☐ Associate's Degree (4)
- ☐ Bachelor's Degree or More (5)
- ☐ Not applicable (6)

How often do you go home to visit?

- ☐ I live at home with my parents (or guardians) (6)
- ☐ Every weekend (1)
- ☐ Twice a month (2)
- ☐ Once a month (3)
- ☐ Once since coming to college (4)
- ☐ I have not been home since coming to college (5)

Please rate how likely or unlikely you find the following statement.

	Very Unlikely (1)	Somewhat Unlikely (2)	Undecided (3)	Somewhat Likely (4)	Very Likely (5)
I will attend college next semester. (1)					

Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I am pleased with my decision to go to college. (1)						
I am pleased with my decision to attend this college. (2)						
I wish I were at another college. (3)						

What is the highest level of education you expect to complete?

- ☐ Certificate (1)
- ☐ Associate's (2)
- ☐ Bachelor's (3)
- ☐ Master's (4)
- ☐ Professional or doctorate degree (medical, law, etc.) (5)

What type of program or degree are you pursuing at your current institution?

- ☐ Certificate or other program that lasts less than two years (1)
- ☐ Associate's degree (2)
- ☐ Bachelor's degree (3)

If you are currently pursuing a bachelor's degree: (If you are pursuing an associate's degree choose not applicable and move to the question below.)

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)	Not applicable (7)
It is important for me to get a bachelor's degree. (1)							
I will complete a bachelor's degree (2)							
I expect to stay at my current institution until I finish my bachelor's degree. (3)							
I have considered transferring to another college to finish my bachelor's degree. (4)							

If you are currently pursuing an associate's degree or a certificate: (If you are pursuing a bachelor's degree choose not applicable.)

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)	Not applicable (7)
It is important for me to get an associate's degree or certificate. (1)							
I will complete an associate's degree or certificate. (2)							
I expect to stay at my current institution until I finish my associate's degree/certificate. (3)							
I have considered transferring to another college to finish my associate's degree/certificate. (4)							

Do you have any older siblings who have completed college or are currently enrolled?

- ☐ No (1)
- ☐ Yes- completed bachelor's (4-year) degree (2)
- ☐ Yes- completed associate's (2-year) degree (3)
- ☐ Yes- completed technical (less than 2-year) degree (4)
- ☐ Yes- enrolled in 4-year college (5)
- ☐ Yes- enrolled in 2-year college (6)
- ☐ Yes- enrolled in technical college (less than 2-year) (7)

What is your racial or ethnic identity? (check all that apply)

- ☐ African American or Black (1)
- ☐ Asian (2)
- ☐ Latino or Hispanic (3)
- ☐ Native American or American Indian (4)
- ☐ White (5)
- ☐ Other (6)

What is your gender identity?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Other (3)

What was your unweighted high school grade point average? _____ High School GPA

What other comments would you like to make about your transition to college?

What comments would you like to make about [REDACTED] specifically?

Student Survey: Spring 2017

This survey is part of the research we're doing at [REDACTED] to improve the college preparation program for future [REDACTED] students.

Learning about your college experiences is extremely valuable as we work to help students like you not only get into college, but also succeed once you're there. The results of this survey will help us prepare future [REDACTED] students for a successful college experience.

The survey is easy, fast, and confidential. It should take 10 minutes to complete (5 pages). Participation is voluntary, and you can choose to skip any question you do not wish to answer. All data collected will be stored in a secure location and used only for research purposes. If you have any questions or concerns about this survey, you can contact us via email at [REDACTED].

Your participation is important to the success of [REDACTED]. We appreciate your input!

- ☐ Yes, I have enrolled in college and I would like to continue and complete the survey. (1)
- ☐ No, I have not enrolled in college. (2)
- ☐ No, I would prefer not to complete the survey. (3)

Think about your experiences in college so far and rate the following statements.

	Completely Untrue (1)	Mostly Untrue (2)	Equally Untrue/True (3)	Mostly True (4)	Completely True (5)
I could contact another student from class if I had a question about an assignment. (1)					
Other students are helpful in reminding me when an assignment is due or when tests are approaching. (2)					
If I miss class, I know students who I could get the notes from. (3)					
I have met with classmates outside of class to study for an exam. (4)					
I discuss events that happen outside of class with my classmates. (5)					
I invite people I know from class to do things socially. (6)					
I have developed personal relationships with other students in class. (7)					
I have discussed personal matters with students who I met in class. (8)					

Think about your experiences in college so far. Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I see myself as part of the campus community. (1)						
I feel that I am a member of the campus community. (2)						
I feel a sense of belonging to my campus. (3)						

Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I am pleased with my decision to go to college. (1)						
I am pleased with my decision to attend this college. (2)						
I wish I were at another college. (3)						

What is the highest level of education you expect to complete?

- ☐ Certificate (1)
- ☐ Associate's (2)
- ☐ Bachelor's (3)
- ☐ Master's (4)
- ☐ Professional or doctorate degree (medical, law, etc.) (5)

What was your Fall Semester 2016 college grade point average?

_____ Fall 2016 (1)

Please rate how strongly you agree or disagree with the following statements about instructors (professors, teaching assistants, and others who teach your classes) and staff (people who work for the college, but don't teach courses) at your institution.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Staff recognize my achievements. (5)						
Staff encourage me to get involved in campus activities. (4)						
At least one staff member has taken an interest in my development. (2)						
Instructors empower me to learn here. (1)						
Instructors believe in my potential to succeed academically. (3)						
At least one instructor has taken an interest in my development. (6)						

Please rate how strongly you agree or disagree with the following statements about your instructors (professors, teaching assistants, and others who teach your courses).

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
Instructors are able to determine my level of understanding of course material. (1)						
Instructors provide me with feedback that helps me judge my progress. (2)						
I feel like my contributions are valued in class. (3)						
Instructors encourage me to meet with them after or outside of class. (4)						
I receive recognition for my work. (13)						
Instructors encourage me to ask questions and participate in discussion. (5)						

Please rate how strongly you agree or disagree with the following statements about your interaction with professors outside of the classroom.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
My non-classroom interactions with professors have had a positive influence on my personal growth, values, and attitudes. (2)						
My non-classroom interactions with professors have had a positive influence on my intellectual growth and interest in ideas. (3)						
My non-classroom interactions with professors have had a positive influence on my career goals and aspirations. (4)						
Since coming to this college I have developed a close, personal relationship with at least one professor. (5)						
I am satisfied with the opportunities to meet and interact informally with professors. (6)						

Think about your experiences in college this semester (Spring 2017). How many times have you:

	0 (1)	1 (2)	2-3 times (3)	4-5 times (4)	6 or more (5)
Talked to a professor or teaching assistant outside of class? (1)					
Talked to an academic advisor? (3)					
Talked to other staff (a tutor, librarian, etc.)? (4)					
Visited the academic support center (here students can find tutoring, study groups, help with study skills, etc.)? (5)					
Visited the writing center for help with an essay or paper? (6)					

Think about your experiences in college this semester (Spring 2017). How would you describe these experiences?

	Mostly Negative (1)	More Negative than Positive (2)	Neutral (3)	More Positive than Negative (4)	Mostly Positive (5)
Talking to a professor or teaching assistant outside of class. (1)					
Talking to an academic advisor. (3)					
Talking to other staff (a tutor, librarian, etc.). (4)					
Visiting the academic support center for help. (5)					
Visiting the writing center for help with an essay or paper. (6)					

Please rate how much the following statements are like you or not like you.

	Not at all like me (1)	Not much like me (2)	Somewhat like me (3)	Mostly like me (4)	Very much like me (5)
If I do not understand a course assignment, I ask the professor to explain it to me. (1)					
I do not ask for help from professors or teaching assistants, even when I need it. (2)					
I talk to professors outside of class time if I need (for example, during office hours). (4)					
If I need help with something in college, I ask a professor, academic advisor, teaching assistant, or staff member for help. (3)					
If I am struggling with course material that I do not understand, I ask a professor, teaching assistant, or staff member for help to understand the material. (5)					
If I am struggling with a writing assignment, I go to the writing center on campus. (6)					
I talk with professors, academic advisors, or other staff about courses I'll take in the future. (7)					
If I need help with something in college, I ask my parents, siblings, or another relative. (8)					

Please rate how much you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
I think a professor would take the time to talk to me if I needed help. (1)						
I think a professor would understand my difficulties if I shared them. (2)						
I don't think professors want to talk to me. (3)						
Even if I wanted to talk to a professor, I'm not sure how to start a conversation with them. (4)						

While in college, how important is it that students do the following:

	Not at all important (1)	Not very important (2)	Somewhat important (3)	Important (4)	Very important (5)
Talk with professors or teaching assistants (TAs) during class. (2)					
Talk with professors or TAs about academic performance in class. (3)					
Talk with professors or TAs one-on-one outside of class. (4)					
Go to a professor or TAs office hours. (5)					
Ask professors, TAs, or other staff for advice or help. (6)					
Develop a relationship with a professor, TA, or staff member. (7)					

How frequently do you communicate with your parent(s) or guardian(s) in person, via phone, text, email, instant message?

- About ever 2 hours (6)
- 4-5 times a day (1)
- 2-3 times a day (2)
- Once a day (3)
- A few times a week (4)
- Once a week (5)
- A few times a month or less (7)
- Not at all (8)

When you communicate with your parent(s) or guardian(s), how often do the following topics come up in conversation?

	Never (1)	Rarely (2)	About half the time (3)	Most of the time (4)	Always (5)
Academic services (for example, tutoring or the writing center) (4)					
Your academic advisor (5)					
Meetings with your academic advisor (6)					
Your classes (7)					
Studying/preparing for class (8)					
Class assignments (9)					
Your professors (10)					
Your relationships with your professors outside of class (11)					

Students try to avoid some conversations with parents or guardians more than others. How often do you try to avoid conversations about these topics?

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
Academic services (for example, tutoring or the writing center) (4)					
Your academic advisor (5)					
Your classes (7)					
Your professors (10)					

Please rate how strongly you agree or disagree with the following statements about your parent(s) or guardian(s).

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
My parents really try to help me. (1)						
My parents provide me with the emotional help and support I need. (2)						
My parents are people who I can talk with about my problems. (3)						
My parents are willing to help me make decisions. (4)						
My parents expect that I will complete a college degree. (5)						
My parents support my choice to attend this college/university. (6)						
My parents would prefer that I do not attend college at all. (7)						
My parents would prefer that I attend another college/university. (8)						
My parents encourage me to continue attending this college/university. (9)						

Have your parent(s) or guardian(s) been receiving tips from [REDACTED] this year (via text, email, or postal mail)?

- Yes (1)
- No (2)
- Unsure (3)

How often do you go home to visit?

- I live at home with my parents (or guardians) (6)
- Every weekend (1)
- Twice a month (2)
- Once a month (3)
- Once this semester (4)
- I have not been home this semester (5)

What type of program or degree are you pursuing at your current institution?

- Certificate or other program that lasts less than two years (1)
- Associate's degree (2)
- Bachelor's degree (3)

Please rate how strongly you agree or disagree with the following statements.

	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Somewhat Agree (4)	Agree (5)	Strongly Agree (6)
It is important for me to complete my degree. (1)						
I will complete my degree. (2)						
I expect to stay at my current institution until I finish my degree. (3)						
I have considered transferring to another college to finish my degree. (4)						

Within the past month, how often have you:

	Never (1)	1-2 Times this Month (2)	3-4 Times this Month (3)	5-6 Times this Month (4)	More than 6 Times this Month (5)
Thought you might not have enough money for the school year? (4)					
Thought you might not have enough money to finish college? (5)					

Please rate how likely or unlikely you find the following statement.

	Very Unlikely (1)	Somewhat Unlikely (2)	Undecided (3)	Somewhat Likely (4)	Very Likely (5)
I will attend college next Fall 2017. (1)					