Parental Relationships and Social Capital in the School-Community Context: A Multiple Method Study with Under-resourced Mexican-origin Families

By

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Abstract

Educational inequality is a serious and persistent social problem in the United States. Patterns are particularly troubling for the Mexican-origin population, which consistently has the lowest levels of educational attainment of all racial/ethnic sub-groups. Scholars argue that *social capital* is a promising point of intervention into educational inequalities for Latinos. Yet, our empirical knowledge on how social capital develops and effects of social capital remains limited.

To address these issues, I take a multi-method approach drawing on qualitative and quantitative data from a cluster-randomized controlled field trial in under-resourced, Latino school-communities. In the first empirical chapter, using multilevel growth curve modeling, I ask, how effective is a family engagement program in enhancing the size and quality of school-based social capital for Mexican-origin parents, and are program effects fleeting or sustained over time as children transition from first to third grade? I find short-term positive programmatic impacts on both the size and quality of parental social relationships, but long-term impacts only on the quality of these relationships.

In the second empirical chapter, I also draw on experimental data to explore social capital effects by asking, what are the effects of social capital on Mexican-origin children's socio-emotional development, and how do these effects vary by parental language dominance and children's English language proficiency? I find positive social capital effects for Latino children with English dominant-parents, but a negative effect of social capital on non-ELL students with Spanish-dominant parents.

In the final empirical chapter, I examine interview data to explore how parents build social capital and what factors impede its development? I find that school-based social ties form through limited interaction and most often around a target child. I also find that children play a

central role, not only in connecting parents, but also motivate parents to establish deeper more trusting relationships with other parents. As such, social capital develops in school-based parental social relationships through frequent interaction and when parents' demonstrate their trustworthiness. Finally, I find that exposure to violence, both sexual and physical, and restrictive immigration policy disrupts and impinges upon the establishment of school-based parental social relationships.

Chapter 1: Introduction

Sociologists have long sought to explain inequality in educational outcomes, particularly among various racial and ethnic groups. One prominent theoretical perspective in sociology emphasizes the social embeddedness of hierarchies of power in society, arguing that social power is experienced, organized, and (re)produced within networks of social relationships. Social capital, or network ties characterized by relations of trust, mutual expectations, and shared values (Gamoran et al. 2012; Shoji et al. 2014), is argued to be central to the maintenance of systematic inequalities in a wide range of social contexts, including health, the labor market, and education. Social capital has been positively linked to educational attainment and achievement (Dika and Singh 2002). In addition, differential and limited access to social capital has been implicated in the persistent educational disadvantage of Latinos and immigrants compared to their non-Latino and native counterparts (Kao and Rutherford 2007; Rosenbaum and Rochford 2008).

Although researchers have found social capital to be beneficial for Latinos and immigrants, several issues remain. First, the extant literature on social capital has treated 'Latinos' and 'immigrants' (if examined at all) as broadly homogenous categories (Pong, Hao, and Gardner 2005). The Mexican immigrant paradox in education, or the finding that Mexican immigrant children tend to outperform their native-born peers in a variety of educational outcomes (Morgan and Gelbgiser 2014; Turney and Kao 2012) along with the large body of work on immigration incorporation (Bankston and Zhou 2002; Portes and Rumbaut 2014; Portes and Zhou 1993), has highlighted the importance of treating racial and ethnic categories as nuanced. By collapsing a multitude of distinct and varied experiences into a single category, past research limits the interpretability of research findings and may mask consequentially divergent

patterns. Ethnographic data on the social capital of Mexican-origin families has recognized within-group heterogeneity (Stanton-Salazar 2001; Valenzuela 1999) but this prior work has focused on high school experiences and later life outcomes. Attending to the experiences of high school students is problematic because it overlooks earlier experiences, like those of elementary school students and their parents, when pathways for educational success emerge. Also missing from much of the prior work on social capital and educational outcomes is a detailed description of the process through which school-based relationships develop. The extant literature on social capital has focused on its presence or absence or its utilization, but said little about how social capital develops.

With this dissertation, I address gaps in extant literature on social capital by asking three interrelated research questions using data from a field experiment with large proportions of predominantly low-income Mexican-origin families. In the first empirical chapter, using quantitative experimental data, I ask, how effective is a family engagement program in enhancing the structure (or size) and quality of school-based social capital for Mexican-origin parents, and are program effects fleeting or sustained over time? In the second empirical chapter, I ask, what are the effects of social capital on Mexican-origin children's socio-emotional development and achievement outcomes, and how do these effects vary by parental immigration status and children's English language proficiency? In the final empirical chapter and using interview data with parents, I explore the process through which social relationships develop in the school community. Moreover, I explore how these relationships turn in to social capital, and what contextual factors impede or facilitate the establishment of resourceful social connections in these communities

Theoretical Orientation and Methodological Framework

In this dissertation, I focus on how social capital develops through social relationships and the effects of social capital on various educationally relevant outcomes. Throughout the dissertation, I employ a previously utilized definition of social capital as the trust, mutual expectations, and shared values embedded in social relationships (Gamoran et al. 2012; Shoji et al. 2014). This definition draws from three theorists who have advanced our understanding of social capital: James Coleman, Pierre Bourdieu, and Nan Lin. Prior work has exhaustively reviewed social capital theory (see Portes 1999, Small 2009), as such, I only briefly review each theorist here and highlight how their conceptions of social capital informed my utilization and operationalization of the concept.

Coleman's conception of social capital was motivated by his desire to create a theory of social action (Small 2009). In creating a theory of social action, Coleman attempted to bridge economic conceptions of individuals as rational actors with more structural sociological conceptions of actions (or behaviors) being "shaped, constrained, or redirected by the social context" (Coleman 1988:S95). Coleman defined social capital by its function and argued that social capital allowed for the achievement of ends that would otherwise not be possible by an individual alone. Social capital, he stated, is a property of social relations that inheres in a network and serves as an individual level resource (Coleman 1988:S98). Central to Coleman's conception of social capital were three forms of social capital: trust, norms, and information channels. Information channels describe the flow of information and resources within a network, trust is brought about by obligations and mutual expectations that individuals have for one another in a network, while norms are facilitated by effective sanctioning.

Whereas Coleman focused on creating a theory of social action, Bourdieu focused on the social reproduction of inequality. These contrasting foci created a different point of emphasis for Bourdieu and his notion of social capital compared to Coleman's. Bourdieu was interested in power relations and viewed various forms of capital (cultural, social, and economic) as means through which social hierarchies were established and (re)produced. Within this perspective Bourdieu (2008) advanced his conception of social capital as the resources available to an individual based on his or her group membership explaining, "the volume of the social capital possessed by a given agent thus depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural, or symbolic) possessed in his own right by each of those to whom he is connected" (p.286). In Bourdieu's (2008) conception of social capital, groups were important because they defined the boundaries for individuals, for example, by serving as gate keepers for admittance to a group. Groups were also important in Bourdieu's definition because the relations that developed generated resources that were then converted from non-economic forms of capital (the social relations themselves) into economic forms (a material outcome from being embedded in a group). Boundaries served as a membership tool whereby certain individuals are excluded from groups while others are permitted access. Bourdieu further argued that adding new members to a group put the whole group at risk, by exposing it to the potential for "redefinition, alteration, and adulteration (p.286)." Following this logic, Bourdieu argued that groups should be heavily invested in whom individuals wed because these decisions are central to maintaining group boundaries. Thus, it is through social relationships and group membership where social power are expressed and maintained.

Lin's (2000) definition of social capital, or "investment and use of embedded resources in social relations for expected returns," also addressed the benefits of one's social network (p.786). He asserted that social capital can be conceptualized at both the individual and structural level (Lin 2000). At the individual level, social capital is the quantity or quality of resources accessible to an individual, while at the structural-level, social capital is conceptualized in terms of how one's access to social capital is facilitated or impeded by one's location in a network. For example, one's class of origin is consequential for how one accesses or utilizes resources (Lin 2000). As such, inequality in social capital arose because immediate access and utilization of resources was shaped not by individual qualities, but rather those factors that locate you in a network. In his own words, Lin (2000:786) stated, "inequality of social capital occurs when a certain group clusters at relative disadvantaged socioeconomic positions." One's position in a network shaped who one comes into contact with and interacts with—or *propinquity*-- and influenced the likelihood that that person shared similar background characteristics as others they associated with—or *homophily*. Both propinquity and homophily have been identified as processes that lead to the formation of strong social connections and social capital (Cook 2014).

Although these three theorists differ somewhat in their conceptions of social capital, there is consensus amongst them in the idea that social capital is an individual level resource generated at the group level (structural) and that membership in groups suggests adherence to appropriate behavioral expectations either through norms, values, or rules (symbolic). Lee (2014) argued that conceptualizing social capital with structural and symbolic dimensions led to two distinct methodological emphases not often combined in education research (and often considered contradictory), social network analysis (SNA) and symbolic interactionism (SI). According to Lee (2014), a social network approach to social capital argues that our social relationships are

mediated by our standing in a social structure, such that our backgrounds either privilege or disadvantage one's access to resources embedded in social networks. Lee (2014) further asserted that a symbolic interactionist (SI) approach to social capital views social structure as emerging from a set of social relationships that are negotiated and given meanings by individuals. The SI approach to social capital further suggests that meanings about the sets of the relationships are then communicated symbolically and internalized by individuals. However, considering the symbolic qualities of social relations or social structures it not a new idea. For example, Sewell (1992) conceived of structure as having a "dual character" in that structure is comprised of mutually reinforcing sets of schemas and resources (p.13). Schemas are ideas of how we think the world operates or theories of everyday life (Howard and Renfrow 2003:263). Schemas, then, are symbolic in that they do not represent actual fixed entities, but rely on our everyday interpretations and the meanings we make of the social world.

Building off symbolic interactionism and ideas posed by social network scholars, Lee (2014) advanced a pragmatic methodological approach that linked SNA and SI through mixed methods research to the study of social capital. Lee argued that linking SNA and SI is advantageous because it provides a more comprehensive understanding of social capital. For Lee, a comprehensive understanding means attending to both the structural dimensions of social capital, like networks, but also the symbolic dimensions of social capital that explores meaning making. Building off Lee's insights, I adopt mixed method approach in this dissertation that explores meaning in social relationships and structural aspects of networks.

Social Capital and Educational Outcomes

The idea that increased levels of social capital benefit children's educational outcomes motivates my dissertation. Scholars have argued that access to and utilization of social capital

represents a distinct mechanism of inequality that can explain disparate educational outcomes (Dufur, Parcel, Troutman 2013; Ream and Rumberger 2008; Kao and Rutherford 2007). If increased levels of social capital, all else being equal, improve educational outcomes, then identifying ways to increase social capital becomes particularly relevant for ameliorating educational inequalities. In the dissertation, I focus on school-based parental social relationships and parent-child relationships—two domains of social capital identified as relevant for educational outcomes. The importance of parent-child and school-based parent-parent social networks is made explicit in Coleman's conception of intergenerational closure. *Intergenerational closure* refers to a closed network where parents know the children's friends' parents'. This closed network, where parents and children are connected, allowed for the enforcement of effective norms and sanctions. The argument followed that intergenerational closure fosters educational achievement because connected parents more easily exert control not only over their own children, but their children's friends as well. For example, connected parents, Coleman (1988) argued, more easily enforced positive schooling attitudes and behaviors, while negative attitudes and behavior could be sanctioned.

Although Coleman and others have advanced the idea that social relationships are consequential for children's educational outcomes, the empirical evidence supporting the link between intergenerational closure and educational outcomes is inconclusive. For example, Carbonaro (1998), found that closure is positively associated with math achievement but not reading achievement among students in his National Educational Longitudinal Study (NELS) sample. In a re-analysis of Carbonaro's data, Morgan and Sørensen (1999) found that intergenerational closure was associated with positive achievement in Catholic schools, but not in public sector schools. In a more recent analysis with Ad-Health data, Fasang, Mangino, and

Brücker (2014) found that intergenerational closure, is positively associated with student GPA and the probability of high school completion, but only in low-poverty schools.[1] The effect of intergenerational closure on GPA declined as the proportion of students living in poverty increased. The authors also found that students in high poverty schools had lower GPAs with increased levels of informal intergenerational closure. Based on their findings, Fasang et al. (2014) concluded that intervening on parent social relationships by increasing intergenerational closure was not beneficial and potentially detrimental for students in disadvantaged communities.

Differential findings on the effects of social capital could suggest that the benefits operate differently for various groups. Horvat, Weininger, and Lareau's (2003) work lends some credence to the notion of differential access and effects of social capital using a sample of 88 middle-class and working-class/poor parents. They found that working-class and poor families' social networks had fewer social connections to schools, while middle-class networks tended to include more professionals and their school-based ties were more often formed as a result of their children's participation in organized activities. Moreover, Stanton-Salazar (2001) criticized Coleman's notion of intergenerational closure for being a distinctly middle-class phenomenon where norms are upheld by the community and institutions, which stood in stark contrast to the resource poor environments that many minority youths experienced.

Results from studies exploring the effect of intergenerational closure on educational outcomes are decidedly mixed (Freeman and Condron 2011; Horvat et al. 2003; Carbonaro 1998;

[1] Fasang et al. (2014) distinguished between two types of closure, informal and school-based. Informal closure comes from informal relationships parents have with other parents and is measured by the standard intergenerational closure question "how many parents of your child's friends have you talked to in the last 4 weeks". School based-closure is conceived as parents' relationships that are school bound, but are measured by whether or not parents participate in PTA, and whether parents participated in a school fund raiser.

Fasang et al. 2014). The mixed findings on intergenerational closure, along with mixed results in the social capital literature more generally, call into question the importance of parental social relationships for children's educational outcomes.

Before rejecting the notion that social relationships are consequential for educational outcomes, it is important to consider the limitations of previous work. The inability to identify causal effects nor the direction of effects are two weaknesses of social capital research (Dika and Signh 2002; Mouw 2006). Most studies of social capital and educational achievement have used observational data and have infered associations between closure and some educational outcome. In these studies, social capital, or intergenerational closure, predicts educational achievement which implies a causal ordering whereby social capital causes educational outcomes. Results from a recent field experiment provide preliminary support for the hypothesis that social capital causally effect children's development (Turley, Gamoran, McCarty, and Fish in press) however, greater empirical investigation is necessary.

Mexican-Origin Students Educational Context

In this dissertation, I examine the development and effects of social capital in predominantly low-income Mexican-origin school communities. To date, only a small body of literature pays special attention to Latinos and social capital. Of these studies, scholars have indicated potential heterogeneity of effects (Ream 2005; Ream 2003). However, it is unclear whether heterogeneity in social capital effects is related to differential returns to social capital or different types of social capital. Differentiating between types of social capital or differential effects of social capital is important as it informs not only how to intervene more effectively but also whether social capital can ameliorate educational disparities between and among Latinos.

Educational disparities between Latinos and non-Latinos continue to persist. Work on Latinos′ and early childhood outcomes shows that developmental gaps emerge early in life persist as students enter elementary school. For example, in a study exploring the cognitive trajectories of Mexican American toddlers using the Early Childhood Longitudinal Study (ECLS) Birth Cohort, Fuller and colleagues (2015) found lower growth trajectories among Latino infants compared to infants born to non-Latino white mothers. They also found that these lower cognitive trajectories persist past infancy to early childhood. Similarly, analyzing a nationally representative sample of kindergartners from the ECLS, Kindergarten class of 2010-2011, Mulligan and colleagues found that Latino students in kindergarten have the lowest mean reading and science scale scores compared to their racial/ethnic peers and have similar mean math scales scores to their Black non-Hispanic kindergarten counterparts and trailed behind non-Hispanic whites and Asians in reading, math, and science (Mulligan, McCarroll, Flanagan, and Potter 2014). The authors noted that initial differences found in elementary school persisted as students progressed in their schooling. That educational gaps emerge early in life, suggests that interventions in the beginning of a student′s schooling career may be more consequential than interventions later in one′s life.

Contextual factors, such as depressed economic conditions, may also be implicated in Latinos′ educational disadvantage. For example, there were more Latino children under the age of 18 living in poverty than any other racial or ethnic group in 2010. Similarly, 2010 was the first year in the history of the United States that that single largest group of children living in poverty was not white (Child Trends 2014). Increasing levels of poverty amongst Latino children becomes more pressing because of the increasing representation of Latino students in school. Latino students represent about 1 of every 4 students in the nation′s public school with the

largest shares in elementary school (U.S. Bureau of the Census 2012). It is in the context of high poverty rates and larger shares of young Latino students entering elementary school that we can think of social capital, not as a panacea, but as a potential intervention that can mitigate of effects of constrained resources and background characteristics on educational opportunity for Mexican-origin children.

Social Capital and Latino Educational Outcomes

While there is a sizable body of work on social capital and educational outcomes, there is a smaller but persuasive literature that focuses on Latinos and immigrants. There is some synthesis in the literature that focuses explicitly on the Mexican-origin population but by and large relatively few studies have explored how the Mexican-origin experience may lead to disparate returns to social capital. Nevertheless, our current knowledge on social capital effects for Latinos and immigrants leads to some general conclusions, namely that access to and utilization of social capital for Latinos is less effective compared to their non-Latino peers. Similarly, social capital is less effective in Latino immigrant communities compared to Asian immigrant communities. Each of these findings are explored in greater detail below.

Ricardo Stanton-Salazar's work in *Manufacturing Hope and Despair: The School and Kin Support Networks of US-Mexican Youth* is a seminal book on the experiences of low-status, primarily Latino youth as they traverse educational institutions in pursuit of educational attainment. In his book, Stanton-Salazar (2001) explored Mexican American high school students' to understand how their social networks are shaped by the social context in which they are embedded and how these networks impacted educational achievement. He highlighted the importance of supportive relationships with significant others that allow students to receive the support they need to be successful. However, Stanton-Salazar (2001) also found that schooling practices are often structured in a way that does not allow for the development of supportive

relationships with institutional agents critical to the academic success of poor and minority youth. In subsequent work, Stanton-Salazar and Spina (2003) noted that relationships with institutional agents, important for Mexican youths' academic success, often emerged by chance rather than by structured opportunities provided by schools and institutions. Furthermore, they argued that the opportunity to foster relationships with institutional agents is not facilitated by the social structure in which they are embedded (Stanton-Salazar and Spina 2003). Thus, the authors asserted that limited access to institutional agents is one mechanism of how inequality is (re)produced. The overarching contributions of Stanton-Salazar's work on social capital and Mexican-origin students were his continual focus on the value of supportive social relationships for Latino and a critique of the social system that structures opportunity and access to social relationships that are based on race, class, and gender.

Another book that contributes to our understanding of social capital in Mexican-origin communities is Angela Valenzuela's (2001) book *Subtractive Schooling: US Mexican Youth and the Politics of Caring*. In this book, Valenzuela (2001) explored interactional and structural level processes that disenfranchise 'regular track' students at Seguin High School, a predominantly Latino high school on the east side of Houston, Texas. She argued that social capital is vital for Mexican American students attending Seguin because it allows for the flow of beneficial resources between students. However, the structure of schooling does not allow for the development of these relationships. She noted that a gulf exists between Mexican American students and their foreign-born Mexican peers. The gulf between the students prohibits the realization of shared interests and restricts the flow of resources between groups of students that stand to benefit the most from shared connections. While Valenzuela (2001) acknowledged the structural limitations that impinge upon administrators and teachers in their duties at the school,

she focused primarily on relationships between teachers and students and within students. Her focus on relational aspects highlights assimilationist practices that seek to divest students of their cultural identities and at the same time create cleavages between students, who might otherwise act collectively. Thus, Valenzuela identified social capital as a resource students' can draw on to support each other as they advance in their schooling, while at the same time noting that students may not receive the same returns to social capital.

Although Valenzuela's (1999) and Stanton-Salazar's (2001) works are ethnographic, the finding that institutional structures or social context impede the establishment of resourceful social networks in educational settings for the Mexican-origin population has been a common theme in the literature. For example, Ream (2005) explored the effect of mobility, defined as a non-promotional school move between K-8th grade, on Mexican American students' academic achievement using a sample from the NELS:88 cohort. He found that peer social capital is a significant predictor of 12th grade achievement scores for Mexican-origin youth and that Mexican-origin youth. Ream (2005) also found that higher rates of mobility are also predictive of lower 12th grade math test scores for Mexican youth. Thus, Mexican-origin students are more susceptible to a non-promotional change in schools that results in lower test scores and lower peer social capital. In a subsequent study with a similar NELS:88 sample, Ream and Rumberger (2008) explored associations between student engagement, peer social capital, and school dropout. They found that student engagement, or participation in school-related activities influence friendship networks and that student engagement is also predictive of school completion and dropout with more engaged students more likely to persist and complete. The authors concluded that social capital buffered the effect of student engagement on dropout. However, Ream and Rumberger (2008) also found that Mexican-origin youth were less engaged

than their white peers in school-related extracurricular activities, and had fewer resources outside of school that makes them more likely to drop-out, which suggests that different levels of social capital contribute to Latinos educational disadvantage.

Our current understanding of social capital and Mexican American students suggests that social capital is associated with positive educational outcomes and achievement, however, accessing and utilizing social capital for this population is difficult. One argument for why social capital is difficult to access is because schools as institutions systematically disenfranchise low-income and Latino youth by devaluing the characteristics and culture they bring with them to school (de Gaetano 2007; Garcia-Reid 2007; Lopez 2003; Valenzuela 1999). In addition, factors associated with being low-income and minority, like high rates of mobility, also make access to resourceful social connections difficult. However, a structural argument like the one presented tells us little about how these structures emerge or the relational qualities that (re)produce the structure. Thus, theoretical work on social capital should focus on relational aspects of networks and their formation that details the process of how social capital emerges and develops. Understanding the process allows for more effective interventions to increase access to and utilization of social capital. Neither in the social capital literature focused on Mexican-origin youth nor in the more general social capital literature do we have a good understanding of what this process looks like (Cook 2014; Small 2009). Small (2009) provides some initial guidance by focusing on daycare centers and their role as imbedded institutions in facilitating social connections but we know less about how the process develops organically in low-income communities that are often resource poor and tend to rely on educational institutions for extracurricular activities (Bennett, Lutz, and Jayaram 2012). This dissertation addresses this gap in the literature by exploring the process of how school-based relationships develop and how

parents make sense of and utilize these relationships in predominantly low-income Mexican-origin communities. The goal is to understand the process and explore barriers that impinge on the establishment of these relationships and factors that also facilitate their development.

Another issue with extant literature on social capital is the increased attention placed on Latino high school students (Stanton-Salazar 2011; Valenzuela 1999; Ream 2005, Ream and Rumberger 2008) to the neglect of significant attention in elementary school grades that are also consequential for later educational outcomes. While persistence and completion in high school are material for understanding educational disparities, research demonstrates that disadvantage emerges early and is often cumulative over the life course (DiPrete and Eirich 2006). Knowledge about social capital in earlier grades, particularly in elementary schools remains an overlooked aspect of the literature. My dissertation addresses these gaps by giving us better insight to how social capital develops in Mexican-origin communities. In addition, I explore the effects of social capital in elementary school by focusing on the development and effects of social capital in early grades. This focus on early grades provides a more complete picture on the ways social capital effects achievement in the early life course, relevant for persistence and completion in later schooling.

Social Capital and Mexican Immigrants

While our knowledge about how social capital operates in Mexican American communities is limited, there is a more substantial body of work on Mexican immigrants and social capital. The most important takeaways from the work on social capital and Mexican immigrant educational outcomes is, first, the significant disadvantage Mexican immigrants face in the United States and second, the need to account for intergenerational differences amongst Mexican immigrants. In addressing the Mexican immigrant disadvantage, the research is clear, Mexican immigrants, on average, are disadvantaged in purely economic terms but also in

relation to their access to and utilization of social capital (Zhou and Bankston 1994; Kao and Rutherford 2007; Hao and Bronstead-Bruns 1998; Pong, Hao, and Gardner 2005). In their study on effects of social capital and immigrants, Kao and Rutherford (2007), utilized intergenerational closure and parental involvement as their measures of social capital. They found that first and second-generation Latino immigrants did not receive the same boost in educational achievement from their levels of social capital compared to the immigrant peers (Kao and Rutherford 2007). While Ream and Rumberger (2008) suggested that differential levels of social capital explained educational disadvantage, Kao and Rutherford emphasized differential returns to social capital for Latinos.

Social capital may be ineffective in its ability to overcome the challenges that Mexican immigrants bring with them, such as diminished economic opportunities, nor the hostile reception they receive upon entry. For example, Haller, Portes, and Lynch (2011) noted that Mexican immigrants face a much more hostile reception compared to other immigrants. As a result of the hostile reception, Mexican immigrants′ upward mobility was more in peril compared to other immigrant in terms of life chances and educational opportunities. In addition, the overall level of education parents bring with them from their home countries also partially explains the disparate educational outcomes for Mexican immigrant students (Pong, Hao, and Gardner 2005; Suzrez-Orozco, Suarez-Orosco, Todorova: p.357). Similarly, Mexican immigrant students face a host of challenges to educational achievement, such as attending majority minority schools (Crosnoe and Turley 2011), living in concentrated poverty (Murphey, Guzman, and Torres 2014), and increased barriers to parental school involvement (Turney and Kao 2009). Taken together, social capital′s ameliorative potential may do little to impact the serious challenges Latinos face in pursuit of increased educational attainment and advancement.

To fully evaluate if and how social capital can mitigate structural barriers faced by Mexican immigrants, generational differences must also be considered. Most of the current work on Mexican immigrants tend to confound generational differences. For example, the *Mexican immigrant paradox,* or the finding that Mexican immigrants tends to have better educational outcomes that their Mexican American peers' rests on the premise that generational differences are a matter of fact (Crosnoe 2012). Portes and Rumbaut's (2014) early work suggests that a breakdown in social capital in heavily immigrant communities is responsible for subsequent generations doing worse than their immigrant peers. Portes and Rumbaut (2014) advance the concept of *dissonant acculturation* or the idea that mechanisms of social control in these ethnic enclaves break down that permits immigrant to assimilate into the underclass of their native-born peers, as an early explanation for the immigrant paradox.

However, the fact that the paradox is found in other outcomes, like health (Hernandez et. al. 2012), suggests dissonant acculturation is an insufficient explanation for the immigrant paradox because health outcomes do not appear to be linked to social control. One explanation for the immigrant paradox found in health is that immigrants may be less likely to perceive their health as poor , rather than there being drastic variations in health across generations (Gorman, Read, and Krueger 2010). The fact that there are competing explanations for different outcomes (i.e education, mortality, birth weight, etc) suggests larger structural processes may be at play (Hummer et al., 2007; Osypuk, Bates, and Acevedo-Garcia 2010; Suárez-Orozco, Rhodes, Milburn 2009). Since we know very little about processes that lead to the immigrant paradox, it becomes more difficult to describe the differences in generational outcomes. A starting point might be to better understand intergenerational differences among Mexican immigrants.

My dissertation aims to address some of the gaps in the literature as it relates to the immigrant paradox. First, by studying elementary school students longitudinally, I can better understand whether and how the immigrant paradox emerges in early childhood and how it manifests as students' transition from first to third grade. Moreover, I can explore how inducing social capital in some families but not others affect students' behavior. For example, if we conceive of student behavior as a proxy for social control—or the idea that student behavior is a by-product of the internalization of social norms for appropriate comportment in the classroom--we can understand how inducements in social capital affect classroom behavior.

Research Questions

In this dissertation, I ask three main research questions about the development and effects of social capital among Mexican-origin families in predominantly low-income Latino communities. First, I ask, how effective is a family engagement program in enhancing the structure (or size) and quality of school-based social capital for Mexican-origin parents, and are program effects fleeting or sustained over time? Second, I ask, what are the effects of social capital on Mexican-origin children's socio-emotional development and achievement outcomes, and how do these effects vary by parental language dominance status and children's English language proficiency? Last, I ask, how do social relationships develop and what structural factors promote or impede the development of these relationships? I now turn to describing each proposed chapter in greater detail.

Chapter 2: Looking Near and Far: A Longitudinal Investigation of the Effects of a Family Engagement Program on the Structure and Quality of Parental Social Relationships

In the first empirical chapter, I examine the effects of a family engagement intervention on the size and quality of relationships for Mexican-origin families and their students. And, I explore whether these effects are fleeting or sustained over time. While previous work has

considered a similar question by focusing on the overall treatment effect of the intervention on the quality and structure of parental social relationships (Rangel, Shoji, and Gamoran 2014), it paid no attention to potential effect heterogeneity nor did it focus on Latinos. Thus, my analyses explore the impact of the intervention on the size and qualities of Mexican-origin parents' networks and the effects of the intervention on the maintenance of those relationships over time. As students transition from first to third grade, how did the intervention affect parental networks? In considering this questions, I assess treatment effect heterogeneity between Mexican American parents and their Mexican immigrant counterparts and also how effects of social capital, as manipulated by the intervention, vary for immigrants by their length of residence in the United States.

The analysis for this chapter has broad policy implications. Did the intervention affect all populations in a similar manner or are there differential returns to the intervention amongst Mexican-origin parents and if there are differences, what are potential explanations? This chapter focuses on the efficacy of an intervention in the establishment and development of social relationships. There is little evidence about whether and how social capital can be built in these communities. In assessing the effects of the intervention, I address how effects vary by Latino sub-group, if at all, and also address whether not social capital can be built in communities where structural influences might impede its establishment. Moreover, while interventions provide a snapshot of a specific period in time, the longitudinal nature of the design and data collection, allows me to explore longer term impacts of the intervention, which few studies of social capital have evaluated.

Chapter 3: The Effects of Social Capital on Mexican-origin Children's Educational Outcomes

In this second empirical chapter, I examine the effects of social capital on children's behavioral outcomes in first grade. I am particularly interested in how social capital differentially

affects the Mexican-origin population.[2] Thus, I explore treatment effect heterogeneity by examining how social capital effects vary by parental language dominance (English or Spanish), and children's English language proficiency (ELL or non-ELL). This chapter departs from previous literature in two ways. First, I provide causal estimates of the effects of social capital on socio-emotional outcomes relevant for educational success. Previous work on social capital is limited by the use of observational data, an inability to provide causal estimates of the effects of social capital, and ambiguity about causal ordering. My data come from a randomized field experiment that manipulates social relationships. Manipulating social relationships addresses the issue of causal ordering by intervening on a specific point in time and then exploring effects after the intervention. Second, I examine how the effects of social capital vary within the Mexican-origin population, which allows me to explore treatment effect heterogeneity. As such, I provide a more complete picture of the effects of social capital on relevant educational outcomes and how these outcomes vary by indicators of one's social and cultural status. While achievement outcomes have long been of interest in the social capital literature, there has been less focus on non-cognitive outcomes.

Chapter 4: Social Tie and Social Capital Emergence in Low-Income Latino Communities

In this chapter, I explore how Mexican-origin parents meet one another in the school-community context and explore the meaning these relationships hold for parents. Based on qualitative interviews I conducted with parents, I aim to investigate how parents begin to form social relationships in the school community, and how these relationships develop into deeper more trusting relationships. I am also interested in factors that impinge upon or facilitate one's ability to establish resourceful social relationships or factors that might serve to catalyze the

[2] I infer nativity status from parental language dominance and by children's English language learner status. A I provide greater detail in chapter 3.

formation of these relationships. I begin with simply trying to understand how parents meet other parents and then explore how those relationships develop over time. I also explore what parents think about how schools structure opportunities for parents to meet one another. In addition, I explore how one's immigration status—documented or undocumented--uniquely shapes how parents seek out and form relationships with other parents in the school community.

Most work on network ties has focused on their effects rather than on their formation (Cook 2014, Small 2009). By focusing on the effects of social ties and not tie formation, we know little about how tie formation process could be a mechanism of inequality (Small 2009). The little evidence we do have suggests that the organizations we actively participate in and that are embedded in communities, influence and organize social ties we form with others (Shoji et al., 2014; Small 2009). In his book *Unanticipated Gains,* (Small 2009) advances the 'organizational embeddedness perspective on social capital' to identify how organizations shape tie formation, offer access to resources, and serve as a broker for connecting individuals to other actors. In reaching these conclusions, he relied primarily on interviews with mothers at childcare centers in New York to understand how ties form and develop into deeper, more trusting relationships.

I see my dissertation as distinct from Small's study in two primary ways. First, I focus on relationships in the school community where we know schools make explicit attempts to foster relationships amongst parents. Using parent interview data, I highlight the role of children in the formation of school-based parental social relationships. Second, interviews were collected during a period of heavy immigrant policing in the Southwest. This unique context is consequential for establishing trusting relationships with other parents, particularly for undocumented immigrants in Phoenix, Arizona (one of my data collection sites). In short, how social ties from and social

capital develops is not well understood, particularly in the school community context. Also, we know might be unique barriers to establishing resourceful social relationships due to the social context in which these families are embedded.

The Intervention---Families and Schools Together (FAST)

In chapters two and three of the dissertation, I explore the effects of a family engagement intervention known as Families and Schools Together (FAST) on various social and educational outcomes. In this section, I provide background on the FAST program and detail how the program builds social capital. FAST is a multi-family group after-school intervention program focused on promoting children's development by improving inter and intra family communication. As of 2009, FAST had been successfully implemented in more than 800 schools across the United States. FAST is listed by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Department of Justice, Office of Juvenile Justice and Delinquency as an effective and "exemplary" research based model program (Kratochwill et al., 2009)

The FAST program is implemented by a trained team that is constitutive and representative of the families participating in the program. At minimum, there are 4 FAST team member that include a parent from the school, a school staff member, and two members from the local community experienced in implementing FAST (Kratochwill et al. 2004). The program takes place over an 8-week period with families attending once a week. FAST sessions last about 2 and a half hours with activities that include a meal, singing, parent group, and child's play. These activities were designed to build social capital, enhance family functioning, and reduce family stress (Kratochwill et al. 2009). Previous evaluations of FAST demonstrated its efficacy in randomized controlled trials by improving academic performance for children and reduced

delinquent and aggressive behavior (Kratochwill et al. 2004, Kratochwill et al 2009, Layzer et al. 2001, McDonald et al. 2006).

Although FAST had been implemented previously in under-resourced communities, there had been little attention paid to the way in which the program builds social capital. Recently Shoji, Haskins, Rangel, and Sorenson (2014), found that social capital is built through the FAST program via four main mechanisms that arise through interaction: responsive communication, reciprocal communication, shared experiences, and institutional linkage. Thus, FAST institutionally structures interactions amongst parents to foster relationships. Most of this interaction occurs during Parent Time, which is 55-minute block of time where parents connect with other parents through one-on-one adult conversation, referred to as "buddy time" for 25 minutes. Subsequently, families then engage in a large-group discussion (parent-group) about a topic of their choosing that is facilitated by a team member.

Data

Data for this dissertation come from the Children, Families, and Schools (CFS) project, a cluster randomized field experiment in two southwestern cities in the United States. The CFS study was implemented from 2008 to 2012. The goal of the study was to assess the effects of social capital on children's socio-emotional and educational outcomes. Utilizing surveys of parents and teachers, we tracked the behavior and educational outcomes of children before and after the intervention and as children transitioned from first to second, and second to third grade. I was a member of the CFS study research team since 2008 and was directly involved in the recruitment of families, conducting FAST site visits, and collecting and managing survey data. In addition, I designed and implemented a companion interview study with a sub-sample of families from the larger CFS study, which I utilize in chapter four.

Study Design and Family Recruitment

The CFS study utilized the FAST intervention to manipulate parent's relationships in first grade to explore the consequences of the intervention on parental relationships and various educationally relevant outcomes. In total, 52 schools and 3,084 first-graders and their families in San Antonio, TX and Phoenix, AZ participated in the study. In San Antonio, we worked with one school district, while in Phoenix, we worked with three different school districts across the city. We first recruited districts for participation into the overall study, subsequently, we randomly assigned schools within the district to receive the FAST intervention while the other schools served as controls. The large number of participating schools necessitated that we stagger implementation of the intervention across two consecutive academic school years, 2008 and 2009. Schools were randomly assigned to either the 2008 or 2009 school year. In the first school year, 2008, we ran three cycles of FAST (fall, winter, and spring). Within each cycle, there were 3 or 4 schools in each city receiving the intervention. In the 2009 academic year, we implemented FAST the same as the year prior with the cycles again spread out across fall, winter, and spring.

The research team and local service agencies shared in the task of recruitment. Recruitment occurred primarily through back-to-school nights at participating elementary schools. There, along with members of the research team, the overall study was presented to families. A meal was offered to encourage families to attend these back-to-school nights. In addition, members of the research team and the local service agency met with teachers and principals prior to these events to encourage their participation and secure buy-in. At the back-to-school nights, research and service agency staff presented information to parents about the study and invited their participation. At treatment schools, request for participation into the study as well as FAST was done concurrently, however, parents had the option of consenting to the study

but not FAST or to participate in FAST but not consent to the study. Rejections were rare. It was more often the case that families at FAST schools consented to the study and to FAST but never showed up for a FAST Night. Around 73% of families that consented to both the study and FAST attended at least one FAST Night.

Although back-to-school nights were the primary mode of recruitment, we also conducted home visits and attended parent-teacher conferences to increase participation and to ensure contact with as many families as possible. There was balanced recruitment across all schools as 1,493 families were recruited to the study in controls schools, while 1,591 families were recruited at FAST schools. Of the universe of all first-grade students and families at the 52 schools, about 60 percent consented to participate in the study.

Data Collection

We collected data over three years from a variety sources that included teachers, principals, parents, and district administrative records. Pre-test and post-test surveys were given to parents when all children were in first grade. In addition, we collected post-test surveys from first grade teachers. We followed up with parents when the children transitioned to second grade and third grade, our final year of data collection. To supplement teacher and parent survey data, we also collected student's third-grade statewide test score data in the third year of the study. We also collected district administrative records for our participating students.

Study Population and Sample

The CFS study selected cities and districts because of the high proportion of low-income Latino families. The total sample (n=3,084) reflects this choice as just over 75 percent of the children are Latino and 80 percent of the sample quality for free or reduced lunch. Also, there is substantial variability in the sample among Latinos as 33 percent of the Latino students were

labeled as ELL in first grade. Among parents, 36 percent were born outside of the US and about 28 percent are native Spanish speakers.

Data Sources

I draw on two main data sources for this dissertation. For the quantitative data, I use CFS data collected from parent questionnaires', teacher surveys, districts administrative records, and third grade test scores. For the qualitative data, I will use interviews collected from a subsample of parents participating in the larger CFS study.

Questionnaire Data. The bulk of the questionnaire data for this dissertation utilizes parent surveys and teacher surveys that were administered at various points across the three years of the study. We surveyed parents at 4 time points over the study period and asked them to report on their relationships with school staff, with teachers, and with other families in the school community. Families in treatment and control schools completed two surveys in the first year of the study. The initial survey (prior to FAST implementation at treatment schools) was administered in person when parents consented to the study. The second survey (post- survey) was administered after the end of the first grade year. Parents were again surveyed in the spring of the second and third years of the study. The pre-test survey was administered in person and offered in English or Spanish depending on the parent's preference. The subsequent three follow-up surveys (post-test, year 2, and year 3) were administered by the university survey center. The survey center mailed out surveys to all participating families and also conducted interviews by telephone (in English or Spanish) to facilitate completion of the surveys.

In addition to parent surveys, we also collected data from principals (not used in the dissertation) and teachers. We surveyed teachers in the first year and third year of the study, when all the students were in first grade and when most were in third grade. We asked teachers

about their relationship with the student and their relationship with the child's parents. In addition, teachers completed a socio-emotional behavioral assessment for each participating child. Almost all of the parents completed the pre-treatment questionnaire (99.8%) but response rates for the follow-up surveys were lower. For example, only 66% of families completed the post-survey in year one and we received only 41% of parents' surveys in year 2 and 45% in year 3. While parents were surveyed four times throughout the study, we surveyed teachers when students were in first grade and two years later, when most of the students were in third grade. As long as students moved within the same district, we were able to track the student to the new school and their new teachers. Teacher response rates in both years were high, 95% and 92% respectively. However, due to sample attrition, the 92 percent teacher response rate in the third year accounted for only 69% of the original first grade student sample (n=2,131). In addition to parent and teacher surveys, we also collected district records for all of our students when they were in first grade. The district data provides a demographic picture of the student with information on race/ethnicity, ELL status, Free and Reduced Lunch status, and days absent in first grade.

Interview Data. The interview data comes from a sub-sample of CFS parents from 8 schools participating in the spring 2010 cycle. A colleague and I conducted interviews with parents between March 2011 and May 2012, when the target child was either in second (due to retention) or third grade.[3] Our interview sample was selected purposively, using a sample of parents from a roster of parents that consented to the study. In each of the 8 schools (4 FAST and 4 Control), we aimed to interview 4 families. We were interested in the experiences of families that graduated from FAST (attended at least 6 sessions) as well as families that chose not to

[3] In one unique case, an advanced student was placed in 4th grade.

participate when FAST was offered (attended fewer than 2 times).[4] In addition, we sought balance across parental language dominance (English or Spanish), although this was difficult in some schools where parents were predominantly English speaking or predominantly Spanish speaking. In total, we made 268 recruitment calls and were able to make contact with an adult in 28% of these calls. In 38% of the cases there were no answers and 37% of the numbers were no longer in service. When we reached parents, we told them about our interest in learning about their experiences with the school and the wider community. In addition, we informed parents that we would provide dinner for the whole family and would reimburse parents 10 dollars per hour of interview for agreeing to the interview. Of the families were able to reach on the phone, 45% consented to participate in the interview with only 23% refusing out-right because they were uninterested or due to special circumstances like serious illness. The rest of the families (32%) indicated some interest but due to scheduling conflicts, we were unable to interview them. In total, we interviewed 57 parents from 34 families.

With only a few exceptions, our interviews occurred in person and at the families' place of residence. A day or two prior to our scheduled interview we called parents to collect their food order and confirm their participation. On the day of the interview, we arrived at the house at the scheduled time with food in hand. We began by introducing ourselves and requesting the parents' permission to begin recording upon immediately entering the house. We then shared a meal with the family and spent time conversing and getting to know the various family members. Dinner (or lunch in a few cases) usually lasted no more than 60 minutes. After the dinner, my colleague

[4] In control schools we predicted a family's level of attendance using an ordered logit model. The model allowed us to group families in control schools into two categories, potential FAST graduate and potential low attenders. After a few interviews with this sampling strategy, we discussed our impressions of the interview and whether or not we felt the model correctly predicted parent's attendance. In the end, we concluded that the model was not helpful in correctly predicting parents' attendance levels. Nevertheless, for continuity we continued with this sampling strategy.

and I conducted the parent interviews separately and simultaneously, where I interviewed the male guardian, while my colleague interviewed the female guardian. When only one parent was present, we would usually co-interview the parent during the dinner portion and not have a separate interview. In these instances, we would take turns asking questions or allowed one interviewer to dictate the flow and direction of the interview. All interviews were semi-structured to elicit narratives, feelings, and opinions about the parents' relationship with the school, their relationships with other parents in their community, and within their own families. We audio recorded the dinners as well as the interviews with digital recorders. Once the interviews were completed, we paid the families for their time and often spent additional time chatting with the parents. We usually spent about 3 to 4 hours at each family's house.

Upon the conclusion of our family visit, my colleague and I would write up field notes about the interviews and then conduct audio-debriefing sessions where we would talk about the interview, how it went, challenges we faced, and how each interview illuminated new theoretical insights and future directions for subsequent interviews. The debriefing sessions lasted anywhere from 30 to 120 minutes. Audio recordings for the interviews and debriefing sessions were later orthographically transcribed and translated (in the case of Spanish interviews).

Methods

In this dissertation, I use both quantitative and qualitative techniques to explore my three research questions. In each subsequent empirical chapter, I describe my measures, sample and analytic plan. The qualitative chapter will employ inductive analytic techniques, while the quantitative chapters will employ regression-based hypothesis testing. Small (2011) refers to mixing of quantitative and qualitative data to benefit from the strengths of both type of data as complementarity. Complementarity designs are common amongst researchers who do not want to be limited by the knowledge that can be gained from one given type of data (Small 2011). My

goal in combining qualitative and quantitative data in this dissertation is to deepen our sociological understanding of social capital (as noted by Lee 2014) by illuminating how social capital develops and its effects on educational outcomes in low-income Latino communities.

Chapter 2: Looking Near and Far: A Longitudinal Investigation of the Effects of a Family Engagement Program on the Structure and Quality of Parental Social Relationships

Addressing racial and ethnic educational disparities continues to be a pressing social problem in the United States. Gaps in achievement between Latinos and non-Latino whites appear early and persist into high school, where Latino students are at a higher risk of dropping-out. Early childhood researchers have found that cognitive disparities emerge in early infancy and persist through toddlerhood (Fuller et al. 2015). Scholars have also found that Latino students are already at a developmental disadvantage when they begin elementary school: Latino kindergartners have lower average math and reading scores than their non-Latino white peers. Utilizing ECLS-K data, Reardon and Galindo (2009) reported Latino-white reading achievement gaps of .72 to .92 standard deviations, depending on potential measurement error, and math gaps of .51 to .61 standard deviations (Reardon and Galindo 2009). Because there is a large population of Latino students already in the educational pipeline, and this population is projected to increase in the coming years—Latinos are expected to be one-third of all students in elementary schools in 2022 (Hussar and Bailey 2014)—there is an immediate need to address the these achievement gaps.

Although gaps between Latinos and non-Latino whites are important indicators of inequality, it is also necessary to consider potential within-group differences, as Latinos are hardly a monolithic group. Mexican-origin youth face a host of social and contextual constraints—from increased acculturation pressures (Finch and Vega 2003) to ethnic and racial discrimination (Kulis, Marsiglia and Nieri 2009) to a schooling system that systematically segregates and disenfranchises Mexican-origin youth (Valencia 2005)—that have collectively contributed to Mexican-origin youth having lower overall educational attainment levels than any other Latino subgroup (Census 2012, Kulis et al. 2009, Portes and Rumbaut 2014, Ream and

Rumberger 2008). The low educational attainment of the Mexican-origin population is consequential because this group constitutes almost two-thirds of all Latinos in the United States and accounts for 70 percent of all Latinos in the K-12 educational pipeline. Thus, although most work focuses on Latino-white educational disparities, understanding within-group variation can provide important insights into addressing these disparities.

One proposed means of addressing low educational attainment among Latinos is by increasing their *social capital*, or social relationships embedded in social networks characterized by trust, reciprocity, and shared expectations. Scholars have argued that a relative lack of both peer connections and connections within immigrant and racial/ethnic minority communities contribute to the low educational attainment of Latinos (Ream 2003, Ream and Rumberger 2008, Stanton-Salazar and Dornbusch 1995, Valenzuela 1999). Moreover, there is strong evidence that the structure of schooling impinges upon students' and parents' ability to foster the relationships necessary for positive educational outcomes (Garcia-Reid 2007, Stanton-Salazar 2001, Valenzuela 1999). These studies provide strong evidence that increasing social capital may reduce Latino-white educational disparities, while at the same time demonstrating that the emergence of social capital in under-resourced school communities cannot be assumed.

However, while much has been written about social capital and its importance to low-income Latino communities (Denner et al. 2001, Monkman, Ronald and Théramène 2005, Ream and Rumberger 2008, Stanton-Salazar 1997, Stanton-Salazar and Dornbusch 1995, Valenzuela 1999), scholars know less about both how to effectively intervene and build social capital in these communities and the potential long-term consequences of social capital. In previous work with several colleagues (Shoji et al. 2014), I advanced a model describing the process of social capital emergence. Drawing on parent interview data, my co-authors and I detailed how

relationships, within the context of a family engagement program, transform from mere interaction into social capital, or relationships characterized by trust, reciprocity, and shared expectations. While we provided strong empirical support for a model of social capital emergence, the limitations of qualitative data circumscribed our ability to ascertain the wider impacts of the program. In particular, we were unable to address the overall question of whether the program was successful in building social capital in under-resourced Latino communities among a wide swath of families rather than among only those participating in the focus group.

To better understand if and how social capital can be built, this chapter seeks to answer two interrelated research questions that address the emergence of intergenerational closure and the quality of parental social relationships in under-resourced Latino communities. To assess programmatic effects, I first draw on experimental data from a field trial in predominantly low-income Latino elementary schools to examine the effects of a family engagement program on the structure and quality of relationships for Mexican-origin families and their students. Second, I explore whether the program effects are fleeting or sustained over time as students' transition from first to third grade. The results indicate initial positive and significant programmatic effects on both the quality and quantity of parental relationships, but varied long term effects. I find that as children transition to third grade, positive programmatic effects on the quality of parental relationships are sustained. In contrast, I find that initial positive programmatic effects on the quantity of parental relationships are not sustained. Finally, I discuss the implications of the study for building social relationships among parents in urban Latino school communities, and consider the barriers to building lasting social relationships in these communities.

Social Capital and Family Diversity

What is Social Capital?

Social capital has been the subject of considerable empirical investigation over the past few decades. This research has been heavily influenced by James Coleman and his operationalization of social capital. In Coleman's (Coleman 1988) view, social capital is defined by its function, meaning it is an individual-level resource that allows the achievement of some end that would otherwise not be obtainable. However, while social capital is available to individuals, it is embedded in a web of social relations. As such, social capital is accessible to individuals through their participation in a given network (Coleman 1990).

How Is Social Capital Created, Maintained, and Destroyed?

Coleman offered limited insight into how social capital is created. He identified several factors that influenced the development of social capital, namely social closure, stability, and ideology. He focused most strongly on the role of social closure, arguing that social capital was more likely to emerge when social relations occurred within a closed network. A closed network, allows for the enforcement of norms and the development of trust (Coleman 1990). In the context of parents and children, Coleman (1990) argued that *intergenerational closure*, a situation in which parents and children in a community are connected with one another, allows for the establishment of norms and trust. In school settings, parental relationships facilitate the flow of information and resources among parents and lead to better educational outcomes for children (Carbonaro 1998, Coleman and Hoffer 1987).

While Coleman enumerated the resources provided by social closure, he was less clear about causal ordering. For example, he argued that norms, obligations and expectations, and information channels are more likely to emerge when a network is closed. However, he also

asserted that trust, norms, and trustworthiness facilitate the development of closed networks. This tautology in Coleman's arguments is not lost on social capital scholars who criticize him for confounding social capital with the resources it provides, and for not addressing the problem of causal ordering (Portes and Landolt 2000, Woolcock 1998). In the present chapter, I address the questions that form the basis of these critiques by manipulating parental social relationships and subsequently exploring the effects of this manipulation on both the *size* of parents' networks—measured via intergenerational closure—and the *quality* of parental relationships within the network—measured via trust, reciprocity, and shared expectations.

Structure of Social Networks

In their empirical work, scholars in the field of education research have focused extensively on intergenerational closure (Carbonaro 1998, Fasang, Mangino and Brückner 2014, Hallinan and Kubitschek 1999, Kim and Schneider 2005, Morgan and Sørensen 1999a). This focus is partly attributable to Coleman's own work in which he argued that social capital was more likely to emerge in Catholic school settings than in public school settings (Coleman, Hoffer and Kilgore 1982). He asserted that social capital emerged, not because of curricular demands in Catholic schools, but rather because the schools fostered community between parents and students in a way public schools did not (Coleman and Hoffer 1987). Bryk, Lee, and Holland (1993) further elaborated this point and argued that the increased educational achievement of Catholic high school students was due in large part to the supportive social environment, particularly among parents (p.378).

The early work of Carbonaro (1998, 1999) and Morgan and Sorensen (1999a, 1999b) are foundational to the study of social capital and intergenerational closure. Using data from the National Educational Longitudinal Study, 88 (NELS:88) to test the relationship between

intergenerational closure and educational outcomes, Carbonaro (1998) found mixed results on the effects of closure. Closure was associated with a decreased likelihood of dropout and higher math achievement, but had no effect on reading or science achievement. In a follow-up study using the same data, Morgan and Sorensen (1999a, 1999b) contra Carbonaro, found that closure was unrelated to math achievement, and in fact, had a negative effect on achievement, although this finding was later disputed (Carbonaro 1999, Morgan and Todd 2009). Based on their findings, Morgan and Sorensen (1999a) argued that the Catholic school effect on learning (the idea that similar students will learn more in Catholic schools than public schools) was not explained by intergenerational closure and instead was likely related to Catholic school students being required to only take college preparatory courses.

These early empirical tests of intergenerational closure are important for two main reasons. First, these studies were some of the first explicit tests of Coleman's theory. Second, these early studies highlighted the limitations of the available data for adequately testing Coleman's core concepts of social capital (Halinan and Kubitcheck 1999; Morgan and Sorensen 1999), and thus influenced the development of the Educational Longitudinal Study of 2002, which provided more extensive data on parents' and children's school-based social networks (Morgan and Todd 2009).

Intergenerational Closure in Latino Communities. Although researchers have rigorously evaluated intergenerational closure, it is unclear whether the concept is applicable in under-resourced Latino communities. For example, some scholars have criticized the concept of intergenerational closure for being a middle-class phenomenon (Horvat, Weininger and Lareau 2003, Stanton-Salazar 2001). In his study of Mexican-origin students and their help-seeking practices in school, Stanton-Salazar (2001) asserted that the "conflictive" and dangerous social

environments of the racial and ethnic minority youth he studied stood in stark contrast to Coleman's middle-class assumptions that parents and institutions uphold and enforce shared norms and sanction inappropriate behavior. In under-resourced and minority communities, social institutions are often the source of conflict rather than. For example, Noguera (2001) argued that urban schools are sources of conflict because they are not responsive to the concerns of parents, and they implement reforms without gathering sufficient input from parents and students. In her ethnographic study of Mexican-origin youth, Valenzuela (1999) further critiqued the process of schooling and argued that the educational system served to disenfranchise the youth in her study. She found that instead of utilizing students' experiences as a resource, urban schools devalue the contributions of parents and children in ways that detract from their schooling.

Despite these critiques, scholars still utilize intergenerational closure in studies of Latino families. For example, in a study of parenting style and educational performance with a focus on Asian and Latino children, Pong, Hao, and Gardner (2005) found that Latino parents had lower levels of intergenerational closure than their white and Asian peers, although Latino parents' busier schedules and lower levels of comfort in school settings may explain the difference. Similarly, focusing on Latino and immigrant students using a sub-sample of parents and students from NELS:88, Kao and Rutherford (2007) found that, relative to third generation white students, immigrant students had lower levels of intergenerational closure and experienced less parental involvement in school activities. Importantly, the authors found that in each generation (first, second, and third) of immigrant students, Latino students had the lowest levels of social capital. Adopting a more fine-grained approach, Freeman and Condron (2011) explored the intersection of race and class in intergenerational closure. Perhaps unsurprisingly given previous work, the authors found that Latinos have the lowest levels of intergenerational closure among

their peers and that closure varies little across class categories for this group. Collectively, the studies reviewed in this section point to two conclusions: First, intergenerational closure is low among Latino families, and second, schools are partly responsible for the low levels of intergenerational closure among Latino families. As such, the establishment of parental social relationships in under-resourced school communities cannot be assumed.

Quality of Relationships

Social capital scholars often distinguish between the *quantity* and *quality* of social relationships (Cook 2005, Lin 2000, Portes and Landolt 2000). While quantity speaks to the size of parents' networks, quality speaks to the nature of the social interaction occurring within a network. Relational qualities such as trust and reciprocity are central aspects of social capital theory. For example, Coleman (1988) argued that trust in a dyadic relationship (e.g., parent-parent or parent-child) is important because it offers psychological benefits through social support. Similarly, reciprocity in a network allows for continual give-and-take and is foundational for the development of solidarity in a network (Molm 2010). Thus, relational qualities are important to consider because they reveal more about the resources within a network that allow for the achievement of some end.

Importantly, relational qualities have been linked to a variety of educational outcomes (Feliciano and Lanuza 2015, Goyette and Xie 1999, Hao and Bonstead-Bruns 1998, Sewell, Haller and Portes 1969, Wang and Benner 2014, Zhou and Bankston 1994). However, while scholars have acknowledged the importance of expectations, trust, and other qualities of relationships for educational outcomes (Morgan and Todd 2009) the resulting studies have, for the most part, focused on singular aspects of relational quality and in so doing divorced these relational aspects from social capital theory. However, the few studies attempting to link social

capital theory and relational qualities are mixed and inconclusive (Goddard 2003; Furstenbug and Hughes 1995), and as such, warrant further investigation.

In sum, although social capital has been subjected to substantial empirical examination, the scholarly knowledge remains limited. In particular, research on intergenerational closure has repeatedly found that, relative to their peers in other racial and ethnic groups, Latino parents know fewer of their children's friends, and thus the literature suggests that building and sustaining school-based Latino parental networks is challenging. Moreover, very few studies have examined the quality of relationships among Latino parents even though the presence of barriers to establishing school relationships, such as unpredictable work schedules and less comfort in school settings, likely means that parental relationships may be less supportive in these communities.

Using data from a large field experiment in which some parental relationships were manipulated and others were not, I ask the following questions: (1) Can an after-school program (Families and Schools Together or FAST) increase the size and quality of school-based parental relationships among first-grade families? (2) Are programmatic effects fleeting or sustained as children and families transition from first to third grade?

Methods

In this chapter, I assess the effects of the FAST intervention on the size and quality of parental social relationships as children transition from first to third grade. I utilize data from the Children, Families, and Schools (CFS) study, a longitudinal cluster-randomized controlled trial of first-grade families in Phoenix, Arizona and San Antonio, Texas. These cities were selected because of their high proportions of Latinos and the presence of local service partners experienced in implementing the intervention. The CFS study, which began in 2008, uses the

FAST intervention to manipulate parents' social networks, initially through an eight-week program of multi-family group meetings, and subsequently through monthly parent-led group meetings over the following two years. A total of 52 schools (26 in each city) were randomized such that half of the groups in each city received the FAST intervention, and the other half served as controls. For logistical reasons, FAST implementation was staggered across two successive cohorts of first graders (one entering first grade in 2008 and the other in 2009) and three implementation cycles within each year (beginning in the fall, winter, or spring). Schools were randomly assigned to the 2008 or 2009 cohorts as well as to the intervention or control groups.

Intervention Approach to Studying Social Capital

The FAST program provides the unique opportunity to study the formation of parental social relationships in the school context (Shoij et al. 2014). Normally, school-based relationships develop organically, which may make it difficult to study their emergence and subsequent effects. However, utilizing a program that manipulates the social relationships of some parents but not others allows the exploration of not only what happens in the presence of an intervention, but importantly, how social relationships normally develop for parents, particularly Latino parents in under-resourced communities. Thus, the benefits of the manipulation are two-fold: it permits the estimation of the effects of the FAST program on the size and quality of parental social relationships, and it provides an opportunity to better understand what "business as usual" looks like in similar school communities. While FAST has proven efficacious in previous randomized controlled trails examining a variety of health and behavioral outcomes (Fiel, Haskins and Turley 2013, Knox et al. 2011, Kratochwill et al. 2004, Kratochwill et al. 2009), there has been little investigation of the program's ability to build social

capital among Latino families (Gamoran et al. 2012), and even less research on the persistence of effects over time.

Description of FAST Sessions

In this section I briefly review the FAST program, paying special attention to the components responsible for building and sustaining the size and quality of parental social networks.[5] FAST is a multi-family after-school group program focused on promoting children's healthy development by strengthening within-family, between-family, and family-school relationships among parents, between parents, and between parents and school staff. The program includes eight weekly FAST meeting nights followed by two years of parent-led monthly follow-up meetings. Weekly meetings last two and a half hours, and parents and children participate in 12 core processes that promote social bonding. For example, during "parent time," parents spend 45 minutes developing and sustaining relationships, while their children are supervised in a separate room. For 15 of these 45 minutes, parents engage in "buddy time," during which they pair up with one another to allow for one-on-one adult interaction. Spouses often spend the time speaking with each other, but if only one parent is present, that parent will pair up with another parent. After the 15 minutes of one-on-one interaction, parents reconvene for 30 minutes of "parent group." In parent group, a FAST team member facilitates a discussion among parents about topics they have chosen. The purpose of parent group is for parents to realize their shared interests and to foster a collectivity between program participants. Thus, while buddy time focuses on building strong bonds between two people, parent group focuses on building shared interests among the larger group (McDonald et al. 2012). The final core component of FAST that is relevant for the current chapter is FASTWORKS.

[5] For a review of FAST and its various components see Kartochwill et al. (2009).

FASTWORKS is offered to parents after the conclusion of the eight weekly meetings. Unlike FAST Nights, which are led by a team from a local service agency, FASTWORKS meetings are led and directed by parents. Local service agencies support FASTWORKS by providing funding for meals and administrative support to parent organizers. FASTWORKS last for two years and is meant to support and enhance the relationships established during FAST Nights. The sustained focus on building parent relationships through FASTWORKS leads to the expectation that the effects of the 8-week program will persist over at least the two-year span of FASTWORKS.

Recruitment

Within each target school, the CFS study attempted to recruit all first graders and their families via two main modes of recruitment. First, "back-to-school" nights were held on weekday evenings at each participating school. Prior to these nights, the research team and local service agencies met with first-grade teachers and school principals to ensure their assistance. Teachers helped by sending home reminders with students informing parents about the event, while principals often encouraged attendance by awarding pizza parties or ice cream parties to the class with the highest attendance or posting information on the school's bulletin board (Rangel and Valdez 2014). At back-to-school nights, families shared a provided a meal and then listened as local service agency team members presented the study. In FAST schools, parents were offered the opportunity to participate in the CFS study and/or FAST, and in control schools families were only asked to consent to the CFS study. While the majority of parents were recruited at back-to-school nights, we augmented this recruitment effort with home visits. Home visits usually entailed research team members traveling to the target cities and visiting families' home on weeknights. Trained in both English and Spanish, team member visited families that did not attend the back-to-school nights to secure their participation.

Participants

Participants in the study included first-grade students and their families. At recruitment events we collected baseline surveys from all parents who consented to participate in the study. In total, 3,084 families consented to participate in the study; each of these families completed a pre-survey that consisted of a short social capital battery focused on parents' relationships with school staff and other parents at the school. Follow-up questionnaires were administered by the University of Wisconsin-Madison Survey Center. In the spring of the first, second, and third years of the study, the Survey Center mailed follow-up questionnaires to all participating families. After a few weeks, reminder cards were mailed to request completion of the surveys. The Survey Center also followed up with phone calls and conducted interviews over the phone to ensure parents' participation. Because I focus on the Latino sample in this study, I only report Latino response rates. As shown in Table 2.1, all parents with a Latino child completed the baseline survey. At first-grade post-treatment in the spring, 67% of parents responded; 41% responded in Year 2, and 45% responded in Year 3. While the treatment and control groups had equivalent response rates in the baseline survey, in follow-up waves response rates were significantly higher in control schools than in treatment schools.

Samples

To assess the effects of FAST on the size and quality of parental social networks, I construct two analytic samples, one for each outcome measure (size and quality of networks; these variables are described in detail below). Both samples contain all families that include a Latino student, as recorded by district demographic records, and that have least one observation for the outcome measure. The sample for the analysis of network size includes 5,614 time-point observations (up to four per person) across the three years of the study from 2,243 eligible

student participants nested within the 52 study schools. The sample for the analysis of network quality includes 5,497 time-point observations from 2,234 students nested within the 52 study schools. No cases were dropped due to sample attrition, although those who responded to more waves of the survey obviously had a greater influence on the results than those who responded to fewer waves.[6] Descriptive statistics for all measures are presented in Table 2.2.

Quantitative Measures

Dependent variables. The outcomes of interest are based on parents' social relationships with other parents in their children's schools. I use two dependent variables: (a) the degree of intergenerational closure in parent networks (i.e., network size), and (b) the quality of relationships in parents' networks. I measure intergenerational closure via a single item from the social capital survey, which asked parents, "How many of your child's friends at this school do you know?" Possible responses ranged from "0" to "6 or more." This question is a frequent measure of intergenerational closure, which was adapted from survey questions by the National Center for Education Statistics (NCES) (see for example Carbonaro 1998; Morgan and Sorensen 1999).

I employ a composite measure of the quality of parent relationships based on seven survey questions about parents' relationships with other parents in the school (Cronbach's $\alpha = 0.91$). The scale includes three types of questions. First, parents were asked how much other parents in the school: (a) help them with babysitting, shopping, etc.; (b) listen to them [talk] about their problems; and (c) invite them to social activities such as meals and parties. Second, parents were asked how much they: (a) help other parents at the school with babysitting,

[6] For each outcome, I ran additional models with the sample restricted to participants who completed all four waves of the survey. Because the results of these restricted-sample models were similar to the results of the full-sample models, I only report results from the full-sample models below.

shopping, etc.; (b) listen to other parents at the school [talk] about their problems; and (c) invite other parents at the school to social activities such as meals and parties. Third, parents were asked how much other parents at the school share their expectations for their child. All seven items have four-category response options, ranging from “not at all” to “a lot.”

The resulting composite measure of relationship quality includes information on several aspects of social capital. For example, asking about babysitting within a network offers information on the extent of trust in the network. In addition, the final question asks parents explicitly about sharing expectations with other parents at the school. While the shared expectation item is not common in other surveys, it explicitly assesses parents’ perceptions of other parents. A previous measurement study utilizing CFS data found that the shared expectation item has strong predictive ability with regard to outcomes associated with social capital (Condon, Lavery and Engle 2015). Finally, asking parents how much they do for other parents and how much other parents do for them allows an examination of the amount of reciprocity within a network. Previous studies have highlighted the importance of exchange relations in the development of trust, strong network ties, and fellowship (Lawler, Thye and Yoon 2006, Molm 2010, Molm, Whitham and Melamed 2012).

Independent variables. The main independent variables are “time” and whether a school participated in the FAST program. Because schools were randomly assigned to treatment and control group, I measure treatment status (*FAST*) at the school level, while I measure time using two piecewise terms, following the example of Raudenbush and Bryk (2002). The first piecewise term is defined as the first growth period (*FGP*), and was coded “0” at baseline and “1” for each of the three subsequent time points. The FGP term captures change over the first year of the study and represents the difference between baseline and the first-year follow-up (i.e., between

the Year 1 pretest and the Year 1 posttest). The second piecewise term is defined as the second growth period (*SGP*) and was computed by coding both the baseline and Year 1 posttest time points as "0," the Year 2 posttest time point as "1," and the Year 3 posttest time point as "2." The SGP term captures linear change over the second and third years of the study because the variable represents the number of years since the first follow-up (i.e., years since the Year 1 posttest).

Control variables. I control for student-level demographic characteristics and school-level design effects (how schools were randomized into the study). At the student level, I include dummy variables that indicate whether the student is female, if the student is eligible for free or reduced-price lunch, and if the student is an English language learner (ELL). At the school level, I include dummy variables that account for how schools were randomized into the study and the academic term of a school's participation (fall, winter, spring).[7]

While there were no pretreatment differences in indicators of demographic characteristics or academic performance between FAST and control schools, there were significant pretreatment differences in several of the social capital survey items, including the dependent variables. The models incorporate these pretreatment differences because I not only focus on the treatment effects but also explore how relationships develop in schools when no social capital manipulation is implemented, and examine how these two trajectories vary over time.

Analytic Plan

I estimate three-level hierarchal linear models using HLM 7.0 software where time points (Level 1) are nested within students (Level 2) and schools (Level 3). For each outcome measure,

[7] Three randomization blocks correspond to the three participating school districts in Phoenix. The remaining two randomization blocks differentiate schools in San Antonio with relatively lower and higher proportions of low-income students in their student bodies.

I estimate piecewise growth curve models with two growth periods, representing change over Year 1 (pretest to posttest) and change over the next two years (from Year 1 posttest to Year 3 posttest). The effects of each growth period are estimated at Level 1 with random slopes, allowing the effects to vary across students and schools. Student- and school-level control variables are included at levels 2 and 3 using grand-mean centering. The full model estimated for each outcome, *Y*, at time, *t*, for student, *i*, in school, *j*, is as follows:

Level 1: Time

$$Y_{tij} = \pi 0_{ij} + \pi 1_{ij}*(\text{First Growth Period}_{tij}) + \pi 2_{ij}*(\text{Second Growth Period}_{tij}) + e_{tij}$$

Level 2: Child

$$\pi 0_{ij} = \beta 00_j + \beta 01_j*(\text{Female}_{ij}) + \beta 02_j*(\text{Free/Reduced Lunch}_{ij}) + \beta 03j*(\text{ELL}_{ij}) + r0_{ij}$$

$$\pi 1_{ij} = \beta 10_j + r1_{ij}$$

$$\pi 2_{ij} = \beta 20_j + r2_{ij}$$

Level 3: School

$$\beta 00_j = \gamma 000 + \gamma 001* (\text{FAST}_j) + \gamma 002* (\text{Cohort1}_j) + \gamma 003* (\text{Block2}_j) + \gamma 004* (\text{Block3}_j) + \gamma 005* (\text{Block4}_j) + \gamma 006* (\text{Block5}_j) + u00_j$$

$$\beta 01_j = \gamma 010$$

$$\beta 02_j = \gamma 020$$

$$\beta 03_j = \gamma 030$$

$$\beta 10_j = \gamma 100 + \gamma 101(\text{FAST}_j) + u10_j$$

$$\beta 20_j = \gamma 200 + \gamma 201(\text{FAST}_j) + u20_j$$

Because all control variables are grand-mean centered, the grand intercept, $\pi 0_{ij}$, represents the pretest scores for an average child in an average school. The slopes $\gamma 100$ and $\gamma 200$ indicate the average change in the outcome over the first and second growth periods (respectively) across students and schools. The slope $\gamma 001$ represents treatment differences (FAST versus control schools) in school-mean scores on the outcome variable at pretest. Finally, the effects of interest are represented by the slopes $\gamma 101$ and $\gamma 201$, which denote the effect of attending a FAST

school, irrespective of compliance with the treatment, on change in the outcome during the first and second growth periods, respectively.

Results

FAST Effects on Parents' Network Structure

I present the results in two ways: first, I present results for each outcome and then I present differences in trends over time for each outcome. I first turn to the evidence assessing the effects of FAST on the size of parents' social networks, which is presented in the left panel of Table 2.3 and in Figure 1. As indicated previously, I model the effect of FAST over time as students transitioned from first to third grade. In particular, I measure two distinct trajectories, one during first grade, when the FAST program was implemented, and one between first and third grade, after FAST implementation. The results presented in Table 2.3 focus on differences between FAST and control schools at baseline, during FAST implementation ("First Growth Period"), and after FAST implementation (i.e., from grade 1 to grade 3; "Second Growth Period"). Full model results, including coefficients for control variables, appear in Appendix A.

The γ000 coefficient in the left panel of Table 2.3 represents the mean initial network size among parents with a Latino child for an average child in an average school. In control schools, parents of an average child knew about three other parents at pretest. The γ001 FAST coefficient reveals statistically significant pretreatment differences in network size, even net of controls ($p<0.001$). This result means that, among parents with a Latino student, the average number of parents known was lower in FAST schools than in control schools, with a pretreatment difference in network size of about .20 of a standard deviation. The middle set of coefficients in the left panel of Table 2.3 reports the change in parents' network size from pretest to Year 1 posttest. The γ100 intercept coefficient indicates that, in control schools, the average number of

parents known among parents of a Latino child did not change significantly over the first year of the study ($p = 0.340$). In comparison, the γ101 FAST coefficient indicates that on average, in FAST school's parents' networks increased in size by 0.573 parents between baseline and the end of the first year (coeff. =.573, $p < 0.001$). This effect is over one quarter of a standard deviation in size. The bottom set of coefficients in Table 2.3 reports the change in network size over the second and third years of the study, from Year 1 posttest to Year 3 posttest. The γ200 intercept indicates that in control schools, the number of parents that other parents knew increased only slightly over the second and third years of the study. The γ201 coefficient indicates that participation in the FAST program had a slightly negative long-term effect on network size (coeff. = -0.08), suggesting that during Years 2 and 3 the increase in the number of parents known may have been larger, on average, in control schools than in FAST schools. The marginal effect of FAST (0.008 - 0.081) suggests that the FAST advantage gained in first year was not sustained over the next two years.

Next, I turn to Figure 1, which depicts trends in network size over time by treatment status. The plot shows the predicted network size for FAST and control schools at each time-point for the average parent of a Latino student in an otherwise average school (i.e., parents with Latino students with mean scores on all control variables). The figure illustrates the pretreatment difference between FAST and control schools (noted previously) in the size of parents' networks. The figure also shows that the FAST program augmented parents' networks in the first year of the intervention. However, this effect was not sustained because parents' networks grew incrementally over time, even in the absence of FAST. In the second grade, parent network size, on average, was larger in FAST schools, but by the spring of third grade control schools caught up eventually and surpassed the average network size in FAST schools. The graph demonstrates

that even without a program intervention, parents meet other parents, although FAST did accelerate this naturally unfolding process of meeting other parents at the school. At the same time, while growth in control schools was sustained, the size of parent networks in FAST school declined slightly over the following two years.

FAST Effects on the Quality of Parents' Social Networks

The γ000 coefficient in the right panel of Table 2.3 represents the mean initial score on the composite measure of relationship quality for an average parent of a Latino child in an average school. Parents of average children rated the quality of their relationships with other parents at the school at about 2.0 on a scale of one to four. This result indicates that a parent of an average child felt other parents shared their expectations for their child and engaged in reciprocal behaviors with them "a little" at the initiation of the study.

Table 2.3 presents the effects of the FAST program on relationship quality in the final models, which control for design effects and student-level demographic characteristics (gender, socioeconomic status, and ELL). The top section of the right panel reports results at pretest, before treatment schools participated in the FAST program. The γ001 FAST coefficient reveals a statistically significant pretreatment difference in relationship quality between schools, even net of controls ($p < 0.05$). At pretest, the average reported quality of relationships with other parents was lower in FAST schools than in control schools. This pretreatment difference in relationship quality is about 0.15 standard deviations. The middle section of results in Table 2.3 shows that, in control schools, parents' perceptions of the quality of these relationships actually declined slightly in Year 1 (coeff. = -0.058, $p < 0.001$). In comparison, the γ101 FAST coefficient (coeff. = 0.126, p =0.008) indicates that parents in FAST schools reported increases in relationship quality over the first year, on the order of about .15 of a standard deviation. In other words, while

reports of relationship quality declined in control schools over the first year, the reports of relationship quality increased in FAST schools during the same period and were sustained in subsequent years.

The bottom set of result in the right panel of Table 2.3 shows the change in relationship quality over the second and third years of the study, from Year 1 posttest to Year 3 posttest. According to the γ200 intercept, in control schools, parents' perceptions of the quality of their relationships with other parents in the school did not change significantly over the second and third years of the study. The non-significant γ201 FAST effect and the null marginal effect (0.019+0.012) of FAST indicate that, as in control schools, parent perceptions of the quality of relationships with other parents grew slightly but not significantly in FAST schools.

Figure 2 depicts trends in relationship quality over time by treatment status. Similar to Figure 1, the plot represents predicted relationship quality scores for FAST and control schools at each time-point for the average parent of a Latino student in an otherwise average school (i.e., students with mean scores on all control variables). Figure 2 shows that FAST increased the quality of relationships among parents in the first year of the study, and the effect persisted over the next two years. In control schools, in contrast, parents' perceptions of relationship quality declined slightly during Year 1. Over the subsequent two years, parents' perceptions of relationship quality increased incrementally at relatively equal and steady rates in FAST and control schools. Thus, in the absence of targeted engagement efforts such as the FAST program, parent perceptions of the quality of relationships with other parents declined slightly in the first year, perhaps due to the lack of opportunities for building trusting and reciprocal relationships in the absence of a program targeted at developing parental relationships.

Discussion and Conclusion

Over the next few decades, Latinos will account for one of every three children in the United States, on par with that of their non-Latino counterparts (Murphey, Guzman and Torres 2014). Yet persistent educational gaps between Latinos and their non-Latino white peers raises serious concerns about an undereducated populace that may be ill-prepared to act as the economic engine for the United States in the coming decades. Prior research has argued that inequality in social capital, particularly in school settings, is one contributing factor to Latinos' underachievement. However, the previous literature has said little about either the prospects of building social capital in economically under-resourced Latino communities or the sustainability of social relationships over the long-term. Thus, in this study, I investigated whether an after-school program could build social capital in Latino communities and whether any resulting parental relationships were sustained over time or fleeting. I measured social capital in two distinct ways: First, I used a measure of intergenerational closure to focus on how the program affected the size of parents' networks as children progressed from first to third grade. Second, I explored the quality of parental relationships by asking parents about social exchanges and shared expectations with other parents. While the results show that the FAST program had significant short-term impacts on both the size and quality of parental social relationships, the long-term effects were more varied. FAST effects on the quality of parental relationships were sustained as children moved from first to third grade. However, FAST effects on parent network size were not sustained in the long-term, suggesting that the ameliorative potential of social capital may be more limited than previously thought.

In addition, results show that the FAST program significantly increased the size of parents' networks during first grade, but had little effect as children transitioned to third grade. In

fact, parental networks in control schools grew over the three years of the study, eventually reaching a size similar to that of networks among parents in FAST schools; thus, the study results suggest that FAST may speed up a naturally occurring process. Building school-based parental relationships early in a child's educational experience may be imperative because, as asserted by cumulative disadvantage theory, inequality is not static but develops over the life course (DiPrete and Eirich 2006). In the following chapter, I provide a more explicit test of whether or not social capital has beneficial effects for Latino families. Nevertheless, the literature on social networks has clearly shown that parental networks provide social support, influence individual behavior, and buffer against deleterious health outcomes (Christakis and Fowler 2009; Femlee and Faris 2014). Thus, although social capital effects may or may not be tied directly to educational outcomes, increasing parental social networks is a positive outcome.

In addition to considering the size of parental networks, I also measured the quality of parental relationships, an outcome that has been overlooked in much of the literature on social capital. I measured relationship quality via a scale that asked parents about types of social exchanges within their relationships. Specifically, I asked parents about the social support they received from their networks, and if and how other parents sought social support from them. Mirroring the findings on intergenerational closure, the results for relationship quality showed that FAST significantly and positively impacted the quality of parents' social relationships in first grade. However, while the positive effect of FAST on parent network size declined in subsequent years, the positive effect of FAST on the quality of parental relationships persisted in third grade.

Taken as a whole, the results demonstrate how an after-school program successfully built and enhanced parental relationships in low-income Latino communities. However, the results

also highlight the fragility of social capital, as program effects were not sustained over time. Given that FAST built social capital in the short-term, we might expect the program to have immediate returns in the form of educational outcomes, which I examine in the subsequent chapter. Longitudinal data are needed to more fully evaluate both short-term and long-term returns to social capital. While health scholars have used rich longitudinal data sets to focus on the effects of social networks (Christakis and Fowler 2007, Giordano et al. 2013, Smith and Christakis 2008), these data sets lack information on educational outcomes. The current findings suggest that sustained efforts to build and enhance social capital, rather than a brief eight-week intervention, may be necessary to realize social capital's potential benefits.

While the findings provide important insights into social capital, the study is not without its limitations. One potential limitation is the indicators of social capital utilized in the current study. While the intergenerational closure measure has been used in previous studies, the concept may be less consequential for Latino families. Intergenerational closure may be less consequential for Latinos because research consistently finds strong familial ties where family concerns take primacy over individual concerns, also referred to as *familimso* (Desmond and Turley 2009, Valenzuela and Dornbusch 1994, Vallejo 2012). Strong family ties among Latino families have been found to be positively related to academic achievement (Valenzueala and Dornbusch 1994) as well as a host of positive psychological outcomes (Campos et al. 2014, Keeler, Siegel and Alvaro 2013). These findings suggest that instead of focusing on the size of fictive kinship networks and the related social support, as the current study does, researchers may gain more important insights from considering how FAST affects the size and strength of familial networks in both the immediate aftermath of the program and the following years. For example, the FAST program attempts to strengthen the family unit in a number of ways. First,

FAST invites all family members to participate with the focal child. Each family decides whom they consider a member of the family unit, and can include any number of aunts, uncles, grandparents, all in support of the target child. Second, FAST activities focus on strengthening within-family bonds through "buddy time" by having parents pair off and engage in one-on-one discussion for 15 minutes. Married couples usually pair off with each other, and thus have uninterrupted time to reconnect and discuss important events while their children are in another part of the school. Given this avenue for strengthening familial ties, further research using FAST program data could be used to examine whether the program improved familial networks. In general, future research should consider the social capital measures that are most relevant for the population of interest. In the case of Latino families, this means including measures of familism or other concepts considered essential for understanding social capital and Latino children's development (Halgunseth, Ispa and Rudy 2006, Woolley, Kol and Bowen 2009).

Another potential limitation is the lack of data on students' peer networks. The literature suggests that peer networks and peer social capital are consequential for Latino children's educational outcomes (Ream 2005, Ream and Rumberger 2008). And although the students in this study are in the early years of elementary school, scholars have noted that children's peer culture forms at early ages and is influential for children's behavior throughout their educational careers (Corsaro and Eder 1990, Fine 1987, Frank et al. 2008). One component of the FAST intervention is providing children the opportunity to interact and socialize with their peers. Thus, children may befriend other children through their participation in FAST, and as a result, students' social networks may be another source of social capital influenced by FAST but not directly explored in the current study. FAST may affect the size and quality of students' peer networks, in addition to parental networks, however, data limitations prevent an exploration.

Finally, while not a limitation, it is important to note that the current study is an intent-to-treat analysis, and therefore measures the effect of the intervention on families assigned to treatment, irrespective of their participation in the FAST program, based on a comparison to families assigned to control schools (Imbens and Angrist 1994). An intent-to-treat analysis provides a baseline estimate of the outcomes that could be expected if a policy were introduced to enhance school-based parental networks but compliance with the intervention was not mandated.

Chapter 3: Social Capital and Effect Heterogeneity: An Experimental Approach in Low-income Latino Elementary Schools

Effect heterogeneity is a recurrent theme in contemporary research (Bloom and Michalopoulos 2011, Schochet, Puma and Deke 2014). However, while many scholars have argued that accounting for subgroup differences remains one of the most pressing challenges facing researchers today (Barrera, Castro and Steiker 2011, Leicht 2008), there is a persistent lack of focus on heterogeneous treatment effects, particularly racial and ethnic differences. Exploring racial and ethnic variation in outcomes is particularly important for the Mexican-origin population; in the United States, Mexican Americans account for the largest share of Latinos, and Mexican immigrants constitute the largest immigrant group (López 2015). For this population (and others), variation in educational outcomes across immigrant generations is one potential indicator of important subgroup variation. For example, the *Mexican immigrant paradox in education*—the finding that Mexican immigrant children tend to outperform their native-born peers in a variety of educational outcomes (Crosnoe, Benner and Schneider 2012, Morgan and Gelbgiser 2014, Turney and Kao 2012)—highlights the importance of treating racial and ethnic categories as nuanced.

One potential source of heterogeneity among Latinos may be the social capital held by their families. Researchers have linked social capital to a number of positive educational outcomes, from higher graduation rates (Cherng, Calarco and Kao 2013) to decreased student mobility (Fiel, Haskins and Turley 2013, Ream and Rumberger 2008) and lower rates of deviant behavior (McNeal Jr 1999). In addition, researchers have argued that limited access to social capital explains a portion of the persistent educational disadvantage experienced by Latinos and immigrants (Kao and Rutherford 2007, Rosenbaum and Rochford 2008). However, scholars have also found that, compared to their non-Latino peers, Latinos differentially receive a smaller

benefit from social capital (Kao 2004, Pong, Hao and Gardner 2005, Ream 2003, Stanton-Salazar 1997), a difference that raises important questions about the extent to which social capital can ameliorate the risk of academic failure and enhance educational outcomes.

Moreover, it may not only be differential returns to social capital but differential levels of social capital within Latino sub-groups that contribute to differences in educational outcomes. For example, dense network ties in immigrant communities serve as an important resource families draw on to support educational opportunities for their children, although they may lack human and economic capital (Bankston and Zhou 2002; Portes and Rumbaut 2014). Thus, social capital may particularly in early childhood, in part explain, differential educational outcomes among Mexican immigrants and their native born peers found in later life. However, to date, the extant literature tends to focus on middle school or high school outcomes and less on early childhood outcomes asserting that differences in outcomes among Mexican immigrants and their native-born peers emerge in middle school but not earlier (Crosnoe 2012). Thus, previous research has created the expectation that social capital may mitigate the low educational attainment of Mexican-origin youth, while at the same time suggesting that social capital may benefit some Mexican-origin sub-populations more than others.

To provide a rigorous examination of the effects of social capital among Mexican-origin youth in early childhood—specifically how these discrepant expectations play out—I use experimental data from a field trial of 3,000 first-grade students and their families in 52 urban, predominantly Latino elementary schools. I manipulate social capital via participation in an after-school intervention designed to strengthen and enhance parents' relationships within their own family, with other parents in the school community, and with school staff. In particular, I explore the effects of the intervention on children's socio-emotional behavior as reported by their

first-grade teachers. In addition, I examine variation in the effects of social capital, via the intervention, across three domains: (1) race/ethnicity (Latino or non-Latino), (2) dominant parental language (English or Spanish), and (3) children's English language proficiency, or whether students have been labeled as English language learners (ELL). Using an intent-to-treat approach, I find no main effect of the intervention among non-Latinos and differential treatment effects among Latinos where Latino students with English-dominant parents appear to benefit, while non-ELL students with Spanish-dominant parents do not. I conclude with a discussion of social capital theory and the immigrant paradox as well as practical considerations pertaining to the merits of social capital as a potential policy intervention.

Background

Social Capital

Although social capital theory has been widely employed in the social science literature, both the concept and its definition remain contested. Debates over the conceptualization and operationalization of social capital date back to the concept's progenitors—Coleman and Bourdieu advanced different definitions of social capital that focused on its disparate forms and functions. Coleman (1988:S1010) defined social capital by its function; in particular, he identified resources associated with given social structures that allow for the achievement of some end that would not be possible by an individual alone. Coleman (1999) asserted that social capital is a property of social relations that inheres in a network and serves as an individual-level resource identifiable by its distinct forms: trust, mutual obligations, and shared expectations. Bourdieu, in contrast, focused on the ways in which social relationships serve to maintain the dominant class and reproduce inequality. He defined social capital as the "sum of resources, actual or virtual, that accrue to an individual or group by virtue of possessing a durable network

of more or less institutionalized relationships of mutual acquaintance and recognition" (Borudieu 1986:248). Although their definitions differ in form, both Coleman and Bourdieu asserted that social capital involves resources that accrue to individuals based upon their participation in social relationships embedded in larger social networks (Lee 2014, Small 2009).

Education researchers often grant primacy to Coleman's notion of social capital and its related conceptualizations (Kao and Rutherford 2007). As a result, Coleman's definition has been subject to the most criticism. Two of the core critiques of the definition and operationalization of social capital are that scholars confound causes with effects and that researchers have focused solely on positive outcomes (Portes 1998; Durlauf 1999). First, some scholars have argued that Coleman's definition is a tautology because social capital is defined by its function, and thus social capital resources are not distinct from social capital itself. Durlauf (1999) contended that defining social capital by its function makes analysis impossible because scholars begin with a positive outcome and subsequently explore the factors that led to that outcome. Second, authors have critiqued Coleman's definition for its often exclusive focus on positive effects. Portes and Landlot (2000) argued that the singular focus on positive effects leads researchers to associate positive outcomes with the presence of social capital and negative outcomes with its absence. Moreover, by focusing solely on positive outcomes, researchers fail to consider how membership in certain groups, such as Mafias or gangs, can enforce socially undesirable norms.

I employ a previously utilized conceptualization of social capital as the trust, mutual obligations, and shared values embedded in social networks (Gamoran et al. 2012; Shoji et al. 2014); however, I take the previous critiques of social capital into account in two ways. First, I distinguish the effects of social capital from its causes by introducing exogenous variation in

social capital in some families but not others. I manipulate parent-child relationships by increasing parent-child interaction focused on building cohesion and stability. Second, I allow for both positive and negative effects to emerge. There is strong theoretical support for variation in effects of parent-child interactions by parents' generational status and English language ability (Portes and Rumbaut 2014:282).

Parent-Child Dyad as Social Capital

In this paper, I borrow from Coleman's conceptualization of the development of social capital as a socialization process. In his early writings, Coleman stated that "the social capital of the family is the relations between children and parents (1998:S110)." Coleman placed particular importance on the amount of attention parents give their children. He asserted that attention is the mechanism by which parents transmit capital (both human and social) to their children. In strong parent-child relationships, parents are able to thoroughly communicate norms of appropriate behavior. The argument follows that children internalize behavioral expectations from those around them, including parents, teachers, and peers, and subsequently exhibit behavior in line with the expectations of significant others.[8] While Coleman did not specify how norms are transferred from parent to child, others have posited introjection as the key mechanism (Portes, Guarnizo and Landolt 1999, Wentzel 1999). Introjection occurs when values or goals are internalized by individuals, and in turn, shape and reinforce prior beliefs. Thus, introjection theoretically reinforces Coleman's view of the development social capital as a socialization

[8] More recent work recognizes children's socialization as bi-directional such that children are not mere passive acquirers of appropriate norms and values in the community (Corsaro and Eder 1990, Fine 1987). Moreover, Stanton-Salazar (1997) argues that universalistic norms of socialization are often deracialized and decontextualized such that they fail to account for exclusionary forces that impinge upon racial/ethnic students access to resources that benefit their educational careers. Nevertheless, there is broad agreement in the literature that children are most malleable in early youth (Weiss et al. 1999) Thus, I bracket the role of institutions and institutional agents in my discussion of socialization processes and follow the existing literature that argues that parental socialization is consequential for children's educational outcomes (Calarco 2011, Lareau 2002).

process in which increased-parent child interaction leads to increased compliance and ultimately, improved behavior.

Enhancing the parent-child bond is important because strong relationships with significant others are associated with a host of positive outcomes for children. For example, scholars have suggested that strong social relationships between children and significant others are predictive of academic achievement and low levels of behavioral problems (Crosnoe et al. 2012, Maldonado-Carreño and Votruba-Drzal 2011, McCormick et al. 2013). Moreover, conduct and behavior in elementary school are critical to a child's academic success because delinquent behavior in the early educational career is associated with a host of negative outcomes ranging from increased likelihood of dropout (Wang and Fredricks 2014) to substance abuse problems and greater difficulty throughout the child's schooling career (McClelland et al. 2013). Thus, improved relationships between parents and children may be beneficial for a host of reasons. Moreover, conceptualizing social effects as result of has practical implications for addressing inequality in educational outcomes.

Social Capital and Educational Outcomes

Conceptualizing socialization processes in which social norms are transferred places the analytical focus on the parent-child dyad as a locus for social capital. Scholarship in this tradition has focused on "family social capital," "capital at home" and parental involvement with children. For example, Parcel and Menaghan (1993) noted that social capital is a characteristic of relationships and is specifically related to the quality and quantity of interaction that develops in social relationships that can include members of the same family. In more recent work, Parcel and colleagues (Dufur, Parcel and Troutman 2013, 2010) suggested that parents make specific investments in children, which can lead to better educational outcomes or higher academic

achievement in later life, suggesting that social capital investments are consequential for social mobility.

Parental involvement in a child's education is another way that researchers have conceptualized social capital. In McNeal's (1999) study of social capital and parental involvement, he focused on the amount of parent-child discussion as a marker of social capital. He argued that parent-child interaction is one mechanism through which the importance of schooling and education is conveyed. Further, he contended that children will respond positively when parents take a more active role in their lives. Specifically, McNeal asserted that increased parental involvement will manifest in educationally beneficial behaviors that promote positive classroom comportment and greater academic effort. Analyzing data from the National Education Longitudinal Study of 1988, McNeal found that social capital significantly reduced problem behaviors, although it had little effect on truancy and achievement. However, once race, socioeconomic factors, and household structure were controlled, social capital had positive effects only for the most advantaged respondents, namely white students who had higher socioeconomic standing and lived in dual-headed households.

While previous work has highlighted the importance of parent-child interaction in predicting both educational and behavioral outcomes, the research has also indicated that some children benefit more than others from increased parental investment. In fact, McNeal (1999) called for scholars to attend to differential effects in future studies, although this suggestion has largely been ignored. Moreover, the extant literature tends to focus exclusively on older youth and has paid little attention to outcomes that occur during early childhood when family social capital might be more consequential. For example, scholars have focused on parental social networks when children are in high school (Cabronaro 1998) and on high school students

themselves (Ream 2005; Stanton-Salazar and Dornbusch 1995; Valenzuela and Dornbusch 1994), but have largely overlooked early childhood. Finally, the extant literature on social capital all but ignores the Latino population. While the early work of Angela Valenzuela (1999) and Ricardo Stanton-Salazar (2001) remains influential, their explicit focus on social capital and Latinos has been largely neglected in current sociological research. In the next section, I review the nascent literature on social capital and Latinos.

Latino Youth and Social Capital

Scholars focused on Latino educational outcomes have noted that social capital, in the form of resources and access to institutional agents, is important for academic success in this population (Valenzuela 1999; Stanton-Salazar 1997). For example, in a qualitative study of a high school with a predominantly Mexican-origin study body, Valenzuela (1999) found that while schools divested students of the resources they brought with them from their communities, social capital in the form of relational networks served as a buffer to this larger institutional process. Similarly, Stanton-Salazar (2001) noted that schools, rather than promoting student achievement, often impinge upon students' academic success. In his study of help-seeking practices among Mexican-origin youth in San Diego, Stanton-Salazar found that caring social relationships with institutional agents often developed merely by accident and appeared to be the exception rather than the norm (Stanton-Salazar and Spina 2003:250).

While qualitative studies provide strong evidence of the benefits of social capital in addressing educational inequality among Latino students, the quantitative evidence is less extensive and less conclusive. For example, Stanton-Salazar and Dornbusch's (1995) early work based on data from a sample of Mexican-origin high school students in California found that, compared to their peers from lower SES backgrounds, Mexican American students from high

SES backgrounds had more friends from high SES backgrounds and greater access to institutional agents. Additionally, the authors found that language ability mattered in terms of Latino students' ability to access social capital as bilingual students, compared to their English dominant peers, had larger social networks. In a similar study, Ream (2003) found that compared to their non-Latino white counterparts, Mexican American students did not benefit from social capital. In fact, Ream found that Mexican American students possessed a "counterfeit" social capital, where teachers feigned interest in Latino students. These interactions between Latino students and school staff did not provide the resources expected to flow from these relationships, but instead, impinged upon Latino students' educational success.

Recognizing the potential for variation in the impacts of social capital is a necessary part of assessing social capital's ability to address educational inequality. For example, if social capital benefits one group but not another, this may do little to address inequality overall, and in fact, may increase inequality. In the previous section, I noted that McNeal found that social capital was less beneficial for racial and ethnic minorities than for white students. More recent work on immigrants has found similar differences in returns to social capital across generations. For example, Kao and Rutherford (2007) found that first- and second-generation Latinos do not receive the same academic achievement benefits from social networks as second-generation Black and Asian students. Hao and Bonstead-Bruns (1998) also focused on immigrants, exploring the relationship between social capital, parent-child expectations, and educational achievement. The authors argued that social capital came about through parental socialization and is reflected in the agreement of educational expectations among parents and their children. Hao and Bonstread-Bruns (1998) found that immigrant status is associated with greater congruence between parents' and children's educational expectations, which indicates a greater

amount of social capital, but the effect was stronger among Chinese and Korean students than their Mexican peers. Taken as a whole, the literature on immigrants and social capital clearly indicates some immigrants benefit from social capital more than others, and Mexican immigrants seem to benefit the least. One potential hypothesis suggested by the literature is that social capital is likely to impact Mexican immigrants and Mexican Americans differentially, and that Mexican immigrants might benefit less than their native-born peers.

Social Capital and Latino Parents

Central to understanding the outcomes of Latino youth are parental factors such as parenting styles, parental involvement, and parents' acquisition of social capital, all of which are positively associated with children's academic success (Gamoran et al. 2012, Garcia-Reid, Reid and Peterson 2005, Valenzuela and Dornbusch 1994). For example, Pong, Hao, and Garnder's (2005) study on the effects of parenting style and social capital on students' academic achievement found that parental expectations and trust are most important for children's academic success. Similarly, Garcia-Reid, Reid, and Peterson (2005) found that students with higher levels of parental support and students whose parents encouraged them often were more engaged in school (p.265). Rangel, Shoji, and Gamoran (2014) also focused on Latino parents, and found that higher levels of social capital had a positive impact on both the size and quality of parental social networks. However, using similar data, Gamoran et al. (2012) found that utilizing an experimental manipulation to increase social capital positively impacted children's behavioral outcomes. These findings provide strong evidence that parent-child interactions are likely consequential for children's outcomes, and in addition, support a conceptualization of social capital that focuses on the parent-child bond.

In sum, although scholars have used a variety of measures and distinct methodological approaches to explore social capital, the substantive knowledge remains limited and inconclusive. Importantly, this review shows that although there is a sizable literature on the potential effects of social capital, Latinos have largely been neglected. Further, when researchers have focused on Latino youth, the focus has most often been on the experiences of older youth and has rarely been on the impact of early school experiences (Ream and Palardy 2008, Ream and Rumberger 2008, Stanton-Salazar 2001, Valenzuela 1999, Woolley, Kol and Bowen 2009, Zhou and Bankston 1994). Moreover, while qualitative studies of Latinos highlight the supposed positive benefits of social capital, quantitative findings on social capital effects among this group are scant and mixed, with some studies even demonstrating negative effects (Fasang, Mangino and Brückner 2014). Taken as a whole, the research suggests a few potential hypotheses: first, that social capital is likely to improve children's behavior, and second, that social capital likely has differential effects for Mexican Americans and Mexican immigrants, although when these differences become detectable is less conclusive. In addition, the previous research has not conclusively shown whether these effects are positive or negative. Finally, the literature also suggests that Mexican immigrants have higher levels of social capital than their Mexican American peers, and as a result, Mexican Americans may benefit more from boosts in social capital. Based on these hypotheses, I seek to answer three interrelated research questions: (1) What are the effects of social capital on Mexican-origin first-grade student's classroom behavior? (2) How do these effects vary across students with Spanish-dominant parents and English-dominant parents? (3) How do social capital effects vary across ELL and non-ELL students with Spanish-dominant parents?

Data and Methods

In this chapter, I utilize teachers' behavioral assessments of children in the Children, Families, and Schools (CFS) study to assess the effects of social capital. The CFS study was a cluster-randomized controlled trial that explored the longitudinal effects of parental social relationships among children attending first, second, and third grade in 52 predominantly Latino, under-resourced elementary schools in San Antonio, Texas and Phoenix, Arizona. The CFS study used the Families and School Together (FAST) intervention to manipulate social capital. FAST is a scientifically evaluated program designed to establish and enhance parental social relationships by developing trust and shared expectations among parents, teachers, and children (Kratochwill et al. 2009, McDonald et al. 1991, McDonald et al. 1997, McDonald et al. 2006). The FAST program is a multi-family group prevention program typically implemented in three stages: (1) active outreach to engage parents, (2) eight weekly multi-family group meetings, and (3) two years of monthly parent-led follow-up meetings (FASTWORKS).

The FAST program is designed to be adaptable to the local context while still maintaining fidelity of the intervention. In fact, 60 percent of FAST activities (described in greater detail in chapter 1) are adaptable to the local context and 40 percent of the program is standardized across contexts. The adaptability of the program allows for local control and for the program to match the cultural context of the participants. In addition to adapting activities to be culturally consonant, FAST also mandates that the implementation team be representative of the local community. For example, if 50% of FAST participants are Latino, then 50% of the FAST implementation team must also be Latino (Kratochwill et al. 2009. Moreover, this cultural match also calls for congruence along language measures as well, such that if 50% of participating parents are Spanish dominant, then 50% of FAST team members must also be bilingual. Beyond

this cultural match, the FAST team is also comprised of school professionals and parents from the local community, some of whom have even graduated from FAST previously. Thus, cultural match goes beyond a surface level of congruity and calls for team members to be experienced with and from the local community where FAST is being implemented. This cultural congruity suggests that FAST will look appreciably different in each context, yet, while maintaining the core components of the program.

Although FAST may vary from context to context, measures are in in place to ensure fidelity of implementation. To ensure fidelity of implementation and the standardization of FAST across contexts, certified FAST trainers conduct at least three visits per site to ensure compliance. These FAST trainers evaluate program implementation utilizing the Program Integrity Checklists (PIC). After conducting site visits, the trainers debrief with the FAST team to provide guidance and ensure fidelity of implementation. The PIC is provided to trainers from the FAST National headquarters and assess the implementation of FAST across 12 domains. Each domain is scored by the FAST trainer during the site visits and rates the implementation of FAST on a scale of 1 to 6 with the lowest possible score of 12 and a highest possible score of 36. A lower score means FAST was implemented with “high integrity”, while a higher score means FAST was integrated with low integrity. As has been reported elsewhere, the mean score for the CFS study among treatment schools was 13.3 across 24 schools, with two schools missing PIC data (Shoji et al 2014). This low overall score for the entire study suggests that FAST was implemented with high integrity as determined by the standards set by FAST National.

Intervention Design

In the two study cities, we randomly assigned 52 elementary schools, 26 in each city, to either the control condition, in which the program was not implemented, or the treatment

condition, in which first graders and their families were invited to participate in the FAST intervention. In San Antonio, we worked with one large school district, while in Phoenix we worked with three medium-sized school districts. In San Antonio, we created two blocks of schools based on the proportion of students eligible for the free or reduced-price lunch program, and then randomized schools within each block to ensure adequate representation of under-resourced schools across treatment and control groups. There were no statistically significant differences across a wide variety of school-level measures, suggesting that the randomization of schools created comparable groups across conditions.

In both the treatment and control schools, families were recruited to participate in the study during back-to-school nights, parent-teacher conferences, and home visits. In all cases, families were first asked to consent to participation in the research study. In FAST schools, after consenting to the study, parents were then asked to consent to participate in the FAST intervention. We staggered the implementation of FAST over two consecutive first-grade cohorts, due to the large number of schools participating in the research project. Schools were randomly assigned to a cohort. In the 2008-2009 academic school year (Cohort 1), 12 of the 26 treatment schools participated in the FAST intervention. In the 2009-2010 academic school year (Cohort 2), the remaining 14 treatment schools received the FAST intervention. In addition, within each cohort, schools participated in FAST at varying times (fall, winter, spring) during the school year.

Description of FAST Sessions

FAST sessions begin with activities designed primarily to strengthen relationships within families by reinforcing the boundaries of the family unit and supporting the hierarchy of the family, as advocated by Structural Family Therapy (Minuchin 1974). To that effect, parents are

encouraged to take the lead in setting the parameters for the intervention activities (e.g., duration of the activity and provision of praise). When families arrive, the entire group participates in routine greetings and singing. This activity is aimed at reinforcing the family identity, reducing stress, and developing between-family cohesion in the group. Each family sits at its own table for one hour of activities led by the parents in their native language; during this time, families share a meal and play games that encourage turn-taking, listening, sharing feelings, and delaying gratification. One of the goals of this family time is for children to observe their parents being in charge and knowing what to do in the school context.

After the family-focused time, the FAST session changes focus to the development of social capital across families. Children and adults are separated, and the children go to a supervised area to play and complete homework. The parents begin with “Buddy Time,” in which parents divide into groups of two and within these groups take turns talking about their days; the goal of this activity is to foster friendships. Next, parents come together (without staff present) for “Parent Group Time,” in which they take part in a self-guided confidential discussion about topics of their choosing, with the goal of facilitating interaction between parents. This group discussion is designed to build a peer support system, empower parents in their parenting role, and facilitate the growth of a social network among the parents.

Peer group and parent time are followed by 15 minutes of one-on-one parent-child time called “Special Play,” during which the child takes the lead in playing. Parents are assigned “homework” consisting of repeating the special play sessions at home. Finally, the all FAST participants form a large circle as a way to further develop relationships between the families and the school staff. Families and FAST team members make announcements, celebrate birthdays, and create a “rain storm” by snapping their fingers, clapping, and stomping their feet. Each

week, one family wins a prize that includes a gift card to be used to purchase ingredients for a meal they will prepare for the next FAST session. These closing activities are designed to reinforce togetherness via routine and positive group experiences.

The various components of the FAST program are structured with the goal of enhancing family functioning. Most relevant for the current study are the Special Play period and family-focused time.[9] A FAST session usually lasts two and half hours. Of this time, more than half is focused on improving communication between parents and their children. Thus, FAST provides a strong practical and theoretical manipulation of social capital that seeks to improve children's behavioral functioning.

Study Population and Sample

Across the two study cities, a total of 3,084 families agreed to participate in the CFS study: 1,592 families in the treatment group, and 1,492 families in the control group. The family recruitment rates in the treatment and control schools did not differ to a statistically significant extent. Seventy-five percent of first-graders in the sample were identified as Latino in district records. The rest of the sample comprised whites (14%), African Americans (8%), and other non-whites (3%).

Throughout the study, we collected data from various sources including parents, teachers, principals, and district administrative records. For this study, I focus on first-year teacher reports of student behavior collected after children and families participated in FAST during first-grade. For both Cohorts 1 and 2, we surveyed teachers in the spring semester of the academic year after the final FAST session; over 95% of teacher surveys were returned (n=2,939). Because I am

[9] For a full review of the FAST activities see Kratochwill et al. 2004. Kratochwill, Thomas R., Lynn McDonald, Joel R. Levin, Holly Young Bear-Tibbetts, and Michelle K. Demaray. 2004. "Families and Schools Together: an experimental analysis of a parent-mediated multi-family group program for American Indian children." Journal of School Psychology 42:359-383

interested in teacher-reported behavioral outcomes and the heterogeneity of effects across Latino subgroups, I restrict the sample to students for whom there is both administrative data on race/ethnicity (from the school district) and complete behavioral information (reported by teachers). These restrictions resulted in a sample of 2,924 students, or 95% of the original sample. Removing individuals with missing data did not impact the study design because all 52 schools are still included in the final analytic sample.

Because I am interested in heterogeneous treatment effects, I include variables to account for differential returns to social capital or different responses to the FAST intervention, using FAST as my global measure of social capital. Specifically, I focus on parental language dominance as one marker to explore differential effects. Research participants chose to complete surveys in Spanish or English. I use the choice to complete the parental survey in either English or Spanish as a gross measure of parental language dominance, which creates two groups of Latinos: Spanish-speaking and English-speaking. Of the total sample, 28% of parents completed the survey in Spanish (n=813). Because parents completed these surveys at the time of consent, utilizing dominant parental language has no impact on the size of the analytic sample. Additionally, I utilize a third marker of potential heterogeneity, students' English language learner (ELL) status. There are 743 students in the analytic sample with the ELL designation. Importantly, these students are balanced across the treatment and control schools: 376 ELL students attended a control school and 367 ELL students attended a FAST school. Similarly, students with Spanish-dominant parents were balanced across groups, with 406 of these students at control schools and 407 at FAST schools.

FAST as Proxy for Social Capital

In my models, I utilize the FAST intervention as a global indicator of social capital. Previous research on FAST has highlighted the interventions success at building social capital by enhancing community-based parental networks (Gamoran et al, 2012; Rangel et al 2014), improving parent-child relations (Terrion 2006), and facilitating communication among parents and school staff (Shoji 2014). In turn, these enhanced relationships result in increased parental school involvement (McDonald et al. 1997), decreased mobility among families (Fiel et al. 2013), and fewer internalizing and externalizing behavioral issues among children (Turley et al. in press). In this way, previous research highlights how FAST builds social capital and as such, I use FAST a proxy for social capital in the current analysis.

Parent Pre- Survey Language

Parental language dominance is an important variable in the analysis and deserves special attention. Parents were given a pre-survey after consenting to the study and to FAST participation, they chose to complete the initial survey in either Spanish or English. In parent post surveys, we asked parents specifically about their language such as the frequency with which they spoke English and Spanish, as well as their native language. While post-surveys have the advantage of being a more accurate representation of parents' language dominance, they have the disadvantage of greater missingness. While 99.8% of families completed a pre-survey, only 66% of families completed a post-survey. Using parent-post survey data would reduce my sample from 2,924 participants (95% of full sample) to 2000 participants or 65% of the total sample. Given the issue with post-survey attrition, I explored how accurate pre-survey language aligns with available post-test data. There was significant overlap between parents who identified their native language as "Spanish" and those who completed a pre-test in Spanish. For example,

every parent who completed the pre-survey in Spanish also indicated that his or her native language was Spanish in the post-survey follow-up. Given the alignment between pre-survey language and parent's native language and the increased sample size, I use the pre-survey language to explore heterogeneous social capital effects.

Child Outcome Variables

The outcome variables are drawn from the Strengths and Difficulties Questionnaire (SDQ), which was incorporated into the teacher survey (Goodman 1997). The SDQ includes measures of five aspects of children's behavior and emotions: prosocial behaviors, conduct problems, hyperactivity/inattention, peer problems, and emotional symptoms. The SDQ is widely utilized in both educational settings and clinical assessments and has been validated for a variety of subgroup populations in the United States (He et al. 2013). The questionnaire includes 25 items that assess children's behaviors and emotions by asking teachers to evaluate whether it is "not true" (0), "somewhat true" (1), or "certainly true" (2) that the child's behavior follows a certain pattern, for example, whether the child: is "restless, overactive, cannot stay still for long;" "often loses [his or her] temper;" is "often unhappy, depressed or tearful;" or "often fights with other children or bullies them." The items are grouped into five scales each with five items, and each scale has a maximum value of 10. The scores of the items for each behavioral aspect are totaled to provide an assessment of the child in each area based on teacher ratings. A total difficulty score (0-40) is then created by summing the scores for all scales except prosocial behaviors. The prosocial behavior (PB) outcome is a positively coded five-item scale based on teachers' reports of the extent to which students: are caring, share well with others, are kind, are helpful when someone is hurt, and are considerate of other's feelings. Higher values on the total

difficulty score reflect more severe behavioral problems, while higher scores on the prosocial behavior scale reflect a higher number of helpful and beneficial behaviors.

Statistical Methods

The nested structure of the data (students within schools) made multilevel modeling an appropriate analytic choice. Moreover, because I am interested in the effect of social capital using FAST as a global measure of social capital, I utilize an intent-to-treat approach. An intent-to-treat analysis explores the effect of being assigned to a treatment school, irrespective of actual compliance with the treatment. Thus, for each analysis, I ran a series of models using each behavioral measure (prosocial behaviors, conduct problems, peer problems, emotional symptoms, hyperactivity/inattention, and total difficulties) as the dependent variable.

Using HLM7, I conducted multilevel intent-to-treat analyses for each SDQ behavioral outcome to assess the effects of social capital, via the FAST program, on children's behavioral outcomes, as reported by their first-grade teachers. I utilized two samples, first, the full sample, and then a restricted sample consisting of only Latino students with Spanish dominant parents. To explore differential effects, I first estimated the average treatment effect for all participants. At Level 1 (student), I included two dummy control variables, for gender (1=female, 0=not) and whether or not students were eligible for the free or reduced-price lunch program (1=yes, 0=no). At Level 2 (school), I included control variables (Block 2, Block 3, etc.) to account for the design of the study; These variables measure the school's cohort (1 or 2), time of program implementation during the school year (fall, winter, spring), and school district (Phoenix or San Antonio). In addition, I included a variable for treatment status (FAST), which was a dummy-coded indicator of whether the school was randomly assigned to treatment status or control status. Here, I use FAST as a proxy of social capital, in line with previous studies of FAST and

social capital (Fiel et al 2012; Turley et al. in press). Subsequently, I added a Level 1 race/ethnicity dummy variable (Latino) indicating whether the student was Latino as well as a cross-level interaction between Latino and treatment status (Latino*FAST). I then included another dummy variable at Level 1 (Spanish) indicting whether or not children had a Spanish-language dominant parent as well as a cross-level interaction between Spanish and treatment status (Spanish*FAST). The cross-level interactions allowed me to explore variation in the effects of social capital on behavioral outcomes. The full model estimating each outcome, Y, for student i, in school j, is as follows:

Level 1: Student

$$Y_{ij} = \beta_{0j} + \beta_{1j}*(\text{Female}_{ij}) + \beta_{2j}*(\text{Free/Reduced Lunch}_{ij}) + \beta_{3j}*(\text{Latino}_{ij}) + \beta_{4j}*(\text{Spanish}_{ij}) + r_{0ij}$$

Level 2: School

$$\beta_{0j} = \gamma_{00} + \gamma_{01}*(\text{Block2}_j) + \gamma_{02}*(\text{Block3}_j) + \gamma_{03}*(\text{Block4}_j) + \gamma_{04}*(\text{Block5}_j) + \gamma_{05}*(\text{FAST}_j) + u_{0j}$$

$$\beta_{1j} = \gamma_{10}$$

$$\beta_{2j} = \gamma_{20}$$

$$\beta_{3j} = \gamma_{30} + \gamma_{31}(\text{FAST}_j) + u_{3j}$$

$$\beta_{4j} = \gamma_{40} + \gamma_{41}(\text{FAST}_j) + u_{4j}$$

In this model, the grand intercept, β0j, represents the average SDQ outcome score for students in the control group. The slope, γ05, is the difference in average SDQ outcome score between students in control schools and those in FAST schools. Substantively, I interpret γ05 as the main effect of social capital on teacher reports of children's behavioral outcomes. To explore differential effects, I focus on the cross-level interactions between FAST and Latino (Latino*FAST, γ31) and FAST and Spanish (Spanish*FAST, γ41). The γ31 and γ41 coefficients indicate the effect of social capital on teacher-reported behavior for Latino students and for

students with Spanish-dominant parents, respectively, that are considered in conjunction with the main effects of social capital.

Based on the results of the previous analysis (discussed in detail below), I ran a second set of analyses that restricts the sample to students with Spanish-dominant parents. I included the same Level-1 and Level-2 control variables as in the previous set of analyses, but also included a Level-1 English language learner (ELL) dummy variable (indicating the student's ELL status) as well as a cross-level interaction between treatment status and ELL status (ELL*FAST). This second set of analyses further explores variation in social capital effects among students with Spanish-dominant parents.

There were 813 students with Spanish-dominant parents for whom we had complete data. Of these students, 406 were at control schools and 407 were at FAST schools, while 557 were designated as ELL, 241 as non-ELL, and 15 had no data on ELL status. Although students with Spanish-dominant parents were well balanced across treatment and control group, focusing solely on this sub-sample reduces the original school sample of the study because six of the FAST schools and one of the control schools had no Spanish-dominant parents. In the discussion of the results, I explore the implications of limiting the sample to Spanish-dominant parents and discuss the conclusions that can be drawn based on the restricted sample.

Results

Effects of Social Capital on Children's Behavior

I present two analyses for each SDQ outcome. The first utilizes the full sample, while the second is limited to Spanish-dominant families. Table 3.1 presents the descriptive statistics for the full sample for all variables in the first set of analyses, including control variables and SDQ outcome variables, while Table 3.2 presents the descriptive statistics for the restricted sample for

all variables in the second set of analyses. In the analyses, I control for relevant student characteristics, including treatment status and race/ethnicity (Latino or not), and also include a cross-level interaction of these two variables (Latino*FAST) to explore differential returns to social capital. In addition, I include a dummy variable (Spanish) measuring the dominant language of the parent, as well as a cross-level interaction between treatment status and Spanish, which allows me to explore how social capital effects vary across the Latino population in the sample. I focus on the results for the total behavioral difficulties (TBD) scale (shown in Table 3.3), which is the additive scale of all problem behaviors assessed in the SDQ, and the pro-social behavior (PB) outcome (shown in Table 3.4), which is the only positively scored outcome in the SDQ.[10]

I first examine the results for the full study sample (the left panels of Tables 3.3 and 3.4) to describe relevant overall trends and then turn my attention to the results for students with Spanish-dominant parents (the right panels of Tables 3.3 and 3.4). The results of the full-sample analyses show that there are no statistically significant main effects of social capital on teacher reports of children's behavior for either of the SDQ outcomes (total behavioral difficulties and prosocial behavior). Before including cross-level interactions, I ran a model for each SDQ outcome controlling for student-level characteristics at Level 1 and the randomization blocks at Level 2. Excluding cross-level interactions allowed me to explore overall treatment effects, comparing all students in FAST schools to all students in control schools. I do not present these results here, but there were no main effects of FAST for either SDQ outcome, suggesting that FAST had little, if any, overall effect on teachers' reports of children's behavior.

[10] The results for the other SDQ outcomes (peer problems, hyperactivity, conduct problems, and emotional problems) are presented in Appendix B.

I next ran fully interacted models to explore variation in the treatment effects of the FAST program. While there were no statistically significant main effects, the effects of social capital differed across Latino subgroups. Table 3.3 shows a negative and statistically significant coefficient for the cross-level Latino*FAST interaction (-1.908), which means that the effect of FAST was significantly different for Latino children with English-dominant parents than for non-Latino children. The FAST effects for this sup-group (Latino children with English-dominant parents) were computed as the sum of the FAST main effect and the interaction effect (.735+ -1.908 = -1.173). The substantive interpretation of this result is that Latino students with English-dominant parents experienced an enhancing effect of social capital, such that the acquisition of social capital via the FAST intervention was associated with a lower level of reported behavioral problems.

The results also indicated that Latino students with Spanish-dominant parents did not experience the same enhancing effect of social capital as their peers with English-dominant parents. The FAST effect for Latino children of Spanish-dominant parents is the sum of the FAST main effect, the cross-level interaction effect for Latino*FAST, and the cross-level interaction effect for Spanish*FAST (.735+ -1.908 +1.871=.698). Although participation in FAST had a negligible effect on students with Spanish-dominant parents, on average, these students had lower total behavioral difficulties scores than their peers with English-dominant parents, as indicated by the main effect of having Spanish-dominant parents (-2.560).

Results for the prosocial behaviors (PB) outcome are both similar to and different than the findings for the TBD outcome. As noted previously, the PB scale is a positive scale, and a higher score means that a student exhibits more prosocial behaviors. In contrast with the TBD results, the PB results show that Latino students with English-dominant parents did not

experience an enhancing effect of FAST. However, as in the TBD results, there were significant differential effects; in this case, participation in the FAST program was associated with lower prosocial behavior scores for Latino students with Spanish-dominant parents but not for their Latino peers with English-dominant parents (-1.149, p=.002).

On balance, the full-sample analysis shows that social capital (as manipulated via the FAST program) has differential effects among Latino students. Social capital was most beneficial for Latino students with English-dominant parents, and had less of an impact on students with Spanish-dominant parents; however, teacher reports suggested that the latter group, on average, had fewer behavioral problems and exhibited more prosocial behaviors than their peers with English-dominant parents. To further explore any heterogeneity in the effects of social capital, I next focus on the sub-sample of students with a Spanish-dominant parent.

Social Capital Effects for Latino Students with Spanish-Dominant Parents

The second set of analyses builds on the previous model by exploring the heterogeneity of the social capital effect in greater detail. In these analyses, I utilized the same control variables as in the first models (gender, free and reduced-price lunch status, and randomization blocks at Level 2) but also included both a Level 1 ELL dummy variable, which indicated whether or not the student was identified by district records as an English language learner, and an ELL*FAST cross-level interaction. In these analyses, the FAST coefficient indicates the effect of social capital for non-ELL students with Spanish-dominant parents, while the cross-level interaction (ELL*FAST) indicates the effect of FAST for ELL students with Spanish-dominant parents.

As in the first analysis, I begin by focusing on Table 3.3, which presents results for the total behavioral difficulties outcome. Prior to running the fully interacted model, I ran the model without the cross-level interaction to explore the overall treatment effect for Latino students with

Spanish-dominant parents. The main effect of FAST (without the cross-level interaction) was small and non-significant (.626, p=.286), suggesting that FAST did not impact student behavior.[11] However, in the fully interacted model (with the ELL*FAST cross-level interaction), both the overall treatment effect (2.567, p<.05) and the cross-level interaction were significant (-2.705, p<.05). Thus, the results show that for both ELL and non-ELL students, the significant effect of FAST on TBD was obscured when Latino students were considered as a monolithic group.

One potential explanation for differential returns to social capital among the Spanish-dominant sample could be differential participation. For example, it could be that non-ELL students with Spanish-dominant parents participated in the intervention at a greater rate compared to their ELL peers. As such, greater participation may be one explanation for differential effects. Because my analysis focuses on assignment to treatment, and not actual participation in the intervention (or attendance at FAST), exploring participation within the sample is necessary. To address this threat to validity, I explore participation rates among Latino students with Spanish dominant parents at FAST schools with special attention to those students that participated the least and those that participated the most, or graduated from FAST. Graduating from FAST suggests that families received the full "dose" of the intervention, which is defined by having attended 6 or more of the 8 FAST sessions that were offered.

In total, there were 400 Latino students with Spanish-dominant parents at FAST schools and complete district records with students ELL status. Of the 400 students, 265 were identified as ELL and 135 were identified as non-ELL students. In terms of FAST attendance, of all non-ELL students with Spanish-dominant parent, 40% attended fewer than two FAST Nights and

[11] Results are available from the author upon request.

around 35% of non-ELLs graduated from FAST, attending 6 or more of the FAST Nights. I find similar participation rates among ELL students with 35% having graduated from FAST and 41% attending fewer than two FAST sessions. Thus, although there are more Latino students with Spanish-dominant parents designated as ELL in the sample, their FAST participation rates mirror those of their non-ELL peers with Spanish-dominant parents.

Several substantive conclusions can be drawn from this analysis. First, the positive and significant main effect of FAST in the fully interacted model suggests that FAST increases behavior problems for non-ELL students with Spanish-dominant parents. Second, the statistically significant ELL*FAST cross-level interaction suggests that being an ELL student moderates the negative effect of FAST among Latino students with Spanish-dominant parents. In fact, for both focal SDQ outcomes (TBD and PB), ELL students at FAST schools had more positive behavior ratings, on average, than their peers at control schools (for example, the average TBD score of ELL students at FAST schools was 5.675 + 2.567 + 1.945 – 2.705= 7.482 while the average TBD score of ELL students at control schools was 5.675 + 1.945= 7.62).

Discussion and Conclusion

In this paper, I explored the effects of social capital on teachers' reports of children's classroom behavior with a particular focus on Latino youth. Specifically, I focused on how enhancing the parent-child bond—one form of social capital—affected children's behavior in under-resourced, predominantly Latino elementary schools. Several key finding emerged from the data. Social capital had no overall effect, as shown by the lack of statistically significant differences in children's reported behavior between the treatment and control groups. However, the effects of social capital were significantly different for Latino students and their non-Latino peers as well as across Latino subgroups. Specifically, Latino students with English-dominant

parents experienced a greater benefit from attending the FAST program than either non-Latino students or Latino students with Spanish-dominant parents. Finally, not only were there differential treatment effects among students by race/ethnicity and among Latino students by parental language dominance, there were also differential effects between ELL and non-ELL students. Importantly, these differential effects across ELL and non-ELL students were obscured in models using the full sample—the variation only became apparent in models using a sub-sample of participants with Spanish-dominant parents. While the present analysis cannot provide definitive explanations of the mechanisms driving this heterogeneity, the extant theoretical and empirical literature provides some plausible explanations. In the following section, I situate the current findings within the extant literature and contextualize the results, paying special attention to the heterogeneous effects across subgroups because this finding is most consequential for future research.

Differential Returns to Social Capital

The key finding from this study is the presence of differential effects across subgroups. Importantly, Latino students with English-dominant parents benefitted the most from the FAST program, while non-ELL students with Spanish-dominant parents benefitted the least. The finding of differential returns to social capital is consistent with previous research (Kao and Rutherford 2007; McNeal 1999; Ream 2003). However, because previous studies have not utilized an experimental design, it is important to seek explanations within both the literature and the intervention itself to understand the underlying mechanisms.

It is important to consider the relative starting point of each group. As mentioned previously, Latino ELL students had, on average, the fewest reported behavioral problems of all the groups in the analysis when considering both the full and restricted sample. This finding is

not altogether surprising—both Valenzuela (1999) and Suárez-Orozco, Suárez-Orozco, and Todorova (2009) found that English as a Second Language (ESL) teachers often have a more favorable view of immigrant ELL students than non-ELL immigrant students. In addition, although there are behavioral differences between students with Spanish-dominant parents (ELL v. non-ELL), students with Spanish-dominant parents, on average, have better reported behavior than their Latino peers with English-dominant parents. Better behavior as reported by teachers with students with Spanish-dominant parents could be indicative of strong familial connections. Previous research suggests that more recent immigrants or Latinos with lower levels of acculturation have stronger familiar ties (Portes and Rumbaut 2014; Stanton-Salazar 2001). For children, these extant social networks may facilitate a positive temperament and secure adjustment at the time of school entry. Thus, increasing social capital might be less consequential because strong familial bonds may already exist.

The current results indicate that social capital effects via the FAST program differentially impacts Latino students with Spanish-dominant parents. While non-ELL students with Spanish-dominant parents tend to be negatively impacted by FAST, their ELL peers are positively impacted. While this is a surprising treatment effect, it is not altogether unexpected as this pattern reflects previous findings from the literature on the Mexican immigrant paradox. Previous studies have shown that as students become more Americanized or acculturated, their engagement with schooling declines (Suarez-Orozco, Rhodes, and Milburn 2009). In fact, scholars have advanced the concept of dissonant acculturation, a pattern in which children learn English and adopt American customs faster than their parents, to explain distinct academic trajectories among immigrant youth (Waters et al. 2010). Proponents of the concept assert that experiencing different rates of incorporation into “American” society creates stress between

parents and children. One potential source of stress for students is increasing experience with racism and discrimination in the school setting. For example, Tummala-Narra and Claudius (2013) found that U.S.-born immigrant youth experience more mental health consequences associated with perceived discrimination in school settings than their foreign-born peers. It may be that having Spanish-dominant parents but not being designated as an English language learner in first grade means teachers have a different perception of these students or that these students might be in less need of assistance, perhaps due to the students own English language proficiency.

Unique to the current study is the early stage at which differences emerged in students' educational careers. Previous studies have suggested that the immigrant paradox emerges among middle school students, but not younger children (Crosnoe 2012). It might be that the teacher reports' reflect the decrement in children's academic performance found in the immigrant paradox, or larger processes may be responsible that impact students' academic and behavioral outcomes. Previous research on teacher expectations and child outcomes suggests that positive expectations engender positive performance, while negative expectations negatively influence performance (Rosenthal and Jacobson 1968). While it is beyond the scope of the current study to test the effects of teachers' perceptions, future research should explore teachers' perceptions of students across generations as well as the factors that influence those perceptions. From an interactionist perspective, expectations are important because an individual's notion of self is derived from the expectations they think others have of them (Blumer 1966). Thus, teacher expectations might be one mechanism, in addition to larger structural processes, that contribute to decrements in educational performance across immigrant generations.

Related to the issue of teacher expectations, one potential limitation of the study is that teachers were not blind either to the study condition, or, importantly, to the treatment. Teachers were central to the study because they played a large role in facilitating families' participation in the larger study. For example, prior to the study, teachers sent reminders about back-to-school nights, at which most of the recruitment efforts occurred. In addition, in some schools, teachers participated directly in the intervention by serving as the school liaison or as the school representative with whom parents built relationships in order to have a strong connection with a school staff member. As a consequence, teachers were aware of which students and which families participated in the intervention at treatment schools. This knowledge may have influenced teachers' ratings of students' classroom behavior. However, there is no indication from either the data or personal conversations with teachers at treatment schools that students' attendance had a direct effect on teachers' reports of students' behavior.

Overall Effects of FAST

One contribution of the current study is its rigorous examination of the effects of social capital. Previous studies have been criticized for not distinguishing between the effects of social capital and its antecedent causes (Dika and Singh 2002). The current study attended to this issue by utilizing a unique dataset in which parent-child social relationships had been manipulated in some families and some schools, but not in others. Moreover, I distinguished between social capital or the process through which social capital accrues, such as attending a FAST school, and the effects of social capital, in this case first-grade teachers' reports of children's classroom behavior. For the full sample, the results showed little difference in teachers' reports of children's classroom behavior across the treatment and control groups. However, when the sample was restricted to students with Spanish-dominant parents, participation in the FAST

program increased behavioral problems. What does these discrepant findings more for social capital theoretically and its potential to ameliorate educational inequality? I turn now to the findings for the overall sample, and then discuss the findings for the restricted sample.

The null effect of FAST for the full sample suggests that increasing social capital may have little direct effect on children's overall behavior. This conclusion is only suggestive, however, and must be considered in context. First, pre-treatment differences between treatment and controls families are one potential threat to the validity of the results. Previous studies using the same data found that although randomization accounted for pre-treatment between-school differences (e.g., percent minority, percent eligible for free or reduced-price lunch), it did not account for pre-treatment differences in parental social capital (Gamoran et al. 2012, Rangel, Shoji and Gamoran 2014). After further exploring this possibility, I found several measures for which parents in control schools, on average, had higher levels of social capital than parents in treatment schools. For example, relative to treatment-group parents, parents in control schools reported having more trust in school staff, knowing more parents of their children's friends, and participating in more school activities. To account for these differences, I re-ran both models for each outcome and included all pre-treatment variables as controls. Results changed very little from the current models, indicating that the effect of social capital was not obscured by pre-treatment differences in levels of social capital.

Chapter 4: Social Tie Formation and Social Capital Emergence in Low-Income Latino Communities

Scholars have long argued that social capital plays an important role in supporting children's educational outcomes (Dika and Singh 2002). I define social capital here as the trust, mutual expectations, and shared values embedded in social relationships (Coleman 1988; Gamoran et al. 2012; Shoji et al. 2014). Trust, mutual expectations, and shared values are significant for individuals because they facilitate social exchange, promote information flows, and build solidarity among group members (Coleman 1988; Sampson, Morenoff, & Earls 1999). Social capital between parents in a community has been linked to variety of beneficial outcomes for children. For example, higher levels of social capital ameliorate educational disadvantage by reducing dropout rates (Croninger and Lee 2001; McNeal 1999; Ream 2003), improving students' GPAs (Kao and Rutherford 2007; Pong, Hao and Garnder 2005), and facilitating positive behavior among children (Dufur, Parcel, and McKune 2008; Portes and MacLeod 1996).

Research has shown that social capital is potentially beneficial for educational outcomes and thus many scholars consider the resource central to reducing educational disadvantage; however, researchers know very little about how social capital emerges. Education researchers tend to focus on the effects of social capital by examining how the presence or absence of social capital is linked to relevant educational outcomes. This work is important because it describes inequality in social capital and the consequences of this inequality for various groups. However, this focus on outcomes means researchers pay significantly less attention to how social ties develop and how social capital emerges.

Whereas education research tends to focus on social capital outcomes, social psychologists have focused more explicitly on the mechanisms that underlie the development of social ties (Cook 2014). Work in this tradition has viewed social exchange as central to

understating social associations. Social exchange scholars attend to how different modes of exchange facilitate the development of trust (Cook 2004), reciprocity (Molm 2010), and group solidarity (Lawler, Yoon, and Thye 2000), all of which are linked to social capital. Moreover, work on social exchange assumes that individuals engage in exchange relations because of the need for resources, however; this assumption leaves the process of social tie development largely unexamined (Cook 2014; Kollock 1995; Shjoi et al. 2014; Small 2009).

Understanding the emergence of social capital is particularly important for Latino communities because differential levels of social capital may explain inequalities in child development. The association between social capital, ethnicity, and social class is complex. Prior research has repeatedly demonstrated that, relative to their non-Latino peers, Latino parents are less connected to other parents in the school community (Freeman and Condron 2011; Kao and Rutherford 2007; Pao, Hong, Gardner 2005). However, survey and ethnographic studies have found strong social ties among immigrant Latino families (Portes and Rumbaut 2001; Stanton-Salazar 2001; Valenzuela 1999), although these social ties typically do not encompass the school (Flores-Gonzales, 2002; Suarez-Orosco, Suarez-Orosco, & Doucet, 2003). In addition, whereas middle-class families tend to form parental social associations through their children's participation in out-of-school activities, working-class and poor families tend to rely on community-based social organizations and schools to provide out-of-school activities (Bennett, Lutz, and Jayaram 2012). However, the scarcity of resources in low-income communities (Bennett, Lutz, and Jayaram 2012), and Latino families' disenfranchisement in school settings (Valenzulea 1999) pose barriers to building strong school-based parental relationships. While these prior studies have highlighted variation in social capital along racial/ethnic and class lines, studies that explain how this variation emerges are largely absent.

In this chapter, I examine how social relationships develop in the school-community context. In so doing, I contribute the literature on social capital by detailing the process through which mere interaction transitions to relations of trust, shared values, and mutual expectations, or social capital. To do this, I analyze interview data from a sample of parents participating in a larger field experiment assessing the effects of an after-school program designed to build relationships in the school community. Through the interviews, I explore—in parents' own voices—how they navigate the establishment of social relationships in their communities, and I pay particular attention to how social context facilitates or impinges on the development of these relationships. I find that school-based parental connections are typically established through fairly limited interaction. Interactions most often occur when parents receive signals that the other parent appears friendly. While social ties are established fairly quickly, developing deeper more trusting relationships requires significantly more time and interaction. Again, parents are constantly evaluating the trustworthiness of other parents to determine how well other parents will care for their children. The context of these relationships in low-income and predominantly Latino communities circumscribes relationships due to parents fears of violence, abuse, or deportation. Below, I discuss the implications of these findings for social tie formation and social capital theory more broadly

Theoretical Background

What is Social Capital?

Although social capital has gained significant scholarly attention, its definition remains a point of contention. In education research, many scholars draw on Coleman's (1988, 1990) definition of social capital. Coleman asserted that social capital consists of the resources afforded an individual participating in a larger social network that facilitates the achievement of some end

that would otherwise prove difficult to obtain. This conceptualization defines social capital by its function. Other writers have argued that defining social capital by its function is problematic because it results in the conflation of the causes and effects of social capital (Portes and Landolt 2000). This conflation is particularly problematic for the current study because understanding how social capital develops requires differentiating between the causes and effects of social capital.

Exploring the development of social capital offers insights into variation in social capital effects, particularly in under-resourced school communities. Variation in social capital has been identified as a potential factor in the persistent educational disadvantage of under-resourced Latino students (Dika and Singh 2002; Stanton-Salazar 2001; Valenzuela 1999). For example, a wide range of studies have linked low levels of social capital to poorer educational outcomes for Latino students (Ream and Rumberger 2008, Ream 2005; Kao and Ruterford 2007), and have found that higher levels of social support from peers, teachers, and parents, can enhance positive academic behaviors (Conchas 2001; Monkman, Ronald, and Theramene 2005; Stanton-Salazar and Spina 2003) and buffer the potential negative effects of under-resourced environments (Enriquez 2011; Gacria-Reid, Reid, and Peterson 2005; Ream and Rumberger 2008). However, studies have also found that Latino students do not reap the same benefits from social capital as their majority peers (Kao and Rutherford 2007; McNeal 1999; Pao, Huang, and Gardner 2005), due in part to the resources within their networks (Lin 200) and differential returns form similar levels of social capital (Ream 2005). Thus, accounting for how social capital develops in the under-resourced Latino context, and how certain barriers hinder the development of relationships in these communities may provide needed insight into variations in social capital, and more

importantly, may suggest ways to intervene more effectively in the under-resourced Latino context.

Theoretical Background on the Emergence of Social Capital

Despite a large base of empirical work on social capital, little has been written on the creation or emergence of social capital. In his book, *Foundations of Social Theory*, Coleman (1990) provided some insights into the process by identifying several potential features of social structure that facilitate the emergence of social capital, namely: *closure*, *stability,* and *ideology*. *Closure* is important in Coleman's conceptualization because it facilitates the enforcement of norms and the sanctioning necessary for a functioning network. The second feature of social structure that Coleman asserted was involved in the creation or destruction of social capital is stability. *Stability* refers to the state of the social structure, or whether it is functioning smoothly. For example, a person moving or leaving the network could introduce instability into the network. The third factor identified by Coleman is ideology. *Ideology* acts as a source of group solidarity—those who ascribe to the ideology can benefit, but if some members hold a different set of beliefs or do not subscribe to the ideals held by the group, this difference could threaten the social capital of the network. Although Coleman identified these three features of social structure as important for the creation of social capital, he did not explain how these features come about. More importantly, the role of social relations or social interactions in the formation and development of social networks is unclear.

What facilitates the formation of social connections and how do social ties develop into more meaningful substantive relationships? Working within the social psychological tradition, social exchange theorists have identified mechanisms that may facilitate the development of social capital. The social exchange perspective focuses on relational aspects of networks and

pays special attention to the social relations and interaction embedded in larger social structures. Theorists in the social exchange tradition, and in social psychology more generally, argue that social structures are not static, but rather are part of a reciprocal interplay whereby social relations shape larger social structures and social structures influence social relations (Callero 1994; Giddens 1984; Sewell 1992).

The work of Linda Molm offers an example of the interplay between social relations and social structure and highlights the relevance of this interplay for social capital emergence. In her decades-long study of reciprocity, Molm (2003; 2008, 2010) and colleagues (Molm, Melamed, and Whitam 2013; Molm, Whitam, Melamed 2012; Molm, Schaefer, and Collett 2007) found that reciprocal exchanges are central to the development of solidarity, trust, and positive feelings toward others in a network. However, she noted that the structure of reciprocity (i.e., whether exchanges are negotiated in advance—such as in economic transactions or business settings—or generalized, where resources are shared indirectly amongst actors—A gives to B, B gives to C and C gives to A, impacted the levels of solidarity, trust, and positive feelings. Importantly, she found that generalized exchange generated the highest levels of solidarity and trust in a network (Molm, Collett, and Schaefer 2007). Molm's conclusion that strong bonds form through reciprocal exchanges, even when actors were not previously connected and when no personal ties previously existed, suggests that reciprocity may be one mechanism through which social ties transform into deeper more meaningful relationships. However, a major drawback of this large body of literature is its reliance on laboratory experiments that may lack external validity (Cook et al. 2013). The complexity of social life may play out in ways that cannot be reproduced in laboratory settings. However, as I explain below, reciprocity has been a major focus of

ethnographic studies in under-resourced communities, giving greater credence to Molm's experimental findings in real-world settings.

Building on social psychological insights, Portes (1998) advanced his own conceptualization of social capital, which is significant in that it distinguishes the causes and effects of social capital. Portes identified four sources of social capital that highlight the motivations for actors to provide resources when embedded in larger social networks. The four sources he identified are: *bounded solidarity*, *reciprocity exchanges*, *enforceable trust*, and *value introjection*. These sources of social capital are properties of social relationships that may engender deeper connections among actors. For example, actors will be more likely to provide resources to others when they believe their debts will be repaid (reciprocity exchanges), when they feel a sense of connection within a larger network (bounded solidarity*)*, when they internalize norms and expectations for sharing resources (value introjection), and when the larger community sanctions those who do not share according to these norms and expectations (enforceable trust) (Portes 1998; Shoji et al. 2014). Although Portes (1998) provided a rationale for why individuals share resources within a network, like Coleman, he neither discussed the type of social interaction that engenders these social exchanges, nor suggested potential barriers to the emergence of social capital.

In previous work, my colleagues and I identified types of social interaction that allow for the emergence of social capital (Shoji et al. 2014). Drawing on interview and focus group data from parents, teachers, and staff who participated in an intervention designed to build social capital, we identified four mechanisms of social capital emergence fostered by the intervention: *responsive communication*, *reciprocal communication*, *shared experiences*, and *institutional linkages*. *Responsive communication* refers to parents being excited and enthusiastic about two

aspects of the experience: participating in a conversation and feeling like others are paying attention to them. *Reciprocal communication* occurs when actors share with each other and engage in give-and-take during a conversation. We found that the give-and-take that occurred in conversation led to reciprocal exchanges of other kinds—not only social exchanges but material exchanges as well.

Whereas responsive communication and reciprocal communication refer to aspects of interaction, *shared experiences* refers to how solidarity in a group is formed characteristics of the group. The intervention took steps to foster a sense of community among parents. Parents reported that engaging in similar activities and sharing more information about themselves made them feel a closer connection to the group and to other parents in the group. Finally, *institutional linkages,* or social ties with an individual connected to an institution, referred to parents' engagement with a school staff member, which made parents feel more comfortable in the school setting and facilitated the development of relationships with other school staff. One strength of the study is the identification of types of interaction (reciprocal and responsive) that might foster not only social ties but also deeper, more meaningful relationships. However, one shortcoming of the paper is that we explored how social capital emerged within the context of an after-school program. As with the findings from the social exchange literature, the processes identified in our research project may not be applicable in other social contexts, or a different set of mechanisms may come into play when social ties develop in more organic settings.

Barriers to Relationship Development

Much of the literature on the formation of social ties has rightly focused on why relationships develop (Cook 2014) and how social structures facilitate the development of relationships (Coleman 1988; Lawler 2001; Mancini, Bowen, and Martin 2005; Molm 2010;

Small 2009); this work has not included a substantive discussion of barriers to the development of social relationships, particularly in the context of under-resourced Latino communities. While not specifically focused on the formation of social ties, a sizeable body of work has examined neighborhood effects that illuminate structural processes that might impinge upon the development of social capital. For example, in their study of the effects of family migration on children's outcomes, Hagan, MacMillan, and Wheaton (1996) focused on residential or neighborhood stability. The authors found that family moves, conceptualized as a loss of social capital, were negatively associated with children's educational outcomes. In a more explicit test of the effects of residential stability, Sampson, Morenoff, and Earls (1999) explored variation in closure, trust, and reciprocity exchanges among more than 8,000 residents in 342 Chicago neighborhoods. The authors found that residential stability was associated with higher levels of social exchange and was predictive of levels of closure. Concentrated affluence was also predictive of both closure and the amount of exchange in a community. Importantly, the authors argued that concentrated disadvantage reduced levels of group expectations among community members, but in and of itself, concentrated disadvantage was not a significant barrier to the development of closure and reciprocal exchanges (Sampson et al. 1999). Collectively, Hagan et al. (1996) and Sampson et al. (1999) provided empirical support for Coleman's claim that network stability was important to the creation and maintenance of social capital. The work of Sampson et al. (1999) and others (Mancini et al. 2005; Pendakur and Mata 2012; Small 2009) suggests that structural features of neighborhoods may impact the development of social ties. However, researchers know little about how parents internalize and experience larger structural features that may impact the development of social relationships. In this chapter, I examine not only how social relationships develop but also why not all relationships transform into social

capital; in addition, I explore how parents make sense of social context in their daily lives as they engage in social relationships.

Work on the urban poor has also provided insights into potential barriers to the establishment of social relationships in under-resourced communities. Numerous studies on the urban poor have found that social ties in these communities are taxing and as a result, disposable (Desmond 2012; Dominguez and Watkins 2003; Mazelis 2015; Menjivar 1997; Offer 2012, Stack 1974). Offer (2012) advanced a theoretical model that attempted to explain how the burden of reciprocal exchanges in low-income communities leads to the degradation of social relationships. She argued that processes of exclusion—individuals excluding others from participating in social exchanges—and the process of withdrawal—individuals selecting out of participation in exchange relationships—weakened social ties in under-resourced communities or prohibited their establishment altogether (Offer 2012). As a result, Offer (2012) argued that reciprocity served to both facilitate and impinge upon the establishment of social ties. Focused on reciprocal exchanges among evicted tenants, Desmond (2012) found that in low-income contexts, relationships were often established when ties are immediately resourceful. His findings showed that evicted tenants established deep intimate relationships in a brief amount of time, often through the exchange of limited and meager resources. However, because the constant need for resources becomes burdensome, these ties do not last long and often break under situational constraints (Desmond 2012).

For Latino families, the role of reciprocity is less clear in under-resourced communities, in part because Latinos have unique kinship networks. While Desmond (2012) noted substantial barriers to kinship ties in his work on African American and white evicted tenants, his previous work asserted strong kinship ties existed among Latino families (Desmond and Turley 2009). In

fact, the extant literature has found that familism is a central characteristic of Latino families, irrespective of class or immigrant status (Dominguez and Watkins 2003; Menjivar 1997; Vallejo 2012). One potential consequence of strong kinship networks is that families may focus less attention on cultivating fictive kinships ties. Latino families might invest more time in strengthening kinship ties at the expense of developing other types of relationships. Thus, familism, or giving priority to kinship ties, may act as a barrier to developing social relationships in school communities.

In sum, although scholars have written extensively about social capital and education, few have examined how school-based social ties form and develop. Coleman (1988, 1990) and others (Mancini et al. 2005, Small 2009) have provided insights into the properties of social structures that might facilitate the emergence of social capital, but have neglected the role of interaction and failed to attend to how parents understand the development of social relationships. While social exchange theorists have demonstrated that exchange plays a central role in the creation of strong ties among networked members by facilitating trust, reciprocity, and positive emotions (Cook 2004; Lawler 2001; Molm 2010), their findings say little about the situational forces that impact how, when, and whether individuals establish relationships. Moreover, one premise of social exchange theory is that exchange is a fundamental aspect of social life. However, the predominance of familism among Latinos may lessen their social connectedness. Finally, in previous work, I utilized Portes' conception of social capital to explore the interactional properties of social capital emergence. Although that work provided important insights, the findings were limited to the interactions of parents within the confines of an after-school program. Thus, building on the previous literature and focusing on Latino families, I explore how social ties develop in under-resourced school communities and how

social capital emerges from these social ties. In addition, I examine barriers to the development of social ties and the formation of social capital in these communities.

METHODS

Study Participants

To investigate the development of parental social relationships and barriers to the establishment of these relationships, I draw on individual interviews with parents participating in a larger field experiment focused on building social capital in predominantly Latino school communities. Parents were targeted based on their participation in the Children, Families, and Schools (CFS) project, a cluster-randomized field trial conducted in 52 Title I elementary schools to assess the impact of social capital on the social, behavioral, and academic outcomes of first graders and their families in San Antonio, Texas and Phoenix, Arizona. The CFS study was implemented in three waves (Fall, Winter, Spring) in each of two years (2008 and 2009) in the focal cities.

The interview data for this chapter come from parents who consented to participate in the spring 2009 wave of the CFS study, which included eight elementary schools, four in Phoenix and four in San Antonio.[12] At each of the eight elementary schools, a colleague and I conducted interviews with parents to learn about parental relationships in three domains: parent-parent relationships, parent-school relationships, and within-family relationships (i.e., parent-child). We recruited approximately four families from each school when target children were in either second or third grade.[13] We solicited participants by cold-calling parents from school rosters provided by the CFS study. Within each school we sub-divided rosters based on parental

[12] For additional details about the CFS study design and implementation, see Gamoran et al., 2012.
[13] We did two extra interviews in one school in Phoenix because the school seemed particularly anomalous after our first four interviews. In San Antonio, one school had significant attrition as over half of the families on the roster had non-working phone numbers. As a result, we were only able to secure three family interviews in the school.

language dominance (English or Spanish) and after-school program participation (low vs. high attendance). We called families from the available rosters until we obtained the desired number of families in each school.[14]

Most parents agreed to participate in the interviews.[15] As part of the request to participate, we informed parents of our affiliation with the University of Wisconsin-Madison and the CFS study. In addition, we informed parents that in return for their participation, they would receive a meal (of their choice) for the entire family, and parents would be compensated for their time. Most parents who did not participate had phone numbers that had been disconnected or did not respond to voice mails. In total, we interviewed 57 parents from 34 families.

Parent Interviews

We conducted the interviews between March 2011 and May 2012. Most interviews were conducted at the family's residence on a weekday evening.[16] Upon arrival at the family's residence, we shared a take-out meal with the whole family, which lasted from 30-60 minutes. After dinner, we conducted the parent interviews. When two parents were present (n=23), my colleague and I conducted separate but simultaneous interviews; I interviewed the male parent/guardian and my colleague interviewed the female parent/guardian. When only one parent was present (n=11) we co-interviewed that parent. In the latter case, the meal and interview overlapped, whereas in the former case, the interview portion was more clearly demarcated because I usually conducted my interview with the male guardian outside, typically on the porch

[14] Some schools had very little parental language variability so we adjusted our sampling accordingly. For example, one school in Phoenix had few English-dominant parents so we interviewed more Spanish-dominant parents than English-dominant parents.
[15] It was rare that family declined to participate when we were able to speak with them on the phone. Issues such as scheduling conflicts or illness were a few of the reasons parents gave for not participating.
[16] This did not apply to two interviews: we conducted one interview over the phone and another in person but at a hotel (due to last-minute unforeseen circumstances).

or patio of the respondent's home. Interviews lasted from 60 to 150 minutes and were conducted in English or Spanish based on the parent's preference. The interviews were semi-structured to elicit narratives, feelings, and opinions about parents' relationships with other parents, with school staff, and within their own family. We audio recorded both the conversation during the meal and the interviews, and all recordings were subsequently professionally transcribed and translated.

Sample

To explore the social context of relationship development and the evolution of school-based parental social relationships, I rely on data from the interviews of a subsample of parents from the larger interview study. The analytic sample for this chapter includes only parents of a Latino child. Thus, if school district demographic records identified a child as Latino, the parent/guardian was retained in the final sample. Excluding parents who did not have a Latino child created a final sample of 50 parents from 30 families.

Analytic Plan

As my colleague and I conducted the parent interviews, we followed a process of interviewing, writing field notes, debriefing after the interview, modifying the interview protocol, and conducting the next interview. After each interview, we recorded a set of field notes about the interview. Because we conducted separate but simultaneous interviews, we were not aware of the topics covered by the other interviewer. Thus, after recording field notes separately, we re-convened and debriefed. These debriefing sessions offered an opportunity to share the main themes that had emerged in the interview and discuss our emerging theories about relationship development. Based on the debriefing, we then identified emerging topics or pressing questions to address in each subsequent interview. The debriefing sessions lasted

between 30 and 120 minutes and were audio recorded and transcribed. For this chapter, I specifically focus on themes that emerged from the data related to two topics: the development of school-based parental social relationships and barriers to the establishment of these relationships.

FINDINGS

Social Context of the Study

Before addressing how relationships develop in the school community, I first consider the context under which these relationships develop. In Phoenix, we interviewed parents from two school districts that participated in the larger CFS study. In San Antonio, we interviewed families from the only participating district. Across both cities, these three districts serve a large population of low-income students with free or reduced lunch eligibility ranging from 93 percent to 51 percent. In addition, these districts are largely comprised of Latino students. The Latino student population in these distracts ranged from 85 percent to 64 percent.

From the schools sampled for the interview study, our families in Phoenix were more economically disadvantaged than those in San Antonio. In addition, the schools in Phoenix served larger concentrations of Mexican immigration families compared to the schools in San Antonio. At the time of our interviews, Senate Bill 1070, had recently passed the Arizona Legislature, which was considered by some to be anti-immigrant as it bestowed federal powers to local police officers in that officers could now question individuals they stopped about their immigration status. In addition, there were large billboards across the city that read “Help Sheriff Joe Arpaio Fight Illegal Immigration and Trafficking: Call XXX.XXX.XXXX”. The billboards combined with the passage of SB 1070 created a sense of fear and distrust among many in the local community. particularly in the communities where our families resided. One parent told us

that authorities would put pamphlets on trucks with the hotline number saying they would reward individuals for reporting undocumented residents. In contrast to the anti-immigrant sentiment in Phoenix, there was less political hostility directed towards immigrants in Texas both publicly and politically. In Texas, for example, the Republican Governor with a Republican House and Senate allowed undocumented students who graduated from a Texas high school to receive in-state tuition. Moreover, in conversations with Spanish-dominant parents in San Antonio, fears of deportation were relatively low compared to our conversations with similar families in Phoenix.

Influence of Social Context on Parental Social Relationships

The economic conditions and the anti-immigration legislation had various impacts on our families. Importantly for this study, these impacts were consequential for how parents built social ties and established deeper social relationships with other families. For example, several participants indicated that they were often leery of establishing ties because of potential negative consequences. We visited one family, a mother, Yvonne, step-father, Peter, and daughter Mary, who lived in a roach infested apartment with no working appliances. [17] Yvonne stated that there was significant drug activity in her complex at all hours of the night and that strangers would knock on her door and peer into her windows. She described one situation that occurred a month prior to our visit where a stranger peered through the window and called out to her daughter. To protect herself, Yvonne would keep a large knife under her television. She recounted how she went to the complex manger after the incursion to discuss her options. She stated:

> …people just push the limits to where- I just leave a lot of people alone. I went to the office when the guy stuck his head in the window, and the manager just told me basically- you know, I go, "Okay what are my rights when I'm in my home, and I'm being harassed, or you know, I'm just trying to make sure that, you know?" He's like, "I know. I mean I know that you know what to do," he's

[17] All names are pseudonyms chosen by the individual families

> like, “but as a manager, you can kill him when he enters your home.” I go, “Cuz I can’t keep having these neighbors stick their head in the door, look in the window, stuff like that.

The constant presence of strangers and the need to protect her daughter made Yvonne leery of establishing new relationships. At the same time, her and Mary lived along for three months while the step-father was away in California. During this time, Yvonne suffered a pinched nerve while the step-father was in California. She could not walk and often had trouble dressing herself. She relied on another friend in the apartment complex to help her with daily tasks, but had little other assistance. For the weeks that she was immobile, Mary did not attend school because Yvonne had no way to get her there. They lived too far to walk and too close for a bus to stop nearby.

Similarly, we heard from a grandmother, Carmen, who had guardianship of her two grandchildren, Rudy and Jennifer, because their mother was in jail. She lived in a large multi-unit apartment complex that was in disrepair. When we visited, we noticed a large number of children playing in the various courtyards. Carmen stated that she does not want Rudy and Jennifer to play outside because of the negative influence of the other children. When we asked if she knew any of the parents in the complex, she stated abruptly “I don't talk to them…I don't talk to none of the parents.” Carmen recounted numerous negative encounters with other children and families living the complex ranging from finding a nail in her tire, to being cussed out by a child for trying to intervene in a situation. Because of these incidences Carmen desperately wanted to move, however; her subsidized rent made it impossible to leave as she could not afford to move somewhere else. For Carmen, forming social ties or developing deeper social relationships with other is not important, especially because of her previous negative encounters.

Another theme that emerged from the data and salient for establishing social relationships was the fear of violence—physical, but also sexual. These fears went beyond concerns as many families had personal histories of abuse. Of the 30 families we interviewed, 7 reported experiences with abuse or violence. In two separate families, one in San Antonio and one in Phoenix, parents indicated that a registered sex offender recently moved into the neighborhood, according to mail they received. We also spoke with two different families where one parent reported being sexually abused as a child. A different parent told us that they left home at an early age to escape their alcoholic parents. In addition, two other families in two separate communities, reported that they suspected a neighbor of physical abusing their own children.

The result of these experiences was that parents were appropriately vigilant. They described in detail how they would warn their children about inappropriate touching. In fact, fear of sexual abuse was a main reason parents indicated to us that they would not allow their children to attend sleepovers. Fear of sexual abuse was a central concern expressed by parents with daughters, but parents with sons expressed concerns as well. One mother, Sandra, described how her son came home talking about a new friend at school. Sandra asked the son if this person was a student, and he said no, which raised immediate concern. She detailed the story as follows:

> …in kindergarten my son would come home and I would never hear him mention a name and suddenly he's like "Julio's my friend and Julio…" and I'm like Julio, I go "is Julio in your class?" He's like "no, Julio's not in my class." I go "then whose class is Julio in?" He goes "no, he's someone that works in the cafeteria." I'm like "Huh? Why is Julio…" you know to me I thought I'm like he doesn't mention no kids in his class suddenly he's mentioning a Julio and I don't panic I just want to know who Julio is so I made it a point the next day to go have lunch with him and I go "sweetheart can you show me who your friend Julio is" and he pointed to one of the custodians and I go "hi, Julio." I go "I'm Eli's mom" I go "I just wanted to say hi." I go "Eli mentions you." I go "and I just wanted to put a face to whoever he talks about." You know and he you know…luckily didn't take it into offense I didn't know how to

> approach the situation, but I wanted to, you know, I didn't know if this was a good man, bad man or not, but I wanted him [Julio] to know that somebody's watching him.

Children's well-being was a primary concern for all families, however; vigilance was often not enough. One parent described how her 8-year old daughter returned from a relative's home with her neck covered in "hickeys". These examples highlight the precarious social context that influences if and how parents develop social ties and social capital.

While living in economically depressed communities circumscribed families' relationships, the passage of legislation targeting undocumented immigrants was consequential for both parents' and children as well. For example, we asked Juanita, a documented immigrant, to describe the impact of the legislation on families and she said that it made parents "shyer" and more "afraid" to talk those in the community. Ruben, an undocumented immigrant from Mexico who came to the US at a young age and spent most of his life in Phoenix, also described how he is more fearful now, than in the past, he stated:

> Respondent: I think I am much more careful when it comes to talk about my legal status…Before I didn't care if people knew; I used to say, "Do you know what? I just arrived and I don't have papers." There were many people saying that; not anymore. We don't talk about that. We don't even ask anymore.
>
> Interviewer: Is it a matter of trust?
>
> R: Yes, it's more about being careful. We must be careful because there are people who could hear you and say, "Look, they don't have papers." That affects a lot. Before it affected but now, that the law has changed it affects a lot. It is much harder. People are afraid. I think if you have a family, a wife, and children and let's say they catch me, what are they going to do? (Translated from Spanish)

In this case, Ruben discussed how he is less open and has to be more careful about trusting individuals with knowledge of his documentation status. In Ruben's case, his daughter was deported and he had custody of his grandchildren while she figured out how to make her way back to Phoenix. As we learned from other parents, retreating from social relationships was a way to ensure their families safety. Rumors of raids and activing policing of immigrants served to create a sense of fear and distrust among parents. For example, as mentioned previously, one parent described pamphlets on trucks asking to report undocumented immigrants. Another parent told the story of a pregnant undocumented women being picked-up by immigration officials and being forced to give-birth while handcuffed. While these might be extreme examples and perhaps untrue, they denoted the fear parents experienced as a result of the increased policing of and circumscribed social relationships because the consequences of misplaced trust were very real.

The laws not only created fear among families, but they also impacted social networks by creating instability. Several families relayed stories about neighbors leaving from one day to the next and houses going empty because the jobs that once supported these families were much harder to obtain, due to more stringent employment verification processes. We visited one family who had owned their home for five years, but due to the father's undocumented status, he had been terminated from his job and could no longer afford the payment on the house. They were expected to be out of the house a few weeks after our interview. While the laws disrupted family networks by forcing some families to flee, it also had the effect of bringing some families closer together, albeit for inauspicious reasons. Several families described how they had been asked by other families to assume guardianship of their children should they be deported. Parents also described to us their own deportation plans should they get picked up and the conversations they

had with their children to prepare them in the event of being apprehended by the Immigration and Naturalization Service (INS).

In this section, I have described how the context of the study was consequential for the development of social relationships. The low-income context in general, and the restrictive immigration policy of Arizona in particular, highlighted how social relationships are embedded in larger structural processes (Small 2009) and how these structural processes impact the development of these relationships. My findings are in line with Coleman's (1988) thesis about the role of stability in facilitating the development and maintenance of social capital. As more restrictive immigration policies were advanced in Arizona, families fled the state disrupting social relationships. Moreover, the threat of abuse and the living in areas with high drug use, also circumscribed parental social relationships.

In spite of the precarious social context, all families, to some extent detailed personal relationships they maintained with other parents in the school community. In what follows, I first detail how parents formed social ties with other parents, and then examine how parents talked about developing deeper more trusting relationships, within the context of sleepovers or how parents came to the decision to allow their children to spend the night at a friends' house.

Social Tie Formation

The process of forming social ties is a fairly mundane and uneventful process for parents. Parents indicated they form social ties with parents in various school-based context like birthday parties, playing outside in the neighborhood, or at school events. In each of these contexts, children play a central role in connecting parents. Parents would often form social connections with other parents during pick-up and drop-off times at school, however, I show that these relationships, although generated relatively easily, are not necessarily deep or trusting

relationships. Below, I further illustrate how parents meet each other parents in these settings, how parents determine which parents to approach, and what interactions typically entail when parents' first meet.

Children connecting parents. Parents most often described meeting other parents' trough their children. Children played a central role in connecting parents when they were invited to birthday parties and the whole family attended; playing outside in the neighborhood; or attending school events. While these environments set the context for parents to meet each other, it is usually a child expressing interest to their parent about another child that connects parents. One father explained the process in this way:

> …you get in the conversation and when you don't know the parents it's like, "yeah, I'm Brian's dad" here and there, "oh yeah". And then you start a conversation and then you start-for some reason or one way or another you talk about your kid. It's like, for example, this parent that I didn't know and he was like, "oh, yeah…" and he said, "yeah, they're really good friends me and your kid-your, -my kid talks a lot about your kid. I think they're really good friends and he talks good things about your kid". And that's what starts the conversation and it's like, "so, how long have you been at that school and how long have you been here, and there?" and we talk about them also, so.

In this example, the father describes how he strikes up a conversation with another parent based around his own child. The parents were able to connect at the birthday party because they knew which parent and child paired up and were able to make the connection. Another parent described how when she is at a birthday party and does not know any of the parents she will starting talking to those around her, explaining, "I tend to start conversations so I just, whoever's around me I say hi, and go from there, which is yours? [asking parent to point out their child] that one's mine [identifies her child to the parent]." She went on to say that she tries to find

common ground, asking parents how they like the school or their thoughts on various teacher. We asked another mother how she identifies which parents to talk to, she said,

"Well, I think because the kids. The kids say, "oh, look, mom, it's the mother of my friend." "Oh, hi" and start like talking, because the kids introduce you." While parents we talked to spoke about birthday parties being one way parents met each other, several commented on the parents that would often drop off the children at a party and then leave. This practice was looked down upon by the parents we spoke too, especially if the parents had never met the parents hosting the party.

School functions also provided a context for parents to meet one another. Schools function as an easy way for parent to connect, mostly because it gives them something in common to talk about. For example, similar to the father above, a mother also utilized the context of her child speaking about another child to approach parents. In her own words she stated:

> …whenever they had their little school party, or a ceremony or something at school, where parents are allowed to come, I'll go and kind of talk to them, and say, ((excited high pitched tone while imitating this conversation:)) "Hey, your child's so-and-so. Oh, yeah, Stephanie and her get along really well, and oh, she's having a birthday party next week," or, "Where do you live?." "Well, we just live right here down the street. Maybe we can meet each other outside of school," or, "Stephanie's been really wanting to go to her house," or, "They really want to play together," something like that. It'll kind of start off that way, and then from there, it's ((snaps her fingers)) really easy because we can exchange phone numbers that day, and we'll call each other when we need to.

However, the strategy of meeting parents when children share a friendship only occurs when parents are able to identify which child and parent match up. We spoke with one family that recently moved to a new school and they talked about attending a play at a school where they didn't know anyone. I asked the father, Jason, if he met any parents at the play, he replied:

> No. I don't know—I mean(..), they(…) haven't had really anything going on, like within the classrooms, for us to know, like, which parents are with which kids, like to say, "Oh, your daughter's in my daughter's class or your son's in my daughter's class." So, when we saw the people, they were just strangers that- you wouldn't know anybody.

These examples highlight how parents invoke their children to initiate interaction with other parents. However, parents may be less inclined to initiate conversations when they are unsure which parents match up, particularly if a parent is less outgoing. One mother explained that fear of rejection or being unsure of how another parent might respond to their invitation to interact made meeting parents in unsure environments more challenging.

One way parents learned parent-child pairs is during pick-up and drop-off time. We heard from a number of parents who said they walk their children to school every morning. One grandparent, Jorge, told us that his granddaughter's teacher was notorious for keeping the children after the bell. As a result of the kids not being released, the parents would congregate outside of the classroom, which provided the parents opportunities to strike up conversations, mostly complaining about the teacher. Tasha, a mother with a child in the same classroom as Jorge's granddaughter described the situation in a similar way:

> Like, for instance when we pick up the kids, her class is always ten minutes out, getting late every day. The kids are out ten minutes late every day. And the parents are like, "What is the deal? this is not prison. Let them go!" ((laughs)) and then that's what starts it. We will talk outside the school and then on the way home. We're like… it just sparks the conversation.

Although both families were upset with their children being let out late, parents were able to meet each other while standing around waiting for their children. Similarly, their frustrations with the teacher allowed them to connect around a shared experience that provided a reason to engage in conversation. We also heard from a number of parents who said that they met parents

walking to school every day. Peter, a step-father who walks his child to school every day, explained:

> I walk up to the school. I don't have a vehicle. I'm old school. We'll go up there. It's like, that' me going there, I'd probably say ten to twelve parents, that I know of, will walk. That's all I ever see as far as walking and interacting. You see the same parents, of course you're gonna interact with them, you know?

Another parent, Juanita, indicated that there was a separate resource room on school grounds where parents could congregate after dropping their children off. She explained further that it was through the resource room that she first met other parents at the school when her daughter started kindergarten.

While pick-up and drop off times provided parents opportunities to meet and interact, children's mode of transportation also impacted if and how parents interacted. For example, parents remarked that they were less likely to meet parents when children were bussed to school or when fewer children walked to school. Oliva, a mother of four, was asked why she knew some parents better than others, she responded, "Few(er) parents go to the classrooms, because many children take the bus". A step-father remarked that they had recently moved schools and the biggest difference he noted was the number of families that either drove or were bussed to school. He offered:

> Here, you see the parents, well as far as how I see it, I see the parents come, pick up students, but there's a lot being bused in because I see a lot of the buses and stuff and a lot of the vans that come pick up the kids, like the afterschool program and whatnot. So I don't really too much see parents really going into the school trying to get involved...

Jason, introduced earlier, remarked that they recently moved apartments and that he had more difficulty meeting parents at the current school compared to the previous school because so many parents drove, rather than walked. In his own words he stated:

> There's times where I walk to pick up McKenzie because it's not even a block away, and you don't see kids like coming in here. At the other apartment complex when we'd go, McKenzie would have friends that lived really close by. I would go play basketball and like I would meet her friends' parents because they would be there, and then, "Oh, you know my daughter," "Yeah, we're in the same class." It was like that there, but here, it's just totally different. I don't see any kids around.

Parents also explained that when they would drive to drop off and pick up their children, the schools often encouraged parents to stay in their car and developed systems to ensure parents would spend only a minimal amount of time waiting for their children. However, a consequence of this policy is that making parents stay in the car means parents may miss opportunities to conveniently meet other parents. Thus, how children get to school matters in terms of parents developing school-based social ties.

Although forming social ties requires only minimal interaction, parents do not form relationships with all of the parents they see, even if they recognize them. Rather, parents are constantly evaluating other parents level of friendliness, which informs their decision to engage in interaction. For example, one mother, Vanessa S., described what she looks for that might conveys a parents' willingness to interact:

> …I'm really observant, so I can already get a sense in the room, like, the one that's kind of already looking up and excited that they're there, and I'm like, "((*excited sigh*)) Got to go talk to her.

We followed up by asking what signs she looks for that indicate a parent might not be open to having an interaction, she responded:

> They're ready to go. They're like, ((*bored, indifferent*:)) "When's this gonna be over with? Let's get out of here." There's not really that engagement with the child either. They're just like, ((*bored, indifferent*:)) "I'm ready; any moment now, it's gonna be over." I can just feel that vibe.

Assessing cues from other parents was frequently mentioned in determining whether a parent would try to engage others. We explored this topic more by asking parents to talk about cues that indicate a parents' willingness to interact. Juanita, who is very involved in PTA and a frequent volunteer at the school, explained that some families "look at us badly." We asked if there were other qualities of these people to better understand how parents get a sense of which parents might be more open to conversation. Juanita responded, "You see it in their faces. For example, I look at them and they don't' even smile." To Juanita, friendliness and a willingness to interact are related. However, not all parents are open to interaction even if they see each other frequently. I spoke with Steven, a father of two boys, who walked his sons to school most mornings and would eat breakfast in the cafeteria with his older son Nathaniel. He relayed the following story of being rebuffed by another elementary school parent

> I like to make friends anywhere I can, and I tried to conversate with her [a mother that was sitting right next to him eating breakfast with her son] and it was just like real short, "Oh, I'm okay, just working." "Okay. [as if turning to son] Alright, Nathaniel, you almost ready?" So, I mean, I'm just trying to make conversation, trying to be nice here but it seemed like she didn't really wanna chitchat with anybody, and so I was like, "Okay, have a good day."

The above examples highlight how parents assess other parents' willingness to engage in interaction. Steven's cafeteria experience suggests that some parents may be better than others a picking up cues about other parents' openness to interact. Nevertheless, an important takeaway is that even when parents recognize each other they still might not interact. Suggesting that while schools, through no effort of their own, provide some opportunities for parents to interact but these opportunities are not structured by schools and these opportunities are often not sufficient for parents to establish a social connection.

At minimum, all parents talked about trying to meet their children's friends' parents or having some interaction with parents from the school community. However, parents also stated that these brief interactions were infrequent and did not necessarily materialize into more substantive relationships. In fact, parents often drew a stark contrast between the "friends" they met through their children and at school, and their own friends. For example, I asked Jorge, one of the grandfather's introduced earlier, if he was friends with any of the parents he talked to outside of his granddaughter classroom, he replied, "No, we just see each other in school, that's all. But we don't have a friendship like that, going to visit each other, nothing like that." Similarly, we asked Olivia, who was also very active in her children's schooling, , if she considered all the parents she was friends with at school, were also her friends out of school. She responded, "no, only in school." I followed-up by asking, "they aren't your friends?" and she replied, "No, no. 100% friends, no". She went on to describe more about her "friends" and noted:

> To tell you the truth I don't have too many friends, friends, friends; the type that we call each other? I have only one that I always talk over the phone; but friends who are not too close, I do have several. But we are not all the time on the phone. I have a closer relationship with my family. We always spend time with the family. (Translated from Spanish)

This examples highlights that first, parents distinguish the types of relationships they make at school or through their children, versus the friendships they developed outside of school settings. As one mother pointed out, these social ties are merely "acquaintances." Second, in the example above, the mother suggests that she has a smaller friendship network because she spends more time with her family. However, whether or not parents have strong family ties does not appear to be consequential for the development of social ties in the school community, nevertheless; as I discuss in a subsequent section, family ties may, in part, impinge on the establishment of deeper

more trusting relationships because parents often view the establishment of new friendships as a tradeoff versus spending more time with family.

Social Capital Emergence in School-Based Parental Relationships

As noted above, social ties developed through limited and infrequent interaction and are often centered around children. Because parents establish these relationships for the sake of their children (i.e. so children can play and visit with their friends), they distinguish between acquaintances, like most school-based ties, and their own friends. One way this distinction was made clear was in determining who parents would let their children spend time with, and specifically, the adults they would allow their children to spend time with. Through our interviews parents' described needing to "really know" other parents when their child asked to spend time at their children's friend's house. In addition, parents often stated that knowing parents and "trusting" other parents was particularly important for allowing their children to spend the night at a friends' house. Thus, by examining how parents come to the decision to allow their children to spend that night that we can understand how social capital develops. Instead of exploring the resourcefulness of these relationships, or the effects of social capital, I focus on the process of how parents build trust, shared expectations, and assess mutual values.

Because of the age of the children (around 8 or 9 years old) parents were often leery of letting their children play at a friends' house, much less spend the night, which some parents expressly prohibited. I asked Jason, father of three young daughters what would he required for him to allow his daughters to spend the night at a friend's house? He responded:

> I guess, you've really got to know them [the other parents'']. You've really, really got to get to know them, yeah. Yeah, you've got to get to know them. And like the friends I hang out with, they're very good to my kids. One time…[I had to go to the hospital] ." So my friend lived next door, called him, "No, I'll be right over," and he watched them. And I mean, they'll get after them, like if he was

> their—like, “Arlene, you’ve got to go to bed, it’s getting late.” You know, I have that trust in my friends, to know that they would do the right thing. My daughters, they look at him like an uncle. They give him the same respect.

Jason’s stated that aside from his friend mentioned above and his immediate family, his daughters were expressly prohibited from spending the night at someone else’s house. This caused tension in the household because his oldest daughter McKenzie was invited to a sleepover party that he did not allow her to attend. As Jason’s comments reveal, he has to know someone on a deeper level to instill enough confidence for his children to spend time with other adults. He also suggests that knowing how other parents treat his children is also important. As I highlight subsequently, how parents treat other children is a central way parents evaluate trustworthiness and build deeper relationships with each other. Moreover, when Jason says that he trusts in his friends to “do the right thing”, he is articulating a shared expectation among himself and his friend, which also conveys a deeper relationship that would be necessary for Jason to allow his daughters to spend the night at someone else’s house. Thus, in Jason’s comments he is articulating how shared expectations, trust, and mutual values, or social capital, are a necessary condition for his children to spend the night a friend’s house.

Based on the data, I identified two main processes that culminate in parents allowing their children to spend the night and as such, describes how relationships transition from mere social ties to social capital: 1) assessment of trustworthiness and 2) repeated interactions over an indefinite period of time. In addition, if one parent allows their child to spend the night at friends’ house, then this often creates pressure for the other family to reciprocate the gesture.

In describing the process of getting to know parents better they suggested that it begins by assessing the character of both parent and child. Character is assessed by paying attention to

cues that signal a parent's trustworthiness and also how children behave. We spoke to one mother, Olivia, who talked about a boy her son recently befriended but for whom she had some concerns about. The boy played in the streets at all hours of the night and was often unsupervised. She expressed her assessment of the family in the following way:

> You can see when they are good or bad people. For example, there is a child who comes here and he tells my child, "Let's go play." I say, "No, you can't go." He lives only with his dad and his dad drinks too much and the lady doesn't live with them. No, I won't let him go to his house because I know he lives alone and his dad drinks too much. (Translated from Spanish)

Tasha, a mother of three who lived in large apartment complex, recounted the story of a neighbor yelling at her 8-year old daughter (the same age as Tasha's daughter) because she could not find her shoe. Tasha explained:

> One time we had our door open and she had [the neighbor] her door open. For like 20 minutes she's yelling at her daughter. This was on Mother's Day. She's like, ((*imitates yelling*:)) "Go find your fucking shoes! What do you mean you don't know where it is! Go find it!" The whole neighborhood heard. And then we're sitting there. like, "oh my god, that poor little girl." And she's-you can just hear her crying. She's telling her [neighbor towards her own daughter], ((*imitates yelling*:)) "What are you crying for? Go find your shoes!" you know? She's a bad mom. So, when her-when that little girl's birthday came up she invited her and she wanted her to come over for a sleepover. I was like ((*firm and quick*:)) "no. ((*starts to laugh slightly*:)) I don't think so."

Tasha further stated that she did not let her daughter, Rosa, play at the neighbor's apartment because she was afraid the mother might have another yelling episode and did not want to put Rosa in n that environment.

Following a similar pattern, we heard from Vanessa S., a mother of two about her experience attending a birthday party with her younger daughter

> …like we went to a birthday party a couple of months ago, and just the atmosphere, it was a child's birthday party, but the adults were drinking. That right away—those kind of things I observe-I'm like very observant. I observed it and I was like, ((cautious tone:)) "well, he's the dad and what does that mean? That means that whenever my child goes over, he's probably gonna end up drinking, too. Do I really want my child to see alcohol in their presence? No, I don't," so we'll kind of—I know I'm not going to be able to build anything more on that, other than birthday parties.

From the above examples, we see signals can be overt and need not be subtle. Hearing a mother yelling at her own child, knowing that a child lives largely unsupervised, or attending a party where adults are drinking signals to parents potentially unsafe environments. The importance of these assessments is not just about children's ability to play together but how parents evaluate whether to establish a deeper relationship with another parent. For example, Vanessa revealed that she decided to pursue a relationship with the parent because of what she witnessed at the party.

While parents talked about negative signs, like drinking or yelling at children, they also spoke about positive qualities that foster trust. We spoke with one father, Diego who let his child, Brian, play at another friend's (Jose) house for the first time. He recounted the following experience:

> So we drop him off and everything's cool; dad's cool, mom's cool. And came back home and then like two hours later they call us and they say, "hey, Diego, I just want to let you know, can I ask your permission I want to take Brian and my son to the movies if it's okay with you, no problem, or if you guys want to come" and that was cool, you know, so he asked our opinion if we want it or not and he's, like, "well, my wife wanted to go and I think it's almost the end of the-almost the last days of the movie being in the theater, what do you think? We're just asking you if you'd let Brian go and as then as soon as the movie's done we'll drop him off at your house, if you don't mind, or if you want to pick him up here that way you don't have to drive all the way up here." It's, like, wow, cool.

Diego first encounter with Jose's father left a very favorable impression. Diego further stated that asking for permission signaled to him that Jose's family had Brian's best interest at heart and showed that they were not just thinking about themselves in asking permission to take Brian to the moves. In another instance, Brian was visiting Jose's house and Diego received a call asking if Brian had permission to go into the swimming pool. Diego explained that Jose's father then invited the whole family over to go swimming. This act of calling to ask for permission was subsequently reciprocated by Diego, as he explained:

> I will do the same thing, I'll do-he was here yesterday [Jose]. Same thing, I said [calling parent on the phone], "hey, I'm going to buy some groceries, but I can't leave the kids by themselves. I'm going to take them it's okay with you?" It's, like, "yeah, yeah, you got safety seats?" I say, "yeah, I do." He said, "oh, no problem then just take him just be careful and when you come back just give me a holler." "Alright," call him back "yeah, we're back." "Oh, cool, how is he behaving, how is Jose behaving?" "Oh, he's okay. they're playing outside." So, it's good, you know, it builds up that confidence, that honesty.

Diego's example highlights the way parents build deeper relationships. First, when parents show that they have children's best interest at heart, in this case, by asking for parents' permission, it signals a level of trustworthiness. Second, Diego responded to this display of trustworthiness by reciprocating when faced with a similar circumstance. Moreover, the above example also highlights how shared expectations are communicated. The parents call each other to check on their children that sets an expectation of appropriate behavior for their children and their comportment, but also how parents should call and check on their children as a way of enforcing the norm of appropriate behavior. In addition, by making these phone calls and asking permission, the parents are engaging in a reciprocal exchange. As Diego intimates, he is calling Jose's father in response to Jose's father calling him. Thus, by demonstrating you have a child's best interest at heart, engaging in a reciprocal exchange that suggests shared values and mutual

expectations, a deeper relationship develops among parents based around their children's friendship.

Diego's example highlighted the importance of communication among parents that can foster a deeper relationship. Parents can also begin to develop trust, shared values, and mutual expectations when they are open and inviting with each other. For example, we spoke with one mother, Kanna, whose son was invited to attend a birthday party at a hotel. Kanna was leery of letting her son spend the night because she had never allowed him to spend the night anywhere before. However, Kanna felt better about the situation when the mother asked her to visit the hotel so she could decide for herself is she wanted her son to stay the night. She explained her experience in the following way:

> Respondent: She said "no worry, I'm going to be there with my mom and my other daughter"… and she invite me to go over there to see the room and everything.
>
> Interviewer: How did you feel when she said to come see the place?
>
> R: Well, I feel better. I said, well (…) good. It's good, because it's like she made me feel more like I can trust her. Because she said "come, you can come stay, spend time to see what happen. If you don't like it, don't let him."
>
> I: And so what would it mean if a parent didn't say that, if they don't say, oh, come?
>
> R: Oh, I feel afraid. It's like they don't give me time to meet them or they don't want me to meet them, or-
>
> I: Did you already know that mom before the party?
>
> R: Yes.
>
> I: And so if it had been a different child and you didn't know the mom yet, would you still have said okay?
>
> R: No.

I: And so what was it that you knew about that mom?

R: Before the party, she come here [to Kanna's house] and then she trusts me, she left her kid here to spend the night. The mother come, the grandma of the kid come and she introduce herself, you know, the family. For me it was okay, because they gave me time to meet them.

I: What do you talk about with a parent when you're getting know them like that?

R: Things like, "what do you do?" "oh, I'm a teacher." "Oh, I like to do this," because she always like my house and says, "I like your house, I like how you decorate your house and how you do this." "I love your backyard and your dog" and whatever. We have dogs and we have conversation with things like that. "…and my son like this food," and we start talking about things.

This conversation highlights important insights for understanding social capital emergence. First, Kanna notes that the decision to allow her son to spend the night was a gradual process of meeting the family and getting to know them better in a variety of ways. Kanna stated that she met the whole family in a prior visit that allowed her to make assessments regarding the family's trustworthiness. In addition, Kanna described having fruitful conversation with the mother suggesting that positive interaction is important to developing trust. Kanna also stated that her son's friend had spent the night previously. When parents allow their children to spend the night at someone's house, in most cases, it conveys a certain level of trust that one parent has for the other. As a results, parents feel pressured to reciprocate this display of trust, which often means allowing their own child to spend the night, even if they are not comfortable with the idea. In this case, Kanna met the family previously that allowed her to make assessments of their trustworthiness. Through these visits Kanna was able to assess the family's values. In addition, Kanna notes that the child was allowed to spend the night at her house, which denotes a level of

trust that the other parents had in her. Thus, it was through repeated interactions, displays of trustworthiness, and a sense of shared values that served as the pathway through which Kanna finally allowed her son to have his first sleepover.

Although Kanna allowed her son to spend the night, she was not entirely comfortable with the situation. She stated as much saying, "I don't feel okay…I don't want him to go". Her comments speak to the power of reciprocity. We spoke to another mother, Sandra, who was placed in a similar situation as Kanna. Sandra's son Eli and Elijiah were best friends and spent a significant amount of time together. Eli would spend time at Elijah's house and Elijiah would spend time at Eli's house. Elijah would often spend the night at Sandra's house. However, Sandra had never permitted Eli to spend the night at Elijah's house because the thought made Sandra uncomfortable. However, on Elijah's birthday he was having a sleepover party and Sandra explained her decision to allow Eli to spend the night at Elijah's:

> …he's here very often [referring to Elijah spending the night] and it got to that point where I kind of saw the mom frustrated 'cause I always say no [to Eli's request to spend the night at Elijah's] 'cause the mom's always like "come on why can't he stay here?" You know, so I had to…I broke my rule and you know told him this one time…and he couldn't make a habit of it.

As in Sandra's case, we spoke with a mother of three, Vanessa, who also detailed how positive interactions and assessments of trustworthiness culminated in her third-grade daughter attending her first sleepover. Vanessa stated:

> Well, yeah, this was her first sleepover over here, but she's never had a sleepover before. People have stayed—that's because I'm not—when it comes to them staying over, I have to know them [the parents]. And so this parent, we've already done birthday parties—several birthday parties. We've had conversations, went over there, talked to her. They came over here and talked, and so I feel like we're at that point where, "okay, I trust you. I've got all your phone numbers, I know where you live, I know everything about you" … that kind of stuff.

Vanessa further explained that getting to know parents is important because it gives insights into the type of environment that her child will be exposed to. Vanessa gathers information from parents by attending play dates with her daughter and engaging the parents in conversation. We asked Vanessa the kinds of information she likes to glean from parents and she replied, “I have to know about what kind of job they have, you know, what do they do? What do they like to do in their spare time? What about their kids? What do their kids like to do? How many children live in the home, those kind of things, which I expect them to ask the same of me.”.

Several insights can be gleaned from Vansessa, Kanna, and Sandra’s examples. First, they highlight how parents move beyond social connections to establish deeper more trusting relationships. The process of developing trust, shared expectations, and determining mutual values is based on acquiring as much information about the family. This process is important for parents, not only because of the resource potential of the relationships, but because it gives parents peace of mind when their children spend time with another family that their children will not be harmed. Second, parents’ motivation for establishing these relationships is to ensure the safety of their children, rather than to draw on resources from the relationship. At the same time, given that these relationships are in their infancy as parents are in elementary school, it is possible that in the long-term these relationships will move beyond the instrumental purpose of ensuring their children’s safety, to other more general social capital outcomes.

However, not all relationships transition to social capital and not all parents are interested in stable relationships with other parents for the sake of their children. We heard from a number of parents who criticized parents for being careless with their children. For example, Vanessa recounted a recent experience with a mother who came to drop off her child for the first time at her house, she stated:

> they just meet me and they're like, ((unworried:)) "Okay, yeah, they can go over." ((slightly incredulous:)) You don't know me! I can be a crazy person, but you're gonna entrust me with your child? Okay ((scoffs)). I mean, I'll take the kid because I'm like, well, I know that I'm not gonna do anything bad, but that's what I think in my head, like, ((slightly incredulous:)) "You don't know me. I can really be a crazy person and you would not know."

Thus, not all parents need to have the same intimate relationships with other parents to allow their children to spend the night. This suggests that not all relationships where children spend the night means a trusting relationship exits. Some parents must have a certain level of trust for their children to spend time with other families, some parents claim that level of trust can never be reached, while other parents are more permissive.

Barriers to Social Capital Emergence

Given the variation among parents in their willingness to establish trusting relationships on behalf of their children, I explored why some parents established trusting relationships, and others did not. The data are limited in addressing this question and results should be considered suggestive but parents intimated two main reasons that should be explored further in future research. First, parents often suggested that personality traits explained their lack of school-based social connections. Second parents suggested that spending time with family and extended family was more important than establishing new social connections.

Most parents described knowing or at least being familiar with other parents in the school, but there were a number of parents that lacked deeper more trusting school-based relationships. Personality traits were often cited as a defining characteristic that limited parents school-based social relationships. For example, some parents described themselves as "anti-social" or "shy." Carla stated that she is "not the kind of person that will come forward and start a circle of friends." As such, she described few social relationships with other parents in the

school community. Similarly, we also spoke with Shawn, father of three, who said he was friendly with the neighbors in his apartment complex, would wave hi and bye, but ultimately acknowledged that he was "hesitant to let people in" and later added:

> …I always just keep to myself. I'm in my ways, you know, I got a lot of friends that I grew up with…I'm just really stuck in that, you know, in that way right there. Guys at work, I'm the same way, you know, "I don't want to go to your house and drink with you, go out to the bar or whatever," 'cause I'm just stuck in my way, you know. I got brothers and that- to do all that with, I'm really not urging for a new friend or nothing like that.

Thus, parents' openness to a large extent determined whether or not they established social relationships with other parents. We asked Dotti, a mother of two, the sorts of challenges she faced in meeting other parents in the neighborhood, she responded, "I'm anti-social", when asked what the meant she said:

> Meaning when I'm home I don't like to come out. If my neighbors sitting outside I'll just say ((*polite excited tone*:)) "Hi!" and walk away. I don't take that time to go over there and spark a conversation or say, ((*polite, excited*:)) "how's your day?" or anything like that. I just say ((*excited, polite*:))"Hi!" and walk away and do my own business. I don't know, I'm just that kind of person.

In the case of Dotti, Shawn, and Carla, all three suggested that they were not the type of persons to initiate conversations with other parents. However, noticeably absent from parents' discussions about meeting other parents were school events that structured activities for parents to interact. The lack of formal mechanisms to bring parents together in school settings is especially consequential for parents who may be less outgoing or uncomfortable in social settings. As such, the burden of establishing school-based parental relationships is on parents themselves. Thus, being less outgoing, as in the above examples, is especially consequential for parents' school-based social networks.

The other reason suggested by parents for having small school-based social relationships was because of their focus on familial relations. Latino family kinship ties have been a main

focus of study. In my sample, as was alluded to in earlier comments, parents' often contrasted establishing new social relationships with that of kinship ties. For example, Carla stated that she lived in the same community as her brother, and as a result, their families' spent a significant amount of time together. Shawn also suggested, that instead of relying on social networks, he had two brothers who provided support and resources for him and his family. Shawn stated that this daughter, Rosa, did not have a large friendship network, and instead spent most of her time playing with her cousins. It would seem that children with parents who described themselves as less outgoing spent more time playing with relatives than with classmates or other kids in the neighborhood.

However, while families emphasized the importance of familial ties, immigrant families were in the position of having to rely heavily on friendship networks in ways that some families relied on extended kin networks. For example, we spoke with Maria, an undocumented immigrant who was recently divorced and left with four children. She stated that most of her family lived in Mexico and she relied on the generosity of her neighbors and her church to provide the support and resources necessary for day-to-day living. More work is necessary to fully understand how the utilization of social relationships vary by immigration status. It is possible then, that strong family networks mean parents are less connected to school-based parental social networks, unless their children are engaged in numerous extra-curricular activities. If children are the vehicle that drives the establishment of parents' deeper relationships, then where and with whom children play matters for levels of social capital in the community. If children play more often with relatives or extended family members, then it is likely that parents have fewer deeper social relationships with parents in the school community. Likewise, if fewer family members live nearby, then it might be likely that children play more

with friends and neighbors, which would lead to larger school-based social networks. These considerations are particularly important for Latino families where strong kinship ties play such an important role.

DISCUSSION AND CONCLUSION

Through interviews with Latino parents in under-resourced school communities, I explored how social ties form and how they develop into relationships characterized by trust, mutual expectations, and shared values. I found that children are central to the process of social tie formation and social capital emergence. I also found that through fairly limited interaction parents were able to establish social ties. These social ties formed in a variety of settings like school events, birthday parties, or even pick-up and drop-off times at children's schools. However, the process through which social ties become deeper more trusting bonds is a much more elaborate that requires time to develop. Families developing deeper more meaningful connections follows a process of discernment among parents, where they are assessing various qualities about parents and children. This process of discernment revolves around whether or not parents can be entrusted with the safety of someone else's child. Discernment entails observing how families treat their children, visual cues such as tattoos, earrings, and drinking that may indicate how responsible a parent is, or parents' attentiveness. The finding that parents make initial assessments based on visual cues comports with the literature on trust formation (Cook 2005). For example, Cooks (2005) suggests that when there is a lack of information about individuals tend to rely on visual cues to make assessments of trustworthiness. In the case of parents and children, this could mean that when parents have little information about how parents treat their children, then they will rely on visual cues like tattoos, drinking at parties, etc. to determine if they will allow their children to play at others' houses.

While these visual cues matter initially, subsequent interactions with parents after deciding to pursue a relationship must be positive as well. Similar to my previous work (Shoji et al. 2001), I found that repeated positive interactions, where parents begin to share more about themselves and learn more about other parents, were important in developing trust, mutual expectations, and shared values. These qualities of relationships develop as parents' spend time together, phone calls, text and subsequently, much more frequent and purposive interaction.

I also found that social context in which these relationships are embedded was consequential for parent's ability to establish trusting relationships. In particularly, parents' fears of physical and sexual abuse made parents less trusting of other parents. We spoke with a number of families that experienced abuse themselves, lived near sexual offenders, or suspected neighbors of abusing children. These precarious environments meant some parents were extra vigilant. It also meant that some parents opted out of developing closer ties with neighbors or other parents. At the same time, although parents were fearful, they still developed deep trusting relationships with other families. As Cook et al. (2005) note risk-taking and trust increases cooperation with a specific partner. In the case of children and families, this means that allowing a child to spend the night, could engender greater trust, shared values, and mutual expectations among parents, who live in precarious social environments. The greater the risk, the greater the trust and expectation that their child will not be harmed. However, as we heard from a number of families the risk was so great that they would not allow their children to spend the night, meaning parents would self-select out of developing deeper more trusting school-based social relationships.

I also found that immigration laws in Phoenix disrupted parental social networks by forcing families to leave the state and making it more difficult to find jobs to support a family.

We heard from families describe their own challenges with deportation and growing racial tensions in Phoenix that made parents less trusting and more isolated from others. Coleman (1988) advanced the notion that stability is central to the maintenance and development of social capital. Immigration policy serves as one example that created instability in networks for large number of families in Phoenix and was a threat to the emergence and maintenance of social capital. Finally, while much as been written about familism and Latino communities, scholars have not considered how these relationships might limit the building of school based parental social relationships. Parents often suggested that they opt-out of social relationships to spend more time with their own family.

My findings have multiple implications for theory and practice. First, while others have considered the role of children in the formation of social relationships (Corsaro 1992; Shia and Offer 2007), few have explored how children connect parents, nor considered parents' motivations for establishing these relationships. Social exchange theory posits that a lack of resources motivates individuals to engage in exchange relations (Cook et al. 2013). Social capital theory also asserts that social relationships play instrumental roles in providing access to resources as well (Coleman 1998). My data show that parents engage in these relationships, not necessarily for themselves or for exchange, but rather for their children. In addition, parents stated that their children facilitated the development of their relationships by introducing parents to each other or mentioning their friends to parents, which had the effect of motivating parents to learn more about the child and parent. Parents often mandated that they meet the parents of their children's friend's prior to playing together. These examples highlight not only the centrality of children in the development of social ties, but also the motivation behind parents making social connections with other parents. The development of social capital has largely been an

unexamined process (Coleman 1998; Cook 2014; Shoji et al. 2014), thus my work contributes to the social capital literature by not only identifying the centrality of children to the process, but also describing how parents go about developing these deeper social relationships and the assessments they undertake to engage in school-based networks.

In addition, previous work has argued that parents build relationships on behalf of children's well-being (Small 2009). While school based parental social relationships develop with children in mind, parents drew less on school based social relationships they established on behalf of their children for support, rather they drew more from relationships they established independently. However, parents' immigration status and the presence of family ties mattered for where parents drew social support. Immigration status was important for understanding parents' friendship networks, because it often indicated whether or not familial ties were present. In some cases, immigrants entered the country with their extended family, however, they often came alone. We heard from a number of immigrant parents who said it had been more than 10 or 15 years since they last visited Mexico. As a result, immigrants often relied on friendship networks for social support more than Mexican Americans who could choose from where to draw their support. This finding is speculative as not all family backgrounds were explored. However, in a previous chapter, I found evidence that FAST was less impactful for Mexican immigrant families, and it might be because they already rely on strong friendship networks for support, thus, an intervention designed to build social relationships, will be less consequential for a community that already has supportive social relationships. Given the speculative nature of the results, future research should consider variability in social support utilization among Latinos more thoroughly.

Differential utilization of school-based networks means there may be fewer social relationships characterized by trust, reciprocity, and shared expectation in some Latino communities. One potential intervention to build social capital would be to increase the availability of affordable extra-curricular opportunities for children. If children are the motivations for establishing deeper more trusting relationships, then engaging students in more activities is likely to increase their friendship networks and parent's social connections. However, prior research has demonstrated the dearth social organizations and affordable extra-curricular activities in the low-income communities (Bennett et al 2012). Informal discussions with principals at schools participating in the CFS study suggested that events where food was offered or where children were involved in an activity, like a play, had the best family attendance compared to other school events like PTA or parent/teacher conferences. Thus, future research should then consider how increasing children's involvement in school activities impacts parents' social networks as prior research has already linked children's involvement in numerous extra-curricular activities with positive educational outcomes (Lareau 2002).

In sum, this chapter explored the social tie formation and social capital emergence in under-resourced Latino school communities. I highlighted the central role of children in establishing social relationships among parents. In addition, I noted the variation in social relationships among Mexican American families and Mexican immigrant families. I also detailed how social context can impinge upon the establishment of social relationships and the way social policy can disrupt social networks. Because parents are leery of establishing social relationships in the wider community, school play a critical role in facilitating children's involvement in extra-curricular activity that serves the purpose of building trust among families. Finally, this study adds to the literature on social capital by focusing on relational aspects of social networks and

giving primacy to parents voices for understanding the interaction necessary for social capital emergence.

Chapter 5: Conclusion

This dissertation attended to a seminal issue in the sociology education for the largest and one of the fastest growing racial and ethnic minority group in the United States: the development and effects of social capital for Mexican-origin students and their families. In three empirical chapter, I explored how school-based parental social relationships form and develop over time. I employed a multi-method design and drew from parent interviews and longitudinal survey data that yielded important insights for understanding social capital's potential to address persistent racial and ethnic educational gaps in under-resourced Latino communities.

In the first empirical chapter, I examined the effects of an intervention designed to build social capital on the size and quality of parental social relationships. I analyzed four waves of parent questionnaire data as children transitioned from first to third grade. I found initial positive effects of the intervention on the size and quality of Latino parents' social relationships. However, over time, only the quality of parental relationships showed long-term positive impacts of the intervention. As children reached third grade, the quality of parent's school based parental social relationships were rated as more positive at intervention schools, on average, compared to parent reports at control schools. In contrast, although there were immediate and positive effects of the intervention on the size of parents' school-based social networks, these impacts were not maintained as students reached third grade. Theoretically, this chapter points to the importance of assessing both the quality and quantity of parental social capital rather than relying on singular measures of social capital, such as intergenerational closure. Substantively, it suggests that intervening on parental social relationships, as policy, is not necessarily the best way to address Latino educational inequality. Previous studies by Valenzuela (1999) and others (Ream 2003: Stanton-Salazar 2001) have found that the process of schooling subtracts from the values that

Latino students bring with them. Thus, an intervention that does not address a schooling process that disenfranchises Latino students and families is likely to be less consequential in addressing educational disparities in the long-term.

In the second empirical chapter, I explored the effects of social capital via the FAST program on teacher reports of Latino children's behavior in first grade. I found differential treatment effects in that some Latino sub-groups benefited and others did not. More precisely, I found that Mexican Americans or students with English-dominant Latino parents appeared to benefit the most from increases in social capital, compared to Mexican immigrant peers or Latino students with Spanish-dominant parents. However, I also found variation in social capital effects within students with Spanish-dominant parents. In particular, I found that non-ELL students with Spanish-dominant parents appeared to be negatively impacted by FAST, while ELL students with Spanish-dominant parents were positively impacted. These findings highlight the importance of considering within-group variation, particularly in the Latino context. While previous scholars have noted the importance of accounting for within-group heterogeneity, scholars continue to ignore this issue. Addressing heterogeneity is not only important for understanding differential impacts, but also in developing appropriate interventions. Interventions are ill-conceived if they fail to account for known heterogeneity, particularly if the intervention is not robust to context. Given that few interventions are robust to context, developing interventions that are flexible to local customs and values, yet maintain fidelity are increasingly important.

In my final empirical chapter, I explored how social ties form and social capital develops among parents in under-resourced and immigrant Latino communities. I analyzed interview data to explore in parents' own words, how they meet other parents in the school-community and how

and why those relationships transform into deeper more trusting relationships. I found that school-based parental relationships form through limited interaction and most often around a target child. Parents described meeting other parents in a variety of settings from school events and pick up and drop off times, to birthday parties. Prior to the formation of social ties, parents are assessing other parents' friendliness and willingness to interact based on a variety of cues. In terms of social capital development, I found that children play a central role, not only in connecting parents, but also as the motivation for parents to establish deeper more trusting relationships. Parents indicated that they established deeper relationships with parents when their children indicated that they wanted to spend more time with their friends. Parents relied on a variety of indicators that signaled trustworthiness. Social capital developed in school-based parental social relationships through frequent interaction and parents' demonstrate that they had children's best interest at heart. Finally, I found that social context was particularly consequential for the maintenance and creation of social capital. Parents were exposed to violence, both physical and sexual, that made them leery of establishing deeper relationships. In addition, immigration policy in Phoenix also impacted parents' social relationships. Senate Bill 1070 forced some immigrant families to flee the state, while others restricted themselves to the confines of their houses for fear of being reported by others.

Taken together, this dissertation contributes central insights into school-based parental social relationships and Latino educational inequality in several ways. First, this study extends the literature on how social capital develops by focusing on school-based parental social relationships. I noted that children were central to the process, which is important because it suggests the way to improve parent-school connections in Latino communities, where parents and students are often disenfranchised, is by engaging children to foster deeper connections with

students, rather than focusing on parents themselves. Second, this dissertation connects work on the immigrant paradox, or the finding that less acculturated students outperform their more acculturated peers, and social capital, by demonstrating that Mexican Americans appear to benefit the most from increasing levels of social capital. This may be due, in part, to Mexican immigrants' well established social relationships, which suggests that increasing social capital for immigrant families is likely less consequential for educationally relevant outcomes. Previous work on the immigrant paradox found that differences emerged as earlier as middle school, however, my work points to differences among Latino sub-groups as early as first grade. Finally, this dissertation considered how social capital can be built via an after-school program. Although there were modest and positive effects, it is likely this intervention and similar interventions will not bring about the change necessary to improve educational outcomes for Latinos. Rather, holistic interventions that consider social determinants of inequality as well as schooling process that contribute to Latino educational inequality are needed.

Beyond the substantive insights elucidated above, my empirical findings help fill important gaps in social capital theory. First, I provided a rigorous assessment of social capital theory utilizing experimental data. Previous studies of social capital relied largely on observational data and suffered from concerns with causal ambiguity and causal ordering (Dika and Singh 2002; Durlauf 1999; Mouw 2006; Portes and Landolt 1999). Data for the dissertation came from a field experiment that benefitted from the random assignment of schools and families to explore social capital effects on educationally relevant outcomes. This experimental approach accounts for the issue of causal ordering and causal ambiguity because the design randomly determined which families and schools would receive the intervention and those that would serve as controls and exerts and exogenous stimulus to parents levels of social capital.

Another way the empirical findings speak to social capital theory is the focus on heterogeneous treatment effects. Differential effects of social capital have long been a theoretical focus. Lin's (200) work on inequality in social capital suggested that individuals will differentially receive and benefit from social capital. Previous studies that focused on Latino students found differential returns to social capital but left the mechanism untheorized (Ream 2003; Stanton-Salazar and Dornbusch 1995). My results speak to native-born Latinos being disadvantaged in terms of their access to social capital, thus, they respond positively when levels of social capital are increased. Lin (2000) also argued that inequality in social capital results when groups in disadvantaged structural positions tend to associate with each other. I found that Mexican immigrants in my sample had higher overall levels of social capital across a wide range of qualitative and quantitative measures. Yet, their status as immigrants, particularly, undocumented, means they are in structurally disadvantaged positions in society. In Phoenix, this meant that although immigrant families might be better connected or have larger social networks, these connections did not buffer them from overall state policies directed at policing this group. In addition, their increased social connections may be a result of the fact that immigrants often cross the border alone and not with other family members and thus, might rely more on social relationships because their immediate family may still be in Mexico.

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Tables and Figures

Table 2.1: CFS Response Rates* Over Time, Overall and by Treatment Status

	Year-1 Parent Pretest		
	Control	FAST	Total
Survey Completed	1107	1146	2253
Survey Mailed	1107	1146	2253
Response Rate	100%	100%	100%
	Year-1 Parent Posttest		
	Control	FAST	Total
Survey Completed	784	719	1503
Survey Mailed	1107	1146	2253
Response Rate	70.8%	62.7%	66.7%
	Year-2 Parent Posttest		
	Control	FAST	Total
Survey Completed	501	425	926
Survey Mailed	1107	1146	2253
Response Rate	45.3%	37.1%	41.1%
	Year-3 Parent Posttest		
	Control	FAST	Total
Survey Completed	521	492	1013
Survey Mailed	1107	1146	2253
Response Rate	47.1%	42.9%	45.0%

*Response rates are reported for both cities combined

Table 2.2: Descriptive Statistics for Samples by Parent-Parent Relationship Outcome

	Relationship Size (number of parents known)					Relationship Quality (trust, reciprocity, shared expec.)				
	N	Mean	Std. Dev.	Min	Max	N	Mean	Std. Dev.	Min	Max
Level 1										
Relationship Measure (size or quality)	5614	3.29	2.12	0	6	5497	1.94	0.82	1	4
First Growth Period	5614	0.60	0.49	0	1	5497	0.61	0.49	0	1
Second Growth Period	5614	0.51	0.78	0	2	5497	0.52	0.78	0	2
Level 2										
Female	2243	0.51	0.50	0	1	2234	0.51	0.50	0	1
Free/reduced lunch	2243	0.86	0.34	0	1	2234	0.79	0.40	0	1
ELL	2243	0.33	0.47	0	1	2234	0.11	0.31	0	1
Level 3										
FAST	52	0.50	0.50	0	1	52	0.50	0.50	0	1
Cohort 1	52	0.54	0.50	0	1	52	0.54	0.50	0	1
Randomization Block 1	52	0.12	0.32	0	1	52	0.12	0.32	0	1
Randomization Block 2	52	0.15	0.36	0	1	52	0.15	0.36	0	1
Randomization Block 3	52	0.23	0.43	0	1	52	0.23	0.43	0	1
Randomization Block 4	52	0.23	0.43	0	1	52	0.23	0.43	0	1

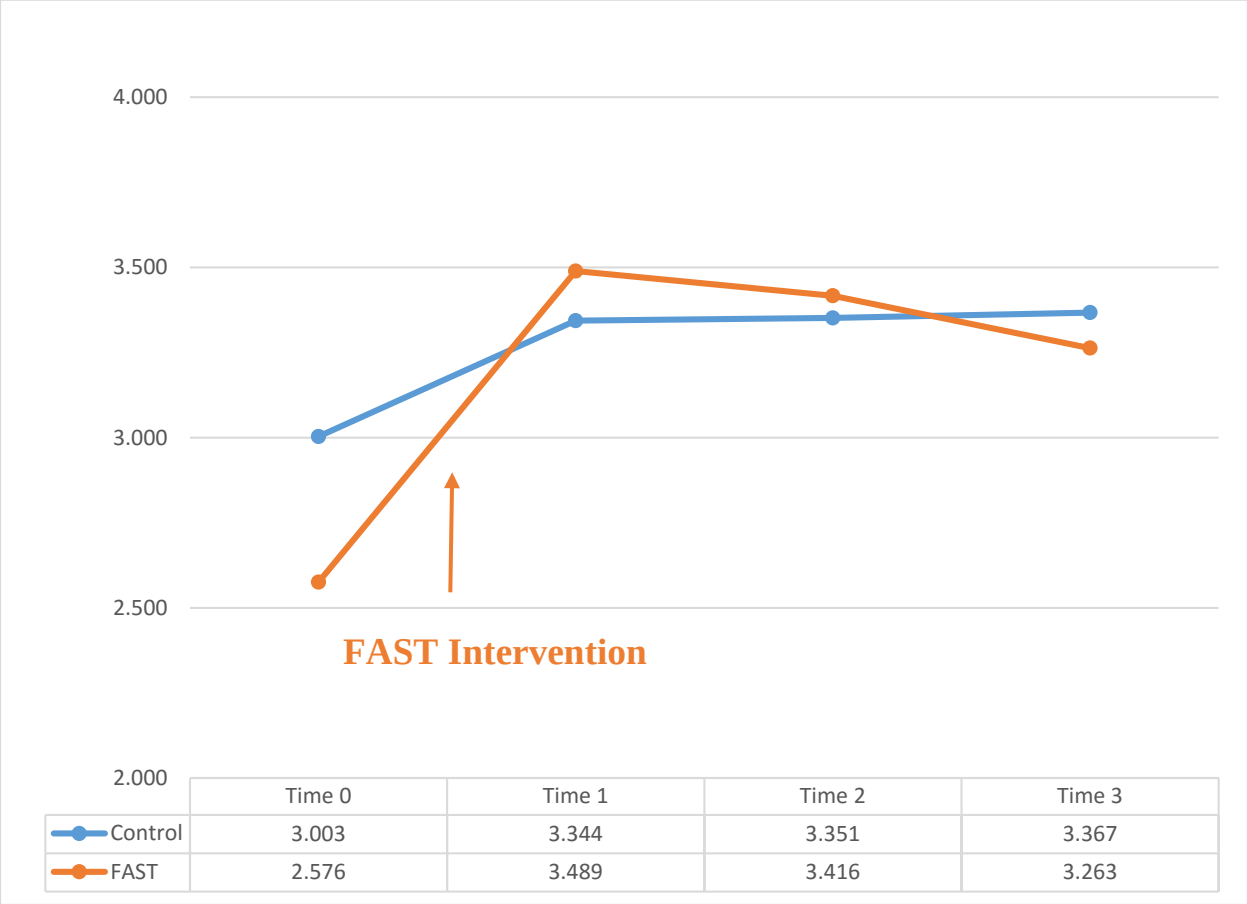
Note. First Growth Period = year 1 pretest to year 1 posttest, and Second Growth Period = year 1 posttest to year 3 posttest.

Table 2.3: Estimates (with robust standard errors) for Effects of FAST and Time on Parent-Parent Network Size and Quality

	Network Size (number of parents known)			Relationship Quality (trust, reciprocity, shared expec.)		
Fixed Effect	Coeff.	Std. Error	*p*-value	Coeff.	Std. Error	*p*-value
For Int. 1, π0						
For Int. 2, ß00						
Int. 3, γ000	3.003	0.058	<0.001	1.971	0.023	<0.001
FAST, γ001	-0.428	0.115	<0.001	-0.103	0.045	0.026
For First Growth Period slope, π1						
For Int. 2, ß10						
Int. 3, γ100	0.340	0.055	<0.001	-0.058	0.023	0.013
FAST, γ101	0.573	0.109	<0.001	0.126	0.045	0.008
For Second Growth Period slope, π2						
For Int. 2, ß20						
Int. 3, γ200	0.008	0.033	0.816	0.019	0.013	0.154
FAST, γ201	-0.081	0.067	0.239	0.012	0.027	0.652

Note. Int. = Intercept, First Growth Period = year 1 pretest to year 1 posttest, and Second Growth Period = year 1 posttest to year 3 posttest. Results for design effects (cohort and randomization block) and student demographics (gender, national lunch program status, and ELL) omitted. For full model results for final estimation of fixed effects for the full model, see Table A1 in Appendix A.

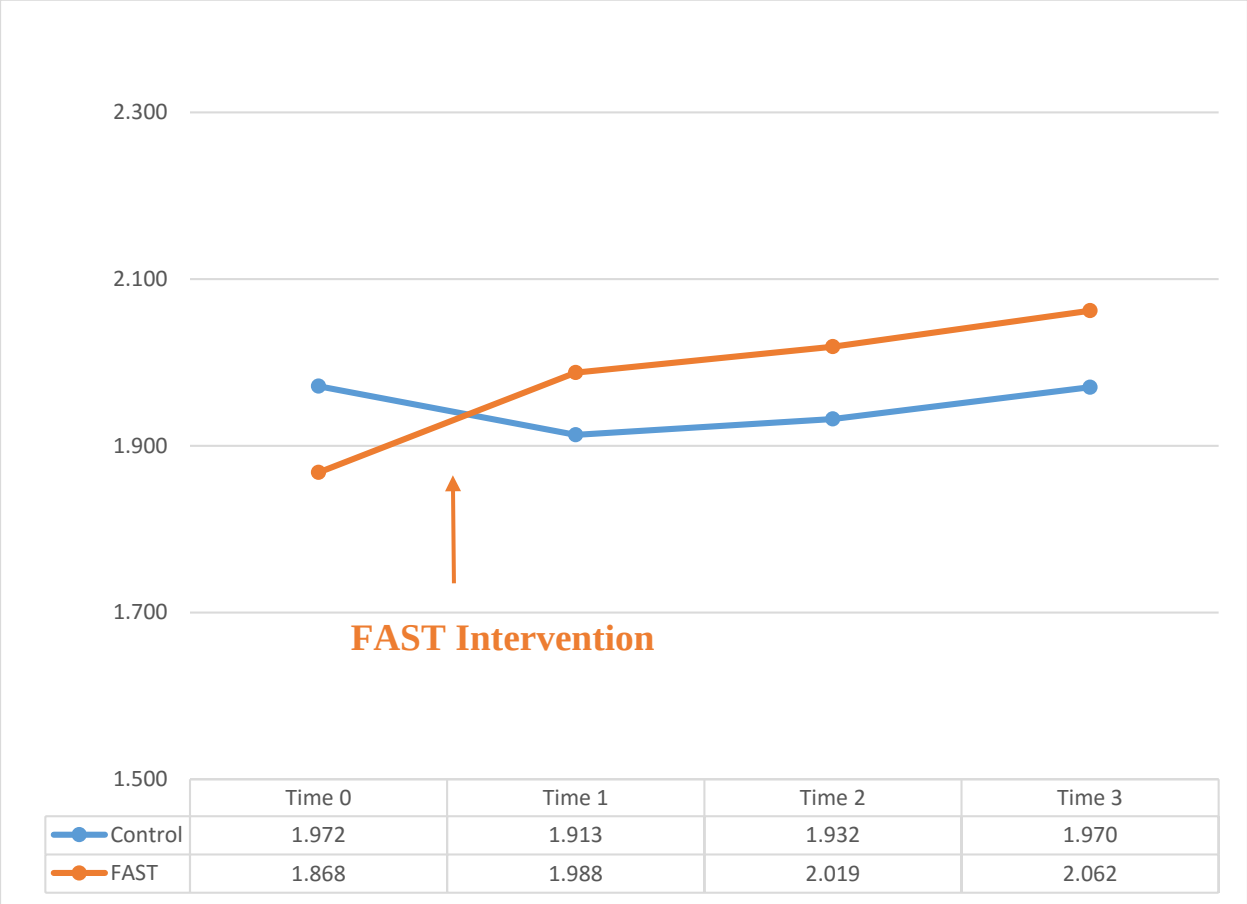
Figure 2.1: Predicted Relationship Structure over Time by Treatment Status



	Time 0	Time 1	Time 2	Time 3
Control	3.003	3.344	3.351	3.367
FAST	2.576	3.489	3.416	3.263

*All student level demographic controls and school-level design controls are set at the sample mean.

Figure 2.2: Predicted Relationship Quality over Time by Treatment Status



	Time 0	Time 1	Time 2	Time 3
Control	1.972	1.913	1.932	1.970
FAST	1.868	1.988	2.019	2.062

* All student-level demographic controls and school-level design controls are set at the sample mean.

Table 3.1: Full Sample Descriptive Statistics

Level-1 Descriptive Statistics

Variable	*N*	*Mean*	*SD*	*Minimum*	*Maximum*
Student is female	2882	0.51	0.50	0	1
Student is eligible for free or reduced lunch	2882	0.80	0.40	0	1
Student has a Spanish-dominant parent	2882	0.28	0.45	0	1
Student is Latino	2882	0.76	0.43	0	1
SDQ Outcome: Total Behavioral Difficulties	2882	7.65	6.73	0	37
SDQ Outcome: Prosocial Behaviors	2882	7.57	2.51	0	10
SDQ Outcome: Conduct Problems	2882	1.36	2.11	0	10
SDQ Outcome: Hyperactivity/Inattention	2882	3.26	3.16	0	10
SDQ Outcome: Peer Problems	2882	1.49	1.65	0	10
SDQ Outcome: Emotional symptoms	2882	1.55	2.04	0	10

Level-2 Descriptive Statistics

Variable	*N*	*Mean*	*SD*	*Minimum*	*Maximum*
Treatment Status (FAST)	52	0.50	0.50	0	1
Randomization Block 1	52	0.12	0.32	0	1
Randomization Block 2	52	0.15	0.36	0	1
Randomization Block 3	52	0.23	0.43	0	1
Randomization Block 4	52	0.23	0.43	0	1
Randomization Block 5	52	0.27	0.45	0	1

Table 3.2: Restricted Sample Descriptive Statistics

Level-1 Descriptive Statistics

Variable	*N*	*Mean*	*SD*	*Minimum*	*Maximum*
Student is female	798	0.48	0.50	0	1
Student is eligible for free or reduced lunch	798	0.95	0.22	0	1
Student is an English Language learner (ELL)	798	0.70	0.46	0	1
SDQ Outcome: Total Behavioral Difficulties	798	6.45	6.16	0	33
SDQ Outcome: Prosocial Behaviors	798	7.91	2.32	0	10
SDQ Outcome: Conduct Problems	798	1.36	2.11	0	10
SDQ Outcome: Hyperactivity/Inattention	798	3.26	3.16	0	10
SDQ Outcome: Peer Problems	798	1.49	1.65	0	9
SDQ Outcome: Emotional symptoms	798	1.55	2.04	0	10

Level-2 Descriptive Statistics

Variable	*N*	*Mean*	*SD*	*Minimum*	*Maximum*
Treatment Status (FAST)	45	0.56	0.50	0	1
Randomization Block 1	45	0.13	0.34	0	1
Randomization Block 2	45	0.16	0.37	0	1
Randomization Block 3	45	0.27	0.45	0	1
Randomization Block 4	45	0.20	0.40	0	1
Randomization Block 5	45	0.24	0.43	0	1

Table 3.3: Heterogeneous Effects of Social Capital on Total Behavioral Difficulties

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	**8.314 (1.081)*** **	**5.675 (1.474)*** **
Female	**-2.787 (0.242)*** **	**2.735 (0.419)*** **
Free/Reduced Lunch	**1.548 (0.365)*** **	-0.195 (0.906)
Latino	-0.369 (0.500)	
Spanish	**-2.560 (0.497)*** **	
ELL		**1.945 (0.941)***
Level-2		
FAST	0.735 (0.776)	**2.567 (1.247)***
Block2	-0.516 (0.893)	0.030 (1.043)
Block3	0.349 (0.876)	0.399 (0.799)
Block4	0.925 (0.850)	1.814 (0.942)
Block5	1.406 (0.902)	0.201 (0.953)
Cross-Level Interaction		
Latino x FAST	**-1.908 (0.744)***	
Spanish x FAST	**1.871 (0.706)***	
ELL x FAST		**-2.705 (1.280)***
* $p<.05$; ** $p<.01$; *** $p<.001$	N-Students: 2,882 N-Schools: 52	N-Students: 798 N-Schools: 45

Table 3.4: Heterogeneous Effects of Social Capital on Prosocial Behaviors

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	**7.201 (.331)*** **	**7.182 (.499)** **
Female	**-1.079 (.100)*** **	**0.962 (.153)*** **
Free/Reduced Lunch	**-0.321 (.127)*** **	0.244 (.261)
Latino	0.148 (.182)	
Spanish	**-0.989 (.277)*** **	
ELL		0.445 (.317)
Level-2		
FAST	-0.071 (.281)	-0.453 (.473)
Block2	0.195 (.268)	0.396 (.450)
Block3	-0.039 (.267)	0.199 (.276)
Block4	-0.531 (.277)	-0.624 (.339)
Block5	**-0.585 (.251)***	0.369 (.365)
Cross-Level Interaction		
Latino x FAST	0.446 (.261)	
Spanish x FAST	**-1.149 (.347)** **	
ELL x FAST		-0.295 (.415)
* p<.05; ** p<.01; *** p<.001	N-Students: 2,882	N-Students: 798
	N-Schools: 52	N-Schools: 45

Appendices

Appendix A: Full Model Results for Final Model (final estimation of fixed effects with robust standard errors)

Relationship Structure (number of parents known)						Relationship Quality (trust, reciprocity, shared expec.)					
Final Estimation of Fixed Effects (with robust standard errors)											
	Coeff.	S.E.	*t*-ratio	*df*	*p*-val.		Coeff.	S.E.	*t*-ratio	*df*	*p*-val.
For INTRCPT1, π0						For INTRCPT1, π0					
For INTRCPT2, ß00						For INTRCPT2, ß00					
INTRCPT3, γ000	3.003	0.057	52.449	45	<0.001	INTRCPT3, γ000	1.971	0.023	84.880	45	<0.001
FAST, γ001	-0.428	0.113	-3.769	45	<0.001	FAST, γ001	-0.103	0.045	-2.296	45	0.026
COHORT1, γ002	-0.207	0.105	-1.979	45	0.054	COHORT1, γ002	-0.058	0.032	-1.827	45	0.074
BLOCK1, γ003	0.325	0.180	1.807	45	0.077	BLOCK1, γ003	0.132	0.050	2.630	45	0.012
BLOCK2, γ004	-0.322	0.155	-2.073	45	0.044	BLOCK2, γ004	-0.160	0.060	-2.673	45	0.304
BLOCK3, γ005	-0.107	0.152	-0.703	45	0.485	BLOCK3, γ005	-0.061	0.043	1.401	45	0.168
BLOCK4, γ006	-0.097	0.133	-0.732	45	0.468	BLOCK4, γ006	-0.069	0.041	-1.664	45	0.074
For FEMALE, ß01						For FEMALE, ß01					
INTRCPT3, γ010	0.021	0.071	0.295	2084	0.768	INTRCPT3, γ010	0.003	0.034	-0.089	2075	0.929
For FRLS, ß02						For FRLS, ß02					
INTRCPT3, γ020	-0.216	0. 114	-1.897	2084	0.058	INTRCPT3, γ020	-0.056	0.042	-1.341	2075	0.180
For ELL, ß03						For ELL, ß03					
INTRCPT3, γ030	0.600	0. 108	5.544	2084	0.00	INTRCPT3, γ030	0.332	0.043	7.765	2075	<0.001
For FGP slope, π1						For FGP slope, π1					
For INTRCPT2, ß10						For INTRCPT2, ß10					
INTRCPT3, γ100	0.340	0.055	6.177	50	<0.001	INTRCPT3, γ100	-0.058	0.023	-2.591	50	0.013
FAST, γ101	0.573	0.110	5.197	50	<0.001	FAST, γ101	0.126	0.045	2.784	50	0.008
For SGP slope, π2						For SGP slope, π2					
For INTRCPT2, ß20						For INTRCPT2, ß20					
INTRCPT3, γ200	0.008	0.034	0.233	50	0.816	INTRCPT3, γ200	0.019	0.013	1.446	50	0.154
FAST, γ201	-0.080	0.068	-1.191	50	0.239	FAST, γ201	0.012	0.027	0.454	50	0.652
σ2	0.212	0.011				**σ2**	0.212	0.011			

Appendix B1. Heterogeneous Effects of Social Capital on Peer Problems.

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	1**.373 (.240)***	**1.029 (.364)****
Female	**-.230 (.059)*****	-.152 (.087)
Free/Reduced Lunch	.177 (.082)	.073 (.201)
Latino	-.023 (.133)	
Spanish	**-.410 (.135)****	
ELL		.046 (.212)
Level-2		
FAST	.067 (.207)	.284 (.305)
Block2	.033 (.257)	**0.412 (.138)****
Block3	.147 (.228)	0.250 (.156)
Block4	.410 (.231)	**0.606 (.198)***
Block5	.**582 (.226)***	0.446 (.201)
Cross-Level Interaction		
Latino x FAST	**-.455 (.183)***	
Spanish x FAST	**.450 (.188)***	
ELL x FAST		-.300 (.307)
* p<.05; ** p<.01; *** p<.001	N-Students: 2882 N-Schools: 52	N-Students: 798 N-Schools: 45

Appendix B2: Heterogeneous Effects of Social Capital on Hyperactivity/Inattention

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	3**.888 (.456)*** **	**2.453 (.588)*** **
Female	**-1.785 (.116)*** **	**-1.716 (.194)*** **
Free/Reduced Lunch	**.722 (.174)*** **	.210 (.429)
Latino	-.280 (.266)	
Spanish	**-1.073(.213)*** **	
ELL		**1.098 (.288)*** **
Level-2		
FAST	.283 (.335)	**.997 (.459)***
Block2	-.136 (.345)	-0.312 (.491)
Block3	.147 (.353)	-0.201 (.349)
Block4	.240 (.321)	-0.419 (.295)
Block5	.366 (.329)	0.173 (.459)
Cross-Level Interaction		
Latino x FAST	-.466 (.377)	
Spanish x FAST	.470 (.314)	
ELL x FAST		**-1.063 (.480)***
* p<.05; ** p<.01; *** p<.001	N-Students: 2882	N-Students: 798
	N-Schools: 52	N-Schools: 45

Appendix B3: Heterogeneous Effects of Social Capital on Emotional Difficulties

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	1**.315 (.345)*****	**0.936 (.462)***
Female	-0.055 (.072)	-0.161 (.112)
Free/Reduced Lunch	**0.194 (.087)***	-0.212 (.331)
Latino	0.122 (.148)	
Spanish	-0.335 (.193)	
ELL		0.574 (.322)
Level-2		
FAST	0.140 (.211)	**0.933 (.395)***
Block2	-0.164 (.359)	-0.231 (.245)
Block3	0.170 (.323)	0.384 (.255)
Block4	0.198 (.333)	0.588 (.328)
Block5	0.272 (.357)	0.264 (.417)
Cross-Level Interaction		
Latino x FAST	-0.359 (.220)	
Spanish x FAST	0.450 (.292)	
ELL x FAST		**-0.959 (.472)***
* $p<.05$; ** $p<.01$; *** $p<.001$	N-Students: 2882 N-Schools: 52	N-Students: 798 N-Schools: 45

Appendix B4: Heterogeneous Effects of Social Capital on Conduct Problems

	Full Sample Coefficients (SE)	Restricted Sample Coefficients (SE)
Level-1		
Intercept	1**.869 (.296)*** **	**1.287 (.418)****
Female	**-0.721 (.087)*** **	**-0.713 (.112)*** **
Free/Reduced Lunch	**0.485 (.122)*** **	-0.137 (.329)
Latino	-0.277 (.154)	
Spanish	**-0.713 (.120)*** **	
ELL		0.263 (.150)
Level-2		
FAST	0.132 (.245)	0.527 (.280)
Block2	-0.358 (.214)	-0.049 (.167)
Block3	-0.203 (.205)	-0.177 (.163)
Block4	-0.133 (.216)	0.112 (.282)
Block5	0.133 (.216)	-0.228 (.205)
Cross-Level Interaction		
Latino x FAST	-0.423 (.231)	
Spanish x FAST	**0.477 (.171)****	
ELL x FAST		**-0.550 (.263)***
* p<.05; ** p<.01; *** p<.001	N-Students: 2882 N-Schools: 52	N-Students: 798 N-Schools: 45