Chapter 2
Trust in Elementary and Secondary Urban Schools: A Pathway for Student Success and College Ambition

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2.1 Prologue

Profound distrust permeated the Chicago Public School System during the 1990s when broad system reforms decentralized decision making to Local School Councils. Administrators, teachers, and parents, many of whom held preconceived biases of ineptitude, ill-treatment, and abuses of power and control about each other found themselves in situations where they had to work together on governance and instructional programs at their schools (Greenberg [Rollow] 1998). It is in this environment that Anthony Bryk, a team of outstanding graduate students, and I conducted an in-depth study of 12 elementary school communities in Chicago to understand the micro-politics of school reform. In the course of this work, we initially thought that high incidences of interactions among school staff and parents characterized as "caring" (working from definitions of Noddings (1992) and others) would give us a set of assumptions upon which to identify positive relationships and steps toward reform. However, examining our data more closely suggested a different theoretical framework, one that was more consonant with our sociological understandings of how norms, shared values, and actions are developed and strengthened through organizational interactions among social groups. Working from a social capital framework (Coleman 1988, 1990; Luhmann 1979) complemented with work by Fukuyama (1995), Putnam (1993, 1995a, b), theories of social exchange (Blau 1986),

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and organizational behavioral and management literature (see the edited volume by Kramer and Tyler 1996), a new idea of "relational trust" began to emerge.

The conception of relational trust was a journey—one that lasted over a decade. It began with interrogating 1990s Chicago field notes including school and classroom observations and interviews followed by testing the constructs that developed from these data in analyses of longitudinal teacher surveys and student assessment information. Results from these efforts eventuated in the book, *Trust in Schools: A Core Resource for Improvement* (2002). This volume brought a different lens for investigating trust that had earlier been explored by Hoy and colleagues (Hoy and Kupersmith 1984, 1985; Tarter et al. 1989) in which trust was characterized more as a measure of school climate than one of social interactions. Trust has more recently been conceptualized as an organizational property that has effects on such outcomes as principal leadership (Kochanek 2005), student performance (Goddard et al. 2009), and student misbehavior (Gregory and Ripski 2008).

One of the highest compliments paid to a scientific idea and subsequent findings occurs when scholars continue to work in that area, aiming to replicate earlier results. In educational research, especially in schools, which are dynamic entities, efforts to find universal organizational properties that produce similar results over time can be frustrating and often disappointing. Our relational trust findings showed a positive relationship to school improvement at the elementary-level, based on district-wide surveys and student school assessment patterns over a five-year period from the onset of the reform through its sustained implementation. Such a design imposes considerable constraints on opportunities for replication. Despite the substantive and methodological challenges of examining trust in schools, the thought-provoking studies in this volume continue to produce empirical evidence—sometimes in agreement with our early relational trust research results and other times not so. It is indeed reassuring that both senior and emerging talented scholars continue to wrestle with these ideas and conduct studies that remain promising for advancing science and reform in education.

More recently, we have been implementing an intervention, the College Ambition Program (CAP), in public secondary schools to change the expectations and actions of low-income and minority students, so that they can maximize their college ambitions and matriculate to postsecondary school in the fall after high school graduation (http://collegeambition.org). CAP is grounded in principles of relational trust, and its activities are designed to strengthen the relational ties within the school by helping to craft among the school community (including students, teachers, counselors, and parents) shared norms and values, and the actions to achieve them. This chapter begins by describing relational trust and how the conceptual principles that undergird it can be applied at the high school level. This framework is followed with a presentation of preliminary results from the first three years of the CAP study, and a discussion of some of the limitations of its design and applications for measuring the effectiveness of relational trust for changing norms and behaviors. The conclusion discusses how best to realistically build relational trust within a high school using low risk activities and the importance of social relationships for creating change in expectations and actions.

2.2 Conceptual Roots of Relational Trust

In defining relational trust, it is useful to trace back to James Coleman's conception of social capital (Coleman 1988, 1990). Social capital as defined by Coleman is a set of relational ties that facilitate action. It is important to underscore that these sets of relational ties are defined as social networks characterizing social systems rather than the attributes of individuals. Abstract in form and embedded in human interactions, social capital is created through exchanges that establish shared expectations and construct and enforce norms, generating social networks perceived as trustworthy. These social norms are purposively formed to ensure that benefits can accrue to network members and sanctions are imposed when violations occur. The norms and resultant actions become the "capital" that makes possible the achievement of certain ends—such as teachers in a school expecting that academically successful students will apply to college and that these students complete the college application process (see Schneider (2000) for further discussion of social capital and norms).

Social capital is particularly useful for describing the actions of actors in social systems, such as families, schools, or communities. The denser and closer the relational ties in the network, the greater the likelihood that information will be communicated and subsequent actions undertaken. High degrees of interconnectedness among the members make it easier to repair miscommunications and other problems that could lead to the breakdown of the network. Information sharing is one aspect of what is exchanged in networks that create social capital; obligations and mutual expectations are the second. Obligations require action; expectations are assumptions about one's and others' behaviors. When shared by the collectivity, obligations and expectations affect each member's actions and become even stronger when sustained over time. Trustworthiness describes social networks where relational ties among members have generated mutual expectations and imposed consistent rewards and sanctions for desirable and undesirable actions.

Coleman's ideas focused on the structural properties of social networks (i.e., density—the strength of the ties, closure—the interconnection of ties over time, and trustworthiness—the embodiment of the obligations and expectations). Extending his ideas, the focus in the relational trust work (Bryk and Schneider 2002) was on explaining the nature of social interactions (i.e., relational ties)— from an interdisciplinary combination of economic, philosophical and social psychological frameworks— and then turning to how these interactions are observed in an organization, specifically in this case urban schools serving low-income minority students.

Trust can be viewed as an instrumental exchange whereby the motivation to trust between parties is determined by an assessment of the benefits and liabilities associated with an action. (This definition of trust can be found in the economic literature, mostly associated with game theory; see Coleman (1990) for further explanation.) For example, a teacher explains that if homework does not arrive on time students' grades will be lowered. A student may choose to hand the homework in on time, even though doing so may come with some costs, such as time that could be spent on another activity. Or the student may decide to take a risk that not turning in the assignment would have a minimum effect on the overall course grade and so it is

not worth the forgone time, or that the teacher may not impose the rule and there will be no real consequences for not completing the homework assignment. Such instrumental exchanges are based both on the potential payoff of the transaction and other structural conditions such as the power, influence, reputation, and prior actions of the parties.

From a social psychological framework, trust can be perceived as a bond or a connection that joins individuals together, thereby also separating them from others—my group, my class, my department. Trust in this instance can be a moral, ethical exchange. Here one is willing to engage in a social exchange, motivated to act on behalf of what is good for the group, even if it requires some self-sacrifice. An example of this would be a teacher who decides to miss a social appointment after school in order to stay late and work with students organizing a food drive for a homeless shelter.

2.2.1 Defining Relational Trust

Trust takes on somewhat different forms in various social systems. For example, organic trust can be found in small religious communities, where social exchanges are predicated on unquestioned beliefs and subject to a moral authority. Contractual trust can be found in business transactions and other organizations such as unions, where social exchanges are constrained by formalized rules, regulations, restrictions, and penalties. Relational trust can be found in social institutions like schools and hospitals where social exchanges are undertaken because of their social value.

Three key elements define relational trust. First, like organic trust but unlike contractual trust it is abstract, embedded in interpersonal relationships. Second, as in other forms of trust, the fulfillment of obligations and shared expectations affects the strength of social exchanges among the parties. Third, unique to relational trust, is that it functions as an organizational property, where capital is realized—as a social good that enhances the goals and work of an organization, like improving the quality of a school, by raising performance, reducing dropouts, or sending large numbers of students to postsecondary institutions.

Relational trust, like other forms of trust, is achieved through a complex web of social exchanges, often in instances where the parties have unequal or asymmetrical power relationships. This is particularly important as it underscores that in a trust relationship the parties will be in some way dependent on one another. This dependency creates vulnerability on the part of both parties. Even if one group has more to lose than the other party by not being engaged in the exchange, there are also benefits to the more powerful party, resulting in some risk for both parties involved in the negotiations. For example, a high school mathematics faculty wants to implement an innovative instructional program and needs the approval from the principal. The principal has some reservations about adopting the program but has high respect for the competence of the teachers. In deciding whether to approve the adoption of the program, the principal has to weigh the consequences of not going along with the teachers in this instance and being able to count on their support in other future matters.

As shown in the example above, social exchanges occur in the context of role relationships, such as teachers with administrators, teachers with students, and teachers with other teachers. In *Trust in Schools* (Bryk and Schneider 2002), this idea was termed "role sets," which can be misunderstood as dyadic relationships (teacher to student) rather than as a way to distinguish the type of players (teachers) and the different roles they take on in various social exchanges as with administrators or parents. The idea of role relationships is important for delineating the obligations and expectations held by the parties in the social exchanges. If one of the parties fails to fulfill their obligations or does not maintain shared expectations, the value of relational trust is diminished. For example, teachers holding different college ambitions for their students on the basis of race or social class may diminish the relational trust between students and teachers. In instances where relational trust is threatened by variation rather than consistency in expectations and obligations—the value of the network for achieving a common good is weakened—which can lead to the dissipation of the network.

2.2.2 Questions of Intentionality

When engaged in social exchanges, there is always a concern about intentionality. For example, a member of a social system might not fulfill obligations, or show a change in expectations—or do more than is commonly perceived as required. Questions of intentionality are colored by one's personal past experiences, cultural beliefs, and ascriptive characteristics like gender. At a more micro level, four elements characterize the process of intentionality (labeled 'discernment' in Bryk and Schneider (2002)). These are: (1) respect—sustained civil social interactions within the network; (2) competence—fulfillment of one's obligations; (3) integrity—aligned actions (obligations) with commonly held expectations; and (4) personal regard for others—extending oneself for others beyond what is formally required in any given situation. Some have interpreted personal regard as an act of benevolence or caring; however, in defining relational trust, this idea has a somewhat different interpretation. Noddings (1984, 1992), for example, sees caring as a dyadic relationship between the "one-caring" and the "cared-for" (1984, p. 69), in which the "one-caring" demonstrates both (1) a deep understanding of the "cared-for," and (2) a willingness to act in his or her best interest. However, personal regard extends beyond these elements and requires evidence of specific actions taken to go above and beyond what would typically be expected in a role relationship. Thus, there is a moral imperative to undertaking specific actions that extend beyond care for another, it involves making personal sacrifices that have intrinsic meaning and value when the end goal (a) may not directly benefit the individual, and (b) strengthens and deepens social connections among others in the network, facilitating opportunities for reciprocation. For example, a teacher comes in early to work with a group of students on writing personal essays for college admission. Motivated by the teachers' example and standards of performance, after school the students share their essays, critiquing each other's work.

2.2.3 Testing the Effects of Relational Trust

The definitional work on relational trust was grounded in studying the qualitative field notes and observational data collected in 12 elementary schools over a three-year period. Teams of graduate students conducted interviews with teachers, administrators, and community leaders; observed in classrooms; and attended school events including teacher and local school council meetings. The data were coded to extract key concepts that shaped an understanding of how relational trust was formed, operated in different settings, and related to principal leadership. The importance of principal leadership was further examined in the dissertation by Julie Kochanek, which resulted in the book, *Building Trust for Better Schools: Research-Based Practices* (2005). Kochanek extended the relational trust ideas, studying three new elementary schools in-depth in conjunction with teacher and principal quantitative data collected by the Consortium on Chicago School Research from 1997 to 1999. Kochanek's work applied the relational trust framework to examine the quality of principal leadership. In their interactions with teachers and parents, principals must negotiate within role sets that are characterized by a great deal of power imbalance. As a result, Kochanek found that effective principals had to delicately manage risk and vulnerability in their interactions. When teachers felt vulnerable, effective principals seemed to minimize and manage risk so as to not exacerbate already stressful situations. However, the most effective principals recognized that risk management was not akin to risk aversion—in other words, some high-risk situations are unavoidable, and require principals to help teachers navigate uncertain terrain in the interest of improving their practice, motivating students, and so forth.

Returning to the trust results, a series of quantitative analyses was also conducted from surveys of Chicago teachers from 1991–1997 and student assessment data. The first set of analyses used data from the teacher surveys to examine the association between relational trust and a series of teacher actions over time, (e.g., orientation to innovation, outreach to parents, teacher commitment, and professional community -a composite of the four factors). The empirical results were highly consistent across all four of these measures, showing that schools with strong social ties were better positioned to improve their effectiveness; those lacking such properties had a more difficult time improving in these four areas. In those schools where relational trust grew over a three-year period, positive changes were more likely to be found. Finally, taking into account changes in relational trust over time, student performance in mathematics and reading (which was weaker) improved. However, even though the analyses included performance measures over a three-year period, the results could not be construed as definitive. A more comprehensive and systematic analysis of this over a longer time period can be found in Bryk et al. (2010).

Overall, the field study and quantitative analyses suggest several organizational benefits of relational trust specific to schools. First, school reform often requires dramatic change that puts many different actors at risk, as when low-performing schools are threatened with closure. Relational trust can moderate the sense of vulnerability and uncertainty, as individual administrators, teachers, or parents are not

assumed to hold responsibility for the actions of the collective. Second, high relational trust allows for zones of discretionary decision making; for example, if teachers, parents, and students believe that the administration is acting on their behalf, they may be more willing to go along with change, reducing the costs of conflict negotiations. Third, relational trust reinforces the fulfillment of obligations and expectations (lessening the need for careful monitoring) and increases the visibility of errant actions (minimizing evading responsibilities), all of which help to strengthen opportunities for collective action. Fourth, relational trust helps sustain an ethical imperative within the school community to advance the best interests of the members—in this instance the children; thus constituting a moral resource for school improvement.

2.3 Applying Relational Trust to a High School Intervention

The relational trust work described above was based on research at the elementary level, where the argument was that teacher-student trust operates primarily through teacher-parent trust. As Goddard et al. (2001) show, at the elementary level it is hard to separate empirically the effects of teacher trust in parents from teacher trust in students. In an ideal situation of high relational trust, the teacher and parent would share the same obligations and expectations regarding the child's education. When with their child, parents would affirm and reinforce the same norms, values, and actions taken by the teacher in the classroom. However, if the teacher and parents have low levels of relational trust, parents are unlikely to be in agreement with the expectations and obligations of the teacher for themselves or their children. Similarly when the child is at school, he or she is more likely to hold the same expectations as their parents, which are in conflict with those of the teacher.

Investigating trust relationships with high school students can be especially challenging, and few studies have examined trust in high schools especially among students with their teachers (with some notable exceptions, e.g., Romero (2010); Adams et al. (2009); and Bidwell's theoretical review in 1965). Studying peer group relationships among adolescents (for which there is an extensive literature, see Brown (2004)) does not pose the same complexities as trying to understand adolescent relationships with adults outside of the family. Traditional views of adolescence argued that relationships with parents were more turbulent than in childhood. However, the more recent literature emphasizes continuity and persisting bonds with parents despite changes in the content and form of interactions with them (see Collins and Laursen (2004) on this point). Even though familial relationships may not be riddled with high degrees of conflict, there is considerable consensus that adolescence is a period of identity formation, self-confidence building, and desire for autonomy. The desire of adolescents for autonomy and control, and their perceptions of opportunities in the classroom are often mismatched with the increasing regulatory environments of secondary classrooms, where teachers and

their students follow predetermined curricular content and defined pedagogical activities. This mismatch has been shown to lead to a decline in adolescents' intrinsic motivation and interest in school (Eccles 2004).

What this means with respect to forming relational trust in schools is that adolescents, when engaging in social exchanges with their teachers, parents, and other adults, often do so from a position of more autonomy and agency than elementary students. One cannot assume that adolescents share their parents' expectations and obligations with respect to their education. Developmentally, some students actively resist school rules and negotiate with their teachers for subtle controls of classroom behaviors from grading practices to disciplinary actions (McFarland 2001, 2004). Since adolescence is a time when most youth seek autonomy, and are somewhat skeptical of the intentions of those trying to control them, this could create a predisposition to distrust—adding a level of complexity into social relations with adults.

There are other structural issues that make the formation of relational trust more challenging in high school. High schools are typically much larger than elementary schools, making it difficult to build ties with teachers, especially as schools are typically organized in departments. This means that a student could be interacting on a daily basis with as many as six different teachers in a variety of academic and non-academic venues, including extracurricular activities. A student may be able to form a relationship with a mathematics teacher that she may not be able to build as easily with her English teacher. Adding to this mix is the high school counselor who is likely to interact with as many as 200 to 500 students on topics as critical as college preparation. Trying to establish relational ties among so many students and their counselors on decisions that have high risk, such as choosing a college is undoubtedly challenging.

It is not only scope that makes the problem of establishing relational trust in high schools problematic; the fact that many teachers do not share the same cultural background as their students, especially in schools with high proportions of low-income and minority students is also problematic. Researchers find that trust is most strained in schools serving large proportions of poor students and students of color (Goddard et al. 2009). Compounding the challenges of building ties with adolescents, teachers are likely to encounter problems building ties with their parents especially if they do not share cultural norms and values. While this is also the case at the elementary level, at the high school level students are active agents along with their parents creating a different configuration of ties, allowing for greater opportunities of miscommunication, unshared norms and expectations, and actions that are viewed by only some parties as legitimate.

In elementary school trust research, the outcomes tend to focus on process issues among adults including leadership, cooperation, and instructional change. With respect to the students, the examined outcomes of high trust have for the most part been increases in achievement over time (Bryk and Schneider 2002; Goddard et al. 2009). In high schools, students are often not tested yearly so that monitoring growth in achievement from year to year is not operationally reasonable. On the other hand, one might expect that in high school the effects of higher trust would produce changes in norms and actions such as increases in the numbers of

students aspiring to attend postsecondary school and enrolling in postsecondary school. Focusing on aspirations represents one of the key components of measuring trust—shared expectations; an increase in college attendance represents the second component—obligations or actions. Consequently, when examining the relationship of trust to productivity in high school, it seems more prudent to consider such measures at the school level including graduation rates, and enrollment at two- and four-year institutions.

The evidence on relational trust and how it could potentially lead to changes in expectations and behavior became one of the primary motivations for designing an intervention that could change college enrollment rates, especially of low-income and minority students, who have the requisite knowledge and skills to attend postsecondary school, but who potentially lack the social and economic supports to realize their ambitions. As in the elementary trust research, the target for understanding relationships and how they affect norms and behaviors is organizational. Recognizing that there are particular developmental considerations among adolescents and that the organization of high schools presents another set of challenges, the decision was to begin by working through a small, embedded center designed to assist students in realizing college ambitions, taking into account variations in student knowledge and skills, familial resources, and individual preferences for different types of colleges. Rather than trying to change existing departments or schoolwide practices, the motivation of the intervention was to introduce a new entity that would uniformly affirm shared expectations of college-going and promote actions to further that norm. The assumption is that the activities in this unit would produce externalities—positive social and behavioral spillovers, which are consistent with the diffusion of innovations literature (Frank et al. 2004). Results of the implementation of a specific reform at the high school level show that changes in teacher behavior are frequently facilitated by informal help and conversation between colleagues, rather than through formal, structured professional development.

2.4 What is CAP?

The College Ambition Program employs the principles of relational trust for building shared norms and obligations that result in the realization of college ambitions. The *rationale* for the activities offered by CAP was developed from the results of a major study, the Alfred P. Sloan Study of Youth and Social Development (SSYSD) that followed a cohort of over 1,000 middle and high school students into young adulthood (data collection on the longitudinal sample is continuing). SSYSD was designed to understand the adolescent experience and gathered data from 12 sites across the country. Sites were public middle and high schools located in urban, suburban, and rural communities all across the United States, and were selected to represent, in aggregate, a representative sample (socioeconomically, geographically, ethnically) of youth between the ages of 12 and 18 in the US. Data from in-person interviews, survey questionnaires, and experience sampling method (ESM) devices

were collected in four waves between 1992 and 1997, and included information from students, school personnel, families, and peer groups.

Results from this project highlighted differences in the culture of the schools that were directly tied to social supports and economic resources (ranging from per pupil expenditures to programmatic resources and college preparation activities). One of the key findings of SSYSD was that in schools with higher than average national college-going rates (based on National Center for Education Statistics [NCES] data found in the *Condition of Education* (1993a, 1995a, 1997a) and *Digest of Educational Statistics* 1993b, 1995b, 1997b), there was a college culture reinforced by teachers, counselors, administrators, students, and parents. In these schools, teachers talked about the importance of a college education in their courses even if the subject matter was arts or technical classes. Teachers also discussed steps in the college preparation process—including highlighting vocabulary words, focusing on mathematic principles that students are likely to encounter on college admission tests, and following-up with the students regarding postsecondary plans after graduation. Counselors were also directly engaged with the students, helped to frame college personal essays, wrote letters of recommendation, pointed students to resources on college programs, supplied lists of tutors for help with academic subjects, and provided lists of private consultants to assist with all aspects of the college choice process, including financial aid. Administrators coordinated a series of assemblies for parents on the process and various timelines that were critical for college admission and arranged special visits by college recruiters. The student body was its own publicity machine for college. Discussion took place in lunchrooms, study halls, and extracurricular club meetings and included such topics as who applied where, acceptance rates, college admission test score averages, and how many times to take the college admission tests and the likelihood of increasing one's score by doing so.

In schools with lower than average college attendance rates this was not the case. Teachers often struggled with keeping students in school, excessive absences, and behavioral problems; counselors' time was primarily spent on social and psychological problems of alcohol and drug addictions, unwanted pregnancies, and learning disabilities. There was limited information on college choices, admission test preparation, and financial aid (Schneider and Stevenson 1999; Csikszentmihalyi and Schneider 2000). These results highlighted the huge social support and economic differences that plague many public high schools, especially those serving students in families with limited resources. The students and their parents expected to attain a college education, but the path for getting there was very unlike the one in more advantaged communities.

While it would be ideal to give these schools more resources, in the present economy this seemed unlikely. Moreover, the differences between these two types of schools were not just differences in economic resources. The relational ties among the students, teachers, counselors, parents, and the school were weak, and students and their parents questioned the competence and concern teachers had for the adolescents' future. The question motivating CAP became, "could the school culture be changed by focusing on the relational ties in the school community to create an environment that emphasized postsecondary attendance?" We were concerned that

few changes were likely to occur unless additional resources were tied to social interactions—whether that is professional development or other types of activities that engage teachers or students. A better alternative, it seemed, would be to offer services that other schools have, in the form of interactions that could promote a college-going culture.

With this in mind, CAP was designed to promote a school-wide college-going culture (in schools with lower-than average college-going rates) through mentoring and tutoring, course counseling, providing college visits for students who expect to attend college but may not realize the paths necessary to achieve these ambitions, and offering financial aid advising (Schneider et al. 2012). Recognizing the problem of trying to establish close ties among teachers, especially given the size of high schools (even those that might be considered small, e.g., less than 600 students), the plan was to start with a centralized hub where students could voluntarily come to receive assistance not only in college preparation but tutoring and academic counseling as well.

Acknowledging the importance of role models, and consistent with the adolescent developmental literature (Crosnoe 2009; Rosenbaum 2001), CAP Centers are established in intervention schools. They are open three days a week for six hours, including time after-school. The schedule is designed to be accessible to students and position CAP Centers as an integral part of the school, while not disrupting class attendance during the day. Each CAP Center is monitored by a site coordinator, a graduate student trained to operate the Center, keep up-to-date information on financial aid easily accessible, manage a group of near-age college mentors that provide tutorial assistance, interact with teachers and counselors, organize special college assemblies, and arrange college trips.

All CAP activities are organized on the premise that aligned ambitions—having expectations that are consistent with postsecondary plans and enrollment (Schneider and Stevenson 1999)—involve being able to (a) visualize oneself as a college student, (b) transform interests into realistic actions, and (c) create strategic plans. Prior research suggests many students, especially those in schools serving predominately low-income and minority student populations, have misaligned ambitions, holding misconceptions about college admission requirements, college programs, and financial assistance for the types of fields they are interested in studying in postsecondary school. Moreover, many students not only have misaligned ambitions, they also lack (a) the knowledge and skills in academic subjects that are critical for performing well on college admission tests, and (b) information on what high school courses, grades, and activities they need to be a competitive postsecondary school applicant (McDonough 1997; Riegle-Crumb and Grodsky 2010; Riegle-Crumb 2006). CAP's integrated model of activities is designed to fill many of these academic, social, and financial needs. The idea is that it is not enough to promote ambition and interest in attending college; instead, it is essential to engage in activities that not only make students more competitive applicants but also give them the resources to persist in college and receive a degree. The full scope of CAP activities are detailed on the website; the following briefly describes the rationale behind each of the programmatic components.

2.4.1 Mentoring Model

The classic definition of a mentor is an older more experienced proficient individual who assists the mentee in acquiring social and other complex skills and completing tasks. This is usually accomplished through demonstration, instruction, and encouragement (see Hamilton and Hamilton 2004 for a more comprehensive discussion of the literature on mentoring for adolescents). CAP has taken a somewhat different approach and designed a collective mentoring model using near-age peers. Instead of a student being assigned to a group or a specific mentor, students are encouraged to voluntarily come to the CAP Center where multiple near-age mentors are available to assist them with their academic needs and provide college preparation guidance. Mentors are deliberately recruited from local universities (presently Michigan State University—although new partnerships with other universities in the state are in the process of negotiations) the high school students may consider attending, helping them to visualize what the experience may be like for them.

By recruiting and training mentors in select academic areas, CAP works to afford students with positive and academically sound role models who can both speak about their college experiences first hand and also provide students with tutorial support in their high school courses. These tasks traditionally fall upon the shoulders of school guidance and counseling staffs, which are often overloaded with demands, ranging from monitoring students' academic progress, sustaining their social and emotional well-being, and even monitoring school-wide testing and accountability programs (McDonough 1997). As a result, particularly in schools with higher proportions of at-risk students, students often do not receive consistent interaction focused on preparing for college. CAP mentors aim to address this shortfall with frequent student interaction.

Rather than being assigned to individual students, CAP mentors employ a collective mentoring approach. Mentors are interchangeable, trained to deliver a consistent message about the importance of college and how to prepare for admission. Mentors are also trained not to complete homework assignments, but instead to work with students on a drop-in basis providing the type of help that middle and upper-middle class students receive from private tutors. The idea is to assist students in improving academic performance; the most common subjects that students ask for help with include algebra, biology, chemistry, and physics.

2.4.2 Course Counseling and Advising for Building Relational Trust

Consistent with the principles of relational trust, the intent of CAP is to begin with a small set of strong relational ties, shared expectations, and actions that can carry over into the larger school community. CAP site coordinators are trained to work with school counseling staff, underscoring that the Center is to supplement and act as a resource to the counseling staff. This message is very important to avoid misperceptions that CAP's services may threaten existing staff. Instead, CAP site coordinators

work with the high school counseling staff to advise students on course selections and align selections with particular colleges of interest and the college's recommended curricular requirements. Using the graduation requirement worksheets provided by high school counselors, student transcripts, information on students' academic tracks and individual college course requirements, CAP works with school counselors to help students make more informed decisions about their course selections.

Consistent with CAP's goals of promoting a school-wide college-going culture, students, teachers, and parents are invited to participate in CAP workshops to help them gain a better understanding of topics related to college matriculation. A website available to all students and their parents outlines ten key steps in the college-preparation process: (1) organizing and preparing for the college process; (2) selecting high school courses; (3) paying for college; (4) building an extracurricular resume; (5) preparing for college admission tests; (6) researching colleges; (7) participating in college visits and interviews; (8) crafting a personal college essay; (9) creating the application package; and (10) making a final choice. This information is written in accessible language with an accompanying video module—all designed for students and parents (with a special emphasis on the informational needs of parents who may have never been through the process or may be unfamiliar with some significant changes since they last attended).

2.4.3 College Visits

Once students begin to understand the steps necessary to plan for college, CAP provides a series of college visits to further help them visualize their goals. CAP college visits typically involve taking official campus tours and are arranged and organized by CAP site coordinators. CAP-organized college visits are open to all interested students, with priority going to eleventh and twelfth grade students. In an effort to build the college-going culture within CAP schools college visits get students onto campuses and allow them to experience first-hand a college environment. Before making these trips the students are given special instruction on what to pay attention to, directions for taking notes, and are provided examples of questions to discuss with the college representatives. Students are asked to complete a survey at the end of their college visit experience. What distinguishes the CAP college visit experience is that it is open to all students. Second, all students go through an intensive training before the experience and efforts are made to involve parents in the organized college visit. It is not only the students, but also their families which often have never been on a college campus.

2.4.4 Financial Aid Workshop/Materials

After students have an understanding of the planning it takes to matriculate to college and have visited a college campus, CAP focuses on finance. In partnership with Michigan State University's Financial Aid Office, Lansing Community

College, and school guidance counselors, CAP coordinates and schedules financial aid nights for students and their parents. In the 2011–2012 school year, over 50 families participated in these events that were followed-up with workshops for parents that focused on completing the online Free Application for Federal Student Aid (FAFSA). These workshops are designed to educate both students and their parents about the types of aid available, how to seek aid including scholarships, and fillout FAFSA and other types of loan applications. It is important to emphasize that these workshops are designed to actually work on filling out the forms and include follow-up calls from the CAP site coordinators to learn about the progress of the application process. Additionally, CAP site coordinators work with students at the end of their senior year going over actual college costs and creating a financial plan so that the student can afford to matriculate in the fall. This includes assistance with filling out applications for work study programs, providing tips on how to save money, and discussing resources that are available to ease the financial burden of room and board, computers, books, and other related fees.

2.5 Measuring the Effects of CAP

2.5.1 The Design

The full implementation of CAP began in 2010–2011 with four public Michigan high schools (two treatment schools and two matched comparison schools). The two control schools were subsequently phased into the treatment group in 2011–2012. This process was part of an agreement reached with the high schools for participating as controls in the prior school year. For the 2011–2012 school year, there were four treatment and four matched control schools. In fall 2012 there were seven treatment schools and multiple matched control schools.

2.5.2 The Sample

The CAP sampling strategy was to identify high schools with lower than average college-attendance rates. Initially, to select the participating schools state administrative data, census data, and data from the Common Core of Data (CCD) were used to identify schools that had (a) approximately 30 % or more of their student population eligible for free and reduced lunch, (b) low college completion rates in the geographical location that the high schools served (less than the state average of 26 %), and (c) lower than average 4-year college attendance rates (less than the state average of 71 %). Potential schools in the greater mid-Michigan area that displayed these characteristics were contacted because of their proximity to Michigan State University, an important consideration in reducing transportation costs for staff and mentors, facilitating adequate service provision and monitoring the fidelity of implementation of the intervention. The selection process for the 2012–2013 school

year used new methodologies for strategic sample selection as detailed in Stuart et al. (2011); Hedges and O'Muircheartaigh (in preparation); and Tipton (2011). Essentially, this process allows for a more closely matched covariate balance between treatment and control schools.

2.5.3 Measures

One of the problems in measuring trust has been the use of general trust questions, such as, "I trust my teachers," "Teachers in this school trust each other," or "Teachers respect colleagues who are experts in their craft." While useful at a general level, to learn more specifically about relationships and trust, it is useful to examine: (1) shared expectations of those in the social system; (2) similarity of values regarding actions and sanctions; and (3) actions that reflect the normative value structure. Measuring the nature of interactions including the value and actions individuals engage in provides not only what is perceived as important but whether such values are acted upon. Without matching values to actions, it is difficult to interpret relational strength and its consequences (see Delhey et al. 2011).

The instruments developed for this study were designed to measure components of the services offered by CAP and that could be compared with measures from other national longitudinal research studies. Two primary instruments used are an initial baseline survey and an exit survey administered to the twelfth graders prior to graduation. Survey items include questions about life ambitions, experiences in high school, and postsecondary plans. Contact logs are also maintained that measure time spent by students and the services they took advantage of while in the CAP center. Interview protocols are also used to measure the usefulness of specific activities such as the college visits and financial aid activities.

A teacher survey was developed in 2011–2012 to gauge teacher norms, beliefs, and practices related to college ambition. Teachers were asked a range of questions, such as how often they integrate information about college into their daily lessons, how many letters of recommendation they write for students, how familiar they are with the college search and application process, and the extent to which their school shares a collective vision focused on college attendance for all students. Teachers were also asked to provide names of colleagues with whom they interact most, both in general, and around issues of college support. These sociometric data allow CAP to understand the diffusion process of new beliefs and practices within each building. Information from these teacher surveys and other sources described above allow us to examine how the nature of relationships shape attitudes and actions.

2.5.4 Analysis and Preliminary Results

As explained earlier the outcome of this study is to determine if there was a significant increase in college attendance to four-year institutions from earlier years. As

this was a development project, in that it began with only a small set of treatment and control schools, we used a variety of analyses as we added more schools. Preliminary analyses from the first year of CAP in 2010–2011 indicated that CAP students had higher educational expectations and were more likely to enroll in two- and four-year institutions ($N=415$, $p=.025$) compared with eligible students in similar schools based on a propensity score analysis using data from the Educational Longitudinal Study (ELS: 2002) (Schneider et al. 2012).

In 2011–2012 we examined differences between students who participated in CAP and non-participants in the treatment schools. Findings from the second year show that within the four treatment schools, twelfth grade students who participated in specific CAP activities were more likely than other students to engage in college entrance exam (e.g. ACT, SAT) preparation activities ($F=7.17$, $p=0.01$), fill out the FAFSA ($F=6.36$, $p=0.01$), and take the ACT multiple times to improve their scores ($F=4.59$, $p=0.03$). In another analysis, we conducted a multinomial logistic regression with the outcome of college-going as reported on the senior exit survey (with 0= not going; 1=2-year school; 2=4-year school), conditioning on gender, race, and parents' education level. Students that participated in CAP were significantly more likely to attend a 4-year college than a 2-year college compared to non-participants ($p=0.04$). Four-year college attendance rates for CAP participants were 12 percentage points higher compared to non-participants.

Since CAP is an embedded school-wide intervention, we would expect to see a change in behavior not just for students, but for teachers as well. With respect to the teachers, we have several preliminary findings. Because teacher data collection began in 2011–2012 and only in treatment schools, our current analyses compare differences between rural and urban schools ($N=136$, 82 urban teachers, 54 rural teachers). Nonetheless, we find that teachers in rural schools are more likely to expect that most of their students will attend college than teachers in urban schools ($F=20.29$, $p<0.001$). While quite preliminary, this suggests that urbanicity may have some effect on levels of college ambition among the teaching faculty even in schools of similar socioeconomic backgrounds. Along with comparisons between urban and rural treatment schools, we also conducted a comparison of teacher beliefs in CAP treatment schools with similar measures found in the Schools and Staffing Survey (SASS: 2000–2001). Using a 2-tailed t-test, we find teachers in CAP treatment schools report significantly higher levels of faculty cooperation ($p=0.004$, df=1, s.e.=0.085) and a more unified sense of collective mission ($p<.0001$, df=1, s.e.=0.076) compared to teachers in the SASS sample.

2.6 What These Results Mean for Future Trust Studies

One problem with many school reform efforts is that they fail to take into account the social relationships in schools and how they can impede or encourage change. Reform efforts aimed at teachers, for example, assume a fairly straightforward process of teacher learning, whereby teachers absorb new reform content and implement it

in their practice. Relational trust results show that the quality of social relationships has a key role in facilitating innovation and student achievement (Bryk and Schneider 2002). CAP focuses initially on building social relationships in low-risk situations, with non-threatening near age mentors to create shared norms and actions, with the intent that such activities will spill over into the larger school context and influence other students, teachers, parents, and administrators.

Most standard trust measures are quite general, e.g. "I trust my teacher," "I trust my principal," and so on. These measures fall short of making the connection to specific actions embedded within school role relationships. As we developed our CAP measures, we began with an actionable vision of what relational trust would look like in context. This allowed us to create measures that could be linked to specific behaviors of students, teachers, and parents. For example, rather than simply asking students if they trust their teacher, we asked how often they interacted around college issues, both inside and outside of class. Likewise, along with asking teachers whether their school shared a sense of collective mission around college ambition, we also asked them specifically how often they integrated college into their lessons, or helped students with college materials during and after school. These items give quantifiable information that can be used in our analyses. Future studies of trust need to examine the intricacies inherent in these role relationships, and go beyond surface-level measures of trust.

Our measures of relational trust are obtained from a variety of data sources including field observations and social networks all of which are helping us to perfect future surveys and other forms of data collection. For example, to better understand the effect of college visits, we interviewed students about their experiences on the trip, and how it may have helped them better visualize the college experience. The interviews shed light on which components of college visits may be most effective, which in turn allows us to develop more focused survey measures on this topic. Such mixed approaches contribute to an iterative process of focusing and sharpening our measures of relational trust.

As a form of social capital, relational trust is a resource that takes shape in the interactions among members of the school community (Bryk et al. 2010). It is as a critical resource for many different outcomes. At present, most studies of trust have examined its impact on academic achievement. While this is a critical outcome, it does not capture the full range of benefits inherent in relational trust. Our work with CAP suggests that trust may be a critical factor in increasing college ambition. This suggests many additional possible outcome measures, including postsecondary enrollment and completion, dropout rates, and access to financial aid and scholarships.

In research one often worries about such issues as non-compliant subjects, changes in the composition of the treatment group, and fidelity of implementation of the treatment. Often overlooked are the expectations of the subjects and how these expectations relate to specific actions, and whether such actions are shared with others participating in the treatment. It is not the information, pedagogical techniques, or technology in and of itself that creates a change; it is if the intended subjects perceive the treatment as important, whether it has value beyond one's

personal motivation, and if it is shared and acted upon by multiple actors. If the outcome is going to college, what are the students' expectations and do those expectations match the expectations of family, peers, and teachers and how do these expectations align with actions. Without taking a closer examination of social ties, we will miss how micro-level interactions of students and teachers can affect the outcomes of reform.

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