TRUST AND SECONDARY SCHOOL PERFORMANCE IN THE DOMINICAN REPUBLIC

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Like most countries, the Dominican Republic has some schools that are more effective than others (Secretaría del Estado de Educación, 2003). Classes in these effective schools are better organized; with students who are better behaved and learn more and are more likely to proceed to further education. These schools are also more likely to take advantage of new national school reform plans, and are quicker to adapt and innovate. The question is: what accounts for their effectiveness?

Many variables have been linked to school performance and student achievement, including family and student background factors, classroom pedagogy, and school inputs. Scholars have pointed out that the more effective schools in Latin America are often those that are better endowed (Carnoy and McEwan, 2000). These schools have more physical resources and are attended by children from more privileged families. Other scholars associate increased per pupil expenditures and school resources to positive student outcomes (e.g., Hedges et al, 1994 and Card and Krueger, 1992). Student achievement has also been linked with certain curricula (e.g., Success for All); teacher quality (Carpenter et al., 1989); and improved and more active parent involvement (Ho and Willms, 1996). Better leadership, teacher quality, social capital level, and other school factors also have been shown to influence school effectiveness, and have been shown to have larger effects and be more statistically significant in developing countries (e.g., Ho and Willms, 1996; Willms and Somers, 2001; Fuller and Clarke, 1994; Heyneman and Loxley, 1983). Pinpointing the

factors that best affect achievement in the more effective schools in the Dominican Republic could prove valuable to policymakers looking to modernize education systems with limited resources.

What role does relational trust, or the "interpersonal social exchanges in school communities," play in effective schools (Bryk and Schneider, 2002 p. 12)? Considered a development of social capital, relational trust measures perceptions of respect, competence, personal regard for others, and integrity found among actors within a school community. With higher levels of trust among principals, teachers, and parents, does the atmosphere of a school change? Do secondary students in the Dominican Republic do better in schools with more relational trust?

This study investigates the concept of "relational trust" developed by Bryk and Schneider (2002) and adapts their measurements to the context of the Dominican Republic. A random sample of Dominican secondary schools was drawn, and measurements of school effectiveness and relational trust were collected. The study asks whether relational trust possesses any explanatory power to help determine school effectiveness after taking account of school, teacher, and director characteristics.

The Dominican Ministry of Education (the *Secretaría del Estado de Educación*, or SEE) could better and more efficiently serve its purpose if the determinants of school achievement and effectiveness in the Dominican Republic were known, especially with frequent political turnovers and new efforts to reform the system. School achievement in this study is measured by a school's score on the Pruebas Nacionales (PN—national exam that counts for 30% of a student's graduation requirements), while school effectiveness is measured by a school's PN qualification rate, or the percentage of senior students

matriculated at the beginning of the year who are eligible to take the PN at the end of the year. In other words, how effective is a school in preparing its students to graduate? By examining relational trust (and also isolating other school characteristics that seem to have the most correlation with high achieving schools), this investigation identifies the factors that have led to school achievement and effectiveness in the Dominican Republic in the past, and hopefully act as a guide in the future.

Relational trust is especially relevant and worth studying in the context of the Dominican Republic. The SEE began implementing the 2003-2012 strategic plan for education (*Plan Estratégico de Desarollo de la Educación Dominicana 2003-2012*) in recent years. The goals and objectives of the Dominican strategic plan and the mechanisms through which the SEE hopes to reach these goals reflect the notions of social capital and social relationships.[1] The modernization of school management, especially at the secondary system level, is a key focus of this plan. In its attempts to foster school-community relationships, and within that, parental and civil society involvement in school activities, one of the aims of the plan is to set up school-based management models that promote greater autonomy for pedagogical and administrative innovation at each local school setting. The SEE hopes that these models will lead to changes in the school environment that will promote achievement and better internal efficiency rates (such as lower repetition and drop-out rates).

Controlling for a variety of school factors, this study answers the question of how relational trust is associated with secondary school performance, defined as Pruebas Nacionales scores and Prueba Nacionales qualification rates, in the Dominican Republic.

[1] Though these concepts are not explicitly mentioned in the Dominican Republic's reform literature (SEE, 2001), the language used by the SEE and the Inter-American Development Bank (IADB) is very similar to language found in a variety of decentralization, social capital, and school effectiveness literatures. See bibliography for list.

The Pruebas Nacionales are a multi-choice exit exam given at the end of primary school (8th grade), the third cycle of the Adult Education program, and at the end of secondary school (the 4th grade). Secondary students are tested on the Spanish language (including grammar, vocabulary, comprehension, and literary analysis); Mathematics (e.g., algebra, logic, complex numbers, matrices, geometry, trigonometry, calculus, probability and statistics); Social Sciences (including a variety of topics in history, geography, and economics, both global and country specific); and Natural Sciences (chemistry, biology, and physics). There are three testing periods for secondary students, in July, August, and November. All students are given the opportunity to retake the exam until they pass. In addition to understanding the relationship between relational trust and school performance, by collecting data on a variety of other school level characteristics, such as school resources and school personnel, the study analyzes the relationship these characteristics have with both relational trust and independently with school performance variables, providing a clearer picture of the secondary education situation in the Dominican Republic.

The first set of questions examines the relationship among school resources, school personnel, student and parent characteristics, and levels of relational trust. For example, are higher levels of relational trust more likely in schools with higher levels of school inputs? Before this could be tested, the components of relational trust had to be explored and validated. The dependent variable in the first model is relational trust, and the independent variables include relevant school input, school personnel, student, and parent characteristics. This question asks what characteristics or supports are necessary to facilitate relational trust in secondary schools. Are teacher characteristics (e.g., level of education or how long they have been teaching) highly correlated to relational trust? Do schools that have higher rates of

parental involvement in school activities have higher trust? Do schools with lower ratings of infrastructure and resources have lower trust because of the situation or does having poor facilities lead to the community working together more to overcome lack of resources, thereby creating trust within the school? This stage of the research examines the links between relational trust and the malleable conditions found in schools.

The second question concerns a model of school effectiveness. This question asks how school variables and relational trust are correlated with achievement and effectiveness outcomes. The study adds relational trust to sets of fundamental school inputs, school personnel, student, and parent characteristics usually included in school effectiveness models to investigate the relationship between these variables and school outcomes, i.e., academic achievement and internal efficiency rates (PN qualification).

In addition, descriptive and correlation statistics between these various school, student, and parent characteristics and school outcomes are also presented. These characteristics are treated as independent variables in the relationship between relational trust and school outcomes.

CHAPTER II

LITERATURE REVIEW

This chapter includes a definition of relational trust, placed within the context of social capital. School effectiveness research is reviewed and followed by a discussion of the literature on characteristics examined within the statistical models, including school characteristics (ranging from infrastructure to levels of parental involvement) and attributes of school personnel(including education, training, years of experience).

Definition of Relational Trust

Through their research on Chicago public schools during a decentralization push in the 1990s, Bryk and Schneider developed the theory of "relational trust,"[2] specifically focusing "on the distinctive qualities of interpersonal social exchanges in school communities, and how these cumulate in an organizational property" (2002, p. 12). Relational trust measures perceptions of respect; competence; personal regard for others; and integrity found among principals, teachers, parents, and students in a school, and is defined and created by the day-to-day relationships experienced by these individuals that serve to create and perpetuate trust in schools (Bryk and Schneider, 2002).

Bryk and Schneider classify "respect" in this context as the basis of civility among actors, or more specifically, whether individuals "genuinely listen" to each other and value each other's inputs (p. 23). For example, if parents do not feel the principal or teachers

[2] The equivalent in Spanish is "confianza relacional en la comunidad educativa," and its affect on "el clima escolar," or "relational trust in the school community" and its affect on "the school environment"

respect them, they may feel less inclined to become involved; likewise, teachers may feel less respected if the director does not acknowledge their concerns. "Competence" refers to the actor's ability to fulfill his/her role or obligation within the school community; e.g., if the director is unable to provide a safe learning environment for students, he/she is failing to satisfy parents, teachers, and students expectations. Whereas "personal regard for others" measures how much actors are interested in helping each other, and can be assessed, for example, by a director's interest in the professional development of his staff, the notion of "integrity" focuses more on "consistency between what they say and do" (Bryk and Schneider, 2002 p. 25).

At its core, "trust is a calculation whereby an individual decides whether or not to engage in an action with another individual that incorporates some degree of risk," and can be predicated by previous experiences with the individual, reputations, or even social similarities (Bryk and Schneider, 2002 p. 14). Within the schooling context, the basis of trust exists primarily in school actors' understanding of their roles and obligations and in the faith that others are also doing their part. For example, parents entrust schools with their children's education and a large degree of their social development, while, on the other hand, directors and teachers expect parents "to make sure students attend school regularly and, more generally, …support the teachers' efforts at home" (Bryk and Schneider, 2002 p. 21). However, when these expectations and obligations are not met between stakeholders, trust suffers.

Bryk and Schneider (2002) believe that the theory of relational trust functions in three levels within a school: intrapersonal, interpersonal, and organizational. Social relationships operate within each of these levels, but they also differ according to the specific role of

particular actors in the school community. Within this framework, they explicate the conditions and types of interactions that are necessary to foster trust within the school and between the principal, teachers, parents, and students. For instance, Bryk and Schneider (2002) place the onus on the principal and teachers to develop a sense of solidarity with parents (p. 27). Teachers have a different relationship with principals: "reciprocal vulnerabilities are inherent in hierarchical work arrangements, but they can be lessened by trust relations that create opportunities for jointly beneficial outcomes (Bryk and Schneider, 2002 p. 28-9). Teachers work together on a daily basis, sharing responsibilities, and "at a deeper level, relational trust within a faculty is grounded in common understanding about such matters as what students should learn, how instruction should be conducted, and how teachers and students should behave" (Bryk and Schneider, 2002 p. 30).

As hypothesized by Bryk and Schneider (2002), a set of organizational consequences emerges when strong relational trust exists in a school. For example, trust can act as a catalyst for innovation among the stakeholders; and it helps facilitate public problem solving and stimulate meaningful collective action. Trust can also act as a moral resource for school improvement. High levels of relational trust in a school can contribute to a school atmosphere where principals, teachers, parents and students work together to increase achievement. Besides testing Bryk and Schneider's relational trust in a different context, this study may prove pertinent to policymakers in developing countries, where the presence of relational trust may help counteract some of the negative impact of resource constraints.

In their longitudinal study, Bryk and Schneider (2002) examined the link between relational trust and organizational change that can result in increased student learning. For their research they relied upon the 1994 survey of principals, teachers, and students in

elementary schools conducted by the Consortium on Chicago School Research. Among the areas they investigated were students' learning opportunities, motivation and engagement, views of the school environment; parents' involvement in education; and teachers' views of governance, instructional practices, opportunities for growth, and professionalism in school communities. Bryk and Schneider stratified their school sample by share of low-income students and geographic location. About half of the public elementary schools in Chicago participated in the 1994 survey. Fifty-four percent of the teachers in the sample responded. The second data set was from a 1997 survey, in which 63% of the teachers in 422 out of 477 schools responded. Bryk and Schneider believed that the 20% proportion of variance between schools, after controlling for measurement error, "indicate that there are significant differences between schools in how teachers perceive their work environments, lending credibility to treating relational trust as an organizational property" (2002, p. 190). They found even greater variance between schools (25%) in their teacher-principal trust measure, which gauged the feeling teachers had for their principal. This measure proved that "the amount of between-school variability here is greater than for any other school-level indicators developed to date using these…data" (Bryk and Schneider, 2002, p. 190).

Some of the organizational features that Bryk and Schneider found in strong trust schools were 1) school size (small is good); 2) stable student population (less mobility among the student population); 3) demonstrated effectiveness (as measured by achievement levels); and 4) lack of racial or ethnic tensions. Bryk and Schneider maintain that "trust is especially important for organizations that operate in turbulent external environments, that depend heavily on information sharing for success, and whose work processes demand effective decentralized decision making….In addition, organizational research also suggests that

trusting relations are especially important in times that call for major structural changes" (2002, p. 33).

Context of Social Capital

Relational trust is grounded in social capital theory, so it is necessary to provide an overview of that framework. The notion of social capital has existed for several decades and has been discussed extensively in the literature. This review provides a summary of the major theoretical work, the role of social capital in education, and a discussion of the difficulties encountered in its measurement.

At its core, social capital is characterized by the idea that "social relationships serve as a resource, allowing individuals and groups to cooperate in order to achieve goals that otherwise might have been attained only with difficulty" (Kilpatrick, et al. 2003, p. 417). Examples of social capital include trust, obligations and expectations, norms, relations of authority, and shared information. Bourdieu (1986) was among the first to try to define social capital, and believed that social capital is rooted in the value of social networks and relations, and based on the principle that investment in these relationships would provide various benefits or results to participants. Access to information, for example, is a measure of social capital: increased access to information makes more action possible.

Social capital can be manifested in a variety of forms, including trust between individuals and social institutions (e.g., will debts be repaid?). If a school has a tradition (or norm) of community involvement, and efforts are made in the school to directly foster relationships within and between staff and community, then the school may experience higher levels of relational trust, resulting in school conditions that facilitate student

achievement. In his explanation of the differences in achievement across types of schools, Coleman emphasized community closure and information flows and exchanges of favors, believing that these mechanisms generated/transmitted social or societal norms (1988), and could act as a non-monetary resource that Catholic schools have (since they spend less money per pupil). However, Coleman was never able to demonstrate his theory empirically. Coleman relied on the assumption that social capital helps "compel student diligence and thereby increases student efforts" (1988) because parents who send their children to Catholic schools, for example, expect more from their children.

Coleman (1988) conceives social capital as being part of a family experience in the combination of three indicators:

- financial, measured by family income;
- human, measured by parent's education levels and the cognitive environment provided to the child; and
- social capital, which can take the form of parental involvement in a child's education, or family relations/interactions.

For example, many immigrant Asian families have been found to have low measures of human capital, but human capital is replaced with social capital, and a strong interest in ensuring that the immigrant children succeed in school (Coleman, 1988). If the parents have social capital, then their children tend to have higher levels of human capital (Coleman, 1988). Such relationships are especially important in the contexts of developing countries, where the struggle to improve access and completion rates is a priority. Parents who have higher levels of social capital may have greater aspirations for their children, resulting in greater participation in school activities. Active involvement by parents would then facilitate day-to-day interactions with the principal and teachers, resulting in the formation of relational trust.

This is not to say that social capital is a panacea for all social ills; its existence can have detrimental affects as well. One limitation to Coleman's model is that closed communities do not always benefit students or members' needs. For instance, some immigrant communities exclude outsiders to the detriment of the group, leading to social isolation and disenfranchisement from larger society (Portes, 1988; and Portes and Rumbaut, 1996). Other examples of a negative manifestation of social capital are drug and gang cultures in ghetto communities, where negative norms of violence are transferred to group members (Wilson, 1996).

Though the theory of social capital has been used in many academic fields (including economics, community development, and political science), social capital has many implications for education, particularly within and around the school environment. Within a school, social capital can be represented by a variety of measures. For example, the norms and mission of the school can illustrate the level of social relations the school values as a whole; while the daily levels of interaction or relations both within the school community and with the community at large offers a more tangible measure. Additionally, the strength of the parent-teacher association and its involvement with the school can provide an illustration of school-level social capital.

An examination of Coleman's (1988) model for a network involving parents and children with and without intergenerational closure (networks between parents, or whether parents know parents of child's friends), shows that this model is apt for application to school structures. Coleman's model is "norm-enforcing"; it is a closed system with a set of relationships among parents whereby parents become more involved. Do the parents of the children and teachers socialize together and work with each other to produce norms that

monitor and guide behavior? If so, do the norms then transfer or trickle down to the child's level in the school, thereby guiding children's behavior and affecting achievement? Individuals functioning within a closed social system, such as a school, can prompt the development of effective norms and an increase in trustworthiness of social structures that lead to a proliferation of obligations and expectations within that structure (Coleman, 1988). For example, teachers who work together daily may develop closer relationships, leading to feelings of trust between them and obligation as a whole to increase student learning. As Goddard states, "social trust gives group members confidence in the expectation that others will act reliably and competently" (2003, p. 60).

Further debate revolves around intergenerational closure and social capital in schools, especially since Coleman did not provide a measure for use in statistical analysis. Furstenberg and Hughes (1995) examined social capital measured as parents' involvement in their children's education and the community, and found that this form of capital positively influenced students' odds of graduating secondary school and moving on to tertiary education. Using the National Longitudinal Study 1988 data, both Carbonaro (1998) and Morgan and Sorensen (1999) developed social closure measures and tested whether Coleman's intergenerational closure influenced students' education in mathematics and reading outcomes in Catholic schools. The authors found conflicting results. Carbonaro (1998) found mixed effects on math achievement, which could be attributed to differences in parent's expectations. Morgan and Sorensen (1999) found that student networks were positively linked and parental networks were negatively linked, to increased mathematics learning- contradicting Coleman's hypothesis. Morgan and Sorenson concluded that a

horizon-expanding model, compared to Coleman's norm-enforcing model found in Catholic schools, worked better in public schools. Horizon-expanding school are characterized by:

> close ties among fellow students and their teachers, among fellow teachers, and among parents, and teachers. But parents who send their children to horizon-expanding schools do not devote as much time to the cultivation of bonds with the parents of their children's school friends. Nor do they spend as much time developing bonds with school administrators. Through choice, often residential, parents select schools for their children where they expect school administrators to monitor teacher performance according to their wishes and other parents to reinforce achievement norms as they themselves would. Parents then spend relatively more time than parents of students in norm-enforcing schools investing in social capital outside of the immediate school environment (Morgan and Sorensen, 1999, p. 664).

Compared to Carbonaro (1998) and Morgan and Sorenson (1999), Goddard (2003) elaborated a framework for trust and social networks in schools that included both structural and functional aspects of social capital, and measured its impact on fourth grade achievement using data collected in 1998 from 45 elementary schools in a large urban midwestern school district. His multi-level analysis questions the link between socio-economic level and social capital, which is an important distinction in the Dominican context as well, as will be seen in the results in Chapter VI. Goddard (2003) finds that fourth-grade students' odds of passing state-mandated math and writing assessments "modestly increased in urban schools characterized by high levels of social capital." Another difference among Goddard (2003) and Carbonaro (1998) and Morgan and Sorenson's (1999) research was the reliance on teachers' responses as opposed to student or parent responses. This study on the Dominican secondary education system utilizes teachers' responses as well.

Collective versus Individual Benefits

Since this study applies social capital theory to a *school* level relational trust measure, it should be noted that there is some controversy regarding the appropriateness of applying social capital benefits to groups, as opposed to individuals. According to Portes (1998), social capital theory has become a sort of panacea for many of the problems affecting societies. Portes further characterizes Bourdieu's theory of social capital by its emphasis on "the benefits accruing to individuals by virtue of participation in groups and on the deliberate construction of sociability for the purpose of creating this resource" (1998, p. 3). He believes that current trends applying social capital theory to communities are weakening the original definition, which originally applied benefits of social capital solely to individual levels.

This research on Dominican education works under the assumption that the benefits to the individual can result in benefits to the aggregate, when these individuals interact in a closed network such as a school community. Though this study focuses more on school level as opposed to individual trust levels and performance outcomes, it should be noted that individuals can benefit directly from the existence of relational trust within a school. Students can profit from a school climate enriched by feelings of respect, competence, personal regard, and integrity towards each other, and the gains can be manifested by higher achievement scores and higher rates of qualification for the achievement exam, compared to schools with less relational trust. In addition, as Bryk, Lee, and Holland (1993) suggest, "social closure among all adults in the school community can help maintain the value consistency of a functional community. Thus, teachers also form close ties with each other and with school administrators, cultivating communal organizational practices that foster learning." Moreover, Goddard (2003) stresses that "if most individuals with whom a child

interacts believe that schoolwork and learning are important, the press to perform will be accompanied by social sanctions for those who do not" (p. 61).

Previous studies (Carnoy et al., 2005) have analyzed social capital at macro-levels of society. For example, Carnoy et al. define collective social capital as a function of whether the student attended preschool, whether the student works after school, and the number of fights in a classroom, with the assumption that populations and governments that foster more social capital (i.e., Cuba with its centralized education system and revolutionary ideals) will care more for their children and promote their education, both in schools and families. The findings of Carnoy et al. also note that:

> social capital in its various forms has a major impact on classroom atmosphere (student behavior) and thus affects the time that teachers actually can devote to their teaching. It may also shape school organization and strongly influence the management role of school directors, the control that authorities have over teacher and student attendance, the expectations that parents have of teachers (and teachers of parents) in the complex process of educating children, the sense of responsibility and obligation that teachers and school directors feel for improving student learning, and the concomitant focus of the school on instruction even in low-income schools (Carnoy et al., 2005, p. 237).

Carnoy et al. (2005) found that the most explicatory variables predicting school achievement were parental resources (including family social capital); teacher quality; and social context of schools**.**

School Effectiveness Research

The "practical and pragmatic" purpose of school effectiveness research (from now on referred to as SER or SE research) is to explore the differences between and within schools (Teddlie & Reynolds, 2000). In its most basic form, a researcher chooses an outcome, such as test scores, and then studies the average differences among schools after adjusting for any

relevant factors such as intake achievement of students (Goldstein, 1997). SER attempts to explain what causes the differences among students and schools. More specifically, school effectiveness is defined as the causal concept that school outcomes are influenced by malleable conditions, such as material and human resources, school management, curriculum, or teaching (Piñeros and Scheerens, 2000). However, to garner more accurate results, SER models also include "available and assigned conditions," such as family and student background and intake ability, "to better estimate the impact of the malleable conditions, as well as the interaction effects between malleable and assigned variables" (Scheerens et al., 2000, p. 132). Though this study is designed using traditional SER models, causality is problematic in this case, as further discussed in the section on limitations of analysis in the next chapter.

Within this context, the study investigates relational trust as both associated with achievement and as a variable that interacts with other school and family characteristics that are also associated with school achievement and performance. Will the inclusion of relational trust help explain more of the school variation and differences? By nature, SER has traditionally been observational, "which means it depends fully on the variance that is present in real life and complex field settings" (Scheerens et al., 2000, p. 133).

School effectiveness research has developed with the convergence of two separate theoretical streams. SER originally started as economic production functions, concentrating on material and human resources, such as per pupil expenditure, teacher training, and class size (Scheerens, 2002). However, sociologists and education experts started focusing on school organization conditions (e.g., leadership styles) and instructional effectiveness within the classroom. The latter group believed that production function models "overemphasize[d]

material inputs, without sufficient attention to school and classroom processes, and how these interact with the demands and preferences of families and local communities" (Willms and Somers, 2001, p. 412). More current SER research includes both school level factors and classroom learning environments, resulting in a multilevel and more comprehensive approach to studying school effectiveness.

Early school effectiveness studies had "methodological weaknesses," but eventually flourished (Goldstein and Thomas, 1996). The very first research (Coleman et al., 1966; Jencks et al., 1972) used traditional regression models with large samples; but they were not longitudinal. These studies "argued that the effect of schools *per se* upon pupil performance had been neglected. They attempted to show that, even when social and other factors were taken into account, there remained differences among schools which could be ascribed to the quality of schooling itself" (Goldstein, 2000, p. 353). In 1979 Rutter, et al. published a longitudinal study, but included only twelve schools in the sample. They examined the relationships among student level variables, but ignored the actual ways students were allocated to schools. Many experts in the field believe that the first valid research within school effectiveness literature was Mortimore's et al. (1988) Junior School Project study (Goldstein and Thomas, 1996), which was longitudinal with a sample size of 50 schools, and used multilevel analysis.

Though SER gained in popularity in the 1980s and 1990s, there were still a number of debates revolving around the models and methodology. By the late 1990s, SER was seriously critiqued. One of the criticisms of school effectiveness research is its use of achievement scores as the only outcome measure, partly due to the consequence of using the scores to rank schools (Goldstein and Thomas, 1996). In addition to PN scores, this study

includes the qualification rate for the achievement exam (more specifically, the percentage of matriculated seniors convoked for the Pruebas Nacionales exit exam) both to counteract this criticism and to provide more practical use of the findings.

Though early SER research found student composition to be an important factor (Coleman et al., 1966; Jencks et al., 1972), many other studies did not measure the impact of "contextual" or composition effects, and neglected to include SES and previous achievement in their conceptualizations of school effectiveness. Many researchers believe that SES has a significant effect on student achievement, "meaning that in low-SES schools other things happen than in high-SES schools" (Scheerens et al., 2000, p. 134). SES levels can affect individual students, but its aggregate at the school level can also affect school organization. Riddell et al. (1998) argue for the necessity of analyzing the interactions between SES, parental involvement, teachers, and schools. Reviewers of SE research find that "the magnitude of assigned variables and their aggregates are gaining in importance as compared to malleable conditions, as research technology is becoming more and more sophisticated" (Scheerens et al., 2000, p. 134). In order to accurately measure the association of relational trust with achievement, this study also includes school-level SES in the models.

Another critical assessment of SER found that researchers tended to oversimplify "the complex 'causalities' associated with schooling," not being able to adequately measure the more "subtle process factors, motivations, classroom organization, etc." encountered in schools (Goldstein, 2000, p. 354, p. 356). One more consequence of oversimplification was the "concern that the listing of 'key factors' encourages a mechanistic approach to policy-making" (Goldstein, 2000, p. 359).

Coe and Fitz-Gibbon (1998) argue that the variation found between schools should not be seen as a measure of effectiveness, since the schools are compared to one another within a particular context, be it school district or country. They, along with researchers Mortimore and Whitty (1997), maintain that while SER should also measure operations within the school structures that affect outcomes, researchers must realize that schools operate within a wider context, such as social, economic, and political systems, that imposes constraints that can also influence outcomes.

The majority of previous work on school effectiveness was conducted in primary schools, not secondary schools (Scheerens et al., 2000). For that reason, this study on secondary schools in the Dominican Republic investigates the interactions among trust and school, teacher, and director characteristics, with the aim of determining if the effects of those conditions are more significant in secondary education. However, studies that have examined secondary systems find "reasonably high stability coefficients (consistency across cohorts), and somewhat lower coefficients for stability across grades," posing methodological concerns (Scheerens et al., 2000, p. 141). Consistency between subjects was also lower in secondary schools than in primary schools, perhaps due to different subjects taught by different teachers, contributing to variations in teacher effects (Scheerens et al., 2000). Moreover, Bosker and Luyten (2000) find that disadvantaged students measured more consistency and stability across grades and subjects compared to more advantaged students. These concerns should be noted, though they are not applicable to this study, which aggregated all measures to the school level due to limitations in data collection in the Dominican Republic. The school level coefficients will include the effects of student level variance, teacher variance, and subject variance. In other words, since the study uses school-

level aggregated variables, the analysis coefficients will absorb these individual level effects. As Scheerens et al. (2000) claim, "from a practical point of view measures at school level are easier to be implemented than measures at teacher level, and moreover, teacher effects may be, to some extent, mediated effects of school management and organizational conditions" (p. 142).

Though SER has lost a lot of favor in industrialized countries, recent SE research has shown that variances between schools are much larger in developing countries than they are in industrialized countries (Scheerens, 2002). Raudenbush, Kidchanapanish, and Kang (1991) find that communities with lower school resources have more prominent effects of certain school conditions, such as low pupil-teacher ratio and classroom resources. In addition, there are studies (e.g., Heyneman and Loxley, 1983) that claim that stronger effects of school factors on student achievement are found in low-income countries as opposed to high-income countries. Coleman (1966) argues that if schools did in fact affect outcomes, they were more influential for underprivileged students, supporting the argument that SE research is still valid in developing countries.

Previous cross-national studies of Latin America (Willms and Somers, 2001) found that the Dominican Republic experienced the highest amount of between school variance (50%), indicating wide differences in outcomes between schools. They determined that the more effective schools were those with more school resources, where students were not grouped by ability and were tested more regularly, had active parental involvement, and positive classroom climates. Relational trust may account for some of this variance found between schools, and trust may be more important than per pupil expenditure in the

Dominican situation, since the average per pupil expenditure for secondary students is US$97 (Alvarez, 2004), compared to US$7,397 in the United States (OECD, 2003).

School Input, School Personnel, Family and Student Characteristics

School & School Input Characteristics. As mentioned above, school effectiveness models traditionally started as production function analysis, focusing on material and human resources in the schools. School resources are generally categorized into various types (Willms and Somers, 2001). This study on Dominican secondary education includes the following measures:

- School size;
- SES level of students;
- Demographic zone (rural, urban, urban marginal);
- Infrastructure (condition and number of resources; availability of library, lab, gym, computer labs, etc.); and
- Instructional resources (such as textbooks and blackboards).

I hypothesize that dependent variables, primarily relational trust and school performance measures, will vary between urban, urban marginal, and rural schools. For example, urban centers outside of the capital may foster deeper senses of community in their schools because they have a stronger tradition of parental involvement, which could translate to better quality and more effective schools than public schools in the capital. Megacity (or urban marginal) schools, perhaps because of higher rates of student mobility and lack of community financial involvement, may have lower levels of relational trust and school quality. Separating the secondary schools into different location strata will result in more homogenous groups of schools.

The socio-economic level of the students was included since social class has been shown to affect performance and parental involvement (e.g., Heyns, 1978; Jencks et al.,1972; Kohn, 1977; Shavit and Blossfed, 1993). Lareau (1989) found differences between middle class and working class parents in levels of parental participation, both at home with their children and with the school. In addition, this study includes infrastructure and resource scales that are specifically created for the Dominican education system. Based on a survey developed by Piñeros and Scheerens (2002) for a SEE/World Bank study on school effectiveness in secondary schools in the Dominican Republic, the scales include questions about furniture for students, electricity, sanitary facilities, blackboards, and textbooks, among other things representing the general quality of the teaching and learning environment. For more detail on the scales, please refer to Table 1 in Appendix A.

School Personnel Characteristics. Research has shown the effect of strong school leadership on student achievement (Edmonds, 1979; Gezi, 1990; Hall & Hord, 1987; Leithwood, Begley, & Cousins, 1990). This study investigates the number of years of director experience; years of education; and frequency of director in-service training. The underlying belief is that the more years a director has been working, the more training s/he has undergone, the more effective leadership style s/he will have, translating to better involvement with teachers and increased school quality.

Teacher characteristics were measured by asking the sampled teachers for information on their:

- years of teaching;
- highest level of education (including, which type of pedagogical institution the teacher attended normal school ("escuela normal"—two year public teacher training programs) vs. university program); and
- participation in professional development, or frequency and measure of extent of in-service training.

The belief is that the presence of these factors contributes to better teachers, more engaged students who learn more, ultimately resulting in better achievement scores, and graduates ready to enter the work force or go onto higher education.

Parental and Community Involvement. It is generally believed that parents who are more engaged in their children's education help more with school work and are more active within the school community (e.g., Coleman, 1966, Lockheed and Verspoor, 1991; OECD, 2003; Rothstein, 2004). Higher levels of SES and parental education are also linked to higher parental involvement in schools (Benveniste, Carnoy, and Rothstein, 2002).

The parental involvement index used in this study includes measures of parental participation in school activities (Willms and Somers, 2001) but also levels of parental and community involvement in financial assistance. Parental involvement is especially key in the Dominican Republic, where some secondary schools have a tradition of parents and community members fundraising for schools. Do schools with more parental involvement have higher rates of relational trust felt by teachers and parents?

Though Bryk and Schneider (2003) believe that teacher-student trust levels are necessary for successful learning, they argue that in elementary schools there is a "power asymmetry in the student-teacher role set" and because of this, elementary teachers are the initiators of trust in this relationship (p. 32). However, as students age and become more independent, they take on more responsibility for their own learning, and become more significant players in the trust dynamics of a school. For that reason,

> a theory of trust in secondary schools would also have to conceptualize trust as a collective concern among students rooted in prevailing student norms….in high schools, peer influences and student norms are quite powerful, and these forces must be engaged directly by any school reform effort (Bryk and Schneider 2003, p. 32).

Engaged students with high levels of trust with teachers may better facilitate any reform efforts the SEE may wish to undertake in secondary schools.

CHAPTER III

METHODS

This section illustrates the framework of the study, then delineates specific hypotheses for each question. The design is presented in detail, and includes data sources, sampling and survey strategies, statistical methods, and analytic limitations. Variables gathered by survey and used in analysis are discussed in Chapter V, "Sample Schools."

Framework and Research Questions

This study analyzes how relational trust is associated with both school-level characteristics and school performance, defined as school-level PN scores and PN qualification rates, providing a clearer picture of the education sector in the Dominican Republic. The first question asks what are the relationships between trust and school characteristics (infrastructure, resources, parent and community involvement, etc.), and teacher and director characteristics (including education level and training time, etc.)? The model below (Figure 1) illustrates the more exploratory nature of this study, and emphasizes that the study is not investigating causal effects. Examining trust involves analyzing sets of school, teacher and director characteristics on the varying types of trust felt by teachers towards their directors, fellow teachers, parents of students, and secondary students. For example, the study hypothesizes that smaller schools with lower levels of overage students will have higher levels of all types of trust. In comparison, schools with lower infrastructure

status and fewer teaching resources may experience lower levels of trust felt between stakeholders.

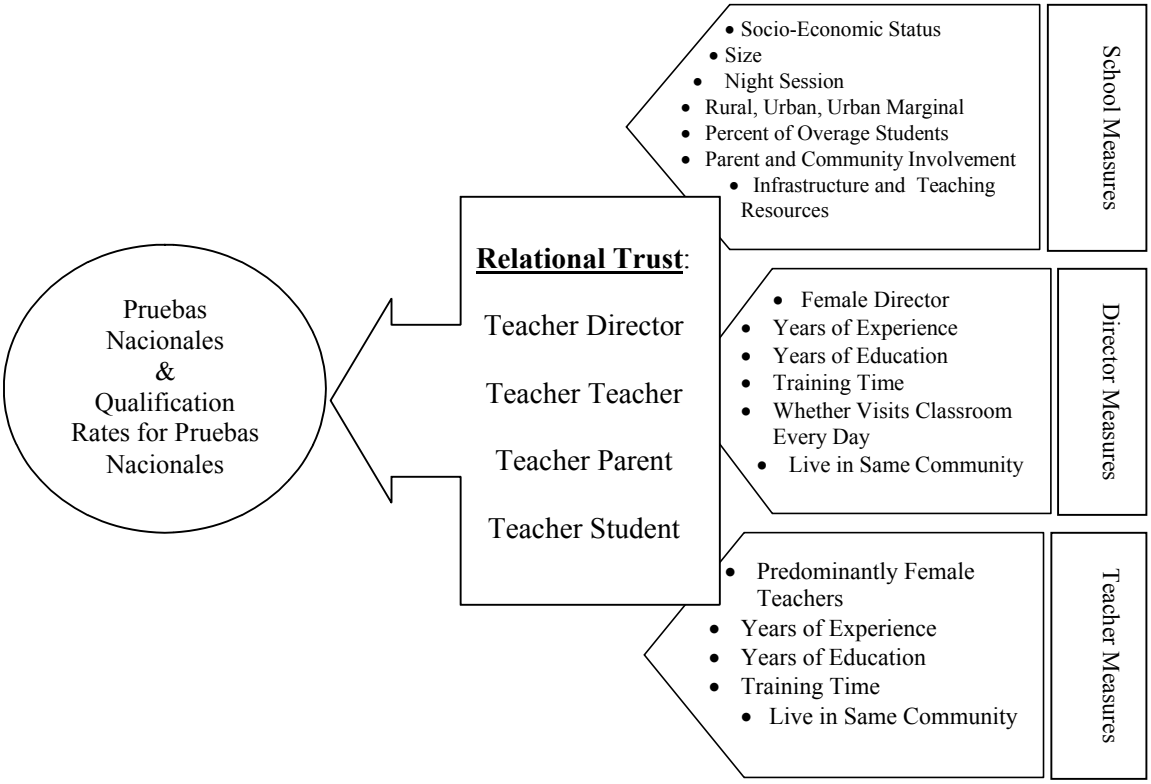

Figure 1: Model for Examining Trust

The second question asks how much school trust is related to school effectiveness in Dominican secondary schools. Controlling for school, director, and teacher characteristics, schools with higher levels of trust between director and teachers, teachers and teachers, teachers and parents, and teachers and students, will have 1) higher Prueba Nacional scores; and 2) higher Pruebas Nacionales qualification rates. When relationships between teachers and other stakeholders "are characterized by trust and schools are characterized by

academically supportive norms, social relations have the potential to help students achieve academic success" (Goddard, 2003, p. 70). If all teachers trust and respect each other, then "high expectations for students can produce behavior that is consistent with those expectations and may lead to desired educational outcomes" (Carbonaro, 1998 p. 296). Or as believed by Morgan and Sorenson (1999), "[h]eterogeneous flows of information into a community enable parents and other adults to increase student effort by directing students' attention toward higher standards of achievement, successful role models, and desirable positions in society" (p. 674).

Data Sources & Sample

The study utilizes data collected by the researcher in February 2007. The survey was based on a nationwide sample of secondary schools. According to the SEE there are 822 secondary schools[3]. From the original list of schools obtained from the SEE, "tevecentro" (distance learning) and poli-technical (different curriculum; have to apply to enter) schools were eliminated from the sample, resulting in a sample size of 698 schools. A random sample of 15% of these schools was taken (n = 105).

From this list of 105 schools, the sampling frame of 80 schools was drawn (the remaining 25 schools served as back-up if one of the 80 was unavailable). Seventy-eight schools were eventually surveyed, including each director and a sample of teachers from each school, resulting in a 98% response rate. This sample represents approximately 11% of the schools from the population that fit the criteria for inclusion in the sample. By randomly choosing from the total number of schools that fit the criteria of inclusion, the sample was derived in such a way that it is representative of the population of public secondary schools

[3] The number of actual school buildings is much lower as many sessions share one infrastructure.

in the Dominican Republic, and as described in Chapter V many of the descriptive findings coincide with the literature on this education system. It was critical that this study used a random and large enough sample, because as Goldstein (1997) states "estimates for individual institutions are relative" and "if the comparison group is not representative of the population, then it is difficult to interpret individual estimates" (p. 372).

This study investigates levels of relational trust by asking teachers specific questions on what they perceive are the levels of trust, respect, and obligation felt within the school. When designed well and used correctly, according to Nardi (2003), surveys are confidential instruments that can collect data on attitudes, opinions, and large population characteristics. Surveys also tend to be more time and cost efficient than interviews and other data collection methods (Nardi, 2003). There are, however, several drawbacks to the survey methodology. Tourangeau et al. (2000), for example, examine the psychology of survey responses, describing how survey respondents comprehend questions; recollect memories, especially ones regarding times and durations; and react to being asked about sensitive topics. Tourangeau et al. maintain that these factors, if not accounted for, may affect the validity of the data. The surveys used in this study were piloted and reviewed several times to ensure that the language and grammar were correct, concise, and easily understandable. One concern is that the surveys asked directors and teachers about sensitive topics, including how they felt about their fellow co-workers. The respondents may have tailored their answers due to a social desirability of responses or because they were afraid to offend. To help alleviate this tension, the respondents were assured that their answers would remain confidential.

The surveys gathered data necessary to satisfy the models. These include school socio-economic status (SES), director and teacher characteristics, and levels of parent and

community participation. The data for the school performance variables (i.e., PN scores and PN qualification rates) were obtained from the SEE directly from the Offices of Pruebas Nacionales and the Office of Education Statistics, and were already aggregated to the school-level. Survey instruments were designed based on the relational trust questions presented by Bryk and Schneider (2002), with adjustments made for applicability to the Dominican context (specifically, translation into Spanish). To better ensure that the survey instrument would be valid and reliable for the Dominican sample, the instruments were piloted, and qualitative methods were used to ensure that questions were not misleading, and were understandable and applicable to the context. Survey questions are provided in APPENDIX B.

In the final sample of this study, there were 592 total participants; 514 teachers and 78 school directors; and an average seven teachers per school, ranging from three teachers per school to thirteen teachers per school, though the majority of schools had between five (13 schools) and eight (20 schools) teachers' responses. The average teacher response rate per school was 58 percent, ranging from 12 to 150 percent. These rates were calculated by dividing the number of teachers who participated in the survey by the number of teachers who taught in that school as reported by the director. There may have been some discrepancy in the reporting by some directors. For example, in the case of the school with a 150% response rate, more teachers filled out the questionnaire than were reported as employed by the director.

Methods

Table 1 in Appendix A includes a brief description of all the variables measured, including the original question presented in the surveys and how they were coded and recoded to be used in regression models.

Because there has not been much research conducted on secondary education in the Dominican Republic, the study could not rely on past research findings to develop school effectiveness models specific to this context. The study at first spread a wide net to ensure that data on a varied set of variables was collected. Using analysis of some policy research from the SEE, IADB, and World Bank[4] (e.g., Alvarez, 2004; SEE, 2000 & 2003; Piñeros & Scheerens, 2002), the study took a more exploratory role, trying to garner a clear understanding of what is occurring in these schools and what variables prove important and significant in regression models. For instance, Bryk and Schneider (2002) did not collect data on the infrastructure levels of urban Chicago primary schools under the assumption that most schools in the United States have a minimum standard of school infrastructure. However, the situation in the Dominican Republic is quite different: many schools do not have electricity or sanitary facilities, among many things, and one cannot suggest that the state of infrastructure (or its lack) does not significantly influence a student's learning in that structure. Because of the variability of facilities in the Dominican Republic, the state of infrastructure is a key measurement necessary in order to statistically examine the Dominican education system.

Data were gathered to provide valid and reliable descriptions of the above-mentioned characteristics, and then correlated with positive school outcomes with particular school, personnel, parent, and student characteristics. Because of time and funding constraints, this

[4] Their work is more fully discussed in the following chapter describing the Dominican education context

study used a cross-sectional as opposed to experimental design, one that attempts to establish statistical associations between the independent and dependent variables. The school effectiveness literature (including, Scheerens, 1992 and Goldstein, 1997) has moved away from cross-sectional designs to multi-level, longitudinal studies, which are believed to better capture "all the features of schools" as it is "increasingly recognized that institutions, or teachers within them, should be judged not by a single 'cohort' of students but rather performance over time" (Goldstein, 1997 p. 371). Nevertheless, since relational trust is being measured for the first time in the Dominican Republic, any information on its association to student achievement and school effectiveness is likely to prove useful to schools and the SEE. These results can then help cultivate relational trust through policy design.

To measure how relational trust affects student achievement and internal efficiency rates, data were collected and analyzed using standard multivariate regression, including in the model other school factors such as school, teacher, and director characteristics. Because the units of analysis for relational trust are schools, aggregate measures for all the variables were gathered, including characteristics of directors, teachers, parents and the student body. It must be mentioned that using aggregate measures in this type of model limits my ability to estimate effects on individual students and "doesn't allow us to study whether relationships are the same for the different kinds of students, whether they vary from school to school, or how well student achievement can be predicted from a knowledge of intake achievement and other factors" (Goldstein, 1997 p. 386). Because information may be lost by aggregating to the school level, the study only looks at gross associations between the variables; this type of

broad brush explanatory analyses is justified in this occasion because the Dominican population has not been studied.

The PN is a curriculum-based exam given at the completion of the 12th grade. Though the data for the independent variables were collected for the 2006-07 cohort, PN scores and PN qualification rates are from the 2005-06 cohort. Though this situation is not ideal, it is the only option because of timing issues. However, the concern with not using achievement data from the year the school data was collected is minimized in view of the fact that secondary systems and disadvantaged students are found to have more consistency and stability across cohorts on achievement (Bosker and Luyten, 2000 and Scheerens, 2000). This analysis helps illustrate what is correlated and perhaps is characteristic of the variability found in school effectiveness. Since the sample size is 78 schools, the variables were parsimoniously selected in order to maintain an adequate number of degrees of freedom and to ensure that the statistical results were valid.

Other Limitations to Analysis

There are a number of limitations to the analysis, ranging from statistical drawbacks to issues with the research design itself. Because the study uses 4th grade[5] PN scores and qualification rates from the previous year the director and teacher data were collected, it is important not to underestimate the effects of eleven years of schooling before the final year. Students' scores can perhaps vary by the different classes, teachers, family backgrounds, different primary schools, etc., and it is important to realize the importance of the "cumulated impact of teacher characteristics, school resources, and classroom conditions" (Carnoy et. al. 2005, p. 250). However, because of the limitations of a cross-sectional study, these

[5] The equivalent of 12th grade test scores in the United States.

predicaments affect results and must be divulged. A longitudinal study, if resources were available, would better capture the situation. Nevertheless, the study hypothesizes that relational trust, as a variable, is fairly constant, especially if the director and teachers have been in the school for an extended period of time, and a sense of community has been fostered. As a result one can suggest that if the student has been at a particular high school for his/her entire secondary career, his/her achievement scores and PN qualification will reflect the impact of relational trust and atmosphere, if they are in fact associated. However, the large number of students who drop-out and re-enter may exacerbate error levels.

Moreover, trust is an elusive variable to measure. One possible problem is the halo effect caused by multicollinearity, or that schools that are doing well academically might also be schools with more trust or vice versa. This study cannot define causality between the relationships found between trust, school effectiveness, and school, teacher, and director characteristics, only that they statistically exist. Spuriousness may be a concern as well: schools with higher parental involvement rates may be responsible for any observed association between trust encountered between teachers and parents and school performance outcomes (or, parents who interact more with schools may develop more trust with teachers).

The study may not have included sufficient or the proper variables to measure the system, and the results may suffer from omitted variable bias; another concern is that the sample may not be big enough. Finally, since multi-level modeling is not used, some of the variance found between teachers and schools is left unexplored. Other limitations of analysis result from aggregating data to the school-level for use in regression analysis, including aggregation bias, misestimated standard errors, or heterogeneity of regression among groups (Raudenbush and Bryk, 2002).

CHAPTER IV

BACKGROUND

Historical, Social and Economic Context

The Dominican Republic in the Caribbean Sea has more than 8.2 million inhabitants and shares the island of Hispaniola with Haiti. The highest concentration of poor residents in the country exists in the northwest and southwest regions (otherwise known as the "frontier"), with 1.3 million poor living in rural areas. The 1980s are known as the "lost decade" in Latin America. During that time, the region was plagued with negative economic growth and the wealth gap increased, compounding the social chasm that was already so apparent. The impact of this economic downturn on the Dominican Republic was especially harsh.

In the Dominican Republic external debt grew to over $4 billion and inflation rates reached three digits by 1990. The price of traditional exports (sugar cane, coffee, cocoa, and tobacco), which represented eighty percent of exports, significantly decreased. Between 1983 and 1989, the proportion of poor increased from 46% to 57%. Public social expenditure decreased from 5% to 3.5% by the end of the decade. The system of education was also in dire condition by the late 1980s. Education expenditure decreased from 2.7% of the Gross National Product in 1970 to .8% by 1990. At the same time, the illiteracy rate was approximately 25% among the population 10 years and older. The rate of repetition of first and second graders was one of the highest in the region (approximately 3 out of 10 children were repeating the first grade). In addition, teachers, upset over dismal salaries and working

conditions, were leaving the profession in droves and teacher training institutions were closing because of lack of interest in the field (compiled from Alvarez, 2004 and SEE, 2003).

Since the early 1990s, the Dominican economy has grown rapidly, with an average growth of 5.6% per year—the third highest rate in Latin America and the Caribbean (Alvarez, 2004). The economic system has changed over time as well, moving from an agrarian based system to one rooted in the tourist industry, industrial free zones, telecommunications, construction and business (SEE, "Strategic Vision," Volume 2, *Plan Estratégico de Desarollo de la Educación Dominicana 2003-2012*, Santo Domingo: April 2003, p. 23). Leaders in the Dominican Republic realize that they must alter the secondary education system, since the shifting economy needs better educated workers to successfully participate in these new fields of endeavor.

The Plan Decenal, 1992-2002

The outcomes of education reform in the 1990s affected the landscape in which the new Dominican Strategic Plan acts, and should be briefly discussed. During the early 1990s various governmental and civil society groups from the local, regional, and national levels of society, upset over the state of education in the Dominican Republic, started collaborating to create a ten-year education development plan (SEE, *Plan Decenal de Educación 1992-2002*). The end result was a plan that sought to reform the entire educational system, including access to and quality of education, curricula, teacher professionalization and status, and financial resources.

The Plan Decenal objectives included:

- changes in access and attendance;

- improved educational quality, relevance, and appropriateness vis-à-vis social and regional requirements through curricular reform;
- increased levels of competence and efficiency in the SEE and its decentralized bodies;
- increased organized involvement on the part of society, the community and parents; and finally
- redesigned resource allocation procedures to increase funds invested in education and to seek out contributions from new sources (Sanguinetty and Fernandez, 2000).

The Plan Decenal reform effort had mixed results, with some positive achievements, but also some distinct failures to meet the stated goals. Among its successes were significant improvements in access to education, especially at the primary education level; the development of a new curriculum; improvement of teacher conditions; and the implementation of the Pruebas Nacionales, thus theoretically adding a level of accountability and transparency to the education system. Nevertheless, rural education did not improve significantly, decentralization did not progress adequately, and secondary education continued to be severely neglected (Sanguinetty and Fernandez, 2000).

Perhaps one of the greatest successes of the Plan Decenal was the approval in 1997 of the General Education Law No. 66. The Law was designed to 1) organizationally retool the education system; 2) strengthen community involvement in school management; 3) facilitate the creation of decentralized administrative structures (i.e., to the regional, district, and local levels); and 4) attack the subject of financing and quality of education (SEE *Plan Estratégico de Desarrollo*, 2003). The SEE based its 2003-2012 strategic plan on the framework delineated in this law.

Current Secondary Education Situation

With the implementation of the Plan Decenal in the 1990s, primary education enrollment and completion rates increased, leading to an influx of students in secondary schools. Table 1 shows the increase in all levels of education from 1996-2002. The increase in education coverage in the Dominican Republic in the 1990s revealed many discrepancies in the secondary system, including issues related to infrastructure, internal efficiency, and school management.

Table 1: Enrollment by Level from 1996-97 to 2001-02

Level	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02
Initial	189,085	190,541	195,346	207,994	219,553	194,256
Primary	1,360,044	1,492,772	1,548,573	1,608,640	1,643,941	1,687,572
Secondary	313,840	329,994	346,001	370,952	398,924	444,035
Total	**1,862,969**	**2,013,307**	**2,089,920**	**2,187,586**	**2,262,418**	**2,325,863**

Source: SEE, "Situación de la Educación Dominicana al 2002 Volumen 1," *Plan Estratégico de Desarollo de la Educación Dominicana 2003-2012*, Santo Domingo: April 2003

The secondary education system in the Dominican Republic is composed of four grades divided into two cycles, two years each. In 2003, there were 719 public secondary school centers that worked out of 565 school buildings. The total number of classrooms was 6,779. The average number of students per classroom in the public sector was 47.3. The problems most cited in secondary schools were lack of classrooms, large distance to schools, teenage pregnancies, drug use, classrooms in disrepair, lack of transportation, and schools offering only night sessions, mostly in primary school buildings (SEE, 2003).

In 2003, 75 percent of students in secondary school attended public schools, and 87 percent of public secondary coverage was located in urban areas (see Table 2). This was partly due to the fact that approximately 70 percent of rural children leave basic education before finishing (versus 20 percent of urban children). In addition, the secondary education

system was seriously under-funded over the previous couple of decades, with schools receiving almost no resources for materials from the central government. To exemplify, the real cost per primary student in 1999 was $135, whereas secondary students received $97 (Alvarez, 2004).

Table 2: Public Sector Enrollment by Level and Area, 2003

	Urban	%	Rural	%	Total
Initial	155,679	70.90	63,974	29.09	219,553
Primary	1,024,200	62.30	619,741	37.69	1,643,941
Secondary	345,970	86.72	52,954	13.27	398,924
Total	**1,525,849**	**67.44**	**736,569**	**32.55**	**2,262,418**

Source: SEE, "Situación de la Educación Dominicana al 2002 Volumen 1," *Plan Estratégico de Desarollo de la Educación Dominicana 2003-2012*, Santo Domingo: April 2003

Infrastructure**.** Secondary school enrollment increased 60 percent between 1993 and 1998. This tremendous demand for secondary education placed stress on the existing secondary school infrastructure, resulting in overcrowding and lower internal efficiency rates (i.e., increased repetition and drop-out rates). In addition to the stress on existing structures, data from the SEE indicates that the secondary system in the Dominican Republic is plagued with a lack of infrastructure:

- 60% of secondary schools were housed in primary education buildings in 1999;
- 33% of secondary students attended night sessions in multi-session schools;
- 55% of primary schools shared their buildings with secondary schools;
- only 182 buildings were pure-use secondary schools;
- ½ of the mix-use schools were located in urban areas; and
- close to 70% of secondary students in urban mix-use buildings attended classes with more than 45 students (SEE, 2003).

In 2003, the SEE estimated that approximately 22 percent of secondary schools needed expansion, restoration, and/or better maintenance (SEE, 2003).

Efficiency**.** According to the Inter-American Development Bank (IADB), the education system in the Dominican Republic has one of the worst internal efficiency rates in the Latin American and Caribbean region. One of the factors contributing to this is education in the rural context, where fewer than 60 percent of 6-7 year old children enter first grade on time and approximately 15 percent of students leave schools at each grade level annually (i.e., 60% of rural children finish 4th grade as opposed to 80% of children in urban areas). Only 10% of those who enter the first grade of primary school finish secondary school on time, and the inequities between rural and urban marginal zones continues to increase (Alvarez, 2004).

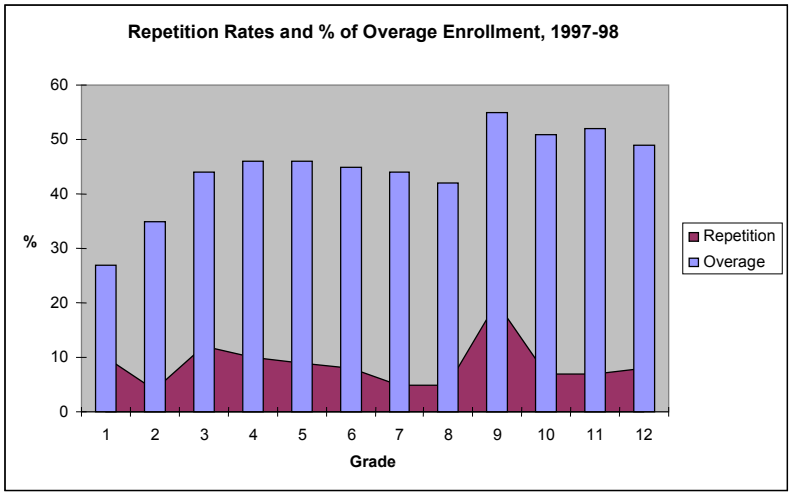

Figure 2 Repetition Rates and Percent of Overage Enrollment, 1997-1998
Source: Alvarez, Carola. "La Educación en la República Dominicana," IADB, 2004.

Over-age students are a serious problem in the Dominican Republic where many students drop out and then re-enter the education system. The highest number of over-age students in the system is found in the first year of secondary (Figure 2), producing a great heterogeneity of students with regard to academic competence, previous experience, and

physical and psychological development (Alvarez, 2004 p. 57). After dropping out students find that because of the shifting economy they are unable to find employment and they usually re-enter school. Though this is a positive situation for over-age students, the SEE has had to create accelerated curriculums and arrange summer courses for these students to enable them to advance to the level of students who did not drop out. The Dominican government loses approximately US$2.3 million per year on students repeating the ninth grade. It is estimated that more than 97 thousand students in secondary schools are not at the proper grade-age synchronization. Approximately 46% of students in secondary school are more than seventeen years of age (SEE, 2003).

Management. According to the IADB, the centralized school management system has impeded the local level planning processes: "the actual scheme limits the participation of the education community, consisting of parents, teachers, students, civil society leaders, in the development of activities" at the local level (Alvarez, 2004 p. 8). Similarly, the lack of management unification in mix-use buildings has also generated inefficiencies in school management. There is a lack of integrated vision partly due to the fact that each session in a school has its own director and its own administrative system. For example, when multiple cycle administrations are responsible for one building's infrastructure maintenance, it may be difficult to hold any one administrator responsible, resulting in lack of upkeep and general disrepair, not to mention the confusion and disarray that occurs when teachers and directors do not have their own offices, desks, or supplies, because they are shared by multiple sessions.

Completion of secondary school proves to be an important indicator of success in the Dominican Republic. The private rate of return of workers who finish secondary school is

12%, whereas workers who never finished school garner a rate of only 3.5%. In addition, approximately 62% of students who graduate secondary school are employed, whereas the employment rate for non-graduates of secondary school is 43% (SEE, 2003).

The SEE's Strategic Plan for 2003-2012

In 2002, the SEE released a new ten year plan, called the *Plan Estratégico de Desarollo de la Educación Dominicana* 2003-2012, or the Strategic Plan for Education Development. In three volumes, the plan describes the education situation (especially focusing on system failures), delineates the strategic vision for the next decade, and illustrates the plans for implementation, monitoring, and evaluation. Beginning in the early 2000s, the SEE started focusing its attention on management and decentralized organization issues. Originating during the Plan Decenal, this focus resulted in the creation of decentralized *juntas escolares* (school councils), which according to the SEE have led to successes that should be consolidated and amplified for the benefit of better education governance. Juntas are comparable to school boards, made up of the school director, representatives of teachers, parents, students, and the local community. According to the General Education Law 66'97, the education system needs to "transfer to parents, teachers, and the community an amplified quota of responsibility in the management of the education system and in the administration of the school" (SEE 2003, p. 46). If Juntas are the mechanism chosen to implement the current strategic plan, then school trust is an important factor that could allow the Juntas to work at their full capacity.

Improved school management is a key area according to the SEE, since there has been little improvement in that arena over the last decade. In 2003, few centers at the

secondary level showed independence, by developing Education Development Plans or creating the proper environment for stakeholder participation (local leaders, businesses, parents, etc.). The education sector is currently in the process of attempting to integrate these actors with the school center's management system. Currently, Juntas are in the developmental stage, with the end result of granting greater autonomy to the schools and the education community.

According to the strategic plan, the SEE intends to reach a net enrollment rate of 60% in secondary education by the end of the ten-year period in 2012. The SEE also plans on increasing promotion rates and decreasing repetition and desertion rates: regulating school flow by reducing desertion rates to equal or less than 4% and repetition rates to equal or less than 2%; and elevating promotion rates to at least 95% (SEE, 2003).

Within the mechanism of the Multiphase Project for Modernization of Secondary Education, and using loan funding from the IADB, the SEE aims to improve the quality of secondary education, focusing primarily on access and internal efficiency levels. The access components of this project include optimizing infrastructure by rehabilitating 480 classrooms and building 450 new ones. The project aims to reduce the desertion rate in 10^{th} and 11^{th} grades, and lower the repetition rate in 9^{th} grade. Other goals include minimizing the number of night sessions and increasing the cohort graduation rates. Between 2003 and 2007, the SEE planned on creating 521 decentralized juntas and having them create Education Development Plans specific to their school, focusing on quality issues. During that period, the SEE also planned on transferring funds to the 521 juntas to purchase education materials, furniture, and for infrastructure maintenance. To support this, the SEE intended to train approximately 470 school directors in education management (IADB Report, 2000).

Another way social capital is facilitated in society is through civil society or social organizations, which can take the form of voluntary organizations, associations, clubs, and student groups (Putnam, 1995). There are conflicting views on the amount of civil society capacity developed in the Dominican Republic. With a long history of military and authoritarian government, civil society has been slow to develop. However, some schools in the Dominican Republic have very strong traditions of parental involvement and parent teacher associations in the schools. With the central government failing adequately to fund the secondary system, many schools have had to raise their own funds through parental and community volunteerism. For example, some secondary schools have parent-run kiosks and bake sales or organize donation campaigns in order to raise funding for basic school necessities, such as chalk and cleaning supplies. These are examples of "multiplex" relationships (Coleman, 1988 s109), which result in responsibilities and obligations ending up in one "pot" that is shared by the participants. Donations and money raised are not used for the individual, but put towards the school as an entity in itself.

A large component of the current strategic plan involves the central government directly providing funds for books, infrastructure, maintenance, and rehabilitation or expansion of the schools. Previously, the central government mainly funded teacher salaries at the local school level. Secondary schools had generally been responsible for raising their own funds, typically through local community involvement (as mentioned above). However, these fundraisers, which do not occur on a regular basis at all secondary schools, have failed to provide adequate or stable funding. Under the new managerial model, the SEE delegates a series of functions to the schools to provide incentives for pedagogical innovation and optimal use of educational inputs at the school level. Relational trust may be especially

significant in this atmosphere, as it may help to compensate for deficiencies in material resources and human capital in poorer schools.

As described above, although the Dominican government has made substantial attempts in recent years to improve the equity and quality of primary and secondary education, there still exist many concerns in the system. These include overcrowded and deteriorated infrastructure, problems with internal efficiency, and concerns about management at both the local and national levels. This study examines some of these issues (e.g., overcrowding and state of infrastructure) to determine whether they may be associated with high or low performing schools, and evaluates the role of relational trust as well.

CHAPTER V

SAMPLE SCHOOLS

In order to assess the role that trust may play in the Dominican secondary education system, it is critical to have an understanding of the sampled secondary schools. This chapter includes data on school level characteristics and provides profiles of the sampled directors and teachers.[6]

School Level Characteristics

A typical Dominican secondary school has an average of 15 teachers and 42 students per classroom. The average school size is 550 students. Although the majority of schools fall between 100 and 600 students, only a few very large schools were included in the sample. There are an average of 93 4th grade students (Dominican "seniors") per school; and almost a third of these students are overage, or not at the proper age-grade synchronization (i.e., more than 17-18 years old in senior year). Most of the directors surveyed said that their school building was shared by at least two or more sessions (Figure 3), attesting to the lack of school buildings necessary to meet the need of increased demand for secondary education in the Dominican Republic and confirming what was stated in the Dominican context chapter. Heavy use by multiple sessions can lead to faster deterioration in infrastructure and the need for additional maintenance.

[6] For a detailed look at variables examined here and collected in the study, including N, minimum and maximum values, mean, and standard deviation, review Table 1 in APPENDIX A.

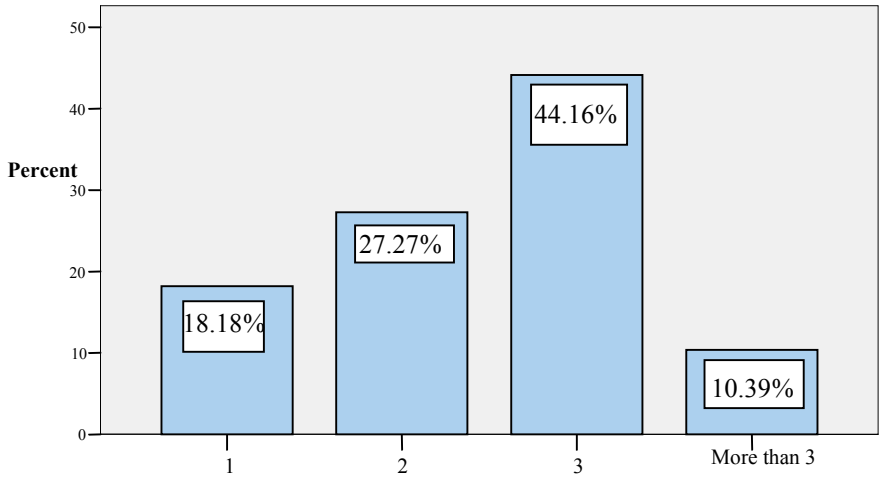

Figure 3: Number of Sessions Sharing Sampled School Buildings

As reported by directors, the average annual repetition and desertion rates for the sampled schools in the 2005 school year were approximately 6% and 4.5% respectively. The reliability of these statistics may be questioned however, as they are only director-reported estimates, not official rates. However, without a national student tracking system, official SEE rates may also be misleading since there is no way to determine whether a student dropped out of one school and entered another or dropped out of the system entirely.

The socio-economic status of the students in the studied schools, as perceived by the director, is predominantly low to low-middle: 44% and 49%, respectively. Since the middle and upper classes of Dominican society (or anyone who can afford it) send their children to private schools, it is not surprising that only 8% of the schools studied were characterized as "middle class." The demographic zones of the schools were varied as well, with 27.5% of

the schools located in rural areas, 12.5% in urban marginal zones, and 60% in urban areas. These data coincide with population data, which place 87% of public secondary school enrollment in the Dominican Republic in urban areas (SEE, 2003).

Only 14% of the schools sampled received private industry support or participation. Of those, only 18% noted that the support or participation came in the form of adoption by a private sector entity, which then provides funding to the school. Almost all of the schools have a *junta escolar*, and the majority of directors rated its functioning as fair to good. This indicates that the SEE has successfully created juntas in each school session as per their strategic plan. If trained and guided properly, juntas can function as a mechanism to promote the types of relationships within the school environment that foster trust and feelings of respect and collaboration.

Parent Participation Scale. Dominican schools appear to have very low rates of parent participation. The majority of directors pulled reported that fewer than 25% of parents were involved in a variety of school related activities, ranging from teaching and learning to financial support (Table 3). When they choose to participate in school activities, parents focus more on fundraising activities, including holding raffles and running kiosks on school grounds to raise funds, and directly donating to the administration. This demonstrates some willingness on the part of parents to support their children's schools. This willingness could be utilized by the SEE in a more substantial or subsidized manner, perhaps through the Junta Escolares, or by creating incentives, like matching grants, to further parental participation.

Table 3: Parent Involvement in Sampled Schools

Parent Involvement in:	Percentage of Directors Responded:			
	Less than 25%	**25 to 50%**	**51 to 75%**	**More than 75%**
Teaching and Learning	60.53	21.05	11.84	6.58
Other School Activities (e.g. cleaning and school maintenance)	65.33	22.67	5.33	6.67
Other Support Activities (e.g., raffles, kiosks, education materials)	58.67	26.67	13.33	1.33
Budget Support & Donation	56.76	20.27	12.16	10.81

Community Participation Scale. Directors were asked to answer whether the local community as a whole had collaborated with the school in a variety of ways, ranging from donating land to helping with school fees. Most schools did not have high community involvement, with the schools scoring a mean of 0.28 on the scale (from 0 to 1). Table 4 presents the response rate for each item within the community participation scale. Though all of the scale items were related to donations of time, labor, or money, some were more common than others. In the sampled schools, community participation most often takes the form of school fee donations, with 42% of directors claiming that their school has experienced this interaction. Other cash donations and free minor repair labor around the school are the second most frequent types of community participation. The results show that communities are indeed interacting with some schools, helping to alleviate financial constraints and maintain school infrastructure.

Table 4: Community Participation Rates in Sampled Schools

Community Participation In:	Percentages	
	No	**Yes**
Free construction labor	77.63	22.37
Donate buildings	93.42	6.58
Donate construction material	77.63	22.37
Free minor repair labor	**63.16**	**36.84**
Donate land	**65.79**	**34.21**
Constructs railings and floors	85.53	14.47
Cash donations	**63.16**	**36.84**
Donates equipment and materials	71.62	28.38
Donates school fees	**57.89**	**42.11**

Infrastructure Scale. To better understand the status of a school's physical facility, directors were asked to indicate whether 1) their school had one of fourteen infrastructure items and 2) in what condition the item was. "Good condition" indicated that the item did not need repair/improvement; "fair" meant it needed minor repairs/improvement; and "poor condition" items needed vital improvement. Though many schools reported satisfactory levels of infrastructure, several elements of the scale are worth noting.

Figure 4 illustrates the condition of classrooms in many Dominican secondary schools. Only 38% of directors reported having classrooms that were in good condition. Approximately 30% of classrooms were in fair condition; while the remaining 33% of schools did not have enough classroom space for their students or the space was in poor condition. Due to an increased rate of secondary enrollment in a system that does not have sufficient infrastructure to house it, this reported lack of classroom space and poor classroom

conditions is one of the most critical issues the SEE may need to address to facilitate increased student rendition and maintained enrollment.

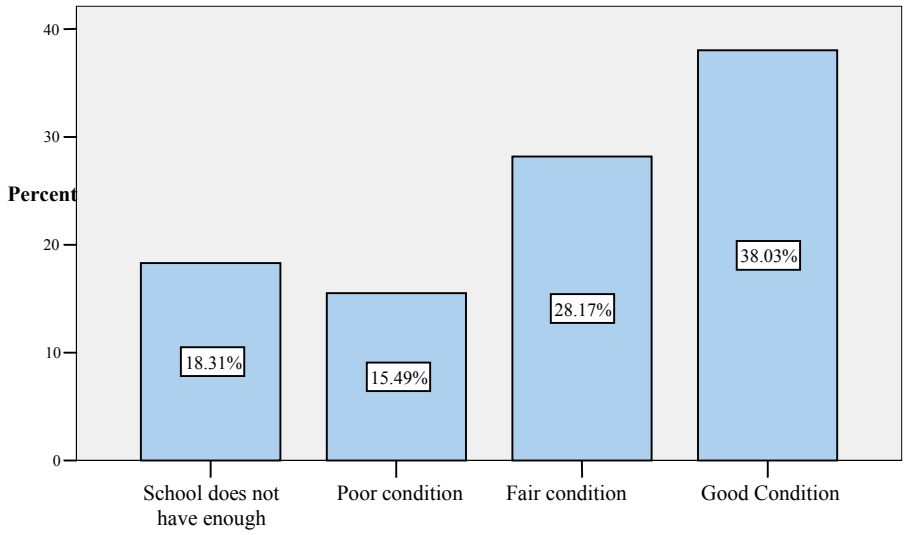

Figure 4: Condition of Classrooms for Students

Most directors report that the furniture for students (69%) is in fair to good condition. However, the majority of schools (46%) do not have enough furniture for all their teachers, which included chairs, tables, and desks. Even if teachers have enough furniture, there is still the lack of continuity that exists between sessions. Teachers must bring their own books, supplies, etc. from home; and there is usually no space for teachers to store these supplies at the school, with the consequent effect this has on teacher effectiveness.

Not surprising for a developing country, one problem in Dominican schools is the lack or poor quality of utilities, including electricity, water, and telephone services. Figure 5 displays the directors' ratings of these main utilities, ones whose services and functions

cannot be underestimated. The electricity service in the Dominican Republic is tenuous at best, with many black-outs throughout the day. Many homes and businesses own generators to alleviate the situation, as seen in a school in San Cristobal which I visited at night. The community was without electricity, but the classes were held with the use of a small generator. Lack of electricity may pose a considerable impediment to teaching and learning, especially in night sessions, where without electricity or a generator, nothing can be accomplished. One tenth of schools reported not having electricity service and only 17% reported their electrical service as working well.

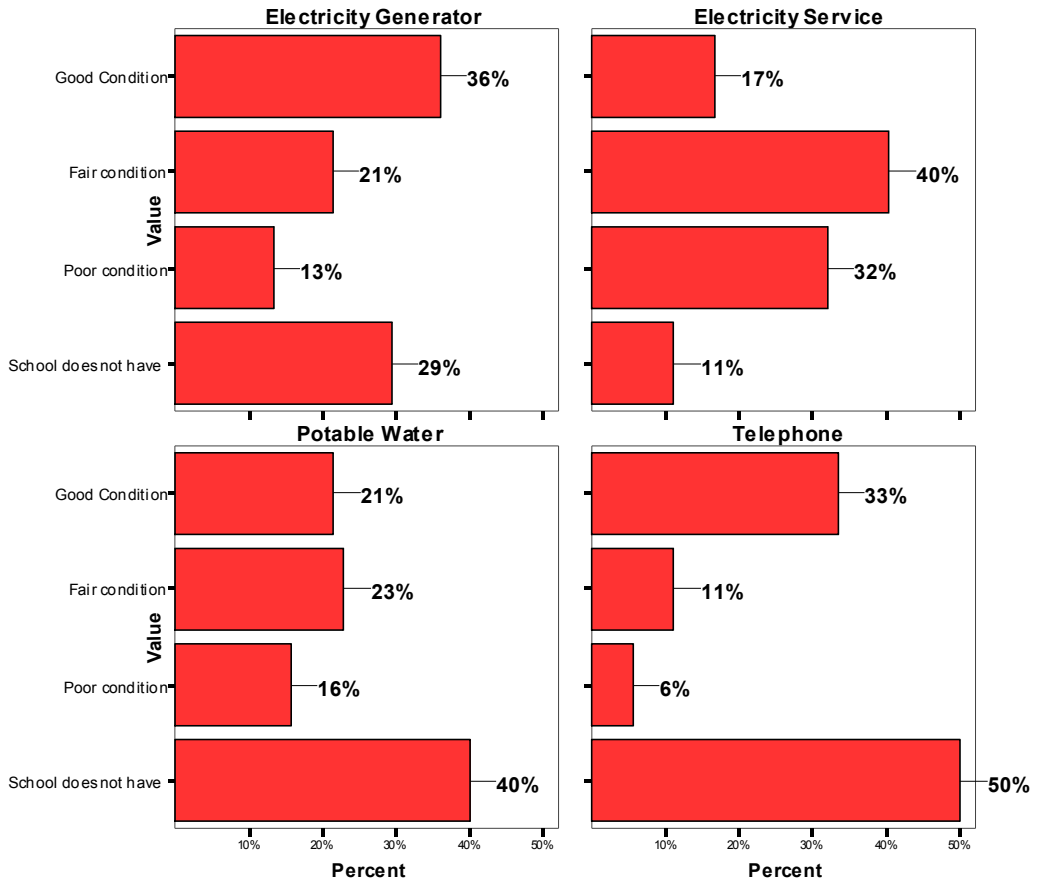

Figure 5: Utility Ratings of Sampled Schools

Forty percent of schools visited did not have potable water. Another noteworthy utility lacking in Dominican schools is telephones—50% of schools lack a telephone. To contact directors, one must call a house nearby, who will relay a message to the director for you. In some cases, directors also use personal cell phones for official business. This poses difficulty in communication with the school, as was experienced by the researcher and her survey team. In many cases the only way to contact the director is to visit the school in person, sometimes to find that the director is not there or the session has been cancelled. Many of the schools' contact information was out of date in the SEE's central database, leading to doubts regarding the ability of the central office to communicate with schools.

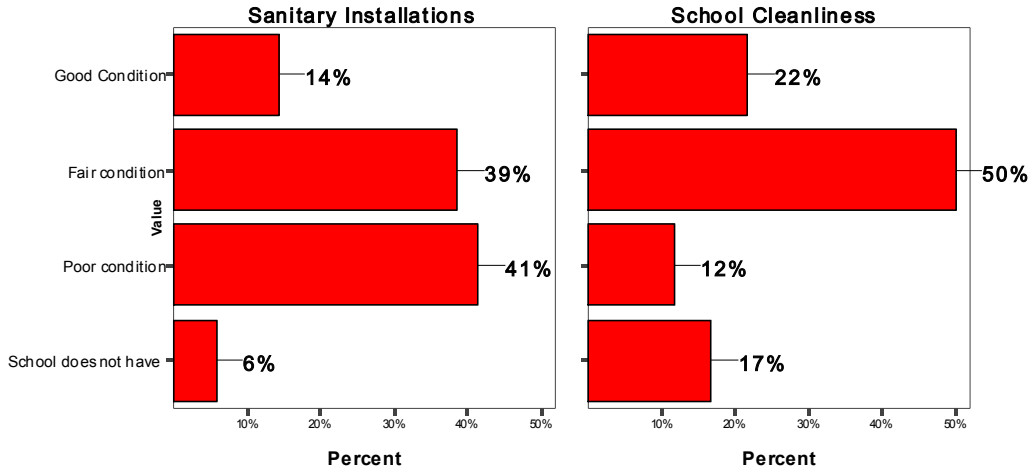

Figure 6: Sanitary and Cleanliness Status

Another important element of a school's infrastructure is its sanitary and cleanliness status (Figure 6). Over 40% of the sanitary facilities in the schools sampled were in poor

condition: 39% were fair; 14% were good; and 6% of all the schools did not have bathrooms at all. School cleanliness was generally reported as fair (50%) and good (22%).

Space in a school, specifically for director and teacher use, may be a crucial aspect of a school's infrastructure, as it is necessary for the director to have an area to work and teachers to have space to plan lessons, communicate with fellow teachers and students, and have a corner of the school to place their belongings, have lunch or coffee, etc. About a third (32%) of directors claimed that their office was in fair condition; though almost a fifth of directors reported not having offices (Figure 7). The results also show that the majority of Dominican schools do not have teacher lounges. This is significant in that without a space for teachers to gather and communicate with each other, sharing lesson plans and discussing students, teachers may be missing out on important interactions that are necessary to foster relational trust. The researcher noticed on her various school visits that many teachers would arrive exactly on time or slightly late to class. Other teachers switched rooms between classes instead of having one classroom specifically designated to them.

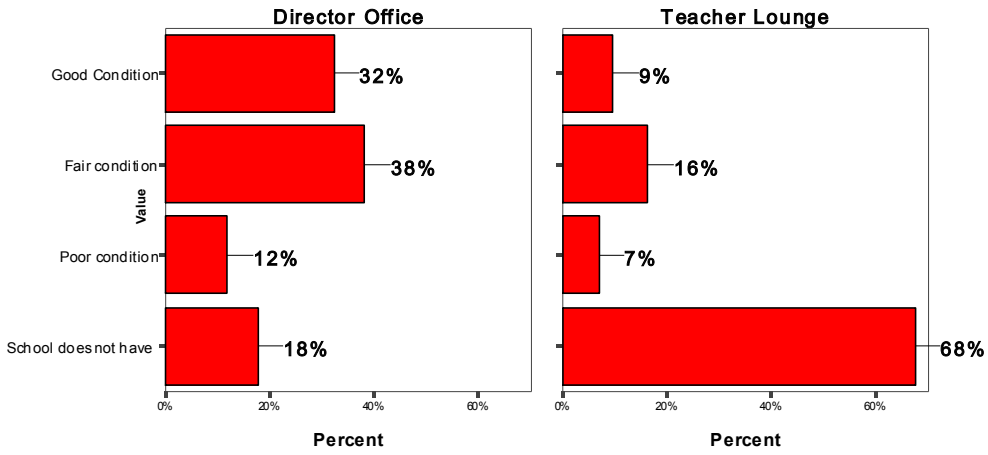

Figure 7: Personnel Space

When it came to infrastructure dedicated to teaching and learning resources, such as computer and science laboratories and libraries, the results were not promising (Figure 8). Over one third of schools did not have computer labs; half did not have science labs; and over half did not have libraries. One must wonder how Dominican secondary students are learning critical thinking skills, sciences, and information technology in schools that do not have the necessary infrastructure or resources to remain on par with other countries.

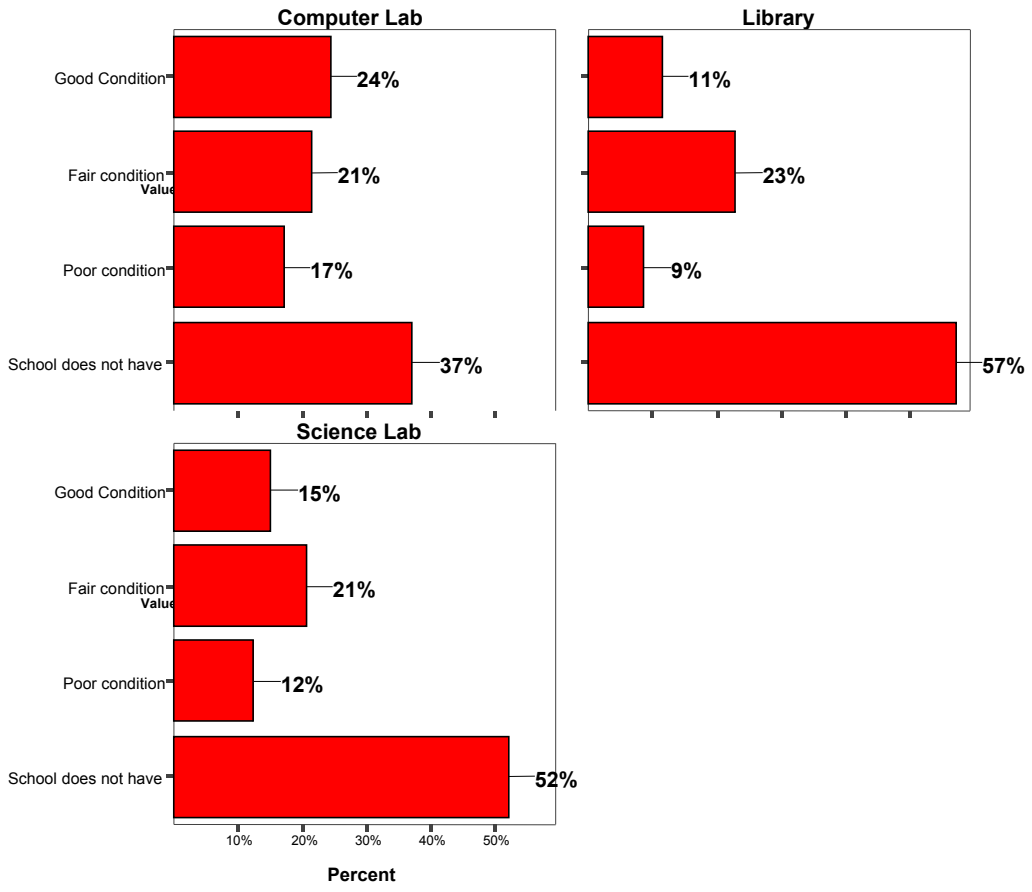

Figure 8: Libraries and Laboratories

Learning Resources Scale. Critical to teaching and student learning are resources designed to facilitate these processes, such as curriculums, guides, textbooks, and visual aides. The directors were asked to elaborate on the status of learning resources in their schools, reporting on a set of nine items, rating them as in "good condition" (did not need improvement); "fair" (needed some improvement); or "poor" (needed replacement).

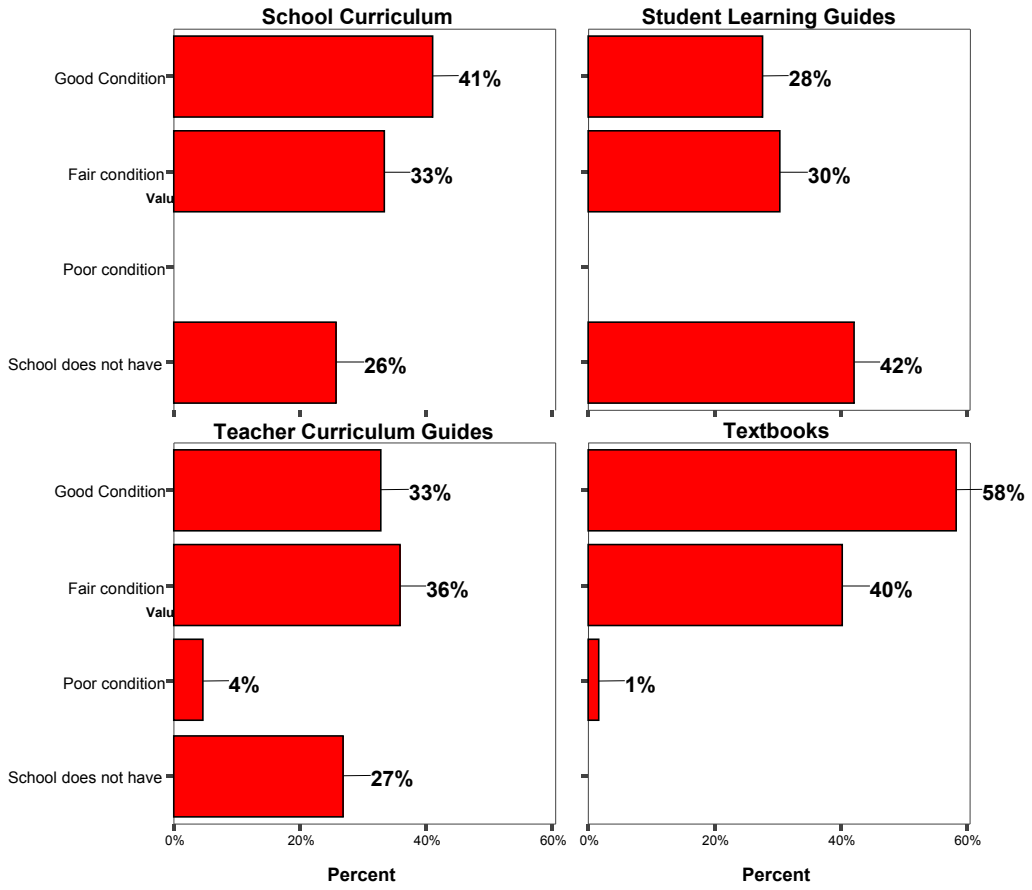

Figure 9: Learning Resources in Sampled Schools

Dominican schools appear to have better learning resources present in their schools than infrastructure. An encouraging finding is that the majority of the sampled schools are

supplied with sufficient textbooks in fair and good condition (Figure 9). The majority of schools also have a school curricula implemented and curriculum guides for teachers in use; still it is worth further investigation to discover why over a quarter of directors reported not having curricula or guides when these should be provided by the central office. In addition, over 40% of schools do not have learning guides to provide to students to aid in their learning processes. However, about half of the schools sampled have student learning guides in fair and good condition.

Most supplies of blackboards and chalk are in fair and good condition (43% and 40%, respectively). Over half of the schools do not have audiovisual (AV) equipment, and only slightly over 10% of schools sampled have AV equipment in good working order. Most schools (67%) do not have illustrations and/or diagrams to help with teaching. One third of the schools sampled have maps in good condition; another third have maps in fair condition; and only slightly over one tenth of schools sampled have maps in poor condition. The majority of schools sampled have globes in fair and good condition.

On a question asking directors to classify the general state of the school's infrastructure, one quarter of the sampled directors chose "poor," 40% "fair," and a third "good." Learning resources faired better, with resources classified as fair by 70% of directors, good by 19%, and bad as 11%. Directors describe the climate of their schools ("clima escolar") as fair (47%) and good (51%).

Personnel Characteristics

Teacher and Director Demographics. This section discusses sex, age, years of experience, and education levels, among other characteristics, for both teachers and directors in the sampled Dominican schools. To begin with, teachers are equally divided between female and male, as are directors (55% male). The majority of teachers sampled are between the ages of 30 to 39 years (34%) and 40 to 49 years (37%). Approximately 14% of the teachers are under age 30. Most directors are between the age of 40 and 49. Teachers at the schools sampled have worked an average of thirteen years; and spent slightly over six years at their respective schools. The directors sampled have been directors for an average of approximately ten years, and directors have been at their schools an average of seven years.

Figures 10 and 11 show the gap in years of experience between directors and teachers in the Dominican secondary schools sampled for this study. The results indicate that the education system may be experiencing an influx of new/inexperienced directors, with 32% of all directors having worked under five years.

Still, the majority of directors have between 6 and 20 years experience. Though there are 18% new teachers, the majority of teachers have worked over five years and a full fifth of teachers have over 20 years of experience.

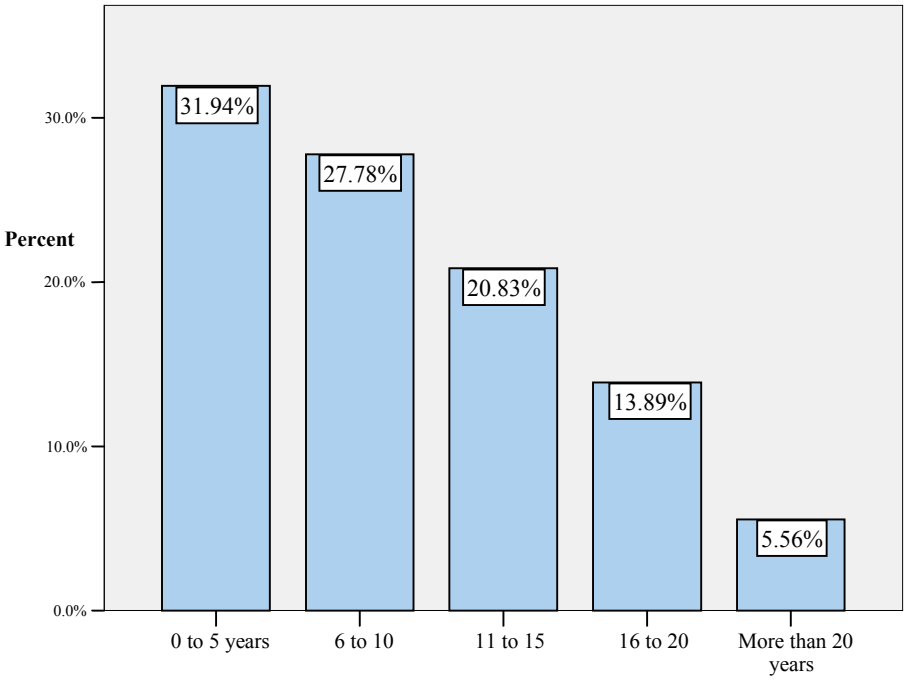

Figure 10: Years of Experience—Director

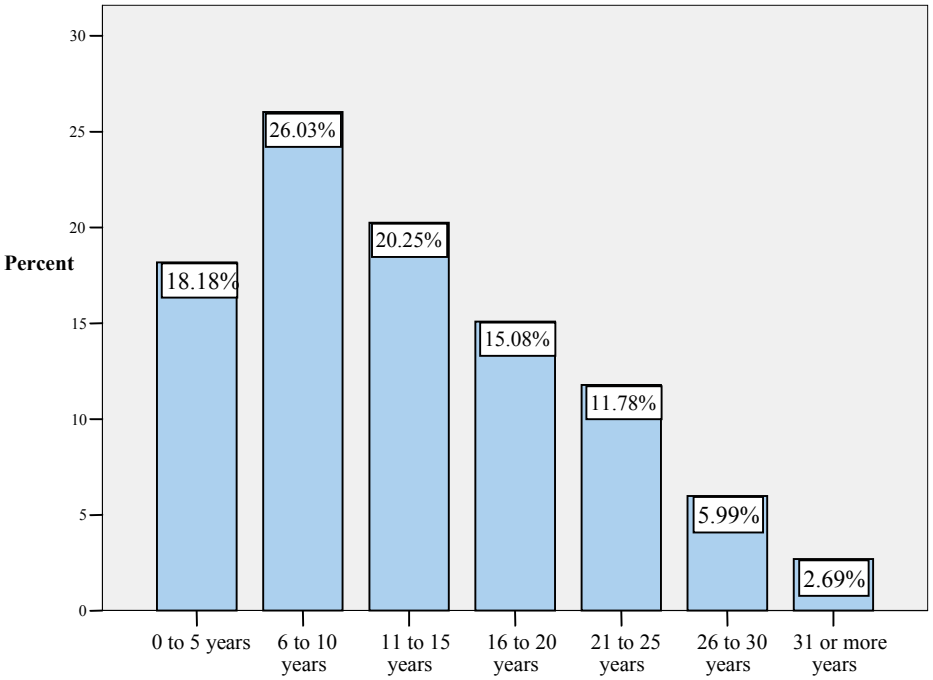

Figure 11: Years of Experience—Teachers

Approximately half of the teachers sampled work morning sessions, 30% afternoon sessions, and 24% work nights. About 40% of the directors in the sample work the morning session, with the remainder split evenly between teaching in afternoon and at night. This sample is representative of the population: according to the SEE (2003) one third of all secondary students in the Dominican Republic attend night sessions.

The majority of teachers (70%) only teach at one school session (or tanda) in that school building, while the remaining third teach more than one session (e.g., morning & afternoon or afternoon & night). Only one quarter of the sampled directors work multiple shifts at the same school. The results of the poll indicate that most schools have a different administration with different teachers each session and support the similar findings of IADB (Alvarez, 2004) as discussed in Chapter IV.

It is hypothesized that interrupted management at the school level both engenders ineffectiveness and inhibits social interactions. How does one determine who is responsible for upkeep and maintenance when each session in a school building has a different administration? Unless directors work together to resolve issues of accountability for school maintenance, schools are apt to either mismanage funds by overspending on upkeep or to avoid the responsibility, causing the infrastructure and learning environment to suffer. In addition, each school session is only about four hours long—with time being spent moving and setting up (especially without lounges or personal space) between each session. This leaves little time for teacher-teacher or teacher-director or even teacher-student (outside of class) interaction.

In some cases, teachers float between schools. They may be full time teachers, but in two to three different school buildings. Short school sessions force many teachers and

directors to work outside jobs to supplement their income, either in the private sector or at other schools. Up to two-thirds of the teachers in the sample work other jobs, with 50% of those teachers allocating between 11 to 25 hours per week at another job. On average, teachers who work at other jobs spend about 20 hours per week at another job. Similarly, slightly under half of all directors work another job (Figure 12), with 28% working between 1 and 20 hours and close to 20% working 21 to 40 hours at another job. Over one third of the directors who have other jobs dedicate fewer than five hours to that job per week. While 60% of teachers live in the same community where their school is located, 70% of directors live in the same community as the school. With teachers and directors allotting time to other jobs, planning time is diminished and effectiveness may suffer. These findings also indicate that teachers' and directors' salaries are inadequate, forcing them to work multiple jobs.

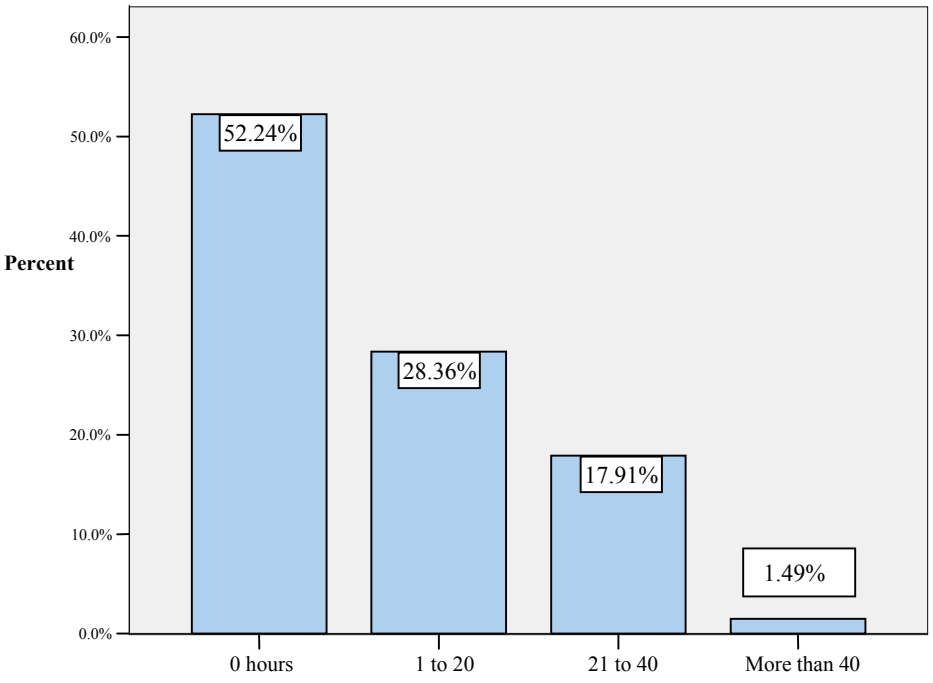

Figure 12: Director Hours at Other Job

Teacher Education and Training. The average highest education level reached by the sampled Dominican teachers is a Bachelor's degree, as reported by 65% of the teachers. Only 7% of teachers have a Master's degree; 1.75% of all teachers have a high school degree; and almost 2% of teachers sampled have normal school degrees (post secondary teacher training school; traditional model); with the remaining percentages split between "profesorado/técnico" degrees and specialty degrees.

Over 90% of surveyed teachers participated in at least one in-service teacher training during their career. When asked how many hours they had spent on teacher training during the last year (Figure 13), 16% responded that they had not participated in any; slightly over 15% responded between 1 and 15 hours; under 15% between 16 and 30 hours; around 20% had participated in teacher training for 31 to 60 hours; and 20% for 61 to 100 hours. Approximately 10% of all teachers surveyed participated in more than 100 hours of teacher training during the last year.

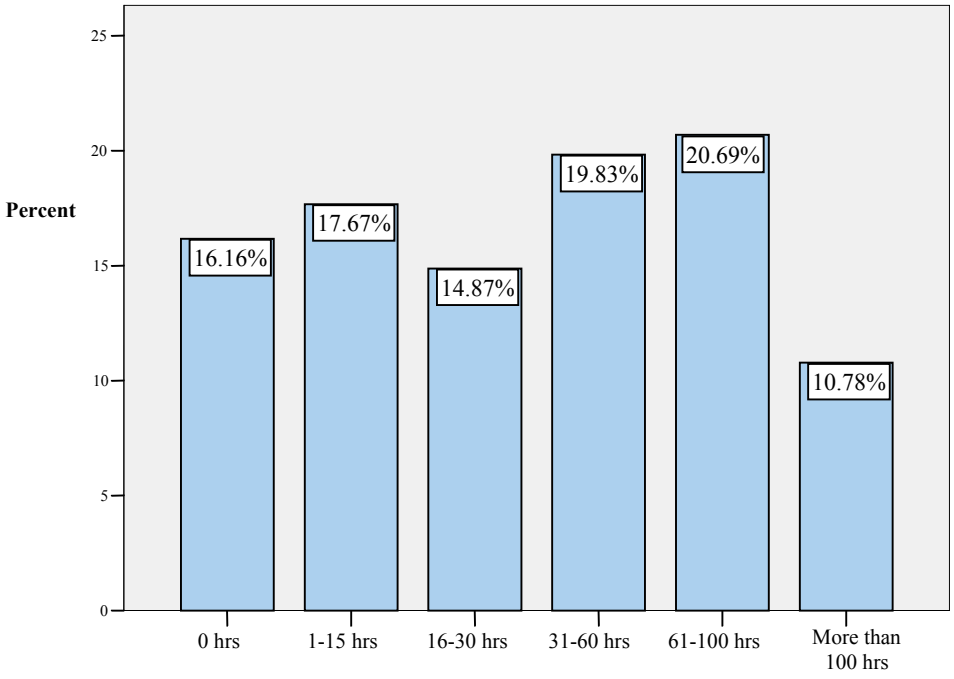

Figure 13: Hours Spent on Teacher Training Last Year

Director Education and Training. All the directors surveyed have at least a Bachelor's degree, with approximately one fifth holding a Masters degree (Figure 14). Only 5% of directors did not participate in any SEE sponsored training. The average director had 73 hours of director training in the past year. Half of the directors sampled participated in 1 to 50 hours of training in the past year (Figure 15). Approximately 30% of directors participated in 51 to 100 hours of training.

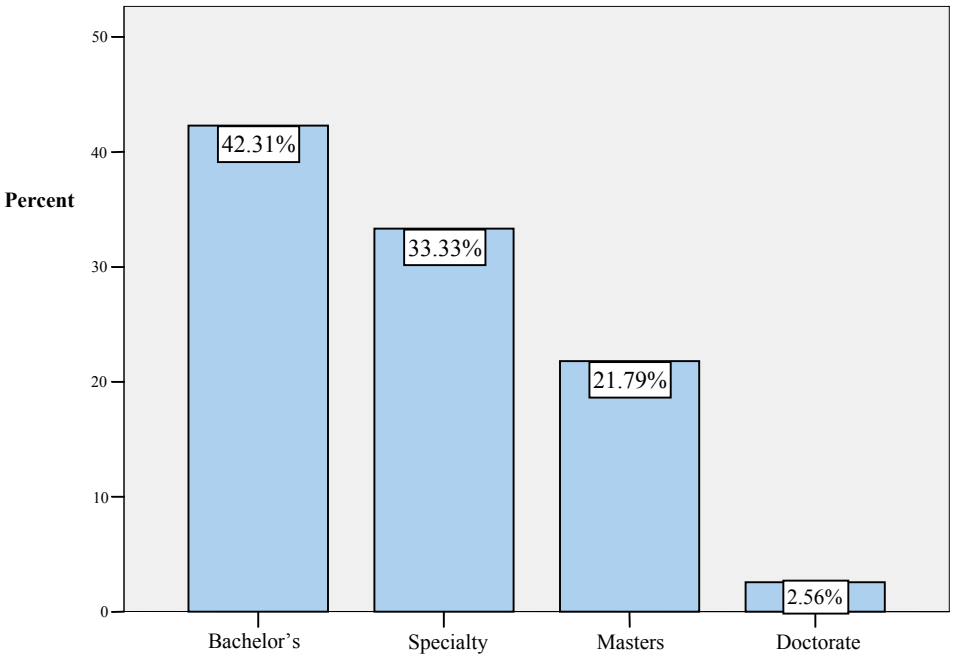

Figure 14: Director Education Levels

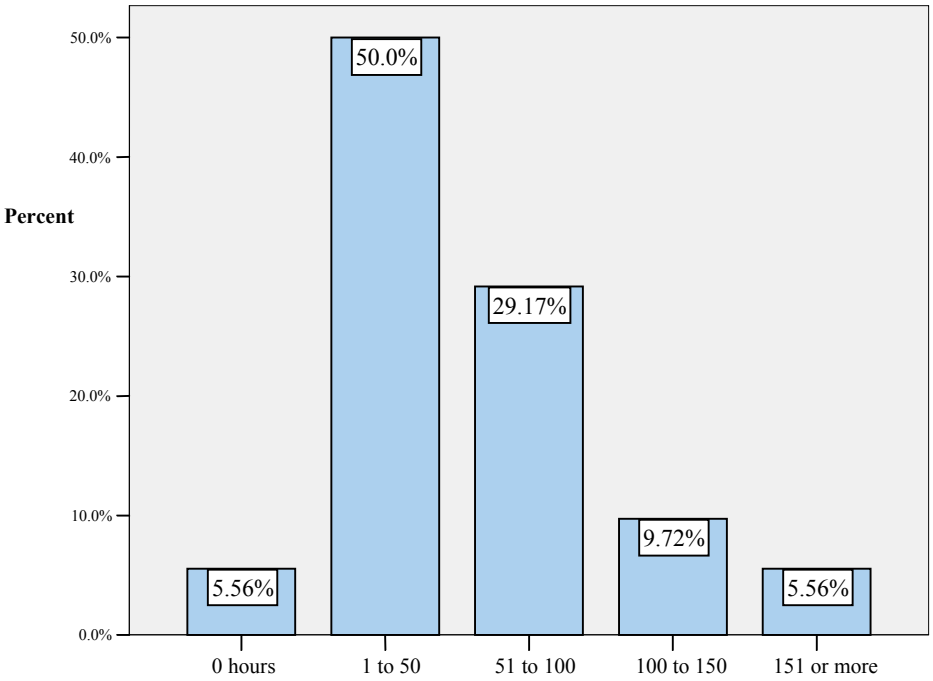

Figure 15: Director Training Hours, Per Year

Reported Director Usage of Time. The director survey included a series of questions asking directors to record how much time they dedicate to various school activities, on average per week for that school and session. The results were extremely varied, with the total reported hours ranging from 5 to 150 and will be used more as indicators of how directors perceive they are allocating their time. Totaling an individual director's reported hours at various activities, and then dividing that sum with the reported hours dedicated to a specific activity results in a percentage that standardizes the directors' responses, providing a better idea of how the director distributes his or her total time in a work week.

Directors report devoting the bulk of their total time spent at work to administrative duties (33%). The rest of their time is almost evenly split between:

- teaching (10%),
- contact with the community (8%),
- parent contact (9%)
- education leadership activities (8%),
- teacher activities (10%),
- student problems (12%), and
- professional development (9%).

Approximately 17% of the directors sampled also teach full or part time in addition to their director duties. Forty-two percent of directors visit classrooms daily, and 28% at least once a week.

Over 60% of directors frequently observe teachers in classrooms, orient/accompany teachers, and provide teachers suggestions and recommendations; and close to 80% of directors help with "student problems" frequently. Though the majority of directors claim that they frequently observe teachers in classrooms, only 42% said they visit classrooms on a daily basis.

Providing a descriptive analysis of the sampled Dominican secondary schools in this study reaffirms many of the policy research conclusions posited by the SEE and other multilateral and bilateral funding organizations that have examined the Dominican education system (e.g., Alvarez, 2004 (IADB); SEE, 2003; Sanguinetty and Fernandez, 2000 (Dev-Tech/United States Agency for International Development)). More importantly, these findings also provide the contextualization necessary to better understand the school environment in which relational trust may or may not exist in the Dominican Republic. The results also emphasize the differences that exist between Dominican secondary schools and elementary schools in Chicago (Bryk and Schneider, 2002), which may lead to different sets of significant associations between trust and school-level characteristics that would not be of issue in Chicago.

Several key findings from this chapter deserve to be highlighted, not only to help inform the following chapters, but also to stress their importance and magnitude in the Dominican context. To begin, the Dominican secondary system houses a large amount of overage students, approximately a third of all 4th grade students. In addition, with the increased secondary student population due to the success in promoting primary education completion, the existent infrastructure is overburdened and inefficiently managed, with various school administrations (both primary and secondary sessions) having to share buildings. Compounding the lack of infrastructure is the lack of director and teacher furniture and designated space within the school, which may encumber social relations between directors, teachers, parents, and students. Finally, the methods that Dominican parents become involved in their children's education also appear to differ from those in

Chicago, primarily focusing on financial support rather than participation in teaching and learning activities.

Though descriptive statistics of the key variables go a long way to providing a clearer picture of the Dominican secondary education system, further analysis by way of correlation and regression analysis in the next chapter is necessary to more fully understand how the system functions.

CHAPTER VI

TRUST

This chapter examines the composition of trust in schools, or more specifically, which school, teacher, and director characteristics predict trust between stakeholders in a school. Data on correlations between trust and all the independent variables are described, ensuring that there are no conflicts or collinearity between the measures. Each trust measure then is examined as a dependent variable in a linear regression model in order to investigate the nuances of each type of trust, and whether what was hypothesized in the introduction can be statistically proved.

Relational Trust Scales

Teachers tend to report high scores on the relational trust survey items: 47% of the trust scale items had a mean over three (with four indicating "strongly agree," the highest measure of trust). Twenty-eight percent of the scale items averaged below, but very close to "agree" (three). Only three items scored under two: (i) proportion of parents who contribute to their children's learning; (ii) proportion of teachers who feel good about parents support; and (iii) difficult to overcome cultural barriers between teachers and parents.[7]

Though Bryk and Schneider (2002) showed the relational trust scales reliable in their study on urban elementary schools in Chicago, it is necessary to confirm the scales' consistencies in the Dominican Republic, so reliability and principal component analyses

[7] For more detail on these descriptive statistics, view Table 1 in Appendix A.

(PCA) were conducted for each group of trust items. PCA is a statistical procedure that identifies patterns in a number of (possibly) correlated variables and "expresses" the data in such a way as to highlight similarities and difference. One advantage of this method is that once the patterns have been determined, the data can be compressed by reducing the number of dimensions without much loss of information, capturing the "essences" of the items by linearly combining the variables.

PCA was run on the four different types of trust in this study. Initially all the items from all the scales were included to see if there was an underlying component that could be identified as general (total) trust. However, there were seven components with an eigenvalue factor (the statistical measure indicating the strength of components) greater than one in the "total" trust measure, so it was decided to run all future models with the four different types of trust separately.

Teacher-director trust, composed of nine items, had only one underlying component with an eigenvalue greater than one, which explained 59% of the variance. Teacher-teacher trust (6 items) and teacher-student (6 items) trust had similar results. The only problematic type of trust was teacher-parent trust (11 items) which had two components with eigenvalues greater than one. This scale was then cut down to include items that together had a high Cronbach's alpha score, and was composed of only one component. Four items from the original scale were deleted. Factor scores were then saved for each trust scale's primary component, which were averaged per school. The scores produced have a mean of zero and a variance equal to the squared multiple correlation between estimated factor scores and true factor scores.

The newly calculated trust measures are moderately significantly correlated with each other, which is not surprising as they are all measures of trust between the actors in an educational context. The lowest correlations were found between teacher-director trust and teacher-teacher (0.412), teacher-parent (0.519), and teacher-student (0.517) trusts. The highest correlation was found between teacher-parent and teacher-student trust, with a score of 0.725, still only moderately strong. Since the trust measures are not included in the models collectively, there is no need to worry about multi-collinearity of trust measures.

Correlations

Correlation analyses were run between the variables to help monitor multi-collinearity. Despite the fact that the dependent variables PN score and PN qualification rate are not modeled together in this study, it is worth noting that they are not statistically correlated. Even though both variables measure school performance, they appear to capture different school processes and outcomes. PN scores perhaps relate more to teaching processes or students' ability to learn, while PN qualification rates may be absorbing repetition and drop-out rates. This finding will be discussed more fully in Chapter VII.

While the dependent variables were not correlated with school characteristics, there were many statistically significant correlations between school characteristics, none larger than a Pearson coefficient of 0.610, and that coefficient exists between infrastructure and resource scales. Some interesting statistically significant correlations[8] with Pearson's r between 0.3 and 0.5 (indicating a modest correlation) include: 1) a negative correlation between PN scores and overage seniors (r = -0.349); 2) night sessions negatively associated with SES level of students (r = -0.324) and positively associated with overage students (r =

[8] For more detail, refer to Tables 2 though 4 in Appendix A.

0.330); and 3) rural schools negatively associated with school size, as measured by student population (r = -0.340). Finally, community and parent participation levels are significantly correlated with an r of 0.326.

Teacher characteristics and dependent variables were even less inter-correlated; even if some of relationships were statistically significant, none of the Pearson coefficients was higher than 0.246. Though the correlation sizes are small, it is worth noting some of the relationships: schools with more female teachers have higher PN scores and schools with more teachers who teach more than one session have lower PN scores. PN qualification rates are negatively correlated with teacher experience; whether teachers teach more than one session; works another job; and education level. Schools with teachers with higher levels of teaching experience tend to be schools where teachers teach multiple sessions. More educated teachers work more time at a job outside of teaching. Finally, education level is negatively correlated with whether teachers live in the same community as the school where they work. Correlations between dependent variables and director characteristics follow a similar pattern, with many significant correlations, but Pearson's too low to worry about multi-collinearity.

As indicated by the research questions previously posited, this study serves two purposes, to understand how trust is related to school characteristics and to school performance outcomes. Since school attributes are often linked to trust, the questions identify the variation of these different types of relationships within a Dominican secondary school. Even though all the trusts are moderately correlated with each other, nuances exist between the different relationships, correlating differently with outcomes and school level characteristics. Each level of trust is examined by four models: three independently

regressing school, teacher, and director characteristics, and the fourth regressing all of the independent variables.

Teacher-Director Trust as Dependent Variable

Table 5 shows the results of regressing school, teacher, and director characteristics on teacher–director trust. Model 1, which incorporates only school characteristics, indicates that infrastructure levels, whether the school is urban marginal, and the percent of overage 4th grade students are all significantly negatively correlated with teacher-director trust.

Table 5: **Examining Teacher-Director Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**.404**	**.114**	**.000**	.011	.158	.943	**1.133**	**.561**	**.048**	**2.236**	**1.008**	**.038**
School Characteristics												
Infrastructure Scale	**-.168**	**.055**	**.002**							-.099	.243	.687
Resources Scale	.098	.064	.125							-.414	.245	.106
Night Session	.037	.077	.632							.364	.317	.264
Rural School	-.079	.077	.305							-.096	.329	.772
Urban Marginal School	**-.539**	**.104**	**.000**							-.397	.305	.207
Community Participation	-.074	.121	.540							**.964**	**.545**	**.091**
Parent Participation	-.065	.044	.141							**-.380**	**.147**	**.017**
SES level of students	-.024	.053	.655							.025	.217	.911
Student Population	.000	.000	.341							.001	.000	.130
Percent of Overage 4th Grade	**-.292**	**.097**	**.003**							-.684	.420	.118
Teacher Characteristics												
Teacher Female				**.151**	**.062**	**.014**				.339	.277	.234
Years as Teacher				.002	.004	.664				.018	.016	.257
Teacher Teaches Multiple Tandas				-.037	.071	.603				-.301	.326	.367
Teacher Other Job Time				-.003	.002	.217				-.007	.011	.566
Teacher Education Level				-.050	.035	.157				-.084	.137	.548
Teacher Lives Same Community				**.144**	**.063**	**.022**				-.185	.298	.542
Teacher Training Time				.000	.000	.295				-.001	.002	.582
Director Characteristics												
Director Female							**.472**	**.147**	**.002**	.143	.250	.572
Years as Director							-.004	.011	.756	.020	.019	.288
Director's Education Level							**-.295**	**.111**	**.010**	**-.277**	**.139**	**.060**
Director Time at Other Job							**.018**	**.007**	**.012**	.001	.010	.890
Director Also Teaches							.042	.195	.832	.113	.320	.728
Director for Multiple Sessions							**-.324**	**.183**	**.082**	-.217	.285	.455
Daily Visits Class Dummy							-.194	.166	.246	-.264	.238	.279
Director Lives In Community							-.050	.167	.766	-.076	.295	.799
Hours of Director Training							.000	.001	.507	.001	.001	.475

Model 2 illustrates that when examining only teacher characteristics, schools that employ more female teachers or more teachers who live within the same community as the school experience higher levels of teacher-director trust. When examining director characteristics in Model 3, the variables significantly correlated to teacher-director trust include female director (a positive relationship), education level (negative), time at other job (positive), and whether director worked for multiple sessions (negative). However, most of these coefficients do not remain significant in Model 4, which includes all school, teacher, and director characteristics. Only director's education level remains significant (and continues to be negatively correlated), indicating that the more education a director has, the less teacher-director trust exists in that school. The characteristics significant in Models 1-3 lose their significance, while community participation levels become positively correlated and parental involvement rates negatively correlated with teacher-director trust.

Teacher-Teacher Trust as Dependent Variable

As is the case with teacher-director trust, and most likely due to omitted variable bias, variables that are significant in Models 1, 2, and 3 do not retain their significance in the cumulative model (Table 6). The only variables that remain statistically significant are rural schools (0.538, sig. = 0.031) and schools with female directors (0.462, sig. = 0.016), and whether the school has a director who visits classrooms on a daily basis, a proxy for director involvement (0.304, sig. = 0.084). It is interesting that two director level characteristics predict trust felt between teachers, but not teacher-director trust. It may be that a female director who has a strong policy of visiting classes and interacting with teachers and students

fosters trust felt between teachers, perhaps by creating an overall atmosphere of communication.

Table 6: **Examining Teacher-Teacher Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**.244**	**.104**	**.019**	**.311**	**.138**	**.024**	.699	.429	.108	-.345	.711	.633
School Characteristics												
Infrastructure Scale	**-.177**	**.050**	**.000**							-.198	.172	.261
Resources Scale	.029	.058	.614							.061	.173	.730
Night Session	.074	.070	.289							.204	.224	.374
Rural School	**.247**	**.070**	**.000**							**.538**	**.232**	**.031**
Urban Marginal School	**-.257**	**.094**	**.007**							-.269	.215	.225
Community Participation	.088	.110	.426							.303	.385	.439
Parent Participation	-.009	.040	.819							-.101	.104	.341
SES level of students	-.071	.049	.142							.139	.153	.373
Student Population	-6.53E-005	.000	.353							3.24E-006	.000	.989
Percent of Overage 4th Grade	.089	.088	.312							-.221	.296	.463
Teacher Characteristics												
Teacher Female				-.03	.054	.531				.016	.195	.935
Average Years as Teacher				-.00	.003	.244				.006	.011	.606
Teacher Multiple Tandas				**-.20**	**.062**	**.001**				-.226	.230	.336
Other Job Time				-.003	.002	.228				-.005	.008	.531
Education Level				**-.051**	**.031**	**.097**				.111	.097	.267
Lives In Community				.035	.055	.518				.290	.210	.183
Training Time				**.001**	**.000**	**.027**				-.001	.002	.381
Director Characteristics												
Director Female							**.412**	**.113**	**.001**	**.462**	**.177**	**.016**
Years as Director							.007	.009	.460	.011	.013	.392
Education Level							**-.196**	**.085**	**.025**	-.027	.098	.789
Time at Other Job							.007	.005	.205	-.001	.007	.834
Also Teaches							.197	.149	.193	.106	.226	.644
Director Multiple Sessions							-.216	.140	.129	-.067	.201	.744
Daily Visits Class Dummy							.064	.127	.615	**.304**	**.168**	**.084**
Lives in Community							-.107	.128	.408	-.338	.208	.119
Training Time							.001	.000	.237	.000	.001	.452

Teacher-Parent Trust as Dependent Variable

The same pattern holds true for teacher-parent trust (Table 7), though a different set of characteristics are highlighted in the cumulative model. Teacher-parent trust is negatively correlated with parent participation (-0.201, sig. = 0.079), which is surprising. It is worth wondering why increased levels of parent participation are linked with less trust reported between teachers and parents, unless the type of parent participation is not one based on positive relationships. Since the parent participation variable measures both parental

involvement in teaching and learning activities and financial support to the school, perhaps parents who become involved do so because of lack of confidence in the school, which could then explain why schools with greater rates of parent participation experience less teacher-parent trust.

Table 7: **Examining Teacher-Parent Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**.322**	**.102**	**.002**	**.422**	**.145**	**.004**	.013	.433	.976	.218	.746	.773
School Characteristics												
Infrastructure Scale	**-.14**	**.049**	**.005**							-.16	.180	.400
Resources Scale	**.212**	**.057**	**.000**							.109	.182	.556
Night Session	**-.40**	**.068**	**.000**							-.38	.235	.119
Rural School	.053	.068	.436							.183	.243	.460
Urban Marginal School	**-.40**	**.092**	**.000**							-.09	.226	.698
Community Participation	-.11	.108	.317							.084	.403	.837
Parent Participation	-.02	.039	.563							**-.20**	**.109**	**.079**
SES level of students	.047	.048	.328							.212	.160	.201
Student Population	**.000**	**.000**	**.000**							.000	.000	.643
Percent of Overage 4th Grade	-.04	.086	.607							-.19	.310	.540
Teacher Characteristics												
Teacher Female				.090	.056	.112				.119	.205	.568
Average Years as Teacher				**-.01**	**.004**	**.004**				.015	.012	.223
Teacher Multiple Tandas				-.03	.065	.644				**-.45**	**.241**	**.075**
Other Job Time				**-.01**	**.002**	**.031**				-.00	.008	.714
Education Level				**-.09**	**.032**	**.005**				-.14	.102	.200
Lives In Community				.029	.057	.615				-.28	.220	.215
Training Time				**.001**	**.000**	**.003**				.001	.002	.703
Director Characteristics												
Director Female							**.226**	**.114**	**.051**	.120	.185	.524
Years as Director							.002	.009	.797	.009	.014	.533
Education Level							-.092	.086	.287	-.01	.103	.950
Time at Other Job							.007	.005	.188	-.00	.007	.654
Also Teaches							**.455**	**.151**	**.004**	**.740**	**.237**	**.005**
Director Multiple Sessions							-.052	.142	.715	-.05	.211	.825
Daily Visits Class Dummy							-.038	.128	.767	.014	.176	.936
Lives in Community							**.323**	**.129**	**.015**	**.386**	**.218**	**.091**
Training Time							.000	.000	.817	.000	.001	.843

Another variable negatively associated with this type of trust is whether the majority of teachers teach multiple sessions at the school (-0.45, sig. = 0.075), which again is unexpected as one would assume that teacher continuity would create a greater teacher presence in that school. Finally, whether the director teaches in that school full or part time (0.740, sig. = 0.005) and whether the director lives in the same community

(0.386, sig. = 0.091) are positively linked with teacher-parent trust, which makes sense as these two variables indicate more interaction with parents of students and with the community.

Teacher-Student Trust as Dependent Variable

Teacher-student trust has the most significantly correlated school, teacher, and director characteristics in the final cumulative model (Table 8). Parent participation is negatively correlated with teacher-student trust (-0.375, sig. = 0.006), while student population has minimal predictive power (0.001, sig. = 0.068).

Table 8: **Examining Teacher-Student Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**.545**	**.092**	**.000**	**.348**	**.134**	**.010**	-.137	.410	.739	.607	.837	.476
School Characteristics												
Infrastructure Scale	**-.109**	**.044**	**.014**							-.325	.202	.122
Resources Scale	-.003	.051	.951							-.196	.204	.346
Night Session	**-.233**	**.061**	**.000**							.129	.264	.629
Rural School	-.024	.062	.699							.144	.273	.602
Urban Marginal School	**-.563**	**.083**	**.000**							.112	.253	.662
Community Participation	-.142	.097	.143							.715	.452	.129
Parent Participation	**-.112**	**.036**	**.002**							**-.375**	**.122**	**.006**
SES level of students	.040	.043	.350							.076	.180	.675
Student Population	**.000**	**.000**	**.000**							**.001**	**.000**	**.068**
Percent of Overage 4th Grade	**.208**	**.078**	**.008**							-.241	.348	.497
Teacher Characteristics												
Teacher Female				**.137**	**.052**	**.009**				.390	.230	.104
Average Years as Teacher				**-.006**	**.003**	**.048**				.009	.013	.482
Teacher Multiple Tandas				-.029	.060	.636				-.287	.270	.300
Other Job Time				-.003	.002	.165				-.001	.009	.922
Education Level				**-.080**	**.030**	**.007**				-.191	.114	.109
Lives In Community				-.021	.053	.695				**-.521**	**.247**	**.047**
Training Time				**.001**	**.000**	**.018**				.002	.002	.327
Director Characteristics												
Director Female							**.458**	**.108**	**.000**	.118	.208	.576
Years as Director							-.005	.008	.562	.022	.015	.170
Education Level							-.040	.081	.627	-.074	.115	.526
Time at Other Job							.004	.005	.389	-.004	.008	.644
Also Teaches							-.068	.143	.636	**.744**	**.266**	**.011**
Director Multiple Sessions							-.179	.134	.187	.138	.237	.565
Daily Visits Class Dummy							.054	.121	.656	-.049	.197	.805
Lives in Community							**.212**	**.122**	**.088**	**.758**	**.245**	**.005**
Training Time							-2.30E-005	.000	.954	.000	.001	.695

Whether the majority of teachers live in the same community is negatively correlated with teacher-student trust, though if the director lives in the same community the school experiences more trust. If the director also teaches full or part-time, teachers in that school feel more trust between themselves and their students.

What starts to develop from an analysis of the collected data is a portrait of a high-trust school: where it is located, teacher and director profiles, and how it interacts within itself and the larger community. Eleven characteristics are found to have predictive power for these different types of trust (Table 9), and some were consistent over different types of trust.

Table 9: **Size of Significant Coefficients across All Types of Trust (4 pt. scale)**

	Teacher-Director	Teacher-Teacher	Teacher-Parent	Teacher-Student
Community Involvement	0.964			
Parent Participation	-0.380		-0.20	-0.375
Director Education Level	-0.277			
Rural School		0.538		
Female Director		0.462		
Director Daily Visits		0.302		
Teachers Teach Multiple			-0.45	
Director Also Teaches			0.740	0.744
Director Lives Same Community			0.386	0.758
Teacher Lives Same Community				-0.521
Student Population				0.001

Level of parent participation seems to be a negative factor in all types of trust except teacher-teacher trust. Schools with higher levels of teacher-parent and teacher-student trust tend to have directors who teach in addition to performing their director duties and live in the same community as the school. These last two results intrinsically make sense. If directors are present more often in the classrooms and in the community—interacting with other teachers, parents, and students—they may foster more relationships with these individuals,

leading to general feelings of respect and obligation. Now that some of the characteristics of high and low trust schools are established, the study will analyze whether these high or low trust schools experience increased or decreased school performance.

CHAPTER VII

SCHOOL PERFORMANCE

This chapter examines school performance in the Dominican Republic, as defined by PN scores and PN qualification rates. PN scores and PN qualification rates are two separate outcomes in Dominican schools. Though they are both measures of school performance, PN scores and PN qualification rates are not significantly correlated—they represent two singular outcomes with different policy implications (e.g., low qualification rates affect costs of testing and may be an indicator of inefficiency in the system while PN scores may more clearly be an indicator of ill-preparedness of students).

This study hypothesized that better performing schools would have more teachers who experienced higher levels of trust with other teachers, the director, parents, and students. Figures 16 through 23 compare the sampled teachers' responses expressing his/her trust experiences allocated into top and bottom quartile performing schools. When viewing teacher-director trust, the differences between top and bottom PN scoring schools are evident, though not extreme. The same pattern holds true for teacher-parent and teacher-student trusts, with more teachers in top PN scoring schools reporting that they experience higher levels of trust than in low performing schools.

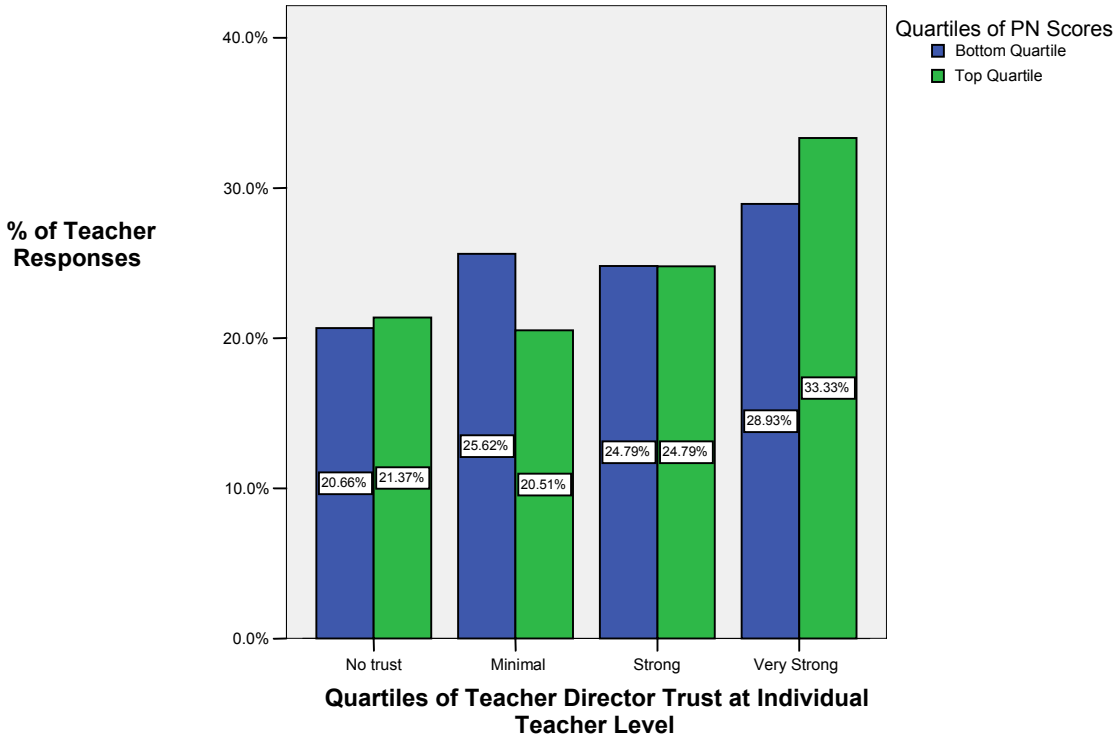

Figure 16: Responses in Top and Bottom Quartile PN Scoring Schools on Teacher-Director Trusts

There is one anomaly, however, in these figures. Though teacher-teacher trust (Figure 17) follows the same basic pattern, with more "very strong" and "strong" trust teachers in top quartile schools and more "minimal" trust teachers in low performing schools, there are more teachers experiencing no trust between teachers in top quartile schools than in bottom quartile schools.

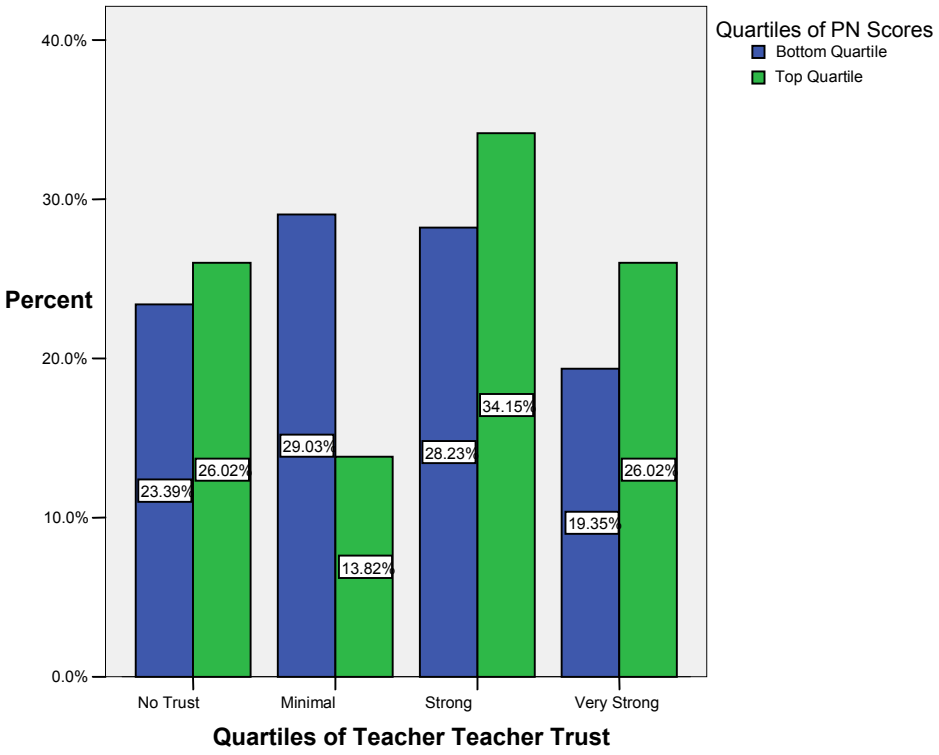

Figure 17: Responses in Top and Bottom Quartile PN Scoring Schools on Teacher-Teacher Trust

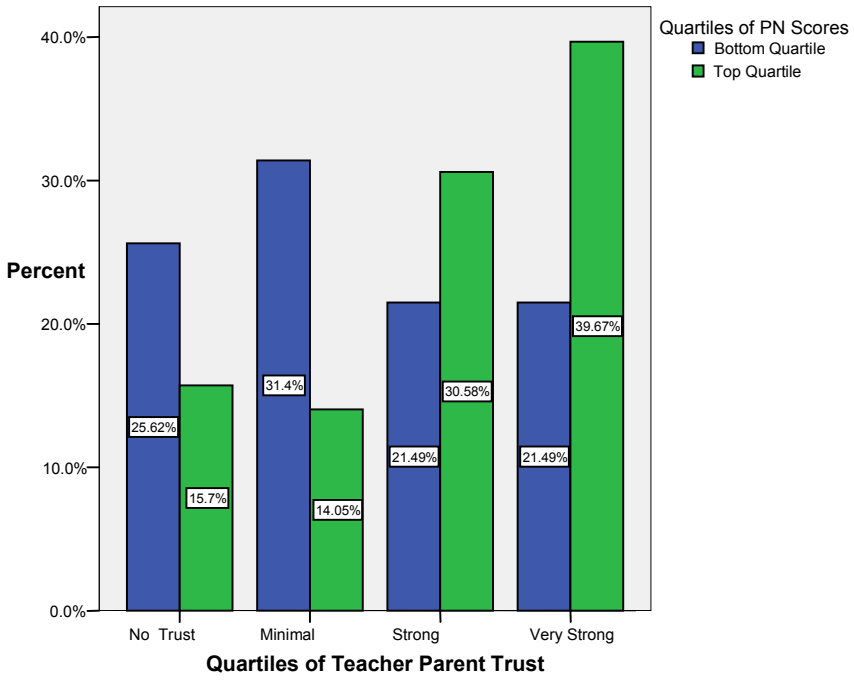

Figure 18: Responses in Top and Bottom Quartile PN Scoring Schools on Teacher-Parent Trust

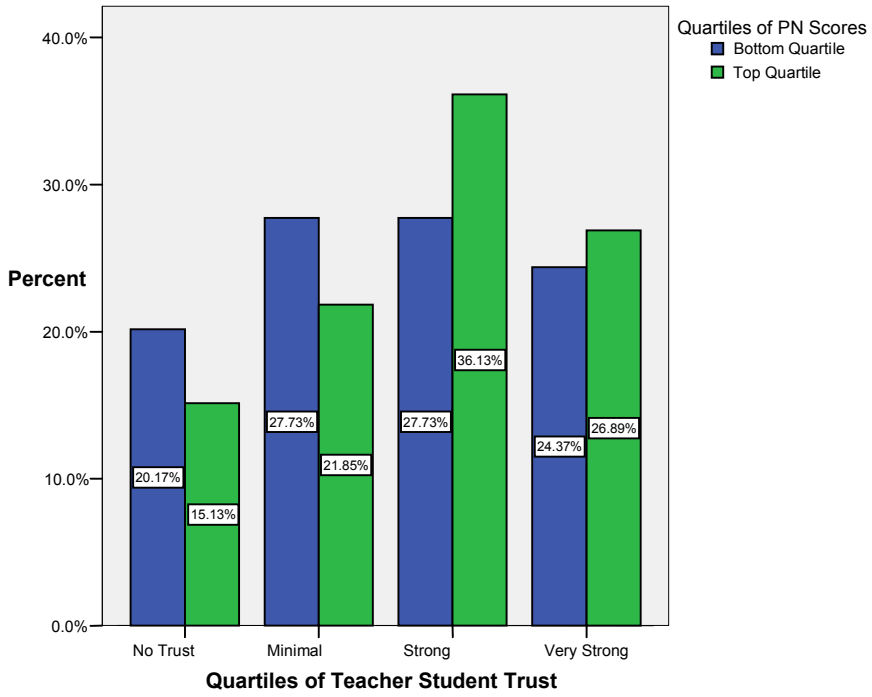

Figure 19: Responses in Top and Bottom Quartile PN Scoring Schools on Teacher-Student Trust

The patterns are more clearly differentiated when examining teacher responses from top and bottom PN qualifying schools, compared by level of trust experienced by teacher, as demonstrated in Figures 20 to 23. High levels of trust are felt by more teachers in top quartile schools and low levels of trust are felt by more teachers in bottom quartile schools, and this pattern is consistent among three of the four types of trust. Teachers with high trust scores responded by citing that they felt higher levels of trust between themselves and directors, parents, and students. The bottom quartile PN qualifying schools have more teachers who responded that they did not experience high trust levels or activities between the education stakeholders.

Whereas there was an abnormality in teacher-teacher trust when examining PN scores, the difference when examining PN qualification rates occurs in teacher-director trust (Figure 20). Though there are more teachers who felt no trust existed between teachers and the director in their school in bottom performing schools, and more teachers who felt they experienced very strong trust with their director in top schools, more teachers in low performing schools indicated "strong" trust felt with the director than in top PN qualifying schools.

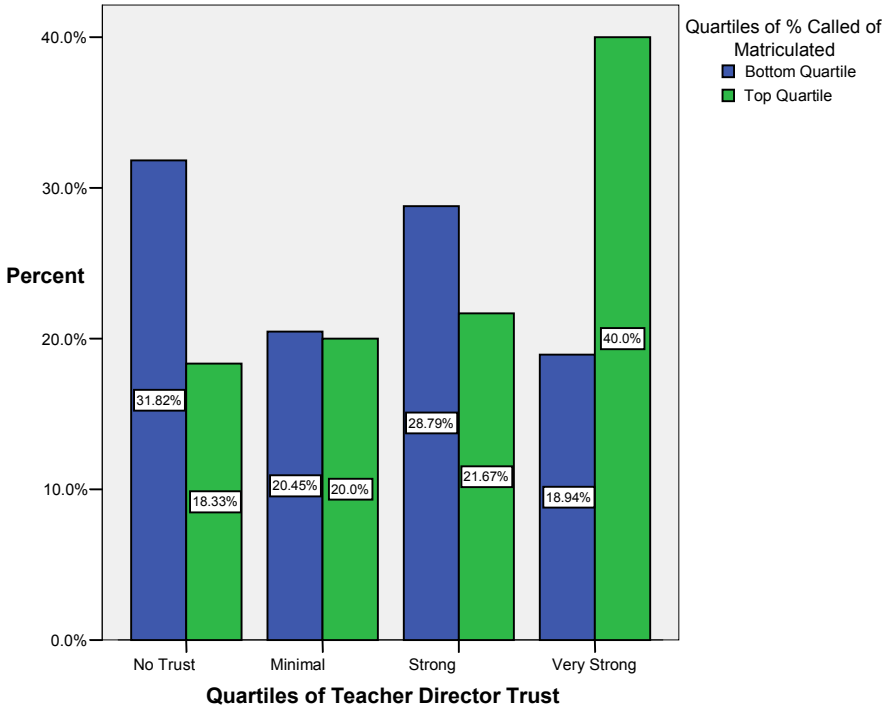

Figure 20: Responses in Top and Bottom Quartile PN Qualifying Schools on Teacher-Director Trust

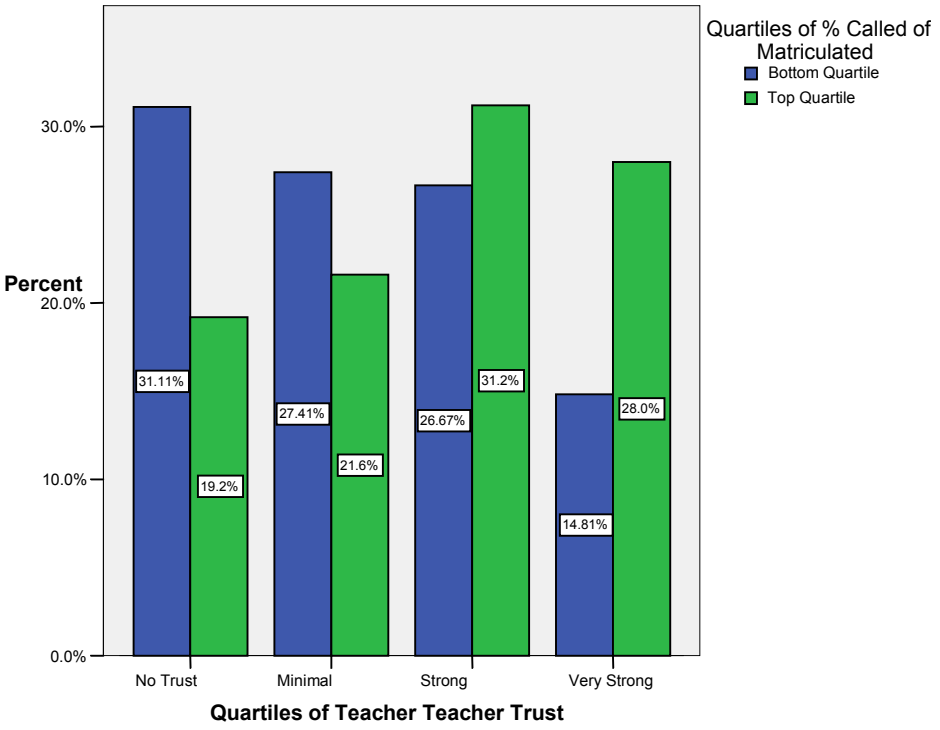

Figure 21: Responses in Top and Bottom Quartile PN Qualifying Schools on Teacher-Teacher Trust

The patterns of teacher-teacher trust are less differentiated between high and low PN qualifying schools. This is not surprising as this measure is the least differentiated when examining PN scores as well. Taken together, these results indicate substantive differences in trust levels across Dominican schools. This study examines the kinds of school communities where trust is more prevalent in order to gauge whether trust is significant as an indicator of school performance.

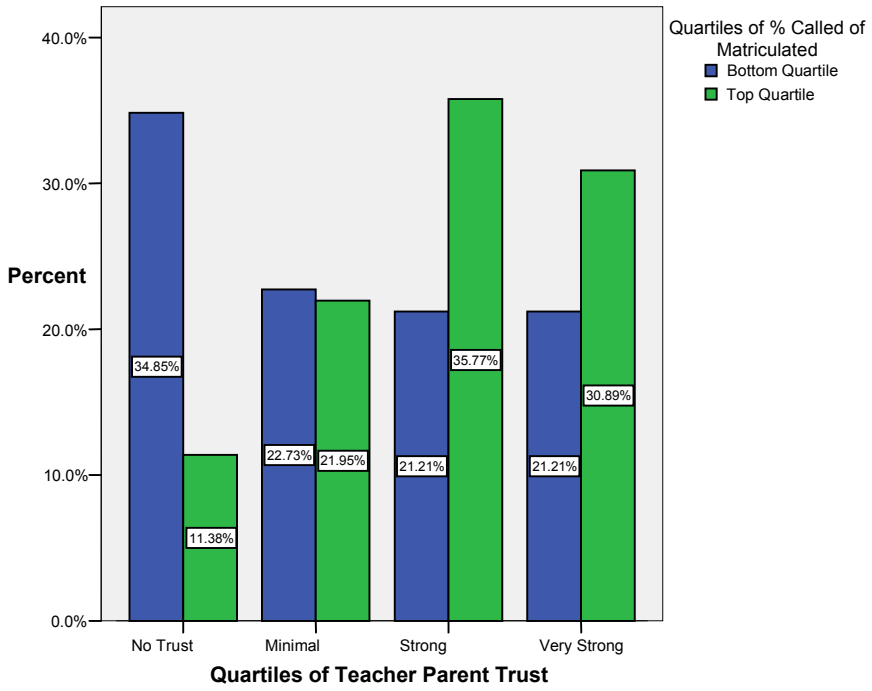

Figure 22: Responses in Top and Bottom Quartile PN Qualifying Schools on Teacher-Parent Trust

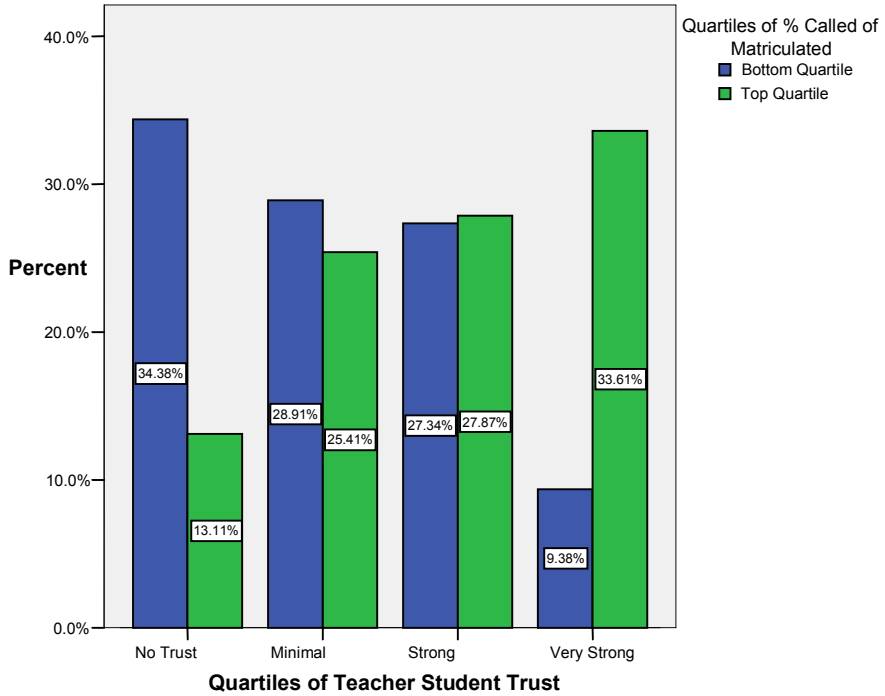

Figure 23: Responses in Top and Bottom Quartile PN Qualifying Schools on Teacher-Student Trust

PN Scores and PN Qualifications—No Trust

Before examining the relationships between trust and school outcomes, it is important to explore what predicts PN scores using a traditional school effectiveness model composition without including any of the types of trust (Table 10). The characteristics significant in the cumulative model (4) include socio-economic level of students (5.799, sig. = 0.099), indicating that schools with predominantly middle class students score approximately six points more on average than their lower SES counterparts. The variable measuring the percent of overage fourth grade students also has a negative association with PN scores, signifying that for every one percent increase in overage seniors in a school, the average PN score in that school decreases approximately twelve points. These two predictors were also statistically significant in Model 1, which only examined school characteristics. Though schools with predominantly female teachers (1.758, sig. = 0.017), schools with more teachers who teach multiple tandas in that school (-2.679, sig. = 0.025) and school's average teacher training time (0.011, sig. = 0.025) were significant in Model 2, they did not retain their significance in Model 4.

Two of the three director characteristics significant in Model 3 remain significant and increase in coefficient size in Model 4. Though significant, director tenure has a nominal relationship with average PN score, with a co-efficient of 0.587 (i.e., for every additional year a director has of experience, the average PN score for that school increases slightly more than half a point). If the director of a school also concurrently teaches either full or part time, the average PN score for that school increases by over eleven points (11.282, sig. = 0.033). Finally, schools with female directors average over six points higher than schools with male directors (6.705, sig. = 0.098).

Table 10: PN Scores as Dependent Variable, modeling for school, director and teacher characteristics NO TRUST

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	58.702	1.301	.000	56.738	1.879	.000	61.246	6.737	.000	42.990	15.617	.012
School Characteristics												
Infrastructure Scale	**1.059**	**.626**	**.091**							-1.361	3.771	.722
Resources Scale	-.007	.725	.993							-.110	3.802	.977
Night Session	**-2.138**	**.871**	**.015**							-.098	4.918	.984
Rural School	2.111	.872	.016							8.109	5.093	.126
Urban Marginal School	**5.216**	**1.181**	**.000**							5.869	4.725	.228
Community Participation	**-3.565**	**1.377**	**.010**							4.459	8.442	.603
Parent Participation	-.316	.504	.530							-1.331	2.284	.566
SES level of students	**2.271**	**.607**	**.000**							**5.799**	**3.358**	**.099**
Student Population	**-.004**	**.001**	**.000**							.002	.005	.648
Percent of Overage 4th Grade	**-6.705**	**1.103**	**.000**							**-11.93**	**6.502**	**.081**
Teacher Characteristics												
Teacher Female				**1.758**	**.736**	**.017**				5.146	4.287	.243
Average Years as Teacher				-.031	.046	.501				.077	.243	.755
Teacher Multiple Tandas				**-2.679**	**.852**	**.002**				2.096	5.047	.682
Other Job Time				-.022	.029	.448				.206	.177	.259
Education Level				-.169	.418	.686				-.412	2.130	.848
Lives In Community				.367	.751	.625				-.254	4.616	.957
Training Time				**.011**	**.005**	**.025**				.001	.034	.976
Director Characteristics												
Director Female							2.752	1.758	.122	**6.705**	**3.875**	**.098**
Years as Director							**.327**	**.139**	**.022**	**.587**	**.288**	**.054**
Education Level							-1.872	1.325	.162	-.610	2.154	.780
Time at Other Job							.011	.081	.889	-.040	.149	.790
Also Teaches							**8.220**	**2.279**	**.001**	**11.282**	**4.957**	**.033**
Director Multiple Sessions							-3.565	2.175	.106	-3.074	4.416	.494
Daily Visits Class Dummy							-.679	1.968	.731	.535	3.684	.886
Lives in Community							-1.375	1.954	.484	-.972	4.568	.834
Training Time							-.002	.006	.745	.015	.012	.230

A different set of variables appears to be significantly coupled with PN qualification rates in the Dominican Republic (Table 11). Many school, teacher, and director characteristics are statistically significant in their respective models, but when combined in Model 4, only five variables remain significant. Though it was hypothesized that better infrastructure in a school would be associated with improved school outcomes, this does not appear to be the case. Results indicate that a one point increase in infrastructure scale corresponds with a 17 point *decrease* in PN qualification rate. Increased teaching and learning resources, however, are positively associated with higher PN qualification rates, with a one point increase in resource scale corresponding with almost a 20 point increase in PN qualification rates (19.54, sig. = 0.028).

Table 11: **PN Qualification Rates as Dependent Variable, modeling for school, director and teacher characteristics NO TRUST**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	84.205	3.396	.000	74.110	4.696	.000	57.219	18.45	.003	49.188	34.074	.164
School Characteristics												
Infrastructure Scale	**-7.147**	**1.634**	**.000**							**-16.89**	**8.227**	**.053**
Resources Scale	**3.712**	**1.894**	**.051**							**19.538**	**8.295**	**.028**
Night Session	**-9.352**	**2.274**	**.000**							8.164	10.731	.455
Rural School	**-9.886**	**2.278**	**.000**							-3.431	11.112	.761
Urban Marginal School	**5.699**	**3.084**	**.065**							16.868	10.309	.117
Community Participation	**-7.208**	**3.595**	**.046**							-12.74	18.419	.497
Parent Participation	-.127	1.315	.923							2.253	4.984	.656
SES level of students	**-5.536**	**1.586**	**.001**							2.434	7.327	.743
Student Population	**-.015**	**.002**	**.000**							-.010	.011	.386
% of Overage 4th Grade	**-10.07**	**2.880**	**.001**							-18.05	14.187	.217
Teacher Characteristics												
Teacher Female				1.278	1.839	.487				-9.266	9.354	.333
Average Years as Teacher				**-.205**	**.115**	**.076**				.133	.531	.805
Teacher Multiple Tandas				**-4.718**	**2.129**	**.027**				-10.644	11.011	.345
Other Job Time				-.104	.072	.149				-.316	.387	.423
Education Level				**-3.892**	**1.045**	**.000**				-1.752	4.648	.710
Lives In Community				.355	1.876	.850				8.086	10.072	.431
Training Time				.010	.012	.393				.001	.073	.990
Director Characteristics												
Director Female							**22.123**	**4.813**	**.000**	13.692	8.454	.120
Years as Director							**-.649**	**.381**	**.093**	-.396	.628	.535
Education Level							-5.582	3.627	.129	-2.648	4.700	.579
Time at Other Job							**.750**	**.221**	**.001**	.326	.325	.328
Also Teaches							**12.650**	**6.241**	**.047**	13.496	10.815	.226
Director Multiple Sessions							8.312	5.956	.168	**28.466**	**9.636**	**.008**
Daily Visits Class Dummy							**9.253**	**5.390**	**.091**	**15.133**	**8.038**	**.074**
Lives in Community							**9.947**	**5.351**	**.068**	**17.716**	**9.966**	**.090**
Training Time							-.016	.017	.353	-.033	.026	.223

The findings show that none of the teacher characteristics are linked with PN qualification rates in the cumulative model. Schools with directors who work multiple sessions, indicating administrative continuity, have 28 percent higher PN qualification rates than schools where the director only works one session in that school building. Schools where the director has a policy of visiting classrooms daily score 15 points higher than their counterparts, and finally, a school with a director that lives in the same community where the school is located has a 17 percent higher qualification rate than schools where the director does not live in the same community.

Hypothesis 1: PN Scores and Trust.

The hypothesis that high-scoring trust schools would have better PN scores is not entirely supported by the findings. Schools that display higher levels of teacher-director trust and teacher-parent trust do score better than their lower trust counterparts, though teacher-teacher trust and teacher-student trust are not significantly associated with PN scores. Nonetheless, a number of key school and director characteristics are moderately linked with PN scores.

Table 12: **PN Score Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Director* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**58.198**	**1.313**	**.000**	**56.711**	**1.876**	**.000**	**57.824**	**6.938**	**.000**	**29.913**	**16.464**	**.084**
Teacher-Director Trust	**1.248**	**.545**	**.022**	.871	.580	.134	**2.468**	**1.449**	**.094**	**5.849**	**3.209**	**.083**
School Characteristics												
Infrastructure Scale	**1.269**	**.629**	**.044**							-.780	3.592	.830
Resources Scale	-.129	.724	.859							2.311	3.845	.554
Night Session	**-2.183**	**.867**	**.012**							-2.227	4.811	.648
Rural School	**2.209**	**.869**	**.011**							**8.673**	**4.843**	**.088**
Urban Marginal School	**5.888**	**1.212**	**.000**							**8.190**	**4.661**	**.094**
Community Participation	**-3.473**	**1.371**	**.012**							-1.177	8.587	.892
Parent Participation	-.235	.502	.641							.894	2.488	.723
SES level of students	**2.301**	**.605**	**.000**							**5.655**	**3.188**	**.091**
Student Population	**-.004**	**.001**	**.000**							-.001	.005	.897
Percent of Overage 4th Grade	**-6.340**	**1.109**	**.000**							-7.929	6.549	.240
Teacher Characteristics												
Teacher Female				**1.635**	**.739**	**.028**				3.164	4.211	.461
Average Years as Teacher				-.032	.046	.490				-.030	.238	.902
Teacher Multiple Tandas				**-2.668**	**.851**	**.002**				3.854	4.885	.439
Other Job Time				-.019	.029	.508				.245	.170	.164
Education Level				-.123	.418	.768				.078	2.039	.970
Lives In Community				.238	.755	.753				.826	4.420	.854
Training Time				**.010**	**.005**	**.031**				.008	.032	.804
Director Characteristics												
Director Female							1.440	1.896	.450	5.866	3.706	.129
Years as Director							**.351**	**.138**	**.013**	.469	.281	.110
Education Level							-1.039	1.394	.459	1.008	2.229	.656
Time at Other Job							-.032	.083	.705	-.048	.142	.738
Also Teaches							**8.170**	**2.247**	**.001**	**10.622**	**4.718**	**.036**
Director Multiple Sessions							-2.924	2.177	.184	-1.805	4.248	.676
Daily Visits Class Dummy							-.050	1.975	.980	2.078	3.597	.570
Lives in Community							-1.304	1.927	.501	-.527	4.341	.905
Training Time							-.003	.006	.641	.012	.012	.328

The results show that when included in a school effectiveness model examining PN scores, teacher-director trust is significantly linked to better scores (Table 12). Every unit

increase of teacher-director trust signifies a near six point increase in PN scores, with an effect size of 0.72[9]. With the inclusion of teacher-director trust into the baseline model, two characteristics remain significant: SES level (5.66, sig. = 0.091) and whether the director also is a full or part time teacher (10.62, sig. = 0.036). Data also demonstrate that schools in rural and urban marginal demographic areas score over eight points higher on average on PN exams than schools in urban areas.

Data show that teacher-teacher trust is not a significant statistical predictor of PN scores in the cumulative model, though it was significant in Models 1 and 2 (Table 13). When this type of trust is included in the SER model, only years as director (the more years of experience a school's director has, the higher on average the PN scores are) and whether the school's director also teaches full or part time (if the director also teaches, PN scores are higher) retain their significance. Years as director (or director tenure), though significant, has minimal predictive power, with a coefficient of only 0.564 (effect size of 0.07); in contrast, if a director also teaches, his/her school scores an average of eleven points higher than a school where the director does not interact in that manner with other teachers and students.

[9] Effect sizes in this study are calculated by dividing the independent variable's significant coefficient by the dependent variable's standard deviation. PN scores have a standard deviation of 8.13 and PN qualification rates have a standard deviation of 19.4

Table 13: **PN Score Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Teacher* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**57.927**	**1.268**	**.000**	**56.393**	**1.884**	**.000**	**61.177**	**6.890**	**.000**	**43.681**	**16.025**	**.013**
Teacher-Teacher Trust	**3.177**	**.583**	**.000**	**1.159**	**.662**	**.081**	.111	1.896	.953	2.005	4.888	.686
School Characteristics												
Infrastructure Scale	**1.620**	**.615**	**.009**							-.964	3.968	.811
Resources Scale	-.100	.703	.887							-.231	3.891	.953
Night Session	**-2.372**	**.844**	**.005**							-.506	5.117	.922
Rural School	1.326	.857	.122							7.031	5.824	.241
Urban Marginal School	**6.032**	**1.154**	**.000**							6.408	4.997	.214
Community Participation	**-3.844**	**1.335**	**.004**							3.851	8.741	.664
Parent Participation	-.287	.488	.557							-1.127	2.383	.641
SES level of students	**2.498**	**.590**	**.000**							5.519	3.494	.130
Student Population	**-.003**	**.001**	**.000**							.002	.005	.655
Percent of Overage 4th Grade	**-6.988**	**1.070**	**.000**							-11.49	6.723	.103
Teacher Characteristics												
Teacher Female				**1.794**	**.734**	**.015**				5.114	4.376	.256
Average Years as Teacher				-.027	.046	.559				.065	.250	.796
Teacher Multiple Tandas				**-2.435**	**.861**	**.005**				2.550	5.267	.634
Other Job Time				-.019	.029	.509				.216	.183	.251
Education Level				-.107	.418	.799				-.634	2.240	.780
Lives In Community				.311	.750	.679				-.835	4.919	.867
Training Time				**.010**	**.005**	**.042**				.004	.035	.916
Director Characteristics												
Director Female							2.709	1.922	.164	5.779	4.552	.219
Years as Director							**.326**	**.141**	**.024**	**.564**	**.299**	**.074**
Education Level							-1.852	1.379	.184	-.557	2.202	.803
Time at Other Job							.011	.082	.899	-.037	.152	.809
Also Teaches							**8.197**	**2.329**	**.001**	**11.070**	**5.085**	**.042**
Director Multiple Sessions							-3.539	2.237	.119	-2.940	4.518	.523
Daily Visits Class Dummy							-.688	1.990	.731	-.075	4.042	.985
Lives in Community							-1.362	1.981	.494	-.294	4.945	.953
Training Time							-.002	.007	.743	.014	.012	.272

Table 14 illustrates the results of regressing teacher-parent trust on PN scores. Teacher-parent trust remains positively significantly linked with achievement scores in Models 1 through 4, with the cumulative model calculating a coefficient of over 12 points (i.e., for every unit increase in teacher-parent trust, PN scores increase over 12 points, with an effect size of 1.54). The only school-level variables that remain significant in the final model are:

- urban marginal schools (scoring approximately 7 points higher than urban or rural schools);
- percent of overage 4th graders;
- whether the majority of teachers in a school teach multiple tandas (teacher continuity in a school increases PN scores by almost 8 points); and
- director's years of experience (again, a small co-efficient).

Of these variables, the only negatively linked variable is percent of overage 4th graders, which confirms the study's hypothesis; for every one percent increase in overage 4th graders, a school's average score drops ten points, with an effect size of 1.17.

Table 14: **PN Score Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Parent* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**57.707**	**1.278**	**.000**	**55.591**	**1.862**	**.000**	**60.620**	**6.222**	**.000**	**40.271**	**12.867**	**.005**
Teacher-Parent Trust	**3.086**	**.597**	**.000**	**2.595**	**.617**	**.000**	**6.035**	**1.724**	**.001**	**12.499**	**3.758**	**.003**
School Characteristics												
Infrastructure Scale	**1.480**	**.613**	**.016**							.574	3.154	.857
Resources Scale	-.661	.716	.356							-1.468	3.153	.647
Night Session	-.903	.879	.305							4.669	4.291	.289
Rural School	**1.947**	**.848**	**.022**							5.824	4.244	.185
Urban Marginal School	**6.441**	**1.172**	**.000**							**6.976**	**3.899**	**.089**
Community Participation	**-3.232**	**1.339**	**.016**							3.406	6.949	.629
Parent Participation	-.246	.489	.616							1.184	2.025	.565
SES level of students	**2.128**	**.591**	**.000**							3.151	2.874	.286
Student Population	**-.002**	**.001**	**.008**							.001	.004	.827
Percent of Overage 4th Grade	**-6.567**	**1.072**	**.000**							**-9.514**	**5.396**	**.093**
Teacher Characteristics												
Teacher Female				**1.519**	**.723**	**.036**				3.662	3.553	.315
Average Years as Teacher				-.002	.046	.957				-.105	.207	.618
Teacher Multiple Tandas				**-2.622**	**.835**	**.002**				**7.743**	**4.484**	**.100**
Other Job Time				-.009	.028	.741				.245	.146	.109
Education Level				.078	.414	.850				1.271	1.823	.494
Lives In Community				.286	.736	.698				3.271	3.941	.416
Training Time				**.008**	**.005**	**.098**				-.007	.028	.810
Director Characteristics												
Director Female							1.260	1.678	.455	5.205	3.218	.121
Years as Director							**.326**	**.128**	**.013**	**.479**	**.239**	**.059**
Education Level							-1.224	1.237	.326	-.528	1.771	.769
Time at Other Job							-.031	.075	.683	.000	.123	.998
Also Teaches							**5.518**	**2.242**	**.017**	2.035	4.934	.684
Director Multiple Sessions							**-3.389**	**2.009**	**.097**	-2.483	3.636	.503
Daily Visits Class Dummy							-.319	1.820	.861	.355	3.030	.908
Lives in Community							**-3.372**	**1.893**	**.080**	-5.795	4.026	.166
Training Time							-.001	.006	.805	.016	.010	.115

The final group of models for this hypothesis analyzes the inclusion of teacher-student trust in the baseline model (Table 15). The results show that there is no association between this type of trust and PN scores. Even with the inclusion of teacher-student trust, the coefficients in the cumulative model are essentially the same as those in the baseline model, and have corresponding coefficient and effect sizes. This shows that schools' higher socio-economic levels make for better Pruebas Nacionales scores. In addition, lower achievement

scores are significantly associated with higher rates of overage 4th graders in a school. Schools with female directors, more experienced directors, and/or directors who also teach tend to have higher average PN scores.

Table 15: **PN Score Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Student* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**58.094**	**1.350**	**.000**	**56.667**	**1.896**	**.000**	**61.229**	**6.773**	**.000**	**45.229**	**15.883**	**.010**
Teacher-Student Trust	**1.115**	**.681**	**.102**	.202	.688	.769	-1.094	1.993	.585	-3.688	4.091	.378
School Characteristics												
Infrastructure Scale	**1.180**	**.629**	**.061**							-2.561	4.015	.531
Resources Scale	-.003	.724	.997							-.834	3.903	.833
Night Session	**-1.878**	**.883**	**.034**							.379	4.969	.940
Rural School	**2.137**	**.871**	**.015**							8.641	5.150	.109
Urban Marginal School	**5.844**	**1.240**	**.000**							6.283	4.768	.203
Community Participation	**-3.407**	**1.378**	**.014**							7.093	8.970	.438
Parent Participation	-.192	.508	.706							-2.713	2.760	.337
SES level of students	**2.227**	**.607**	**.000**							**6.081**	**3.388**	**.088**
Student Population	**-.003**	**.001**	**.000**							.004	.005	.448
Percent of Overage 4th Grade	**-6.937**	**1.110**	**.000**							**-12.82**	**6.606**	**.067**
Teacher Characteristics												
Teacher Female				**1.732**	**.742**	**.020**				6.584	4.593	.167
Average Years as Teacher				-.030	.046	.523				.111	.247	.657
Teacher Multiple Tandas				**-2.676**	**.853**	**.002**				1.038	5.204	.844
Other Job Time				-.021	.029	.462				.202	.178	.270
Education Level				-.152	.422	.719				-1.118	2.279	.629
Lives In Community				.369	.752	.624				-2.177	5.104	.674
Training Time				**.010**	**.005**	**.029**				.008	.035	.826
Director Characteristics												
Director Female							3.285	2.016	.108	**7.140**	**3.922**	**.084**
Years as Director							**.319**	**.141**	**.027**	**.668**	**.302**	**.039**
Education Level							-1.938	1.337	.152	-.885	2.185	.690
Time at Other Job							.016	.081	.846	-.054	.151	.724
Also Teaches							**8.134**	**2.297**	**.001**	**14.026**	**5.836**	**.026**
Director Multiple Sessions							**-3.728**	**2.207**	**.096**	-2.564	4.472	.573
Daily Visits Class Dummy							-.651	1.980	.743	.353	3.706	.925
Lives in Community							-1.132	2.014	.576	1.821	5.537	.746
Training Time							-.002	.006	.743	.016	.012	.207

Hypothesis 2: PN Qualification Rates and Trust.

The following tables illustrate the correlations between trust, school traits, and an unusual school effectiveness variable: the percentage of students who were matriculated in their 4th year who qualified for the first sitting of the Pruebas Nacionales of that year. Fourth graders who are called to the PN are those that meet the requirements for graduation. PN's account for 30% of graduation requirement, and how a seniors' other school performance (GPA, grades, etc.) accounts for 70%. Though this measure of school performance could indicate whether a school has high repetition or desertion rates, above all, PN qualification rate is a proxy measurement of whether a school is generating qualified students. It can also perhaps serve as a measure of school quality (e.g., less qualified teachers leading to poorer learning students?) or of internal efficiency (e.g., what is the cost to SEE to have to retain these students in the system until they qualify for the PN?) A school where only 1 in 18 students complete their exit exam at their first qualifier may be a very different school than one with a PN qualification rate of 80 percent. These differences could have interesting policy implications. For example, if students need to re-take the exit exam three or four times to pass, the burden of the cost falls upon the SEE, which is already working with limited resources.

Table 16 shows the result of regressing teacher-director trust on PN qualification rates, controlling for a set of school, teacher, and director characteristics. In Model 4 teacher-director trust is not significantly associated with higher rates of students qualifying for the exam. Infrastructure is negatively associated with higher qualification rates (for every one point increase in infrastructure, PN qualification decreases over 16 percentage points,

with an effect size of 0.85), but teaching and learning resources are positively linked (with a coefficient of 21 points, and an effect size of 1.09).

Table 16: **PN Qualification Rate as Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Director* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**82.411**	**3.410**	**.000**	**73.934**	**4.617**	**.000**	**50.866**	**19.227**	**.010**	40.780	38.551	.303
Teacher-Director Trust	**4.444**	**1.414**	**.002**	**5.540**	**1.428**	**.000**	4.582	4.017	.258	3.761	7.513	.622
School Characteristics												
Infrastructure Scale	**-6.399**	**1.635**	**.000**							**-16.51**	**8.411**	**.064**
Resources Scale	**3.276**	**1.880**	**.082**							**21.095**	**9.002**	**.030**
Night Session	**-9.515**	**2.251**	**.000**							6.795	11.265	.553
Rural School	**-9.536**	**2.257**	**.000**							-3.069	11.339	.789
Urban Marginal School	**8.093**	**3.147**	**.010**							18.361	10.913	.108
Community Participation	**-6.878**	**3.560**	**.054**							-16.36	20.106	.425
Parent Participation	.163	1.305	.901							3.683	5.824	.534
SES level of students	**-5.430**	**1.570**	**.001**							2.341	7.464	.757
Student Population	**-.015**	**.002**	**.000**							-.012	.012	.336
% of Overage 4th Grade	**-8.771**	**2.881**	**.002**							-15.48	15.334	.325
Teacher Characteristics												
Teacher Female				.494	1.819	.786				-10.54	9.860	.298
Average Years as Teacher				**-.210**	**.113**	**.064**				.064	.557	.910
Teacher Multiple Tandas				**-4.651**	**2.094**	**.027**				-9.513	11.438	.415
Other Job Time				-.087	.071	.224				-.291	.397	.472
Education Level				**-3.601**	**1.030**	**.001**				-1.437	4.775	.767
Lives In Community				-.470	1.857	.800				8.781	10.350	.406
Training Time				.008	.012	.514				.005	.075	.943
Director Characteristics												
Director Female							**19.687**	**5.255**	**.000**	13.153	8.676	.145
Years as Director							-.605	.382	.118	-.472	.657	.481
Education Level							-4.034	3.864	.300	-1.608	5.218	.761
Time at Other Job							**.671**	**.231**	**.005**	.321	.332	.345
Also Teaches							**12.558**	**6.227**	**.048**	13.072	11.046	.251
Director Multiple Sessions							9.503	6.033	.120	**29.282**	**9.947**	**.008**
Daily Visits Class Dummy							**10.419**	**5.474**	**.061**	**16.125**	**8.422**	**.070**
Lives in Community							**10.079**	**5.340**	**.064**	**18.003**	**10.165**	**.092**
Training Time							-.018	.017	.308	-.035	.027	.209

Similar to the models examining PN scores, teacher characteristics are consistently insignificant in all the PN qualification models. However, there are a number of director characteristics that continue to be significant in all the following trust models:

- whether the director is director for multiple sessions in that school (if the director works multiple sessions, qualification rates increase 29 points);
- whether the director visits classrooms daily (if the director has this policy, PN qualification rates increase 16 points); and
- whether the director lives in the same community as the school (with a coefficient of 18 points, effect size of 0.93).

Table 17: **PN Qualification Rate as Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Teacher* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**82.811**	**3.369**	**.000**	**72.387**	**4.657**	**.000**	**54.356**	**18.747**	**.005**	50.655	34.971	.163
Teacher-Teacher Trust	**5.719**	**1.550**	**.000**	**5.780**	**1.635**	**.000**	4.626	5.159	.373	4.253	10.667	.694
School Characteristics												
Infrastructure Scale	**-6.136**	**1.633**	**.000**							**-16.04**	**8.659**	**.079**
Resources Scale	**3.545**	**1.867**	**.058**							**19.281**	**8.491**	**.034**
Night Session	**-9.775**	**2.244**	**.000**							7.298	11.166	.521
Rural School	**-11.29**	**2.277**	**.000**							-5.719	12.711	.658
Urban Marginal School	**7.169**	**3.066**	**.020**							18.011	10.906	.114
Community Participation	**-7.710**	**3.546**	**.030**							-14.03	19.076	.471
Parent Participation	-.074	1.296	.954							2.684	5.201	.611
SES level of students	**-5.128**	**1.567**	**.001**							1.841	7.625	.812
Student Population	**-.015**	**.002**	**.000**							-.010	.011	.395
% of Overage 4th Grade	**-10.58**	**2.843**	**.000**							-17.11	14.671	.257
Teacher Characteristics												
Teacher Female				1.458	1.814	.422				-9.334	9.549	.340
Average Years as Teacher				-.185	.114	.105				.108	.545	.845
Teacher Multiple Tandas				-3.501	2.128	.101				-9.681	11.495	.410
Other Job Time				-.090	.071	.207				-.294	.399	.469
Education Level				**-3.579**	**1.034**	**.001**				-2.223	4.889	.654
Lives In Community				.072	1.852	.969				6.853	10.735	.530
Training Time				.005	.012	.649				.007	.076	.931
Director Characteristics												
Director Female							**20.304**	**5.229**	**.000**	11.729	9.935	.252
Years as Director							**-.688**	**.384**	**.078**	-.445	.652	.503
Education Level							-4.739	3.752	.211	-2.535	4.805	.604
Time at Other Job							**.719**	**.224**	**.002**	.332	.332	.330
Also Teaches							**11.708**	**6.338**	**.069**	13.046	11.096	.254
Director Multiple Sessions							9.404	6.088	.127	**28.749**	**9.860**	**.009**
Daily Visits Class Dummy							8.869	5.415	.106	13.839	8.822	.132
Lives in Community							**10.471**	**5.391**	**.057**	**19.153**	**10.792**	**.091**
Training Time							-.019	.018	.295	-.035	.027	.215

When examining teacher-teacher trust, the size of the coefficients, their directions, and effect sizes are almost identical to those found in the teacher-director trust table (Table 17). The only difference is that director visiting classrooms daily does not remain significant.

Table 18: **PN Qualification Rate as Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Parent* Trust**

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**82.085**	**3.372**	**.000**	**71.148**	**4.646**	**.000**	**56.934**	**18.555**	**.003**	48.948	34.976	.177
Teacher-Parent Trust	**6.576**	**1.575**	**.000**	**6.701**	**1.539**	**.000**	2.749	5.141	.595	1.104	10.216	.915
School Characteristics												
Infrastructure Scale	**-6.248**	**1.618**	**.000**							**-16.72**	**8.574**	**.065**
Resources Scale	2.318	1.889	.220							**19.418**	**8.570**	**.035**
Night Session	**-6.721**	**2.319**	**.004**							8.585	11.663	.470
Rural School	**-10.24**	**2.237**	**.000**							-3.633	11.536	.756
Urban Marginal School	**8.310**	**3.091**	**.007**							16.966	10.599	.125
Community Participation	**-6.498**	**3.533**	**.067**							-12.83	18.888	.505
Parent Participation	.023	1.291	.986							2.475	5.504	.658
SES level of students	**-5.842**	**1.558**	**.000**							2.200	7.812	.781
Student Population	**-.013**	**.002**	**.000**							-.010	.011	.394
% of Overage 4th Grade	**-9.777**	**2.828**	**.001**							-17.84	14.667	.238
Teacher Characteristics												
Teacher Female				.660	1.805	.715				-9.397	9.659	.342
Average Years as Teacher				-.131	.114	.250				.117	.564	.838
Teacher Multiple Tandas				**-4.573**	**2.084**	**.029**				-10.15	12.188	.415
Other Job Time				-.072	.071	.312				-.313	.398	.441
Education Level				**-3.253**	**1.033**	**.002**				-1.603	4.956	.750
Lives In Community				.144	1.837	.938				8.398	10.712	.442
Training Time				.003	.012	.817				.000	.076	.998
Director Characteristics												
Director Female							**21.444**	**5.003**	**.000**	13.560	8.747	.137
Years as Director							**-.649**	**.383**	**.095**	-.406	.649	.539
Education Level							-5.287	3.688	.157	-2.641	4.815	.589
Time at Other Job							**.731**	**.225**	**.002**	.329	.335	.337
Also Teaches							**11.419**	**6.684**	**.092**	12.679	13.412	.356
Director Multiple Sessions							8.392	5.991	.166	**28.518**	**9.883**	**.009**
Daily Visits Class Dummy							**9.417**	**5.428**	**.088**	**15.117**	**8.235**	**.081**
Lives in Community							9.037	5.643	.114	17.290	10.944	.130
Training Time							-.016	.018	.364	-.033	.027	.237

Teacher-parent trust and teacher-student trust models (Tables 18 and 19) share the same pattern as the other models investigating PN qualification rates. A school's infrastructure status remains negatively linked and the state of resources is positively associated; and the same three director characteristics are strongly predictive.

Table 19: PN Qualification Rate as Dependent Variable, modeling for school, director and teacher characteristics and *Teacher-Student* Trust

	Model 1			Model 2			Model 3			Model 4		
Variables	B	SE	Sig	B	SE	Sig.	B	SE	Sig	B	SE	Sig
Constant	**77.475**	**3.334**	**.000**	**70.227**	**4.495**	**.000**	**57.262**	**18.553**	**.003**	45.269	34.903	.209
Teacher-Student Trust	**12.347**	**1.682**	**.000**	**11.019**	**1.630**	**.000**	2.728	5.460	.619	6.456	8.991	.481
School Characteristics												
Infrastructure Scale	**-5.806**	**1.553**	**.000**							-14.79	8.822	.109
Resources Scale	**3.751**	**1.788**	**.036**							**20.805**	**8.576**	**.025**
Night Session	**-6.480**	**2.181**	**.003**							7.329	10.919	.510
Rural School	**-9.593**	**2.150**	**.000**							-4.363	11.318	.704
Urban Marginal School	**12.654**	**3.061**	**.000**							16.143	10.479	.139
Community Participation	-5.450	3.402	.110							-17.35	19.712	.389
Parent Participation	1.250	1.255	.320							4.673	6.066	.450
SES level of students	**-6.030**	**1.498**	**.000**							1.940	7.445	.797
Student Population	**-.011**	**.002**	**.000**							-.013	.012	.290
% of Overage 4th Grade	**-12.64**	**2.741**	**.000**							-16.49	14.516	.269
Teacher Characteristics												
Teacher Female				-.153	1.759	.931				-11.78	10.093	.257
Average Years as Teacher				-.129	.110	.239				.073	.543	.895
Teacher Multiple Tandas				**-4.578**	**2.022**	**.024**				-8.790	11.436	.451
Other Job Time				-.073	.069	.289				-.310	.391	.437
Education Level				**-2.953**	**1.001**	**.003**				-.517	5.007	.919
Lives In Community				.431	1.782	.809				11.452	11.217	.319
Training Time				.000	.011	.967				-.011	.076	.889
Director Characteristics												
Director Female							**20.796**	**5.522**	**.000**	12.931	8.619	.149
Years as Director							-.628	.385	.108	-.537	.665	.428
Education Level							-5.417	3.663	.144	-2.168	4.802	.657
Time at Other Job							**.739**	**.223**	**.002**	.350	.331	.303
Also Teaches							**12.863**	**6.292**	**.045**	8.692	12.825	.506
Director Multiple Sessions							8.717	6.045	.154	**27.574**	**9.828**	**.011**
Daily Visits Class Dummy							**9.184**	**5.423**	**.095**	**15.451**	**8.144**	**.072**
Lives in Community							**9.342**	**5.517**	**.095**	12.826	12.168	.304
Training Time							-.016	.018	.358	-.035	.027	.209

Tables 20 and 21 show the differences in significant characteristics and effect sizes between PN score and PN qualification rate models, again attesting to the school outcomes' differences. Only two types of trust are significant when examining PN scores: trusts felt between teachers and directors and teachers and parents while no types of trust were predictive of PN qualification rates.

Table 20: Significant Coefficients in PN Score Models across All Types of Trust (effect size in parentheses)

	No Trust	Teacher-Director	Teacher-Teacher	Teacher-Parent	Teacher-Student
Type of Trust		5.85 (.72)		12.50 (1.54)	
Rural School		8.67 (1.07)			
Urban Marginal School		8.19 (1.01)		6.98 (.86)	
SES level of students	5.80 (.71)	5.66 (.70)			6.08 (.75)
Percent of Overage 4th Grade	-11.93 (1.47)			-9.51 (1.17)	-12.82 (1.58)
Teacher Multiple Tandas				7.74 (.952)	
Director Female	6.71 (.82)				7.14 (.88)
Years as Director	0.59 (.07)		0.56 (.07)	0.48 (.06)	0.67 (,08)
Director Also Teaches	11.28 (1.39)	10.62 (1.31)	11.07 (1.36)		14.03 (1.72)

The characteristics that most consistently are significant throughout the PN score models include SES level of students, percent of overage 4th graders, director experience and whether the director also teaches.

None of the types of trust have any significant relationships with PN qualification rates. The status of infrastructure was consistently negatively associated with PN qualification rates and improved teaching and learning resources were consistently positively associated with the rates. Director continuity, or whether the director worked multiple sessions as director in that school, was linked positively to how well matriculated students qualified for the PN exam in all the trust models. This result is critical and verifies what Dominican education officials and researchers already suspected were management deficiencies in the system (Alvarez, 2004 and IDB, 2000). The director's rate of

involvement with teachers and students, as measured by whether the director has a policy of visiting all the classes on a daily basis, is also consistently significant and positively associated with PN qualification rates. Finally, director's residence in the school's community is positively associated with this outcome.

Table 21: Significant Characteristics in PN Qualifying Rate Models across All Types of Trust (effect size in parentheses)

	No Trust	Teacher-Director	Teacher-Teacher	Teacher-Parent	Teacher-Student
Infrastructure Scale	-16.89 (.87)	-16.51 (.85)	-16.04 (.83)	-16.71 (.86)	
Resources Scale	19.54 (1)	21.1 (1.09)	19.28 (.99)	19.42 (1)	20.81 (1.07)
Director Multiple Sessions	28.47 (1.47)	29.28 (1.51)	28.75 (1.48)	28.52 (1.47)	27.57 (1.42)
Daily Visits Class Dummy	15.13 (.78)	16.13 (.83)		15.12 (.78)	15.45 (.80)
Lives in Community	17.72 (.91)	18.00 (.93)	19.15 (.99)		

Teacher Survey Write-In Reponses

To garner a final view of the needs of the Dominican secondary system, one that in many ways backs up the statistical findings but also provides more color to the specific needs and priorities of secondary schools, write-in responses from the teacher surveys are examined. The sampled teachers were provided three spaces to write in what they believed were the most important priorities and/or needs in their school. Their responses are delegated into eight categories, in order from most to fewest:

1) Physical plant/infrastructure
2) Student attributes
3) Teaching/Learning resources

4) Parent/community relations
5) Personnel
6) School level and government level management
7) School climate

Many of the teachers' responses (41% of 1407 responses) are related to lack of infrastructure and/or its deterioration, including lack of electricity, not enough classrooms or desks, and lack of bathrooms and potable water. These are direct costs of education that are fundamental to quality education. The physical school, as the location of education, deserves investment either through SEE funding (new building and renovations) or through investment in community endowments/grass roots fund-raising, leading to local community investment in the physical plant. This has occurred in some Dominican secondary schools; and further efforts are necessary to encourage more through director and teacher involvement in community, perhaps through leadership training.

The second largest "problem" in schools as described by teachers deals with student attributes (16%), with student indiscipline and disinterest in classrooms ranking highest. Eleven percent of the write-in responses involve lack of teaching and learning materials, including text books, didactic materials, science and information labs, computers, and libraries. Four percent deal with lack of parent and community relations; while six percent of the responses touch on personnel problems within the school, including lack of teachers and staff and lateness. Problems with school-level management (i.e., bad director leadership; teachers' lack of involvement) and government relations (i.e., centralized system, politicalization of teacher naming process; and lack of government support) accounted for another six percent of the responses; and finally, concerns with school climate only accounted for two percent. The teachers were not asked to rate infrastructure in their

surveys, so any of their responses indicating a problem with infrastructure is unbiased in that regard.

Teachers were also asked to describe the school climate in their school, as either good, fair, or poor; then they were asked to explain why. Teachers who felt that there was good school climate described that these were the reasons why: good relationships with students, teachers, parents and the local communities; students who behave well and who work hard; effective use of time; less student delinquency; a good infrastructure; good support for the school; and "democratic sensibilities" in the school.

Teachers who rated their school as having poor school climate felt that lack of confidence in authorities; certain difficulties in teacher training/development; students who do not apply themselves or who misbehave; high repetition rates; overpopulated classrooms; poor infrastructure (including lack of classrooms, furniture, etc.); lack of resources; electricity; small school plants; lack of security; lack of director management; and lack of motivated students all explained the school climate.

CHAPTER VIII

DISCUSSION & CONCLUSION

The primary purpose of this research study was to explore whether relational trust felt in the relationships between teachers, directors, parents, and students played a role in determining whether a school community produced higher PN achieving and PN qualifying students. It also sought to offer new evidence to researchers and policymakers about the link between relational trust and school performance in the Dominican Republic.

Trust

The data show that there are large differences between schools in how teachers perceive levels of trust, respect, and obligation between other stakeholders; large differences also exist between schools in average performance measures, verifying that differences exist in school environments across Dominican secondary schools. This finding is not surprising as Scheerens (2002) found larger variance in achievement between schools in the Dominican Republic compared to other Latin American and Caribbean countries. While Bryk and Schneider (2002) found that urban elementary schools with strong levels of trust were small, had stable student populations, demonstrated effectiveness, and lacked racial and ethnic tensions, different sets of conditions proved significant in Dominican secondary schools.

Since the findings in this study are quite different from Bryk and Schneider's findings, it is necessary to suggest factors related to trust and performance that are different in the Dominican Republic than in urban elementary schools in the United States. Stable

student populations may have been a valid indicator of performance in Dominican schools as in Chicago, but this study did not include repetition or drop-out rates due to reliability issues with the data. Moreover, racial and ethnic tensions are not critical issues in Dominican culture, especially in demographic areas that are more homogenized by class. Discrepancies in Dominican school infrastructure, varied types of parental involvement, and cultural and demographic differences may be among the reasons that the Dominican findings vary from Chicago results. For example, though Chicago urban elementary schools may also deal with uneducated parents when trying to promote parental involvement, the Dominican context may be significantly different. Specifically, the effect of a Bachelor's degree in differentiating socio-economic class in the Dominican Republic (especially in rural areas where the rates of higher education, or even primary school completion, are much lower) may be greater than in urban areas in the United States.

Schools experiencing high levels of trust between teachers and the director are characterized by higher rates of community involvement, lower parent participation rates, and directors with lower education levels. To reiterate, the community involvement measure asked directors whether the community (as an entity) helped with minor repairs around the school, donating construction materials and school fees, while the parent involvement scale measured percentages of individual parents involved in teaching and learning activities, school activities, and budget support. By analyzing the specific measures which the parental participation scale includes (i.e., teaching and learning activities versus financial contributions), it can be suggested that the scale may be picking up some negative causes and/or implications of "forced" involvement by parents. Some fundraising activities are not completely volunteer activities. For example, sometimes parents become more involved with

directors (directors answered this scale) only because their child is having or causing problems in the classroom. Both Dominican teachers and directors cited student behavioral issues and discipline problems as a key determinant of school climate and one of the principle problems in their school. In addition, at the secondary level parents may be less expected to be involved in their children's education, especially in a system with a large overage student population; or parents may not have time or do not feel capable of helping in teaching and learning activities because of their own low education levels, especially in rural areas.

Asking teachers' perceptions of parental involvement may have proved a better indicator of parents' true involvement in teaching and learning activities. The director's impression of parental participation may only focus on the administrative level interactions—e.g., financing, disciplining students when teacher efforts have failed. Moreover, Dominican directors may be more detached from what occurs in the classroom. According to how directors self-allocate their time, approximately 30% of time is spent on administrative duties, unless they too teach full time or have a policy of visiting classrooms everyday.

Conditions that facilitated strong teacher-teacher trust were rural schools with involved female directors with policies of visiting classrooms daily, which in turn promoted social relationships with students and teachers. One suggestion is that these high teacher-teacher trust schools may be those run by nuns, though one cannot tell from this dataset. Even though these schools experience healthy relationships between teachers, they do not have higher PN scores or PN qualification rates than their lower trusting counterparts. Rural schools also tend to be smaller, perhaps fostering closer-knit relationships.

High rates of teacher-parent trust are predicted by low levels of parent participation (in schools where teachers and parents trust each other, fewer parents are involved in school activities, again alluding to the possibility of the negative parental involvement in Dominican culture), fewer teachers who taught multiple sessions in that school, and directors who also teach and live in the same community as the school. Teacher continuity in a school is not important in promoting teacher-parent trust, though the stronger involvement of the directors in these schools may be the determining factor in trust felt between teachers and parents, addressing the key role directors play in education. Especially in urban marginal areas, where teaching is a more "taxied" profession, perhaps the role of the director becomes more important, acting both as a liaison with students *and* as a member of the community he/she lives in. A closer relationship with directors on the part of teachers, students, and community members may offset the need for parental involvement, both positive and negative. Schools with higher levels of this type of trust also scored better on PN scores on average, and were located in urban marginal demographic zones and had fewer overage students.

Trust felt between teachers and students is associated with lower parent participation rates, directors and teachers who live in the same community as the school (though the teachers relationship is negatively associated), and larger student populations. Some of the same arguments the study uses to hypothesize teachers-student trust can be used here; for example, parent participation may not promote positive interactions between stakeholders. Directors that are figures both in the community and in the classroom would be more familiar to students, and could provide more opportunities for trust-building interaction both within and outside of the school. It was surprising, however, that teachers who lived in the same community experienced less trust with their students.

Performance

This study answers the question of whether relational trust in any of its manifestations (between directors, other teachers, parents and students) is significant towards predicting increased school performance, specifically PN scores and PN qualification rates. The data show that while teacher-director trust and teacher-parent trust prove significantly linked to increased average PN scores, no levels of trust are associated with PN qualification rates in the sampled Dominican secondary schools. Moreover, in the cases where trust is significant in predicting PN scores, it is difficult to determine whether trust is significant because better performing schools foster trust or because trust fosters better performing schools—this study only determines that these relationships exist.

In addition to teacher director trust and teacher parent trust, a number of other conditions facilitated PN scores, including rural and urban marginal schools (8 points higher on average than urban schools), higher SES level, and directors who also taught in their schools. This last measure indicates that directors are present in the classroom, having more familiarity with students and teachers in a role that is more directly linked with PN achievement.

Even though the results of this study were mixed, implications for policy can still be formulated. Bryk and Schneider (2002) argue that all forms of relational trust can act as a resource during school improvement, and its possible value in a school undergoing reform should not be underestimated. Since teacher director trust and teacher parent trust did prove to be significant in predicting PN scores, one needs to examine the possibly beneficial effects that incorporating trust building components in pre-service (which includes normal school and university level teacher training) and in-service training would provide. More activities

that promote positive relationship building between the community, parents, teachers, and the director, producing opportunities for interactions between stakeholders and promote feelings of respect, trust, and obligation. One option would be to invest more in Juntas Escolares, decentralizing more resources and power to the school level to encourage administrative responsibility, continuity, and relationships between teachers, involved parents, and students. The role of juntas in the Dominican Republic is different from school boards in the United States. Whereas school boards have been an integral part of American education for many years, juntas have only existed since the mid 1990s. Chicago's decentralization in the 1990s focused on the use of local school boards that had a much stronger (and longer) history of working together. There was a reason that Chicago decided to decentralize decision-making authority to these entities. Though structurally existent, the SEE has only allowed minor decisions regarding financing to be made by them (specifically, the use of 1 or 2 monetary transfers to the school from the SEE, to be used for school maintenance or improvement or the purchase of classroom resources). Even though minimal power has been transferred, parents in the community also need training and consciousness-raising in their own capabilities to participate in teaching and learning activities. Finally, the SEE could focus on concreting the role of the director within the school and the community. However, one predicament in focusing on the director is the politicized nature of director in the Dominican education system: some directors may have been promoted for political reasons, as they belong to the party in power.

School Characteristics

While the trusts felt between teachers and directors and parents are among factors that facilitate student achievement, a number of other school-level characteristics proved significant in school performance regression models. As summarized in Chapter VII, school factors associated with high PN scoring schools include higher SES levels, demographic zone (urban marginal and rural score better than urban schools), fewer overage students, female directors, greater director experience (though only a minimal effect), and whether the director also teaches in that school.

While it is not surprising to find that higher SES schools score better on PN, it is worth investigating why rural and urban marginal schools score better than urban schools. An analysis of characteristics correlated with rural and urban marginal schools helps illustrate why schools in these demographic zones may score better: both rural and urban marginal schools have lower infrastructure scale scores, though only rural schools are associated with lower classroom resources.

Rural schools are associated with higher individual parent participation rates, lower SES students, less experienced teachers, and smaller student populations. In addition, directors in rural areas visit classrooms on a daily basis more than directors in urban and urban marginal schools. However, the primary reason why rural schools may score higher than urban schools is that they have much fewer overage students in rural schools, which was determined to have a huge correlation with PN scores.

Urban marginal schools were not expected to score better than urban schools, so it is worth noting what characteristics are associated with urban marginal schools that differentiate them from rural and urban schools. Located in marginalized urban areas (i.e.,

slums, less developed areas on the periphery of urban centers), these types of schools have fewer directors who visit classrooms daily and teachers and directors who also work outside of the school (again, reinforcing the notion of a "taxi profession"). However, urban marginal schools tend to have more night sessions than urban and rural schools, attesting to the fact that they could be serving a specific population of motivated students (for example, student who work during the day and can only attend school at night). Teachers and directors in urban marginal areas are also more experienced than staff in the other demographic zones. Though these factors may be significant in explaining why urban marginal schools score better, the researcher suspects that there may be student characteristics that could better explain the variation in achievement among Dominican schools.

One hypothesis is that the conditions in these more isolated demographic zones require that teachers and directors interact more closely with each other; perhaps a "we're in this together" mentality develops that promotes more interactions with the community. Although it was hypothesized that smaller schools would foster more intimate relationships with stakeholders and therefore promote achievement, student population of a school was not significant in predicting most types of trust or any forms of school performance measures.

The issue of overage students is of large concern in Dominican secondary schools (Alvarez, 2004), and, as is determined using these data, significantly affects how a school scores on PN exams (for every one percent increase in overage students, schools on average score 10 points lower). Approximately a third of the students reported by school directors in this study's sample were overage. While the Dominican system has made attempts to create flexible policies to re-allow drop-outs to finish their secondary education by providing multiple times (e.g., morning, afternoon, night or weekend) and types of secondary education

(including poli-technical or TV distance learning), overage students are still compounding the system. Though providing alternative sessions lowers the opportunity costs for teenagers and adults to attend and finish secondary education, a drawback to this flexibility is the overburdening of infrastructure and lack of administrative continuity in school physical plants (i.e., primary education morning session and secondary afternoon session and sometimes secondary night sessions), overcrowding, and inefficient use of resources (Alvarez, 2004). In addition, over-age students' presence in classes with the majority of students at the proper age-school year synchronization may prove disruptive or distracting.

Moreover, further work on the part of the SEE to develop a national student identification system is necessary to keep track of accurately the student population and would help to identify and track the over-age student population in the Dominican secondary education system. One cannot accurately measure a system's desertion and repetition rates if students move between schools, or drop out and then re-enter the system at a later date or at a different school.

Parent and Community Participation

This study found the reverse of what was hypothesized regarding the link between active involvement by parents and trust in schools. Why did this occur? The parental activity scale included financial support and teaching and learning involvement. Parent involvement in Dominican schools focuses more on financial help rather than children's teaching and learning activities. This differs from traditional parental involvement models used in industrialized countries, as discussed in the literature review, which focus on other

types of parent action—parental aspirations for their children, involvement in parent-teacher organizations, help with homework, etc.

Though this study is cross-sectional, it is worth examining why parents are more involved in schools that report less trust felt between teachers and parents. Perhaps parental familiarity with Dominican secondary education breeds contempt; or alternatively, involvement by parents is seen by the director as meddling. Since they are investing their own capital, parents and community members may want to be more directly involved in making decisions, complicating the relationship between school officials and outsiders. Parents may be getting involved in school finance and donations because they *have* to get involved, otherwise some fundamental supplies would not be provided, such as chalk and cleaning supplies. It perhaps is a case of minimal survival compounded by tradition.

One surprising finding was that increased parental participation is linked with low levels of teacher-director, teacher-parent, and teacher-student trust in schools. It could be argued that attempting to facilitate more traditional forms of parental involvement would be a sound investment for the SEE, for example more teacher-parent meetings to provide opportunities for parents to become involved in their child's learning. If parents are already involved in budget support and donation, it is worth investigating why and how these parents are doing so.

Relating back to the theory of intergenerational closure, the results of this study would seem to reinforce Morgan and Sorenson's (1998) description of horizon-expanding schools, which they believed fit the public school model more aptly than Coleman's norm-enforcing model. However, there are differences in the Dominican model, which needs to account for involvement defined by financial support provided by parents, and how it relates

to trust within schools. Like Morgan and Sorenson's (1998) work, this study found parent involvement was negatively associated with PN score achievement, which also contradicts Coleman's theory, but may be due to the difference in how parental involvement is defined.

Another suggestion for the SEE would be to invest in the creation of a position for this purpose expressly (or work with the Junta Escolar mechanism), to promote and coordinate interactions and trust building exercises between stakeholders. The parental involvement one sees in Dominican secondary schools demonstrates a willingness to become involved in their child's education, and could be utilized by the SEE in a more substantial or subsidized manner, perhaps by increased funding to the Junta Escolares, or by creating incentives to further this type of participation, like matching grants. The same policy recommendations hold true for community as for parental participation in Dominican schools. As Carbonaro describes, if trust (including the networks and social closure involved) are significant, "schools may want to reassess the types of opportunities they provide for parents to interact with each other" (1998 p. 310).

Many Dominican parents are not involved in teaching and learning aspects of their children's education. How can the Dominican system promote this type of parental involvement? One solution is parent and community sensitization, which has proved effective in promoting parent awareness in girls' education in Guatemala (World Learning, 2002). Juntas Escolares could be geared to promote more involvement between parents and teachers. Since teachers are provided curricula, components could be incorporated to foster parent involvement. Creating administrative spaces (as will be discussed further on) could also help facilitate interactions between teachers, parents, and students. Since relationships

embody the structure of social capital and the trust that develops is the functionality of social capital, then efforts should be made to foster these relationships.

Infrastructure and Classroom Resources

From direct observation by the researcher, there appeared to be an inefficient use of school facilities: rooms were cramped, there was lack of student seating at times and "struggles" over desks and chairs were observed while other classrooms were not used. Nevertheless, the data show that schools with larger student populations have teachers reporting more trust felt between them and students. However, teacher-student trust was not significantly linked to any performance measure. Further exploration of the effect of teacher and student relations is needed, as the second highest concern reported by teachers in the write-in section were student issues (i.e., misbehaving, attitude problems, inadequate preparation).

Although infrastructure was statistically negatively associated with PN qualifying rates, some of the scale items are fundamentally necessary for the basic provision of education. These include sanitary installations, consistent electrical service, and telephone service or another means of communication to stay connected with regional and central SEE offices and community members, including parents. In addition, infrastructure was rated one of the highest reported priorities and determinants of school climate by both teachers and directors. Possible solutions for these concerns are the construction of new facilities, remodeling, or expansion of existing facilities to lessen the impact of multiple sessions on infrastructure. Steps need to be taken to unify secondary schools in one structure with the

same director, for no other reason than to at least be able to hold one person accountable for the state of that school.

While the state of infrastructure was consistently negatively associated with PN qualification rates (though the qualitative data looked at contradicted this—for instance, teachers and directors wrote in that a high priority was the need to have better infrastructure), teaching and classroom resources were consistently positively predictive of qualification rates. With every one point increase in a school's resource scale, PN qualification rates increased 20 percent. Like Raudenbush, Kidcharnaparish, and Kang (1991) and Heyneman and Loxley (1983), this study confirmed the importance of school resources in developing country educating by finding that classroom resources were largely significant across all PN qualification rate models. It appears again that poverty magnifies the effect of certain resources. Investment in more (and better) teaching resources by the SEE could help promote higher PN qualification rates in Dominican secondary schools. Policymakers could help counteract some of the negatively impacting conditions (e.g., overage students) by realizing the importance of school teaching and learning resources on PN qualification rates. These measures could be as simple as ensuring that teachers have enough chalk, textbooks, learning guides, AV equipment, maps, and curriculum guides for teachers.

Administrative Continuity

It is apparent from the findings that director continuity within schools matters, especially in an education system where multiple administrations exist in different schools within a school building, with teachers and directors rotating in and out. The SEE could promote administrative continuity to create more responsibility at the school level; perhaps a

sense of permanence that produces a sense of ownership will make a director more likely to invest his/her time and energy into school improvement and community relations. With 18% of directors reporting not having offices and 12% reporting offices in poor conditions, how is a director expected to settle into this profession. The data suggest that directors and teachers have become "taxi" professions, especially since most schools do not have places for teachers to meet with students and with each other. Another symptom of the administrative discontinuity occurring in the system is the lack of teacher furniture and space: 46% of schools reported not having enough desks for teachers and 68% did not have teacher lounges. This lack of designated space affects student and teacher relations since any interactions must occur in hallways or in other chaotic occurrences. From my personal observation, there appears to be very little "teaching" occurring in classes—it appeared more like the teacher was babysitting. There are few visible teaching resources in the classroom, the teacher walks in with a handful of small books, and teachers move between classes, not students.

Secondary Education Reform in the Dominican Republic

Bryk and Schneider (2003) believe that relational trust can lead to innovation, problem solving, and meaningful collective action in school communities. They showed that relational trust within school communities in Chicago can be a social resource for school improvement. Now that this study on the Dominican education system shows that certain types of trust are significantly linked to improved PN scores, new research could take a step forward in examining its association with attempts at school reform and improvement, to prove that trusting relations are especially important in times of structural change. The SEE's Strategic Plan for Education (2002) stresses the need for reform in areas of quality,

access, and improved management. But will attempts at change be successful in schools with lower trust felt between key stakeholders? As Bryk and Schneider state "the presence of high relational trust increases the likelihood of broad-based, high-quality implementation of new improvement efforts" (2002 p.34).

This study opens several avenues for further research on secondary education in the Dominican Republic and in the larger context of developing countries that must struggle with resource constraints, including further and deeper analysis of the data used in this study. Qualitative case studies of high performing and low performing schools would increase our understanding of the complexities of the Dominican education system, allowing the researcher to investigate the details and manifestations of trust in schools by talking to stakeholders to understand their perspectives; and make observation to capture the true inner-workings of social relationships and the system overall.

Longitudinal research would also prove better at showing the true impact of trust on school performance, perhaps by following cohorts of students throughout a secondary experience, tracking changes from their 8th grade PN score to their secondary 4th grade score. Following cohorts would also capture the factors playing a role in desertion and repetition rates within a school, perhaps utilizing qualitative methodology as well.

In conclusion, the findings of this study on Dominican secondary education reinforce some of the findings of Bryk and Schneider's 2002 study of Chicago urban elementary schools. As in Chicago, certain types of trust felt between education stakeholders in the Dominican Republic are associated with school performance. However, this study found that there are differences in social interactions found at the secondary level of education, especially if there are a number of overage students in the system. In addition, the findings

from the Dominican Republic again reinforce the differences between industrialized country and developing country education, reconfirming that classroom resources have more effect on achievement in countries with low school input levels. Further analysis of secondary education and its reform is especially pertinent in the Dominican Republic, a country struggling to find its place in a globalized economy.

APPENDIX A: KEY VARIABLES AND CORRELATIONS

Appendix Table 1: Measures of Key Variables and Descriptive Statistics

	N	*Min*	*Max*	*Mean*	*Std.Dev*
Dependent Variables					
Desertion rate (school average)					
Director reported:	**71**	**0**	**32**	**4.50**	5.347
Repetition rate (school average)					
Director reported:	**73**	**0**	**82**	**5.86**	11.071
12th grade Pruebas Nacionales (SEE disclosed)	**80**	**36.872**	**73.978**	**56.599**	8.13247
% Called for Prueba Nacional of those matriculated that year	**80**	**.18**	**.95**	**.5540**	.19413
Trust					
Teacher-Director Trust (sum of 9 items; Cronbach's alpha=.910)	**77**	**1.55**	**3.91**	**3.1398**	.4738
Share feelings, worries, frustrations with director				2.79	1.052
Director interested in personal welfare of teachers				3.04	1.013
I have confidence in the director's word				3.09	.996
Director is effective manager				3.03	1.066
Director places students needs above political and personal				3.02	1.020
Director believes in teachers' capacity				3.32	.829
Director interested in professional development of teachers				3.23	.946
I respect my director as an educator				3.59	.689
Up to what point do you feel respected by your director *				2.68	.666
(0=strongly disagree; 1=disagree; 2=neither agree nor disagree; 3=agree; 4=strongly agree)					
*(0=none; 1=a little; 2=some; 3=a lot)					
Teacher-Teacher Trust (sum of 6 items; Cronbach's alpha=.783)	**77**	**2.17**	**3.87**	**3.1850**	.33894
Proportion of teachers who get along*				3.31	.780
Point you feel respected by your coworkers**				2.84	.456
Teachers confide in each other				3.03	.799
Share feelings, worries, frustrations with other teachers				2.91	.931
Respect for teachers in leadership roles				3.21	.796
Respect teachers who can teach well				3.44	.708
*(0=none; 1=some; 2=about half; 3=almost all; 4=all)					
**(0=none; 1=a little; 2=some; 3=a lot)					
(0=strongly disagree; 1=disagree; 2=neither agree nor disagree; 3=agree; 4=strongly agree)					
Teacher-Parent Trust (sum of 13 items; Cronbach's alpha=.741)	**77**	**1.67**	**3.28**	**2.5243**	.29909
Proportion of parents contribute to children's learning*				1.66	.956
Proportion of teachers who feel good about parents support*				1.97	1.227
Proportion parents who support learning efforts*				2.14	1.128
Point local community respects teachers**				2.74	.583
Point teachers respect parents of students**				2.85	.456
Point teachers felt respected by parents of students**				2.55	.681
Teachers and parents feel like partners in student's education				2.98	.824
Difficult to overcome cultural barriers between teachers and parents				1.90	1.144
Teachers sincerely appreciate local community				2.90	1.070
Parents have confidence in teacher's capacity				3.30	.718
There are conflicts between parents and teachers in this school				2.71	1.170

	N	*Min*	*Max*	*Mean*	*Std.Dev*
Staff at this school try to build trusting relationships with parents				3.26	.786
Talking with parents helps me understand my students better				3.57	.684
*(0=none; 1=some; 2=about half; 3=almost all; 4=all)					
**(0=none; 1=a little; 2=some; 3=a lot)					
(0=strongly disagree; 1=disagree; 2=neither agree nor disagree; 3=agree; 4=strongly agree)					
Teacher-Student Trust (sum of 8 items; Cronbach's alpha=.600)	**77**	**1.98**	**3.69**	**2.6543**	.33727
How many teachers feel good about the work their students do?*				2.32	1.022
Point the teachers respect the students**				2.80	.478
Teachers feel like partners in education				3.57	.616
Students feel committed to education				2.58	.882
Difficult to overcome cultural barriers between teachers and students.				2.24	1.176
Students have confidence in capacity of teachers				3.39	.682
There are conflicts between students and teachers				2.50	1.177
Staff work hard to build trusting relationships with students				3.27	.841
*(0=none; 1=some; 2=about half; 3=almost all; 4=all)					
**(0=none; 1=a little; 2=some; 3=a lot)					
(0=strongly disagree; 1=disagree; 2=neither agree nor disagree; 3=agree; 4=strongly agree)					
Teacher-Director Average Factor Score Per School	514	-2.22	1.00	-0.0016	.62322
Teacher-Teacher Average Factor Score Per School	514	-1.83	1.13	0.0073	.57529
Teacher-Parent Average Factor Score Per School	514	-1.70	1.44	-0.0030	.59453
Teacher-Student Average Factor Score Per School	514	-1.42	.77	0.0060	.54574
Independent Variables					
Trust (see above)					
School Characteristics					
Demographic Zone (SEE disclosed)	**80**	**0**	**2**	**1.33**	.883
Coded as: 0= rural; 1=urban marginal, 2=urban					
Rural School	**80**	**0**	**1**	**.28**	.449
Urban Marginal School	**80**	**0**	**1**	**.13**	.333
School population (director reported)	**78**	**16**	**2000**	**549.85**	424.299
"This year, what is the student population in this session?"					
Average Class Size (director reported)	**78**	**20**	**83**	**42.31**	11.300
"What is the average number of students per class in this session?"					
Infrastructure Scale (sum of 13 items; Cronbach's alpha=.872)	**77**	**0**	**3**	**1.44**	.741
"Indicate which of the following infrastructure elements exist in your school, and if they exist, in which state they are in: 1) classroom for each group of students; 2) furniture for teachers (seats, tables, desks); 3) furniture for students; 4) sanitary installations; 5) electricity; 6) backup electricity generator/plant; 7) potable water; telephone; 8) director's office; 9) school cleanliness; 10) teacher lounge; 11) library; 12) science lab; and 13) information/computer lab."					
Recoded as: 0=school does not have; 1=bad condition (needs important repairs); 2=fair condition (needs minor repairs); 3=good condition (doesn't need repairs)					
Resource Scale (sum of 9 items; Cronbach's alpha=.681)	**78**	**0**	**3**	**1.50**	.641
"Indicate which of the following learning resources exist in your school, and if they exist, in which state they are in: 1) teaching guides for the teacher; 2) learning guides for students; 3)					

	N	*Min*	*Max*	*Mean*	*Std.Dev*
blackboards and chalk; 4) textbooks; 5) school curriculum; 6) audiovisual equipment; 7) diagrams; 8) maps; and 9) globes. Recoded as: 0=school does not have; 1=bad condition (needs replacement); 2=fair condition (needs minor improvement); 3=good condition (doesn't need improvement)					
Socio-Economic Status Level "To which socio-economic level do the majority of the students in this session belong to?" Coded as: 0=low; 1=lower middle; 2=middle; 3=middle high; 4=high	**78**	**0**	**2**	**.64**	.624
Parent participation scale (sum of 4 items; Cronbach's alpha=.756) "What approximate percentage of parents are involved in the following activities: (a) teaching and learning activities; (b) other school activities (e.g., cleaning and school maintenance); (c) other support activities (e.g., raffles, kiosks, education materials); (d) make donations and/or support the school budget. Coded as: 0=less than 25% 1=25-50% 2=51-75% 3=more than 75%	**74**	**0**	**2.50**	**.6250**	.69273
Community Participation scale (sum of 9 items; Cronbach's alpha=.759) "In which of the following aspects has the community collaborated with the school:"	**74**	**0**	**1.00**	**.2748**	.25432
Donate Land				.34	
Free construction labor				.22	
Donate buildings				.07	
Donate construction materials				.22	
Donate minor repair				.37	
Railings and ground repair				.14	
Cash contribution				.37	
Equipment/materials				.28	
School fees				.42	
Coded as: 0=no; 1=yes					
Private Business Support "Does private business participation or support exist in this school?" Coded as: 0=no; 1=yes	**78**	**0**	**1**	**.14**	.350
Patronage "Is this school patroned by some institution and/or business?" Coded as: 0=no; 1=yes	**78**	**0**	**1**	**.18**	.386
Junta Escolar "Does a Junta Escolar exist in this school?" Coded as: 0=no; 1=yes	**76**	**0**	**2**	**.97**	.159
Junta Functions "How does the Junta function in your school?" Coded as: 0=bad; 1=fair; 2=good				**1.47**	.553
Teacher Characteristics					
Sex "What is your sex?" Recoded as: 0=male, 1=female	**77**	**0**	**1**	**.5084**	.26650
Years as teacher "Years as teacher"	**77**	**5**	**23.40**	**12.9687**	4.70489
Education level "What is the highest academic level you reached?" Coded as: 0=High School Degree 1=Normal Teacher Degree 2="Profesorado"/Technical Degree	**77**	**2.75**	**5.17**	**4.0153**	.42299

	N	*Min*	*Max*	*Mean*	*Std.Dev*
3=BA 4=Specialty Degree 5=MA 6=Doctorate					
Teacher Training Hours "How many hours in the last year have you participated in teacher training courses?"	**77**	**3.33**	**284.57**	**54.5573**	41.5869
Works another job "Do you work at another job(s)? Recoded as: 0=no; 1=yes	**77**	**0**	**1**	**.4004**	.28696
Hours at other job "What time do you dedicate to your other job, by week?"	**66**	**2.0**	**43.75**	**20.4534**	8.58589
Lives in same community as school "Do you live in the same community where the school is located?" Recoded as: 0=no; 1=yes	**77**	**0**	**1**	**.5875**	.3122
Director Characteristics					
Sex "What is your sex?" Recoded as: 0=male, 1=female	**78**	**0**	**1**	**.45**	.501
Years as director "Years as director"	**72**	**0**	**34**	**9.90**	7.254
Session "Session for which you are director" Recoded as: 0=morning; 1=afternoon; 2=night	**78**	**0**	**2**	**.85**	.834
Night Session Dummy Recoded as 0=morning and afternoon; 1=night	**78**	**0**	**1**	**.28**	.453
Director for multiple sessions Coded as 0=no; 1=yes	**78**	**0**	**1**	**.26**	.439
Works another job "Do you work at another job(s)? Recoded as: 0=no; 1=yes	**78**	**0**	**1**	**.45**	.501
Hours at other job "What time do you dedicate to your other job, by week?"	**67**	**0**	**42**	**9.99**	12.325
Education level "What is the highest academic level you reached?" Coded as: 1=High School Degree 2=Normal Teacher Degree 3="Profesorado"/Technical Degree 4=BA 5=Specialty Degree 6=MA 7=Doctorate	**78**	**4**	**7**	**4.85**	.854
Director Also Teaches "What is your work situation in this session?" Recoded as: 0=Only work as director and don't teach classes (except when substitute teach) 1=Director and also teach normal load like any other teacher 2=Director and teach less than normal load	**76**	**0**	**1**	**.17**	.379
Frequency of class visits "With what frequency do you visit classrooms?" Recoded as: 0=I don't have a regular program of visits	**78**	**1**	**5**	**2.63**	1.118

	N	*Min*	*Max*	*Mean*	*Std.Dev*
1=Visit all rooms at least once a day 2=Visit all rooms at least once a week 3=Visit all rooms at least once every 2 weeks 4=Visit all rooms at least once a month 6=Don't visit classrooms					
Dummy: Daily visits all classrooms (0=no; 1=yes)	**78**	**0**	**1**	**.42**	.497
Lives in same community as school "Do you live in the same community where the school is located?" Recoded as: 0=no; 1=yes	**78**	**0**	**1**	**.69**	.465
Director Training Hours "How many hours in the last year have you participated in director training?"	**72**	**0**	**960**	**73.33**	126.742

Appendix Table 2: Correlations between Dependent Variables and School Characteristics

	PN Score	PN Qual	Infrastructure	Resource	Night	Rural	Urban Marginal	Community	Parent	SES	Population
PN Qualification	.071										
Infrastructure	.003	**-.249(**)**									
Resource	.030	-.074	**.610(**)**								
Night Session	**-.123(**)**	**-.156(**)**	.083	-.039							
Rural	**.094(*)**	-.044	**-.156(**)**	**-.159(**)**	.006						
Urban Marginal	**.158(**)**	.110(*)	**-.211(**)**	.017	**.205(**)**	**-.194(**)**					
Community	-.070	-.058	.055	**.191(**)**	**-.123(**)**	.066	.090				
Parent	.051	.060	-.021	.006	**-.249(**)**	**.145(**)**	-.059	**.326(**)**			
SES	**.227(**)**	**-.132(**)**	**.123(**)**	.004	**-.324(**)**	**-.112(*)**	-.063	.086	**.128(**)**		
Student population	**-.158(**)**	**-.264(**)**	**.198(**)**	**.205(**)**	**-.195(**)**	**-.340(**)**	-.037	-.111(*)	**-.158(**)**	.031	
Overage	**-.349(**)**	**-.146(**)**	-.009	-.031	**.330(**)**	**-.153(**)**	-.009	.086	**-.113(*)**	-.063	**-.144(**)**

** Correlation is significant at the 0.01 level (2-tailed).; * Correlation is significant at the 0.05 level (2-tailed).

Appendix Table 3: Correlations between Dependent Variables and Teacher Characteristics

	PN Score	PN Qual	Female Teacher	Years Teacher	Teaches more than one session	Work other job time	Education	Same Community
PN Qualification Rate	.071							
Female Teacher	**.132(**)**	.018						
Years Teacher	-.087	**-.132(**)**	-.052					
Teaches more than one session	**-.144(**)**	**-.111(*)**	-.022	**.232(**)**				
Work other job time	-.015	**-.092(*)**	-.070	.055	**-.246(**)**			
Education Level	-.034	**-.181(**)**	.009	**.090(*)**	.031	**.139(**)**		
Live in Same Community	.015	.058	.033	-.037	-.008	-.002	**-.103(*)**	
Teacher Training	.083	.005	.028	.004	.064	-.060	.065	.028

** Correlation is significant at the 0.01 level (2-tailed); * Correlation is significant at the 0.05 level (2-tailed).

Appendix Table 4: Correlations between Dependent Variables and Director Characteristics

	PN Score	PN Qual	Female Director	Years Director	Education	Time other job	Also teaches	Multiple sessions	Daily Visits Class	Same community
PN Qual	.071									
Female Director	.033	**.297(**)**								
Years Director	**.163(**)**	-.089	.033							
Education level	**-.164(**)**	-.032	**.205(*)**	.057						
Time other job	-.081	**.110(*)**	-.032	**-.153(**)**	**.124(*)**					
Work situation	**.183(**)**	.021	-.185	**-.163(**)**	-.032	**.116(*)**				
Multiple sessions	**-.090(*)**	**.133(**)**	-.070	**.215(**)**	-.017	**-.353(**)**	**-.213(**)**			
Daily Visits Class	.082	**.171(**)**	.100	**-.207(**)**	**-.181(**)**	**-.153(**)**	.020	**-.131(**)**		
Same community	.012	.021	.082	-.010	-.070	**-.138(**)**	**-.156(**)**	-.013	.034	
Director training	**-.120(*)**	.027	.079	-.069	-.065	**.144(**)**	-.086	-.092	**.167(**)**	**.139(**)**

** Correlation is significant at the 0.01 level (2-tailed).; * Correlation is significant at the 0.05 level (2-tailed).

APPENDIX B: TEACHER AND DIRECTOR SURVEYS

Part I. Spanish Director Survey

Para contestar, marcar con una "X" el número de la(s) opción(es) que mejor responda a su situación o escriba la respuesta, cuando sea necesario.

Sección I: Información del Director(a)

1. Género: Masculino _____ Femenino _____

2. Edad:
   1 [ ] menos de 30 años
   2 [ ] 30-39 años
   3 [ ] 40-49 años
   4 [ ] 50-59 años
   5 [ ] 60 o mayor años

3. Años como director/a: _____

4. Años como director/a en este liceo: _____

5. Tanda(s) en la(s) que es director/a en este liceo:
   1 [ ] Mañana
   2 [ ] Tarde
   3 [ ] Noche
   4 [ ] Otra _____ Especifique

6. ¿Trabaja Ud. en otro empleo o empleos?
   1 [ ] Sí
   2 [ ] No

7. En caso afirmativo, ¿cuáles? Especifique:
   _____
   _____

8. En caso afirmativo, ¿qué tiempo dedica al otro empleo(s), por semana? _____

9. ¿Cuál es el nivel académico más alto que Ud. ha alcanzado?
   1 [ ] Bachiller
   2 [ ] Maestro/a Normal
   3 [ ] Profesorado/Técnico
   4 [ ] Licenciatura
   5 [ ] Especialidad
   5 [ ] Maestría
   6 [ ] Doctorado.
   7 [ ] Otro _____ Especifique

10. ¿Cuál es su situación de trabajo en este liceo?
    1 [ ] Solamente trabajo como director/a y no enseño clases (excepto cuando substituye maestros/as que se encuentren ausentes)
    2 [ ] Soy director/a y también enseño con carga normal como cualquier otro/a

				maestro/a
		3	[ ]	Soy director/a y enseño menos de la carga normal
		4	[ ]	Otro _____ Especifique
11.	¿Con qué frecuencia visita Ud. los salones de clases?	1	[ ]	No tengo un programa regular de visitas
		2	[ ]	Visita todos los salones cuando menos una vez al día
		3	[ ]	Visita todos los salones cuando menos una vez a la semana
		4	[ ]	Visita todos los salones cuando menos una vez cada dos semanas
		5	[ ]	Visita todos los salones cuando menos una vez al mes
		6	[ ]	No visita los salones
		7	[ ]	Otra _____ Especifique
12.	¿Vive usted en la misma comunidad donde esta el liceo?	1	[ ]	Sí
		2	[ ]	No

13. ¿Cuántas horas en el último año ha participado en capacitación de directores? _____

Indique cuáles de las siguientes acciones usted realiza como director con sus maestros en su liceo. Si la respuesta es nunca, por favor márquelo.	**(1) Con frecuencia**	**(2) A Veces**	**(3) Nunca**
14. Observar maestro/as	[ ]	[ ]	[ ]
15. Orientar y acompañar a maestros/as	[ ]	[ ]	[ ]
16. Dar sugerencias y recomendaciones sobre cómo enseñar	[ ]	[ ]	[ ]
17. Atender problemas de disciplina que los/as maestros/as no pueden resolver	[ ]	[ ]	[ ]
18. Provee otro tipo de apoyo	[ ]	[ ]	[ ]

_____
Indique que tipo

¿Qué tiempo dedica a las siguientes actividades (promedio por semana en este liceo y en esta tanda)?	**Horas**
19. Enseñanza	_____
20. Actividades administrativas	_____
21. Contactos con la comunidad	_____
22. Actividades de liderazgo educacional	_____
23. Contacto con padres y madres	_____
24. Atendiendo problemas de los estudiantes	_____
25. Desarrollo profesional	_____
26. Actividades de seguimiento y acompañamiento a los maestros del liceo	_____
27. Otras actividades que no son de enseñanza. Describa: _____	_____

Sección II: Participación de Padres y Madres en el Liceo

¿Qué porcentaje aproximado de padres y madres se involucran en las siguientes actividades?	**(1) Menos de 25%**	**(2) 25% a 50%**	**(3) 51% a 75%**	**(4) Más de 75%**
28. Actividades de enseñanza y aprendizaje	[ ]	[ ]	[ ]	[ ]
29. Otras actividades escolares (ejemplo, limpieza o mantenimiento del liceo)	[ ]	[ ]	[ ]	[ ]
30. Otras actividades de apoyo (ejemplo, rifas, kiosco, materiales educativos, etc.)	[ ]	[ ]	[ ]	[ ]
31. Hacen donaciones/aportan al presupuesto del liceo	[ ]	[ ]	[ ]	[ ]

32. ¿Existe participación o apoyo de empresarios privados?
1 [ ] Sí
2 [ ] No

33. ¿Esta apadrinando este liceo educativo por alguna institución y/o empresa?
1 [ ] Sí
2 [ ] No

34. En caso afirmativo, favor describe la ayuda que recibe a través del apadrinamiento. : _____

35. ¿Existe una Junta Escolar en su liceo?
1 [ ] Sí
2 [ ] No

36. En caso afirmativo, ¿Cómo funciona?
1 [ ] Bien
2 [ ] Regular
3 [ ] Malo

37. ¿Como utilizó la Junta Escolar la transferencia recibida del Ministerio para mantenimiento y/o mejoramiento del liceo? _____

_____

¿En qué aspectos ha colaborado la comunidad con el centro?	**(1) Sí**	**(2) No**
38. Donar los terrenos	[ ]	[ ]
39. Mano de obra gratuita para construcción	[ ]	[ ]
40. Donar edificios	[ ]	[ ]
41. Donar materiales de construcción	[ ]	[ ]
42. Mano de obra para reparaciones menores	[ ]	[ ]
43. Construcción de verjas y/o canchas	[ ]	[ ]
44. Aportes en efectivo	[ ]	[ ]
45. Equipo y materiales	[ ]	[ ]
46. Cuotas escolares	[ ]	[ ]
47. Otra _____ Especifique	[ ]	[ ]

Sección III: Características del Liceo

48. En su centro, ¿cuántas tandas comparten la infraestructura?

1 [ ] Solo una
2 [ ] Dos
3 [ ] Tres
4 [ ] Otra _____
Especifique

49. ¿A que nivel socioeconómico pertenece la mayoría de los estudiantes que asisten a este liceo?

1 [ ] Bajo
2 [ ] Medio bajo
3 [ ] Medio
4 [ ] Medio alto
5 [ ] Alto

50. ¿Cuál es el número de estudiantes promedio por aula en este liceo? _____

51. ¿Cuántos maestros imparten docencia en este liceo? _____

52. En este año, ¿cuál es la población de estudiantes en este liceo? _____

53. En este año, ¿cuántos estudiantes hay en el 4º grado? _____

54. En este año, ¿cuántos estudiantes en el 4º grado están en sobre-edad? _____

55. ¿Cuál es el número total de aulas utilizados en este liceo? _____

56. ¿Cuál fue la tasa promedia de repetición en su liceo, en el año académico 2005-06? _____

57. ¿Cuál fue la tasa promedia de deserción en su liceo, en el año académico 2005-06? _____

Infraestructura:

Indique cuáles de los siguientes elementos de infraestructura existen en su liceo, y si existen, en cual nivel de estado están	**Existencia**		**Estado**		
	(1) Si	**(2) No**	**Bueno (NO** necesita reparaciones**)**	**Regular** (necesita reparaciones menores)	**Malo** (necesita reparaciones importantes)
58. Aulas para cada grupo de estudiantes	[ ]	[ ]	[ ]	[ ]	[ ]
59. Instalaciones sanitarias	[ ]	[ ]	[ ]	[ ]	[ ]
60. Servicio electricidad	[ ]	[ ]	[ ]	[ ]	[ ]
61. Inversor o planta electrica	[ ]	[ ]	[ ]	[ ]	[ ]
62. Agua potable	[ ]	[ ]	[ ]	[ ]	[ ]
63. Teléfono	[ ]	[ ]	[ ]	[ ]	[ ]
64. Oficina de director	[ ]	[ ]	[ ]	[ ]	[ ]
65. Limpieza del liceo	[ ]	[ ]	[ ]	[ ]	[ ]
66. Sala de profesores	[ ]	[ ]	[ ]	[ ]	[ ]

Infraestructura:

Indique cuáles de los siguientes elementos de infraestructura existen en su liceo, y si existen, en cual nivel de estado están	**Existencia**		**Estado**		
	(1) Si	**(2) No**	**Bueno (NO** necesita reparaciones**)**	**Regular** (necesita reparaciones menores)	**Malo** (necesita reparaciones importantes)
67. Biblioteca	[ ]	[ ]	[ ]	[ ]	[ ]
68. Laboratorio ciencias	[ ]	[ ]	[ ]	[ ]	[ ]
69. Laboratorio informática	[ ]	[ ]	[ ]	[ ]	[ ]

Recursos de Aprendizaje:

Indique cuáles de los siguientes recursos de aprendizaje existen en su liceo, y si existen, en cual nivel de estado están	**Existencia**		**Estado**		
	(1) Si	**(2) No**	**Bueno (NO** necesita mejoras**)**	**Regular** (necesita mejoras menores)	**Malo** (necesita reemplazo)
70. Guías de enseñanza para el maestro	[ ]	[ ]	[ ]	[ ]	[ ]
71. Guías de aprendizaje para el estudiante	[ ]	[ ]	[ ]	[ ]	[ ]
72. Pizarras y tiza	[ ]	[ ]	[ ]	[ ]	[ ]
73. Libros de texto	[ ]	[ ]	[ ]	[ ]	[ ]
74. Currículo escolar	[ ]	[ ]	[ ]	[ ]	[ ]
75. Equipo audiovisual	[ ]	[ ]	[ ]	[ ]	[ ]
76. Diagramas	[ ]	[ ]	[ ]	[ ]	[ ]
77. Mapas	[ ]	[ ]	[ ]	[ ]	[ ]
78. Globos	[ ]	[ ]	[ ]	[ ]	[ ]

79. ¿Cómo clasificaría Ud. el estado general de la infraestructura de su liceo?

1 [ ] Bueno
2 [ ] Regular
3 [ ] Malo

Explique:

80. ¿Como clasificaría Ud. el estado general de los recursos para el aprendizaje de su liceo?

1 [ ] Bueno
2 [ ] Regular
3 [ ] Malo

Explique:

81. En su opinión, ¿cuáles son los tres (3) problemas principales de este liceo? Explique.

1)

2)

3)

82. En su opinión ¿cuáles son las tres (3) necesidades prioritarias de este liceo? Explique.

1)

2)

3)

83. ¿Cómo describiría el clima escolar en este liceo?

1 [ ] Bueno
2 [ ] Regular
3 [ ] Malo

Explique:

Gracias por su colaboración en este estudio.

Part II. Spanish Teacher Survey

Para contestar, marcar con una "X" el número de la(s) opción(es) que mejor responda a su situación o escriba la respuesta, cuando sea necesario.

Sección I: Información del Maestro

1. Género: Masculino _____ Femenino _____

2. Edad: _____

1	[ ]	menos de 30 años
2	[ ]	30-39 años
3	[ ]	40-49 años
4	[ ]	50-59 años
5	[ ]	60 o mayor años

3. Años como maestro/a: _____

4. Años como maestro/a en este liceo: _____

5. Tanda(s) en la(s) que imparte docencia en este liceo:

1	[ ]	Mañana
2	[ ]	Tarde
3	[ ]	Noche
4	[ ]	Otra _____ Especifique

6. ¿Trabaja Ud. en otro empleo o empleos?

1	[ ]	Sí
2	[ ]	No

7. En caso afirmativo, ¿cuáles? Especifique:
_____
_____

8. En caso afirmativo, ¿qué tiempo dedica al otro empleo(s), por semana?
_____

9. ¿Cuál es el nivel académico más alto que Ud. ha alcanzado?

1	[ ]	Bachiller
2	[ ]	Maestro/a Normal
3	[ ]	Profesorado/Técnico
4	[ ]	Licenciatura
5	[ ]	Especialidad
6	[ ]	Maestría
7	[ ]	Doctorado.
8	[ ]	Otro _____ Especifique

10. ¿Vive usted en la misma comunidad de donde se ubica la escuela?

1	[ ]	Sí
2	[ ]	No

11. ¿Qué tipo de capacitación en servicio ha recibido usted? (puede ser más que uno)

1	[ ]	Ninguna capacitación
2	[ ]	Habilitación Profesional
3	[ ]	Cursos de capaticación
4	[ ]	Cursos de especialización
5	[ ]	Cursos de post-grado
6	[ ]	Otro _____ Especifique

12. ¿Cuántas horas en el último año ha participado en cursos de capacitación de docentes? _____

Sección II: Relación de confianza y Clima Escolar

Las preguntas siguientes son sobre este liceo y sus relaciones con el director, otros maestros y sus estudiantes. Por favor tome el tiempo en pensar en su respuesta y marque lo que piensa es la mejor.

Confianza entre Maestro-Director:

	(1) Muy en desacuerdo	(2) En desacuerdo	(3) Ni de acuerdo, ni desacuerdo	(4) De acuerdo	(5) Muy de acuerdo
13. Comparto mis sentimientos, preocupaciones y frustraciones con el director del liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
14. El director está atento al bienestar personal de los maestros.	[ ]	[ ]	[ ]	[ ]	[ ]
15. Tengo confianza en la palabra del director.	[ ]	[ ]	[ ]	[ ]	[ ]
16. El director de este liceo es un gerente efectivo que hace que la escuela funciona sin problema.	[ ]	[ ]	[ ]	[ ]	[ ]
17. El director coloca las necesidades de los estudiantes por encima de su interés personal y político.	[ ]	[ ]	[ ]	[ ]	[ ]
18. El director confiá en la capacidad de los maestros.	[ ]	[ ]	[ ]	[ ]	[ ]
19. El director se interesa en el desarrollo profesional de los maestros del liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
20. Respeto mi director como educador.	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Nada	(2) Un Poco	(3) Algo	(4) Mucho
21. ¿Hasta qué punto se siente respetado por su director?	[ ]	[ ]	[ ]	[ ]

Confianza entre Maestros:

	(1) Ninguno	(2) Algunos	(3) La Mitad	(4) Casi todos	(5) Todos
22. ¿Cuántos maestros en su liceo se llevan bien?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Nada	(2) Un Poco	(3) Algo	(4) Mucho
23. ¿Hasta qué punto se siente respetado por sus compañeros?	[ ]	[ ]	[ ]	[ ]

	(1) Muy en desacuerdo	(2) En desacuerdo	(3) Ni de acuerdo, ni desacuerdo	(4) De acuerdo	(5) Muy de acuerdo
24. Los maestros en este liceo se tienen confianza entre ellos.	[ ]	[ ]	[ ]	[ ]	[ ]
25. Comparto mis sentimientos, preocupaciones, y frustraciones con otros maestros del liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
26. Los maestros respetan a los colegas que asumen un papel de liderazgo en el liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
27. Los maestros respetan a los colegas que saben enseñar o que hacen que sus estudiantes aprendan.	[ ]	[ ]	[ ]	[ ]	[ ]

Confianza entre Maestro y Padres:

	(1) Ninguno	(2) Algunos	(3) La Mitad	(4) Casi todos	(5) Todos
28. ¿Cuántos de los padres y madres de sus estudiantes contribuyen con el aprendizaje de sus hijos?	[ ]	[ ]	[ ]	[ ]	[ ]
29. ¿Cuántos maestros se sienten bien con el apoyo que los padres y madres de los estudiantes le dan en su trabajo?	[ ]	[ ]	[ ]	[ ]	[ ]
30. ¿Cuántos maestros sinceramente gustan la comunidad local?	[ ]	[ ]	[ ]	[ ]	[ ]
31. ¿Cuántos de los padres y madres de sus estudiantes apoyan sus esfuerzos de enseñanza?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Nada	(2) Un Poco	(3) Algo	(4) Mucho
32. ¿Hasta qué punto respetan los maestros a los miembros de la comunidad local?	[ ]	[ ]	[ ]	[ ]
33. ¿Hasta qué punto respetan los maestros a los padres y madres de sus estudiantes?	[ ]	[ ]	[ ]	[ ]
34. ¿Hasta qué punto se siente respetado por los padres y madres de sus estudiantes?	[ ]	[ ]	[ ]	[ ]

	(1) Muy en desacuerdo	(2) En desacuerdo	(3) Ni de acuerdo, ni desacuerdo	(4) De acuerdo	(5) Muy de acuerdo
35. Maestros y padres y madres se sienten comprometidos con la educación de los estudiantes.	[ ]	[ ]	[ ]	[ ]	[ ]
36. Es difícil vencer las barreras culturales entre los maestros y los padres en este liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
37. Los padres confían en la capacidad de los maestros.	[ ]	[ ]	[ ]	[ ]	[ ]
38. Hay conflictos entre los padres/madres y maestros en este liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
39. El personal del liceo trata de establecer relaciones de confianza con los padres y madres de los estudiantes.	[ ]	[ ]	[ ]	[ ]	[ ]
40. Conversar con los padres y las madres me ayuda entender mejor mis estudiantes.	[ ]	[ ]	[ ]	[ ]	[ ]

Confianza entre Maestro y Estudiante:

	(1) Ninguno	(2) Algunos	(3) La Mitad	(4) Casi todos	(5) Todos
41. ¿Cuántos maestros son satisfechos con el trabajo que hacen sus estudiantes?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Nada	(2) Un Poco	(3) Algo	(4) Mucho
42. ¿Hasta qué punto respetan los maestros los estudiantes?	[ ]	[ ]	[ ]	[ ]

	(1) Muy en desacuerdo	(2) En desacuerdo	(3) Ni de acuerdo, ni desacuerdo	(4) De acuerdo	(5) Muy de acuerdo
43. Maestros se sienten comprometidos con la educación.	[ ]	[ ]	[ ]	[ ]	[ ]
44. Estudiantes se sienten comprometidos con la educación.	[ ]	[ ]	[ ]	[ ]	[ ]
45. En este liceo, es difícil vencer las barreras culturales entre los maestros y los estudiantes.	[ ]	[ ]	[ ]	[ ]	[ ]
46. Los estudiantes confían en la capacidad de los maestros del liceo.	[ ]	[ ]	[ ]	[ ]	[ ]
47. Hay conflictos entre los	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Muy en desacuerdo	(2) En desacuerdo	(3) Ni de acuerdo, ni desacuerdo	(4) De acuerdo	(5) Muy de acuerdo
estudiantes y maestros en este liceo.					
48. El personal del liceo trabaja mucho para establecer relaciones de confianza con los estudiantes.	[ ]	[ ]	[ ]	[ ]	[ ]

49. En su opinión, ¿cuáles son los tres (3) <u>problemas</u> principales de este liceo? Explique.

1)

2)

3)

50. En su opinión ¿cuáles son las tres (3) <u>necesidades</u> prioritarias de este liceo? Explique.

1)

2)

3)

51. ¿Cómo describiría el clima escolar en este liceo?

1 [ ] Bueno
2 [ ] Regular
3 [ ] Malo

Explique:

Gracias por su colaboración en este estudio.

Part III. Director Survey in English

To answer, mark an "X" next to the number of the option(s) that best fits your situation or write your answer, when necessary.

Section I: Director Information

1. Sex: Male _____ Female _____

2. Age:
   1 [ ] Under 30 years of age
   2 [ ] 30-39 years
   3 [ ] 40-49 years
   4 [ ] 50-59 years
   5 [ ] 60 or older

3. Years as director: _____

4. Years as director in this school: _____

5. Session for which you are director in this school.
   1 [ ] Morning
   2 [ ] Afternoon
   3 [ ] Night
   4 [ ] Other _____ Specify

6. Do you work in another job?
   1 [ ] Yes
   2 [ ] No

7. If the answer is yes, which jobs? Specify:
   _____
   _____

8. If the answer is yes, how much time do you dedicate to your other job(s) per week?
   _____

9. What is the highest level of education you have achieved?
   1 [ ] High School
   2 [ ] "Normal" Teacher
   3 [ ] Professional/Technical
   4 [ ] Bachelors
   5 [ ] Specialty
   5 [ ] Masters
   6 [ ] Doctorate.
   7 [ ] Other
   _____ Specify

10.	What is your work situation in this school?	1	[ ]	I only work as director and I don't teach classes (unless I'm substituting for an abscent teacher)
		2	[ ]	I am the director and I also teach a normal teaching load like any other teacher
		3	[ ]	I am the director and I teach a smaller than normal teaching load
		4	[ ]	Othe _____ Specify
11.	With which frequency do you visit the classrooms?	1	[ ]	I don't have a regular plan of visiting the classrooms
		2	[ ]	I visit all the classrooms at least once a day
		3	[ ]	I visit all of the the classrooms at least once a week
		4	[ ]	I visit all the classrooms at least once every two weeks
		5	[ ]	I vist all the classrooms about once a month
		6	[ ]	I don't visit the classrooms
		7	[ ]	Other _____ Specify
12.	Do you live in the same community where the school is?	1	[ ]	Yes
		2	[ ]	No

13. How many hours in the last year have you participated in director training? _____

Indicate which of the following actions you realice as director with the teachers in your school. If the answer is never, please mark it.		**(1) Frequently**	**(2) Sometimes**	**(3) Never**
14.	Observe teachers	[ ]	[ ]	[ ]
15.	Orient and accompany teachers	[ ]	[ ]	[ ]
16.	Provide suggestions and recommendations on how to teach	[ ]	[ ]	[ ]
17.	Attend to discipline problems that teachers cannot resolve	[ ]	[ ]	[ ]
18.	Provide other type of support	[ ]	[ ]	[ ]

_____
Indicate which type

What time do you dedicate to the following activities (average per work for this school and this session)?	**Hours**
19. Teaching	
20. Administrative activities	
21. Contact with the community	
22. Educational leadership activities	
23. Contact with parents	
24. Attending to problems with students	
25. Professional development	
26. Follow-up and observation with teachers	
27. Other activies that aren't teaching. Describe: _____	

Section II Parental Participation in the School

What aproxímate percentage of parents involve themselves in the following activities?	**(1) Less than 25%**	**(2) 25% to 50%**	**(3) 51% to 75%**	**(4) More than 75%**
28. Teaching and learning activities	[ ]	[ ]	[ ]	[ ]
29. Other school activities (e.g., clearing or maintenance)	[ ]	[ ]	[ ]	[ ]
30. Other support activities (e.g., raffles, kiosk, donating educative materials, etc.)	[ ]	[ ]	[ ]	[ ]
31. Make donations to or support the school's budget	[ ]	[ ]	[ ]	[ ]

32. Is there participation or support from private businesses?
1 [ ] Yes
2 [ ] No

33. Is your school "patronized" by an institution or business?
1 [ ] Yes
2 [ ] No

34. If the answer is yes, please describe the help you receive through this "patronage." _____

35. Does your school have a "Junta Escolar" (School Board)?
1 [ ] Yes
2 [ ] No

36. If yes, how does it function?
1 [ ] Well
2 [ ] Regular
3 [ ] Poorly

37. How did the Junta use the transfer received from the Ministry for maintenance and/or betterment of the school?
_____
_____

How has the community collaborated with the school?	(1) Yes	(2) No
38. Donated land	[ ]	[ ]
39. Free construction labor	[ ]	[ ]
40. Donated buildings	[ ]	[ ]
41. Donated materials for construction	[ ]	[ ]
42. Free labor for minor repairs	[ ]	[ ]
43. Construction of "verjas y/o canchas"	[ ]	[ ]
44. Support in cash	[ ]	[ ]
45. Equipment and materials	[ ]	[ ]
46. School quotes	[ ]	[ ]
47. Other _____ Specify	[ ]	[ ]

Section III: School Characteristics

48. In your school building, how many sessions share the infrastructure?

1	[ ]	Only One
2	[ ]	Two
3	[ ]	Three
4	[ ]	Other _____ Specify

49. What SES level do most of the students who attend this school belong to?

1	[ ]	Low
2	[ ]	Middle Low
3	[ ]	Middle
4	[ ]	Upper Middle
5	[ ]	High

50. What is the average number of students per classroom in this school? _____

51. How many teachers teach in this school? _____

52. This year, how many students are attending this schools? _____

53. This year, how many 12th graders are there in the school? _____

54. This year, how many 12th grade students are average? _____

55. How many classrooms are used in this school? _____

56. What was the average repetitition rate for 2005-06 academic year? _____

57. What was the average desertion rate for the 2005-06 academic year? _____

Infrastructure:

Indicate which of the follwoing infrastructure elements exist in your school, and if they exist, in which condition they are in	**Existence**		**Condition**		
	(1) Yes	**(2) No**	**Good (doesn't need repair)**	**Regular** (needs minor repairs)	**Bad** (needs important repairs)
58. Classrooms for each group of students	[ ]	[ ]	[ ]	[ ]	[ ]
59. Sanitary facilities	[ ]	[ ]	[ ]	[ ]	[ ]
60. Electric service	[ ]	[ ]	[ ]	[ ]	[ ]
61. Electric generador	[ ]	[ ]	[ ]	[ ]	[ ]
62. Potable water	[ ]	[ ]	[ ]	[ ]	[ ]
63. Telephone	[ ]	[ ]	[ ]	[ ]	[ ]
64. Director's office	[ ]	[ ]	[ ]	[ ]	[ ]
65. School cleanliness	[ ]	[ ]	[ ]	[ ]	[ ]
66. Teacher lounge	[ ]	[ ]	[ ]	[ ]	[ ]
67. Library	[ ]	[ ]	[ ]	[ ]	[ ]
68. Science lab	[ ]	[ ]	[ ]	[ ]	[ ]
69. Information lab	[ ]	[ ]	[ ]	[ ]	[ ]

Learning Resources:

Indicate which of the follwoing learning resources exist in your school, and if they exist, in which condition they are in	**Existencia**		**Estado**		
	(1) Yes	**(2) No**	**Good** (doesn't need repair)	**Regular** (needs minor repairs)	**Bad** (needs important repairs)
70. Teaching guides for teachers	[ ]	[ ]	[ ]	[ ]	[ ]
71. Learning guides for students	[ ]	[ ]	[ ]	[ ]	[ ]
72. Blackboards and chalk	[ ]	[ ]	[ ]	[ ]	[ ]
73. Textbooks	[ ]	[ ]	[ ]	[ ]	[ ]
74. School currículo	[ ]	[ ]	[ ]	[ ]	[ ]
75. Audiovisual equipment	[ ]	[ ]	[ ]	[ ]	[ ]
76. Diagrams	[ ]	[ ]	[ ]	[ ]	[ ]
77. Maps	[ ]	[ ]	[ ]	[ ]	[ ]
78. Globes	[ ]	[ ]	[ ]	[ ]	[ ]

79. How would you classify the general condition of the infrastructure in your school?

1 [ ] Good
2 [ ] Regular
3 [ ] Bad

Explain:

80. How would you classify the general state of learning resources in your school?

1 [ ] Good
2 [ ] Regular
3 [ ] Bad

Explain:

81. In your opinión, what are the three (3) principal problems in this school. Explain.

1)

2)

3)

82. In your opinión, what are the three (3) most important needs of this school? Explain.

1)

2)

3)

83. How would you describe the school climate in this school?

1 [ ] Good
2 [ ] Regular
3 [ ] Bad

Explique:

Thanks for your collaboration in this study.

Part IV. Teacher Survey in English

To answer, please mark an "X" the number of the option(s) that best responds to your situtation, or write your answer when necessary.

Section I: Teacher Information

1. Sex: Male _____ Female _____

2. Age: _____

1 [ ] Less than 30 years of age
2 [ ] 30-39 years
3 [ ] 40-49 years
4 [ ] 50-59 years
5 [ ] 60 or more years

3. Years as teacher: _____

4. Years as teacher in this school: _____

5. Session in which you teach in this school.

1 [ ] Morning
2 [ ] Afternoon
3 [ ] Night
4 [ ] Other _____
Specify

6. Do you work at another job(s)?

1 [ ] Yes
2 [ ] No

7. If yes, which?

Especifique:
_____

_____

8. If yes, how much time do you work at your other job(s), by week?

_____

9. What is the highest education level you have reached?

1 [ ] High School
2 [ ] Normal Teacher
3 [ ] Technical/Professional
4 [ ] Bachillers
5 [ ] Specialty
6 [ ] Masters
7 [ ] Doctorate.
8 [ ] Other
_____
Specify

10. Do you live in the same community where the school you work in is located?

1 [ ] Yes
2 [ ] No

11. What type of in-service teacher training have you recived? (can be more than one)

1 [ ] No teacher training
2 [ ] Professional
3 [ ] Training courses
4 [ ] Specialty courses
5 [ ] Post-grade courses
6 [ ] Other
_____
Specify

12. How many hours in the last year have you participated in teacher training courses? _____

Section II: Relational Trust and School Climate

The following questions are about your school and your relationships with the director, other teachers, and your students. Please take the time to think about your answer and mark the one you think is best.

Trust between Teacher and Director: :

	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree or Disagree	(4) Agree	(5) Strongly Agree
13. I share my feelings, worries and frustrations with the school's director.	[ ]	[ ]	[ ]	[ ]	[ ]
14. The director cares about the personal welfare of teachers.	[ ]	[ ]	[ ]	[ ]	[ ]
15. I trust the director's word.	[ ]	[ ]	[ ]	[ ]	[ ]
16. This school's director is an effective manager who runs the school smoothly/without problems.	[ ]	[ ]	[ ]	[ ]	[ ]
17. The director places the needs of his/her students before his/her personal and political interests.	[ ]	[ ]	[ ]	[ ]	[ ]
18. The director trusts in the ability of the school's teachers.	[ ]	[ ]	[ ]	[ ]	[ ]
19. The director cares about the teachers' professional development.	[ ]	[ ]	[ ]	[ ]	[ ]
20. I respect my director as an educador.	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) None	(2) A Little	(3) Some	(4) A Lot
21. To what extent do you feel respected by your director?	[ ]	[ ]	[ ]	[ ]

Confianza entre Maestros:

	(1) None	(2) Some	(3) About Half	(4) Almost All	(5) All
22. How many teachers int his school get along?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) None	(2) A Little	(3) Some	(4) A Lot
23. To what extent do you feel respected by your colleagues?	[ ]	[ ]	[ ]	[ ]

	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree or Disagree	(4) Agree	(5) Strongly Agree
24. Teachers in this school trust each other.	[ ]	[ ]	[ ]	[ ]	[ ]
25. I share my feelings, worries, and frustrations with other teachers in this school.	[ ]	[ ]	[ ]	[ ]	[ ]
26. Teachers respect colleagues who take on leadership roles in the school.	[ ]	[ ]	[ ]	[ ]	[ ]
27. Teachers respect their colleagues who know how to teach or who ensure that their students learn.	[ ]	[ ]	[ ]	[ ]	[ ]

Trust between Teachers and Parents:

	(1) None	(2) Some	(3) About Half	(4) Almost All	(5) All
28. How many parents contribute to their children's learning?	[ ]	[ ]	[ ]	[ ]	[ ]
29. How many teachers like the support parents provide to their job?	[ ]	[ ]	[ ]	[ ]	[ ]
30. How many teachers sincerely like the local community?	[ ]	[ ]	[ ]	[ ]	[ ]
31. How many of your students' parents support your teaching efforts?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) None	(2) A Little	(3) Some	(4) A Lot
32. To what extent do teachers respect members of the local community	[ ]	[ ]	[ ]	[ ]
33. To what extent do teachers respect their students' parents?	[ ]	[ ]	[ ]	[ ]
34. To what extent do you feel respected by the parents of your students?	[ ]	[ ]	[ ]	[ ]

	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree or Disagree	(4) Agree	(5) Strongly Agree
35. Teachers and parents are partners in student's education.	[ ]	[ ]	[ ]	[ ]	[ ]
36. It's difficult to overcome the cultural barriers between teachers and parents in this school.	[ ]	[ ]	[ ]	[ ]	[ ]
37. Parents trust the capacity of the teachers.	[ ]	[ ]	[ ]	[ ]	[ ]
38. There exists conflict between the parents and teachers in	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree or Disagree	(4) Agree	(5) Strongly Agree
this school.					
39. Staff in this school try to establish trusting relationships with the students' parents.	[ ]	[ ]	[ ]	[ ]	[ ]
40. Talking to parents helps me better understand my students.	[ ]	[ ]	[ ]	[ ]	[ ]

Trust between Teachers and Students:

	(1) None	(2) Some	(3) About Half	(4) Almost All	(5) All
41. How many teachers are satisfied with the work their students do?	[ ]	[ ]	[ ]	[ ]	[ ]

	(1) None	(2) A Little	(3) Some	(4) A Lot
42. To what extent do teachers respect their students?	[ ]	[ ]	[ ]	[ ]

	(1) Strongly Disagree	(2) Disagree	(3) Neither Agree or Disagree	(4) Agree	(5) Strongly Agree
43. Teachers and students are partners in education.	[ ]	[ ]	[ ]	[ ]	[ ]
44. It is difficult to overcome the cultural barriers between teachers and students in this school.	[ ]	[ ]	[ ]	[ ]	[ ]
45. Students trust the capacity of teachers in this school.	[ ]	[ ]	[ ]	[ ]	[ ]
46. There exist conflicts between students and teachers in this school.	[ ]	[ ]	[ ]	[ ]	[ ]
47. Staff in this school work to establish trusting relationships with the students.	[ ]	[ ]	[ ]	[ ]	[ ]

48. In your opinion, what are the three (3) principal problems in this school? Explain.

1)

2)

3)

49. In your opinión, what are the three (3) most necessary priorities in this school? Explain.

1)

2)

3)

50. In your opinion, how would you rate the school climate in your school?

1 [ ] Good
2 [ ] Regula
3 [ ] Bad

Explique:

APPENDIX C: PRETESTING AND PILOTING THE SURVEY

Upon arriving in the Dominican Republic on April 17, 2006 and until my departure on May 20, 2006, I meet separately with the Director of Secondary Education, Director of Teachers, Director of Statistics and Evaluation from the Secretaría del Estado de Educación. I shared director, teacher, and student surveys with each SEE official I met at the beginning of the trip, asking them for their approval to conduct surveys in secondary schools and suggestions for the surveys.

I also fostered a collaborative relationship with the Centro de Investigación de Educación y Desarollo Humano (Center for Education and Human Development Research; CIED—Humano) at the Pontifica Universidad Católica Madre y Maestra in Santo Domingo. Working with Mr. Radhames Mejia (vice-rector of the university and director of CIED) and his staff, we tried to ensure that the translations of the surveys into Spanish were accurate and contextualized to the Dominican vernacular.

Four schools were chosen from the SEE database in which to pilot and field test the surveys, all within the Santo Domingo metro area, with attempts made to represent each demographic zone and school session.. Working with a research associate from the CIED, and taking a more qualitative approach, directors and teachers were asked to complete the surveys in our presence and let us know if anything was unclear, confusing, or difficult to answer. Participants were encouraged to be open with their responses. We measured the completion times to ensure that the surveys did not take too long to complete. Upon review, the majority of the changes (primarily language, grammar, etc.) were incorporated into the final survey instruments. In addition, the surveys were

analyzed to ensure that there was variance in the responses, including the open-ended questions.

Student surveys were originally intended to be included in the methodology of this study. However, at the expense of the rigorousness of the study, but due to the necessity of parental consent for students under 18 and the difficulty in obtaining these signatures in a timely fashion, 4th grade students were not surveyed regarding their SES status and level of trust felt towards directors and teachers.

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