Social Capital and High School Graduation Rates

by

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Abstract

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Social capital theory, and to a lesser extent, cultural capital theory, have become popular theoretical constructs for understanding the replication of SES both in and out of schools. Hundreds of studies have demonstrated connected a student's stock of social and cultural capital and academic success. Fewer studies, however, have analyzed the various dimensions of social capital to gain a more nuanced understanding of how it may contribute to academic success, and fewer still have gone beyond the individual to study social and cultural capital at a school-wide level in order to understand it as the communal property of a group the way that Bourdieu and Putnam have theorized.

This mixed method study uses pathway, multiple regression analysis to evaluate the interrelationships between various forms of social and cultural capital and measure their relative power to predict urban high school graduation rates. This meso-level study uses the school as the unit of analysis and considers school size, income levels and racial and ethnic mix. The qualitative portion of the study then reports on subsequent interviews of students from a school with robust levels of social and cultural capital in order to explore how these resources were transmitted, generally through extracurricular activities, to the students and how they may have used them to facilitate their graduation.

The results of both the quantitative and qualitative portions of the study support the hypotheses that extracurricular activities facilitate the attainment of

peer and institutional social capital, and that the presence of these forms of social capital, along with teacher social capital and robust information networks, predict a school's level of norms and sanctions (safety) which, in turn, is a strong determinant of graduation rates. The demographic analysis indicated that small schools tend to be more successful in building the social capital of its students and teachers, and that social capital is a more significant predictor of graduation in schools with high levels of minority students.

Acknowledgements and Dedication

First of all, I want to thank Daniel for all of his technical, theoretical and stylistic advice. How lucky I have been that the man I have loved and shared my life with for fourteen years is also a masterful academic so able to fill in all of my weaknesses, scholarly and otherwise.

Jean Anyon has provided me with the theoretical constructs to make sense of what I have seen as an educator. More than this, she has been a patient, wise and supportive advisor who always seemed to know just what I needed to get to the next step.

Most of all, I need to thank the outstanding teachers and staff of the Lower Manhattan Arts Academy. Before I understood the theoretical constructs, they taught me all that I know about the power of social and cultural capital to change students' lives one relationship at a time. Their dedication, passion and expertise should be a model of caring and success for every urban school. They inspire me to do more and humble me that I can never do enough for them, which is why, as a small token, I dedicate this work to them.

Preface

At the beginning of the winter term last year, a strapping, bilingual Chinese Marine sergeant in dress whites brought a copy of a recruitment contract to me so that he could receive a high school transcript for Tsing (a pseudonym). Tsing, a terribly shy, frustratingly inarticulate special education senior, had achieved some academic success at the school where I serve as principal, and had applied to a number of fine colleges with great promise. The sergeant informed me that Tsing, despite his very slight stature and terrible timidity, had passed a physical, been accepted and signed the recruitment contract he was now showing me. Under Tsing and his parent's signature, it directed me to provide him Tsing's high school transcript as the final step to becoming a Marine. Never having heard that this boy, who could barely speak loud enough to be heard in class, had wanted to be a Marine, I kept the sergeant waiting while I spoke to Tsing myself.

In a quiet back staircase far from the office, Tsing told me that he was nervous that he wouldn't get into college and his family seemed worried about his becoming a citizen, even though he had a permanent green card. The Marines had promised him support for college and citizenship. I explained that he was likely to receive significant financial aid for college and that his recruitment would not significantly speed up his citizenship process. Listening to me and not saying much, he acquiesced to my suggestion that he cross his name off on the transcript request portion of the contract.

Not really knowing if this was legal, I returned to the sergeant and told him that I could not release Tsing's transcript with his signature crossed out by him. He was not pleased, and three times shouted at me, "Sir, this will to stand," meaning, I imagine, that he was going to get a copy of the high school transcript one way or another. Knowing that I stood on tenuous ground, I feared he was right. I later found out that after I left him he made several frantic and angry calls on his cell phone until my rather assertive office manager firmly asked him to leave her office.

I use the term acquiesce because I could tell at the time that I was simply strong-arming Tsing, and could not figure out what he was really thinking or wanted. While he had not argued with me, he obviously felt torn and pressured to join the Marines, and I was sure that they would not back down so quickly. The New York Times had just reported that they were investing $20,000 into each new recruit as wars in Afghanistan and Iraq raged at the time.

We immediately had a team meeting with his teachers, senior advisor and counselors. The two people who connected with him best agreed to talk to him to try to ascertain Tsing's real feelings about military service. Two days later they reported back to the team that Tsing was feeling some pressure from his parents, but it was not very clear. A school aide, who spoke Mandarin, tried several times to speak with the parents, but was not able to gain much more clarity into the situation as they said that signing the form was something that Tsing wanted to do. We hoped that we would be able to stall until Tsing got his college acceptances and aid packages and could see his options more clearly.

We didn't get that time as two days later the sergeant returned again with a lieutenant and Tsing tight between the two of them. They handed the office manager a new transcript request form signed by Tsing and his parents. I was out of the building, and unreachable; after trying to put them off with a line about the computers being down, she surrendered the transcript. The entire team and I felt defeated.

Three days later, one of Tsing's former teachers from tenth grade, who refused to give into our defeatism, discovered that he had an older sister who was college educated, rather Americanized, and upset about Tsing's decision to join the Marines. We had an ally. But with the contract signed and all of the recruitment completed, as distraught as she was, she also felt that there was nothing that could be done.

Accessing my own social capital, I looked for another ally. I called several Department of Education lawyers, my boss, and then, for the first time, my boss's boss, several veteran colleagues and the lawyers at The Door, a respected youth center that LoMA partners with. No one seemed to know just how binding the recruitment contract was. My brother, another lawyer, made the most useful suggestion: Tsing should break the contract and see what happened. At yet another team meeting to discuss this, one of his teachers remarked on his special education status: Tsing's speech impairment and a minor learning disability classified him as special education. One of our special education teachers told us that he had heard of a case from a friend where this negated a

recruitment contract. None of the lawyers I contacted again could confirm this, but it was worth a try. We called Tsing and his sister in.

Tsing's sister had done her work with Tsing. He was now certain that neither he nor his parents wanted him to become a Marine, and asked us for a way out. We all agreed to try to use the special education status a legal excuse for his backing out combined with a refusal to recognize the contract as legally binding. I told Tsing that the next time the recruiter called him that he should tell him, "I am no longer interested in being a Marine," that they should contact me for an explanation and then hang up.

Two days later the Sergeant returned to my office very angry to ask what the problem was. I said he must know as he saw the transcript. When he looked confused, I explained in a very somber voice that as Tsing was a special education student he could not be recruited "due to his disabilities as defined by the Individuals with Disabilities Education Act of 2004." His cell phone came out, and after several calls he demanded that I put it in writing that Tsing was too disabled to join the military, as it didn't say so in the transcript. I explained that I couldn't do that without the family's permission, which I was now sure they wouldn't provide. I then bluffed saying that his status was clearly written in class codes on the transcript. He left my office, and after two more failed attempts to contact the family, gave up.

I don't know if the special education ruse worked or if the contracts signed by a parent and minor are just weaker than they seem, but Tsing started college at SUNY Brockport last fall with a generous financial aid package. As subdued as

always, Tsing recently reported about the incident, “I feel that it was a significant step in the right direction, and now I can receive a college education.” When asked about whether school staff should help students with personal issues, Tsing replied, that students “should see school staff only for severe stuff. The Marine stuff was pretty severe.”

Tsing was lucky to have some connections. My brother’s advice challenged my assumption of the power of the contract; the special education teacher’s friend gave us the idea of using the Tsing’s special education status as an excuse to challenge his enlistment and his tenth grade teacher thought of reaching out to his sister, who seemed to know better than Tsing’s parents how inappropriate the Marines would be for him. The teachers felt empowered enough to meet together repeatedly to strategize ways to help him, and the information networks between the school and Tsing’s family afforded the development of a plan that everyone could agree on. This web of connections that supported Tsing through this period contained many of the strands of social and cultural capital that inner city students need to succeed – institutional social capital, peer social capital, information networks, teacher social capital and knowledge of the legal system and federal disabilities law.

Unfortunately, too many students lack these resources. This study will look into how effective these forms of social and cultural capital can be in helping students to graduate, and what schools can do to build these networks.

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I. Introduction

Many inner-city students suffer from a deficit of dominant social and cultural capital that diminishes their chances for success in graduating high school, completing college and succeeding in professional settings. While various theorists differ in their conception of just what constitutes these forms of capital, there is general agreement that working-class and minority students lack it, and this deficit reduces their chances of high school graduation and for social advancement (Bourdieu, 1983; Valenzuela, 1999; Coleman, 1988; Stanton-Salazar, 1997 and Putnam, 2000). While there is widespread agreement that extracurricular activities can play a vital role in the development of social and cultural capital (Hollister, 2003; Larson, 1994 and Holland and Andre, 1987), how this is nurtured within a school and how exactly it helps students graduate is less often explored and more often debated (Dika and Singh, 2002 and Croninger and Lee, 2001).

This mixed method study uses pathway, multiple regression analysis to evaluate the interrelationships between various forms of social and cultural capital and measure their relative power to predict urban high school graduation rates. The analysis considers school size, income level and racial and ethnic mix. The qualitative portion of the study then reports on subsequent interviews of students from a school with robust levels of social and cultural capital in order to explore how these resources were transmitted to the students and how they may have been used to facilitate their graduation.

The results of the study verified a pathway construction that demonstrated a statistically significant connection between a school's level of norms and sanctions, its institutional and peer social capital and extracurricular activities to its graduation rate. Specifically, the multiple regression analysis found that extracurricular activities were a very strong predictor of peer and institutional social capital, that these forms of social capital in turn predicted the presence of supportive norms and sanctions and that this in turn predicted a given school's graduation rate to a large degree. Beyond these paramount forms of social capital, cultural capital and other forms of social capital such as teacher social capital and strong communication networks were also significant predictors of graduation, but much weaker in their determinative power.

These findings are significant because too often, in order to keep schools safe and raise graduation rates, policy makers focus their efforts, resources and attention solely on discipline and curriculum. Supported by a public discourse that prioritizes school discpline or scores on standardized tests, the value of relationship building has been diminished. Social and cultural capital theory offers a different way of looking at the problem of high dropout rates. It demonstrates how the implementation of rigorous, varied extracurricular activities on a school-wide level can build the relationships that students need to be safe and academically successful.

A. Research Questions

The hypothesis of the study is that high schools that support the development of their students' social and cultural capital through increased extracurricular activities are have

stronger norms and sanctions and thus have higher graduation rates. In testing this hypothesis, the following questions were considered:

1. To what extent can indicators of various forms of social and/or cultural capital predict a high school's graduation rate? How do these factors impact each other and interact with rates of participation in extracurricular activities.
2. What effects, if any, does the racial or economic make-up of a school's population or a school's size play in determining the power of these variables?
3. How do the experiences of a group of students who have a heightened degree of social and cultural capital corroborate or challenge these findings?

B. Research Design

This mixed method study explored the power and interrelationships between various forms of social and cultural capital on graduation rates. As most of the literature on the subject considers social and cultural capital to be community property, the primary unit of this meso-level study was the school community, not, as is usually done, the individual student. For the same reason, the study used survey responses from the entire school community – students, parents and teachers in its analysis. The quantitative portion of the study performed regression analysis to evaluate the effects of various forms of social and cultural capital on graduation rates. After this quantitative analysis was completed, in order to contextualize, deepen and enrich these findings, sixteen high school graduates from a school with high rates of social and cultural

capital were interviewed about the role social and cultural capital played in their high school success.

Most of the data for the statistical portion of the study drew from New York City's vast Learning Environment Survey (LES), which asks student, parent and teacher reports to measure aspects of their schools' climate, programs and features. The extensive nature of this survey allowed for a breakdown of social capital into the four dimensions most often discussed in the literature as explored in chapters two and three - institutional, peer, norms and sanctions, information networks. The teacher questions also allowed for a measure of teacher social capital. Cultural capital was measured by participation in arts classes and activities. Once these dimensions were established and statistically tested for reliability and covariance, a pathway model was developed and tested to demonstrate how these various factors, along with participation in extracurricular activities, support one another and predict a school's graduation rate. Independent and multiple regression analysis measured the strength of each of these variables and the interplay between them. Finally these results were reevaluated to determine how they were influenced by race, social class and school size.

The qualitative portion of the study deepened the findings of this quantitative analysis by exploring how these variables manifested themselves in the experiences of students. Based on the findings of the multiple regression analysis, interview questions were developed and sixteen graduates were questioned about how they gained stores of social and cultural capital and how these resources helped or hindered them. As the statistical analysis demonstrated the vitality of institutional and peer social capital and

the role of extracurricular activities in their accumulation, these became primary themes in the interviews.

It is significant to this study that the researcher knew all of the participants as a teacher and principal. While this may have played a role in biasing some of the graduates' responses, as the prologue demonstrates, it also opened the research to insider knowledge of the students experiences and deeper contextualization of the structures of the school that support and limit the development of social and cultural capital. The advantages and disadvantages of this positionality will be further discussed in chapter two.

It is important to note that neither the interviews, nor the regression analysis, aimed to provide a positivistic proof that stores of social or cultural capital provide necessary or sufficient stock to guarantee graduation for any student. Instead, this research aimed to use social and cultural capital theory as a lens to explore the importance that positive relationships may play on a school's graduation rate and to consider the role of extracurricular activities in the development of social and cultural capital. To this end, the findings, both quantitative and qualitative, attest to the value of social and cultural capital in facilitating high school graduation.

C. Relevance and Implications

The findings of this research can help school leaders as they make policy decisions that affect school culture and student achievement. As Valenzuela (1999) points out, schools are too often structured around a technical discourse that privileges such values as standards, objective testing and goals, when what students really need

is a sharper focus on the more expressive values of caring, nurturing and support. This research examines whether schools with this more expressive culture graduate higher percentages of their students, and explores what this more expressive culture in a school looks like through the lens of social and cultural capital.

By using high school graduation rates as the dependent variable in its regression analysis, the study focuses on the most essential high school statistic of all. Students who drop out suffer "serious educational deficiencies that severely limit their economic and social well-being throughout their adult lives. These individual consequences lead to social costs of billions of dollars" (Rumberger, 1995, p. 235). If they can improve graduation rates, social and cultural capital can generate value both in individual lives and in society as a whole.

This research is especially relevant for urban schools that have large numbers of poor and minority youth, as these students tend to graduate at low rates when compared with their wealthier, whiter counterparts in rural and suburban areas (Rumberger, 1995). Specifically, Swanson (2001) found that Black and Hispanic students nationally stand a roughly fifty percent chance of graduation compared with a 75% graduation rate for white students, and that graduation rates for students who attend school in high poverty, racially segregated, and urban school districts lag from 15 to 18 percent behind their more advantaged peers (Swanson, 2001). Orfield and Lee (2005) have also noted the connection between dropping out and poverty and segregation. They found that for the high school class of 2002 almost a third of the high schools that were more than 50 percent minority graduated less than half of their class. Among schools that were 90 percent or more white, only one school in fifty had this kind

of record. Half of the majority-minority schools had dropout rates over 40 percent as did two-thirds of the schools with less than a tenth white students. In the racial analysis to follow, schools that were overwhelmingly Black or Latino were disaggregated to explore the effects that social and cultural capital had on their graduation rates.

As dreadful as these minority graduation statistics are, there is depressingly very little in them that is new or surprising. The dangers of high drop out rates and the achievement gap that separates high poverty and minority youth from their richer, whiter peers has been a focus of thousands of papers and hundreds of policies at the local, state and federal level. It has been tackled by the last three federal administrations through such laws as The Improving America's Schools Act of 1994, Goals 2000 and No Child Left Behind Act (NCLB) of 2001. Despite these efforts, billions of dollars spent, massive changes in curricula and the shutting down of hundreds of schools, this focus on standardized test scores has done little to reduce the achievement gap, which 10 years after NCLB has barely moved (Lee, 2008).

In their essay, "Closing the Achievement Gap: A Metaphor for Children Left Behind" (2004) Henry A. Giroux and Michèle Schmidt describe why these laws may have been so ineffective. They write that these policies focus so sharply on test scores, particularly standardized math and English competency tests, that schools lose sight of anything else. For all schools, but in particular for schools that have large numbers of poor and minority youth, NCLB puts a great deal of pressure on schools to raise test scores. With funding, jobs and prestige on the line, these schools too often become test-prep centers where the ultimate measures of quality teaching are standardized test scores. Under such conditions,

> Teachers are excluded from designing their own lessons, as they are required to follow highly scripted and regimented forms of teaching. Behaviorism becomes the preferred model of pedagogy and substitutes a mind-numbing emphasis on methods and techniques over everything else (Giroux and Schmidt, 2004, p. 223).

The "everything else" that is being eliminated from high school curricula includes art classes (Sabol, 2009), recess (Thian, 2006) and field trips (Hagge and Waltman, 2007). Most relevant to the study are the cuts that Lareau found "in the kind of extra-curricular activities in which middle-class children often engage and from which middle-class parents expect an educational dividend (Lareau, 2002). Furthermore, this behaviorist approach to education is antithetical to a more supportive, integrative model, which focuses on the slow work of building social and cultural capital.

This is not to say that the tests themselves are the problem. As Giroux and Schmidt admit, "there is some evidence to show that forms of accountability, such as state tests, actually do improve achievement of minority students" (p. 221). For the purposes of the study, the most relevant tests are the New York State Regents Exams - five tests in English, science, math, U.S. History and Global Studies, which students must pass in order to graduate. New York State established these exams over a century ago and is not likely to eliminate them anytime soon, especially in this political environment of accountability. It is not within the purview of the study to judge the creditability, reliability or usability of these tests. What is relevant here is that these high-stakes exit exams have pass rates that mirror the achievement gap at large (Hursch and Martina, 2003), and as the pass rates on these exams largely determine graduation rates, schools must do what they can to ensure their students' success on them. Yet, "if students are going to be held to the same standards of learning, then

there must be the means to ensure that all students have access to the conditions and resources needed for them to meet these standards" (Giroux and Schmidt, 2004, p. 221). The study uses the lens of social and cultural capital to explore the conditions and resources that students need to be successful. Schools that focus excessively on test prep may unintentionally limit the opportunities for social and cultural capital building. Energy, time and fiscal resources spent on additional math and English classes, literacy professional development and scripted curricula necessarily detract from the availability of high quality arts classes, extracurricular activities and community partnerships. Of course, schools need both a focus on rigorous, standards-based instruction and social capital building. This study explores where the appropriate balance lies that will lead to increased graduation rates, particularly for the most vulnerable populations.

What is unusual about this study is that it is looking for that balance from a school-wide perspective, the level on which school administrators make decisions. Up till now, there has been a wealth of research that correlates dominant social capital, and to a lesser extent dominant cultural capital, with a given student's academic success. Too few studies, however, look at the *school community* as the unit of study (Parcel and Dufur, 2001). This is ironic as so much of the theory around social capital considers it group property - Bourdieu, for instance, saw it as the possession of French bourgeois families, and Putnam's unit of measurement was often the region, state or community. As it specifically relates to schools, Croninger and Lee (2001) found that "the more social capital that is possessed on the macro or group level, the more social

capital that can be accessed on the individual level" (p. 42). This research aims to test this hypothesis by looking at the school community as a whole.

In its ability to measure the feelings of the entire school community, this study also has the distinction of being able to look at the dimensions of social capital from the perspectives of three different shareholders in the school community. The Learning Environment Survey (LES) used here was completed by each school's students, parents and teachers, and the results of each group's answers were then analyzed and correlated to provide a comprehensive measure of a school's social and cultural resources.

Finally, the qualitative portion of this study allows for an exploration of the quality of the extracurricular activities and the relationships formed. While useful, the survey results generally used in studies such as this are better at measuring quantities of programs than their quality in generating meaningful relationships. This proved especially significant as so many of the respondents here spoke of the need for extracurricular activities to be rigorous and intensive in order to be valuable.

D. Limitations of the Research Design

While the study has strengths in using schools as the unit of measurement, its ability to triangulate diverse survey data from students, parents and teachers and integrate qualitative data into its statistical findings, it is also important to recognize several significant limitations:

- While the Learning Environment Survey (LES) instrument is more attuned to measures of social capital than the more commonly used large surveys (ie. NELS and High School and Beyond), like the others it was not specifically designed to measure social capital. Ideally, there would have been more questions on the survey that demonstrate how students have actually used their social capital to achieve high school graduation. For instance, questions could have asked: “How have teachers helped you solve a personal problem,” or “Have you received help from a teacher or counselor in completing your college application or financial aid form?” These types of follow-up questions were asked in the interviews.
- For the questions dealing with cultural issues, the limits of the LES are more pronounced. The assumptions that students who study the arts more and take part in after school arts activities have more cultural capital makes intuitive sense and is supported by the literature discussed below. However, Bourdieu’s conception of cultural capital is much more nuanced and complex. The interviews were unable to verify the actual attainment of valuable cultural knowledge or measure the advantages that were gained through this form of capital. Further studies need to focus on habitus, sort out the various fields of cultural capital and probe the dividends of its accumulation with sharper instrumentation than the LES and then follow up in a longitudinal way.
- Using high school graduation as the dependent variable simplified the data analysis, but may have been too low a bar for measuring success at schools with higher-achieving students. For instance, in highly selective high schools

such as Stuyvesant and LaGuardia graduation can be taken almost as a given for most students. With this in mind, the interviews took place in a non-selective school whose population was more typical of New York City high schools and some questions were asked about college admissions and preparation.

- Interviewing former students from the school where I serve as principal provided many benefits in student and program awareness and contextualization, but may have led to bias on my part and in the answers of the respondents. This complexity of this situation will be discussed in greater detail below.

II. Theoretical Framework

A. Social Capital

In his groundbreaking studies of class in France, Bourdieu found that a major factor in the social reproduction of the elite is its monopoly on social and cultural capital. Since Bourdieu first proposed this, other social scientists have transposed his theory to American society and schools thereby making social capital one of the most widely used sociological theories in the last two decades (Smyth, 2004). With this burgeoning popularity, social capital theory has become a hotly disputed concept whose jurisdiction, measurement and derivation changes depending on what one is trying to prove. Nevertheless, while theorists argue over its indicators, sources and benefits, and whether it should be measured quantitatively or qualitatively, they all seem to agree that dominant social capital is a very good thing.

In its broadest conception, "social capital are resources embedded in social networks accessed and used by actors for actions" (Lin, 2001, p. 25). Like all forms of capital, social capital exists only to the extent that it can benefit the holder – by providing her with better health, wealth or life experiences. For Bourdieu, in particular, social capital is only useful in as much as it is convertible to economic capital. It ought to provide one with a better job, profitable investment advice or a good deal on that house in the Hamptons. Stanton-Salazar compares it to social freeways that allow people to navigate the pathways of privilege and power (1997, p. 4). Of course, knowing where

the entrance and exit ramps are is not a natural or social given, but “the product of endless effort to produce and reproduce lasting, useful relationships that can secure material or symbolic profits” (Bourdieu, 1986, p. 52).

The benefits that arise from these efforts have been documented in scores of studies. In 2002, Dika and Singh completed a meta-analysis of on-line research papers that referred to dominant social capital and education between 1986 and 2001. They found that nearly all of the studies, which focused on individual and not groups, indicated significant positive correlations between social capital and educational attainment (measured by years of schooling and school completion), educational achievement (measured by standardized test scores) and education-related psychosocial factors such as educational aspirations, involvement in organizations and peer group values. Beyond school, Coleman (1998) found that social capital leads to human capital in the form of higher paying jobs, more satisfying or higher status work and even the pleasure of greater understanding of the surrounding world. For the larger community-at-large, Putnam (2000) found that social capital allows citizens to resolve collective problems more easily, increases the levels of trust, widens a community’s awareness of the many ways people’s fates are linked and increases wealth.

1. Social Capital among Minority Groups

That the notion that social capital does so much for so many would have come as a surprise to Bourdieu who originally conceived of the concept as an exclusionary tool wielded by the upper class to preserve privilege and power. In this vein, research that looks at social capital through the lens of race and class has shown how the lack of social capital has contributed to the economic and educational difficulties faced by

minority groups and the poor. For instance, it has found that African-Americans, and to a lesser extent Latinos, have smaller social networks than whites (Martineau, 1977; Smyth, 2004, Stanton-Salazar, 1998). Taking a different tack, however, Portes and Landholt (1998) point out that there is considerable social capital in ghetto areas, but it is rarely sufficient or appropriate enough to pull the residents out of poverty. For instance, joining a gang can help a young man gain social capital that can be readily transferred for economic gain, but it will not advance him and his family on the path to middle class stability.

For those minority, poor and immigrant children who wish to access dominant social capital through more traditional means, research supports the view that the most effective way for them to do so is to move outside of their usual social networks and routine exchanges (Green, 1995) or outside of their minority ethnic group (Stanton-Salazar and Dornbusch, 1995; Stanton-Salazar, 1997). In order to facilitate this "Young people who face economic and social hardships at home are especially dependent on schools for support and guidance and the development of social capital" (Croninger and Lee, 2001, p. 549). For these students, schools may contribute to the formation of dominant social capital by supporting meaningful relationships with institutional agents "who can help students access and negotiate the transmission of institutional resources and opportunities" (Stanton-Salazar, 1997, p.117).

2. Criticism of Past Social Capital Research

As influential as the theory of social capital has been on educational research, Dika and Singh's (2002) meta-analysis of scientific papers on the topic was quite damning. They found that although these studies show "significant relationships in the

expected directions," they do not provide sufficient theoretical or empirical support about the positive relationship between social capital and education-related factors due to weaknesses and misapplications of the concept of social capital.

Much of the theoretical grounding for social capital research can be traced back to Coleman's 1998 essay "Social Capital in the Creation of Human Capital." In this most commonly cited essay on social capital and education, Coleman distinguishes three forms of social capital: obligations and expectations, information channels and social norms. His belief is that the more binding the obligations and the more powerful the social norms, the stronger the trust will be within a group and thus the profit in human capital for its members. While this theory makes intuitive sense, the empirical methodology Coleman used to identify social capital among his subjects is rather suspect. Using data from the High School and Beyond (HSB) database, he measured social capital by family size, parents' presence and mothers' expectation for college. He also included data for the type of high school students attend. Using this measurement he found that a student with high social capital (which he defined as an only child with married parents who attends a private school) was less likely to drop out than a public school student with several siblings and single parent who has low college expectations. His indicators of social capital were so similar to markers of wealth and privilege that the evidence seems to be better proof that rich people are more likely to finish high school than poor people than to prove anything about social capital. Thus his conclusion that "the person who invests the time and resources in building up social capital reaps its benefits in the form of a higher-paying job, more satisfying or higher-status work and even the pleasure of the greater understanding of the surrounding

world" (p. 116) seems rather suspicious. To more fully test his theory, he was in need of a richer vein of survey questions to identify indicators of social capital distinct from wealth. He needed to account for family income.

Despite the empirical weakness of Coleman's research, his conception of social capital has become tremendously influential. Since his report, most of the research on social capital, particularly the early research, has been based on the same suspect identifiers he used which do a better job of identifying class than social capital. Much of this has to do with the limits of the NELS and HSB surveys which most researchers use as their sole data sources. One problem with these large, popular surveys is that their questions are not very closely aligned to theoretical indicators of social capital. In fact, the answers that are used to measure it may be better proxies for wealth or family background than for social capital. Even though dominant social capital is generally highly correlated with wealth, in order to measure social capital as a distinct, theoretical entity, one needs to find a way of disaggregating the two. If, as Coleman and so many of his followers do, one uses family size as an indicator of social capital, one may actually be measuring family income as it has such a high inverse correlation to income. Furthermore, the connection between family size and social capital can be much more complex than he considers. The conventional wisdom is that the more children a family has, the less time the parents can spend with each individual child. Yet this oversimplification ignores the positive social capital benefits of siblings, the role of an extended family and the quality of parent-child time together. Brothers and sisters can provide valuable stores of dominant social capital. Furthermore, the focus of most of the survey questions used in the research are more often on the parents' network

rather than the child's growing network thereby failing to consider the beneficial effects a school may create in a child's social capital network.

These limits in Coleman's data set and experimental approach do not negate the efficacy of his theoretical constructs, however. His breakdown of the various dimensions of social capital – information networks, norms and sanctions, peer and institutional social capital - have become standard in much of the literature and have proven to be useful distinctions that will be used in this research project. In measuring these dimensions, however, the study uses a survey that is more closely aligned with his social capital indicators than most of the current quantitative research, and distinguishes this from family income level in its regression analysis. Furthermore, by using the school as the unit of measurement, it seeks to prioritize the value of the school over family influence.

B. Cultural Capital

If social capital theory says, in order to get what you want, "it's not what you know, but who you know," then cultural capital theory replies, "it *is* what you know that is important, but it's not what you think you need to know." Mere knowledge of subject matter is not as important as the ability to drop the right word in the right way, at the right time. When trying to get in good with one's boss, for instance, it is good to know how to do your job well, but the ability to share musical taste, mention a subscription to the right theatre company or dress in the appropriate fashion may make more of a difference, especially if done so with subtlety and aplomb. For Bourdieu, cultural capital "covers a wide variety of resources including such things as verbal facility, general

cultural awareness, aesthetic preferences, information about the school system and academic credentials" (Swartz, 1997, p. 75). With the decline of French hereditary aristocratic culture in the late Nineteenth Century, he found that the ability to make cultural distinctions had become the new bastion separating the powerful elite from the poor and middle class. His research, based largely on surveys of the elite, middle class and poor, found that cultural "taste acts as a marker of class" and that it "classifies as it classifies the classifier" (Bourdieu, 1984, p. 2). Taste is important here because:

> A work of art has meaning and interest only for someone who possess the cultural competence...the code into which it is encoded. Once they have that code, the elite become predisposed, consciously, deliberatively or not, to [use it] to fulfill the social function of legitimating social differences (Bourdieu, 1984, p. 7).

Given his Marxist bent and focus on social reproduction, Bourdieu confined his definition of cultural capital to elite signifiers – classical music, paintings of the masters, antique furniture and a Parisian accent; since then however, as the world has become more multicultural, it has gotten a bit more complex,

1. Cultural Capital and Minority Groups

"Nowhere in Bourdieu's work do we find a commensurate interest in the subordinate cultural systems except in his claim that they reflect the patterns of the dominant system" (Swartz, 1997, p. 84). In contrast to his study of elitism, it is interesting to compare Fordham and Ogbu's (1986) list of attitudes and behaviors that describe how minority students "act white." These include: speaking Standard English, listening to "white" music, going to the ballet and opera and reading poetry. Similarly, as an

alternative to this dominant cultural capital, Peterson (1997) has shown the importance of non-dominant cultural capital in the form of in-group cultural codes and signals that disenfranchised groups use to socially construct what is authentic for its members. While these signifiers, which might include oversized tee shirts, a knowledge of the distinctions between east coast and west coast rap, and the graffiti tags of the Bloods, may not buy minority students entrée into the elite, they do provide status within their own community and effectively work to give the same type of return on investment that dominant cultural capital gives to the elite – closer relationships and access to community resources.

To recognize these alternative forms of cultural capital, however, is not to declare them equal in value. As Carter (2003) points out, full reliance on non-dominant capital to maintain one's cultural status limits one's socioeconomic mobility since it is only dominant cultural capital that facilitates success within mainstream institutions and organizations. Minority students need to learn the dominant cultural codes and signifiers in order to succeed on various fields of power. In defense of this need for code-switching, Carter's research has shown that minority students recognize the higher value that is placed on the dominant cultural capital outside of their communities.

Ironically, this recognition contributes to tremendous damage to the poor because it makes them doubly susceptible to the symbolic violence perpetrated upon them by the elite who use their knowledge of cultural capital to withhold power and prestige from the poor (Bourdieu and Passeron, 1977). From their point of view, this recognition may make them devalue their own cultural tastes leading to internalized

feelings of worthlessness that they may not have had without this recognition. More significantly, from the elite's point of view these arbitrary cultural signifiers are a justification for their exercise of power over those they deem "unqualified," "inappropriate" or worse. In schools, this violence may manifest itself in the treatment of poor and working class students by middle class teachers, who may demean, degrade or devalue their students' culture as they punish them – in the form of lesser grades, negative attitudes and disciplinary sanctions - for not sharing their dominant cultural values or arbitrary norms of dress, vocabulary or body language.

While this form of cultural violence certainly continues today in every school that enforces dress codes against hats and shuns multiculturalism, contemporary American culture lacks the monolithic might of mid-20th Century France. For instance, one of Bourdieu's indicators of cultural capital was music. He categorized his subjects' social and economic class by their knowledge of the Well-Tempered Clavier vs. Rhapsody in Blue vs. The Blue Danube. As Lamont and Lareaeu (1988) have pointed out, because there is a wider range of cultural preferences in the US, "culture is not as highly class differentiated in the U.S. as it is in France" (p. 161). For better and worse, they say that high culture on this side of the Atlantic is often "debased by commercialization; encompasses greater ethnic and racial diversity; is relatively lacking a high culture tradition and is weakened by rampant anti-intellectualism." In fact, there is a whole genre of American entertainment that mocks the very notion of cultural capital as a signifier of success or respectability. Television shows such as *Fraser* and *Fresh Prince of Bel Air* and movies like *Legally Blond* and *Caddyshack* mock their effete, pretentious characters for making bogus class distinctions on the basis of arbitrary distinctions.

These films and shows would not be so successful, however, if the object of their satire didn't have some power. While cultural tastes may be more diverse in the United States than in Bourdieu's France, it would be foolish to deny the existence of a "cultural code" that separates the classes and punishes those ignorant of its power. Cultural resources rewarded by school and other stratification systems may go well beyond those defined by the elite as high culture, but cultural resource theory studies still assert that teachers often reward their students for the "proper" skills, habits and style (Farkas, 1990). Minority writers such as Valenzuela, hooks and Villanueva have written of the unspoken boundaries that continue to exclude those who lack dominant cultural capital. While their personal narratives offer an indictment against the symbolic violence they struggled against, their individual success also offers hope for the possibility of "developing a … bicultural border orientation, a means of successfully negotiating participation in multiple and often conflicting cultural worlds" (Darder, 1991).

2. Cultural Capital and Education

One of the most significant forms of cultural capital is academic capital, the awarding of degrees and certificates such as a high school diploma. Bourdieu wrote, "Educational qualifications [have] come to be seen as a guarantee of the capacity to adopt the aesthetic disposition" the elite requires for entry into their private club (Bourdieu, 1979, p. 28). The naming of these qualifications has become "the best hidden effect of the educational system, the one it produces by imposing 'titles'…whether positive (ennobling) or negative (stigmatizing) which every group produces by assigning individuals to hierarchically ordered classes (Bourdieu, 1984, p 23).

In his forty years of research, Bourdieu often discussed the importance of education in promoting inequality. In fact, he felt that sociologists could play a role in ameliorating this damage by, “determin[ing] the contribution made by the educational system to the reproduction of the structure of power relationship and symbolic relationships between the social classes” (Bordieu, 1973, p. 71). He believed that schools were the primary institutional setting for the production, transmission and accumulation of the various forms of cultural capital. As such, they have often played the role of promoting the dominant systems of classification through which symbolic power is expressed while discrediting subordinate forms of cultural capital thereby reproducing class relations by legitimating the unequal distribution of cultural capital (Swartz, 1997).

Bourdieu is not a conspiracy theorist about this reproduction. Instead, his research shows that the causes and methods used for sustaining class distinctions are subtle and subconscious. Nevertheless, the result is that that there is generally a high correlation between “subjective hopes and objective chances. A child’s ambitions and expectations with regard to education and career are structurally determined products of parental education experience and cultural life. Children internalize what is expected of them” (Swartz, p. 198). Education reinforces this self-fulfilling prophecy in a number of ways. Structurally, teachers, the school system, the power elite and even their own peers and communities treat students of the poor like they will remain poor. For example, “teachers’ conscious and unconscious expectations and peer group pressure whose ethical orientation is itself defined by class values are brought in and reinforced by the institution” (Bourdieu, 1979, p. 26). These expectations manipulate students

"aspirations and demands – in other words their self-image and self-esteem – through the channeling of students" to specific schools where they are less likely to find success (Bourdieu, 1979, p. 25). These schools then "impose [elite] cultural practices that they do not teach and do not even explicitly demand" (Bourdieu, 1979, p. 26). This educational environment then sets the psychological and sociological stage for the replication of internalized class differences.

> Failing to provide compensatory coursework adapted to meet the language deficiencies of those without cultural capital, traditional pedagogy fulfills the function of serving dominant class interests by demanding uniformly of all its students that they should have what it does not give: namely a practical and informal mastery of language and culture that can be acquired only in the dominant class family (Bourdieu and Passeron, 1977, p. 128).

In this way, Bourdieu felt that schools have replaced families as the dominant mode for replicating a sense of class (Bourdieu, 1973).

As negative as he often was about the results of the educational system, Bourdieu did seem to offer hope that schools might play a role in ameliorating students' lack of dominant cultural capital. His writing generally uses cultural capital theory as an explanatory model for family-based social reproduction as it has historically been handed down from one elite generation to another. Yet, his later "surveys establish[ed] that all cultural practices (museum visits, concert going, reading etc.) and preferences in literature, painting and music are most closely linked to educational level and secondarily to social origin" (Bourdieu, 1984, p. 1). While most schools seem to support the replication of class distinctions, given the role schools play in the formation of cultural capital, there is no theoretical reason why schools cannot provide dominant cultural capital to its working class students. In fact, Bourdieu seemed to acknowledge

that schools could mitigate class advantages in the acquisition of cultural capital when he wrote:

> Differential performance according to class appears less pronounced at higher levels of schooling because the surviving lower-class students represent a highly select subgroup. They have compensated their initial lack of capital by acquiring a scholastically based cultural capital through exceptional intellectual ability, individual effort and unusual home or social conditions" (Bourdieu, 1984, p. 201).

If such a highly select subgroup of working class students has been able to earn cultural capital, then maybe schools can provide the support needed to make these exceptional cases less exceptional. The key, he suggests, is the level of school that is attained – the higher the level the less pronounced the difference in cultural capital. The goal, then should be keeping working class students in school for as long as possible so that they might attain compensatory, scholastic-based cultural capital.

In his book *State Nobility,* Bourdieu provides a clue as to how this might be done. The model, ironically, is the elite, private, boarding school. In the study, Bourdieu describes how these schools inculcate models of behavior, knowledge of cultural mores and provide the academic credentials that lead to financial success. He found that a key to their success were the prep school teachers who had three essential qualities:

1. They enjoy a certain familiarity with their students and have them for three years in a row.
2. Their pedagogic style resembles coaching.
3. They develop a patrimonial style as their relationship extends into the lives of their students – reading, homework, studying, sleep, nutrition outings etc. (Bourdieu, 1989, p. 93).

In short, the teachers of these schools go beyond traditional instruction to offer support and a sense of community. If this style of familiarity, coaching and patrimony

works for the elite of France, it ought to work even better for the working class students of an urban high school.

Similarly, in her analysis of student success in urban high schools, Velenzuela (1999) found that teachers and schools that create a sense of community better serve Mexican immigrants. She explained that with a stronger sense of community, students can more effectively be taught dominant habitus they need for success. As will be discussed in the next section, habitus is the schemata, sensibilities and tastes that can indicate a person's social class, and even the most resistant student understands that she may need to adapt habitus that may hinder her social and academic advancement. If elite schools can teach their elite students how to acclimatize themselves to various situations, then public schools should be able to do the same. After all, for Bourdieu behavior is "strategic" as "actors in their everyday practice attempt to move through a maze of constraints and opportunities that they grasp imperfectly through past experiences and over time" (Bourdieu, 1977, p. 9).

There is a risk here, however. Taken to its logical extreme, foisting elite cultural capital on minority youth might replicate the Indian adoption and assimilation programs of the Nineteenth Century when young Native Americans were taken from their homes, given haircuts, denied the history or language of their tribes and put into boarding schools. Of course, schools need not take Bourdieu's advice to its logical extreme. Instead, they can teach the signifiers as the arbitrary, yet meaningful, markers that they are. By providing their students with dominant cultural capital so that they will be able to perform on various fields of power, schools can better position their students to usurp and replace traditional definitions of cultural capital. Speaking the language, knowing

the codes, they can disarm the symbolic violence wielded by the elite and replace it with something more democratic and egalitarian - a culture where Bourdieu's theories would not matter so much.

3. Inculcating Habitus

One aspect of cultural capital that has garnered quite a bit of attention from researchers is habitus. Bourdieu described it as:

> A subjective but not individual system of internalized structures of perception, conception and action common to all members of the same group or class and constituting the precondition of all objectification and perception (Bourdieu, 1977, p. 87)

Bourdieu noted that the concept of habitus was converted by scholasticism from Aristotle's conception of *hexis,* which meant "incorporated or quasi-postural disposition" (Bourdieu, 1985, p. 13). Earlier he had written that "the word disposition seem[ed] particularly suited to express habitus as it designates a way of being, a habitual state, and in particular, a predisposition, tendency, propensity or inclination (Bourdieu, 1977, p. 214). It is also unconscious, for like a conductorless orchestra, "the practices of the same group are always more and better harmonized than the agents know or wish (Bourdieu, 1990, p. 59). Nevertheless, they are very powerful. Bourdieu believed they represent a kind of "deep structuring cultural matrix that generates self-fulfilling prophecies according to different class opportunities" (Swartz, 1997, p. 104). No researcher has better described the power and subtlety of this phenomenon than Marcel Proust. In his seven volumes he assiduously chronicles how the vocabulary, body language, dress, intonations, thoughts and actions of individuals equate to their rank in the aristocracy, bourgeoisie, working class and scores of sub-classes of 19th

Century France. People choose whom to associate with, promote or disparage based on their minute reading of these secret codes.

For Bourdieu, “activities as alien to the explicit demands of the institution as keeping a diary, wearing heavy make up, theatre-going, writing poems or playing rugby” can determine an individual’s success in a given institution (Bourdieu, 1979, p. 25). Like the snobs of Proust’s era, teachers and administrators can be close readers of upper class habitus. In subtle ways they may prefer and reward students who dress conservatively, write and speak Standard English, have a taste for “quality” literature and listen to similar music. On the other hand, the examples of negative academic habitus in the United States today might include the wearing of clothing that is too baggy (or too tight), heavy jewelry, singing or playing rap, certain accents and playing video games. As Bourdieu has said, “The whole trick of the pedagogy lies precisely in the way it extorts the essential while seeming to demand the insignificant” (Bourdieu, 1977, p. 95).

4. Criticism of Cultural Capital Research

As influential as his theories of cultural capital have been, some have written about theoretical and methodological flaws in Bourdieu’s research. Lamont and Lareau (1988) point out that proliferation of meanings have led to a great deal of confusion. Their close reading of Bourdieu and Passeron reveals that their conception of cultural capital changes over time to include cultural attitudes, preferences, behaviors, and goods. “In Bourdieu’s global theoretical framework, cultural capital is alternatively an informal academic standard, a class attribute, a basis for social selection and a resource for power” (p. 156). Similarly, Sullivan (2001) has found that Bourdieu is guilty

of a methodological flaw. By using parental education as a proxy for cultural capital, Bourdieu assumes much of what he sets out to prove. Sullivan asserts that it is a circular argument to treat educational level as a proxy for cultural capital if one is trying to assess whether cultural capital does in fact help to determine the educational levels reached by individuals. He may only be proving that well educated people have well educated children, an argument that hardly needs the construct of cultural capital as an explanation. While there is some truth to these concerns, they do not negate the power of the theoretical model that credits the existence of important though arbitrary signifiers of cultural knowledge - whether they are defined as educational level, attitude or behavior - in separating the classes.

While the LES is not as detailed in identifying cultural capital as it is for exploring social capital, it does measure the most basic form of cultural value – exposure to music, art, dance and drama classes through “compensatory coursework” and participation in these art forms through extracurricular activities.

5. Dropouts and Academic Capital

Given the high value that Bourdieu put on education as an inculcator of social and cultural capital, he acknowledged the absolute value of earning a high school diploma, and ultimately a college degree. For example, he wrote, “Educational qualifications [have] come to be seen as a guarantee of the capacity to adopt the aesthetic disposition” the elite requires for entry into their private club (Bourdieu, 1979, p. 28). The designation of these qualifications has become “the best hidden effect of the educational system, the one it produces by imposing ‘titles’ …whether positive (ennobling) or negative (stigmatizing) which every group produces by assigning

individuals to hierarchically ordered classes (Bourdieu, 1984, p 23). At the very least, urban high schools must do everything they can to guarantee that none of their students receive that most stigmatizing educational label - “drop-out.” Indeed, Bourdieu felt that:

> Everything seems to indicate that the longer the period of time [in academia] extends, the more likely it is that the students from the dominated regions will be in a position to gain appreciation for their acquiring of academic capital (Bourdieu, 1989, p. 23).

Yet Bourdieu also recognized that for the disenfranchised, “the disparity between the aspirations the educational system produces and the opportunities it really affords is a structural reality” that results in a “collective disillusionment” and “a source of disaffection towards work…which generates all the refusals and negations of the adolescent counter culture” (Bourdieu, 1989, p. 143). Bourdieu feels that “what is at stake is no longer just personal failure, as the educational system encourages them to believe, but rather the whole logic of the educational institution” (Bourdieu, 1989, p. 144). This “collective disillusionment” must be acknowledged, challenged head-on and replaced with a culture of hope and possibility.

III. Literature Review

As social and cultural capital have become such popular and influential theories, they have generated a flood of research and reports that can swamp careful analysis of just what it can and can't do. As mentioned above, much that has been written lacks sophistication in methodology or theoretical understanding. Still, enough good studies have risen to the surface to provide useful grounding and a sense of perspective of the possibilities and limits of the dimensions and sources of social and cultural capital. For the purposes of this study, previous research on the effects of social and cultural capital in general, the four dimensions of social capital and the means that students have used to access social capital will be reviewed. A review of research about New York's small school movement and past survey data will also help to contextualize this research.

A. Previous New York City Student Surveys

Prior to the LES, Belden, Russonello and Stewart for the Citizen's Committee for Children of New York conducted the largest citywide survey of New York City's public schools in 2001. While this survey of 1001 students was conducted just as the Bloomberg/Klein reforms were beginning, its results were not dissimilar to the findings of the LES. For the most part the students rated the schools a bit less positively than in the more recent LES. In particular, the students in the earlier survey voiced serious concerns about school safety, access to technology and the physical conditions of

buildings. Yet the researchers found the most positive feedback in areas similar to social capital. Seventy-two percent said that their teachers were available for extra help, 56% said their teachers cared about them and 64% reported good or excellent feedback on tests and homework. As will be seen later, these results on social capital are generally in-line with what the students, teachers and parents reported on the LES, thereby granting it a level of validity.

B. Small Schools

One of the findings of the survey by the Citizen's Committee for the Children of New York was that students in smaller schools were more likely to report they had caring teachers with high expectations, yet they were also more likely to report an insufficient amount of art and music classes. As seen below, these survey results are in line with the results of the LES and with much of the research into small schools that indicates closer student-teacher relationships but fewer opportunities for participation in non-academic classes.

The small high school movement is one of the fastest growing school reform movements in the United States today. In New York City, the Department of Education is on its third wave of small school building. Under the guidance of Deborah Meir and Superintendent Anthony Alvarado, Central Park East Secondary School began the first wave in 1985. Six years later, Chancellor Crew announced the opening of another 25 small, specialized high school. As many of these schools became among the highest -

achieving schools in the city, former Chancellor Klein and Mayor Bloomberg opened over 300 more small schools in the first decade of this century.

New York City has not rushed into this reform blindly; an ERIC search for research on small schools found over 3000 articles on the subject. In her meta-analysis of this research, Raywid (1999) found that “a large body of research in the affective and social realms overwhelmingly affirms the superiority of small schools" (p. 1). One study that explored small schools and social capital is "The Relationship of School Size to Scores in the Affective Domain from the Montana Testing Service Examination" by Everett Edington and Clark Gardener (1984). In 1981 and 1982 they studied the statewide standardized tests results of sixth and eleventh grade students from about 300 schools and measured their communication ability and their attitude towards school, character, cooperation, and change. When they disaggregated the data based on school size, they determined that “there was a negative correlation between the scores of the tests and the school size. This correlation was most pronounced in the areas of feelings of acceptance and peer relations” (p. 8).

The most extensive work completed on the effectiveness of small schools is the Matthew Project, a series of seven macro studies in seven states that compared standardized test scores and demographic data in small schools and large schools with a focus on the hypothesis that size mitigates the influence of poverty. All seven studies found that “the influence of size varied by SES level, with size exerting a negative influence on achievement in impoverished schools, but a positive influence on achievement in affluent schools” (Howley, Craig and Johnson, 2002, p. 6).

In their study of Arkansas schools, Paulson, Howley and Howley (1997) replicated these findings. Their regression equations predicted overall school and district test scores from measures of size, socioeconomic status and their interaction. They found that between 36 and 68 percent of the schools (depending on grade level tested) would likely produce lower scores if the schools were larger, or higher scores if the schools were smaller. They found that “enrollment size has a stronger effect on learning in schools with lower-SES students, and also in schools with high concentrations of minority students” (p. 3) They did not determine a direct cause and effect, but hypothesized that “size is simply a facilitator or inhibitor of the more fundamental characteristics of the social and academic organizations of schools” (p. 20). One way of looking at this fundamental characteristic of social organization is through the lens of social capital.

There is a tremendously consistent correlation that participation rates in extracurricular activities are higher in small schools than in larger ones (Barker and Hall, 1964; Grabe, 1981; Lindsay, 1982). Smaller schools also seem to be more successful at graduating students, especially at-risk students. Hemphill and Nauer (2009) found that in New York City “small schools consistently report higher graduation rates than large schools” (p. 18). In particular, they found that small schools are especially successful with at-risk students whether defined by race, incoming test scores or high risk. They credit this success to their “stickiness” which they define as their “ability to engage and keep in school students who would otherwise drop out” (p. 22).

The quantitative portion of this study replicates these quantitative findings while the qualitative research here uses graduate interviews to investigate how and why a small school has been able to leverage social and cultural capital into higher graduation rates.

C. Social Capital and School Success

Several studies have found correlations between social capital and high school graduation, particularly for at-risk youth. In a longitudinal, multiple regression study of 252 children of teenage mothers, Furstenberg and Hughes (1995) found that positive measures of family cohesion raised the likelihood of high school graduation by 30%. Similarly, Smith et al (1987) found that social capital can supplement low levels of family social capital in order raise expected rates of high school graduation. Yet they cautioned that the High School and Beyond database that they used in their multiple regression study raised concerns about the validity of their social capital indicators (p. 84).

The most similar study to the present one, Croninger and Lee's 1992 quantitative study of the effects of social capital on high school performance, used the National Educational Longitudinal Study (NELS) data to measure whether social capital increases the likelihood of students graduating high school, particularly for high risk students. Using questions on the NELS survey that focus on the how much the 11,000 students in the study believe that their tenth grade teachers support them as a measure of social capital, they found that students with this form of social capital are half as likely to drop out of high school as students without it. Furthermore, they found that students from disadvantaged backgrounds who have had academic difficulties are

more likely to benefit from guidance and assistance from teachers than their more advantaged peers. They suggest that this may be because “by gaining students’ trust, teachers may be better able to encourage students to engage in positive academic behaviors” thereby preventing them from becoming overwhelmed with the problems that often lead to dropping out (p. 565). Although this research offered a more nuanced measure of social capital than most of the quantitative studies, Croninger and Lee still found their measures to be “rather ‘blunt.’”(p. 569). The LES data in the present study is a sharper in its measure of social capital and allows for an opportunity to expand on the work of Croninger and Lee. In particular, the questions in the LES allow for comparison four dimensions of social capital discussed in the previous chapter. It also uses a pool of participants that is significantly larger and, in its inclusion of teacher and parent survey information, is more diverse and allows for triangulation.

One similar study also used school-level data based on surveys from both students and teachers, but it looked at elementary schools - Goddard’s 2003 study of 54 elementary schools in a large Midwestern city. While both his sample size and survey were more modest (some schools had only five faculty respondents), his results did support his hypothesis of the importance of social capital for academic success of elementary students. His regression analysis found that the presence of high social capital in a given school can explain modestly higher test math and reading scores on state mandated tests.

These studies support the general hypothesis that social capital can raise test scores and improve graduation rates, but do not differentiate among the dimensions of social capital or go very far in explaining how it helps students.

D. Dimensions of Social Capital and Schools

In his influential 1988 study “Social Capital and the Development of Human Capital,” Coleman broke social capital down into three forms that have been widely studied – norms and sanctions, information networks and trust. In subsequent studies, researchers such as Stanton-Salazar, Niemeyer and Camp also broke down the dimension of trust into peer and institutional social capital. This study breaks social capital into these four dimensions in order to better understand how it works. Each of these forms - norms and sanctions, institutional social capital, peer social capital and information networks - have been researched, discussed and analyzed at length over the last two decades both quantitatively and qualitatively. Rarely, however, have these studies explored the interrelationships of these dimensions in order to discern their relative value and combined strength in predicting anything as specific as graduation rate.

1. Norms and Sanctions

In describing norms and sanctions as an important form of social capital, Coleman wrote, “Norms in a community that provide effective rewards for achievement in school greatly facilitate a school’s task” (Coleman, 1988, p. 104). He connected the most important norms such as forgoing “one’s self-interest and act for the benefit of the community” to the needed to create a safe environment. While he recognized that “a

community with strong and effective norms about young persons' behaviors may keep them from having 'a good time' they are also necessary to "constrain criminals" and keep the community safe (p. 105). Others have supported his prioritizing the value of norms and sanctions in finding that safe, safe schools are the number one prerequisite for learning to take place (Diamond & Hopson, 1998; Cornell and Mayer, 2010), the most important predictor of student teacher bonding (Crosnoe, Johnson and Elder, 2010) and highly correlated with test scores, student attendance (Bryk and Schneider, 2003) and graduation rates (Christle, Jolivette and Nelson, 2008, DeStefano et al, 2007). This facet of social capital is especially significant in urban schools where safety is a greater concern (Stone and Boundy, 1994).

How schools improve safety, however, can lead to other problems. In her dissertation, *Disciplining Urban Youth: An Ethnographic Study of a Bronx High School*, Kathleen Nolan discusses what happened when schools become "penalized" through the incorporation of police-state tactics such as the increased use of metal detectors, cameras, criminal court summonses and misdemeanor arrests. Her ethnographic analysis of a school that makes use of these tactics shows that not only do they tend to criminalize students, they also seem ineffective at making the school any safer.

Through the development of supportive relationships, social capital theory offers an alternative means for creating effective norms and sanctions that can lead to safer schools. Uberto Gatti and Richard E. Tremblay studied this alternative in their 2005 meta-analysis of the effect of social capital on violent behavior in which they confirmed the notion that "relationships with pro-social companions provide a form of social capital that exerts a positive influence on the socialization process and on the control over

disruptive behavior, including aggression" (p. 405). Looking at the problem from a racial perspective, Freiberg and Lapointe (2006) reviewed 29 discipline reduction programs that focused on urban, minority youth. They found that the most successful of these programs encouraged "school connectedness" and "caring and trusting relationships" between teachers and students. Similarly, Gregory and Weinstein (2008) found that teachers who elicited trust and cooperation with their Black students tended to use an authoritative style of teaching—one in which teachers showed both caring and high expectations.

This present study will use pathway analysis to explore the power of norms and sanctions to predict graduation rates and measure the power of positive peer and social capital to predict the level of a school's norms of sanctions. In this way it will show whether "school connectedness" makes schools safer. The qualitative interviews will then explore how peer and institutional social capital support a school's development of norms and sanctions. Skiba and Peterson's (2000) findings that creating safe schools requires the development of partnerships between schools and the local community and parents will be one of the avenues explored in these interviews.

While good research has been done in studying the importance of safe schools, looking at this issue through the social capital lens of norms and sanctions offers an opportunity to see it in the context of relationship building.

2. Information Networks

One important aspect of relationship building is the presence of open and rich information networks. Bourdieu found that information networks are a vital form of social capital as they provide the "basis for action" (1988, p. 103). Within schools, access to

information leads to expectations and aspirations that are “conventionally regarded as among the most significant contributors to an adolescent’s eventual educational attainment,” and “when neither [expectations nor aspirations] is present, self-elimination is likely to result” (Stanton-Salazar and Dornbusch, 1995; 118). In their comprehensive quantitative study of the Chicago schools system, Bryk and Schneider (2009) found statistical evidence that schools with well-developed communication systems between schools and parents have higher standardized test scores and attendance rates.

Unfortunately, not all families have the same access to rich parent information networks. Giroux and Schmidt (2002) have found that neither working class and immigrant parents nor their children are situated in social networks that contain as much educationally relevant information as the social networks of middle-class parents and their children. More specifically, Neild (2005) completed an ethnographic study in which she conducted semi-structured interviews with the parents of 19 minority eighth grade students from two high poverty schools as they went through the high school admissions process in Philadelphia. She found that most parents were hungry for information about the schools but lacked specifics on academic performance or children’s chances of admission.

Parent and teacher questions on the LES ask about the openness and richness of the communications between families and schools. The importance of this measure was explored in analysis of the power prent-school communication to predict graduation rates and its effects on the other variables.

3. *Peer Social Capital*

In describing trust as a form of social capital, Coleman wrote that it was a sense that "people are always doing things for each other" (1998, p. 102). In looking at who these people who do things for each other are, much of the educational research has divided them into two groups – peers and institutional agents. Gibson, Gandara and Koyama (2004) define peer social capital as "adolescents' connections to peers and peer networks that can provide access to tangible forms of support that facilitate the accomplishing of academic goals" (p. 23). Following this line of thinking, there have been a number of studies that have looked into how students' peer relationships effect academic success in general and graduation rates more specifically. For instance, many researchers have explored The Wisconsin Model that suggests that peer groups cause students to internalize certain "standards" for appropriate behavior that can promote academic effort and success (Stanton-Salazar, 2004).

Many researchers have found a strong correlation between students' feeling connected to school and academic motivation, participation and achievement (Gibson et al, 2004; Stanton-Salazar, 2004). Goodenow and Grady (1993) found that students function better when they feel personally accepted, respected, included and supported by others. In their study of 2,169 Mexican American high school students, Gonzalez and Padilla (1997) found that students' sense of belonging in school was the only significant predictor of academic resilience and achievement.

Others have pointed out that this same dynamic can work in reverse when peer relationships deter students from academic success (Portes and Landolt, 1996; Eckert, 1989; Rumberger, 1987; Cairns et al, 1989 and Ensminger, 1996). Fordham and Ogbu (1986), who have explored this through a racial lens, have argued that the peer groups

for many African American youth are actually oppositional to academic achievement, and thus work to prevent academic success among their peers. In the passage below they argue that, for historical and cultural reasons, academic success is often seen as "acting white:"

> *One major reason* black students do poorly in school is that they experience inordinate ambivalence and affective dissonance in regard to academic effort and success. This problem arose partly because white Americans traditionally refused to acknowledge that black Americans are capable of intellectual achievement, and partly because black Americans subsequently began to doubt their own intellectual ability, began to define academic success as white people's prerogative, and began to discourage their peers, perhaps unconsciously, from emulating white people in academic striving, i.e., from "acting white." Because of the ambivalence, affective dissonance, and social pressures, many black students who are academically able do not put forth the necessary effort and perseverance in their schoolwork and, consequently, do poorly in school (p. 177).

In their ethnographic study of a mostly African American High School in Washington D.C., Fordham and Ogbu found evidence to support this in their student interviews of underachieving Black students. Even students in advanced placement classes spoke about the peer pressure that they felt to underperform academically in order to escape the stigma of the school's worst insult - "brainiac."

Ream and Rumberger (2008) found a similar dynamic among Latino students in their multiple regression analysis of NELS data of the benefits and costs of peer social capital. They found that Latino students are more likely than white, non-Hispanic students to have friends who do not value education and friends who drop out of high school, and that this was, in turn, a contributing factor to their failure to graduate from high school. However, they did find hope among the Latino students with friends who value education. This group was much more likely than their Latino peers to be

engaged in school (complete homework, come to school prepared, and study for exams) and to complete high school.

As the various dimensions of social capital often compliment one another, several studies have explored the connection between peer social capital and norms and sanctions. Carbonaro (2004) showed that peer social capital supports student achievement by providing norms and expectations for academic success through positive peer pressure and by offering modeling behavior for achievement. The multiple regression model for this study will explore this dynamic by examining the power of peer and institutional social capital in predicting positive norms and sanctions.

4. Institutional Social Capital

Coleman used the example of a mafia godfather to show that hierarchical systems offer the opportunity for those in power to offer assistance to those with fewer advantages. This is a form of institutional social capital, albeit from a rather unique institution. When it comes to the more traditional forum of schools, however, Coleman and other researchers equate social capital with structural features of a child's family or neighborhood. They fail to examine the role that school-based adults can play in building students' social capital (Croninger and Lee, 2001). In contrast to this failure, research by Stanton-Salazar and Spina (2003) found that the "school site afforded most of the youth who took part in the study the most practical context for developing relations with adults capable of altering their life chances in a significant way (p. 128). They define these adults as institutional agents because they can pass on valuable resources and information about such topics as college admissions and financial aid, school programs, tutoring and mentoring assistance.

Other researchers have corroborated these findings. Carbonara (2004) found that institutional social capital could help students by setting high expectations, providing encouragement and support and, when recognized as legitimate by their students, providing institutional pressure for achievement in their role as authority figures. Looking at the same subject from the obverse side, dropouts frequently complain that their teachers do not care about them, are not interested in their problems and are unwilling to help them with their problems (Fine, 1986; Croninger and Lee, 2001). Quint (2008) also found that students who dropped out report that they felt distant and estranged from school staff. One reason for this was that students who said that they feel that people at their school care for them and believe that their absences will be missed are more likely to attend regularly. It should come as no surprise that when students feel cared for, they are more likely to succeed as school.

As important as this sense of caring is for all students, it may be particularly vital when students lack sources of social capital at home (Valenzuela, 1999). The research of Stanton-Salazar and Spina (2003) found that the role of these agents was particularly important for minority youth as,

> The entree of one particular adult agent can have a considerably empowering effect during an especially tumultuous period in a youth's development. Unfortunately, too many minority youth are subjected to harsh conditions without the benefit of key relationships with resourceful and caring adults in the school or community (p. 132)

Ironically, however, while these institutional agents may exist in every school, the most needy students are typically the students who are least likely to access them due to their lack of trust in the institutional agents and their expectations for the future. (Stanton-Salazar and Dornbusch, 1995).

When bonding does occur between these school agents and students experience a heightened degree of motivation and make the necessary efforts to meet academic demands, this effect is particularly pronounced for at-risk students (Stanton-Salazar, 2001). For instance, in her quantitative analysis of the effect of social capital on math scores, Chandra Mueller (2001) found that in a general population, students' perceptions that teachers are caring is weakly associated with mathematics achievement for most students. However, for students who are judged by their teachers as at-risk of dropping out of high school, the effect on math achievement of having teachers who care is substantial and mitigates against the negative effect of having been judged as at-risk. She surmises that “the results suggest that social capital, as defined by a relationship that facilitates action, is especially high for at-risk students who feel their teachers are interested, expect them to succeed, listen to them, praise their effort, and care” (p. 241). Niemeyer (2009) expanded on this research by examining how lower SES immigrant students use institutional social capital in college. He found that lower SES immigrants were more likely than lower SES native-born students to access social capital networks that supported their entrance into college. Furthermore, in his focus groups, he found that these immigrants received more useful support from institutional agents then from peers.

Similarly, Crosnoe, Johnson and Elder (2010) hypothesized that school-based social capital should make more of a difference in the lives of Black and Hispanic students because they are less likely to be able to access it through non-institutional connections. Yet their research did not absolutely support this supposition. They found that while positive for all groups, the effect of intergenerational bonding on academic

achievement did not vary much across race, ethnic groups or gender with the exception of increase academic achievement among Latina girls who had close relationships with institutional agents and little change in academic achievement among white students with high levels of institutional social capital. Furthermore, they found little variance in school type (public or private) and class size. Instead, the difference in the formation of social capital within any given school is largely dependant on how supportive the culture of that school is in supporting interpersonal relationships (Crosnoe et al, 2010).

This present research will explore how a school's culture can support the formation of institutional social capital and investigate further how various groups are affected by the formation of institutional social capital.

E. Sources of Social Capital

As this literature review demonstrates, the evidence that these forms of social capital – peer social capital, institutional social capital, norms and sanctions and information networks – can benefit students academically has been pretty well established. It thus becomes the focus of the study to explore how these factors intersect with one another and cultural capital; and to explore how these forms of social capital can be nurtured within a school. This review of literature will now explore some of the likely sources of social capital: extracurricular activities, mentoring and community-based organizations.

1. Extracurricular Activities

As extracurricular activities are the most heavily researched areas of social and cultural capital accumulation, they provide an interesting model of how social and cultural capital theory has been used to deepen the analysis and broaden the application of educational research. One reason for this wealth of research has been an explosive growth in the number of organized after-school activities in the last thirty years (Hollister, 2003). Begun in the eighties, this growth was amplified by the federally funded 21st Century Community Learning Center Grants in 1998. Starting from a $40 million federal allocation, these grants ballooned to nearly a billion dollars a year by 2002. In 2007 this program's $981 million dollars funded 3,309 afterschool programs serving 1,456,447 children and youth in 9,824 school-based and community-based centers across the country (Naftzger et al, 2007). Complimenting this federal support, the states have also increased their funding dramatically. For instance, since 1998, New York raised funding for afterschool programs from $500,000 to $10 million (Nattzeger et al, 2007).

Justifying this growth in government spending, a whole field of education research has championed the positive effects of extracurricular activities (Hollister, 2003). These studies have been fairly universal in extolling the positive effects of participation in sports, arts organization, community centers, service groups and clubs in general. While much of the data demonstrate strong correlation between extracurricular activities and social and cultural capital, according to three major meta-analyses of extracurricular activities research, the evidence for cause and effect is fairly weak as many of these studies use suspect methodologies. These critical reviews have called the evidence presented "sparse" (Hollister 2003), and "inadequate" (Holland and

Andre, 1987). One problem is that many of the studies simply take a sample of convenience and correlate participation levels with other characteristics at a given point of time, an “approach [that] represents the weakest, most inadequate research design” (Holland and Andre, 1987, p. 487). Further complicating this research is the problem of selection bias - as students self-select to take part in these extracurricular activities. These students may do so because they already have the qualities that are being measured as dependent variables such as self-esteem, motivation and responsibility, or they may have personality traits that lead to academic achievement. For instance, Hank and Eckland (1976) found that variables such as father’s occupation, previous GPA, IQ and curriculum reduce or even eliminate differences in the GPA between athletes and non-athletes.

Despite the methodological weaknesses and the suspect assumptions of much of the research, Holland and Andre (1987) did find ten studies that used sufficiently rigorous methodology to credibly measure positive outcomes such as reduced drug and alcohol use, improved academic skills and decreased violence as an outgrowth of extracurricular activities. Among the weaker studies, they found that while causal evidence was lacking, there is evidence that participation in extracurricular activities is correlated with higher levels of self esteem, improved race relations, involvement in political/social activities in young adulthood, academic ability and grades, educational aspirations and attainment, feelings of control over one’s life and lower delinquency rates. Many of these correlations connect extracurricular activities with growth in social capital, both peer and institutional.

Extracurricular activities can spur growth in peer social capital by increasing students' connectedness to school and to friends with more constructive social behaviors. Larson (1994), for example, wrote that extracurricular activities can facilitate adolescents' developmental need for social relatedness and can contribute to one's identity as an important and valued member of the school community. Eccses and Barber (1999) found a social capital correlation between adolescents who participated in pro-social extracurricular activities and high academic achievement and low rates of involvement in risky behaviors. The potential of these extracurricular peer groups was shown as the students in them were more likely to identify themselves as "brains," have the most friends who were academic-oriented and the fewest friends engaged in risky behaviors. In their fifteen-year longitudinal survey, Otto and Alwin (1977) specifically looked at the relationships male athletes who participate in extracurricular activities have with significant others (girlfriends and best friends). They estimated that these relationships were responsible for 40% of the positive effects that athletic participation has on academic aspirations and achievement.

While the positive values of peer relationships formed through extracurricular activities is significant, a Bourdieuian analysis would prioritize the significance of the adult relationships which are formed with coaches and advisors, as they offer greater possibilities for an economic return, and the research seems to support that these activities do, in fact, lead to improved student-adult relationships. Kahne and Bailey (1999) found that the peer-adult relationships developed during extracurricular activities "had value in their own right … Indeed, it was often the sincerity of the relationships that the youth talked about" when expressing the value of participation in extracurricular

activities. Similarly, Stanton-Salazar (2004) found that the coaches were the most trusted and supportive adults in the schools that he studied. Finally, Camp (1990) found a more direct connection to Bourdieu as he credits the positive effects of sports participation with improved interpersonal skills and access to interpersonal networks, contacts and information channels that are beneficial in establishing careers.

As with social capital, in general, it seems that participation in extracurricular activities has a greater impact on the disenfranchised than on the wealthy and well educated. Participation in them seems to overcome the paradox that the poor are the least likely to take advantage of institutional social capital when offered it through school. In their meta-analysis, Holland and Andre (1987) found that the power of positive extracurricular activities in supporting relationships between adults and youth seems especially significant for male adolescents from lower SES families and of lower academic ability. Supporting this, Kahne and Bailey (1999) found that as these students often suffer from a lack of social trust, any addition of social capital appears to have an exponential effect in increasing the value of their resources. Specifically, when trust is present, these youth are more likely to seek out and take advantage of various supports and opportunities. They are also more likely to respond positively to teachers and other adults who emphasize pro-social and academic norms (Holland and Andre, 1987).

As Camp (1990) has pointed out, the finding that academic achievement is enhanced by student participation in extracurricular activities raises questions about the rationale behind rules excluding academically marginal students from participation in extracurricular activities. Likewise, if Fleming's social development model (2008) shows

that antisocial behavior in one developmental time period leads to less involvement in activities and interactions that have positive socializing influence in the next developmental time period, than the opposite may be true - if a student has the opportunity to exhibit pro-social behavior in the sphere of a team or club, then maybe that behavior will lead to improved behavior in other areas of her life. The research of Felt and Weiss (1984) corroborates this, as it found that participation in more than one extracurricular event significantly increases the likelihood of positive effects such as high school completion.

Another important aspect of the research is the context where extracurricular activities take place. Holland and Andre (1999) write:

> The social systems of a particular community – the activities it values, the role high school activities play in the community, the values parents communicate to children, the community support, the range of opportunities provided for adolescents in the community - serves to define the roles, functions, values and rewards provided for participation. High schools and the opportunities they provide for adolescents have meanings only as defined both by the social characteristics of the communities in which they exist and by the specific characteristics of the high schools themselves" (p. 450).

The high school studied in this research supports just this type of community as it offers and rewards participation in a wide range of extracurricular activities. Therefore, the interview data demonstrate the power of extracurricular activities to build peer and institutional social capital. Furthermore, the quantitative data set will allow for multiple regression analysis to determine the strength of the pathway that connects participation in extracurricular activities with peer and institutional social capital.

2. Mentoring

As a vehicle for inculcating institutional social capital, nothing is as immediate and focused as mentoring. Serving hundreds of thousands of at-risk students today, school-based mentoring is the fastest growing form of mentoring (Herrera et al, 2007). There is good reason for such growth, as the research indicates that mentoring produces positive health as well as positive social and academic outcomes in students (Tierney, Grossman and Resch, 1995). As "a primary approach in breaking down the walls between a school and the community. Hundreds of schools have created mentoring programs, linking community volunteers to students in after-school programs" (Williams, 2003, p. 132).

As the largest of the mentoring organizations, Big Brothers/Big Sisters (BBBS) has initiated a number of significant studies. An often-cited study of 959 youth who applied to the BBBS program found that the youths who participated were less likely to start using drugs or alcohol or to hit someone, and more likely to improve school performance, and peer and family relationships (Tierney, Grossman and Resch, 1995). In a smaller qualitative study, 12 boys with BB mentors improved academic achievement scores, when compared to 13 boys who were not yet paired with a mentor (Thompson & Kelly-Vance, 2001).

Looking more specifically at BBBS school-based mentoring programs, Curtis and Hanson-Schwoebel (1999) found substantial gains in grades, attendance, attitudes, and relationships with adults and peers in students who participated in mentoring. In their extensive, randomized study of 70 schools, they surveyed 1139 fourth to ninth grade students three times over the course of two years, half of whom took part in their mentoring programs and half of whom had applied but were placed on waiting lists.

They found the following effects at the end of the first year of mentoring:

- Programs are diverse in their structures and tend not to focus on academic tutoring.
- Students being mentored are overwhelmingly poor (82% free lunch) and 77% had “at-risk indicators such as poor academic performance or anger management issues).
- Teachers reported that mentees improved their academic performance in quality and quantity of work, attendance and efficacy while their disciplinary referrals decreased.
- The mentees reported that their mentors cared for them, that they looked up to them and that they influenced the decisions that they made.

As promising as these studies seem, others show mixed or no effects (Roberts, Liabo, Lucas, DuBois, & Sheldon, 2004). In a BBBS study that compared participants with demographically matched control group, no effects of mentoring were found on emotional or behavioral adjustment after one year (DuBois, Neville, Parra, & Pugh-Lilly, 2002). Two other BBBS programs also reported no mentoring effects (Abbott, Meredith, Self-Kelly, & Davis, 1997; Royse, 1998). Jackson (2002) found positive effects on parent, but not teacher reports of student behavior. Even when positive effects are found, they may be insufficient to make a substantial difference. For instance, Project RAISE helped students in seven middle schools increase attendance and their grades, but not sufficiently to match typical students in the same district. In addition, there were no effects on standardized test scores or promotion rates (McPartland & Nettles, 1991). The research of Herrera, Vang and Gale (2002) may explain some of this discrepancy.

They found that nearly half of the mentoring relationships ended after only a year for various reasons and that few of these positive effects carried over with the exception that they were confident that they would attend college. There was more hope for the mentorships that lasted longer and were of higher quality as these seemed to connect with more long-term change in school behavior and academic performance. A meta-analysis by DuBois, Holloway, Valentine, & Cooper (2002) seems to support this distinction They found that in studies of 55 mentoring programs the effects were significantly enhanced when there were strong relationships between the adolescents and their mentors.

While there are no questions on the LES that ask specifically about mentoring, several of the interviewees had taken part in an extensive two-day a week school-based mentoring program. Their feedback on the program provided important insight into the possibilities mentoring offers for increasing social capital and improving the likelihood for graduation when it is rigorous, long-term and carefully monitored.

3. Community Youth Centers

Community youth centers are becoming more popular as a recent survey by the National Association of Elementary School Principals (2001) found that these programs have more than doubled during the 1990s. Although there has been very little research into the role that community youth centers play in supporting academic achievement among young people (Dubas and Snider, 1993; Jerret et al 2005), there is evidence that school-community partnerships, are a vital support to students in promoting academic success and providing a safe haven in the after-school hours (U.S. Departments of Education, Justice, and Health and Human Services, 1998). One model of after-school

programs, Beacon after-school programs, which are located in New York City, San Francisco, and several other cities, have been found to contribute to positive youth development outcomes, including academic success (Walker & Arbreton, 2002; Warren, Brown, & Freudenberg, 1999).

Several of the respondents for this study have taken part in after-school programs at two established community youth centers. Their growth in social and cultural capital through their experiences at these centers demonstrates the need to expand research into the efficacy of these institutions.

F. Teacher Social Capital

While it makes intuitive sense that schools where teachers have higher social capital would have higher graduation rates, this hypothesis has rarely been tested. Just two studies have examined this correlation; the first found a positive correlation and the second had more mixed results.

Leana and Pil (2006) collected survey, interview and diary data from principals, teachers, parents, and students in 88 Northeastern, urban secondary and elementary schools to measure these effects. Specifically, they defined schools with a high degree of teacher social capital as those where information sharing, trust and shared vision in a collaborative professional community were present. Their results indicate that both internal social capital (among teachers) and external social capital (relations between the principal and external stakeholders) predict student achievement in mathematics and reading.

Two years later and 2000 miles further south, Pelczar (2008) surveyed just under

a hundred secondary schools in the Dominican Republic to explore the relationship between trust and standardized test scores. In exploring levels of relational trust she asked teachers and principals specific questions on what they perceive are the levels of trust, respect, and obligation felt within the school. Her multiple regression analysis found that schools that display higher levels of teacher-director trust score better than their lower trust counterparts. Teacher- teacher trust, however, is not significantly associated with standardized test scores.

More generally Bryk and Schneider (2009) found a high correlation between teacher-administrator trust in elementary schools and standardized reading and writing scores. In exploring this connection, they found that high levels of trust are a prerequisite for meaningful school reform without which very little school improvement is possible.

While this certainly seems to make sense, there is a need for greater research into this dynamic. While it is not a primary focus of this study, the LES does provide a significant amount of data about teacher social capital in the form of teacher-teacher and teacher-administration trust. Therefore, it was possible to measure its affects on graduation rates and its connection to other forms of social and cultural capital.

G. Cultural Capital

Following in the footsteps of Bourdieu, most educational research about cultural capital tends to conceptualize cultural capital in terms of “highbrow” status practices passed on primarily within the family (Lareau and Weninger, 2003). For instance, in his 1971 article, “Cultural Reproduction and Social Reproduction” Bourdieu “employs a variety of

measures of arts participation – including museum visits, theatre attendance, classical music appreciation and the like – as 'sufficient' indicators of cultural capital" (Lareau and Weninger, 2003, p. 109). Bourdieu found that through participation in these cultural activities, high SES families inculcate highbrow taste in individuals. Researchers such as McDonough, 1997; and Lareau and Weininger, 2003 have likewise focused on the family's role in developing cultural capital. This perspective on cultural capital, however, is just as limited as measuring students' wealth of social capital solely through the lens of the family. Both instances disregard the role that school can play in creating valuable stores of capital.

Fortunately, other researchers have explored the effects school have on the development of cultural capital through their ability to provide 'access to a more "elite' stratum of the population" (DiMaggio 1982). In his 300-student survey of interest and participation in the arts, DiMaggio found that "cultural capital has an impact on high school grades that is highly significant" (p. 191). He also found that students who engage in one kind of cultural activity are more likely than others to be interested in other forms of high cultural activity. His findings also suggest that cultural capital is less strongly tied to parental background traits than Bourdieu's theory or similar discussions of class and culture in the United States would predict.

Arts activities seem to lead to other positive outcomes as well. Heath and Roach (1998) found that, compared to involvement in other forms of extracurricular activities, youth who engage in arts activities are more likely to report feeling satisfied with themselves, say that they plan better, expect to go to college and receive more awards for community service and writing. Furthermore, youth in arts organizations engage in

highly frequent oral exchanges with older peers and adults around problem posing and hypothetical reasoning. Similarly, McNeil (1995) found that:

> Acquiring the skills and knowledge that fine-arts activities have to offer in some way reduces the student's likelihood of dropping out. For example, fine-arts activities instill a less competitive focus in participants and foster a more "cooperative" environment. Therefore, although these activities are not as prominent as are athletic activities, the values taught via fine arts may be more conducive to completing school (p. 118).

Unlike social capital, the positive effects of cultural capital seem to have less of an impact for minority students than for their white classmates. Roscigno and Ainsworth-Darnell (1999) considered this question when they used data from the National Educational Longitudinal Survey to measure the effects of cultural capital, as gauged by trips to cultural institutions and participation in cultural classes, on the grades of white and Black high school students. In general, they found a positive correlation between cultural capital and GPA with greater significance for participation in cultural classes (music, art, drama and dance) than partaking in trips to cultural institutions. Among Black students, however, they found the significance of either form of cultural capital on GPA to be weaker.

As the LES has similar questions, it also offers an opportunity to regress graduation rates to participation in cultural classes to measure their effectiveness for students in general and for schools that are disproportionately minority or white. Furthermore, the interviewees were questioned about the role of cultural capital on their high school success.

H. Summary

The present research points to several avenues that may offer interesting entrées into an exploration of how social and cultural capital can work to improve graduation rates. Specifically, it points towards the following hypotheses.

- Social capital and cultural capital operate independently to improve graduation rates, but social capital has a larger effect on graduation rates.
- Of the forms of social capital, institutional and peer social capital will have the greatest effect on graduation when mediated by norms and sanctions. Schools that build and maintain trusting and supportive relationships between students and with institutional agents and will be safer and have higher graduation rates.
- Extracurricular activities will play a significant role in supporting the development of peer and institutional social capital.
- The positive effects of social capital will be magnified in schools with large populations of poor and minority students, but cultural capital will not be a significant factor in improving graduation rates in schools that are largely minority.
- Students in small schools will report higher stores of social capital and higher graduation rates.

IV. Research Design

This mixed method research project applied multiple regression analysis to a large survey data bank to explore the relationship between social and cultural capital with high school graduation rates and then used follow-up questions in order to describe those relationships in finer and richer detail. As Coleman, Putnam and others measure social capital as group property, the unit of measure for the study was the school. Based on the above review of the literature, it is expected that schools with higher indicators of social and cultural capital will have statistically significant higher rates of graduation, and that schools with higher participation in extracurricular activities will have greater stores of social capital.

While there are always a host of factors for any given school's graduation rate, the strength of the study lies in its scale. By analyzing data from all 300 of New York City's high schools with graduates, the variance of individual differences among schools will diminish, thereby creating a clearer picture of the strength or weakness of social and cultural capital in improving graduation rates. The effect-size is further strengthened by the inclusion of responses from students, parents and teachers from each school. Triangulating the responses from these three groups allows for a greater test of reliability from a variety of perspectives. While there were differences in how some questions were phrased and different emphases on the number of questions asked about different topics between the groups, all three groups responded to questions relevant to social capital.

Another unusual feature of the study was its focus on the relative strengths and weaknesses of different forms of social and cultural capital. In their longitudinal study of at-risk youth, Furstenberg and Hughes (1995) found "that as a general construct for a theory of adolescent development, social capital, even within-family social capital, undoubtedly subsumes a number of discrete dimensions" (p. 590). In order to distinguish between these discrete dimensions, this study evaluated the relative values and interrelationships of five different dimensions of human capital in order to calculate their effects on graduation: institutional social capital, peer social capital, norms and sanctions, information networks, cultural capital. It also measured the relative weight of various factors in increasing social and cultural capital – extracurricular activities, mentoring and internships.

In exploring the relationships between these various factors, the racial and economic make-up of each school was also considered along with the effect that school size may have on the development of social and cultural capital.

A. Quantitative Research Design

The Statistical Package for the Social Sciences (SPSS) version 15 was used to create single and multiple regression, correlation and pathway analysis of the quantitative data for the study. Prior to this scrutiny, purely descriptive analysis looked at school size, the racial and economic diversity of the student sample, the graduation rates and the correlations between these variables. Bivariate correlation analysis explored the interplay between the variables and single regression analysis explored how these variables independently predicted graduation rates. Multiple regression analysis then

evaluated the power of a more complex pathway model that integrated the various forms of social and cultural capital in predicting graduation rates. Multiple regression analysis is a useful tool to explore the relationships between the various forms and causes of social and cultural capital as it “tests theories (or models) about precisely which set of variables is influencing behavior” by “measur[ing] the naturally occurring levels of the variables to see how they help predict the score on the dependent variables” (Brace, Kemp and Snelgar, 2009, p. 207).

While it may not prove cause and effect, multiple regression analysis, unlike a simple correlation analysis, is able to compare the power of several independent variables to predict the likelihood of a dependent variable. However, most multiple regression procedures (for example, stepwise, sequential, or simultaneous) can lead to entirely different interpretations for the exact same data, a limitation that can be overcome through path analysis. Path analysis can diminish this problem, since it does not focus exclusively on direct effects. Path models provide a diagrammatic visual of a researcher's hypothesized understanding of how a particular phenomenon operates. Path models, then, focus on the mediating effects (indirect effects) in addition to the direct effects. These mediating effects are important because they strengthen the explanatory analysis of the hypothesis by explaining the way that the variables interact with one another.

Based on the literature review above and the preceding study of social and cultural capital theory, a hypothetical model was developed to plot the path from extracurricular activities through the development of some forms of social capital to norms and sanctions and finally to high school graduation rates. The power of this

pathway to predict a given school's graduation rate was then tested via stepwise, multiple regression analysis, which demonstrated the relative values of the various dimensions of social and cultural capital in supporting one another and high school graduation.

To summarize, the quantitative analysis for the study took place in seven steps:

1. The socio-demographic variables were analyzed to create descriptive summaries of the sample population.
2. Survey questions that fit the various dimensions of social capital were analyzed for statistical significance and reliability using Cronbach's alpha. This coefficient measures how well a set of variables measures a single unidimensional latent construct, such as the forms of social capital discussed here. As shown below, the questions for each group in each dimension scored well above the .7 threshold, generally held to indicate good construct reliability. With this validation, the questions for each group were then grouped together to create a new variable indicating the form of social or cultural capital relevant to the study – institutional social capital, peer social capital, norms and sanctions, information networks and teacher social capital.
3. The new variables were put through a One Way ANOVA analysis to determine the relationship of each new variable to the various population groups: students, teachers and parents. The low f and p values indicated the level of agreement between the different groups on the strength or weakness of the measured form of social or cultural capital.

4. A bivariate correlation table was created which allowed for analysis of the correlations between all of the relevant variables.
5. A single linear regression analysis was performed in the fifth stage of data analysis. Questions relating to the five dimensions of social and cultural capital being discussed were used as the independent variables and the graduation rate was used as the dependent variable. In addition, teacher social capital was considered. This regression analysis was used to determine the contribution of each variable to each school's graduation rate when considered independently.
6. In order to measure how race affects the power of social and cultural capital in determining graduation rates, a linear regression analysis was performed independently for each form of social capital and cultural capital similar to the analysis above for schools that had a high proportion of Black, Latino, White and Asian students. A high proportion was defined as one standard deviation above the norm. The same analysis was also performed for schools that had an overwhelmingly minority population (above 97% Black and Latino). This same analysis was then completed for schools with high proportions of students who were working class or designated special education or English language learners. School size was also considered.
7. The last stage of the quantitative analysis plugged the above data into the pathway model of how social and cultural capital might lead to higher graduation rates. The standardized beta coefficients were used to

calculate the indirect and total effects of each antecedent variable. When all of these betas were plugged in, the strengths and weaknesses of each factor demonstrated the power of the model to predict graduation rates.

1. The Survey Instrument

As a part of their neo-liberal reforms, the Bloomberg/Klein administration instituted the Learning Environment Survey in 2007 and has continued to administer it in the same form annually. The results for this survey are consequential, particularly for principals. As the results are posted online both centrally and on each school's official website, they have become an important tool for recruiting new students and as an instrument for publicly shaming or rewarding schools. Additionally, the results have a 15% weight in the determination of a school's score on its annual progress report, which is used to grade schools. Schools with a failing grade are subject to closure and their principals may be fired. Teachers and principals in schools that score a high "A" may receive bonuses of up to $25,000.

Because of these high stakes, participation in the survey is generally high and is getting higher each year. In 2008, 806,539 parents, teachers, and students completed the survey, 10% more then the previous year, and in 2009 an additional 8% of New Yorkers completed it. Yet returns from the three groups are not equal. Despite a major outreach campaign, parents, particularly of high school students, were much less likely to fill out the surveys than the other constituent groups. In total, 40% of parents (347,829) returned the survey compared with 48,002 educators (61%) and 410,299 middle and high school students representing 78% of the total respondents. The rates by borough were pretty consistent, ranging from 45% in Brooklyn, Manhattan and the

Bronx and rising to 48% and 55% from Queens and Staten Island, respectively. From the parents, there is some slight skewing towards a disproportionate representation form the middle class and better schools. Poor, minority and special education parents were 4% less likely to complete the surveys. Parents who had students attend “A” schools were 9% more likely to complete the parent surveys. This skewing does not seem to be apparent among student and teacher respondents who had high response rates throughout the boroughs and types of schools. The slight skew in parent responses does not seem to be significant, as the one-way ANOVA test indicated that intergroup reliability was statistically significant. The same test indicates that there does not seem to be teacher bias in their responses either.

There were, however, nine schools that were outliers because they had response rates below 14%. These schools were deleted from the study’s analysis. Schools that did not have a graduating class in 2008 were also eliminated, as there could be no dependent variable data for such schools.

The 2008 surveys used in the study were given out in April. Every full-time teacher received a survey with a coded ID that enabled him or her to either complete the survey online or on paper and return it to a central Department of Education (DOE) site in a return postage-paid envelope that was provided. Student surveys were completed in a class determined by individual schools and then mailed to the DOE site, in bulk, by the school. As the response rates among students were so high (78%), there is little reason to think that individual schools were able to cherry pick these classes for more favorable responses. Individual schools also got to determine how to

distribute the surveys to parents, either by mail or in person. The results of the surveys took two months to tabulate and were released publicly online in June 2008.

In scoring the surveys, each answer choice was awarded a point value between 0 and 10. The answer choice that reflects most favorably on a school's learning environment was awarded 10 points and the answer choice that reflects least favorably on a school's learning environment was awarded 0 points. This has caused some confusion among causal readers of the surveys, as some questions seemed to be inverted, but the scoring for these questions is inverted as well so that a 10 is always the most favorable response for a school. The point value for the intermediate answers was then evenly distributed between 0 and 10.

For the purposes of the study, the complete results of the survey for the valid schools were entered into a SPSS spreadsheet along with data about individual schools' graduation rates, size, ethnic mix and poverty status (using lunch forms as indicators).

2. Definitions of the Dimensions of Social Capital and Selection of Survey Questions

The LES asks the three groups different questions based on their knowledge base and the objectives of the NYC Department of Education. For instance, parents are asked many questions about school-home communication while students are not asked any. Likewise, students are asked many more questions than their parents about their relationships with school staff. In most of the dimensions, however, all three groups were asked at least some questions that explore a facet of social and cultural capital. This variance allows a focus on each group's expertise thereby creating for a very

robust measurement of the various dimensions, assuming that the questions are reliable, and, as demonstrated below, they proved to be quite reliable.

a) Institutional Social Capital

For the purposes of the study, institutional social capital is defined as support students receive from school staff that supports their academic success. As will be seen below, this could take the form of advice, encouragement or high expectations. This dimension of social capital was the most heavily questioned facet of social capital with two relevant questions for parents, six for teachers and twenty for students. The relevant questions are listed below:

Parent Questions:

80. My child's teachers give helpful comments on class work, tests and homework.
82. This year, school staff helped my child to select courses he or she needed to graduate and to succeed after graduation.

Teacher Questions:

9. My school has high expectations for all students.
10. Teachers in this school set high standards for student work in their classes.
15. This school makes it a priority to help students develop challenging learning goals.
16. This school makes it a priority to help students find the best ways to achieve their learning goals.
53. Adults at my school are often disrespectful to students.
58. There is a person or program in my school to help students resolve conflicts.

Student Questions:

102. Most of the adults I see at school everyday know my name or who I am.
103. The adults at my school look out for me.
104. The adults at my school help me understand what I need to do to succeed in school.
105. My teachers encourage me to succeed.
106. I need to work hard to get good grades at my school.
108. Someone in my school helps me develop challenging goals for learning more in school.
109. Someone at my school helps me understand what courses I need to be promoted to the next grade or graduate.
110. My teachers expect me to continue my education after high school.
111. My high school provides helpful counseling on how to get a good job after high school or how to get into college.
112. On a scale from 1 to 4, how comfortable are you talking to teachers and other adults at your school about a problem you are having in a class?
113. On a scale from 1 to 4, how comfortable are you talking to teachers and other adults at your school about something that is bothering you?
114. On a scale from 1 to 4, how comfortable are you talking to teachers and other adults at your school about something outside of school that is important to you?
115. On a scale of 1 to 4, how available are teachers and other adults at your school to talk about a problem you are having in a class?

116. On a scale of 1 to 4, how available are teachers and other adults at your school to talk about something that is bothering you?
117. On a scale of 1 to 4, how available are teachers and other adults at your school to talk about something outside of school that is important to you?
118. Teachers in my school treat students with respect.
122. My teachers inspire me to learn.
123. My teachers give me extra help when I need it.
125. How often, during this school year, have your teachers asked you to complete an essay or research project using multiple sources of information?
126. How often, during this school year, have your teachers asked you to complete an essay or project where you had to use evidence to defend your own opinion or ideas?

While varied, all of these questions reveal the various ways that teachers and other adults in the school support their students academically, socially and emotionally. Positive responses, particularly from the students, indicate that a school staff has high expectations for its students and provides the encouragement and academic support to meet these goals. More than this, questions about name recognition and turning to staff for things that are bothering them in and out of school reveal the emotional support they feel from the adults in their school. To measure whether there was much difference between these two facets of institutional capital – emotional and academic support, an ANOVA test was run to measure the differences in the responses between the questions that focused on emotional support and those that asked about academic

support. The results of this test indicated that schools that were high in one form of institutional capital were generally strong in the other. Schools tend to provide both emotional and academic support or neither.

b) Peer Social Capital

While the LES has no parent or teacher questions relevant to peer social capital, it does provide the following student questions that measure peer capital, defined here as the support students give to each other that encourages a positive sense of community and academic achievement.

107. Students who get good grades in my school are respected by other students.

134. Most students in my school help and care about each other.

135. Most students in my school just look out for themselves.

136. Most students in my school treat each other with respect

137. Most students in my school like to put others down

By asking students how they view their peers and the relationships at their school, all of these questions reveal the support and respect they feel from their peers. Positive responses to these questions demonstrate that students within a school care for one another, respect academic achievement and help one another.

c) *Norms and Sanctions*

For the purposes of the study, the dimension of norms and sanctions is rather focused on the perception that a school is safe, orderly and that discipline is enforced

in a fair manner. All three populations were asked multiple questions that explore the normativity of violence, gang activity and bullying, and each group was asked about the fairness of discipline.

Parent Questions:

86. My child is safe at school.
88. Discipline is enforced fairly at my child's school.
89. I worry about crime and violence at my child's school.
91. Students threaten or bully other students. .
96. There is gang activity in my child's school.

Teacher Questions:

48. Order and discipline are maintained at my school.
49. I can get the help I need at my school to address student behavior and discipline problems.
50. I am safe at my school.
51. Crime and violence are a problem in my school.
52. There is a person or a program in my school to help students resolve conflicts.
59. Students in my school are often threatened or bullied.
60. Gang activity is a problem in my school.

Student Questions:

138. I worry about crime and violence in my school.
139. I stay home because I don't feel safe at school.
140. Students threaten or bully other students at school.
141. Students get into physical fights at my school.

145. There is gang activity in my school.

147. Discipline in my school is fair.

148. I am safe in my classes.

149. I am safe in the hallways, bathrooms, and locker rooms at my school.

150. I am safe on school property outside my school building.

d) *Information Networks*

There were no student questions on the LES that focus specifically on information networks, but parents and teachers were heavily questioned about their communication networks. Therefore, this study has defined information networks as the communication between the school and its families, particularly around the area of academic achievement.

Parent Questions:

64. My child's school makes it easy for parents to attend meetings by holding them at different times of day, providing an interpreter, or in other ways.
65. The school keeps me informed about my child's academic progress.
66. The school contacts me when my child breaks school rules. .
67. The school contacts me to tell me about my child's achievements and successes.
69. How often during this school year have you received information about what your child is studying in school?
70. How often during this school year have you received information on services for your child or for you, such as: tutoring, after-school programs, or classes you can take to help your child learn?

71. How often during this school year have you been invited to visit your child's classroom?
72. How often during this school year have you been invited to a program or event at your child's school or to go on a school trip?
73. How often during this school year have you contacted a teacher or other adult at your child's school to share with them important information about your child's learning?
74. How often during this school year have you talked to a teacher about how to help your child learn something your child is struggling with?
75. How often during this school year have you talked to a teacher about your child's academic progress?
76. How often during this school year have you talked to a teacher about how you can help your child learn better?
77. How often do you get a response when you contact your child's school or teacher(s) to offer information or ask questions about your child's learning?
78. The school clearly communicates its expectations for my child's learning to me and my child.
80. My child’s teacher(s) give helpful comments on homework, class work, and tests.

Teacher questions:

39. This year, what percentage of your students had a least one parent attend your parent-teacher conferences?
40. This year, have you received information about a student's learning that was offered by a parent?

43. This year, have you communicated with students about their progress in class?
44. This year, have you communicated with parents about their children's progress in class?
45. This year, have you sent home information on how parents can help students learn at home?
46. This year, have you sent parents written information on what you are teaching and what students are expected to learn?
47. This year, have you sent home information on services to help students or parents such as: tutoring, after-school programs, or classes adults can take to help their children in school?

This rich trove of questions offers a wide variety of questions that focus on the quantity and quality of school-family communication. All but a few of the questions examine how that communication relates directly to academic achievement.

e) *Cultural Capital*

Compared with the rich variety of questions about social capital, the LES is much weaker in exploring the dimensions of cultural capital, and any findings here should be recognized as merely exploratory for opening up new avenues of research. Each group was asked about student participation or offerings in arts classes. This limited data from the LES was expanded upon in the interviews.

Parent Question:

83. My child participates in the following courses during the regular school day. *(Please mark all that apply.)*

a. Art

b. Music

c. Dance

d. Theater

Teacher Question:

18. Which activities are offered to students at your school?

    a. Art

    b. Music

    c. Dance

    d. Theater

Student Question:

131. During this school year, have you taken or had a chance to take a class in the following subjects?

    a. Art

    b. Music

    c. Dance

    d. Theater

f) Extracurricular Activities

As discussed above, a great deal of research has investigated the power of extracurricular activities in building social capital and thereby improving graduation rates. Questions on the LES about participation in extracurricular activities make it possible to explore their effects on a school's stores of social capital and its graduation rate. The following questions will indicate a school's level of extracurricular participation:

Parent Question:

84. My child participates in the following school activities before or after school.

(Please mark all that apply.)

a) Foreign language

b) Computer skills/technology

c) Team sports and clubs

d) Tutoring/ enrichment activities

e) None of these activities

f) Don't know

Teacher Question:

19. Which activities are offered to students before or after school or during free periods?

a. Foreign language

b. Computer skills/technology

c. Sports teams or clubs

d. Tutoring/enrichment activities

Student Question:

132. During this school year, which of the following activities did you participate in either before or after school or during free periods?

a) Foreign language

b) Computer skills/technology

c) School sports teams or clubs

d) Tutoring/enrichment activities

In this study's pathway analyses extracurricular activities are considered a source, not a dimension, of social capital. Answers to these questions will indicate the level of availability and participation in extracurricular activities, not the presence of social capital. As will be demonstrated later, this difference between availability of extracurricular activities and participation in them will become significant.

g) Teacher Social Capital

While the educational research on social and cultural capital focuses on students, the LES offers an opportunity to measure the correlation between *teacher* social capital and graduation rates. This study defined teacher social capital as resources that teachers receive from their peers and administration that support trust building, open communication and feelings of teacher empowerment.

Teacher Questions:

8. I trust the principal at his or her word.
22. Do you feel supported by other teachers at your school?
24. The principal invites teachers to play a meaningful role in setting goals and making important decisions for this school.
25. Teachers in this school respect teachers who take the lead in school improvement efforts.
26. Teachers in this school trust each other.
27. Teachers in this school recognize and respect colleagues who are the most effective teachers.

By focusing on issues of trust, support, and respect, these six questions explore several important facets of social capital that the literature suggests are important to success.

B. Analysis of Question Reliability and Statistical Significance

Before it is possible to plug the results of the survey into any form of correlation or regression analysis it is necessary to consider whether the answers to questions were reliable and statistically significant. To this end, intra and intergroup analysis were conducted.

1. **Reliability Analysis of Intra-group Survey Answers**

In order to determine whether the different questions in each category were, in fact, measuring the same facet of social capital, a reliability analysis was performed to determine the Cronbach alpha coefficient for each group's answers to the questions within each dimension. If each different group's survey answers for each of the four dimensions was found to have an alpha above .7, the generally considered threshold of reliability, then it could be concluded that each group's questions are measuring the same phenomenon - institutional social capital, peer social capital, information networks and norms and sanctions.

As table 1 below indicates, this analysis indicates that these questions were highly reliable as the Cronbach alpha was well above the .7 threshold for each group.

Table 1: Cronbach's Alpha for Intra-group Reliability of Survey Questions

Dimension	Population	Cronbach's Alpha
Institutional social capital	Teachers	.868
Institutional social capital	Parents	.881
Institutional social capital	Students	.964
Peer Social Capital	Students	.958
Norms and Sanctions	Teachers	.921
Norms and Sanctions	Parents	.924
Norms and Sanctions	Students	.954
Information Networks	Teachers	.956
Information Networks	Parents	.705
Teacher Social Capital	Teachers	.961

While the Cronbach alpha for the parent information networks item is still in the significant range, it is the lowest alpha of the study. An inter-item covariance matrix indicated that question 39, about parent attendance at parent teacher conferences, was negatively correlated with question 43, about communication with students, and question 46, about sending information home to parents. These negative correlations were slight, not particularly surprising and, as a whole, statistically insignificant as the alpha remained above .7.

2. Reliability Analysis of Inter-group Survey Answers

One of the strengths of the study is its ability to triangulate the research evidence between three different populations: students, parents and teachers. While there was a great deal of overlap in the exact questions asked, the three different populations were asked different questions. For instance, some populations were not questioned about areas for which they would have little evidence. Only students, for example, really have a sense of the strength of their peer social capital so the parents and teachers were not asked about this dimension. Nevertheless, the large number of respondents from each

population and the common dependent variable of high school graduation provide a rather powerful measure of the strength of these dimensions of social and cultural capital if it is found that all three groups share a common perspective on their schools' strength of social and cultural capital.

To determine the strength of this commonality, a one-way ANOVA test was performed to measure the significance of each group's similarity in answering the questions about each dimension. In this case, it is useful to compare the variances to see if the different populations – parents, teachers and students - rated the various dimensions of social and cultural capital similarly for each school. Specifically, the ANOVA shows the variances between two or more variables. A figure below .05 indicates that this variance is significantly similar and in the same direction. In order to perform this test, it is important that the following conditions are true for the sample:

1. The populations from which the two samples are drawn are normally distributed.
2. The two populations are independent of each other.

Table 2: ANOVA Test showing the Intergroup Significance for Each Variable

Variable	Populations Questioned	sig.
Norms and Sanctions	Teachers, Parents, Students	.000
Institutional Social Capital	Teachers, Parents, Students	.000
Information Networks	Teachers, Parents	.000
Extracurricular Activities	Teachers, Parents, Students	.000
Cultural Capital	Teachers, Parents, Students	.000

The .000 significance for each of these variables indicates that each population group rated the cultural capital, participation in extracurricular activities and the presence of various dimensions of social capital similarly for each school. This evidence of successful triangulation of the data sets indicates the robustness of the survey data to accurately measure the presence of social and cultural capital and the presence of extracurricular activities.

B. Qualitative Research Design

The mixed method study used interviews to corroborate and supplement the findings of the statistical analysis. Graduates of a school with high measures of social and cultural capital and high levels of participation in extracurricular activities were interviewed in focus groups, and individually. The school that was selected had survey data that indicated that it was over one standard deviation above the mean in all measures of social and cultural capital building. It is also the school where the principal investigator serves as founding principal.

1. Selection of Interview Participants

After the completion of the statistical data analysis, a list of follow-up questions was developed and asked to groups of students from the selected school to explore issues that were raised and deepen analysis. These groups were made up of recent, eighteen year old graduates from Lower Manhattan Arts Academy, a school in the top decile of reported social and cultural capital (1.2 standard deviations above the mean) that also has a high graduation rate for the population it serves. The questions centered on how these students accrued social and cultural capital and the ways it may have

benefited them. For instance, as institutional social capital in the form of having an adult to trust was found to be one of the most significant variables, the students were asked, “What was the role that a teacher or other staff member played in helping you to graduate?” As questions such as these assume that these students have gained social and cultural capital from their school, the purpose of the interviews was not to come up with some “objective” measure of the capital they had gained, but to further an understanding of the role social and cultural played in the lived experience of students who, based on the survey data, were likely to have gained a relatively large share of it through their school.

In choosing the candidates to be interviewed, all 104 graduates from the selected school’s first two graduating classes were sent notices by email or in person informing them of the focus groups. The semi-structured interviews took place in the principal’s office or in an empty classroom. Participants received $20 for taking part in the interviews that ran about an hour each.

Sixteen students responded and were interviewed, but due to scheduling conflicts, the interviews took a variety of forms: Five were individually questioned, five took place in pairs and there was one more traditionally-sized focus group of six students. Responses among the one-on-one interview and the other forums were not significantly different, though the fewer the participants, the more detailed the answers and the greater the opportunity for follow-up. Because of this, the amount of data collected from each participant was variable. Since this study focused on gleaning evidence of the formation and value of social and cultural capital, it did not require the

comparison among the experiences of the different students. Therefore, there should be no negative effects from the variances in interview formats.

Upon the completion of the interviews, a process of discovery took place through a review of the interview notes for themes and underlying concepts that were related to social and cultural capital. These notes led to the development of analytic memos on issues, themes, and ideas that addressed the findings that emerged from the statistical analysis. Relevant quotes, anecdotes and analysis were then merged into the final findings.

2. Positionality

In interviewing my own students, my positionality as founding school principal is a complex one that falls into the tradition of participatory research. More than twenty years of experience as a teacher has led me to agree with Herr and Anderson (2005) that "Outsider knowledge is experienced by practitioners as a 'rhetoric of conclusions' …with little understanding that their landscape is personal, contextual, historical, temporal, and relational among people" (p. 53). As an antidote to this, the practitioner researcher movement has gained considerable momentum in the past two decades (Tobin 2007). Tobin points out that "a rationale for supporting ''outsiders'' doing research on others' teaching is often grounded in neo-positivism," but as Kincheloe (2003) has persuasively argued, any implicit assumption that objectivity is ever possible either from outsider or insider research is a myth. Instead of aiming for objectivity, Herr and Ansbacher point out that "[T]he real issue for the action researchers is less 'getting it right' than 'making it meaningful'" (p. 59). Instead of aiming for "objectivity," they ague

for the importance of “outcome validity” which they define as “the extent to which actions occur which lead to a resolution of the problem that led to the study” (p. 55).

Using this measure of purposefulness, the interviews for the study serve to demonstrate how social and cultural capital may help to solve the problem of high school students dropping out. Neither these interviews, nor any form of research, qualitative or quantitative, will ever prove definitively that schools that promote social and cultural capital acquisition will always have lower drop-out rates, that students who fail to receive cultural and social capital will drop out or even that social and cultural capital are always beneficial. Any study that pretends to prove these things would be highly suspect no matter who the researcher was or how it was conducted. Instead, these interviews represent an attempt to flesh out and illuminate the results of the quantitative survey data. Aside from a few significant exceptions such as Stanton-Salazar and Valenzuela, very few researchers have explored the nature of social and cultural capital in the lived lives of students and how it provides high school students with tangible benefits.

As shown in the literature review above, the majority of the research makes all-encompassing generalizations based on multiple-choice answers to survey questions that were never really designed to test social or cultural capital. Quantitative methodology may answer the question “Does social and cultural capital impact graduation rates?” But it takes qualitative questioning to find out how and why it works.

This argument doesn’t quite settle the issue of why a researcher ought to interview one’s own students, or former students. After all, acknowledging the fallacy of positivism is not a defense of a purely relativist view of research, and knowledge of

one's subjects does risk increasing the subjectivity of one's research, particularly when one does so as a student's principal. As Herr and Ansbacher point out, "where power differences are great, interviews become public performances in which subordinates tell the powerful what they want to hear" (p. 61). This performance aspect of the interview did seem to be on display when I was interviewing my students - who seemed eager to confirm the theory of social and cultural capital as I described it. An added subjectivity came into play due to the timing of the interviews; about two-thirds of which took place in the weeks following graduation when the recent graduates' nostalgia for high school relationships waxed high. Due to these conditions, the students seemed well primed to pump out positive examples of social capital.

I submit that this bias for giving positive examples of social and cultural capital served to enrich the study without distorting the findings. Again, the purpose of the interviews was not to prove that a given school's reservoir of social or cultural capital contributes to higher graduation rates. This was the purpose of the quantitative data, which encompassed over 300 schools and over 800,000 respondents. Compared with this data set, any sixteen interviews done in any format would be weak proof of anything. Yet these interviews provided a rich trove of anecdotes, context and explanations that deepen the explanatory power of the social and cultural capital theory. Furthermore, one of the reasons for the richness of this trove is that in my position as principal to these students, I was able to provide background and contextualization.

While my former students may have been eager to exaggerate for me, I was also able to challenge them with a knowledge that an outsider could not have. On the other hand, my four years of experience with them also allowed me to prompt them for more

details of incidents I knew a bit about. For instance, when a student brushed over an example that I remembered to be illuminating of an aspect of institutional social capital, I was able to follow up with more probing questions.

As further proof of the limits of bias and of being told what I wanted to hear, I did not always find what I was looking for. In particular, as discussed below, I found very little evidence of cultural capital as Bourdieu describes it. The risks of insider research to objectivity should not be minimized, yet the "objectivity" that outsider research professes is too often exaggerated. The interview data in this research makes no claim on "the Truth" of social or cultural capital, yet in its capability to demonstrate how some students have used social capital to support their graduation from high school, it does aim for outcome validity.

3. The Interview Setting and Subjects

The interviews took place between January 2010 and August 2010 in a school office or classroom. Notes were taken during the interviews, and these were edited with identifying characteristics, including names, colleges, teacher's and other identifying characteristics removed or changed to maintain anonymity. All of the participants were at least eighteen-years old at the time of the interviews, acknowledged voluntary participation in this research project, and signed the Informed Consent Form, which had met CUNY Graduate Center Subjects Protocol.

The demographic variety of the interview subjects mirrors those of the school at large as demonstrated in the Table 3 below Only Desmond and Tsing are immigrants and only Tsing is an English Language Learner. All subjects were 18 years of age except Rachel and Desmond who were 19.

Table 3: Interviewees

Name	Gender	Race
Tom	Male	Black
Sabrina	Female	Latino
Tina	Female	Latino
Sue	Female	Mixed
Daritza	Female	Latino
Desmond	Male	Black
Rachel	Female	White
Juan	Male	Latino
Chantay	Female	Latino
Reality	Male	Black
Emily	Female	Latino
Tsing	Male	Asian
Louisa	Female	Latino
Tom	Male	Black
Evan	Male	Latino
Kate	Female	White

Three of these students were currently attending college, two of them in the State University of New York, the third at a small private college in New England. All of the rest were scheduled to start college the following term. This is in alignment with LoMA's 100% college acceptance rate. All of the names have been changed to pseudonyms.

4. School Description

All of the interview subjects were recent graduates of the Lower Manhattan Arts Academy (LoMA). LoMA is a small (300 students), six-year-old public high school. It is an unscreened school whose students are assigned to primarily based on student preference. About 75% of its population receives free lunch, 80% enter below grade level in reading and math and over 30% receive special education services. About 50% of the population is Latino, 35% Black and the rest are divided fairly evenly between

Asian and White. Relatively few are immigrants or English language learners (8% and 5% respectively). Despite these statistics, LoMA is one of the more highly rated schools in the city, having received a rare “well developed” in its last school quality review and earned one of the top ten scores for the city on the school progress report (a value-added measure).

The school is situated in the Seward Park Campus on Manhattan’s Lower East Side. This setting has allowed it to tap into a rich vein of partnerships with community-based partners and businesses. Attendance is taken at these programs, and grades given, which appear on students’ report cards. As the role of these partnerships proved significant in many of the students’ stories of social capital building, they are worth listing:

1. Henry Street Settlement House/Abrons Arts Center produces the school’s annual fall play and a musical every spring. These are both popular and attract about 50 cast and crew members through an audition process. Through its own grants Henry Street has been able to provide much of the funding for these productions, which cost about $40,000 a year. In addition, Henry Street also provides internships, master classes and gallery space for students of LoMA.
2. Educational Alliance (Edgies) hosts a teen drop-in center in partnership with the Boys and Girls Club of New York City. About a sixth of the students at LoMA, making up about a quarter of Edgies total population take part in various classes and activities. These include basketball, trips to cultural events, homework help and classes in cooking, dance, acting, graffiti and karate. Edgies also provides a

well-funded college preparation program that helps students select colleges, visit them and earn scholarships.

3. The financial firm Oppenheimer Funds provides 28 students with mentoring twice a week. Once a week students visit their mentors at their corporate offices in the World Financial Center. One other day a week, the mentees work with American Ballet Theatre on an administrative project which supports their Make a Ballet Program.
4. The Make a Ballet Program is run by American Ballet Theatre (ABT) and sponsored by Chase Manhattan Bank. All of 18 LoMA's dance majors develop a dance piece in collaboration with an ABT choreographer that is performed in a gala at the Metropolitan Opera House in Lincoln Center. The sets and costumes are designed and constructed by LoMA's 20 art majors in collaboration with designers from ABT.
5. Early Stages is an organization that provides heavily discounted tickets ($5) for Broadway shows to New York City public schools a couple of times a month. LoMA organizes these trips for about fifteen students each about ten times a year and covers the ticket prices.

One of the reasons that so many students take part in after school activities with these organizations is that LoMA has a graduation requirement that all students participate in extracurricular activities at least twice a week. Likewise, twelve hours of internships a week during senior year is also a graduation requirement.

V. Results of the Statistical Analysis

The quantitative results of the study are presented in five sections of analysis: descriptive, correlation, single regression, multiple regression and pathway.

A. Descriptive Analysis

The descriptive data of the study sample show that the great majority of New York City's public high schools are Black and Latino, poor and ineffective at graduating its students.

1. Demographics

The 291 public high schools analyzed here are overwhelmingly minority as the average school is 43% Latino, 39% African American, and the remaining16% is almost evenly split between Asian and White students. Very few students did not report their ethnicity and only.4% of students are American Indian.

Table 4: Average Distribution of Race & Ethnicity for NYC Public High Schools

	% Hispanic	% Black	% White	% Asian/ Pacific Islander	% American Indian	% Ethnicity Not Reported	% Black and Hispanic
Mean	43	39	8	8	.4	.4	80
Median	48	33	2	3	.4	.2	90
Std. Deviation	.2226	.2353	.1317	.1214	.0040	.0069	.2268
Range	100	90	80	6	0	1	95

It is important to recognize that, as the unit of measurement in the study is the school, these percentages do not show the racial breakdown of New York City's Public schools but the average number of students of a each ethnicity at a typical school. i.e. when the 291 schools are averaged out, the theoretically typical school would be roughly split between 80% Black and Latino and 20% Asian and White. In reality, as shown in Table 5, because so many schools are overwhelmingly minority, the percentages are steeply skewed in a positive direction for whites (2.6) and Asians (2.1), while the curve is much more normally distributed for Blacks (.69) and Latinos (-.07) and the combined group of Blacks and Latinos (-.15). This is because 175 of New York City public high schools have no white students and 160 have no Asian students. This discrepancy limits the study in its generalizability to schools with large populations of white and Asian students.

Table 5: Skewness of Student Populations by School

	Skewness	
	Statistic	Std. Error
%Students Hispanic	-.077	.145
% Students Black	.695	.145
% Students White	2.681	.145
% Students Asian/ Pacific Islander	2.118	.145
% Students Hispanic and Black	-.149	.157

As Table 5 demonstrates, other student characteristics are also skewed across New York City. In looking at school size, it is important to note that while roughly half of New York's public high schools (54%) have fewer than 500 students, the 26 (9%) that service over 3000 students contain nearly half of all of New York City's students (46%). This disproportion creates a positive skew of 1.647.

The negative skew for free lunch is caused by the roughly 70 schools that have fewer than 60% of its students qualifying for free lunch. Nearly all of the rest of the 291 schools are closely grouped between 60 and 90% free lunch with a median free lunch rate of 67% for a typical school.

The rate of English Language Learners (ELLs) in a typical school is the most severely skewed demographic. This is because while 40% of New York's public high schools have no ELLs and 82% have fewer then 13%, 10% of New York's schools educate a 90% ELL population. This extreme skewing is partly a result of geography, as immigrant students tend to attend large schools in their neighborhoods and partly due to the development of ten "newcomer" schools that have been designed to service ELL students.

In contrast to these areas of strong skewing, special education has the most even distribution with a sample mean of 10%. The important note here is that, while there are only a handful of schools with more than 25% special education students, 48 schools (7%) have less than a half a percent of special education students.

Table 6: School Populations by Enrollment, Free Lunch, ELL and Special Education Status

	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
Enrollment	85	4500	994.60	1110.995	1.647	.145
% Students Free Lunch	7	97	61.70	19.630	-.891	.145
% Students ELL	0	100	12	.1700	3.511	.145
% Students Special Education	0	30	10	.0551	-.012	.145

2. Graduation Rates

In 2008, the year of the data capture for this study, the average New York City high school had a four-year graduation rate of 66% with a slight positive skew of .069 and a standard deviation of .1708. Within this range, of course there were wide variances depending on various factors, which are explored in the Table 7 correlation analysis.

For the most part, these correlations between graduation rates and student population parallel the research discussed earlier. While the citywide graduation rate is 60.1%, schools with higher enrollment and greater percentages of poor students, ELLs and special education students have lower graduation rates and schools with larger percentages of white and Asian students have higher graduation rates. Specifically, these varied graduation rates are reflected in the citywide average graduation rates of 30.8% for ELLs and 22.4% for special education students. In fact, with a Pearson correlation of .616, the single most significant factor affecting a given school's graduation rate is its percentage of special education population. What these graduation rates don't indicate, however, is the percentage of special education students who have earned Individualized Education Plan (IEP) diplomas.

Given all of the research on the effectiveness of small schools, one might have expected the Pearson correlation for school size to graduation to be higher than -.18. In fact, it would have been greater if not for New York's six elite, large, specialized schools, which require high scores on entrance exams for admissions. These schools tend to have enrollments above 3000 and graduation rates above 95%. While few in number, the enrollment figures for these six large outliers are significant enough to have

outsize effects.

Table 7: Correlations with Graduation Rates

		4-Year Diploma Rate
Enrollment	Pearson Correlation	-.180**
	Sig. (2-tailed)	.005
% Students Free Lunch	Pearson Correlation	-.311**
	Sig. (2-tailed)	.000
% Students Black	Pearson Correlation	-.244**
	Sig. (2-tailed)	.000
% Students White	Pearson Correlation	.395**
	Sig. (2-tailed)	.000
% Students Asian/ Pacific Islander	Pearson Correlation	.352**
	Sig. (2-tailed)	.000
%Students Hispanic	Pearson Correlation	-.213**
	Sig. (2-tailed)	.001
% Students ELL	Pearson Correlation	-.152*
	Sig. (2-tailed)	.019
% Students Special Education	Pearson Correlation	-.616**
	Sig. (2-tailed)	.000

* Correlation is significant at the 0.05 level (two tailed)
** Correlation is significant at the 0.05 level (two tailed)

3. Survey Results

The variables for this study as selected from the LES were measured on a scale of 0-10, with 10 being the most positive answer. For the most part, the answers to the

questions fell within the middle of the scale with fairly slight variances from the mean.

Table 8: Descriptive Data of Survey Results

Dimension of Capital	Mean	Standard Deviation
Information Networks	5.904	.762
Extracurricular Activities	4.454	.791
Teacher Social Capital	6.510	1.284
Peer Social Capital	4.360	.681
Norms and Sanctions	6.327	.996
Institutional Social Capital	6.520	.646
Cultural Capital	8.036	.643

A few of the patterns here are interesting.

- The fact that the mean for peer social capital is over two points below the mean for institutional social capital indicates that, in general, the respondents felt more supported by their schools' teachers and staff than by their friends and classmates.
- The high rating for cultural capital indicates that a great majority of the respondents indicated that their school offered a wide variety of cultural activities. As will be discussed below, this is not necessarily the same as saying that they gained a valuable return from these offerings.
- The relatively high standard deviation for teacher social capital reflects a wide range of views of how supported teachers feel in their school by their peers and administration.

B. Correlation Analysis

While correlation does not show causation, a bivariate correlation analysis of all of the variables indicated some interesting relationships as indicated by the Pearson correlation values in Table 9.

1. Schools Size Correlations

The significance of the correlations with school size will be further discussed in a later section. For now, it is interesting to note the negative correlation between school size and Black and Latino populations, and the inverse for White and Asian populations. This supports the findings of Hemphill and Nauer (2009) who found that small schools, most of which tend to be located in the Bronx, Brooklyn and Manhattan, tend to serve more minority students. The high numbers of white and Asian students in large schools is explained by greater numbers of large zone schools in the whiter boroughs of Queens and Staten Island, and the overwhelmingly large majorities of these students in the elite, large, specialized high schools.

2. Economic Class Correlations

The correlations connected with class generally line up with the research. It is no surprise that working class students tend to go to schools that are heavily Black and Latino, have lower graduation rates, less student social capital and weaker norms and sanctions. Their slightly higher rate of teacher social capital in these schools is probably explained by the greater likelihood that these students attend the type of smaller schools that correlate positively with teacher social capital.

Table 9: Correlation Analysis of All Variables

	School Enrollment	% Free Lunch	% Hispanic	% Black	% White	% Asian	Extracurricular Activities	Teacher Social Capital	Peer Social Capital	Information Network	Cultural Capital	Institutional Social Capital	Norms and Sanctions	Diploma 4 Year Rate
School Enrollment	1													
% Free Lunch	-.487**	1												
% Hispanic	-.252**	.604**	1											
% Black	-.208**	.131*	-.500**	1										
% White	.360**	-.694**	-.406**	-.455**	1									
% Asian	.451**	-.527**	-.364**	-.473**	.460**	1								
Extracurricular Activities	.107	-.177**	-.010	-.361**	.353**	.307**	1							
Teacher Social Capital	-.167*	.056	.016	-.147*	.157*	.067	.511**	1						
Peer Social Capital	-.201**	-.139*	.060	-.497**	.353**	.404**	.716**	.482**	1					
Information Network	-.411**	.174**	.161*	-.073	.029	-.184*	.347**	.492**	.443**	1				
Cultural Capital	.167*	-.411*	-.288**	-.124	.395**	.282**	.357**	.038	.237**	-.101	1			
Institutional Social Capital	-.269**	.033	.086	-.308*	.219*	.164*	.695*	.796*	.769*	.622*	.129*	1		
Norms and Sanctions	-.304**	-.108	.087	-.473**	.361**	.299**	.594**	.482**	.902**	.452**	.217**	.730**	1	
Diploma 4 Year Rate	-.180**	-.311*	-.213**	-.244**	.395**	.352**	.411**	.350**	.584**	.346**	.356**	.519**	.606**	1

*** Correlation is significant at the 0.05 level (two tailed)** **** Correlation is significant at the 0.05 level (two tailed)**

The negative correlation of class and cultural capital with minority status, while not surprising, is a bit higher at -.411 than what one might expect and a strong indicator of the lack of arts classes and programs in schools that serve poorer students. Evidence Bourdieu would find sadly fitting with his own research.

3. Race Correlations

A regression analysis that looks more closely at how race predicts graduation rates through the lens of social and cultural capital will be performed later in this study. For now, it is sufficient to point out how similar racial correlations are to those of class. Both Black and Latino students seem to go to schools that are less likely to have stocks of social and cultural capital, opportunities for extracurricular activities or robust norms and sanctions than their white and Asian peers.

One surprise is how much worse the schools that Black students attend are compared to the Latino dominant high schools. In the cases of peer social capital, extracurricular activities and norms and sanctions the correlations, while statistically insignificant, are positive or nearly positive for schools with many Latino students. For schools with large African American populations, on the other hand, the correlations are highly significant and very negative in each of these areas. In contrast to these groups, white and Asian students are more likely to go to schools with robust levels of social capital, cultural capital, positive norms and sanctions and high levels of participation in extracurricular activities.

4. Correlations Between the Dimensions of Social Capital

The very high Pearson correlation values between the various dimensions of social and cultural capital speak to their cumulative nature. The Mathew Effect of enriching the wealthy and impoverishing the poor is just as powerful with these forms of symbolic capital as it is with financial capital. The highest correlation on the chart (.902) reflects that connection between peer social capital and norms and sanctions. This should not be very surprising as schools that encourage positive peer relations are more likely to be safer. The next highest figure (.796) shows that in schools where teachers feel more empowered, those teachers are more likely to support their students as agents of institutional capital. It is a bit more surprising just how strong the correlation is between schools with strong institutional capital and peer social capital (.769). This suggests that in schools where teachers play a strong role in supporting their students, those students are in turn are more likely to be supportive of their peers.

Extracurricular activities are also highly correlated with peer and institutional social capital, suggesting that they may be sources for these vital forms of social capital. In the regression analysis that follows this relationship will be further explored to demonstrate the predictive power of these relationships.

C. Regression Analysis

1. Independent regression analysis of the dimensions of social and cultural capital

A linear regression analysis performed independently for each of the dimensions of social and cultural capital provided baseline data for the power each of the dimensions of

social and cultural capital has to predict graduation rates. The results of this analysis were basically in alignment with the current level of research as discussed in the literature review. The .000 significance level for each of the categories indicated that each predictor was statistically significant. As the Table 10 below indicates, the predictive power of each dimension ranged from just over 10% for information networks (.119), teacher social capital (.119) and cultural capital (.123) to just over 40% for norms and sanctions (.410).

Table 10: Independent Regression Analysis of how the Forms of Social and Cultural Capital Effect Graduation Rates

Dimension of social or cultural capital	R squared value	Significance
Institutional Social Capital	.267	.000
Peer Social Capital	.342	.000
Information Networks	.119	.000
Norms and Sanctions	.410	.000
Teacher Social Capital	.119	.000
Cultural Capital	.123	.000

This analysis demonstrates the singular strength of norms and sanctions as a predictor of graduation. The reported level of norms and sanctions within a typical school - where community members feel discipline is fair and gang activity and fights rare – can predict 41% of that school's graduation rate. Second in power was peer social capital, which individually predicts 34% of a school's graduation rate, followed by institutional social capital, which explains just over a quarter of it.

The relatively low values for information networks and teacher social capital show that while these dimensions are statistically significant, their effect on graduation rates is much weaker than the other dimensions of social capital. The statistically significant but low value for cultural capital may indicate that cultural capital is a weak

predictor for a school's graduation rate, or as discussed in the limitations section above, it may also indicate the weakness of the LES questions on the dimension.

2. Extracurricular activities as a source of peer and institutional social capital

The research shows that extracurricular activities promote high school graduation through the development of peer and institutional capital; this relationship was further explored through a stepwise multiple regression analysis of graduation rates. When the relative effect of these three independent variables – institutional social capital, peer social capital and extracurricular activities – was considered, extracurricular activities dropped out as a significant predictor of high school graduation. This does not indicate that extracurricular activities are unimportant in predicting graduation, but supports the findings of previous research that virtually all of its positive effects are better captured through the increased peer and institutional social capital. Furthermore, with an R squared value of .555, this model demonstrates that these two forms of social capital alone explain over half of a given high school's graduation rate. Of the two, peer social capital is a somewhat more powerful predictor with a standardized coefficient beta of .433 versus institutional social capital's beta value of .362.

3. Regression analysis of the various dimensions of social and cultural capital through the lens of race.

The qualitative research discussed in the literature review section indicated that minority students, particularly Latinos, might benefit more from social and cultural capital than nonminority students. In order to explore the quantitative evidence for this

hypothesis, regression analysis was done separately for each of the dimensions of social and cultural capital for schools that were heavily Black, Latino, White and Asian. These schools were defined as being one standard deviation above the mean: 63% Black, 63% Hispanic, 20% white or 21% Asian. While this analysis gives a sense of how social and cultural capital play out in schools that are overwhelmingly Black or Latino, it should be noted that the small survey sizes and lack of schools that have a majority white or Asian population limit the generalizability of these results.

Table 11: Adjusted r square values of the different dimensions of social or cultural capital on graduation rates separated by racial composition

Dimension of social or cultural capital	All Schools	Heavily Latino Schools n=59	Heavily Black Schools n=40	Heavily White Schools n=33	Heavily Asian Schools n=41
Institutional Social Capital	.267**	.619**	.221**	.271**	.174 **
Peer Social Capital	.342**	.315**	.245**	.626**	.342**
Information Networks	.119**	.238**	.231**	.034	.074**
Norms and Sanctions	.410**	.224**	.307**	.632**	.437**
Teacher Social Capital	.119**	.217**	.113**	-.030**	-.128
Participation in Extracurricular Activities	.165**	.098 **	.091**	.118**	.118**

* Correlation is significant at the 0.05 level (two tailed)
** Correlation is significant at the 0.05 level (two tailed)

The most interesting finding on this table is the very high value of institutional social capital as a predictor of high school graduation in schools that are heavily Latino. The R squared value of .619 suggests that teacher-student relationships are much more important for schools that are heavily Latino than other schools in general. It is

significant that this dimension of social capital also represents the largest divergence between Black and Latino students as the graduation rates for schools that are predominantly African American seem much less dependent on institutional social capital (R squared = .221). This finding supports the work of Valenzuela and Stanton-Salazar who report that Latino students are more dependent on support from teachers and school staff than their peers. Heavily white schools fall somewhere between these two groups with a value of .271. Finally, with an R squared value of .174, the graduation rate of heavily Asian schools shows much less dependency on these student-teacher relationships.

A curious finding is the unusually high R squared value of peer social capital in schools that are heavily white. This finding challenges previous research by Valenzuela (1999) that found that Latino students benefit academically more than whites from strong, positive peer social groups. The R squared value of .315 for Latinos shows that, while positive peer social capital is a strong indicator of a predominantly Latino school's graduation rates, the R squared value for whiter schools is nearly twice as strong at .626. It must be noted, that this result is somewhat suspect as none of the schools had a majority white population. Given the demographics of New York's public schools, even disproportionately white schools have an average white population of only 22% - these schools were just whiter than the other schools in New York. Obviously, this regression needs to be explored further with a more diverse survey population.

This small sample size for white and Asian students may also explain the racial split in the three areas that have the weakest overall relation to high school graduation rates: information networks, cultural capital and teacher social capital. For instance, the

graduation rates of schools with higher populations of whites and of Asians do not seem to be dependent on parent-school communication as there is no significant correlation of graduation rates with information networks for these schools. Likewise, teacher social capital also seems to be a pretty insignificant predictor of graduation rates in these schools (-.03 for white schools and statistically insignificant for Asian schools). For schools that are heavily Black and Latino cultural capital is the most insignificant predictor of graduation rates (.029 and .000 respectively). As these three dimensions are so relatively weak in their effects on high school graduation anyway, it is hard to make out how much we should credit these racial differences.

Given New York's history, public transportation and geography, it has fewer high schools that are exclusively Latino or Black than other large cities. Instead, it has a great number of schools that are heavily both Latino and Black. In fact, New York has twenty-five schools that are more than 97% Black and Latino. Table 12 explores how social and cultural capital impact graduation in these most heavily segregated schools.

Table 12: Adjusted r square values of the different dimensions of social or cultural capital on graduation rates for heavily Black and Latino high schools.

Dimension of social or cultural capital	All Schools	Heavily Black and Latino Schools n=25
Institutional Social Capital	.267*	.371**
Peer Social Capital	.342*	.335*
Information Networks	.119**	.324*
Norms and Sanctions	.410**	.280**
Teacher Social Capital	.119*	.310**
Participation in Extracurricular Activities	.165*	.191**
Cultural Capital	.123*	.087

* Correlation is significant at the 0.05 level (two tailed)
** Correlation is significant at the 0.05 level (two tailed)

The most significant finding here is how similar these schools are to the citywide norm. This is largely due to the fact that, in a system that is 82% Black and Latino, New York's outlier schools don't lie so far out of the norm. There are some noteworthy differences, however. For instance, institutional social capital, teacher social capital and information networks all seem to be more important in the most segregated schools. With an R squared value of .371 institutional social capital is almost 50% more important in predicting graduation rates in these schools while the R squared values for teacher social capital (.310) and information networks (.324) are each almost twice as high in these schools. Predictably, these figures are similar to schools with large Latino and large Black populations respectively. It seems that in the most segregated schools there is a greater need to empower teachers, provide supportive adults and communicate more effectively with parents in order to graduate the more students.

1. School Size

The following correlation table shows the LES data analysis generally supports the predominant view of the literature that students in small schools have greater access to social capital and higher rates of graduation.

As the table indicates, the correlation between school size and the variables cultural capital, teacher social capital and extracurricular activities are not statistically significant. This is not so surprising for the area of cultural capital due to the weaknesses in the LES discussed above. It is a bit more surprising in teacher social capital, and suggests an area for future study. In the area of extracurricular activities, due to the variance in how the question was asked to the three different groups this insignificance is actually in alignment with much of the research. Students and parents

were asked about participation in extracurricular activities while teachers were asked about whether extracurricular activities were offered at their schools. Due to this variance, teachers, particularly in large schools, were more likely to report that extracurricular activities were *offered* to their students while students and parents in small schools were more likely to report levels of actual *participation*. This is similar to the research of Hemphill and Nauer (2009) who found that while large schools offer a wider array of extracurricular activities, fewer of their students actually participate in them than in small schools.

Table 13: Correlations of Forms of Social and Cultural Capital with School Size

		School Size
Diploma 4-Year Rate	Pearson Correlation	-.180**
	Sig. (2-tailed)	.005
Extracurricular activities	Pearson Correlation	.107
	Sig. (2-tailed)	.101
Teacher social capital	Pearson Correlation	-.167*
	Sig. (2-tailed)	.010
Peer social capital	Pearson Correlation	-.201**
	Sig. (2-tailed)	.002
Norms & sanctions	Pearson Correlation	-.193**
	Sig. (2-tailed)	.003
Institutional social capital	Pearson Correlation	-.269**
	Sig. (2-tailed)	.000
Information Networks	Pearson Correlation	-.411**
	Sig. (2-tailed)	.000
Cultural Capital	Pearson Correlation	.167*
	Sig. (2-tailed)	.010

* Correlation is significant at the 0.05 level (two tailed)
** Correlation is significant at the 0.05 level (two tailed)

What is interesting in this table is that the LES data replicate the findings that small schools are more likely to support all of the forms of social capital that have been shown to have the greatest impact on student success – institutional and peer social capital, norms and sanctions and information networks. Additionally, as shown elsewhere (Hemphill and Nauer, 2009) small schools are also more likely to graduate their students in four years.

In order to take a closer look at how social and cultural capital work differently in large and small high schools, separate stepwise multiple regression analyses were performed for large and small schools. The various dimensions of social and cultural capital were used as independent variables to predict the dependent variable of graduation rate in large schools containing more than 2000 students and small schools of fewer than 400 students.

Table 14: Adjusted R square values of the different dimensions of social or cultural capital on graduation rates for large and small schools.

Dimension of social or cultural capital	All Schools	Large Schools N=45	Small Schools n=55
Institutional Social Capital	.267	.619	.221
Peer Social Capital	.342	.315	.245
Information Networks	.119	.238	.231
Norms and Sanctions	.410	.150	.150
Teacher Social Capital	.119	.217	.113
Participation in Extracurricular. Activities	.165	.098	.091
Cultural Capital	.123	.000	.029

All R squared values were shown to be statistically significant at $p<.01$

The finding that stands out the most in this analysis is that students in large schools are much more reliant on institutional social capital than their peers in small schools as it explains 62% of the graduation rate versus only 22% in small schools. At first this may seem counterintuitive until one considers the -.27 correlation between school size and institutional social capital. This suggests that students in most large schools have a scarcity of opportunities for meaningful connections with adults, yet those large schools that have been able to support the development of positive adult-student relationships have a dramatically higher graduation rates. This same dynamic occurs with a much lesser effect in the areas of peer social capital (32% vs. 25%) and teacher social capital (22% vs. 11%). Thus, while the inculcation of social capital is an important predictor of social capital for all students in all types of schools, it seems to be especially important in large schools exactly because it seems to take place less often there.

4. Multiple Regression Pathway Analysis of the Various Dimensions of Social and Cultural Capital

While the preceding analysis of the data regressed the various elements of social capital individually, multiple regression pathway analysis allows us to create a more sophisticated model to explain how these various dimensions of social capital interact with each other to affect high school graduation rates. Specifically, stepwise multiple regression analysis prioritizes various independent variables in order to discern their relative value. The variables that drop out may be of little explanatory power, statistically insignificant or their power in predicting the dependent variable may be subsumed by other, more powerful, variables. In order to evaluate these relationships, three models

were developed, in increasing complexity, to trace the path between the source of social capital, extracurricular activities, and high school graduation rates.

a) Model 1: All of the variables against graduation rates

Table 15: Stepwise multiple regression results

Model		Standardized Coefficients		Adjusted R squared for the model
		Beta	Sig.	
1	Norms & sanctions	.642	.000	.410
2	Norms & sanctions	.591	.000	.451
	Cultural Capital	.214	.000	
3	Norms& sanctions	.525	.000	.462
	Cultural Capital	.243	.000	
	Information Networks	.131	.119	

a. Dependent Variable: high school graduation rate
* Only statistically significant variables shown

As a first step in understanding the interplay between the variables, all of the factors as a single group were regressed from the dependent variable of graduation rate. The results of this multiple regression model (Table 14) demonstrate the dominant power of norms and sanctions in independently predicting 41% of a school's graduation rates. The predictive power of this one variable was so strong that all but two of the rest of the variables dropped out due to statistical insignificance leaving behind just cultural capital and information networks as the only other significant predictors. Even these variables, though statistically significant, were very slight in their predictive power. For example, when cultural capital is added in the second model, it adds only a 4% explanation of graduation rates. In the third model, the addition of the even less significant variable of information networks only adds an additional 1 percent to the predictive power of the

second model. The weaker role of these two dimensions is indicated by their low beta values.

b) Model 2: Pathway Analysis of the Variables' Influence on Norms and Sanctions

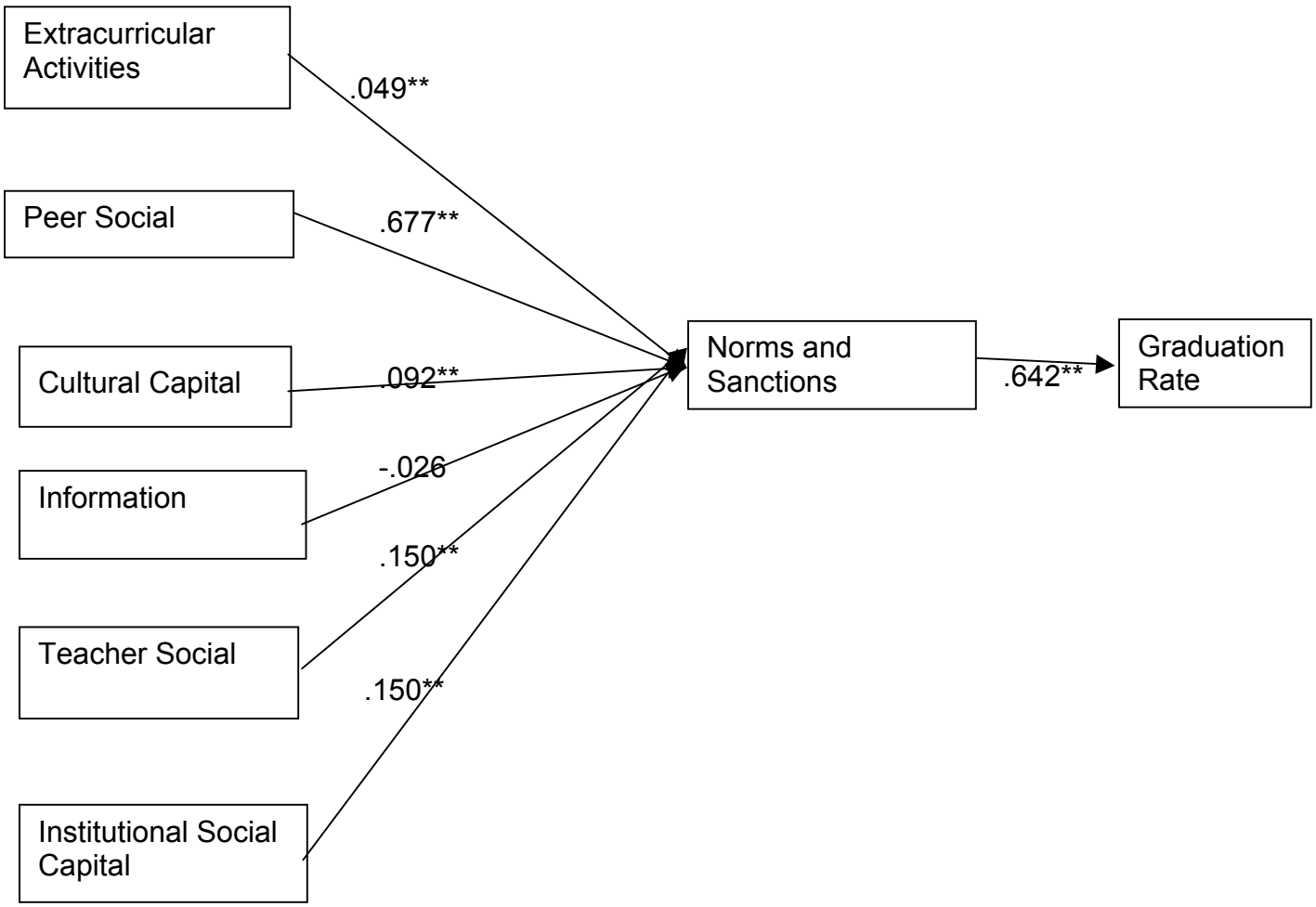
The statistical insignificance of the other dimensions of social capital does not mean that they are unimportant, but simply that their predictive power is subsumed by the other categories, primarily by norms and sanctions. The high value for this valuable indicates that the effects of institutional and peer social capital, teacher social capital and extracurricular activities overlap with school safety to a great extent. To test the hypothesis that strong norms and sanctions are caused by high measures of social capital, a new pathway model was develop using a stepwise multiple regression analysis.

Table 16: Multiple regression results for Model 2

Model		Standardized Coefficients	
		Beta	Sig.
	Extracurricular Activities	.049	.002
	Peer Social Capital	.677	.000
	Teacher Social Capital	.150	.005
	Institutional Social Capital	.262	.001
	Cultural Capital	.092	.006
	Information Networks	-.026	.515

a. Dependent Variable: Norms & Sanctions

Chart 1: Model 2 Pathway Analysis showing Beta Values



* Correlation is significant at the 0.05 level (two tailed)
** Correlation is significant at the 0.05 level (two tailed)

The multiple regression stepwise analysis of this model demonstrates that peer, institutional and teacher social capital do, in fact, play a very dominant role in determining a school's norms and sanctions. In fact, with an R squared value of .78, this model predicts 78% of a school's norms and sanctions. This confirms the theory and literature review's findings that schools where students and teachers support one another are safer and thus have higher graduation rates. The high beta for peer social

capital indicates that it is by far the most powerful form of social capital in predicting the level of norms and sanctions in a particular school, followed by institutional social capital and finally by teacher social capital.

Information networks dropped out as a statistically significant predictor of social capital compared to the rest of these dimensions, but as seen in the stepwise regression analysis above this variable, along with cultural capital, plays a more direct role in supporting a school's graduation rate.

The low beta value for extracurricular activities is surprising until one considers that this may be caused by its strong overlap with peer and institutional social capital. This makes theoretical sense given the literature and this possibility is tested in the third model.

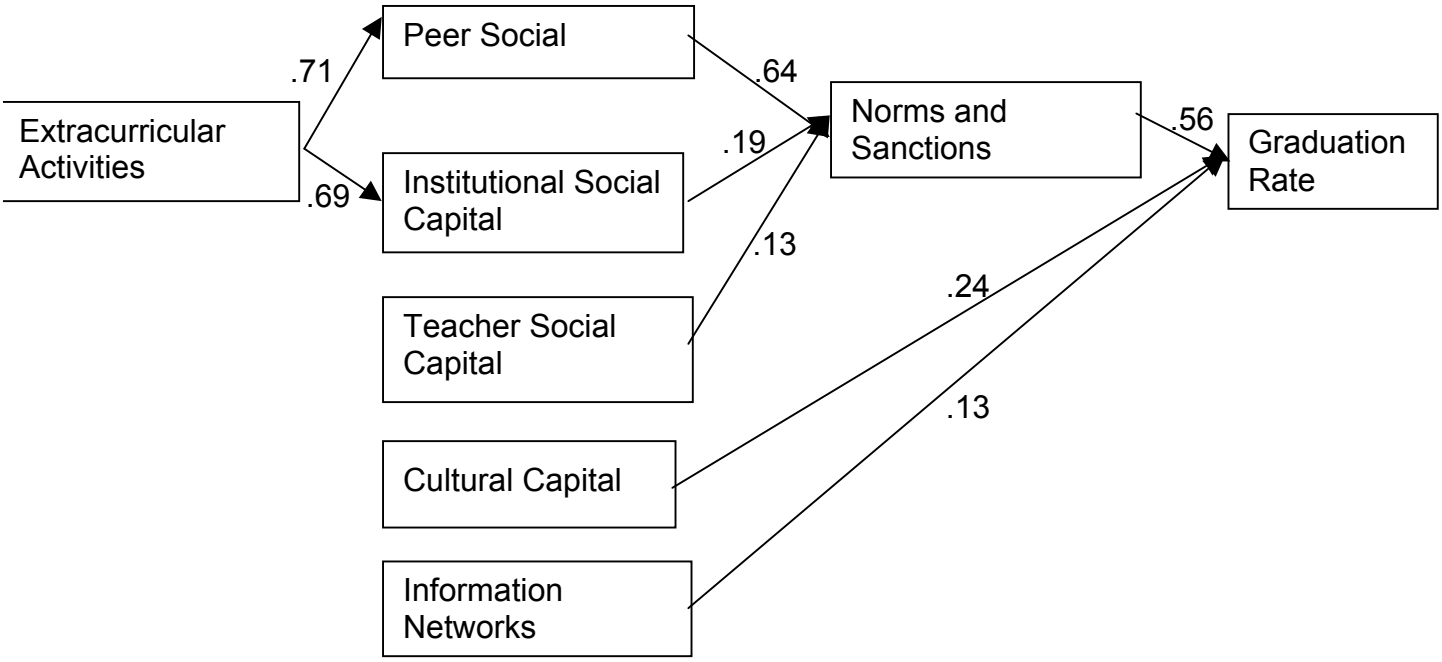
c) Model 3: Complete Pathway Analysis

As it seemed surprising that extracurricular activities dropped out as statistically insignificant in model 2, a stepwise regression was performed to measure its effects on peer and institutional social capital. For peer social capital, the R squared value was .512 with a significance of .000 indicating that just over half of a school's peer social capital level could be accounted for by the rate of participation in extracurricular activities. At .480 the R squared value for extracurricular activity's effect on institutional social capital was similarly just below 50% (significance .000). These figures appear to confirm what was found in earlier research that much of the positive effect that participation in extracurricular activities has on graduation rates occurs through the social capital accrued through these activities.

With all of these results, the final third, pathway model took the form shown

below.

Chart 2: Model 3 Pathway Analysis showing Beta Values



As a whole, this model shows that two forms of social capital (norms and sanctions and information networks) and cultural capital can significantly predict 46% of a school's graduation rate, but that the lion's share of this (41%) comes from the norms and sanctions that are established at a school. Seventy-eight percent of a school's presence of norms and sanctions are in turn largely explained by the presence of peer, institutional and teacher social capital, with peer social capital being the most important determinant. Finally the level of participation in extracurricular activities determines to a very large extent the presence of peer and institutional social capital. This pathway model is in basic alignment with the literature review, and with the interview data presented in the next chapter.

VI. Analysis of Qualitative Results

In most respects the interviews conducted for this study support the findings of the quantitative analysis. Their significance is in providing a phenomenological dimension of the research that serves to "uncover and describe the structures, the internal meaning structures, of lived experience" (van Manen, 1990, 10). Specifically, the interviews make meaningful how students actually experience the social and cultural capital described by the survey data. For instance, they provide evidence for how the various dimensions of social capital support graduation and college admittance, the form that support takes and how it can be engendered in a school.

A. How Extracurricular Activities Support the Formation of Institutional Social Capital

The richest vein of data from the interviews explored the power of extracurricular activities to form valuable relationships with institutional agents. In the most tangible cases, these relationships led to jobs, college recommendations and support in applying for college. In less tangible ways, they led to more ephemeral but necessary support for graduation. In speaking about these relationships, the students needed very little prompting as they were so eager to share how teachers, mentors, staff members or youth center workers inspired them, kept them on track or threatened them to success. The power of these relationships was rather moving as several (five) students used the terms love and "like a family" to describe these relationships, and many of them (nine)

stated flatly that they would not have graduated were it not for these adults in their lives.

As unified as they were in speaking of the importance of these institutional agents, their answers demonstrated a wide disparity in describing how they came to form the relationships, the activities involved in the relationships and the forms of support accessed. Here this rich vein of anecdotal reports splits off into a web of capillaries as each respondent discussed a myriad of idiosyncratic incidents that led to the formation of meaningful relationships. Despite the variances however, with the exception of advisory, a class that will be discussed later, all of these relationships were formed through some form of extracurricular activity. The fact that not one of the significant relationships discussed by the respondents formed in a traditional classroom corroborates the regression analysis that extracurricular activities are a significant cause of institutional social capital.

1. School Clubs and Teams

The most traditional forum for extracurricular activities is school clubs and teams. As the previously discussed research demonstrates, it is a rich source of institutional social capital. In fact, the mystique of the tough but supportive coach who is willing to "go the extra yard" for his athletes has become something of a trope that has been exploited and explored in television ("The White Shadow" and "Glee") and film ("Friday Night Lights" and "Bad News Bears"). As Lewis (2004) has written, high school coaches occupy a unique space both within and outside of the institutional setting that allows them to develop an especially substantial and profitable relationship with their players. Sebastian, a star soccer player in his previous high school in Indiana demonstrated that there was some truth to this trope. He explained that when he needed a summer job his

coach was able to recommend him. The coach told a bank manager friend, "'you know this person from the newspaper and he's a good kid." Sebastian got the job as a delivery boy for a bank and worked "40 hours during summer and part time in the winter."

In a small arts school such as LoMA, the closer equivalent to the traditional varsity football team would probably be the school's theatre ensemble. LoMATE, as the company is called, is a partnership with LoMA and its community partner, Henry Street Settlement House/Abron's Arts Center. True to form, these ensemble students also have positive examples of what they gained from the support of their director, Doris. As Kate explained, this helped the students artistically and socially: "Doris was always real supportive. She gave me the creative freedom to do whatever I wanted." As Doris came to realize that Kate often had a problem with timeliness, "She picked me up from my house before rehearsals so I would be on time."

Doris also worked to benefit her students more concretely by building a bridge from the ensemble to her own stores of social capital. Rachel's performance in *Mother Courage* led to an internship with Nellie, a colleague of Doris's and the educational director of Henry Street. This internship then led to a job as an administrative assistant that pays $20 an hour, a job that continues to provide her with income on vacations from college. Sue, who acted in the school production of *Metamorphosis* as a freshman, appreciated that Doris had invited playwrights and agents to the final performance. Outside of the school production, Doris helped some of her more motivated students to collaboratively write their own script, which she submitted to a playwriting contest that she had been involved with professionally. When they won, the ensemble got to perform

their play off-Broadway, an experience which strengthened the college applications of several of the students.

As a freshman student, it was unusual for Sue to earn a role in a LoMATE production, but she had the encouragement of Mr. Cortez, an acting teacher. She spoke of how she "met Mr. Cortez through video club. I told him I wanted to be a filmmaker. He told me about Doris and LoMATE." As so often happened for the respondents, social capital grew exponentially for Sue. Success with LoMATE and her enthusiasm for video recording led to further opportunities with Mr. Cortez. "He let me videotape the drama classes, and we became closer. But when Mr. Cortez was taking kids to see *Phantom* [*of the Opera*] and he didn't take me. When I told him how upset I was because it was my favorite show, he promised that he'd make it up to me. About two weeks later, he called to tell me about this film school called Ghetto Films. He helped me with the two essays and brought me to the interview and was 100% supportive. When I told him that I got in, I thought he would start crying. Now I have access to thousands of dollars of video equipment that I can use for the school and for the rest of my life."

2. Tutoring

While it does not function as a club, after-school tutoring is a vital component of LoMA's culture and regular participation can count as a required extracurricular activity. In general, it is well attended due to its reputation for improving grades. For instance, Sebastian said, "If we didn't come to tutoring, we wouldn't graduate." In some cases, tutoring led to remarkable improvements. As Desmond explained "Mr. Wictor would drag us in for math tutoring everyday." Desmond had him for four years of math instruction. At first, math was his hardest subject, but because he liked Mr. Wictor, he

"worked hardest for him." After excelling on his standardized math tests, he is now studying electrical engineering at a top state university.

In addition to providing academic support and enrichment, however, many students appreciated that tutoring also allowed them to build meaningful relationships with their teachers in a more relaxed, intimate setting outside of the regular class. During tutoring, Luisa and her friends would "make inside jokes to get to know our teacher better, and that translated into more interesting, bearable classes." Tina spoke of how her relationship grew with her science teacher because "after school she takes time to help me because I'm really bad at it. There's always someone here to pick you up."

These closer relationships coupled with time to talk more personally often led to the passing on of advice. For instance, as she got to know her science teacher, Tina would talk to her about majors and what classes to take in college. For Chantay, the advice led to a change in plans: "Mr. Smith encouraged me to focus on what I want to do about college. My whole family went to Spellman and I didn't want to go Now, I'm going to Morris Brown."

Of course, advice is a two-way street, and while teachers are often eager to provide it, not all students are open to hearing it. Evan, for instance, seemed unusually eager for advice, and the teachers responded in-kind. He explained: "Several teachers bought or lent me books. Hope bought me an audition book for college. Mr. Ansbacher and Ms. Paulson lent me books. Mr. Gimble lends me fantasy novels. Mr. Ansbacher gave me Orwell's *Down and Out in Paris and London*. Ms. Paulson gave me *Atlas Shrugged.* Mr. Wright lent me comic books." This relationship with Mr. Wright had more

tangible effects as the two of them began working out together after tutoring. Standing 5'9", Evan proudly pointed out: "I used to weigh 240 pounds, now I weigh 180." More philosophically, he picked up life lessons from another math teacher who taught him "It's not about success or how much money you make, but how much you enjoy life. He used to make a lot of money on Wall Street and gave it up to teach."

3. Advisory

The only curricular class that respondents referred to as being a source of social capital was advisory. This seems appropriate, as the purpose of advisory classes is to support the development of positive relationships between teachers and students. Since it began in the eighties, advisory has become a popular programs in the new school movement. It began as a middle school program with the goal of increasing the opportunity for teachers to support students' social, emotional, and moral growth, while providing personal and academic guidance (Gilomen, 2004). It became so popular that the state of Indiana now mandates advisory for all middle schools.

The research supporting its success has been positive but much of it has been methodologically unconvincing. There have been a number of qualitative studies demonstrating their effectiveness in particular schools, but there have been no large scale, quantitative national studies (Gilomen, 2004). The most important studies found the following positive effects:

- Improved relationships between students and teachers (Espe, 1993; Totten & Nielson, 1994).
- An increased sense of trust and belonging (Ziegler & Mulhall, 1994).

- Better communication among all members of the school community (Simmons & Kiarich, 1989).

All of these effects obviously support the development of social capital, and were influential in the decision to include an advisory curriculum in LoMA's program.

At LoMA, advisory meets twice a day. From 8:40-9:00 a traditional advisory class follows a wellness and study skills curriculum. This time is also used as a check-in to ensure that students are ready to learn for the day. To varying degrees different advisors would also spend this time discussing individual student issues. Students then return to advisory from 12:00-12:20 for sustained silent reading. Advisories have 10-13 students, and advisees generally in stay with the same teacher for three years. Senior advisory is facilitated by the college advisors.

About half of the respondents spoke of the influence their advisors had on their high school completion and college attendance. The majority (nine) of the respondents spoke about the role of their advisor in encouraging their attendance, a factor, which has been found to be a major corollary to high school completion (Jordan-Davis, 1984). Kate and Luisa credited their advisor's policy that that five lateness or unexcused absences to advisory led to a failing grade. As Kate said, "I was always afraid of failing advisory and having to go to summer school just for being late." Eddy found positive motivation for good attendance in the biannual trip to a Broadway musical for students with perfect attendance and punctuality. Sebastian remembered how, as a freshmen, "My advisor would call me every morning at 6:30. Sometimes, he wouldn't hang up until he heard the water of the shower running to make sure that I was out of bed."

Several students expounded on the role of their advisor in preparing them for college, particularly about the importance of one's GPA. As Evan said, "I thought that a 65 average would be good enough until I heard that I would need at least an 83. I also found out how important extracurricular and recommendations would be." He said that he learned these lessons as a freshman. Tsing also spoke about the importance of his first year in advisory:

> The path to college was real dim freshman year. Ms. Mansfield taught me about college freshman year and what's important about college and how you get there. The importance of grades. I want to go to college to experience the nature of the world.

Sandra developed relationship with her advisor took a more personal turn when he provided more personal support:

> Mr. Smith helped me balance my school life with my life at home with my abusive, alcoholic father. He was a drug dealer and my Mom was scared of him. My parents never graduated high school. I didn't want any of that. I went to therapy. School told me I had to, and my Mom did it. I was also smoking a lot of pot and my friends were also. Mr. Smith [her advisor] and other teachers called my Mom in and she saw how serious it was. She thought it wasn't that serious, and then I got Ritalin and was diagnosed with ADD. Mr. Smith listened to me. He didn't shut me down. In my old school, my Mom and I felt inferior. We were the only Hispanics. I started to talk more here and realized how I had to change things. Mr. Smith knew I was struggling and saw how angry I was. He thought I was crazy, and he like working with kids who were really fucked up. So now I know how to get control of it and deal with it.

Ultimately, Mr. Smith wrote Sandra a glowing, comprehensive recommendation that may have helped her get into the school and program of her choice.

4. Youth Centers

As a part of its extracurricular program, LoMA encourages its students to take part in local community centers where they can receive credit for participation. The

school's most popular partnership is with the 125 year-old Educational Alliance (Edgies), which runs a youth center in collaboration with the Boys and Girls Club. Students there are programmed to take classes in such areas as acting, cooking, art and dance. They also participate in discussion groups and play sports. Tom and Tina said that acting in Edgie's production of "East Side Story" led to their receiving a headshot, completing an résumé and provided them with practice for interviews and auditions. More academically, Edgies provides tutoring and a college exploration program. Three of the students had gone with them on overnight college trips to distant colleges. Tom reported, "The trip opened my mind to what college can really be like. Now I really want to go away." Edgies also used its ability to nominate students for scholarships to help get Rashad a POSSE scholarship, complete with significant academic support, for Wheaton College.

Like other successful students, Tsing was able to leverage the participation in one program into others that led to substantial benefits, further evidence of the exponential power of social capital. A very quiet, unassuming thin young man who emigrated from China at the age of three, Tsing began going to Edgies in tenth grade to watch movies and play sports. Edgies helped him to apply for a city-funded Summer Youth Employment Program (SYEP) job in eleventh grade, which in turn helped him to become more social. His SYEP job at the Alfred E. Smith Recreation Center paid to make a five-minute film with a group of his peers. Writing, planning scenes and filming the comedy "Stupid Heroes" required Tsing to interact and communicate with his peers more than he ever had in the past and led to the development of new friends. His continued participation at Edgies led to a senior internship there where he worked as an

office assistant registering people for classes. This in turn allowed him to take classes in painting and drawing for free. The still life and animal portrait paintings he completed there were displayed at their Rubenstein Gallery. He continues to take art classes over the summers when he returns from college. While he does not think he will take up art as a career, but he does look forward to taking printmaking and other art classes in college. He sees art as a lifelong hobby.

The connection between SYEP and LoMA's community partners benefited other students as well. Desmond had been part of Henry Street's College Exploration program and landed a job at another division of Henry Street Settlement through SYEP. He found out about SYEP through his LoMA's parent coordinator. After the summer was over, he continued to attend the College Exploration program where the counselors helped him to apply to college, and continued to follow up with him through freshman year at SUNY Binghamton. Evan also received his SYEP job through the assistance of the school's parent coordinator:

> Kelly gave me an application for SYEP and she told us what we needed to know to get in. I got in to the Henry Street Traveling Theatre. We wrote our own plays and acted in them. We used the recital center at Henry Street and lots of people came. I played a bigger role in the acting team then in the playwriting. The scenes dealt with family abuse, mental illness, gun control and prejudice. I got to act. It was my first time I was paid as an actor. I got to explore a lot. It helped me with my acting. It led to my internship with Henry Street where I did more of the backstage stuff.

It is not insignificant, that Kelly herself grew up in the neighborhood of the school and participated in both Henry Street Settlement youth programs and Edgies. More evidence that social capital begets social capital.

5. Mentoring

Another avenue for the attainment of institutional social capital was provided to thirty LoMA students through a popular mentoring program with Oppenheimer Funds. Both of the interviewees who took part in the program spoke enthusiastically of their relationships with their mentors. Kate said of her mentor, “She’s really seen me grow. I speak to her in a way I don’t talk to teachers. We talk about movies, television and music.” Kate’s mentor relationship began with her weekly visits, but expanded from there: “We spend time outside of the usual Tuesdays. We went to Earth Day and Barnes and Noble. I’ve met her daughter. She was laid off, but we still keep in touch on Facebook a lot.” Through her, Kate has changed her college plans, and expects to get valuable recommendation from her attend the mentor’s alma mater. “I ended up wanting to go to the same college as her – Smith. I’m starting at City College. My mentor’s grades were really low in high school. She went to University of Georgia and transferred. I’m starting out at City, but I hope to transfer to Smith when I get my grades up like she did.” Desmond’s relationship with his mentor also inspired him to attend a top college, SUNY Binghamton from which he made a nine-hour roundtrip bus ride in one day to see his mentor awarded Mentor of the Year by the Mentoring Association of New York.

As significant as their mentor relationships were, what may have been even more valuable for the participants in the program was the relationship they developed with the mentoring coordinator, Kelly. As parent coordinator, Kelly brought the Oppenheimer mentoring program to LoMA from her former school where she also coordinated it. She met with the kids twice a week after school and some Saturdays. Most importantly, she

would check in with her students on a daily basis. Desmond credits her as an important influence on his high school success. “She would always be on top of us, she would call our house for every absence, and if we misbehaved, we would have to write an essay of apology.” Kate described Kelly as

> A second mother for me. After my Dad left, my Mom was wrapped up in her own problems. Kelly would say ‘everyone messes up, but I wouldn’t expect this from you.’ She treated us like her own children; we were just below her flesh and blood. She would text me when we had to do things. If she saw that I was upset, she would take care of me. High school was so full of emotional turmoil. When I was being bullied, I was more afraid of being yelled at by Kelly than the threats from the kids. I’d be crying in the hallway over my boyfriend. She’d come up to me and actually cared. I could always go to her. I was never good about tutoring. I never went to much of it. I really needed the emotional help.

Kelly’s ability to help her students overcome personal difficulties, weather the storms of adolescence and inculcate positive behavior and work habits clearly demonstrates the power of social capital can have in helping students graduate.

6. Internships

Student internships turned out to be a remarkably important avenue for improved habits. When asked what was the most important thing they learned at LoMA, nearly every respondent’s answer connected to the internship. Mostly, they appreciated how well it prepared them for life after high school. As Rachel said, the “internship [at Mabou Mines] was a real job. We have to be on-time, meet deadlines, learn lines, blocking and choreography… it made me more responsible when I got to college.”

The internships also helped the graduates acquire resources that were useful in beefing up their college admissions applications. Several respondents received recommendations from their internship supervisors, and most felt that their work in such

organizations as the Federal Reserve, Harlem Hospital and the Prospect Park Zoo made their college applications stand out. Kate's internship with the prestigious American Ballet Theatre gave her access to some of the wealthiest patrons and talented dancers in New York. "I met a lot of people there. Pretty big names. One is a big philanthropist and another is a photographer. In the future or in college Kevin [a director tat ABT] says I can always ask him for a reference." Rachel felt that she was accepted into the competitive theatre program at SUNY New Paltz in a single day, which she said was very unusual, due to her experience in LoMA's theatre program, her participation in a summer camp that focused on theater and her internship with the high-end, avant-garde theatre group Mabou Mines where one of the directors helped prepare her for her audition. While the work they performed at the internships varied widely as did the types of habits they acquired, this increased sense of responsibility was a common theme in the interviews.

Others found their calling in life through their internships. Louisa, for instance, rethought her academic major after hers.

> My Mom's fiancé is a model, and he got me my first job as a photography assistant, which is also what I did in my internship. I would clean, book models, write up jobs, talk to clients and help with the photo shoots. I want to be in advertising and public relations when I go to FIT.

Kate picked up profitable skills and the ability to interact with people more professionally from her internship at ABT:

> I would help organize the files and set up next year's intensives. They had me doing a lot of work on the computer I learned Adobe and Excel. I'm better at making professional calls now. I'm less nervous on the phone. It was hard for me when I started because I didn't know them and I was real nervous, but I opened up. I would go and ask for help or if they needed anything.

Sandra became more proactive and open-minded through her internship at the Irondale Theatre Company:

> My supervisor would ask me to come in extra, and I did because I wanted to learn. I wasn't stubborn and was pretty open. They even gave me the key. They said I can continue working there. I learned how hard it is and how to work in a huge room. It was pretty chaotic."

The high school internship experience is an area that needs much greater research. Based on these few interviews, however, they seem to have the power to improve the habits of participants. The independence and responsibilities that the students gained through their internships led to an increased sense of responsibility and with it greater self-confidence. Having had the experience of working with professional theater companies, in photography studios and hospital delivery rooms, these graduates became more motivated to avoid more menial occupations as they acquired the skills that would open doors to college and professional success.

As significant as these contacts were, the students were even more effusive about their relationships with Hope, LoMA's internship coordinator. Hope starts working with students and their families in the spring and summer of their junior year. She meets individually with each one of them and their parents or guardians to explore their career ambitions, college plans and abilities. She then finds each an internship site that could help them advance towards their dream or make them confirm or rethink their ambition. A middle age, lifelong member of the still thriving, orthodox Jewish community of the Lower East Side, her store of social capital is extraordinary and allows her to tailor each student's internship to his or her desires, personality and time schedule.

Tsing spoke for many of his peers when he said, “Hope helped me graduate because she’s the one who would always follow you and say ‘do you have everything done.’ She always has spirit and persistently asks, ‘How are you doing.’” Her access to the students’ personal lives sometimes transformed her into a counselor. For Sebastian, one of the more reserved students,

> She was the only person I spoke to about personal issues. When I became sad, she noticed it and approached me in a way I could be comfortable talking about family, my ex-girlfriend and school. It helped me because at that point I was failing economics. My friends helped me too. They listened and gave good advice and I fixed the problem.

Beyond coordinating their internships, Hope became another college advisor. Louisa explained how “Hope stayed on top of me as well as everyone else. When I felt like putting things off, she gave me a sense of urgency. She also helped a lot with financial aid forms.” She tried to get every student to visit a college either by taking them out of town herself or arranging other transportation, but even that was not always enough as Evan explained:

> Hope encouraged me when it came to acting. I tried to get into the audition at [SUNY] New Paltz. I waited till the last minute and had no money for the ticket, but the school was going to pay for the bus ticket. I didn’t feel that I could get in. I didn’t remember the monologue. I guess I was irresponsible. The next time I’ll take the opportunity.”

Evan did get another opportunity to be bailed out by Hope. After he was accepted by SUNY Albany’s EOP program, he attended a summer orientation program where he was kicked out of the program and the university for reasons that remain unclear. He called Hope in August and she was able to find a place for him at that late date at Cazenovia University with $31,000 in grants and scholarships.

Evan's story seems to connect to some concerns about Hope, specifically, and the role of institutional social capital in general. Given Hope's role as internship coordinator, college advisor and counselor for 50 seniors, she could become overwhelmed and hard to get to. As Louisa said, "Sometimes I felt frustrated because I had to fight for attention from Hope." A more serious issue may be what happens when students no longer have Hope. Sebastian feared: "Most students here get bailed out by Hope. She made everything really easy. She practically did their applications and essays. She does too much sometimes. We need to fall on our asses." Louisa concurred when she worried that her peers

> May not be able to stay on top of it when they go to college. They won't keep up on their deadlines. She was always on top of homework. It benefited me, but it shouldn't be that way. You need to be more responsible.

For some students, Hope was more than just a crutch, she was a wheelchair, and students moving from a school of 300 with Hope, three college advisors and five counselors to colleges with 8,000 students or more may find the transition difficult.

7. EOP

One crutch that may support that transition process is the Equal Opportunity Programs (EOP) and Higher Education Opportunity Programs (HEOP) run by New York State. The first is available at all of the SUNY schools and the latter at private colleges in the state. They are designed to improve access and provide financial assistance and academic support for poor students who don't quite meet the standards of admission. Just over half of LoMA's students are admitted to colleges through either program. CUNY has a similar program, SEEK, but very few LoMA students attend CUNY, as the

school staff encourages students to go away to college to avoid the “thirteenth grade” experience. While Evan’s experience was certainly negative, two of the respondents had completed a year in college as EOP students and felt supported by the program. Both received tutoring services, made friends, and appreciated the help the advisors provided in navigating the bureaucracy of college life. Desmond said that his status gets him special treatment by some professors and extra classes to help keep up. Despite this, his grades suffered in the competitive atmosphere of SUNY Binghamton. While Rachel also received extra help as an EOP student, she seemed more conscious of a split in classes and social life between EOP students and the rest of the students. While she is white, most of the EOP students are Black on the very white campus. For Desmond, who is an African immigrant, “EOP is my new LoMA family.”

For Bourdieu, the family was the primary point of reference and the wellspring of social capital. While they’re at LoMA, many students speak of LoMA as family, but it’s not. Aside from a few exceptional cases, as the students’ age, they will leave behind their sources of institutional capital. Even Hope will become more of a warm memory and less of a source of support. Programs like EOP and outstanding college professors may become a bridge to college graduation, but a more likely form of long term support and capital will probably be the friendships students form that lead to peer social capital, a topic that will be discussed in the next section.

B. Summary of the Support Students Found through Institutional Social Capital

The anecdotes from the interviews provide solid evidence for the hypothesis that extracurricular activities support the creation of institutional social capital. When asked how they formed their most profitable relationships with school staff, virtually all of the students spoke about activities that occurred outside of traditional classroom settings: in clubs, tutoring and advisories. Just as important to many of the students was the social capital many of the respondents received from institutions outside of school through youth community centers, internships and mentoring. It is significant in this context that the partnerships with all of these external institutions were set up by the school, which also monitored and adapted the programs as necessary. More than this, participation in extracurricular activities, internships and, for many students, college classes were required by the school for graduation, and grades for each of these were included on student report cards. It is interesting to note that none of the respondents complained about that these additional graduation requirements as they all seemed to understand their benefits, or maybe they just took them as a matter of course for the school.

Bourdieu argued that, by definition, social capital must actually benefit the holder. The interviews demonstrate the profitability of these relationships in both concrete and emotional terms. Concretely the following benefits became apparent:

- Several respondents said that they owed their graduation to the extra help they received from small group tutoring offered by the teachers outside of the regular school day.
- Every one of the respondents received positive recommendations from at least one institutional agent. This may have contributed to the 100% college acceptance of the class.

- Several respondents received SYEP jobs through the school or their internships.
- Several of the respondents received scholarships, sometimes significant ones, through their partnerships.

As significant as these concrete benefits were, it is very possible that, while more ephemeral, the emotional support that the respondents received from these relationships may have played an even more significant role in helping these students graduate and earn college acceptance.

One result of this emotional support was the way it changed the habits of most of the graduates. At a minimum, colleges and high school graduation require that students have the habits of regular attendance, punctuality and motivation to study. Most of the respondents spoke about how they learned these habits at LoMA through their institutional connections. Evan, for instance, spoke directly of the advice he received from his advisor: “Mr. Wictor saw a problem in me – my procrastination. He repeatedly called me out on it. He told me how he used to have the same problem, and if I did it in college, they’d kick me out. No one will look after me there like here.” By his senior year, Evan was turning in nearly all of his assignments on time, a drastic change from his freshmen year. Desmond’s support came from his coach who required that he complete his homework between school and practice. Like Rachel, this got him into the habit of doing homework before he got home, a practice both of them continue in college. For other respondents, institutional agents used more negative forms of motivation to get students to school on time. Sandra admitted, “My lateneses stopped this year. I was tired of being yelled at by Kelly, Suzanne and my mother, and I got it together.” Likewise, Kate reported, “I felt so looked after in this school. In my other schools my

lateness and attendance was bad, but here so many people would yell at me I just got my act together."

In connection with institutional agents, the arts also played a role in changing the habits in some students. Kate explained:

> I did *Mother Courage* as a freshman and *365 Days*. I loved doing plays. It was really amazing learning the script. Knowing I have the capacity to memorize long monologues, being able to ad lib and creating the ideas. We had to work together like when we had to create a monster and move like we were in water.

Her experiences with LoMATE inculcated in her habits of memorization, problem solving and teamwork that are sure to help her succeed in college and beyond.

Beyond internships, the value of positive habits in preparing students for professional or academic life is a field that is ripe for future research. As most teachers understand, but too few researchers explore, most students who fail out of school do so due to poor work habits and problems with attendance and punctuality. While some of this may be caused by societal factors beyond the control of schools - the need to serve as caregiver, work to support one's family and serious health issues - the interviews demonstrate that far more often students simply need someone to model appropriate habits and nag, threaten and demand that students correct their counterproductive habits.

C. Peer Social Capital

In speaking about their relationships with their fellow students, two outcomes of peer social capital become dominant: increased academic expectations and emotional support. Contrary to these benefits, several students spoke about dangers of negative

peer social capital in terms similar to those discussed by Ogbu above. As a source of positive peer relationships, many respondents mentioned the importance of extracurricular activities.

1. Academic Expectations

In discussing high academic expectations, students spoke both about a general school climate of college expectation and individual peers who encouraged them to strive for academic achievement. In describing the school culture, for instance, Evan said, “The question at LoMA has always been where are you going to college, not are you going to college? Everyone knew that we needed an 83 to get to college.” Tina spoke for several students when she explained how in an eleventh grade humanities class “we started to get really competitive about our grades” and this competition carried over into other classes. Sue spoke about how she would compete with her classmate Alicia to get higher grades: “We really fed off each other and encouraged ourselves. We’re both very driven to get into our dream schools. NYU for me, and Spellman for her. Though we didn’t get in, we were still happy. The school I ended up at offers my exact major.”

Of course, the raised expectations did not always manifest themselves in competition. While Rachel was always a conscientious student who did not rely on others, she arrived at LoMA shy and inarticulate. The fact that she was one of the few white students may have played a role in this. The LoMATE director Doris helped her get over this, and as she performed in more plays, she became more popular. She would sometimes be called on to help her peers. “When Kevin [a fellow cast member in the school musical] was messing up, Kelly would ask me to talk with him, tutor him, whatever.” This was a new role for her, one that she enjoyed and that benefited others.

Kevin improved his grades and surprisingly made it to graduation after a very shaky start…and middle.

The relationships formed through LoMATE proved to be a positive influence for other students as well. Sandra and Kate spoke of the peer pressure within the group that encouraged college-going and that helped them to become more responsible. Sandra's boyfriend, who worked backstage on LoMATE productions, helped her to overcome her tardiness problem: "Ed called me at 6:30 to make sure that I'm up, and then he texted me to make sure I'm leaving the house." Kate, who suffered the same problem, had an ex who did her one better: "My ex came to get me for school, and he would make me breakfast." They would also help each other out. Sandra explained that when she would write "papers for Mr. Ansbacher, I sent them to Kate. She told me what to take out and helps my spelling and grammar."

2. Emotional Support

Nearly every student had a story of how the emotional support he or she received from friends was instrumental to his or her success. For instance, Sandra found the support she received from her school boyfriend, Ed, instrumental to getting into her dream college. "He pushes me a lot. He's supportive. If it wasn't for him, I wouldn't be in [SUNY] Purchase. He tells me I can do it. He helped me overcome my emotional blocks." Several students saw a turnaround in their academic performance when they came to LoMA from other schools. Juan credits the fact that his grades went up significantly at LoMA to his friends. "It's why I'm here. My old school was a Catholic school. My friends didn't stand up for me when I was mugged for my phone. That wouldn't happen to me here." Tina also saw an improvement when she arrived at LoMA:

“My attendance improved a lot at LoMA because my friends told me to be less selfish…Seeing other people do better with a happy face and doing good made me want to do better.”

Not all of the respondents saw LoMA’s students as supportive. Chantay’s attendance dropped at LoMA:

> I didn’t want to be here I was always tired, not in a physical sense. I just didn’t want to be here. My old school was big, and I had more friends. More friends and less problems. This school’s too small. Everything turns to drama and problems. If I tell my friend ‘purple,’ it’s going to come back to me that I said ‘yellow.’

In understanding her feelings of alienation, it may be significant that Chantay participated less in extracurricular activities than most of her peers. Confirming the statistical model, most of the students spoke about how they developed their friendships through extracurricular activities. It seemed that the more intense the activity, the stronger relationships became. Sue, who starred in several plays, said,

> Tech week, everyone is like one big family. Everyone has the same interest and similar personality. We broke down and cried during rehearsal and then said, “You can do it.” Those people became my best friends.

Long after the shows were over, “It was more fun to come to school because I knew all these people.” Sabrina, however, was in one of the same productions, but had a more minimal part. She was downcast in her reply to Sue: “I was in the chorus, so I wasn’t there as much, so it wasn’t the same.”

It wasn’t the same for Tom and Tina either. They performed in an Edgies production of “East Side Story” which did not require the same amount of intense rehearsal as the LoMATE productions. Tom said, “I wanted to be part of LoMATE [but performed instead in] East Side Story. It kind of brought us together, and then we kind

of drifted away. Then it got kind of lonely, but the LoMA kids stayed together, and it was great to see everyone when I came to school." Tina agreed saying, "When you work hard, it's easier to make friends because you have to communicate more." This seems to support the findings of Lutz et al (2009) that differences in levels of intensity of various extracurricular activities may explain variances in their power to generate social capital.

3. College Classes

One of the more rigorous extracurricular programs the students took part in were college programs that allowed about a third of LoMA's seniors to take college classes at New York University and CUNY's John Jay College. Louisa, in particular, was impressed by the college students she met at NYU: "They were so smart. And this one girl I met went to study in Prague. I'd like to do that someday." She was not as impressed by the students she met in the two classes she took at John Jay:

> I thought sociology was very interesting. The teacher was funny, and I qualified to take anthropology. I hated that teacher. The students were worlds apart from NYU students. They were like high school students in college and there were lots of adults studying and trying to balance their lives.

The experience taught her that she did not want to go to CUNY, and she pushed herself harder to gain acceptance into the more competitive NYU. In the end, she ended up somewhere between the two at SUNY's Fashion Institute of Technology where she could focus her studies on her intended career in fashion photography.

In addition to taking college classes, about a fifth of the seniors had a chance to take part in an art project organized by Hope, the internship coordinator, through a grant she wrote with a Pratt professor, an old friend of hers. The twelve art majors would go to

Pratt Institute, and Pratt students would come to LoMA as they worked together to design a board game about how teenagers make life decisions. Part of the design was to create a building model with staircases, and patterns that showed the inside of students' minds and how they made decisions. Working with the college students, Tsing was impressed with "how they interacted with one another. They were more mature. They made jokes, but had discussions and treated each other with more respect. They valued respect more than high school kids." As the LoMA students worked with this group over six weeks, they became more serious and began to integrate more with the college students.

In the sense that none of the LoMA students made lasting friendships with the college students in either program, these connections were shallow and tenuous. Nevertheless, they did offer models of the relationships and opportunities that good colleges can offer thereby motivating them to achieve higher grades and adjust their behavior in ways more appropriate for college.

4. Negative Peer Social Capital

As Chantay's story above reveals, several students spoke of how they were negatively impacted by their peers. Some faced alienation or bullying, but as in Chantay's case, only respondents who had not participated in extracurricular activities discussed these. Louisa, for instance, struggled quite a bit in her efforts to develop supportive friendships in different high school environments.

> Friends are more important than teachers for success. I was bad in middle school. Had I stayed in that environment, I would've been a stereotypical delinquent Puerto Rican girl with no future. I let myself get too influenced. My boyfriend was a bad influence and then he moved to Florida and I went to private school where they reprimanded you for everything. It was rules galore, and I had

> to buckle down. I did better but had no personal relationships in the Catholic School.

She was so miserable she begged her mother to let her come to LoMA where she knew some students (mostly accomplished white students.)

> I wanted to come here. I knew it was a small school and everyone was friendly and everyone was encouraging. I was also going out with Ed. I did so much better here [because] I fed off of all of the relationships.

While Louisa continued to perform well academically at LoMA, she again ran into social difficulties in her junior year when she arranged to be the only one in her dance class not to perform in the after school dance productions. Several of her peers harassed her as they felt that she was getting special treatment. Around this same time, she lost her original group of friends as many of them became involved with LoMATE. It was only in her senior year that she began to develop a close friendship with another transfer student, Sebastian. When asked about her lack of friends, she voiced regret that she did not participate in any extracurricular activities beyond tutoring: “I didn’t miss out on anything by not going to extracurriculars, but I lost out on friends. I’ll be one of those saying I hated high school.”

For her friend Sebastian, the directions of the forces of peer social capital are more contradictory and not so apparent. His experience in two different schools is instructive in showing the complex and conflicting vortices of peer social capital. An accomplished soccer player, he spoke of the role that sports played in developing positive peer relationships in Indiana prior to his move to New York: “I met all of my friends in Indiana through soccer. Two friends I had there were closer than my actual family. I miss having these close friends in Indiana.” He left his parents in Indiana to

move to New York with his uncle and aunt in his senior year. LoMA did not have a soccer team, and he did not take part in other extracurricular activities beyond tutoring. “Here, you can go to school and be friendly, but after school, they don’t see each other. In Indiana, we spent a lot more time together.” In looking to regain his footing in New York, he searched for soccer teams. “My uncle knew people who knew about teams [here in New York]. I went to tryout for the Brooklyn Italians. It is the premiere under-20 league. Really competitive. We start in August.” Due to financial and immigration issues, however, he is one of two LoMA students who will not be starting college in August. He probably could have if he was willing to leave New York: “I got emails from Indiana for a soccer scholarship, but I really want to stay in the city. I have friends here now.” Sebastian’s paradox demonstrates the complexity of social capital as it intersects with other forces such as finances, love of the game, complications of family life, attraction of the big city and need for friendships. His desire to play with the Brooklyn Italians, a team that is actually made up mostly of Latino immigrants like himself, seems to be stronger then playing for a college in Indiana “where I won’t know anyone.” His living situation in New York is not great, but he has a great deal of trepidation about returning to his family in Indiana. Ultimately, Sebastian’s own views on his situation and choices are not entirely clear to himself, and, neither is the power or direction of peer social capital in his life for us.

One student spoke about the intersection between peer social capital and race in terms that sounded similar to Ogbu’s theory of the dangers of “acting white.” As Sandra, a very light skinned Latino, explained, she felt that she had to choose between academic success and “fitting in:”

> People didn't like the color of my skin. I wanted to prove I was just like everyone else. They were just like 'look at the white girl. She does well in class. William thought I was a spoiled white girl. He thought I was rich and from the Upper West Side. It made me not want to do well in my classes so I could fit in. I wouldn't try as hard and do my work. I wanted to be normal. What more can I do? Junior year we shared a small music major class, and had to work together to put on a concert. Eddy and I became friends, and he apologized, and I saw how stupid it all was, and I started doing my work.

While technically not an extracurricular activity, the extra work required to put on a concert was able to break down the barriers between Eddy and Sandra and thereby create a more supportive relationship.

5. Peer Social Capital Summary

The interviews support the research and statistical evidence that extracurricular activities facilitate positive peer social capital, thereby raising academic aspirations, decreasing tardiness and providing academic and emotional support. Most of the respondents had examples of how friends had encouraged them to get to school on time, study and aim for college. In fact, most of them spoke about how the school environment as a whole encouraged college aspirations. Many respondents received or provided direct academic support, usually in the form of tutoring for or from friends. More indirectly, the opportunity to take classes with college students provided modeling for the high school students in the form of appropriate behavior and encouraged a wider set of aspirations, such as international travel.

The evidence from the interviews provided both positive and negative examples of the power extracurricular activities have to build healthy peer social capital. The students who spoke most highly of their relationships with their high school peers were the ones who engaged in the most rigorous extracurricular activities. For instance, the

lengthy and emotional rehearsal period for the theatre ensemble productions often led to the most significant relationships for cast and crew alike, and these relationships often led to concrete forms of academic support. On the other hand, the students who avoided more time-consuming and socially-engaging extracurricular activities, by attending tutoring for instance, were more likely to have negative peer relations, and thus to gain less peer social capital.

Peer social capital, however, is not a simple one-way path or magical elixir. Sebastian's complex example shows how one's peer relationships can both support and hinder one's academic development. For the great majority of the respondents, however, peer social capital, which often formed through participation in extracurricular activities, raised students' aspirations while providing the academic and emotional support they needed to achieve these aspirations.

D. Norms and Sanctions

The qualitative evidence that increased levels of peer and institutional social capital lead to increased norms and sanctions was weaker than the evidence that extracurricular activities lead to social capital formation. In a sense this had to do with the dynamic that people who are in a safe environment don't need to think a great deal about safety. Concerns about safety are only likely to arise in the absence of norms and sanctions that raise an awareness of threats to one's safety. While many inner-city schools in gang-infested neighborhoods may be virtual police states with armed guards, metal detectors and security cameras, prior to the shootings in Columbine, few people

there thought of the importance of safety (Hawkins et al 2004). People who feel safe don't need to think about the norms and sanctions that prevent danger.

This dynamic may explain why few respondents had very much to say about norms and sanctions. Several of them spoke about how LoMA was safer than their previous schools. Tom, for instance, said, "in my last school the principal was a pussy. There was no control and lots of fights. They take things seriously here." Sandra agreed, "Overall, It's a safe school. Other schools have weapons." LoMA reports only 2-4 fights a year, and none of them serious enough to injure anyone, and there were no reports of found weapons in the last three years.

Sandra, however, went on to talk about another problem related to safety: "Bullying is bad, but not the violence. We're not threatening; we're cruel. Everyone's angry. And it just comes out." Kate, a white, Jewish student, also experienced bullying though her reflections on it are a bit contradictory: "I was bullied in middle school. I'm not really bullied here. In ninth and tenth grade it was pretty harsh over my religion and race. Not threats. Some were hateful words. Some were just ignorant. One friend was pressured to bully me."

One student, Louisa, did make a more direct connection between her stock of institutional social capital and her feelings of safety. She remembered a time when just having a teacher to talk to made a difference:

> I've had problems with people. Nothing too severe, but I was afraid I would get jumped. I wouldn't have come to school if it wasn't for my Mom making me. When I spoke to Ms Hoffman about it, things cooled down. She never brought any one in, but I felt that as soon as I got it off my chest, I felt everything was going to be OK.

As important as norms and sanctions may be according to the quantitative analysis, when it comes to identifying them as a contributing factor for graduation, the qualitative evidence is much weaker. This may be because the safety of an environment, like the clean air one breathes, may only become apparent in its absence. Therefore, graduates from LoMA, where the LES indicates that 91% of the students report feeling safe, are relatively inarticulate about why they feel safe.

E. Cultural Capital

As with the survey data, the interview results were inconclusive in finding a definitive link between Bourdieu's conception of cultural capital and graduation rates. While all of LoMA students attend many plays, musicals, dance performances, museum shows and operas, few students calculated their attendance as beneficial in the way that Bourdieu theorized.

This is not to say that the respondents did not enjoy the cultural experiences. Most students nodded in agreement when Eddy said, "My whole time at LoMA, I've been seeing performances." Even the senior transfer, Sebastian, rattled off a few shows he had seen after beginning "I've never been to a performance;" he went on to say, "except *Memphis* [a Broadway show] and New York Theatre Workshop [an off-Broadway company] and that dance performance. They were really good." When asked, however, if they helped to make him feel smarter or helped him to connect to others, he said, "I don't know about that."

The respondents who had been at LoMA for more time, were more specific in describing how cultural events impacted them. Evan, for instance, felt inspired to pursue the arts in some form after high school.

> I've seen *Memphis, Hair, Billy Eliot.* I can't even keep track any more. A ton of New York Theatre Workshop stuff. This is the first time I've ever seen all of that stuff. I did try really hard to see it as an actor. I also got to take a playwriting class which helped when I did other type of writing like essay writing…While I'm in college I can take part in an art. I won't go through without taking part in some way. Everyone should have an art, which they prefer to excel in. Maybe I'll minor in acting.

Likewise, Sandra felt inspired by the shows she saw: "I went to see *Hair* with Ms. Garfield. I loved the lighting and the set. The colors represented the feelings. I need to be more creative and branch out into art more." She felt that doing so

> Makes me want to be well-rounded. I want to know what's out there – the plays and the musicals. I've been going to the Met [The Metropolitan Museum of Art] on my own, and I go to art shows now. It's free and I love looking at artwork. I wish I was more cultured. It will help me with my lighting. It will make me more successful.

She was accepted into a prestigious conservatory for set design where she will study lighting design.

Beyond the performing and visual arts, several students spoke of the role of literature in increasing their cultural capital. Kate explained:

> I am trying to read the basic works of Kafka. I want to study English and literature and know the history behind them. I find that stuff interesting. I've written novellas, short stories and participated in National Novel Writing Month. I shared some of it with Emily.

Bourdieu often described cultural capital in terms of taste. Rachel's experience with the canon in Mr. Ansbacher's senior English class illuminates some acquisition of a taste in the dominant form of cultural capital:

> Mr. Ansbacher picked great books. We read well-known works: *Canterbury Tales, The Crucible, Animal Farm, Night.* More modern books may be more enjoyable but they are poorly structured. They don't teach you how a book should be written."

While all of these students spoke about how the arts have inspired, changed or interested them, only Luisa talked about them in the profitable terms that Bourdieu would appreciate:

> I saw Julliard perform and the Broadway plays, and I performed at ABT (American Ballet Theatre). I loved it. There were some really difficult dances and music…People miss out so much if their cultural knowledge isn't what it could be. They can be part of certain conversations and can keep up.

But when Luisa was asked for specific examples of where she made use of this knowledge, she couldn't expound on any.

The fact that the respondents did not discuss their experiences with the arts in the Bourdieuian terms of social or economic profitability should not be surprising or disappointing. Even Bourdieu does not suggest that French aristocratic children study their Moliere with the intention of being able to utter a clever witticism or display a knowing smile at an allusion to *La Boheme*. Furthermore, as recent high school graduates LoMA's students would hardly have had many opportunities to have been enriched by their cultural knowledge, or, for that matter, shut out of social circles due to their ignorance of the "right" cultural trivia. In short, this study is far too limited to explore

these kinds of returns from cultural capital, but it does offer glimpses of possibility that are worthy of further research.

VII. Discussion of Findings

The multiple regression analysis performed for the study supported the hypothesis that extracurricular activities are an important source of institutional and peer social capital and that these forms of capital play a significant role in predicting the norms and sanctions within a school which, in turn, is the most important predictor of high school graduation. While the power of cultural capital, teacher social capital and information networks were all found to be significantly significant predictors of graduation rates as well, they were not nearly as determinative as norms and sanctions in predicting a high school's graduation rate. The interviews performed for this research corroborated these findings as they revealed how peers and institutional agents support student success through their power to motivate, inculcate valuable habits, and increase resiliency.

A. Norms and sanctions as the primary predictor of graduation

The form of social capital that proved to be the most effective predictor of a school's high school graduation rate is norms and sanctions, which alone explained 41% of a school's graduation rate. As much of the literature has attested, if students don't feel safe in schools, they are less likely to attend classes, perform well on high stakes tests, and therefore, less likely to gradate (Christle, Jolivette and Nelson, 2008 and DeStefano et al, 2007). Yet, as the interviews attest, when norms and sanctions are working effectively, and a school is safe, few students credit them as a major factor in their success. As important as safety is, like gravity, it is most noticeable in its absence.

A result of this dynamic is that schools that function well, rarely consider norms and sanctions a paramount concern, while schools that are considered unsafe feel a need to prioritize norms and sanctions through punitive and heavy handed means that may actually detract from the accumulation of social capital. For instance, they may move financial and personnel resources from extracurricular activities and programs to security thereby creating a viscous cycle that reacts to negative behavior rather than proactively inculcating positive behavior.

B. The power of institutional and peer social capital

The multiple regression results of the study provide a roadmap for inculcating this positive behavior as it determined that norms and sanctions are closely intertwined with institutional and peer social capital. While norms and sanctions proved to be such a dominant predictor of graduation rates that it knocked out nearly all of the other variables as statistically significant predictors of graduation, a closer pathway analysis indicated that this is because school safety is so closely correlated with institutional and social capital. In fact, these two variables together predict 78% of a school's level of norms and sanctions. It seems that schools that promote strong, supportive peer relationships and where students report that their teachers care for them suffer from less violence, gang activity and bullying. On the more superficial level, where too many school decisions are often made, schools too often focus on dealing with the effects of poor relationships rather than on proactively nurturing positive relationships.

The interview data illuminate some of the ways that positive relationships lead to safer schools and improve graduation rates. As the graduates recognized their school

as safe, few of them spoke about the importance of norms and sanctions as they relate to safety. Instead, the norms and sanctions they spoke of dealt with high expectations and improved habits. For instance, the sanction that the respondents discussed most often was fear of being yelled at by a favorite faculty member for excessive absences or tardiness. When school staff can focus on problems like this with relationship-enforced sanctions, they will not need to worry as much about having to suspend students for carrying weapons. More than sanctions, however, the graduates were much more likely to speak about such norms as a school-wide culture of college preparation and achievement that was reinforced by both their peers and the faculty. Specifically, peer social capital has the power to increase the likelihood of graduation through two routes: increased academic expectations and emotional support. Most of the graduates spoke of the academic support they received through peer and teacher tutoring, and several became competitive with their peers for higher grades.

In discussing the most significant dividends of their social capital, nearly all of the respondents spoke about the emotional support they received from their teachers and friends to overcome personal hardships such as family divorce, domestic abuse or bullying, and nearly half of the respondents stated flatly that they would not have graduated had it not been for the support of their teachers. As it can be safely assumed that nearly all students in any school will face some form of hardship that can lead to academic disruption or failure, it becomes vital that schools encourage support structures that can maintain the resiliency that students need to overcome these difficulties. While school counseling and guidance services are theoretically designed to serve this function, they are too often overwhelmed. More significantly, students are not

likely to access these services if they have not already established a rapport with a staff member. As the interviews testify, when they are facing crises, students are more likely to turn to teachers and staff with whom they have a history of trust.

One group that seems especially in need of meaningful, dominant institutional social capital is Latino students who attend the largest high schools. With an R squared value of .619, institutional social capital seems to be an exceedingly strong variable in predicting graduation rates in schools that are predominately Latino. The reason for this may be that as Latino students, especially recent immigrants, are more lacking in stores of institutional social capital that can support them in meeting the demands of graduation at home due to language difficulties and lack of experience with American systems of schooling. Thus, they may become more dependent on institutional agents than their American-born, native English-speaking peers.

One of the ways that institutional social capital seems to work in supporting student success is through the acquisition of positive habits. While the focus of most school reform is on improved academic success through better teaching, curriculum and testing, the most common complaint among teachers is that students who don't come to school and study, can't pass the course they need to graduate. More often than not, what failing students need more than some magical syllabus or ideal pedagogy are improved habits. As Coleman has written:

> As the social capital in home and neighborhood shrinks, school achievement and other growth will not be increased by replacing these resources with more school-like resources—that is, those that produce opportunities, demands, and rewards— but by replacing them with resources which produce attitudes, efforts, and conception of self—that is, those qualities that interact with the ones provided by the school.

The improved attitudes, efforts and conceptions of self often manifested themselves in improved attendance, punctuality and motivation to study while at the school. A major catalyst for these changes was school staff and social peers that encouraged more responsible behavior through positive and negative reinforcement and modeling. One means for this was the extracurricular activities themselves because the high-pressure requirements of such activities as the theatre ensemble and internship demanded the type of behavior that facilitates graduation and that colleges and professional employment would require.

As far as school size is concerned, while peer and institutional social capital are negatively correlated with school size, they are more powerful predictors of graduation in large school than in small schools, especially institutional social capital. This suggests most large schools are poor incubators for institutional and peer social capital, but for those that can succeed in providing it, the benefits can be especially critical for their students who might otherwise feel lost in a bureaucratic, impersonal institution. Of course, the challenge is how a large school, or any school, can effectively connect people in meaningful ways. The interview data were able to illuminate just how idiosyncratic these paths that join people together can be.

C. Extracurricular activities as catalysts for social capital

While the routes that these relationships took to connect varied tremendously among the respondents, the genesis of nearly all of them could be traced back to extracurricular activities. The regression analysis indicated that roughly half of a given school's levels of institutional and peer social capital can be explained by its students'

level of participation in extracurricular activities. The interview data supported this finding as every student stated that they formed their most meaningful relationships through participation in an extracurricular activity, but their responses also demonstrated the tremendous variance in types of activities that could be supported by a school and the importance of the rigor of the activities. Too often extracurricular activities refer simply to school sports and clubs. While the respondents discussed these activities, other programs proved to be significantly vital for many of them in the formation of social and cultural capital.

The community-based partnerships that the school had set up with such organizations as Henry Street Settlement, Educational Alliance, American Ballet Theatre and Future Stages resulted in capital-bearing relationships that bore such benefits as jobs, scholarships and emotional support. Similarly, the mentorships and internships that the school established also led to meaningful relationships outside of school that resulted in such concrete benefits as employment, recommendations and scholarships. As substantive as these dividends were, however, the graduates spoke even more enthusiastically about the emotional support and advice they received from the school-based advisors of these programs.

In evaluating the strength of these relationships, a general pattern that emerged showed that the more intense the activity, the more valuable it proved to be in forming sufficiently strong bonds to lead to benefits associated with peer and institutional social capital. For instance, while tutoring may have improved relations with a specific teacher and helped a student to gain skills, it was less effective in developing supportive peer

supports than the theater ensemble or internship which both required many more hours of interaction and greater emotional investment.

As with institutional social capital, most of the students formed supportive social networks through extracurricular activities, and the few students who spoke most forthrightly about poor social networks were not engaged in rigorous extracurricular activities. While none of the students spoke about forming close relationships through courses they took on college campuses, those who had the opportunity to take classes at an elite institution were affected by the more serious scholarly habits of the college students they met.

D. Cultural Capital

Further research needs to be completed in order to more accurately measure a school's level of cultural capital and its effects on its students. Cultural capital, as measured by the rather limited proxy of participation in arts classes, seems to have little or no power to increase graduation rates for predominately Black or Latino schools, and only a slight influence for all schools. Furthermore, the importance of cultural capital in the traditional Bourdieuian sense of opening doors to new opportunities was not confirmed by the quantitative or qualitative data. However, it needs to be said again that these findings are quite suspect due to the limits of the survey instrument.

E. Teacher Social Capital

As stated in chapter 1, judging the role of teacher social capital in predicting a high

school's graduation rate was not a primary focus of this research, and due to IRB restrictions, it was not possible to interview teachers to evaluate their stocks and uses of social capital. However, the rich trove of data from the LES, did offer the possibility to quantifiably measure levels of teacher social capital reported in the forms of information networks and trust towards administration and peers. This statistical analysis indicated that schools with high levels of teacher social capital also tended to have high levels of institutional and peer social capital and were generally safer. Furthermore, regression analysis demonstrated that teacher social capital was a statistically significant determinant of norms and sanctions and graduation rates, especially in schools that were predominately Latino and Black, (R squared values of .310 and .324 respectively). This finding is important as it shows that schools are safer and graduate more students when teachers report that they are more empowered to set school policy and feel more supported by school administration and their peers.

In her study of political economy in New York City public middle school's Perez (2011) found that teachers sense isolation and vulnerability can decrease their ability to serve as resources for students. While substantiating evidence of this dynamic was not found in this study from teacher interviews, the students gave some indications in their interviews of how they may have benefited from staff social capital in the form of empowerment from the administration and peer trust and collaboration. For instance, as a parent coordinator, Kelly would not usually have been empowered to serve as internship coordinator, a role usually filled by a teacher, yet the relationships that the students reported with her, "she treats us like we're family," indicate the benefits of this decision. Similarly, Hope's official position as a "community worker" would not have

usually have given her the powers she wielded to support the students as internship coordinator.

Not only were the staff at LoMA empowered and trusted by the administration, there is also evidence that they trusted one another and worked collaboratively as a team. The example of Tsing that opened this study shows how his advisor, counselor, teachers and principal all worked together to prevent his recruitment with even the office manager playing a role in kicking the recruiter out of her office. Similarly, the intervention into Sandra's family by Mr. Smith, the counselors and administrators showed the effectiveness of a team approach that could only occur with trust and robust information networks.

Finally, while the student interviews did not and would not state it directly, it can be implied that the wide variety of extracurricular events, tutoring and open communication at LoMA are made possible by a strong sense of teacher initiative and empowerment. It is not insignificant here that on the LES LoMA's teachers reported levels of teacher social capital a standard deviation above the average, and an analysis of their on-line budget indicates that the school spends twice as much on per session overtime pay as similar schools. If a school needs a wide variety of high quality, rigorous extracurricular activities to build significant social and cultural capital, than teachers need to be empowered to develop the programs they find most meaningful and paid for their time.

F. Teacher Sources of External Social and Cultural Capital

Of course, being supported within a school will be insufficient to support the development of student social capital if teachers lack their own external stores of social

and cultural capital to draw from. In her previously mentioned study, Perez (2011) discovered that not only did many teachers in poorer schools lack sources of support with their schools; many of them also lacked external resources in social and cultural capital. Referring to Bourdieu's statement that cultural capital "cannot be accumulated beyond the appropriating capacities of the individual agent" (1983, p. 245), she then points out the limitations of the staff that are expected to help these highly disenfranchised students – they were less likely to have graduate degrees, friends in positions of power, varied work experience and the ability to maneuver within bureaucratic structures. Compounding these limitations, these same staff had to deal with larger numbers of students in genuine crisis with fewer resources than their peers in schools with wealthier populations.

Coleman's (1988) distinction between open networks and closed networks as sources of social capital may be useful here. He posited that closed networks may be trustworthier, but their access to outside capital is limited. Open networks, on the other hand, may be less supportive of tight relationships, but they open up agents to outside stores of social capital. A school that serves disenfranchised youth needs both types of networks. It needs a Kelly from the neighborhood who knows everyone's family and the mores of the community, and it needs a Hope with her tremendous access to dominant social capital.

A graduate of Smith College, Hope had worked dozens of different jobs in the arts before her present job, and had immense stores of contacts through the Orthodox Jewish Community. These contacts allowed her to get students into internship sites as diverse at the Federal Reserve, Harlem Hospital, American Ballet Theatre and the

Prospect Park Zoo. When a student called her in July saying that he had been kicked out of SUNY Albany, she was able to get him admitted to Cazenovia College with $31,000 of grants and scholarships within a day. Hope is an extreme example, but in the interviews, other students spoke of how their teachers were able to connect them to external resources such as when Mr. Cortez helped Sue to get the residency at Ghetto Films and Doris got her students a spot to perform off-Broadway.

Examples such as these and the statistical evidence of the power of teacher social capital to make schools safer and more successful in graduating their students, suggest that this is a field ripe for further research.

VIII. Conclusion and Policy Recommendations

A. Summary of Findings

This study was designed to answer the following research questions:

1. To what extent can indicators of various forms of social and/or cultural capital predict a high school's graduation rate? How do these factors impact each other and connect with rates of participation in extracurricular activities.
2. What effects, if any, does the racial or economic make-up of a school's population or a school's size play in the power of these variables?
3. How do the experiences of a group of students who have a heightened degree of social and cultural capital corroborate or challenge these findings?

In predicting the answers to these questions the following hypotheses were generated based on the theories of social and cultural capital and a review of previous research.

- Social capital and cultural capital operate independently to improve graduation rates, but social capital has a larger effect on graduation rates.
- Of the forms of social capital, institutional and peer social capital will have the greatest effect on graduation when mediated by norms and sanctions. Schools that build and maintain trusting and supportive relationships among students and institutional agents will be safer and have higher graduation rates.
- Extracurricular activities will play a significant role in supporting the development of peer and institutional social capital.

- The positive effects of social capital will be magnified in schools with large populations of poor and minority students, but cultural capital will not be a significant factor in improving graduation rates in schools that are largely minority.
- Students in small schools will report higher stores of social capital and higher graduation rates.

To a great degree, the quantitative and qualitative findings substantiated these hypotheses and provided answers to the research questions that supported the theoretical power of social capital to predict graduation rates, especially for minority and working class youth. The findings, however, were inconclusive in discerning the role that dominant cultural capital plays in supporting graduation.

The multiple regression analysis successfully traced the path that extracurricular activities take to predict a high school's graduation rate. This path demonstrates the power extracurricular activities have in generating peer and institutional social capital. Along with robust information networks and teacher social capital, these two forms of social capital are significant and powerful predictors of a school's norms and sanctions, which in turn is a dominant predictor of its graduation rate.

In considering the role that demographics play on this path, the results of the study were limited by the scarcity of schools with large percentages of white or Asian students. Yet, as many of the schools did have very large percentages of Black and/or Latino students, it was possible to discern the following patterns for those demographic groups:

- Latino students are much more, and Asian student somewhat less, dependent on institutional social capital as a predictor of graduation rates than the general population.
- Similarly, teacher social capital and information networks are more important in schools that are overwhelmingly Black and Latino than in schools at large.
- The presence of social and cultural capital was much more pronounced at small schools which also reported stronger norms and sanctions and higher graduation rates. Yet large schools saw an outsized effect when they were able to inculcate stores of institutional and peer social capital.

The value of this pathway analysis was explored in the interviews of graduates from a school with robust levels of social and cultural capital. Anecdotes from these respondents documented how extracurricular activities helped them connect to supportive relationships with institutional agents and peers that facilitated their graduation from high school and advancement to college. The evidence from the interviews was much weaker in demonstrating the importance of norms and sanctions as a mediator of graduation; this may be due to the fact that they took school safety for granted.

Peer and institutional social capital can move students along the path to graduation primarily through emotional support, raising the expectation of high school success and the inculcation of success-oriented habits. The most effective means the students found for connecting to their peers and school staff was generally through extracurricular activities.

In exploring how extracurricular activities helped the students to connect, a strong theme became evident that not all activities are the same. The more intensive, rigorous and time-consuming an activity, the stronger its power to generate healthy and robust relationships that could yield stores of institutional and peer social capital. The students most often discussed programs such as LoMATE, mentoring and internship - three programs that required at least twice a week participation, strong adult interaction and the completion of a significant project that necessitated teamwork and communication. All of the respondents had also participated in less rigorous activities such as video club, chess club and intramural sports, but they failed to reach a threshold that led to meaningful connections with their peers or institutional agents.

While the direct evidence was weaker in respect to the importance of teacher social capital, it seemed apparent that healthy stocks of it, both within a school and externally, were important in supporting the development of these more robust extracurricular activities and providing students access to dominant social and cultural capital.

Finally, it is important to note the cumulative nature of dominant social and cultural capital. As Bourdieu has noted, those who have it, readily gain more of it, while it remains elusive to those who lack it. Several of the students spoke about how they first connected to one staff member through something as small as tutoring or advisory and how this connection led to an more rigorous interactions until they had a job through SYEP or a chance to perform off-Broadway or an residency with a prestigious film company. Cultural and social capital grow exponentially for the

students who have the conditions that enable them to connect to others. How to create those conditions is the subject of the next section.

B. Policy Recommendations

The Principal's Weekly is a policy and school management newsletter that is electronically sent to all New York City Public school principals under the auspices of the city's school chancellor. Despite its length of more than 30 articles a week, it is generally carefully read and disseminated as it delineates what principal's are responsible for on any given week. It generally opens with a letter from the chancellor on an important issue, which is then followed by a section of updates on required periodic testing. The content of the rest of the P Weekly then varies depending on the time of year, but about a third of any given issue deals with other forms of mandated testing and another third will discuss compliance deadlines around budgeting and accountability that usually entail the writing of some kind of a report (school budget, Comprehensive Education Plan, attendance reports, Safety Plan). A review of a semester's worth of P Weeklys found only about a dozen articles on extracurricular activities that reached the threshold of importance to be mentioned. One issue mentioned the national spelling bee, another the citywide band, and a third recommended that schools eliminate per session pay used to pay advisors and coaches as a cost-saving measure.

In too many schools the "extra" in extracurricular activities is thought to mean unnecessary and superfluous. When they occur, it is generally because a teacher had a passion for something - theatre, chess, soccer - and harassed an administrator into

providing minimal funding with the understanding that it would have to be supplemented through fundraisers, and that most of the work would be done on the advisor's own time. Unless the activity was successful enough to gain some notoriety, such as a winning team, a production popular enough to generate community support or a championship debate team, it has little place in general school policy and is unlikely to even be noticed by most of the school's policy makers or mentioned in a school's Comprehensive Education Plan.

Based on the preceding research and literature review, this is a wasteful and dangerous blunder. School policies that consider the value of social and cultural capital will be safer and have higher graduation rates, particularly for their most vulnerable populations. These policies would include:

1. *Support the Extracurricular Activities*

This lack of focus on extracurricular activities is understandable from the perspective of the P Weekly's focus on the duties of school administration. Principals who fail to manage safety, budget and curriculum will have dangerous, bankrupt schools where students cannot graduate. Far too many schools operate in a crisis atmosphere where dealing with the contraband weapon, out of control class, suicidal student and 70% attendance rate need more immediate attention than auditions for the new musical, a meet and greet for corporate mentors or attending a basketball game at the local community center.

As urgent as these crises are, they are often the symptoms of problems that need more comprehensive and invasive treatment. Social workers often hear various forms of the allegory of the drowned swimmers wherein three hikers notice a drowning

swimmer in a river they are walking along. They stop and rescue her only to see another sinking victim that they then work together to rescue and then another and another until dozens of drowning swimmers need their help. As two of the hikers desperately work to save as many swimmers as possible, they realize that their friend has disappeared leaving all of the desperate work to them. Finally, exhausted they save the last victim, just as their friend returns walking down the trail. Angrily they ask him where he went. He responds, “to patch the broken bridge.”

Social capital theory provides administrators with patches to the broken bridges that are failing so many of our students. By the time their students are dropping out, failing important standardized exams and cutting classes, they are already drowning and any rescue attempts are likely to be arduous, limited and uncertain. Furthermore, too many of the neediest students will not trust their rescuers enough to accept their help if they have not developed a strong enough relationship over time. More importantly, they need the habits that will enable them to swim for themselves and even to rescue their peers.

As the quantitative data demonstrate, extracurricular activities go a long way in providing the institutional and peer social capital that make schools safer and improve graduation rates. This finding was extended by the interview data that illustrated the paramount role that such activities played in developing the kinds of constructive, supportive student-staff and student-student relationships that motivate students to achieve academically, inculcate success-oriented habits and provide resiliency-building emotional support. It therefore behooves school administrators to dedicate precious personnel and financial resources to the development of extracurricular activities.

Rather then being seen as frivolous supernumeraries, these programs can play a starring role in improving attendance, timeliness, school safety and ultimately graduation rates.

Of course, the stars that create the greatest stores of social capital require the greatest investments. While some students will certainly benefit from after school tutoring, intramural sports and chess club, the bonanza paid out in institutional and peer social capital will be much more significant from activities that require a much greater commitment from the students, and thus their teachers. Programs such as theatre ensembles, varsity teams, mentoring and internships all require sizable outlays of time, finances and personnel, but, as with all such profitable investments, the greater the capital outlay, the greater the profit.

2. *Empower School Staff to Develop Rigorous and Meaningful Programs*

More intensive programs make demands on the school budgets, but even greater demands on school staff. The administration cannot create, diverse, interesting, thoughtful programming by command - it is necessary to grow and cultivate a school environment where staff feel that they can create and sustain meaningful programs.

In developing a school's offerings of extracurricular activities, it is important to consider the plethora of routes that the respondents took to their attainment of social and cultural capital. The interests and talents of students are incredibly varied and changeable. While many of the students verified the social capital building power of such programs as the theatre ensemble, soccer team and chess club, many others extolled the relationships they formed through more occasional tutoring, a multi-year

advising program and annual performances. No administration can organize the needed variety of activities from on high; teachers and staff must be empowered to make it happen at the school's grass roots, and these roots need nurturing in a nourishing environment that will allow for organic growth over time. These conditions require per session overtime funding, technical advice from more experienced staff in order to initiate new clubs and teams and the freedom to make mistakes.

The development of intensive, rigorous activities cannot be created by administrative fiat. They need passionate teachers willing to put in the time, emotional energy and thoughtful planning to make it happen. In return these staff may require and certainly deserve frequent appreciation, both emotional and financial, freedom and empowerment.

3. *Develop School-Community Partnerships*

Even the best schools may not have sufficient staff resources to create extracurricular programming with the necessary variety and vigor, but community-based partners can provide more support than many administrators realize. As the interview data demonstrate, outside agents can play just as valuable a role in developing institutional and peer social capital as faculty members; in fact these "outside" agents may be more successful with the very students who are least likely to be reached via in school staff.

One of the reasons that their resources are too often overlooked is that relatively few community-based organizations have the connections to get past the principal's secretary in order to plan an integrated program with full school support. Even corporations that offer mentoring and scholarships to students often have difficulty

getting the attention of principals. For instance, The Mentoring Partnership of New York, a coalition of blue chip companies that provides mentoring and scholarships for thousands of students every year, has an annual Mentor of the Year gala celebrating its accomplishments. Over the last five years, only one of the scores of invited principals has bothered to attend. By making time for events such as these and opening their doors to meaningful partnerships, outside community-based organizations (CBOs) can leverage investment capital in the development of extracurricular activities to reap greater rewards. These partnerships, however, require more support than many administrators understand. Some of the tactics used by LoMA to nurture the relationships include:

- Host an extracurricular activity fair at the beginning of each year where CBOs present their programs and recruit students.
- Partner with the development team of CBOs to co-write grants to support programming.
- Bring all of the school's CBO partners together for thrice a year meetings to share best practices, celebrate successes and discuss opportunities for partnerships between the CBOs.
- Provide outside organizations the opportunity to enter grades for the students on their report cards. This expands the school-family information network to keep parents informed on student progress in the CBO, which will in-turn encourage student participation.

- As their program hours may go into the evenings, provide CBOs with cell phone numbers of school administration so that they can get support for security and emergency situations.
- Invite CBO partners to student case management meetings to discuss student progress and develop strategies to ensure student success.
- Support intervisitation between partnership and school staff so that students can to see the two organizations as a team supporting them.

Of course, all of this requires more time and commitment from school staff, but it is essential if the partnership is to serve more than a handful of students from any given school. For instance, Educational Alliance serves about 240 students, 60 of whom come from LoMA's 300 students; no other school has more than 15 students attending Educational Alliances programs. Of course, the administration does not need to do all of this by itself, and can assign a liaison for each of the different partnerships. As the examples of Hope and Kelly indicate, these liaisons may themselves become tremendously significant sources of social capital, but they must have their own resources and expertise, and they will need support. After all, the greatest fonts of social capital have the deepest reservoirs of social capital themselves.

4. *Require Extracurricular Activity Participation*

Even the most developed programs for extracurricular participation are meaningless if the students do not attend. The divergent responses to the extracurricular activities question on the LES between the student and parent responses about actual extracurricular participation versus the teacher response emphasizes the

importance of not only offering, but of encouraging and even requiring student participation in teams, clubs and arts activities. Several of the interview respondents said that they might not have participated in extracurricular activities if it had not been a requirement. LoMA has a graduation requirement that students earn twelve extracurricular credits, which works out to two activities a week for their first three years. In their senior year, students are required to complete twelve hours a week of internship and/or college classes. This requirement is discussed and student progress measured regularly in advisory and during guidance meetings. While there are a handful of students every year who need to make up hours during their senior year, for the most part students go far beyond the minimum requirements and do not see this requirement as a chore. It is simply part of the school culture.

5. *Conclusion*

Ultimately, a school's success in inculcating social and cultural capital is more about its culture than the implementation of particular policies or programs. As the interviews demonstrate, social capital is an ecological force that grows exponentially, not algebraically. Each teacher, school aide, counselor and support staff must find his or her entrée into students' lives through teams, clubs, tutoring, lunch and even detention. These entrees must be rich and varied enough to lead to meaningful relationship building that the student can learn to trust so that he or she may feel safe and cared for. As these students connect to their peers, teachers and community partners, they will learn to trust and support one another and these connections will grow into the web of support that is social capital; it will catch students before they drop out and lift them into greater success.

Appendix 1: Interviewing and focus group protocol

Beginning the interview

1. Briefly explain to the participant the recruitment and interview process.
2. Give a copy of the consent form to the participant(s) and allow him or her time to read it. Offer to explain any parts that are unclear.
3. After he or she has read it, reiterate the following to the participant(s):
    - The interview will be confidential. His or her name or identification will not be in any way connected to the recording. Instead, we will use a pseudonym.
    - The interview will last approximately 45 minutes and will be recorded. Participation is voluntary. He may stop or take a break at any time if he feels uncomfortable or embarrassed by the conversation without any negative consequences.
    - There will be no reward for participating and no punishment for failing to participate or for quitting the research at any time he or she chooses.
    - Thank him or her for agreeing to participate.
4. Ask the participant(s) if she or he has any questions and answer them directly and clearly.
5. Ask the participant(s) if he or she is ready to begin the interview. If affirmative, turn on the recorder.
6. Ask the participant(s) for verbal consent and begin use of pseudonym.

During the Interview

If during the interview increased distress is observed in the participant(s), ask if he or her would like to stop the interview or take a break. Act accordingly to the participant's wish.

Ending the interview

1. Ask the participant(s) if she or he has any questions about the study, the interview, or confidentiality issues.
2. Thank the participant(s) for agreeing to the interview.
3. Turn off the recorder.
4. Upon returning to the office, transfer the recording to the password-protected personal computer and assign a unique identifier to the file.

Appendix 2: Informed Consent Form:

*(**Printed on Department Letterhead**)*

CONSENT FORM

My name is John Wenk and I am a student in the Urban Education Ph.D. Program at The Graduate Center of the City University of New York (CUNY), and an investigator of a research project, entitled “Social and Cultural Capital and High School Graduation Rates.” This is a research study of how student and teacher social capital (connections to people who can help him or her get ahead) and cultural capital (knowledge that can be useful in college and life) is correlated with graduation rates. The study will help us how significant supportive relationships and extracurricular and cultural programs are in predicting graduation rates for schools in New York City.

I would like permission to interview you about your experiences either individually or in groups. This interview will take LESs than an hour. You will receive no compensation or reward for taking part in the study and there will be no penalty if you choose not to or if you want to stop at any point. With your permission, I would like to audio-tape this interview so I can record the details accurately. The tapes will only be heard by the researchers. All information gathered will be kept strictly confidential, and will be stored in a locked file cabinet, to which only I, and my advisor, will have access. At any time you can refuse to answer any questions or end this interview.

I may publish results of the study, but names of people, or any identifying characteristics, will not be used in any of the publications. Despite this precaution, there is a small risk that you or others may be able to identify you and what you say. The benefits of your participation are that the information you provide us can help to improve the schools. There will be approximately 25 participants taking part in the study. If you would like a copy of the study, please provide me with your address and I will send you a copy in the future.

If you have any questions about this research, you can contact me at 646-285-6927 or email me at johnwenk@hotmail.com. If you have questions about your rights as a participant in the study, you can contact my dissertation advisor, Jean Anyon at 212-817-8277, janyon@aol.com or Kay Powell, IRB Administrator, The Graduate Center/City University of New York, (212) 817-7525, kpowell@gc.cuny.edu.

Thank you for your participation in the study. I will give you a copy of this form to take with you.

I agree to have this interview audio-taped: Yes No please [circle one]

_____ _____ _____ _____

Participant's signature Date Investigator's signature Date

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