A CROSS-NATIONAL ANALYSIS OF THE RELATION OF EDUCATIONAL TRUST TO EXPECTED EDUCATIONAL ATTAINMENT

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Abstract

While student perceptions of the fairness and trustworthiness of educational institutions have been shown to relate to civic participation, this relationship has not been extended to issues of continued participation in the education system. Using data from the IEA Civic Education Study of 14-year-olds, measures of trust in schools and perceptions of educational inequality are examined in their relationships with perceived educational attainment. The extent to which academic achievement levels mediate this relationship is also assessed. Additionally, differences are examined and discussed between genders. This relationship is observed in four countries-Cyprus, England, the Russian Federation, and the United States-who differ both in their systems of education and in nationwide expectations of educational attainment.

INTRODUCTION

One focus of the IEA Civic Education Study is to assess students' attitudes and participation as members of various communities, both large and small. Research and theory relating to social capital, which has recently become ubiquitous throughout the social sciences, can be used to explain how these thoughts and behaviors develop. James Coleman introduced his conceptualization of social capital in 1988 to explain how the quality of social networks and relationships affect the individuals within them. In one of his earliest writings on the subject (Coleman 1988), he applies this theory to explain differences in educational achievement among students participating in the United States' *High School and Beyond* study. In these analyses, his measurements of social capital centered upon the students' parents. Particularly, he focused on the educational expectations parents had for their children, the attention they were able to provide for their children at home, and the quality of interaction between parents and schools. These social relationships between parent and child and parent and school were characteristic of a "closed" system, where each organization or individual in a community had contact with each other organization. Coleman believed that these systems allowed for the formation of strong social bonds that were rich in social capital.

Throughout recent years, educational researchers have taken this notion of social capital and used it to explore educational inequalities. A review of literature on social capital its application to education (Dika & Singh 2002) shows how performance in school has been operationalized both in terms of educational achievement and attainment. While studies using educational achievement as an outcome variable have been limited to those using large data sets with specially-formed achievement tests (such as the National Education Longitudinal Study of 1988), a wider variety of studies have measured academic attainment. Many of the studies assessing these two outcomes have focused on how low levels of social capital within the United States relate to low performance among at-risk students (Bryk & Schneider 2002, Jordan & Plank 2000, Qian & Blair 1999, Teachman et al. 1996).

How do these bonds outlined in the theory of social capital translate to high educational aspirations or students? One view is that strong bonds allow for the transmission of both trust and social norms

among members of a community. Parent-school interactions, for example, allow for a bond of trust between the two to be developed. From this, parents transmit to students not only the values related to the importance of education, but the trust in the educational system that parents have gained from their own interactions with the schools. Alternately, Bourdieu's conceptualization of social capital as a communication network is coupled with the concept of "cultural" capital. Using cultural capital, parents help instill in children certain styles of interaction that are in line with the expectations of a specific culture. With demonstration of these appropriate styles of communication, students are able to gain the approval of their teachers. This view of social and cultural capital is more commonly used in studies of education throughout Europe (De Graaf, De Graaf, & Kraaykamp 2000 in the Netherlands, Morrow 1999 in a review of work from the United Kingdom) than is Coleman's.

SOCIAL CAPITAL AND STUDENTS' TRUST IN SCHOOLS

What is to be made, however, of the relationship between students and schools in these socially closed, trusting, interaction-heavy educational communities? Although Coleman outlines this link in his models, rarely does he discuss it in depth. Perhaps, as Morrow (1999) has noted, this is because no conceptualization of social capital has addressed children's roles within their own environments in depth. Or, perhaps this comes from the belief that a direct link of trust between student and school does not become solidified until the beginning of secondary education, when students receive more input from peers relating to their views of school and are more likely to voice their own concerns with teachers. Before this time, issues relating students to teachers have been mediated primarily through parent-teacher relationships (Bryk & Schneider 2002).

Using literature pertaining more directly to issues of trust than to social capital in general, this relationship between school and student can be explored. The trust that exists between student and school is not direct; rather, it is an example of trust delegated by mutual trust in a third, intermediary party (Patterson 1999). As "representatives" of the education system with whom students have daily contact, the trust that students develop with teachers extend to students' overall trust in schools. Likewise, the hiring of teachers by the school board implies that the board trusts the judgments of their teachers. Views of individual students that teachers hold may be adopted by the school. This trusting relationship developed with teachers and with schools not only influences the quality of work students are capable of achievement, but also the willingness of students to commit to a longer relationship with schools.

Drawing on Coleman's notions of social capital, and conceptualizing trust in a "delegated" model similar to Patterson's, Croninger and Lee (2001) used data from the National Educational Longitudinal Study of 1988 to define student-school social capital in terms of the frequency of student-teacher interactions. The assumption made here is that students who trust their teachers more will feel more confident in seeking advice from them, and that these interactions will help to further strengthen bonds of trust between the two groups. Indeed, students who reported more interactions with teachers were less likely to drop out of school before completing a secondary education. This increase in educational attainment may be a result of the increased motivation to succeed in school that comes with positive student-teacher relationships (Wentzel 1997, 1998). A trusting relationship may also give students more opportunities to formulate and discuss their future educational plans with adults within the school system. Trusted teachers may help at-risk students to stay in school, and may also provide students with valuable information about opportunities for education past the secondary level (Jordan & Plank 2000).

SOCIAL TRUST AND EDUCATIONAL ATTAINMENT

The reasons for examining the relationship between perceptions of educational inequality within a given institution and the level of social capital are somewhat less straightforward than that of trust in schools to social capital. However, the perception of inequality, like distrust, relates to the broader concept of social capital by its association with weak community ties. Students who are members of marginalized social groups may not perceive inequality in their educational opportunities as strongly if they are members of communities with strong social capital. A group with strong social capital may be so cohesive that students have very little chance to observe "outside" groups to which educational opportunities could be compared. Or, to use Bourdieu's view of cultural capital, it is more likely that students in a homogenous group will demonstrate the same tastes and interaction styles as those sanctioned by the school system. Evidence for such a process was gained through a study of Palestinian students living in Israel (Khattab 2003). Students who reported the strongest relationships with their parents and with other members of the Palestinian community had the highest perceptions of educational opportunity. These students, in turn, also reported the highest levels of expected educational attainment.

The Khattab study views student perception of opportunities as a link between social capital and student attainment in low-social status students. However, even for students who are not part of these marginalized groups, perceptions of educational inequalities can affect their view of the school system. If educational trust can be thought of as the result of an individual's perceptions of his or her own experiences with the school system, perhaps perceptions of inequality reflect their experiences witnessing how the school system works for others.

The reciprocal nature of trust as a component of social capital is also important when discussing perceptions of individual inequality. Perhaps the educational system is placing less trust in students to achieve, based on certain demographic characteristics of the student. For example, the school system may make less of an effort to establish relationships with minority, low-income, or female students because of these beliefs about the students' abilities or achievement opportunities. Students may return this distrust, reflected in their own report of educational trust or in the belief that others can rely on the school system.

CURRENT STUDY

This study will address these issues of trust in schools and perceptions of educational inequality as they relate to the amount of education students expect to receive. The IEA's study of 14-year-olds presents a unique opportunity for study in various ways. First, it focuses on student reports of issues of trust relating specifically to the education system. Some studies focus more on parental involvement in schools and with their children, as described previously, or on the relationship between education and more general forms of trust (Green, Preston, & Sabates 2003). Second, the instrument contained several items relating to students' social involvement in school. Consequently, schools are presented not only as a place of learning, but as institutions and communities in which students participate and place trust.

Lastly, the use of an international data set like the IEA Civic Education Study allows for comparison of analyses conducted within several countries. Previous studies have either looked at respondents from only one country (ex. the United States, the Netherlands, or Israel), or have provided between-country analysis using national means (Green et al. 2003). International analyses are especially important in studies of educational systems, given the extent to which schooling differs by culture and political climate.

The following five research questions have been developed in order to explore these relationships (in preparation for more complex analysis):

1. To what extent is trust in the education system related to students' expectations of continuing in the system?
2. To what extent is the perception of inequality in the provision of education related to students' expectations of continuing in the system?
3. What is the effect upon these relationships of controlling for level of achievement?
4. How does this relationship differ in countries with different educational structures?
5. How do these relationships differ by gender?

METHOD

The IEA Civic Education Study

Data are taken from the Civic Education Study of 14-year-olds, sponsored by the International Association for the Evaluation of Educational Achievement (see Torney-Purta, Lehmann, Oswald & Schulz 2001 for detailed information). This study was designed to assess students' attitudes and understandings in three domains: democracy and citizenship, national identity and international relations, and social cohesion and diversity (developed through a series of twenty-four case studies: see Torney-Purta, Schwille, & Amadeo 1999). To meet this end, this study includes a Civic Knowledge test that assessed students' understandings of content knowledge and skills in interpreting civic information. Additional data were collected from surveys asking students about their conceptualizations of democracy and citizenship, their attitudes toward society and social institutions, and their level of political activity. Additionally, principals and teachers received surveys asking them to comment on the educational, social, and extracurricular climates of their schools. The analysis presented here will center on information collected from student surveys.

Variables from IEA Surveys

In order to measure expected educational attainment, students reported the number of "years of further education" that they believed they would receive. Students could choose from one of seven response categories: 0 years, 1-2 years, 3-4 years, 5-6 years, 7-8 years, 9-10 years, or more than ten years. Three or four more years of expected education (the third of seven response categories) corresponds to finishing secondary education, while seven or eight more years (category five of seven) corresponds to a first complete university degree in most countries.

The measurement of educational trust used here comes from a single item on the student survey. Students were asked to report their levels of trust in a variety of social institutions. For these items, students were asked, on a four-point scale, how much of the time they felt they trust a given institution. Higher scores on the "schools" item correspond to more educational trust.

A series of four items measured students' beliefs in equality of educational opportunity existing among various populations. Three of these items—ethnic minority children versus non-ethnic-minority children, girls versus boys, and poor children versus rich children—are analyzed here. The fourth item—rural children versus non-rural children—was left out of analysis, given the differences in urban versus rural education that exist in various countries. Additionally, a composite inequality variable was formed from the mean score of all inequality items answered. Alpha reliabilities are between .5 and .6 for this composite score for each country (Amadeo, Torney-Purta, & Barber 2003). For both the individual and the composite items, higher scores indicate a greater perception of educational inequality.

Each of these items included an option for students to indicate that they did not know their response to an item. These responses were coded as missing data and removed, along with non-responses, on an analysis-by-analysis basis.

Selection of Countries

Four countries—Cyprus, the Russian Federation, England, and the United States—are included in analyses. These four countries were chosen given their differences in educational structure and expectations, summarized in Table 1. Several key differences in educational structure are noticeable. Cyprus appears to have a much smaller proportion of students enrolled in higher education. However, this may be due to the high number of Cypriot students who attend universities outside of Cyprus who are not captured in this figure (Ministry of Education and Culture, 2001). Second, there is a level of education between "secondary" and "higher" education in England that is not seen as a separate level in other countries. "Further" education, which is responsible for the schooling of students ages 16 to 19, is roughly comparable to the upper secondary level of schooling in other countries. Lastly, certain aspects of education vary greatly from school to school in the United States. With few national standards, states or individual school districts decide when compulsory education ends and when vocational training splits from more academic schooling.

Table 1: Characteristics of Education Systems in Four Countries

Country	*Age Compulsory Education Ends*	*Age of vocational/academic education split*	*Age Secondary Education Ends*	*Gross Tertiary Enrollment Ratio*
Cyprus	15 years	15 years	18 years	22%
Russian Federation	15 years	15 years	18 years	64%
England[1]	16 years	16 years*	16 years*	60%
United States	16 years**	14 years**	18 years	73%

Source: Compulsory education, vocational splits and ends of secondary education: From *Europa World Yearbook*, 2003. Gross Enrollment Ratio: UNESCO Institute for Statistics, 2000-2001, www.uis.unesco.org
[1] Figures reported for the United Kingdom
* Secondary Education followed by "further" education stage, where vocational/academic split occurs
**Ages can vary by state or by school district.

Differences in the educational structure described above are reflected in the levels of expected educational attainment reported by students (see Table 2). Students in the United States had the highest expectations of further education, while students in England had the lowest. Note, however, that the number of years of further education expected by 14-year-olds does not always correspond to the proportion of an age group enrolled in tertiary education according to current national-level statistics. In Cyprus, for example, the tertiary enrollment ratio is only 22%, while the mean expected attainment score is 4.17 out of a possible 7—corresponding to slightly over five years of additional education. This discrepancy may be due to the large proportion of Cypriot students who receive a university education abroad. On the other hand, while national statistics report that that 60% of the appropriate age group is enrolled in tertiary education, students surveyed in England expect an average of about four additional years of schooling.

Table 2: Expected Educational Attainment, Trust, and Perceived Inequality Levels in Four Countries

Country	Expected Attainment[1]			Trust in Schools			Composite Perceived Inequality		
	n	M	sd	n	m	sd	n	m	sd
Cyprus	3087	4.17	1.19	060	3.16	0.88	3079	2.08	0.71
Russian Federation	2125	4.27	1.50	083	3.22	0.80	2125	2.19	0.60
England	2952	3.65	1.32	788	2.98	0.83	2770	1.95	0.64
United States	2761	4.82	1.23	642	2.86	0.83	2691	1.99	0.72

[1.] Values for expected educational attainment: 1= 0 years, 2 = 1-2 years, 3 = 3-4 years, 4 = 5-6 years, 5 = 7-8 years, 6 = 9-10 years, 7 = more than 10 years.

The information included in Table 2 also suggests that these countries differ in the levels of trust that students place in schools and in the perceptions of inequality that students hold within these educational systems. Here, Russian students show the greatest trust, followed by Cyprus, England, and the United States. Russian students also perceive the most educational inequality, followed by Cyprus, the United States, and England.

Literature also suggests that issues of educational trust and equality are of interest in each of these countries for a variety of reasons. As previously demonstrated, the bulk of literature found relating social capital issues to educational attainment has been conducted in the United States, and has particularly focused on ethnic minorities residing in urban areas. A similar focus on minorities—particularly East Indian and Afro-Caribbean students—is present in research conducted on schools in England. The measurements of perceptions of inequality are especially of interest for this country, given the recent Race Relations Amendment Act designed to "avoid indirect discrimination and promote equality" in schools and other public institutions (Phoenix 2001). The situations in these two countries are in contrast to that in Cyprus. Even given the country's relatively homogenous population (especially compared to other countries presented here for analysis), minority rights have been traditionally protected under law (Papanastasiou & Koutselini-Ioannidou 1999). In fact, one of the major priorities of the Cypriot education system is to "combat intolerance and xenophobia" (Ministry of Education and Culture, 2001). Lastly, the recent political and social changes in the Russian Federation have led to a rise in attention paid towards social inequalities (Bogolubov et al. 1999). While these changes may have also led to a decreased level of trust in governmental institutions, this skepticism does not appear to extend to the educational system.

RESULTS RELATING TO RESEARCH QUESTIONS

Correlates of Expected Educational Attainment

The IEA Civic Education data were weighed using the provided house weight. With this weighted data, correlations were performed to measure the strength of the relationship between expected educational attainment and both trust in schools and the composite measurement of perceived inequality. These correlations are reported within each country in Table 3. With one exception, the correlations are positive and significant, but small. While greater levels of educational trust correlate with higher levels of expected attainment in three out of four countries, lower levels of perceived inequality correlate with greater expected attainment in all four.

Table 3: Educational Trust and Perceived Educational Inequality as Correlates of Expected Educational Attainment in Four Countries

Country	*Educational Trust r (n)*	*Educational Inequality r (n)*
Cyprus	.115** (3042)	-.190** (3060)
Russian Federation	-.009 (2079)	-.053* (2121)
England	.071** (2730)	-.044* (2718)
United States	.080** (2603)	-.058** (2650)

* $p < .05$
** $p < .01$

Additionally, there were small negative correlations between perceived educational inequality and trust in schools (ranging from r= -.044 in England to r= -.064 in the United States) that were statistically significant in each country. Higher levels of trust were related to lower levels of perceived inequality within country.

Educational Trust and Expected Educational Attainment

One possible reason for the low correlations observed between expected educational attainment and trust in schools is that the relationship not linear. In order to determine if this is the case, mean levels of education were calculated for each educational trust response category (never, sometimes, most of the time, always). These mean scores are reported in Table 4, Column 1. While expected attainment increases as trust increases across the first three categories, the mean expected attainment level of students who trust schools “most of the time” is greater than those who “always” trust schools.

Table 4: Mean Expected Educational Attainment by Educational Trust Response Category in Cyprus, the Russian Federation, England and the United States

Response Category	*Original (sd)*	*Adjusted for Achievement (sd)*
Never Trust	3.83 (1.57)	3.98 (1.30)
Sometimes Trust	4.17 (1.37)	4.23 (1.27)
Trust Most of the Time	4.34 (1.33)	4.26 (1.32)
Always Trust	4.22 (1.34)	4.26 (1.31)

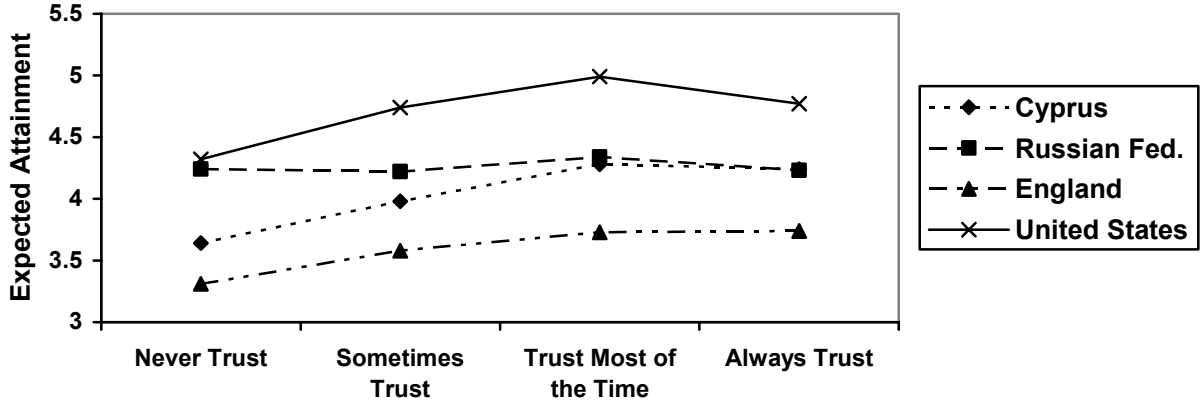
Note: Values for expected educational attainment: 1= 0 years, 2= 1-2 years, 3= 3-4 years, 4= 5-6 years, 5 = 7-8 years, 6 = 9-10 years, 7 = more than 10 years

Knowing that this observed relationship between trust and attainment could be confounded by the levels of academic achievement, the mean attainment scores were calculated a second time controlling for students' scores on the Civic Knowledge test, which is the variable closest to a general achievement variable that exists in the IEA Civic Education data. An analysis of covariance demonstrated that controlling for Civic Knowledge had a statistically significant effect on levels of expected attainment, $F(1, 10{,}663) = 1289.752$, $p < .001$. Even with this control, however, the effect of trust on desired educational attainment is significant, $F(3, 10{,}663) = 9.179$, $p < .001$. These adjusted mean scores are reported in Column 2 of Table 4.

Controlling for previous achievement reduced the variation among response categories by raising the expected attainment of the three lower categories and decreasing the expected attainment mean of those students who expressed trust in schools "most of the time." The relationship between educational trust and expected attainment still does not appear to be linear, however, as the means and standard deviations of expected attainment in the two highest trust levels are almost identical. However, after controlling for previous achievement, it is still primarily those who "never trust" school who have the lowest educational aspirations.

While the figures in Table 4 demonstrate variation across trust levels across all four countries, they do not capture differences in the trust/expected attainment relationship that may exist among countries. A 4 (country) by 4 (trust level) analysis of variance for mean expected attainment found a significant interaction between these two factors, $F(9, 10{,}652) = 2.694$, $p < .01$. Figure 1 illustrates this interaction. The differences in levels of expected attainment in each trust category are most pronounced in Cyprus and the United States, and least pronounced in the Russian Federation. This finding corresponds to the correlations reported in Table 3. In fact, while a .5-point difference in attainment scores exists between those who "never" trust schools in Cyprus and the Russian Federation, there is no noticeable difference between countries at the "always" trust category. Likewise, a similar difference in desired educational attainment between the Russian Federation and the United States seen at higher levels of trust is not present among those from these two countries who "never" trust schools. Together, trust level and country account for 11% of the variance in expected attainment. Most of this difference, once again, can be seen among students who "never" trust schools. In three of the four countries, these students show the greatest difference in their level of educational aspirations.

Figure 1: Expected Educational Attainment by Educational Trust Response Category in Four Countries

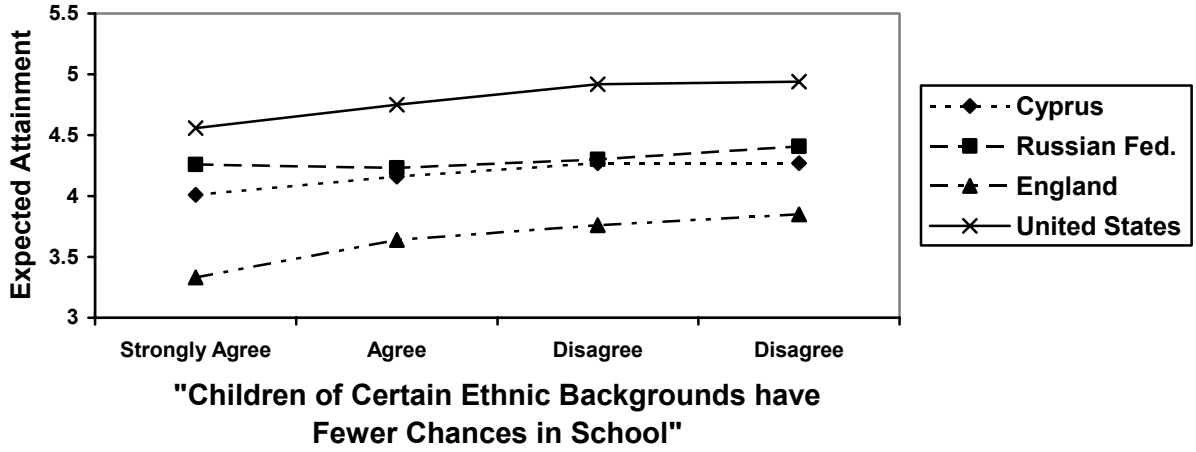


Perceived Ethnic and Income Educational Inequality and Expected Educational Attainment

Just as the low correlations between educational trust and expected attainment raise questions about the linearity of the relationship between the two variables, similar questions can be raised given the low correlations between expected attainment and perceived inequality. Once again, mean attainment scores were calculated for each response category (strongly agree, agree, disagree, strongly disagree). In order to form meaningful categories at which attainment levels could be calculated, items relating to perception of educational inequality were analyzed individually. Here, "strongly disagree" indicates a belief in equality, while "strongly agree" indicates a belief in inequality.

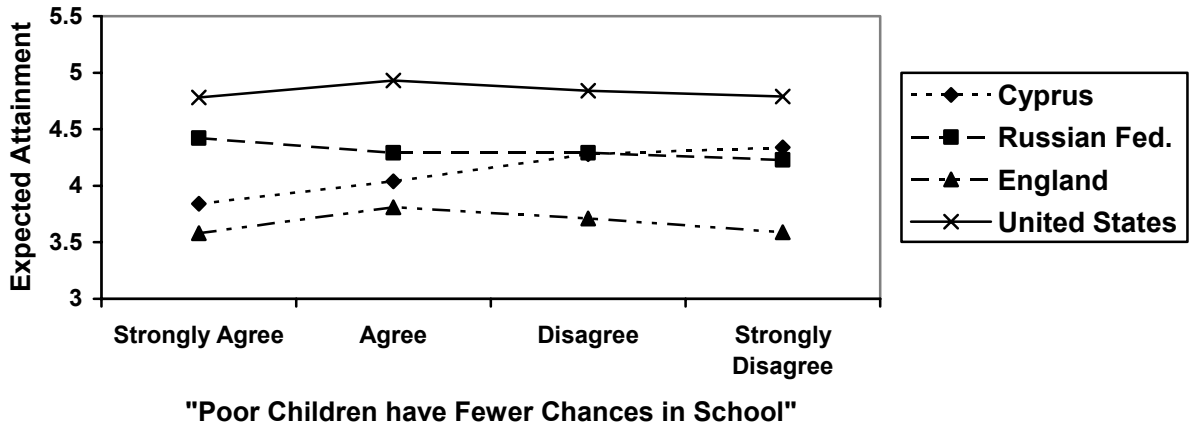
Unlike what was observed across categories of trust in schools, controlling for academic achievement had little effect across category means for items relating to perceived inequality by income and ethnicity. However, some differences by country exist in the relationship of specific levels of perceived educational inequality to expected attainment, and are visible in Figure 2 and Figure 3.

Figure 2: Expected Educational Attainment by Perceived Ethnic Educational Inequality Response Category in Four Countries



Note: Order of response categories is reversed from that of the data, so that the highest levels of perceived inequality are presented first.

Figure 3: Expected Educational Attainment by Perceived Income Educational Inequality Response Category in Four Countries



Note: Order of response categories is reversed from that of the data, so that the highest levels of perceived inequality are presented first.

Overall, the relationships illustrated in Figures 2 and 3 appear to be more linear than the relationship between trust in schools and expected attainment seen in Figure 1. Also, differences among expected attainment response categories appear smaller than the differences among trust categories. A 4 (country)-by-4 (ethnic inequality perception) two-way analysis of variance, while yielding significant main effects for country and inequality perception, demonstrated no significant interaction affecting mean educational aspirations. Meanwhile, a similar analysis conducted for mean attainment expectations by country and income inequality perception (illustrated in Figure 3) yielded a significant interaction, $F\ (9, 10{,}361) = 7.437$, $p < .001$. Together, country and perceived income inequality account for 10% of the variance in expected educational attainment. The most interesting pattern seen in these relationships is that of income inequality perception in Cyprus. Students here who believe that little income inequality exists have higher educational aspirations, while there appears to be slightly higher levels of expected attainment with greater perceptions of inequality in the other three countries.

Gender Differences in Perceived Gender Inequality in Education

In observing patterns of perceived gender inequality, the final educational inequality item being analyzed here, separate analyses are conducted for male and female students. Unlike ethnic minorities or the "poor," the conceptualization of gender (and of gender inequalities) is similar enough across countries to allow this comparison. Given that females are seen as the "minority" group in relation to educational opportunity, it would be expected that a perception of gender inequality would have a greater effect on desired educational attainment for them than it would for males. As it turns out, females from the four countries studied report less perception of gender inequality than do males, as illustrated in Table 5.

Table 5: Percent of Students Responding to each Category of Perceived Gender Educational Inequality in Cyprus, the Russian Federation, England, and the United States

Response to "Girls Have Fewer Chances in School"	*Percent of Males*	*Percent of Females*
Strongly Disagree	51.9%	55.2%
Disagree	35.9%	36.3%
Agree	8.0%	6.2%
Strongly Agree	4.2%	2.4%

Once again, mean levels of years of further education were calculated for each inequality perception category, and are reported for males and females in Table 6. Across the four countries, the first pattern that becomes apparent is the consistently higher level of expected attainment that females report.

Table 6: Mean Expected Educational Attainment by Perceived Gender Inequality Category in Cyprus the Russian Federation, England, and the United States

Response to "Girls Have Fewer Chances in School"	*Original (sd)*		*Adjusted for Achievement (sd)*	
	Male	*Female*	*Male*	*Female*
Strongly Disagree	4.28 (1.38)	4.45 (1.23)	4.21 (1.34)	4.40 (1.19)
Disagree	4.07 (1.41)	4.29 (1.34)	4.09 (1.35)	4.30 (1.21)
Agree	3.77 (1.44)	4.12 (1.39)	3.95 (1.35)	4.32 (1.20)
Strongly Agree	3.83 (1.52)	4.03 (1.33)	4.08 (1.36)	4.30 (1.20)

Note: Values for expected educational attainment: 1= 0 years, 2= 1-2 years, 3= 3-4 years, 4= 5-6 years, 5= 7-8 years, 6= 9-10 years, 7= more than 10 years

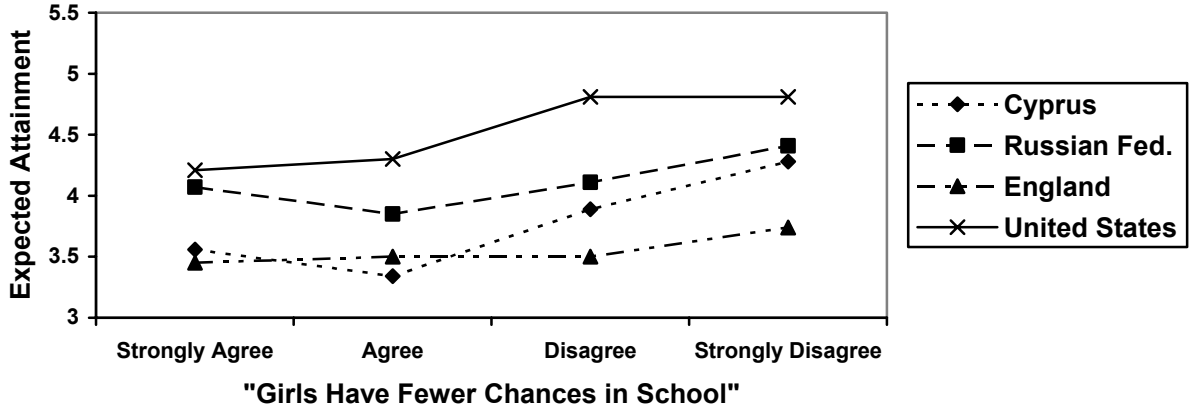
Mean amounts of expected further schooling were also calculated adjusting for academic achievement. This was done in order to determine if this control had a different effect on male students than on female students. These adjusted means, along with their standard deviations, are shown in the Columns 3 and 4 of Table 6. Additionally, an analysis of covariance was performed to determine if this control for prior knowledge affects expected attainment means by perceived inequality levels. It did, at a highly significant level, for both genders ($F(1, 5082) = 443.531$ for boys; $F(1, 5411) = 812.801$ for boys, $p < .001$ in each case). Although the variation among means by response category does not appear to differ significantly by gender, there is considerably more variation among the controlled means by category for males than for females. Not surprisingly, the mean expected attainment differences by perceived inequality are more significant for boys after controlling for achievement, $F(3, 5082) = 6.178$, $p < .001$; than they are for girls, $F(3, 5411) = 3.361$,

$p < .05$. Similarly to the unadjusted means, however, there is also somewhat less variation within each response category for female respondents.

The patterns of mean expected attainment levels observed across all countries are also largely visible when examining response category means for each gender within separate countries. For both males and females, the interaction of country and level of perceived gender inequality was significant: $F(9, 5071) = 2.726$, $p = .004$ for males, $F(9, 5400) = 4.719$, $p = .001$ for females.

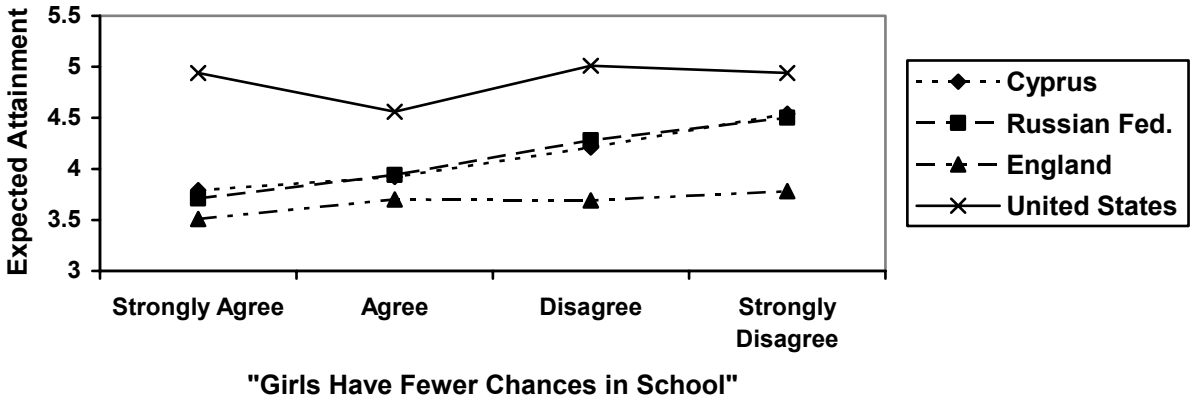
Figures 4 and 5 illustrate these interactions for males and females, respectively. In the Russian Federation and Cyprus, females who believe that gender inequality exists in education are less likely to aspire to high levels of education. Male results for these countries are more difficult to interpret. In contrast, there are large gender differences present in the United States. Among females, the students who believe that the most gender inequality exists have some of the highest educational aspirations.

Figure 4: Expected Educational Attainment of Male Students by Gender Educational Inequality Response Category in Four Countries



Note: Order of response categories is reversed from that of the data, so that the highest levels of perceived inequality are presented first.

Figure 5: Expected Educational Attainment of Female Students by Gender Educational Inequality Response Category in Four Countries



Note: Order of response categories is reversed from that of the data, so that the highest levels of perceived inequality are presented first.

DISCUSSION

Discussion of Findings

The general purpose of this study was to examine the relationships between the amounts of schooling that 14-year-olds expect to have and their levels of both trust in school and perceived educational inequalities. The bivariate correlations performed to examine these relationships yielded weak associations. Examining mean levels of education attainment by levels of trust or of perceived inequality suggests that the correlations were weak in part due to the non-linear relationship of attainment expectations to each of the other variables.

The relationship between trust in schools or perceived educational inequality to expected attainment is influenced by students' prior academic achievement. If scores on the Civic Knowledge test are thought of as an indicator of how well a student is performing in school, then their effect on the educational trust/attainment relationship is understandable. If trust in schools does develop through relationships with individual adults, it makes sense that students who are doing better in school have more positive interactions with their teachers, both in terms of the total number of interactions and the proportion of those interactions which are positive. This relationship can also be used to explain the strong effect that controlling for the Civic Knowledge test score has on mean attainment scores by gender inequality perception among females. Females who are performing well in school have little reason to believe that they are unable to accomplish what their male peers can in the classroom. This belief is especially strong among those students who—perhaps because of their achievement in the classroom—have more positive relationships with teachers and other adults in school.

Across three of the countries, it is those students who hold the most negative views of the education system who are especially interesting. In the United States, England, and Cyprus, those who "never" trust school have the lowest levels of expectations within their own countries. Perhaps here the issues of educational structure differences do come into play. Some of the most noticeable mean expected attainment differences occur in the United States. Schools where students are already at risk for low attainment aspirations are often large and under-staffed. As a result, students have a difficult time establishing bonds with adults within the school, leading to a decrease in the number of chances to establish the trust that could potentially raise attainment aspirations (see Sanders 2000). In the Russian Federation, however, there is no difference in attainment expectations among levels of trust. Perhaps the social norm to achieve in school is so embedded in the education system here that opinions about the fairness of schools have little effect on students' academic aspirations.

There is one notable exception to this general trend. Among females in the United States, those who strongly agree that gender inequality is present within school have especially high educational expectations. This could reflect the emphasis recently placed in the United States on eliminating gender inequalities within education. Females who are aware that they have traditionally not had the same educational opportunities as their male peers may be the ones with the greatest desire to correct this by staying in school.

These variations are observed less when looking at expected attainment by perceived income or ethnic inequality. Why are differences in desired educational attainment observed by perceived gender inequality so much more pronounced—for both males and females—than the differences observed in levels of perceived income or ethnic inequality? Perhaps the differences lie in the nature of gender inequality in schools, as opposed to ethnic or income inequality. Ethnic and income differences may be so embedded in culture that they are taken as fact rather than as the education system's failure to serve all students. Schools may be so segregated in terms of ethnic and socioeconomic groups that such inter-group differences are rarely experienced.

Further Research

One of the largest weaknesses of this exploratory analysis is that the expected level of attainment is reported as a series of mean scores across categories of a second variable. Expressing the relationship of attainment aspirations to level of perceived inequality or trust in this manner could suggest directionality that may or may not exist. There are several important reasons why the data were represented in the fashion. Conceptually, educational attainment is the more interesting "outcome" variable of study. Trust (or perceived inequality) is not usually viewed as an end unto itself, but rather as an influence on this outcome. Methodologically, reporting mean scores for each category allows for the description of non-linear relationships that may not be properly captured in a bivariate correlation. However, it is still important to remember, when observing this data, that the level of perceived educational attainment may also have an influence on the level at which students trust schools. This is especially true in "tracked" or "streamed" systems, where distinctions are made between those students who are and are not likely to go on to higher education.

A second shortcoming of this study relates to the observation and analysis of the relationship between desired years of further schooling and perceived educational inequality. Given that concepts relating to gender are shared among all countries in this study, it was possible to study gender inequality perceptions separately for males and females. This was not the case when analyzing perceived ethnic and income inequalities. Although analysis by gender showed interesting differences in expected attainment patterns, similar analyses are not possible comparing ethnic majority to ethnic minority students or low-income to high-income students. Further analysis of differences in perceptions of ethnic educational inequality by immigrant or ethnic minority status, and their effects on desired educational attainment, may show additional patterns of interest. A similar division of "rich" and "poor" students within each country may also be useful for examining the effect of perceived income inequality on educational attainment.

Lastly, answers to this survey can only measure how much education students would like to have, not how much education students will actually receive. Measures of expected educational attainment themselves are highly correlated to the actual level of schooling attained in U.S. longitudinal studies (Duncan, Featherman, & Duncan 1972, as cited in Qian & Blair 1999). However, they may be less correlated for groups with low social statuses that have high educational aspirations, but low opportunity, for actual educational attainment (Khattab 2002). The question most important to social capital theorists cannot be answered completely with the data at hand. While aspirations are interesting to study, it is the students' actually choice of continued involvement in the schooling system that will allow the student to reap the benefits of trust in an educational environment.

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