EDUCATION AND SOCIAL CAPITAL MAXIMIZATION: DOES DECENTRALIZATION HOLD THE KEY?

by

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A Dissertation
Submitted to the Graduate Faculty of George Mason University in Partial Fulfillment of The Requirements for the Degree of Doctor of Philosophy Public Policy

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It is generally believed that government-run schooling is necessary to achieve social cohesion; diverse children must learn common values, a common culture, and have contact with members of different groups to render society cohesive; and only government-controlled schooling can guarantee that. But appreciable anecdotal and historical evidence belies this, suggesting that putting diverse people in one schooling system may create more net division than cohesion. This research looks at the question empirically, assessing education governance in numerous nations and determining its effect on generalized trust. It finds no significant direct effects of education structure on trust, but significant indirect effects.
CHAPTER 1
INTRODUCTION

Education, for perhaps as long as human civilization has existed, has arguably been geared toward one goal ahead of all others: passing institutions, shared values, and cultures to the upcoming generation. For most of human history such education did not occur as moderns tend to think of it—instruction to children in institutions called schools—but surely since the establishment of the groupings of human beings some sort of passing on of knowledge and culture occurred. As Lucas writes, “primitive education, like the vastly more complex modern schooling, is basically a process of enculturation—the sum total of ways by which a raw, unformed organism is inducted or initiated into a society, introduced to its culture, and becomes an effectively functioning member of the social order.”¹

Immediately, however, a difficulty becomes clear: What happens when members of a society do not agree on what institutions and traditions should be passed on to children? What happens when the social groupings education systems are supposed to serve are religiously, philosophically, ethnically, economically, or in other ways diverse, and members of a society don’t agree on what they want passed on to the newest

generation? As Lucas also observes, the result is typically conflict as societies become more complicated:

If the values taught in the school have to compete with others fostered elsewhere, the difficulty for educators is obvious. Nor is it simply a question of how to inculcate certain values in preference to others. The issue is also one of institutional choice: the school must adjudicate the conflicting demands made upon it and retain public support for its programs, all the while determining which [emphasis in original] mores, standards, values, and ideologies it can endorse.²

For centuries, many in the United States and abroad have believed that a critical tool for achieving strong social cohesion is government-run, “public” schooling. The rationale, generally speaking, is that children must learn common values, a common culture, and have personal contact with members of different groups in order to render society cohesive when they become adults. This has been seen in particular in the United States since, unlike many countries that evolved based mainly on geography and established ethnic groups, the United States is a nation of immigrants. As a result schools, to a considerable extent, have been seen as important tools for inculcating “American” culture, values, and language, and eliminating, or at least suppressing, non-American values.

Achieving strong cohesion has been a theme of American education throughout the nation’s history. Puritan authorities in colonial Massachusetts required that towns of 50 or more households maintain at least some person who would instruct children in reading and writing, both so that the children could read the Bible to discern the trickery of the “Old Deluder Satan,” and to maintain social structures that had held Puritan

² Lucas, 11.
communities together in the Old World but were greatly challenged by life in a wilderness.\(^3\) In the nation’s early republican era, leading lights such as George Washington, Benjamin Rush, and Noah Webster sought to use education to inculcate common “American” values and culture—to nation-build—and overcome factious tendencies.\(^4\) Horace Mann, the “Father of the Common School,” argued in his first annual report to the Massachusetts Board of Education that common schooling would give citizens “a stable possession to fraternal feelings, against the alienating competitions of subsequent life.”\(^5\) He also hoped to form the poor and immigrants into a somewhat standardized mold of pan-Protestant New Engländer.\(^6\)

What was occurring in America in the late eighteenth and early nineteenth centuries was consistent with burgeoning thought in Europe, especially Prussia, France, and the Netherlands, where government-run schooling was being instituted broadly for the first time, largely with the nationalizing goal of binding citizens to their governments. In the case of France the intent was build attachments to a new secular government and away from the Roman Catholic Church.\(^7\) In Prussia, stung especially by defeat at the hands of the Napoleonic French, Frederick Wilhelm III asserted control of education and directed it toward inculcating love of—and obedience to—the Prussian state. This

\(^7\) Glenn, 1987.
orientation—toward making the nation the society to which students would be taught allegiance and obedience—remained more or less unchanged through the Third Reich.\(^8\)

Not all countries, however, have had monolithically state controlled and nationalism-oriented education systems. Despite the Americanizing arguments by Mann and other common school supporters, the United States long maintained highly localized control of education, which made the system hospitable for maintaining unique ethnic, religious, and other identities. Today, Canada furnishes extensive educational rights based on group membership, not a nationalist orientation.\(^9\) And the Scandinavian countries, though they were once driven by nationalism the same as France, Germany, and other nations, now have much more individualistic educational goals. Indeed, both Norway and Sweden have extensive school choice,\(^10\) as does the Netherlands.\(^11\) Nonetheless, creating cohesion between religiously, ethnically, linguistically or otherwise diverse groups in society is an educational goal in many countries around the world.

Today, despite still maintaining appreciable local control of schools, in the United States the unifying mission of public schools continues to be broadly assumed, with many social and education commentators advancing the idea, as Barber puts it, that public schools are the “institutions where we learn what it means to be a public and start down the road toward common national and civic identity. They are the forges of our

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\(^8\) Lucas, 412-
citizenship and the bedrock of our democracy.”12 Part of this process is teaching individual students, regardless of their group memberships, the knowledge and attitudes thought necessary for people to function in a free society—voting, tolerance for differing opinions, coexisting and working peacefully with others—and part is bringing together people of differing ethnicities, religions, or cultures so that they can bridge their group differences and peacefully and profitably coexist.

This need not be centrally controlled: In the United States, write Meyer, et al, public schooling rapidly expanded in the 19th century not primarily because of industrialization and new, bureaucratic state control, but from individual communities driven by nation-building goals of inculcating in the young Protestant values and what they saw as a connected “political culture of capitalism.”13 In Japan, writes Fukuyama, while there was a period of state-focused education that culminated in the Second World War, education for most part has taught students a powerful sense of obligation to sub-national groups, including employers for whom many will work their entire lives, and be compensated largely based on group performance.14

On the flip side of employing public schooling to inculcate shared values, there is considerable fear that allowing people to use government funds to choose schools would lead to balkanization—a self-divvying into contentious groups. As Justice John Paul

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Stevens wrote in his dissenting opinion in *Zelman v. Simmons-Harris*, a 2002 decision upholding a private-school voucher program in Cleveland, OH:

> I have been influenced by my understanding of the impact of religious strife on the decisions of our forbears to migrate to this continent, and on the decisions of neighbors in the Balkans, Northern Ireland, and the Middle East to mistrust one another. Whenever we remove a brick from the wall that was designed to separate religion and government, we increase the risk of religious strife and weaken the foundation of our democracy.\(^{15}\)

That the groups at odds in the Balkans were for many decades under one national and educational roof—the former Yugoslavia—yet renewed their conflict upon dissolution of the country seems not to have disrupted Stevens’ thinking about unity through public schooling. But as Almond points out, “most resistant to change are attitudes, identities, and value commitments associated with ethnicity, nationality, and religion….primordial values and commitments that seem to be almost indestructible.”\(^{16}\) These are the kinds of inter-group ties—and intra-group dividers—that education systems are intended to overcome.

In keeping, perhaps, with Steven’s thinking, it appears that support for the idea that government control of education unifies, and that extensive educational choice fractures, might exist broadly in the public, with survey data showing that large percentages of Americans perceive public schooling as preferable to private, and public schools as institutions deserving of their personal support regardless of academic


performance.\textsuperscript{17} It seems likely to reflect, as Moe calls it, a “public school ideology... a normative attachment to the public schools.”\textsuperscript{18} Indeed, more than two-thirds of parents agree with the statement that they “wouldn’t feel right putting my kids in private or parochial schools.” That could reflect a belief that public schooling is an indispensable “ladder” for economic mobility—enabling one to go from the lowest to highest classes—but that is likely not the entire explanation.\textsuperscript{19} It is possible that there is also a widespread assumption that public schooling is a fundamental American institution that, reflecting arguments from Mann, to Dewey, to Barber, brings together heterogeneous people and unifies nations.\textsuperscript{20} And again, this is hardly exclusive to the United States: A desire to achieve unity—while also, often, allowing ethnic groups to maintain a unique identity—is a recurring theme in the public schooling goals of numerous nations.\textsuperscript{21}

A cursory review of the general sweep of American history might suggest that public schooling did its unifying job. As enrollment in public schools grew, religious and ethnic divides were overcome. Today, for the most part, Americans of Irish, Italian, or

\textsuperscript{17} In 2001 Moe found that 67 percent of non-parents, and 68 percent of parents, agreed that “the public schools deserve our support even if they are performing poorly.” Likely reflecting a belief that public schools serve an important unifying function, 41 percent of non-parents agreed that “the more children attend public schools, rather than private or parochial schools, the better it is for American society.” 28 percent of parents agreed. Perhaps most telling, 31 percent of parents (non-parents were not asked to respond to this statement) agreed that they “believe in public education, and... wouldn’t feel right putting my kids in private or parochial schools.” Terry M. Moe, \textit{Schools, Vouchers, and the American Public}, (Washington, DC: Brookings Institution Press, 2001), p. 88. In 2010, Rasmussen polling found that 36 percent of Americans believed it would be bad for the United States if more students attended private schools instead of public schools. Rasmussen Polling, “73% Say Being a Teacher is One of the Most Important Jobs,” \textit{Rasmussen Reports}, May 11, 2010.

\textsuperscript{18} Moe, pp. 86-87.


\textsuperscript{21} To access descriptions of the educational systems—and goals—of numerous countries see the sources listed in Appendix A.
Asian descent no longer occupy the social periphery. Roman Catholics, Jews, and other once-“out” religious groups are fully integrated into national life. And while troubling divisions remain for African Americans and, arguably, to a lesser extent Hispanics, with the election of the first African-American president it is difficult to believe that common schooling has not helped to overcome even those wide divisions.

Or is it? While looking at the general correlation between public-school enrollment growth and integration of disparate groups into American society gives the impression of common-schooling driven unity, a finer-grained examination suggests that unity may have been achieved in spite of public schooling. It is possible, for one thing, that public schools did not generally gather heterogeneous people, but served largely local, homogeneous communities. In addition, factors other than common schooling might have been drawing people together, perhaps even overcoming divisions created or exacerbated by contentious battles over schools’ treatment of religion, race, and other raw subjects.

There is evidence for these possibilities. It appears, for one thing, that schooling did not necessarily have to be government run or coerced to get people to pursue it. As Tyack reports, “before Americans generally accepted the idea that schooling should be publicly controlled and financed they clearly believed in education of the public.” Next, for much of the history of public schooling small, often homogeneous communities ran schools, likely doing little to integrate diverse groups. When public school governance structures did encompass diverse people, however, conflict seemed to occur, most

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Tyack, p.66.
notably with tensions between Roman Catholics and Protestants in much of the 19th and early 20th centuries; religious and secular groups in recent history; and different racial and ethnic groups especially during the period of judicially mandated integration starting in the 1950s.23

To a some extent the solution to religious conflict appeared to be separate schooling, with enrollment in Roman Catholic schools peaking at 5.5 million students—almost 11 percent of the school-aged population—in 1965.24 Similarly, many school districts—as well as the U.S. Supreme Court—have gradually abandoned mandatory busing and other forms of strict racial integration in favor of less coercive efforts such as magnet schooling and “controlled choice” programs.

Other countries have also seemingly found greater educational peace through systems that allow people to choose schools of their religious or other liking. The Netherlands, for instance, defused decades of sectarian conflict exacerbated by battles over nationalized schools (which even played a part in the secession of Belgium) by transforming its education system to one enshrining publicly funded choice of religious or nonreligious schools.25 The French found stamping out Roman Catholic education impossible—citizens would get Roman Catholic instruction underground—and

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eventually brought it into the fold. Indeed, many nations integrate religious options into their systems, and governmentally subsidized private education is commonplace.

Despite heterogeneity in education options, today divisive conflict over public schooling continue to occur. In the United States there are battles over creationism and evolution; multicultural curricula; school library books; prayer in school; and many other flashpoints.\(^\text{26}\) Similarly, the Netherlands is experiencing appreciable opposition to incorporating Islamic schools into the panoply of options.\(^\text{27}\) In England, there is concern about “free schools”—akin to American charter schools—teaching creationism.\(^\text{28}\) And as James reports, all countries that subsidize—or even just allow—private schooling struggle with the problem that “responsiveness to consumer demand may lead to local or tribal variations which conflict with the goal of national unity.”\(^\text{29}\)

As a result of the inconclusive historical evidence concerning the effect of public schooling on social cohesion, the policy question this research seeks to begin to answer is what education structure is most conducive to maximizing cohesion—or positive psychological bonds—among a country’s people? The prevailing assumption is that compulsory school attendance primarily at public elementary and secondary schools that teach common knowledge and values, as well as that bring into the same classrooms diverse students, holds the key to maximizing positive bonds among people, at least as far

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as education can do that. Some evidence, however, suggests that requiring diverse peoples to support a single system of public schools pushes them into otherwise avoidable, division-exacerbating conflict. On the flip-side, there is evidence, which will be discussed shortly, that suggests that allowing people to freely interact—or not interact—might be important to building mutual affinity and trust between members of different groups.

To address the research question, this paper attempts to isolate the effect of the structure of nations’ elementary and secondary education systems on social capital. Society-wide social capital is the best way to conceptualize social cohesion because social capital focuses on the bonds that exist between people—not physical togetherness, but the level of positive connection members of society feel toward other members—and, hence, it captures the strength of bonding in a society.

For this research, social capital is operationalized, using data from the World Values Survey, as the degree to which citizens in a nation express “trust” in other people. Often other measures are used to quantify social capital—most notably participation in groups like bowling leagues and Kiwanis Clubs—but gauging trust is the best way to measure the amount of social cement that exists between all people, rather than those

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30 It is frequently argued that, because of the strong correlation between education level and such important civic activities as voting, as well as the socially integrating experience of bringing together diverse people beyond secondary education, higher education also serves an important role in creating social cohesion. See, for instance, Nicholas A. Bowman, “Promoting Participation in a Diverse Democracy: A Meta-Analysis of College Diversity Experiences and Civic Engagement,” *Review of Educational Research*, Vol. 81, No. 1, March 2011, pp. 29-68, and Mitchell J. Chang, et al, “The Educational Benefits of Sustaining Cross-Racial Interaction among Undergraduates,” *Journal of Higher Education*, Vol. 77, No. 3, May/June 2006, pp. 430-455. While higher education might play an important role in fostering social cohesion, in no countries is it mandatory, indicating that it is primarily at the K-12 level that countries expect socialization to occur.
who often self-select into voluntary associations with people like themselves. To assess
the structure of a nation’s education system, several variables that determine the degree to
which a system compels interactions between groups are compiled and put into a scale of
education centralization. Finally, numerous types of diversity—religious, ethnic,
economic, and others—are controlled for, as are other potentially important contributors
to social cohesion, including each nation’s general education level, level of economic
development, and governance.

An important question might be why use international evidence rather than
domestic? Why use nations as the units of analysis rather than more fine-grained units
such as American states, districts, or even schools? Ultimately, because the greatest
amount of data, and variety in schooling structures, exists internationally, maximizing the
potential for assessing the effects of education system structure on social cohesion. The
World Values Survey provides data used to measure social capital for numerous
countries, and while there are such state-level data in the General Social Survey, there is
little at lower levels. In addition, as Coulson has catalogued, while there is limited
educational freedom in many countries, there is more outside the United States than in
any American state, providing a greater degree of variation in schooling structure than
could be found with a U.S. state-level comparison.

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31 The Seguaro Seminar’s Social Capital Community Survey is a starting effort to gain fine-grained,
domestic social capital data but currently only covers a small number of communities. If greatly expanded,
it could provide excellent domestic data in the future.
32 Andrew Coulson, “The Cato Education Market Index,” Cato Policy Analysis, no. 585, December 13,
2006.
The organization of this paper is as follows. Chapter two examines the literature on the two main topics connected to the question at hand. They are social capital theory and contact theory. Arguably a subset of these are democratic education theory and more general education governance, which examine the purposes and structure of education systems. Those topics, of course, deal explicitly with education, but social capital and contact theory do not. In addition to reviewing the broad literature on social capital and contact theory, therefore, chapter two specifically examines the application of those fields to education, bringing into the discussion such broadly found goals as nation-building and socialization. After reviewing the literature on the three major concepts and their application to education, chapter 3 introduces and describes the conceptual model for the analysis. It also discusses in somewhat greater depth the research hypothesis that more decentralized control of an education system will be correlated with greater social capital than more centralized governance, all other things equal. This is, broadly speaking, the opposite of the prevailing hypothesis: that a government education system structure that encompasses multiple groups and teaches common things will foster greater social capital. Once the hypothesis is discussed, the paper delves into the data sources and the analytical techniques used to assess the effect of education system structure on social capital.

Chapter 4 presents the findings and examines them in-depth. Next, it discusses the considerable shortcomings and difficulties of the analysis. Following that, the chapter delves into the policy implications of the research which, while suffering from considerable obstacles, casts some doubt on the assumption that centralized, government-
run schooling is the best way to maximize social capital. Indeed, the paper presents, for the first time, some very preliminary empirical evidence that greater freedom in education may be correlated with greater social capital. This finding is only a start—analysis with more countries is needed, and longitudinal analysis tracking the effect of changing amounts of educational centralization on social capital would be better—but it does give reason to further pursue this line of inquiry.
CHAPTER 2
LITERATURE REVIEW

The purpose of this study is to ascertain the effect of education structure on social cohesion. To understand the concepts that inform this line of inquiry, it is necessary to understand two closely connected theories—social capital theory and contact theory—as well as more specific education governance ideas. Social capital theory ascertains, generally speaking, the degree of bonding that exists among people—not imposed from above, but between individuals—in a society, and increasing those bonds is a prominent goal many people hold for public education systems. Contact theory establishes the conditions under which individuals from different groups—racial, religious, etc.—can establish bonds with each other that did not previously exist, largely due to group differences. It essentially tackles the “how” of building “bridging” social capital—social cohesion among members of previously separated groups. Finally, education governance—especially in democratic countries—examines how education can be used to promulgate the civic values and attitudes needed by all citizens in a country, a permutation of social capital that is focused not broadly on bonds between people, but commonality specifically in what people view as the proper way to function within a given society.
Social Capital Theory

Social capital theory deals with “the intangible resources of community, shared values and trust upon which we draw in daily life.” Essentially, it explores bonds between people that are not imposed from without—most notably by law—that enable people to cooperate efficiently and effectively. As Coleman explains, like physical or human capital, social capital “is productive, making possible the achievement of certain ends that in its absence would not be possible….Unlike other forms of capital, social capital inheres to the structure of relations between actors and among actors.”

Historically, the existence and value of bonds between people has been recognized without using the term “social capital” to identify those bonds. In Democracy in America, for instance, Alexis de Tocqueville marveled at how readily Americans worked together without the threat or even prompting of law or legal authorities. In particular, he noted how “men attend to the interests of the public, first by necessity, afterwards by choice; what was intentional becomes an instinct, and by dint of working for the good of one’s fellow citizens, the habit and the taste for serving them is acquired.” Later, Durkheim observed that people are often connected by bonds much deeper than simple law or nationality.

Despite earlier observations that there are forms of capital other than physical or human, three major theorists of social capital—Pierre Bourdieu, James Coleman, and

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Robert Putnam—all began developing various aspects of the concept in the 1980s and 1990s. The three tend to focus on different outcomes of social capital, but to conceive of what social capital is in roughly the same way.

The work of French sociologist Bourdieu is concerned primarily with ways in which social class is perpetuated and signified. In his analyses, Bourdieu identifies numerous types of capital, including “linguistic capital,” “educational capital,” “cultural capital,” and eventually social capital, which he defines as “the sum of resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition.” In general, all of the forms of capital are seen by Bourdieu as explaining how class differences are maintained and identified, while preserving at least the appearance that individuals can overcome class divides.

Most crucial to social reproduction, in Bourdieu’s view, is cultural capital, such as familiarity with classical music and other signs of one’s class. Social capital is also important, however, because belonging to social networks of powerful people amplifies cultural capital’s power. Conversely, membership in networks of weak people solidifies lower class positions.

40 Field, p. 16.
Coleman’s interest in social capital is different from Bourdieu’s, but his conception of what social capital is does not differ greatly. Unlike Bourdieu, Coleman does not view social capital as part of something one class accumulates to keep a dominant social position, but consistent with Bourdieu he does see social capital as a resource that enables people to have smoother, more efficient interactions. One example Coleman uses is the wholesale diamond market in New York City, in which merchants lend each other very valuable stones for inspection without any formal insurance.\(^{41}\) This succeeds, Coleman argues, because the merchant community is close-knit, consisting primarily of related Jewish families that all live in the same neighborhoods, attend the same synagogues, and share the same norms of behavior.

Coleman argues that the key to social capital accumulation, as illustrated by the diamond merchants, is to have a “closed network” that enables group members to “develop common evaluations of…[their] activities, and exercise sanctions that guide and constrain these activities.”\(^{42}\) But closure is not enough. Social capital is also built on the “trustworthiness of the social environment, which means that obligations will be repaid, and the actual extent of obligations held.”\(^{43}\) In other words, the more that members learn they can trust one another to fulfill their obligations without having to resort to an outside force like law, and the more obligations they have to each other, the greater their accumulation of social capital.

\(^{41}\) Coleman, S98-S99.


Robert Putnam, in his work, focuses largely on the effect of social capital on the relative effectiveness of democratic government. He endeavors to measure social capital and assess the conditions conducive toward its very broad growth. Putnam examines the strength of civil society with an eye not primarily toward class structures or smooth non-governmental interactions, but on how varying levels of social capital affect people’s abilities to effect change in and through government.

Putnam first explores social capital in work on the efficacy of regional governments in Italy. In that analysis he attempts to determine what makes some governments effective and others ineffective, and concludes that it is each region’s stock of social capital, defined as “features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions.”

Putnam’s conception of social capital is very similar to that of Bourdieu and Coleman—bonds between people, including trust, that enable them to efficiently act together—but his interest is in how that affects government.

In later work Putnam explores social capital in the United States, most thoroughly in *Bowling Alone*. In it, Putnam asserts that American social capital is declining, as evidenced primarily by dropping membership in voluntary groups ranging from Kiwanis to bowling leagues. Putnam also identifies numerous indicators of declining trust, a component of social capital identified as important by Putnam, but also Coleman,

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Indeed Weber, though writing well before popular use of the term social capital, recognized the value of social networks based on trust, explaining that “anyone who is excluded from [their] church for dishonorable conduct…is tacitly deleted from its membership list, falls victim to a kind of social ostracism; anyone who is outside the church community is deprived of social contacts.”

Certainly Coleman and Putnam treat social capital as something that is largely good. (Putnam has just one out of twenty-four chapters in *Bowling Alone* that tackles the “dark side” of social capital.) Bourdieu, however, does not look at social capital as necessarily good, at least in its application. While enabling efficient interactions is beneficial, the class-perpetuating, exclusionary application of social networks is not. And if Coleman’s conceptualization of social capital is correct and the biggest threat to its accumulation is opening closed systems, the exclusion problem is very real.

In addition to Bourdieu, this negative side of social capital is discussed by several analysts. Portes and Landolt, for instance, write that closed systems that enable the accumulation of social capital can result in “conspiracies against the public” and “restrictions on individual freedom and business initiative” by insular groups that take control of specific industries or communities. Essentially, the problem is a matter of too much “bonding” capital—connections between members of a single group—and too little

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“bridging capital,” or connections between people of different groups. The negative consequences of this strong insularity have been noted by other observers, including Michael Barone in his analysis of why some American immigrant groups have integrated in society much more quickly than others, and Bishop, who theorizes that the greater ability of Americans to sort themselves into like groups has fragmented society and broken down old contacts that enabled diverse people to understand one another.

Overcoming such division by building ties between people of different groups—essentially, building bridging capital—is largely the focus of contact theory, which we will discuss shortly.

**Social Capital Applied to Education**

What does the social capital literature say about education, and how the structure of education delivery systems affects social cohesion? For the most part, the major social capital work examines correlations between the stock of social capital and academic outcomes such as standardized test scores. It offers little direct—though some indirect—evidence of how to structure an education system to maximize social capital, including both bonding and bridging capital. That said, there is a small amount of research looking at how education structures directly affect the accumulation of social capital.

Before the term “social capital” came into use, several theorists examined how education could help create bonds of trust between individuals in society. Tocqueville, for instance, suggests that there is a connection between the unity and strong civil society

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he observed in America and education, though formal education was not a primary means of communicating shared customs and norms. Nonetheless, he admired both the democratic unity and spirit of New England towns and their widespread provision of schooling. At the same time he lamented that in Europe:

Education…has become in most countries…a national concern. The state receives, and often takes, the child from the arms of the mother to hand it over to official agents; the state undertakes to train the heart and to instruct the mind of each generation. Uniformity prevails in the courses of public instruction as in everything else; diversity as well as freedom is disappearing day by day.”\(^{51}\)

In the early twentieth century, Durkheim attempted to determine how, purely through science and logic rather than often divisive religious approaches, schools could create free but moral democratic citizens who recognized shared norms and duties.\(^{52}\) In particular, he hoped to determine how students could be taught to focus on the common, rather than strictly individual, good. Durkheim argued that human beings must be directed to look outward and connect to society for both their good and the good of others, and the role of education is to discipline children so that they make strong connections to the collective, especially the nation, which Durkheim sees as the highest coherent social grouping.\(^{53}\) But his national focus did not cause Durkheim to conclude that national force can be used to impose bonds between people. No, “men must feel the need for them and be inclined to form groups of their own accord.” Durkheim asserted that the school could help revive lost civil society in France by serving as a non-family

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\(^{53}\) Durkheim, 2002, p. 207.
social grouping and inclining people toward a social, rather than individualistic, orientation.  

Dewey, writing about a decade-and-a-half after Durkheim, explored in great depth the ideal role and structure of education in a democratic society, which he defined as a society “in which all share in useful service and all enjoy a worthy leisure.” Dewey called for schooling to be structured so that students would pursue their interests, but would do so in ethnically, religiously, and culturally heterogeneous groups to create “a society in which every person shall be occupied in something which makes the lives of others better worth living, and which accordingly makes the ties which bind people together more perceptible—which breaks down the barriers of distance between them.”

Of the theorists explicitly analyzing social capital, Bourdieu might address the relationship between education and social cohesion most directly. Bourdieu and Passeron argue that education, at least in France, has primarily been a mechanism for perpetuating class separation. Education both passes on and evaluates cultural markers, and helps mete out higher education enrollment, employment, and status according to whose markers indicate high, middle, or low class. In particular, this is done through the rigorous examination systems in French education, which include both written and oral assessments. The latter are useful in detecting cultural markers because they permit assessment of the “whole person,” including dress, accent, and mannerisms. Bourdieu and Passeron base their conclusions in part on educational attainment data showing that

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54 Ibid., p. 235.
56 Dewey, p. 346.
while enrollment in French colleges, and in various professional tracks of study, increased during the mid-1960s for lower-class students, they also increased—sometimes at greater rates—for those of the upper-class, maintaining class divisions.

From social cohesion perspectives, this suggests that France’s largely government education system might increase—or at least preserve—bonding capital within classes while leaving unchanged, or potentially weakening, bridging between groups. This perpetuation of class divisions does not necessarily mean that overall social capital in France is not maximized by the education system, however. It is possible that greater social capital can be created by maximizing bonding capital than by focusing on bridging capital. That said, Bourdieu does not attempt to prescribe a specific degree of centralized or decentralized education governance to deal with the problem. Instead, he argues that a “universal pedagogy” needs to be developed that can deal more effectively with working-class students who often seem unprepared for schools that are geared toward higher-class children with more cultural capital.57 If, however, the problem is that children face a centralized schooling system that is geared toward a particular class, moving toward a system in which educators have more autonomy to try different focuses, and parents are able to choose among different schools, might lead to more pedagogies that work well for members of different classes.

Coleman’s education and social capital work, like Bourdieu’s, is primarily related to maximizing bonding rather than bridging capital, and is focused mainly on the effect

of social capital on academic outcomes such as graduation rates. Coleman finds that after controlling for important variables such as students’ socioeconomic status, private schools produce better academic results, which he theorizes is a result of their possessing greater social capital. As he explained, this is because they are typically closed systems, which suggests that they maximize bonding capital. He writes, “social capital resides in the functional community, the actual social relationships that exist among parents, in the closure exhibited by the structure of relations, and in the parent’s relations with the institutions of the community.”

Despite Coleman’s emphasis on the need for a closed system to accumulate social capital, his findings do not necessarily imply that to maximize academic outcomes schools must monolithically serve students of one race, religion, or class. While the members of a closed system must share norms related to the school and the education that they wish their children to receive, they could very well be of different races, religions, or other groups as long as they share the same educational values and goals. Bryk, Lee and Holland, for instance, argue that Roman Catholic schools today establish positive communities not by walling themselves off socially, ethnically, or religiously, but by focusing on their tradition of “advancing the common good based on a larger conception of a properly humane social order.” Similarly, Jeynes finds that religious schools

broadly tend to experience greater “racial harmony” as measured by incidences of interracial fighting and reports of interracial friendliness.\textsuperscript{60}

It is, of course, quite possible that the conditions at a school can be highly conducive toward building social capital without any religious connection. A school focused on social justice, or art, or any number of things could attract people with shared interests and norms. Even traditional public schools could promote secular norms shared by broad swaths of people.\textsuperscript{61} Indeed, that is largely their socializing mission: to teach children the norms they need to effectively and smoothly function in society.

This is largely the focus of work on school culture and climate. For instance, Brand, et al., include measures of “positive peer interactions” and “support for cultural pluralism” in their measures of school climate, which are clearly related to either maintaining or building bridging social capital.\textsuperscript{62} A major obstacle for traditional public schools, however, is that parents do not necessarily choose them (though school choice can be exercised through housing choice) making it more difficult to get members to agree on school aims. As Cohen writes, “some parents may not even want the school to focus on the social and emotional lives of their children.”\textsuperscript{63} Rather than establishing


norms and then attracting people who share them, traditional public schools face the harder task of having the people set and having to foster norms they all can share.

Like Coleman, Putnam’s education-related social capital work mainly touches on the correlation between high levels of social capital and educational outcomes, rather than how education can be best structured to maximize social capital. In *Bowling Alone*, Putnam reports that at the state level there is a high correlation between students’ standardized-test scores and social capital as measured by such citizen activities as serving on local organizations and turning out to vote, as well as measures of social trust. That said, later work by Putnam not specifically related to education is instructive. Examining the impact of ethnic diversity on social capital, Putnam finds that not only does ethnic diversity correlate with decreased social capital because members of different groups distrust each other, people in more diverse areas tend to distrust members of their own groups as well. “Diversity seems to trigger not in-group/out-group division, but anomie or social isolation,” he writes. The implication of this for education policy is that trying to bring multiple groups under a single schooling umbrella—for instance, large districts, or state-level control—could lead to a reduction in citizen support for, or connection to, the district.

As noted, to date very little of the social capital research has looked specifically at the public policy issue at hand—structuring the education system to maximize social capital. What little has been done, however, hints that school choice might increase not

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just bonding, but bridging, capital. Schneider, et al. compared two pairs of demographically similar school districts, each containing one district with public school choice and one without. After correcting for choosers being nonrandom, as well as variables such as race and parental education, they found that districts with choice had greater social capital than those without as measured by PTA membership; parents volunteering in the schools; the number of other parents that respondent parents reported talking to about school matters; and parental trust that teachers would “do the right thing.”

Despite parents with choice being more engaged in their school communities and having more trust in teachers, much that goes into social capital, including, crucially, trust in other members of one’s community (other than teachers), were not measured by Schneider, et al. Second, choice was limited to public schools, making it impossible to glean any insights into the effects of religiously-based choice. Third, the four districts used were a purposive sample and the results of the research cannot be extrapolated beyond those districts. Finally, at best the research established a correlation, not causation, between choice and social capital.

Expanding on the work of Schneider, et al, Cox and Witko looked at broad, longitudinal data encompassing both public and private school choices—a much bigger analysis that included changes over time. Cox and Witko still, however, restricted operationalization of social capital to participation in school activities, just as Schneider,

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et al. did, rather than deeper measures of trust. Cox and Witko found no statistically significant change in social capital after parents chose a public school, but there was such an increase with selection of a private, especially religious, school. Cox and Witko did not attempt to explain why selection of a private school seems to increase social capital measured by participation in school activities, but concluded simply that choice all by itself does not increase social capital.

Peterson and Campbell reached inconclusive results when examining differences between students who had randomly received vouchers from the Children’s Scholarships Fund and used them to attend private schools; those who had received vouchers but didn’t use them for private schooling; and students who did not receive vouchers. Few of their findings were statistically significant, but they suggested that there were greater intergroup friendships for African-American students in private schools; no difference in parental involvement between public and private school parents; no difference in political tolerance; and lower participation of private school students in groups such as the Boy Scouts and team sports. The analysis was conducted after only the first year the CSF scholarships were in use, so the findings were at best preliminary.

Greene, Giammo and Mellow examined the social capital of Latinos based on the types of school they attended and found that, after controlling for factors including parental education level and family income, attending private schools had modest, positive impacts on political participation, joining civic groups, and tolerance of groups

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respondents disliked.\textsuperscript{69} The authors argued that this was a particularly important segment of the population to examine because it includes many immigrants, which the schools are supposed to assimilate. A primary problem with the study is that it could not control for the possibility that respondents’ attitudes towards such things as political participation caused them to choose private schools, rather than private schooling caused the participation.

Finally, Pennings, et al, have examined the political and social activities, and outlooks, of high school graduates in Canada based on what type of school they attended: public, Roman Catholic schools receiving large subsidies, Roman Catholic schools receiving small subsidies, non-religious private schools, Protestant schools, and religious home education.\textsuperscript{70} Controlling for variables such as parental education and religiosity, they reported mixed findings. Graduates of large-subsidy Roman Catholic schools and homeschooled respondents were less likely to volunteer outside of their religious congregations than public school students, while those of non-religious private institutions and low-subsidy Catholic schools were more likely to volunteer. Similarly mixed, graduates of both types of Catholic schools were less likely than public school graduates to participate in politics by voting or campaigning, but graduates of non-religious, Christian, and home schools were more likely to participate. Complicating the


findings is that authority over education in Canada is almost exclusively vested in the provinces, and national comparisons of types of schools are very difficulty.

From a more theoretical standpoint, Fischel posits that school voucher proposals in the United States put to popular votes have consistently lost because voters believe that local public schools are crucial to maintaining community cohesion, or “community-specific social capital.”71 Parents perhaps intuitively feel that they would have fewer opportunities to interact with neighbors were they not all using local public schools.

Conducting a basic regression to determine the effect of district sizes, parental education, percent of students who are black, and percentage of children in public schools on state-level social capital, Fischel found that large district sizes and greater percentages of black students had a negative association with social capital, while greater parental education and percentages of public school students in the population had a positive association. The negative findings suggest that as student diversity or distance of government from individuals grows, social capital drops, likely because bridging bonds diminish. The finding that social capital rises with the percentage of public-school students in the populations supports Fischel’s theory that public schools build cohesion among adults. Fischel, however, did not attempt to control for numerous types of diversity beyond one race, including additional races and ethnicities, religions, languages, etc. In addition, the district size and race findings suggest there might be strong intra-group sorting into

districts that produces a positive association between public-school enrollment and social capital.

A considerable shortcoming of much of this research is that it tends to treat public and private schools as if they are monolithically different, but that is not the case. For one thing, some school districts are small and some large. Some serve largely homogeneous communities, other heterogeneous. And what constitutes a “public school” is not even clear-cut. Charter schools in the United States are technically public schools—they are authorized to operate by government entities and forbidden from teaching religion—but are often run by private entities. Similarly, magnet schools are public schools but are typically given unique orientations or missions, often with the primary purpose of bringing together students of different races or economic statuses. Finally, in many countries the line between public and private is greatly blurred, with religious schools often receiving large subsidies and required to teach national curricula.

Unfortunately, laments Dronkers, there is very little systematic analysis of the effects of private—primarily religious—schools and public schools in Europe, but what there is suggests that public-subsidies of private schools does not lead to Balkanization.\(^\text{72}\) He theorizes, however, that that may be a consequence of students largely choosing religious schools not for religious reasons, but academic: private schools appear to have better academic outcomes. That reduces the likelihood of those schools building bonding capital and sacrificing bridging—indeed, it might mean greater bridging capital—but it

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also defeats the stated purpose for having the options: to allow people of different religions to get education commensurate with their values.

Kahlenberg, arguing for “controlled choice” of public schools, notes that studies have shown that such choice, which is in many ways similar to magnet and charter schooling, increases parental involvement in schools, a form of social capital. He also argues that it fosters crucial socio-economic integration, and helps to teach lower-class students the ways of higher-class families, which would help to breakdown the social reproduction problem identified by Bourdieu. On the flip side, argues West, even when students attend the same school there is often considerable segregation at the classroom level, likely negating the potentially social-capital building effect.

That not all public and private schools are the same is why the purpose of this study is to look at centralization and decentralization of education governance, not just compare public and private schools. It is the degree to which parents and educators are able to make educational decisions for themselves, or to which government controls options, that is important. Of course, the differences between public and private schools are inevitably important in that, but they do not entirely capture the important dynamics.

Contact Theory

If a key to maximizing social capital is to build trust between members of groups who would otherwise be at least psychologically separated from one another, contact theory could provide critical insights into how that trust-building could effectively occur.

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Contact theory looks specifically at how individuals can overcome stereotypes about members of other groups and eliminate psychological barriers between themselves and members of those groups. Essentially, it focuses on overcoming some of the worst Balkanizing effects of social capital identified by Portes and Landolt.

Gordon Allport, contact theory’s progenitor, concluded that contact between people in different groups would help to break down often very rational stereotyping. We must compartmentalize people we do not know into broad categories to make sense of the world, he argued, but intergroup contact could enable individuals to see that stereotyped characteristics of other groups are not accurate, and hence overcome prejudices. However, he argued that contact alone would not be sufficient. Indeed, it could exacerbate divisions if members of different groups viewed each other as threats, or one group was perceived to have a superior position to the other. To avoid these pitfalls, Allport concluded that contact must be between people considered to be of equal status and occur in the context of pursuing common goals. He added that the effect of contact “is greatly enhanced” if it is “sanctioned by institutional supports” such as law or custom and “leads to the perception of common interests and common humanity.” 75

More than 50 years after publication of Allport’s The Nature of Prejudice, the overall—not just educational—effects of intergroup contact are murky. In 2006, Pettigrew and Tropp conducted a meta-analysis of intergroup contact studies—studies of contact between numerous in- and out-groups and including international data—

consisting of 515 studies, 713 samples, and 1,383 tests.\textsuperscript{76} The result was an average Pearson’s $r$ of -0.21 between contact and prejudice, a small to medium effect. Breaking the studies down, Pettigrew and Tropp found that research involving programs in which individuals had choice about contact yielded smaller effect sizes than those without, though what constituted having choice—is joining the military a choice, but being assigned to mixed race or gender units not?—was unclear. Pettigrew and Tropp also found much greater effect sizes for experiments ($r = -0.37$) than other types of research, though such studies were a very small part of the overall sample.

Concerning Allport’s conditions for successful contact, Pettigrew and Tropp found that studies that involved all of the conditions produced greater prejudice reduction than other samples, but still at a relatively modest $r$ of -0.29. Effect sizes also differed based on target group: the biggest effects involved contact between heterosexuals and homosexuals ($r = -0.27$) and the smallest contact with the mentally ill and elderly ($r = -0.18$). Contact between racial and ethnic in- and out-groups yielded an $r$ of -0.21. Importantly, the specific conditions attending the individual reports, which spanned several decades of rapidly evolving social norms and interactions, are unknown and could affect the results in ways not discussed by Pettigrew and Tropp. Coupled with a marginally positive effect size, the “how” and “why” of positive contact remains unclear.

Beyond the empirical literature, there is evidence that people have a strong inclination for self-sorting. Bishop, for instance, catalogues substantial, self-selected

grouping of Americans by race, age, occupation, education, and political persuasion over
the last roughly three decades.\textsuperscript{77} Fiorina, though disagreeing with the idea that Americans
have grown polarized politically and are in the throes of widespread culture wars, finds
appreciable polarization since 1988 based on religiosity.\textsuperscript{78} Brooks, writing about
clustering in 2003, noted that we’re clustered in surprising ways, such as the top sixteen
imported wine-drinking counties all being found in three metropolitan areas.\textsuperscript{79} Finally,
Murray argues that huge cleavages have grown between “elites” and working class
Americans since the 1960s. Elites are especially likely to cluster amongst themselves and
have almost no interaction with middle- and lower-class people whom they would have
had as neighbors, and have shared much in common, a few decades earlier.\textsuperscript{80}

An important policy question about contact is whether there is reason to believe
that clustering and divisions can be overcome in the absence of government integration
efforts. Some research suggests that the answer is yes, based on the pursuit of mutual
self-interest. Essentially, positive bridging contact has tended to occur when people from
different groups perceive gain to be had by working together.

Mill, though writing about trade between nations, was perhaps the first to perceive
a positive effect of contact through commerce, writing in \textit{Principles of Political Economy}
that “it is hardly possible to overrate the value…of placing human beings in contact with
persons dissimilar to themselves, and with modes of thought and action unlike those with

\textsuperscript{77} Bishop, 2009.
\textsuperscript{78} Morris P. Fiorina, \textit{Culture War: The Myth of Polarized America}, (New York, NY: Pearson Longman,
2005).
which they are familiar. Commerce is now what war once was, the principal source of this contact." Barone makes a similar observation concerning assimilation of different immigrant groups in American history, finding that groups arriving in the United States with a greater commercial background have tended to assimilate much more quickly and effectively than have those without, as they have been much more accustomed to interacting with people from outside their own groups. Salins explains that “once immigrants and natives work together and come to appreciate each other’s value it becomes much easier to form other kinds of interest-based relationships. Eventually, economic relationships lead to social ones, culminating in friendship and even intermarriage.” Finally, commerce was likely a major—though certainly not the only—force behind greater European cohesiveness culminating in creation of the European Union.

Contact Theory Applied to Education

Allport published *The Nature of Prejudice* in 1954, the same year *Brown v. Board of Education* ruled unconstitutional racial segregation in the provision of public schooling. As integration progressed after *Brown*, however, few of Allport’s four requirements were typically met, especially within schools. Rarely could there have been an assumption of equal status; African Americans almost automatically carried a presumption of inferiority. Common-goal pursuit requiring team-like cohesion often occurred in the workplace, and in places like the military and housing developments where Allport pointed to early contact success, but within schools students could perceive themselves as being in competition with one another, not on the same team. In addition, law or custom sometimes did and sometimes did not support integration, and where federal and state authorities were at odds it could sometimes do both. Indeed, federal law for about a decade after *Brown* was at best schizophrenic, demanding school integration “with all deliberate speed” but failing to push it. Finally, perceptions of common interests and humanity are very difficult things to pin down, though presumably meeting people from groups with which one had no previous contact would have some humanizing effect on one’s perceptions.

How best to use schools to overcome prejudices was far from Allport’s only interest in *The Nature of Prejudice*, but he did examine educational programs and recommend what he thought the extant evidence pointed to as most effective. Importantly, though, he was writing prior to *Brown*, and wrote that “we see how important it is to abolish segregation before the optimum conditions of contact and
acquaintance can occur... We might well call for it as the first point in a program for America.\textsuperscript{84} That said, Allport argued that the evidence to date suggested that schools could be important institutions for overcoming prejudice, including prejudices inculcated in children’s homes. Generally, if schools were integrated, non-authoritarian, and involved children in intercultural activities that relayed factual and cultural information about different groups and taught children non-prejudiced ways of thinking, Allport believed they could break down barriers.\textsuperscript{85} This thinking was very much in line with that of Dewey, as well as school culture and climate theorists who, as mentioned earlier, argue that schools need to promote, among other things, “cultural pluralism.”

An exchange between Armor and Pettigrew, et al., provides insight into contact theory research concerning education between publication of The Nature of Prejudice and the early 1970s. This was a period which saw perhaps the greatest effort to produce physical, racial integration in the schools. “Physical” is important because the physical presence of white and black students in a school was the primary way in which the achievement of integration was measured.

In 1972, Armor argued that the research provided little evidence that “induced” integration improved race relations.\textsuperscript{86} Indeed, he found evidence that integration had increased racial identity and solidarity for African Americans. This might well indicate that forced integration such as busing had increased bonding capital for African

\textsuperscript{84} Allport, p. 489.
\textsuperscript{85} Ibid., pp. 510-513.
Americans but had done little to increase bridging capital, quite possibly as African-
Americans faced hostility in integrating schools.

Pettigrew, et al. argued in response that Armor had excluded some important
research findings from his review, and asserted that contact through busing had evinced
greater effectiveness than Armor found. Pettigrew, et al. did not argue extensively that
busing created greater bonds between groups, but did cite findings by Useem that whites
who had had previous equal status contact with blacks tended to have positive views of
Boston’s METCO voluntary busing program, as did students who had interracial contact
in extracurricular activities.

The latter finding—prior contact improves the chances of positive contact during
treatment—recurs throughout the literature. It also begs the question, how and why did
the previous contact occur? Was it voluntary, and how many of Allport’s conditions for
effective contact did it satisfy? The former finding—interracial contact in extracurricular
activities increased whites’ positive views of blacks—is consistent with Allport’s pursuit
of common goals proviso, in that activities such as sports tend to be focused much more
on common goals than is the education of individuals.

A few years after the Armor-Pettigrew exchange, St. John reviewed the
desegregation research to date, summarizing the findings of 120 studies. She reported

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1973, pp. 88-118
88 For instance, Martin Patchen, Black-White Contact in Schools: Its Social and Academic Effects, (West
Lafayette, IN: Purdue University Press, 1982); Christopher G. Ellison and Daniel A. Powers, “The Contact
Hypothesis and Racial Attitudes among Black Americans,” Social Science Quarterly, Vol. 75, No. 2, June
1994, pp. 385-400; and Michael O. Emerson, Rachel T. Kimbro, and George Yancey, “Contact Theory
Extended: The Effects of Prior Racial Contact on Current Social Ties,” Social Science Quarterly, Vol. 83,
mixed results concerning interracial attitudes, though they were more often negative than positive. The research, however, was hardly conclusive either way and often very flawed, with “virtually no long-term longitudinal studies with pre-desegregation and post-desegregation scores on the same tests and with subjects randomly assigned to experimental and control conditions. Nor, in lieu of random assignment, have subjects been matched with sufficient care on home background and initial ability.”

The lack of rigorous, long-term studies echoed a point of agreement between Armor and Pettigrew.

In 1978, Stephan also noted the lack of high-quality research regarding the effects of desegregation. In tallying what research there was, however, he found that desegregation generally did not appear to decrease white prejudice against blacks, and led to increased black prejudice towards whites about as often as it led to decreases. A 1986 review by Stephan included some additional studies and the scales tilted slightly toward desegregation decreasing black prejudice toward whites and increasing white prejudice toward blacks. Overall, though, the research remained very limited.

In 1982, Patchen produced a lengthy analysis of Indianapolis, Indiana high schools in the early 1970s, which provided a mix of schools that varied in their racial compositions, academic programs, social-class compositions, and integration efforts. Patchen found overall positive social effects from interracial contact. “Our results show

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that as opportunity for interracial contact increased, the amount of friendly contact (and friendship) between the races increased considerably, too.\textsuperscript{92} That said, the results were still mixed, with some attributes of the contact having more positive effects and others more negative. Patchen also found that the best outcomes occurred when classes had large black majorities—not, generally, the goal of integration—which he theorized prevents black students from feeling defensive about possible domination by whites, and renders whites less likely to be hostile to blacks. The worst outcomes were when black students were a sizable minority—roughly reflective of their share of the overall population—at which point they were most likely to feel disliked and best able to form their own groups.\textsuperscript{93} Patchen also found that close physical proximity between races in class was important, especially for blacks, to start informal conversation.\textsuperscript{94} Finally, Patchen found particularly for white students that interracial contact in school activities led to good relations, as mentioned earlier a possible confirmation of Allport’s proviso that contact should be in pursuit of common goals. Contradicting Allport’s stipulations, however, Patchen found little evidence of the importance of “equal status” contact, though only if “equal status” is defined by academic or socioeconomic status.\textsuperscript{95}

In the 1980s some researchers argued that, while little attention had been paid to the social effects of desegregation relative to the academic effects, what existed

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\textsuperscript{92} Patchen, p. 351.
\textsuperscript{93} Ibid., p. 147.
\textsuperscript{94} Ibid., p. 151.
\textsuperscript{95} Ibid., p. 205.
suggested that greater interracial contact led to more tolerant attitudes.\textsuperscript{96} However, those studies generally failed to distinguish between induced desegregation and voluntary integration, offering little insight into whether coerced contact has a net positive force, self-selected integration is positive, or both.\textsuperscript{97} Rossell in 1983 noted the dearth of good research on the specific attitudinal effects of desegregation—especially forced—but noted that the public’s support for at least the concept of racially integrated schools had grown considerably since \textit{Brown}. Whether changing attitudes drove \textit{Brown} or vice versa is not clear. In addition, she reported evidence—though thin—that while desegregation is often contentious in its first year, it becomes accepted in affected districts by the second.\textsuperscript{98}

By the mid 1990s, much research had been conducted on desegregation in the wake of \textit{Swann v. Charlotte–Mecklenburg County Board of Education} (1971), in which the U.S. Supreme Court ruled that school districts could be ordered to achieve complete racial balance, including through forced busing. Again, the research results remained mixed, and some of the most negative findings concerned the effect of integration on racial attitudes.”\textsuperscript{99} What components need to be in place to generate positive outcomes, Armor reported, were unclear, but there was some consensus that integration should be


voluntary, started at the earliest grades, and allow parents to seek schools that match their children’s interests and skills.\textsuperscript{100}

In 1994 Wells and Crain analyzed twenty-one studies looking at long-term effects of school integration on social networks, theorizing that integrated schools enable African-American children to access networks that offer entrée into integrated colleges and professions. Essentially, they suspected that school integration helps to break down closed social networks, similar to those that Bourdieu saw as being perpetuated by the French education system. The research suggested that “interracial exposure in school can...reduce blacks’ tendency to avoid whites, and penetrate barriers between African-American students and networks of information and sponsorship.”\textsuperscript{101} Critically, however, most of the research studied was, again, unable to distinguish between mandatory and voluntary school integration, leaving open the question of how best to structure an education system to foster positive inter-group contact.

Findings concerning the importance of voluntarism in integration such as those identified by Armor, as well as popular souring on forced integration,\textsuperscript{102} prompted moves to focus on magnet schools in the 1970s and 1980s as well as other forms of school choice.\textsuperscript{103} The potential importance of voluntary choice is bolstered by findings such as those by Greene and Mellow that students of different races in chosen schools are more

\textsuperscript{100} Armor, p. 114.
likely to sit together at lunch tables than they are at public schools—a measure of more meaningful integration than school-level proximity because where students sit at lunch is a voluntary decision. Similarly, as previously noted, Jeynes found greater racial harmony in religious than non-religious schools, though this might be a product of more tolerant families self-selecting into religious schools. Peterson and Campbell, however, found no such effect when analyzing outcomes for students attending private schools through the Children’s Scholarship Fund, and West reported a serious problem of within-school segregation in magnet schools.

There is, of course, also evidence suggesting that voluntarism could lead to decreasing positive intergroup contact, reducing bridging capital. Roman Catholics founded their own school system to avoid de facto Protestant public schools, and by 1965 Catholic schools enrolled almost 5.5 million students. It also, no doubt, limited potentially beneficial Roman Catholic contact with Protestants. Similarly, there has been major, chosen “white flight” from districts facing mandatory racial integration, or generally when African-American enrollment has approached 40 to 50 percent of a school’s population. That said, Devine finds that for some people forced integration might have the opposite effect of the one intended because “people who are not privately motivated to respond with out prejudice but who are sensitive to external mandates

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105 Jeynes, pp. 165-178.
108 Kahlenberg, p. 112.
proscribing prejudice…comply…but do not do so happily. That is, their compliance is accompanied by feelings of anger and resentment” which “fuels their prejudice and their tendency to show a backlash against the pressure.”\(^{109}\) So while contact was avoided by the founding of Roman Catholic schools and white flight—presumably bad things—it might have been a net social capital gain by defusing potential resentment and conflict.

Given Devine’s findings it is possible that forced integration efforts have the opposite effect of building unity, instead forcing divisive conflict. While there is no question that many children from many groups have been assimilated in public schools, it does not necessarily mean that public schooling was either necessary, or even the best way to promote unity. As previously discussed, Much of American education history supports—though it doesn’t prove—this possibility, as does the European experience.

For much of the history of the United States, education was rooted in small localities, and individual communities tended to be homogeneous. That meant often there were no out-groups to deal with. Where there wasn’t homogeneity, however, there was at least some serious conflict. For instance, prior to Roman Catholics establishing their own school system, education-sparked Catholic versus Protestant conflict was common.\(^{110}\) That included the 1844 Philadelphia Bible Riots, fought over whose version, if any, of the Bible would be used in public schools, which ultimately resulted in tens of people

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dead, hundreds injured, and millions of dollars in property damages.\textsuperscript{111} Today, values-based conflict is commonplace in public schools, sparked by hot-button topics ranging from sex education, to the content of history curricula, to the teaching of evolution.\textsuperscript{112} Indeed, survey research by Berkman and Plutzer reveals that 60 percent of high-school biology teachers soft-pedal or avoid discussion of evolution altogether to avoid inflaming conflict.\textsuperscript{113}

Finally, some groups—most notably African Americans, but in some areas Mexican and Asian Americans as well—were systematically excluded from the public schools.\textsuperscript{114} Moreover, it stands to reason that many immigrants wanted to become assimilated—they did, after all, choose to come to America—and would have done so through private schools, or outside of formal schooling, in the absence of “free” public schools. And, of course, racial integration efforts were greeted in several places with anger and violence.\textsuperscript{115} Finally, survey research has shown that while in the abstract Americans like the idea of racial integration, they are strongly opposed to busing or schemes that appear to be forced integration.\textsuperscript{116}

\textsuperscript{112} McCluskey, 2007.
\textsuperscript{114} David Tyack, \textit{Seeking Common Ground: Public Schools in a Diverse Society}, (Cambridge, MA, Harvard University Press, 2003), pp. 82-85.
\textsuperscript{115} Buses, for instance, were blown up in Denver, Colorado, and Pontiac, Michigan, in the early 1970s in response to busing orders, and rioting and physical conflict occurred in response to forced busing in Boston.
In many Europe countries and Canada, as mentioned, it also appears at least possible that social cohesion was better fostered by allowing for greater educational options. The Netherlands, notably, defused serious tensions between Roman Catholics, Protestants, and secularists by moving to a system in which parents could freely choose religious schools. Similarly, England—like other European nations long buffeted by religious conflicts—integrated religious options into its national education system, and was a laggard in creating public schools. And French revolutionaries eventually found that they could not keep people from pursuing education from religious authorities. That said, in most cases incorporation of religious options has been done while maintaining national educational goals and standards.

The empirical and broad historical evidence on the effect of contact on inter-group relationships—especially building the trust that is essential for creating bridging social capital—is inconclusive. While it does appear that contact between people of different groups, including in schools, increases friendly inter-group contact and might increase long-term bridging capital, the effect is not especially large. Much more important, it is unclear how to get the kind of contact that will maximize social capital, especially whether the contact should be voluntary or engineered.

**Education Governance**

Education is geared, among other things, toward reproducing society: ensuring the upcoming generation will embrace the norms and institutions of the society into which they are entering. This is the case for any national education governance system—be it in
a democratically controlled or authoritarian nation—but Democratic education theory is perhaps the best-known theory dealing with broad education system governance.

The primary thinker behind Democratic education theory is Amy Gutmann, who states clearly that democratic education is geared toward “conscious social reproduction,” essentially the socializing preparation of children to function fully in the broad society to which they belong.\(^{117}\) She argues that democratic control of education provided to all, in which democratic processes dictate what will be taught in public school—short of discrimination or repression—creates the proper socialization for a democratically governed nation. Essentially, writes Gutmann, democratic control of education enables current citizens to make “decisions concerning how the character and consciousness of future citizens takes shape outside the home.”\(^ {118}\) Related to this, but on a more concrete level, public schools in democracies are supposed to acquaint students with institutions of democratic governance, from legislatures to voting. In these ways democratic education theory can be seen as a subset of social capital theory, focusing on how we give all children the shared norms and understandings needed for them to function smoothly in society.

Democratic education theory can also be seen as a subset of contact theory, with some theorists arguing that one of the most important contributions of democratically controlled schooling is that it requires diverse people to come together to hash out policies that will affect them all. As Ravitch writes, “as we lose neighborhood public

\(^ {118}\) Ibid., 290.
schools we lose the one local institution where people congregate and mobilize to solve local problems, where individuals learn to speak up and debate and engage in democratic give-and-take with their neighbors.”119 Similarly Tyack, at the same time he chronicles the “persistent conflicts of values and policies” in public schools, asserts that they are “a special kind of civic space” due to their democratic governance.120 Writing the U.S. Supreme Court’s decision in Brown v. Board of Education, Chief Justice Warren wrote about “the importance of education to our democratic society. It is required in the performance of our most basic public responsibilities…it is the very foundation of good citizenship.”121 Finally, Gutmann writes that “political controversies over our educational problems are a particularly important source of social progress because they have the potential for educating so many citizens.”122 Indeed, being required to debate what schools should do, and how, will “increase our understanding of education and each other.”123

Glenn explains that the unifying goal drove public schooling efforts in the United States and abroad.124 In the United States, Jefferson proposed public schooling for the State of Virginia in order that a child might grow to be self-sufficient, but also to “understand his duties to his neighbors and country;” oversee the conduct of his representatives in government; “and, in general, to observe with intelligence and

120 Tyack, 2003, pp. 182-183.
122 Gutmann, p. 5.
123 Ibid., p. 11.
faithfulness all the social relations under which he shall be placed.”

Similarly, Mann argued that common schools should be established to do many things, foremost of which is to inculcate common morals. He also asserted that common schools would “open a wider area over which the social feelings will expand; and, if the education should be universal and complete, it would do more than all things else to obliterate factitious distinctions in society.”

More recently, Mathews has argued that communities are becoming less cohesive in part because community members feel they have less control—“ownership”—over public schools then they once did, alienating them from what was once a locus of social activity. He argues for giving members of the public more say in the running of public schools that have increasingly been controlled by professionals and state and federal rules.

In revolutionary France, public schooling was used to attach children to the unified state. As Danton stated, “children belong to the Republic more than they do to their parents…It is in national schools that children must suck republican milk. The Republic is one and indivisible; public instruction must be related to this center of unity.” And such unity through attachment to the nation can be seen in the establishment of national curricula in many countries around the world.

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126 Mann, 1957.
128 Danton cited in Glenn, p. 22.
129 One of the “general objectives” for schooling in Brazil, for instance, is “strengthening national unity.” In Indonesia, the goal is “to establish a high-quality and self-reliant human being whose values are based on Pancasila (i.e. State ideology, spelled out in the five basic principles of the Republic of Indonesia]. And in
An open question even with democratic government theory is which level of government—National? Regional? Local?—should have authority over education, and how much authority should it have? This leads directly to the matter of education system structure, regardless of government-type: How centralized or decentralized should a nation’s education control be to maximize social cohesion? At one end would be complete national control of schooling, with centralized control of curricula and school assignment and no private schooling permitted. This would, perhaps, be the most pure expression of education directed toward nation-building, with the nation’s highest level of government having complete control over formal schooling, which could be used to bring diverse students physically together and ensure that all learn the exact same things. The greatest examples of this would likely be communist countries such as the Soviet Union, which employed schools to create complete attachment to the state.\textsuperscript{130}

The danger with trying to impose a single system over a wide swath of people is being unable to achieve consensus about what should be taught, and attempting to force religious, ethnic, or other groups together which do not get along. This is probably more of a problem for democratic governments than other governments, if “democratic” is defined as a government in which the people or their representatives vote for and execute laws. However, the need to have some sort of popular consensus behind what the schools teach could also prove a problem for authoritarian governments. If the people resist educational dictates—as was the case in revolutionary France, for instance—efforts to

impose a single national curriculum might prove ineffectual. At the very least we can see that the most complete form of national education control—the Soviet Union—did not fully succeed at creating state-molded, completely unified citizens. Had it, the USSR would likely not have dissolved from within.

On the extreme flip side of complete centralization is completely decentralized education with educators and families free to provide and consume whatever education they’d like, with whomever they’d like. This would likely minimize the possibility of inter-group conflict over education, or having to implement lowest-common-denominator curricula to avoid it, but would render it extremely difficult to ensure that there is inter-group contact and all students are learning the common culture, expectations of proper behavior in society, etc. It would also be essentially no education governance.

The degree to which government control of schools, curricula, admissions policies, etc., has been successful in building social cohesion is indeterminate. While the success of government controlled schooling in this regard is often asserted as fact there appears to be little concrete empirical support for it. There also appears to be at least equal evidence that public schooling might have supplanted equally effective private schooling; did exclude some out-groups; and inflamed potentially avoidable conflicts.

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131 See Barber, 1997; and Paul D. Houston, “Pinata Beaters and the Rush toward Narrow Self-Interest,” School Administrator, January 1998, for assertions of public schools unifying with very limited empirical evidence to support the claim. In addition, Gutmann concedes that critics who point out that public schools’ “record in teaching democratic virtue ranges from disappointing to disastrous” have strong evidence to support their claim, including public schools undertaking “unnecessary tracking,” presiding over “racial segregation in schools and classrooms,” and instituting “some of the most intellectually deadening methods of teaching American history and civics one can imagine.” P. 65
It is questionable, for one thing, to believe that Americans would not have pursued education—including unifying education—in the absence of public schools. As Tyack notes, Americans consumed education in relatively large amounts well before the establishment of publicly controlled and financed schooling.¹³² Next, as already noted, to the extent that people tend to live with others like themselves, for a long period of American history attending public schools would largely have meant attending small community schools and, as a result, having at most very limited interaction with out-groups. Finally, there was widespread legal exclusion of many out-groups from public schools, including African Americans but also, in some places, Asian and Hispanic Americans.

Not only is the evidence supporting the assertion that public schooling fostered social cohesion far from conclusive, there is anecdotal evidence indicating that where diverse people have been brought under a common schooling umbrella, conflict—not comity—ensued, and educational freedom has been needed to defuse divisive tensions. Religious divides, for instance, ultimately necessitated destruction of the national education system in the Netherlands and creation of a system of choice in which citizens could select religious schools at public expense.¹³³ Failure to do that could have resulted in inescapable “pillarization” of Dutch society. Indeed, choice of religious schools is found in the public education systems of many countries. In the United States, Zimmerman and Ravitch have shown public schooling resulting in either conflict or

¹³² Tyack, 1974, p. 66.
lowest-common-denominator standards that offend few people but teach very little, including basic American history.\textsuperscript{134}

There is considerable, but inconclusive, research suggesting that chosen schools better impart “democratic” values and knowledge, and that infusing choice into a democratic nation’s education system might have no negative effect on inculcation of shared values and civic knowledge. Niemi and Chapman reported that in 1996 private-school students exhibited greater knowledge about politics, superior political participation skills, a greater feeling of political efficacy, and greater tolerance of controversial books in public libraries, than did public school students. This finding held after controlling for various student characteristics, including race and gender, and family characteristics such as parents’ political knowledge.\textsuperscript{135} Reviewing 21 quantitative studies looking at the effect of school choice, especially private, on such civic values as political tolerance, voluntarism, and civic skills, Wolf found that the majority of studies that controlled for potentially confounding variables found either statistically significant or neutral effects for choice, and only one found an advantage for traditional public schools. Included in the attitudes assessed was tolerance for even highly disliked groups exercising free speech and running for political office. Eight studies showed a neutral effect for schools of choice, and five a positive effect.\textsuperscript{136} Campbell, using data from the


National Household Education Survey, found an advantage for private schools at inculcating civic values, though he also found that “students in religious/non-Catholic schools express a lower degree of political tolerance than students in assigned public schools, even while expressing a high degree of civic confidence.”\textsuperscript{137}

Evidence from abroad—mainly qualitative—suggests that having the ability to choose among schools, both religious and secular, has no negative effect on unity or inculcation of civic values, though with national governments generally establishing uniform standards or curricula. Dronkers, summarizing analyses of the effect of choice in several European nations, concludes that “while systematic evidence is spotty at best…it does not seem to be the case that the much greater availability of publicly subsidized parental choice in Europe than in the United States has increased educational inequality or segregation or undermined either student learning or socialization.”\textsuperscript{138} Similarly, as described earlier, in Canada Pennings et al. found the prevalence of doing such socially desirable things as volunteering in one’s community and participating in elections varied between public schools and different types of private schools, a finding that gave no distinct advantage to public schools.\textsuperscript{139}

Hypothesis

Given the tendency of people to self-segregate, uncertainty about the effect of chosen versus coerced contact, and some suggestive evidence that private schools may be more effective at teaching civic values and skills than are public institutions, it is an


\textsuperscript{139} Pennings, et al., 2012.
important but generally unaddressed question whether the best educational system structure to build social cohesion is one in which people are forced into a largely nationalized, government-controlled system, or one in which power is decentralized to the regional, local, or even individual school and parent level. My hypothesis is the opposite of the prevailing notion at the heart of the public education systems of many countries: Rather than more centralized controls and forcibly diverse student bodies maximizing social cohesion, I theorize that greater educational autonomy—autonomous educators and freely choosing families—will increase cohesion within a country. More generally, social cohesion will grow as education governance decentralizes.

Start with contact. Because diversity of numerous types—ideological, religious, racial/ethnic, linguistic, and economic—generally militates against the development of social capital, the more diverse a nation, the less social capital it is likely to have, other things being equal.¹⁴⁰ This can be mitigated, I hypothesize, by maximizing the amount of freedom of association that individuals have, allowing people to enter into relationships with similar people and form bonding capital. This could also—though counter intuitively—maximize bridging capital both by minimizing social-capital-destroying conflict and fostering intergroup contact that meets Allport’s requirements of equal status, pursuit of common goals, and contact that leads “to the perception of common interests and common humanity.” What would be missing is sanction of integration by institutional supports such as law.

¹⁴⁰ See Putnam, “E Pluribus Unum: Diversity and Community in the Twenty-first Century”. Note that Putnam believes in the long term diversity is beneficial for a country, but “in the short to medium run…immigration and ethnic diversity challenge social solidarity and inhibit social capital,” p. 138.
How would building bridging capital likely work? This can perhaps best be illustrated by a simplified example: A white student and a black student belong to different racial groups, and probably have high social distance between each other. Were they required to attend the same school by law, perhaps through busing, there would likely be a presumption of unequal status; rather than pursuing common goals the students could perceive themselves to be in competition; and the resulting conflict could lead to greater stereotyping and decreased perception of common humanity.

Now, suppose there were totally free educational association and the white and black students were both interested in, say, a Baptist education. Suppose, then, both chose a Baptist school. The ensuing contact would likely be closer to equal status (both freely chose the school); the students would pursue the common goal of being better Baptists; and their pursuit of their common interests would lead to greater, more meaningful intergroup interactions than would required physical attendance at the same school. And that would ultimately decrease social distance, erode stereotypes, and increase trust.

Of course that is, as noted, a highly simplified model, but it is also not unlike the rationale behind such efforts to integrate as magnet schools, and there is some, though very limited, empirical evidence that private schools more effectively build bridging capital among students than public schools. This is not, however, to say that we would expect an immediate, broad, integrating effect to occur were a school system to be suddenly made fully decentralized. The more immediate, salutary effect would be decreasing divisive conflict; building bridging capital, were it to occur, would likely take much longer. As Fukuyama notes, “social capital is like a ratchet that is more easily
turned in one direction than another; it can be dissipated by the actions of governments much more readily than those governments can build it up again.”\textsuperscript{141} It is my hypothesis that government putting diverse people under a single schooling umbrella dissipates social capital, and only leaving people to choose to interact with one another can increase it.

\textsuperscript{141} Fukuyama, 1996, p. 362.
**Conceptual Model**

Figure 1 lays out the conceptual model of the hypothesized relationship between “education structure”—the extent to which individuals are able to select what they will learn and with whom they will learn it—population diversity, and social capital.

Social capital is ultimately how much and how intense a level of cohesion exists between members of a society. As Putnam, Fukuyama, and others have suggested, this is best measured by degrees of trust members of a society have in other members—a concept
that captures both positive and negative feelings—but also outward demonstrations of affinity for other members of society, such as membership and activity in institutions of civil society such as social clubs.

Both logic and empirical evidence suggest that diversity is generally inimical to the wide diffusion of trust among people, and if left alone individuals will tend to associate with others much like themselves, often based on income, race, religion, or ethnicity. It is, if nothing else, easier to interact with people who share one’s norms, cultural proclivities, ethnic grouping, religious convictions, or language, than to attempt to overcome those barriers. It is even harder to interact with people of other groups if one is suspicious or fearful of them.

When diverse people interact, three outcomes are likely: no change in trust, trust-building positive contact, or trust-undermining conflictual contact. The model suggests that both education system structure and diversity could have direct effects on social capital. (Note that in Figure 1 “diversity” is a single variable. The operational model includes several types of diversity.) Less diversity, generally, would tend to result in greater social capital, and more diversity less social capital.

The effect of education structure is somewhat more ambiguous. As noted, greater educational freedom could lead to both greater bonding and bridging capital. The former, by enabling people of the same group to go to school together, the latter by enabling people who might belong to, say, different racial groups to attend school together based

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142 Putnam’s finding that greater diversity is associated not even with less bridging capital, but “atomization” of individuals disconnecting them even from group identities, is telling about the deleterious effect of diversity on social capital. Putnam, 2007.
on, perhaps, common religious norms and, hence, overcome racial divides. On the other hand, educational freedom could lead to strong bonding capital but minimized bridging capital were people to leave multi-group schools and attend schools only with people of their immediate group. Bringing diverse people together could also lead to conflict, eroding social capital.

The effect of educational freedom, in theory, would be to avoid conflict by ensuring people will not have to fight to make theirs the “official” values of the schools for which they must pay taxes and their children would attend. This hypothesis—that government should not try to engineer “togetherness” as it would likely lead to otherwise avoidable conflict—jibes with Fukuyama’s observation that “social capital is something that the government can diminish but not easily build up.”

Three additional variables would likely affect social capital, and could be affected indirectly by the structure of the education system. The first is the level of educational attainment, which could potentially be positively or negatively influenced by greater or lesser centralization of educational control. On the whole, greater education is

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144 The purpose of this paper is not to address the academic outcomes for different educational system structures, but there is widespread debate about whether more or less centralized systems create better or worse academic outcomes. Random-assignment studies of private-school choice programs in the United States suggest that choice has a statistically significant positive effect on academic outcomes for at least some groups, and no negative effects for any groups. See Greg Forster, “A Win-Win Solution: The Empirical Evidence on School Vouchers,” The Foundation for Educational Choice, March 23, 2011. On a broader scale, Coulson surveyed research yielding more than 150 statistical comparisons of private and public provision of education, and found that in general the more free-market like the system, the better the academic outcomes. Andrew Coulson, “Comparing Public, Private, and Market Schools: The International Evidence,” Journal of School Choice, Vol 3. These findings at least suggest that less centralized education systems have a positive academic effect. Of course, the norm has been government controlled education—often at the national level—presumably because markets were not thought to be supplying sufficient education.
associated with greater tolerance of out-groups and, hence, social capital. That is, at least in terms of what abstract principles—such as supporting the right to unpopular speech—people say they support. It is theorized that this is because greater education inculcates more tolerant attitudes, but it is possible that this greater tolerance disappears when concrete government actions are proposed. In addition, there are open questions whether more tolerant responses reflect actual opinions or socially-approved answers. Nonetheless, it is generally accepted that more educated people tend to be more tolerant.

Second, a society’s level of economic development would likely have a significant effect on social capital, with people in wealthier nations having more material comforts and leisure time to participate in voluntary groups like bowling leagues, increasing social capital. However, were there sizable income inequality—especially in low-income countries—it would likely foster animosity, especially if people were forced to compete for scarce resources, or were to see themselves as unable to get ahead. Importantly, educational attainment has a sizable impact on economic development, with, ceteris paribus, the greater human capital associated with higher levels of education

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147 Putnam actually finds that wealthier and less well-off Americans have seen similar drops in social capital as measured by participation in voluntary group activities Bowling Alone, pp. 193-194. However, it is also likely that, at the very least, a certain level of economic development must exist for people to have sufficient leisure time to do something other than work.
having a powerful effect on economic growth.\footnote{See, for instance, Gary S. Becker, \textit{Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education}, (New York: Columbia University Press, 1975); and Jacob Mincer, “Human Capital and Economic Growth,” \textit{Economics of Education Review}, Vol. 3, No. 3, pp. 195-205.} In addition, the structure of national governance is likely to have a strong effect on social capital, with more autocratic systems likely fostering atomization and suspicion in society.\footnote{Communist governments in the Soviet Union and elsewhere targeted civil society for destruction early on to create complete dependence on the state, which among other things necessitated a substantial secret police apparatus. See Richard Rose, “Postcommunism and the Problem of Trust,” \textit{Journal of Democracy}, Vol. 5, No. 3, July 1994, pp. 18-30; and Glenn, 1995.} It should also have an effect on the structure of the education system, with more centralized governments likely to have more centralized education systems.

Finally, government type is likely to affect GDP, with more centralized systems likely to have lower economic productivity. Chaffour, for instance, finds that countries with greater economic freedom, as measured by levels of business regulation, labor regulation, and ease of international trade—but also such government functions as security of property rights and impartial court systems—have greater rates of economic growth, especially compared to countries with greater “entitlement rights.” The latter are operationalized by such things as top marginal tax rates and transfers and subsidies.\footnote{Jean-Pierre Chaffour “What Matters for Development—Freedom or Entitlement?” in \textit{Economic Freedom of the World: 2011 Annual Report}, edited by James Gwartney, Robert Lawson, and Joshua Hall, (Vancouver, BC: Fraser Institute, 2011), pp. 167-178.} This is similar to Barro’s finding that countries’ per-capita economic growth is inversely related to the share of their GDP consumed by government, which he theorizes has a negative effect by requiring such “distortions” as high tax rates. He contrasts this, though, to government “investment” in areas such as education and defense, which has no
meaningful relation to growth. The evidence appears to indicate that government power is needed to secure property rights and maintain public order so that economic activity can be effectively carried on, but larger, more active government tends to distort economic efficiency. Government may also have a role to play in investing in such goods as defense, education, and research—in which people might underinvest without government involvement—but extending government activity beyond that is likely to lead to net losses as bureaucratic controls reduce the efficiency of transactions and taxation removes resources from productive uses. There are also myriad ways in which government can be used in anti-competitive ways by politically-potent firms and for rent-seeking.

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CHAPTER 3
RESEARCH METHODS

Data

To maximize the range of values in all of the variables that affect social capital, this study is international in scope, with countries as the unit of analysis. Multiple sources of data are used. Data for the primary dependent variable—social capital, operationalized as generalized trust among nation’s people—come from the World Values Survey (WVS), a study of “changing values and their impact on social and political life” that has been conducted in five waves between 1981 and 2008. Several waves provide data on the question of whether respondents trust “most people.” For many of the same nations, the most recent WVS also includes related trust questions, including items about trust in family, neighbors, personal acquaintances, and other groups. In addition, the WVS provides data on respondents’ participation in groups ranging from sports clubs to political parties, which can be used to measure social capital.

Unfortunately, many nations that have overall trust data are missing data for group memberships. In addition, many nations do not have data for trust at levels below society generally, such as family members or people in respondents’ neighborhoods. As a result only general trust, which maximizes sample size and most closely gets at national-level, broad trust, is used.
The primary independent variable is education structure, for which a ten-point index has been constructed for 56 nations. The nations were selected based on the availability of data. A score of zero indicates complete educational decentralization—anyone can choose any educational option or none at all—and ten is complete centralization, with education compulsory for all and a legal, uniform monopoly of the national government. The components of the index are as follows:

- **Compulsory attendance:** Scored zero if not compulsory, one if compulsory
- **Curricular control:** Scored one if curriculum is controlled at the school or local level, two if controlled at the state or regional level, and three if controlled at the national level. In many nations this is a hybrid—generally, countries have national standards but some discretion in implementation at lower governmental levels—and the score is based on where primary authority for curriculum setting resides.
- **Private prohibited:** If private schooling is completely prohibited this is coded a six, because it is a major limit to freedom, making any private education illegal. If private schooling is allowed this is coded zero. In one instance it was coded three: Tanzania is divided into Tanzania and Zanzibar, with private schooling illegal in Zanzibar but permitted in Tanzania.
- **Unsubsidized schools must use the predominant curriculum:** If private schools that do not receive government aid—either directly or through students—must use either the national, state, or local district curriculum (depending on which level
has primary authority) this is coded a one. If not, it is coded zero. In two instances it was coded 0.5. First, in Zanzibar private schooling is illegal, but in Tanzania private schools must use the state curriculum. In South Korea, private elementary schools have a great deal of autonomy, but private middle and high schools do not.

- Subsidized schools must use the predominant curriculum: If private schools that receive government aid—either directly or through students—must use either the national, state, or local district curriculum (depending on which level has primary authority) this is coded a one. If not, it is coded zero. Again, there a few countries coded 0.5: South Korea, because of its differing treatment of schools by level, and Israel, which allows subsidies to go state religious schools, Jewish orthodox schools, or church schools, but requires all to teach some common things.

- Government control of admissions at unsubsidized schools: If a private school that does not receive government aid must follow government admissions rules—primarily, nondiscrimination rules based on race, gender, and religion—this is coded one. If no such rules apply, it is coded zero. Several countries were coded 0.5 because rules allowed some school autonomy in admissions—for instance, single-sex education, or religious requirements—but not complete admissions freedom.

- Government control of admissions at subsidized schools: If a private school that receives government aid must follow government admissions rules this is coded one. If no such rules apply, it is coded zero. Again, several countries were coded
0.5 because rules allowed some school autonomy in admissions but not complete freedom.

- Subsidies: If countries allowed subsidies for private schooling this was coded zero. If not, it was coded two. Two countries were coded one: Malta, which subsidizes Roman Catholic schools (but not other independent schools) in addition to offering state schools, and Cyprus, which only provides subsidies for religious minorities.

Data for constructing the index for the 56 nations represented come from multiple sources. For most nations, the UNESCO “World Data on Education,” 6th edition profile is the primary source of information.\(^{154}\) For most European nations, however, Eurybase “Information Database on Education Systems in Europe” profiles were used.\(^{155}\) Missing or ambiguous information in these sources was often obtained or clarified through direct correspondence with personnel in either nations’ U.S. embassies or in their education ministries, as well as numerous supplemental sources listed in Appendix A. Information for a few countries was obtained outside of the two main sources, and they too are itemized in Appendix A. All efforts were made to rate nation’s education structures five years prior to the year in which their trust data was collected, based on the assumption


that policy changes would require at least a few years to be reflected in changing public attitudes.

The source of the primary dependent variable—trust—is the World Values Survey, in particular variable 23 in the 2005 wave of the survey. V23 presents responses of either “most people can be trusted” or “need to be very careful” to the question “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?” In order to increase the sample of countries, nations that did not participate in the 2005 WVS wave but participated in either the 2000 WVS wave or the 1999 European Values Survey wave were added. The same question was V25 in WVS 2000 and V66 in EVS 1999.\(^ {156}\)

In addition to the variables that comprise the education system structure index, numerous control variables are included in the study, including measures of linguistic, religious, racial/ethnic, and economic diversity; immigration rates; government type; educational attainment; and per-capita gross domestic product. Detailed information about the sources of data for these variables can be found in Appendix A.

**Research Design**

This analysis uses multiple regression analysis to assess the effect of education system structure, controlling for numerous additional variables, on a general measure of trust in other people expressed by a nation’s population. In addition to assessing the direct effects of the independent variables on the control variable, a path analysis was

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conducted to determine if the independent variables had any significant indirect effects on the dependent variable. The basic model for the regression is:

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\text{Trust} = \beta_0 + \beta_1[\text{ed structure}] + \beta_2[\text{diversity}] + \beta_3[\text{immigration}] + \beta_4[\text{gov structure}] + \beta_5[\text{ed level}] + \beta_6[\text{per-capita GDP}] + \varepsilon
\]

Essentially, trust is a function of the structure of the education system as well as diversity; immigration rates; the degree to which government is overall open or repressive; the overall level of education in society; wealth; and measurement error.

Within this overall model, I expect to see relationships between many variables, both acting directly on trust, and indirectly on trust through other variables. Figure 2 is a path model for the anticipated variable connections. The regression analysis results will be mapped on the path model.
Figure 2 – Path Model of the Contributors to Social Capital
CHAPTER 4
RESULTS AND DISCUSSION

Results
As described in greater depth in the previous chapter, this study uses data from numerous sources for 56 countries. The primary dependent variable—social capital, operationalized as generalized trust of other people—is derived from the World Values Survey, a study of “changing values and their impact on social and political life” that has been conducted in five waves between 1981 and 2008. The primary independent variable—the structure of countries’ education systems—is a scale of education centralization incorporating such variables as the level of government at which curricula are established, and the degree to which parents are able to choose non-government schools such as religious institutions. Finally, numerous variables that likely affect social cohesion such as linguistic diversity, immigration, and economic status, are included in the model. The data sources for all of these variables are listed in Appendices A and B.

Table 1 provides the name, number of observations, mean, standard deviation, minimum value and maximum value for all the variables incorporated in the analysis.
Table 1 – Descriptive Statistics for Dependent and Independent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>56</td>
<td>.29</td>
<td>.17</td>
<td>.04</td>
<td>.74</td>
</tr>
<tr>
<td>Education Structure</td>
<td>56</td>
<td>6.64</td>
<td>1.53</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Per-capita GDP</td>
<td>56</td>
<td>9.06</td>
<td>1.52</td>
<td>5.88</td>
<td>11.33</td>
</tr>
<tr>
<td>Education Level</td>
<td>56</td>
<td>92.39</td>
<td>11.16</td>
<td>49.9</td>
<td>100</td>
</tr>
<tr>
<td>Language Diversity</td>
<td>56</td>
<td>4.64</td>
<td>3.16</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Racial/Ethnic Diversity</td>
<td>56</td>
<td>4.43</td>
<td>2.39</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Religious Diversity</td>
<td>56</td>
<td>4.70</td>
<td>2.24</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Income Diversity</td>
<td>54</td>
<td>3.56</td>
<td>.23</td>
<td>3.14</td>
<td>4.17</td>
</tr>
<tr>
<td>Immigration</td>
<td>56</td>
<td>1.04</td>
<td>4.62</td>
<td>-14.26</td>
<td>24.83</td>
</tr>
<tr>
<td>Government Type</td>
<td>51</td>
<td>6.31</td>
<td>5.64</td>
<td>-10</td>
<td>10</td>
</tr>
</tbody>
</table>

A more complete description of all the variables is in Appendix B, but a short explanation of the variables is in order.

As described earlier, the dependent variable—“trust”—is the percentage of people in a country who responded that they trust “most people.” “Education structure,” as explained in much greater detail in chapter 3, is an index of several legal characteristics of countries’ educations systems. “Per-capita GDP” is self-explanatory. “Education level” is the percentage of children age 15 who can read and write. Language,
ethnic/racial, and religious “richness” are the total number of languages, ethnicities/races, and religions connected to at least 1 percent of the population in each country.

“Immigration rate” is the number of net immigrants per 1000 people. “Income diversity” is the log of the Gini coefficient in each country. Finally, “government type” is from the Polity IV database and gives a scale of political regime characteristics, with -10 being strongly autocratic and 10 strongly democratic.

Next, Table 2 provides the basic correlations between the variables above.

Table 2 – Correlation Coefficients for Dependent and Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Trust</th>
<th>Ed Structure</th>
<th>Per-cap GDP</th>
<th>Ed Level</th>
<th>Lang Div</th>
<th>Race/Eth Div</th>
<th>Rel Div</th>
<th>Econ Div</th>
<th>Immig</th>
<th>Gov Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ed Structure</td>
<td>-.13</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per-cap GDP</td>
<td>.47</td>
<td>-.54</td>
<td>1</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Ed Level</td>
<td>.33</td>
<td>-.34</td>
<td>.68</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lang Div</td>
<td>.03</td>
<td>.03</td>
<td>-.27</td>
<td>-.40</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Race/Eth Div</td>
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<td>.08</td>
<td>-.13</td>
<td>-.02</td>
<td>.06</td>
<td>1</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Rel Div</td>
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<td>-.21</td>
<td>.20</td>
<td>.16</td>
<td>.37</td>
<td>.19</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Econ Div</td>
<td>-.51</td>
<td>.13</td>
<td>-.43</td>
<td>-.41</td>
<td>.40</td>
<td>.09</td>
<td>.24</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immigration</td>
<td>-.04</td>
<td>-.20</td>
<td>.15</td>
<td>.11</td>
<td>-.02</td>
<td>-.02</td>
<td>.11</td>
<td>.02</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gov Type</td>
<td>.23</td>
<td>-.53</td>
<td>.60</td>
<td>.54</td>
<td>-.32</td>
<td>-.10</td>
<td>.21</td>
<td>-.42</td>
<td>.01</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlations among the variables range from weak to strong, most being in the moderate range. Only two correlations between trust and any of the independent variables are large: economic diversity and trust have a moderately strong, negative correlation of - .51, and per capita GDP has a correlation of .47 with trust, both as expected. Education structure has moderately strong correlations with per-capita GDP (-.54) and government
type (-.53), with greater education centralization associated with lower GDP and less
democratic government. In addition to its relationship to education structure, per-capita
GDP has strong correlations with education level (.68) and government type (.60). GDP
and education level are positively correlated, and higher GDP is associated with more
democratic government. Finally, education level and government type have a moderately
strong correlation (.54), with increasing education levels associated with increasing
democratization.

Education structure—the primary variable being assessed for its relationship with
trust—has only a small correlation (-.13) but in the anticipated direction. As the degree of
education governance centralization rises, trust decreases. This small correlation relative
to several other variables is logical, with very broad forms of diversity likely to have
greater impacts than the structure of the education system, even if the system affects
many people.

That said, the positive relationships between trust and two major forms of
diversity—racial/ethnic (.21) and religious (.11)—are surprising. The assumption is that
diversity, by creating barriers to social interaction, would be negatively correlated with
trust. But all three suggest that as diversity increases, so does trust (though just barely in
the case of linguistic diversity, which has a negligible correlation). A possible
explanation is that countries with high trust attract diverse people, or that some countries
have variables present that help to mute—and even reverse—the negative effects of
diversity on trust.
We now move to the regression results, starting by looking at the direct effects of the independent variables on the trust variable. Appendix B contains the complete regression results—only the most important outcomes will be highlighted here.
Table 3 – Regression Direct Effects on Trust

|                                | Beta Coefficient | P>|t| |
|--------------------------------|------------------|-----|
| Education Structure           | .113             | .445|
| Per-capita GDP                | .489             | .011*|
| Education Level               | .015             | .928|
| Language Diversity            | .306             | .040*|
| Racial/ethnic Diversity       | .272             | .024*|
| Religious Diversity           | .014             | .924|
| Income diversity              | -.502            | .001***|
| Immigration                   | -.070            | .551|
| Gov Type                      | -.102            | .543|

N = 49  R²= 0.5217  Adj. R²=0.4113

* Sig. at .05  **Sig. at .01  ***Sig. at .001

Of all the potential explanatory variables, as shown in Table 1, only four have an effect on trust significant at the .05 level or better: per-capita GDP, language diversity, racial and ethnic diversity, and economic diversity. Of these, two have by far the largest effects: economic diversity and GDP. A one standard deviation increase in per-capita GDP is associated with a .49 standard deviation increase in trust. Meanwhile, a one standard-deviation increase in economic stratification is associated with a .50 deviation decrease in trust. Also significant is language diversity, with greater diversity having a positive connection to trust. Like the unadjusted correlation, this is an effect in the opposite direction than was expected, with more diversity associated with greater trust.
Indeed, the regression result for language diversity is stronger than the raw correlation. Similarly, greater racial/ethnic diversity is correlated with higher levels of trust.

Some of the dependent variables that are not statistically significant have effects in the opposite direction than hypothesized. First and foremost, education structure shows that an increase in centralized control is correlated with increasing trust. That and statistical non-significance means that the primary hypothesis—greater decentralization of education control would be directly correlated with greater trust—is not confirmed. In addition, greater religious diversity has a very small, but nonetheless positive, relationship with trust, though it, too, is not statistically significant.

Perhaps education structure, as well as other variables, doesn’t have significant direct effect on trust, but works through other variables, in particular those connected to GDP which has a large, significant effect. This can be determined by examining the indirect effects through path analysis. Essentially, an indirect effect of one variable on trust is determined by multiplying the direct effect of that variable on another independent variable’s direct effect on trust, yielding the indirect effect of the first independent variable on trust. Importantly, both the direct effects of the first independent variable on the second, and the direct effects of the second independent variable on trust must be statistically significant to yield significant indirect effects. In addition, significance tests of those pathways can be calculated. Finally, total effects of each variable on trust can be determined by adding together any given variable’s significant direct and indirect effects.
Figure 3 presents the final path diagram. While effects were calculated from all exogenous variables to all endogenous variables, only those significant to at least the .10 level are shown. Those paths that are significant from the .10 to the .051 level are represented by dashed lines, while those from .05 to .01 are solid. Coefficients are presented on each path. Full regression results for the intermediate variables are in Appendix C.

Clearly, the bulk of indirect effects are nonsignificant. However, the direct effect of education structure on per-capita GDP is significant to the .05 level, with a one
standard deviation move toward greater centralization yielding .28 percent of a standard
deviation decrease in per-capita GDP. Multiplying that coefficient by the positive effect
of rising GDP on trust (.49) results in a negative .13 indirect effect on trust. Calculating
significance for that entire pathway—education structure, to GDP, to trust—shows the
effect is significant to the .08 level, short of .05 but within .10. So as education becomes
more centralized social capital decreases, but it appears that this is a consequence of
decentralizing education structure being associated with better economic outcomes, not
because choice defuses divisive conflicts or enables people to build meaningful bridging
capital, as hypothesized.

Government type, which has a significant direct effect on education structure, has
an indirect effect on trust through a similar pathway. Multiplying the three constituent
connections for the indirect path between government structure and trust yields a
coefficient of .08 for government type. A one standard deviation movement toward
greater democratic government yields a .08 standard deviation increase in trust through
education structure and GDP. It is a small, but nonetheless interesting effect since
government type had no significant direct effect on trust. 157

In addition to this central finding, there are two statistically significant indirect
effects on trust: education level, working through GDP, and language diversity working
through education level and GDP. A one standard deviation increase in the average
national education level, working through GDP, increases trust by .21 standard

157 To check for significance of the entire pathway I calculated the significance of both the path from
education structure, to GDP, to trust, and from government type, to education structure, to per-capita GDP.
Both were significant, the first, as noted, to p=.08, and the second to p=.05. I am unaware of a way to test
for significance of all elements of the pathway simultaneously.
deviations, and a standards deviation increase in language diversity decreases trust—working through education level and GDP—by .07 standard deviations. That is a small effect, but the two constituent pathways—education level, to GDP, to trust; and language diversity, to education level, to GDP—are both statistically significant to at least the .10 level.

Finally, religious diversity has an indirect effect on trust, though only through a path to education level that is significant at the .10 level. Multiplying the coefficients together yields an indirect religious diversity effect on trust of .05—a one standard deviation increase in religious diversity in associated with a .05 standard deviation increase in trust—but the pathway from religious diversity to GDP is not significant.

Discussion

Direct Effects

This first thing the results indicate is that, controlling for numerous diversity variables as well as economic level, education level, and government type, the structure of an education system does not have a significant, direct effect on general trust. The hypothesis that greater decentralization of education control will be directly associated with increasing trust is not supported. Indeed, the relationship between system structure and trust is positive, indicating that greater centralization is associated with more trust. This relates to the hypothesis that systems which nudge people together build greater social cohesion. But this is not confirmed, either, since the effect is not statistically significant.
Some of the direct effects on trust that are significant are interesting. One is that, in opposition to general social capital theory, greater racial and ethnic diversity, as well as greater language diversity, appear to have positive associations with trust. One would expect based on logic and existing research that greater diversity would correlate with greater conflict or, consistent with Putnam’s recent findings, atomization. Instead, a one standard deviation increase in racial/ethnic diversity leads to a more than quarter standard deviation increase in trust, and a one standard deviation increase in language diversity corresponds to a .31 percentage increase in trust. These results, as mentioned previously, are possibly a result of diverse people tending to move to countries that are hospitable to diversity, and of such countries likely having high levels of trust that would make them attractive places to live. It is also possible that there is more self-segregation in countries with greater diversity, leading to greater bonding, but not bridging, capital. Why equal bonding would not occur in countries with less diversity is difficult to say, though, and Putnam’s finding was that greater diversity led to atomization, not greater intra-group bonding.

Second, and not surprisingly, higher levels of per-capita GDP are strongly correlated with greater trust. It stands to reason that trust will be bolstered by wealth, with those having greater income also having more potential leisure time to associate with others. It is also likely that reaching at least some threshold level of material comfort would reduce suspicion and a feeling of being in high-stakes, zero-sum competition with others.
The third—and largest—significant direct effect is between income stratification and trust, with greater stratification having a very strong negative effect on trust: a one standard deviation increase in stratification is associated with a half of a standard deviation decrease in trust, with a significance level of .001. This is no doubt related to the positive effect of overall income, but whereas an overall high national income level is likely to reduce feelings of competition, research suggests that income inequality gives people—especially of lower incomes—the sense that the social and economic system is generally unfair.\textsuperscript{158}

It is a bit surprising that education level does not have a direct effect on trust, as higher levels of education tend to be correlated with higher levels of tolerance, and one would expect, therefore, trust as well. This is possibly a function of the education level variable used: percentage of citizens 15-or-older who are able to read and write. A continuous variable of years of education completed might have produced a different result, measuring a continuum of education levels rather than attainment of, essentially, baseline education.

It is also interesting that religious diversity has no meaningful direct effect. This is perhaps because, unlike much of European and American history, religion has ceased to be nearly as large a divider as it once was. This is likely reflected in very high rates of

non-religiosity reported in many surveys, especially of developed countries.\textsuperscript{159} It can be seen perhaps most clearly in the United States with Roman Catholics now fully integrated into American society and its public schools, and parochial schools having greatly changed their focus from inculcating Church teaching to Catholics toward serving large percentages of non-Catholic students.\textsuperscript{160} Where it is still common to hear about difficulties integrating people of non in-group religions—France, for instance—reports might be largely focusing on disputes that happen at the margins. It is perhaps possible that few French people have experience with trying to integrate Muslims, but the few areas where there are large numbers of Muslims generate many headlines, such as large enclaves in Paris.

The explanation for the insignificant direct effect of immigration is likely similar to that for religion. For one thing, few countries in the sample were experiencing major immigration: Of the 56 nations in the sample, 26 were either net losers or saw no gain or loss in roughly the time period the trust question was asked. Meanwhile, only four countries saw net immigration of five or more people per 1,000. So, while immigration might generate big headlines, it quite possibly has a meaningful, direct impact on relatively few people, minimizing its impact on trust.

\textsuperscript{159} Good supporting data on declining church attendance is provided in Noelle Knox, “Religion Takes Back Seat in Western Europe,” \textit{USA Today}, August 10, 2005.

A note about the diversity measures is in order: The variables used for language, race/ethnicity, and religion were simply the number of different groups to be found in each nation. Preferable measures would have assessed diversity according to the evenness by which groups are spread across nations—do you have two groups at 50 percent each, or one at 99 percent and the other 1 percent?—but efforts to do that were stymied by the CIA World Factbook missing group percentage breakdowns for several countries, leaving a smaller sample were the nations without breakdowns excluded. It is possible that were full evenness measures employed results would have been different.

Given the hugely powerful effect of economics on trust, it is also possible that variables that in fact do have some positive effect on trust were “swamped” by the economic variables. Just as social issues might be on the minds of some voters, but “it’s the economy, stupid” that wins elections, it might be very hard to detect the effect of non-economic variables on trust. With that in mind, it is important to note that all the variables in the model accounted for only about 41 percent of the variation in trust levels (adjusted $R^2=.41$). That means other forces not captured in the model are associated with trust. Foremost among these is, perhaps, political culture, which deals broadly with “people’s cognitive perceptions, basic values, and affective or emotional commitments.”\textsuperscript{161} The difficulty is operationalizing political culture, which Ross asserts many analysts find vague and subject to constant change.\textsuperscript{162} Similarly, Elkins and Simeon note the difficulty in disentangling “cultural and institutional forces,” such as the

\textsuperscript{162} Mark Howard Ross, “Culture and Identity in Comparative Political Analysis,” in Crothers and Lockhart, pp. 55-56.
structure of the United States Congress and “the norm of reciprocity.”\textsuperscript{163} Thinking through the issues associated with this and attempting to assess the effect of political culture would be an excellent next step in research on this topic.

\textit{Indirect Effects}

While education structure has no significant direct effect on trust, it has a significant indirect effect through per-capita GDP, with a one standard deviation increase in centralization correlated with a .28 standard deviation decrease in GDP. Working through GDP, the indirect effect on trust of a standard deviation increase in centralization is a .13 standard deviation drop in trust. The overall path is significant to the .10 level. This suggests that the main effect of decreasing education centralization is not avoiding divisive conflict or building cohesive groupings, but possibly enhancing some non-educational effect, such as countries with more decentralized systems fostering more entrepreneurial behaviors. It is more likely to be a non-educational effect because there is no significant path between education structure and education level. But the best that can be offered from the current study is conjecture—future research should look more directly at the relationship between education structure and GDP.

With a significant and large correlation with education structure—a one standard deviation toward institutionalized democracy leads to a .59 standard deviation decrease in education centralization—government type also has a small effect on trust through the path that includes education structure and GDP. This makes sense: The less autocratic a

national government, the less centralized one would expect its education system to be. Ultimately, a one standard deviation move toward democracy is associated with a .08 standard deviation increase in trust, but only by a reduction in centralized education which in turn increases GDP.

It is, as noted, interesting that there is no significant effect between education structure and education level, but there is a strong positive association between education level and GDP, with a standard deviation increase in education level associated with a .42 deviation increase in GDP. Working through GDP, a 1 standard deviation increase in education level leads to a .21 deviation increase in trust. Greater percentages of people achieving literacy at fifteen, not surprisingly, has a positive association with GDP, producing increasing levels of tolerance. Why there is no significant connection between structure and education level is, again, a good focus for future research.

Finally, language diversity has a small indirect effect on trust through education level and GDP, with a one standard deviation increase in language diversity associated with a .07 deviation decrease in trust. Combining the direct and indirect effects, language diversity has a total effect of increasing trust .24 standard deviations for every standard deviation increase in language diversity. The difference in signs between language diversity’s direct and indirect effects on trust is interesting. The direct effect suggests a likely correlation between language diversity and trust stemming from countries hospitable to diversity likely having high levels of trust making that possible. The negative effects suggest, logically, that having a multiplicity of languages spoken makes
it harder for a country to reach high literacy rates, negatively affecting wealth and, hence, also trust.

Ultimately, the path analysis indicates that the degree of government centralization of a country’s education system likely has some effect on generalized trust, but it is small relative to other factors. Economic factors clearly have a very large impact, with income inequality especially impactful on trust. In addition, beyond what is included in the model, there are other important factors for which the model does not account.
Research Limitations

Wording Problems

As potentially useful as these findings are—this is the first research, of which the author is aware, that attempts to systematically tie education system structure to trust—there are many important caveats that render the findings suggestive at best. Two have already been noted: potentially non-ideal diversity and educational attainment measures. The latter, primarily because there might be aspects of education it doesn’t capture, such as critical thinking. Similarly, the trust measure may suffer from wording problems, offering a dichotomous choice rather than a scale of how trustworthy respondents think “most people” are. In addition, the question does not specify most people “in this country,” meaning that at best it only implies that it is a question to assess trust in a nation. Still, the differing rates of “most people can be trusted” to a large extent likely truly reflect national differences in trust as national laws and identities probably have significant importance to most respondents.

Education Structure Index

Construction of the education structure index was also problematic and represents just the general shape of education centralization in any given nation. To start with, the weights of the different components of the index are somewhat arbitrary. It is a judgment call, for instance, to say that having a compulsory attendance law has only a third of the centralizing effect of a national curriculum. The direction is no doubt right—for instance, requiring all people to get an education is almost certainly less coercive than saying exactly what they must learn—but the relative weighting is debatable. Similarly, making
private schooling illegal was scored a six because a state monopoly—in which one can’t even pay completely from one’s own pocket for a private education—is more coercive than having national curricular standards that private schools could at least add to. It is also scored a six because it is greater than the score were no subsidies offered for private schooling—meaning people must pay once for public schools and twice for private—and the government dictates both curricula and admissions policies to unsubsidized private schools.\textsuperscript{164} This weighting is the case for the index generally: The primary goal was to make sure that the weights made the centralization scale move logically in the right direction, but the relative sizes of the different components are not necessarily precisely pegged to different impacts.

Perhaps more concerning than relative weighting is the difficulty in accounting for what might happen on the ground in a nation versus what its laws say. For instance, a nation might make it illegal to send a child to a private school that does not teach the national curriculum, but such schooling might be \textit{de facto} widespread and accepted. Tooley, for instance, has chronicled many poor nations in which non-state schools, or non-state-approved schools, are supposed to be illegal, but bribery of inspectors is widespread and non-compliance the norm.\textsuperscript{165} Similarly, nations may have compulsory attendance laws but enforcement might be incomplete, such as in Zimbabwe.\textsuperscript{166} And then

\textsuperscript{164} To test the effect of the 6-point weighting of private schooling being prohibited, a regression was run with the score being put at 3. The results—see Appendix D—showed little difference.

\textsuperscript{165} Tooley chronicles widespread bribery and other practices used by for-profit schools to sidestep rules and regulations in many of the poorest slums in the world, including in India, Ghana and Nigeria. James Tooley, \textit{The Beautiful Tree}, (Washington, DC: Cato Institute, 2009).

\textsuperscript{166} Zimbabwe’s Education Amendment Act No. 26/1991 requires free and compulsory primary education, but according to UNESCO “compulsory primary education for every child in the age group 6-12 remains a
there is the question, even if the teaching of divisive material is officially required, whether schools or teachers nonetheless avoid or soft peddle it, as research has shown occurs with American high school biology teachers and evolution?\textsuperscript{167}

To test for legal frameworks not reflecting reality, enrollment percentage in public schools was added to the model both with education structure and without, and its effect on trust and per-capita GDP examined. It never had a significant effect, indicating that the legal structure, not whether people use it to attend public or private schools, matters more. Still, that test cannot account for what people do in reality outside of their enrollment decisions. It cannot tell us whether public schools sidestep controversial material, include de jure prohibited religious content, etc. Indeed, it is possible that such “under the table” activity is why education structure does not have a direct impact on trust in this analysis: People might do trust-building or conflict avoidance in spite of legal requirements to do otherwise.

\textit{Cross-sectional Analysis}

The last problem is that, because this is not a longitudinal study, it cannot capture changes in trust responding to changes in education structure, which would be much more powerful for explaining effects than the current cross-sectional analysis. It would be much harder to do, requiring legal changes in numerous countries as well as changes in all the other variables to be meticulously tracked, a task that would be a large burden for

\textsuperscript{167}Berkman and Plutzer, 2010.
one person, but is a logical next step now that there is some empirical evidence suggesting that decentralization of education governance might have a small positive impact on trust, albeit through the relationship between education structure and wealth. That said, of course, the current study can basically offer only correlations from snapshots in time. For instance, while greater education centralization is associated with lower per-capita GDP, it could be that lower wealth requires greater centralization of education in order to become a wealthier society that can then accommodate greater private schooling.
CHAPTER 5

POLICY IMPLICATIONS

This analysis is largely exploratory in nature, delving into a topic that, to the author’s knowledge, has not been examined systematically before. As a result, none of its findings should be taken as proof of any specific relationships. It does, though, suggest that countries should consider the degree to which they centralize control over their education systems. At a minimum, policymakers should not assume that more centralized control necessarily will result in more social cohesion. This research also provides, essentially, a prototype index for assessing the degree of a nation’s education centralization.

Those things said, the most obvious implication of the findings is that they do not demonstrate that decentralization of education is directly associated with greater trust. The hypothesis that greater decentralization by itself reduces divisive conflict and builds overall greater social cohesion is not supported. Indeed, greater centralization is associated with slightly greater trust, though the effect is not statistically significant. Attached to important policy questions countries face such as the degree to which curricula should be set at national levels, or government subsidies should be made available to schools run by varying religious groups, the direct effect of education governance structure on trust does not support moving toward less centralization. That
said, the positive relationship between centralization and trust wasn’t statistically significant, so it also shouldn’t be assumed that government schooling systems that encompass more people under a single umbrella will create more social cohesion.

The small yet significant positive indirect effect of education decentralization on trust makes keeping an open mind regarding centralization worthwhile, as it shows that decreasing centralization has a positive association with per-capita GDP and, through GDP, trust. It is unclear why this is, but since education structure has no significant effect on educational attainment, at least as measured by the percentage of 15-year-olds who can read and write, it is possibly working through some non-educational effect.

These results suggest that proposals to devolve school control from higher levels of government—including, perhaps, allowing parents to choose non-government schools using government subsidies either to parents or schools—should not be entirely dismissed. While the statistically significant, positive effects of decentralization are small and indirect, they do seem to exist in this largely exploratory research. Again, though, after controlling for other predictors, greater centralization of schooling does have a small, direct, positive relationship with trust—albeit not statistically significant—so it is also very possible that greater centralization is associated with greater trust. Additional research, clearly, is needed.

It is also important to note that these results do little to pinpoint what centralizing or decentralizing mechanisms might be more or less influential with trust. Identifying those things—assuming education structure has a significant effect—will require additional research that compares such things as private-school subsidies, level of
government with primary authority over curricula, and many of the other variables that go into the education structure index.

Outside of education, the clear public policy implication is that to increase social capital it is very important to have a growing economy with limited income inequality. How policymakers can do that is outside the scope of this analysis, but there is no escaping the importance of economic factors in building national-level social capital. It is also interesting that various types of diversity do not have negative associations with trust, meaning that policymakers should not assume that greater diversity will necessarily erode social cohesion.

**Suggestions for Further Research**

This research is at best a starting point for much-needed empirical work examining the effect of education system structure on social capital, a relationship that to the author’s knowledge has not been explored in any major empirical way before. As a result—and because of the considerable data-gathering and confirmation challenges for a person working on this subject alone—this report can only confidently recommend that the effect of education system structure be a matter of further study, not that it proves that either decentralization or centralization lead to greater trust in society.

Future research should, first and foremost, expand the number of countries assessed, if possible. Crucial to this will be finding trust data for more countries, which may be available through sources other than the World Values Survey. In addition, such research could be facilitated by finding people who could translate laws and websites in different languages, expanding the number of countries for which reliable education
structure data could be collected. Moving to a larger sample would increase the accuracy of the findings.

The next improvement would be to collect longitudinal data which examines changes in trust and legal structures while controlling for diversity, GDP, etc. This would much better isolate the effect of education structure than a cross-sectional analysis of nations, which can only give correlations between levels of centralization. This would also be more labor-intensive than the current study, necessitating at the very least that descriptions of changing laws, which are available in many summaries of national education systems, be organized into timelines and changes in trust over time connected to them. Making such a connection would be made more difficult by the fact that World Values Survey data only goes back to the early 1980s—again, a problem that might be solved by finding another source of trust data—and that legal structures often change slowly.

Third, it would be very valuable to examine how closely education laws translate into education practice. As is clear from the reading about education policy, laws are at least sometimes skirted, often to avoid bureaucratic rigidity, or to teach or avoid subjects regardless of whether they appear on official curricula. It could very well be that the effect of decentralization of education is greater than it appears when one focuses only on legal requirements because people are “unofficially” decentralized, pursuing curricula they want, or attending schools primarily with people who share their values, under the table, as it were. Importantly, it is unlikely that the effect would be in the opposite direction—that education is more centralized than it appears from a legal standpoint—
because while people can skirt laws, they cannot generally increase laws’ power beyond what government gives them.

To gather these data would require many people with strong knowledge of specific countries, and ideally people on the ground in individual countries, as Tooley has done, essentially quantifying how many people are using “black market” educational options. Also key would be data such as that collected by Berkman and Plutzer identifying how pervasive evasion of mandates is. Such research would probably have to be undertaken by a large organization such as the OECD or World Bank.

Fourth, efforts should be made to incorporate political culture into the model. As some of the political culture literature suggests, this would bring with it serious operationalization problems, but it is quite likely that people’s feelings about such things as the proper role of government in their lives would effect the connection between education governance and trust. Given the amount of variance in trust for which the current model did not account, cultural explanations may be very important.

Fifth, additional research should be conducted looking into the effect of education structure on GDP to determine why the two are correlated but structure is not significantly correlated with education level. It is possible that there is an unaccounted for variable or variables that affects both. It could possibly be a cultural phenomenon.

Finally—and probably easiest to do—future research should employ additional measures of social capital than a single measure of trust. First and foremost, these would include measures of participation in voluntary associations, for which data is available. This is not as important as trust for measuring social cohesion—trust in others is more
broad than whether or not lots of people are groups that could be full of self-selected individuals like themselves—but they are generally accepted barometers of social capital. In addition, the trust variable should be scalar to more subtly capture trust levels and avoid the problem of leading answers: either you must say “most people can be trusted” or “you need to be very careful in dealing with people.” That said, the WVS statement appears to be the standard for assessing broad trust, not only in the WVS but also the General Social Survey and other data sets.\(^{168}\)

In conclusion, the research presented here is just an initial stab at a question that deserves much greater, more fine-grained attention. While it does not confirm the hypothesis that greater decentralization of education leads directly to greater social capital, it also does not reveal a definitive connection between centralized government control and greater social cohesion. Indeed, the findings suggest that centralization could be slightly antithetical to that end, in particular because decentralization appears to have a positive effect on economic growth, which in turn has a small positive effect on trust. If that is the case, then decentralizing policies such as local-level curricular standards setting, or expanding schooling options, should at least be among the education reforms policymakers consider.

\(^{168}\) Uslaner and Brown report that this is “the standard trust question,” and Oishi, Kesebir and Diener note that the same one is used in the General Social Survey.
APPENDIX A

The primary data sources for most countries were the UNESCO “World Data on Education,” 6th Edition, summaries, and the European Commission, EURYBASE summaries. Web addresses for each country are not listed, only the database is specified. In addition, the following five sources were applied to several countries, and are listed by their titles. They are:


Sources other than these are listed in their entirety below.

<table>
<thead>
<tr>
<th>Country</th>
<th>Sources</th>
</tr>
</thead>
</table>
| Albania | World Data on Education  
<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Notes</th>
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<tr>
<td>Australia</td>
<td>World Data on Education</td>
<td>Yvonne Oberhollenzer, Deputy Director (Education Policy), Embassy of Australia, e-mail message to author forwarding query reply from Australian Department of Education, Employment and Workplace Relations, November 9, 2010.</td>
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<tr>
<td>Austria</td>
<td>Eurybase</td>
<td>Lisa Klein, Press and Information Officer, Embassy of Austria, e-mail exchange with author, March 24, 2011 and April 1, 2011.</td>
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<tr>
<td>Canada</td>
<td>World Data on Education</td>
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<tr>
<td>Chile</td>
<td><em>What America Can Learn from School Choice in Other Countries</em></td>
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Jaime Muñoz-Sandoval, First Secretary, Political Affairs, Embassy of Chile, email message to author, March 9, 2011.

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<td>Czech Republic</td>
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<td></td>
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<td>Denmark</td>
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<td>England</td>
<td>Eurybase</td>
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<td></td>
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<tr>
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<td>Ian Summersgill, Information and Political Officer, Independent Schools Council, email exchange with author, March 14, 2011 through March 31, 2011.</td>
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<td>Olita Arkle, Ministry of Education and Science, email message to author, April 21, 2011.</td>
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<td>Malta</td>
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<td>Dennis Grech, Deputy Chief of Mission and Consul, Embassy of Malta, email message to author, March 18, 2011.</td>
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<tr>
<td></td>
<td><em>What America Can Learn from School Choice in Other Countries</em></td>
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<td></td>
<td>Naomi Hirschfeld, Public Correspondence Unit, Ministry of Education, Culture end Science, Netherlands, email exchange with author May 5, 2011 through January 24, 2012.</td>
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<td>New Zealand</td>
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<td></td>
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<td>Rebekah Mawson, Embassy of New Zealand, email message to author, March 28, 2011.</td>
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<tr>
<td>Norway</td>
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### APPENDIX B

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<td>compatt</td>
<td>compulsory attendance</td>
<td>Appendix A</td>
<td>1 indicates school attendance is compulsory, empty indicates it is not</td>
</tr>
<tr>
<td>country</td>
<td>country</td>
<td></td>
<td></td>
</tr>
<tr>
<td>curricctrl</td>
<td>curricular control</td>
<td>Appendix A</td>
<td>1 indicates school or local control of curricula, 2 indicates state or regional control of curricula, 3 indicates national control of curricula</td>
</tr>
<tr>
<td>econdiv</td>
<td>economic diversity</td>
<td>CIA World Factbook</td>
<td>Gini index</td>
</tr>
<tr>
<td>edlevel</td>
<td>education level</td>
<td>CIA World Factbook</td>
<td>Percentage of population over age 15 that can read and write.</td>
</tr>
<tr>
<td>edstructscore</td>
<td>education structure score</td>
<td>constituent variables</td>
<td>The sum of the scores for compatt, curricctrl, pvtprohib, subs, subgovtrldmis, subpredomcurric, unsubgovtrldmis, unsubpredomcurric</td>
</tr>
<tr>
<td>gov</td>
<td>governance</td>
<td>Governance Matters VI</td>
<td>A combined score of the following variables: voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption</td>
</tr>
<tr>
<td>govtype</td>
<td>government type</td>
<td>CIA World Factbook</td>
<td>Country’s basic form of governance</td>
</tr>
<tr>
<td>immigration</td>
<td>immigration rate</td>
<td>CIA World Factbook</td>
<td>Immigration rate per 1000 people</td>
</tr>
<tr>
<td>langrich</td>
<td>language richness</td>
<td>CIA World Factbook</td>
<td>The number of languages spoken by at least 1% of a nation’s population (smaller ones, where they exist, are lumped into “other” which is counted as one language)</td>
</tr>
<tr>
<td>pctmostpeopletrusted</td>
<td>percentage who say “most people can be trusted”</td>
<td>WVS: V23</td>
<td>Percentage of respondents in a nation who say “most people can be trusted” vs “need to be very careful”</td>
</tr>
<tr>
<td>pctpub</td>
<td>percentage of students in private schools</td>
<td>World Bank EdStats Country Profiles</td>
<td>Percentages enrolled in public schools</td>
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<tr>
<td>gdpwbia</td>
<td>per-capita Gross Domestic Product</td>
<td>World Bank GDP per capita</td>
<td>GDP pre-capita, purchasing power parity adjusted. Uses earliest year corresponding to trust survey year</td>
</tr>
<tr>
<td>Polity</td>
<td>polity</td>
<td>Polity IV</td>
<td>From -10 (strongly autocratic) to +10 (strongly democratic)</td>
</tr>
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<td>pvtprohib</td>
<td>private schooling</td>
<td>numerous</td>
<td>6 indicates no private schooling.</td>
</tr>
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<td>Substitution Code</td>
<td>Description</td>
<td>Source</td>
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<tr>
<td>-------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>prohibited</td>
<td>subsidized or unsubsidized, is legal. 3 indicates it is legal at some K-12 level but not another. For example, it is permitted in secondary schooling but not elementary. Empty indicates it is fully legal.</td>
<td></td>
<td></td>
</tr>
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<td>raceethrich</td>
<td>racial and ethnic richness</td>
<td>CIA World Factbook</td>
<td></td>
</tr>
<tr>
<td>Relrich</td>
<td>religious richness</td>
<td>CIA World Factbook</td>
<td></td>
</tr>
<tr>
<td>Subs</td>
<td>are government subsidies provided for private schooling</td>
<td>numerous</td>
<td></td>
</tr>
<tr>
<td>subgovctraladmis</td>
<td>must subsidized private schools follow government rules about admissions</td>
<td>numerous</td>
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<tr>
<td>subpredomcurric</td>
<td>must subsidized private schools teach the predominant curriculum</td>
<td>numerous</td>
<td></td>
</tr>
<tr>
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<td>must unsubsidized private schools follow government rules about admissions</td>
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<td>unsubpredomcurric</td>
<td>must unsubsidized private schools teach the predominant curriculum</td>
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</tr>
<tr>
<td>Year</td>
<td>year</td>
<td>WVS</td>
<td></td>
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</table>

The number of races/ethnicities to which at least 1% of a nation’s population belongs (smaller ones, where they exist, are lumped into “other” which is counted as one race/ethnicity)

The number of religions adhered to by at least 1% of a nation’s population (smaller ones, where they exist, are lumped into “other” which is counted as one religion)

2.0 indicates there are no subsidies. Blank indicates there are subsidies.

I indicates private schools that receive government subsidies either directly or through students must teach the curriculum set at either the national, state, or local level. Empty indicates there are no strictures.

I indicates private schools that receive no government subsidies are prohibited by law from keeping out any students that apply. 0.5 indicates schools have some latitude in admissions, such as enrolling only students who agree to religious tenets or single-sex schooling. Empty indicates there are no strictures.

I indicates private schools that receive no government subsidies are prohibited by law from keeping out any students that apply. 0.5 indicates schools have some latitude in admissions, such as enrolling only students who agree to religious tenets or single-sex schooling. Empty indicates there are no strictures.

I indicates private schools that receive no government subsidies must teach the curriculum set at either the national, state, or local level. 0.5, which exists only for Tanzania, is because Tanzania is split into two major portions – Tanzania and Zanzibar – which have differing requirements. Empty indicates there are no strictures.

The year from which the WVS trust data comes
### Direct Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 49</th>
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<tbody>
<tr>
<td>Model</td>
<td>.792730321</td>
<td>9</td>
<td>.0888888888</td>
<td>F( 9, 39) = 4.73</td>
</tr>
<tr>
<td>residual</td>
<td>.268815826</td>
<td>39</td>
<td>.0183838383</td>
<td>R-squared = 0.5217</td>
</tr>
<tr>
<td>Total</td>
<td>1.061546587</td>
<td>48</td>
<td>.0316572222</td>
<td>Adj R-squared = 0.4113</td>
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</table>

| nontitle | Coef. | Std. Err. | t     | P>|t|  | Beta    |
|----------|-------|-----------|-------|------|---------|
| edstruct | .0281827 | .0165598 | 1.75  | 0.09 | .13027  |
| lgp     | .0567311 | .0231822 | 2.46  | 0.02 | .389594 |
| edlevel  | .0228235 | .0205995 | 1.09  | 0.29 | .251652 |
| langrich | .0170849 | .0080276 | 2.14  | 0.06 | .340284 |
| racetrich | .0212736 | .0090228 | 2.37  | 0.02 | .102777 |
| relrich  | .0011102 | .0120572 | 0.10  | 0.25 | .522575 |
| lgtln    | -0.1911344 | -0.1203504 | -1.55 | 0.12 | .349229 |
| immigration | -0.0025946 | .0043084 | -0.60 | 0.05 | -0.005229 |
| policy   | -0.0010429 | .0050476 | -0.02 | 0.07 | -0.003439 |
| cons     | .91112183 | .5555188 | 1.63  | 0.11 |          |

### Indirect Effects - GDP

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<tr>
<td>Model</td>
<td>73.3300823</td>
<td>8</td>
<td>8.91760129</td>
<td>F( 8, 40) = 8.59</td>
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<tr>
<td>residual</td>
<td>41.5350789</td>
<td>40</td>
<td>1.03383947</td>
<td>R-squared = 0.5372</td>
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<tr>
<td>Total</td>
<td>114.865061</td>
<td>48</td>
<td>2.35150128</td>
<td>Adj R-squared = 0.5384</td>
</tr>
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</table>

| lgp     | Coef. | Std. Err. | t     | P>|t|  | Beta    |
|----------|-------|-----------|-------|------|---------|
| edstruct | -0.2699966 | .1167625 | -2.31 | 0.02 | -0.275761 |
| edlevel  | -0.057653 | .0196336 | 3.11  | 0.00 | -2.269293 |
| langrich | -0.008787 | .0059066 | -1.53 | 0.13 | -0.018061 |
| racetrich | -0.035866 | .0660256 | -0.50 | 0.61 | -0.051033 |
| relrich  | 0.0877451 | .0805259 | 1.09  | 0.28 | .1219433 |
| lgtln    | -1.243467 | .799999 | -1.57 | 0.12 | -0.185159 |
| immigration | 0.0015257 | .0321087 | 0.36 | 0.72 | 0.038034 |
| policy   | 0.0023239 | .0472626 | 0.17  | 0.84 | 0.003958 |
| cons     | 0.895838 | 3.928843 | 2.24  | 0.03 |          |

### Indirect Effects – Education Level

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<td>Model</td>
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<td>7</td>
<td>290.01812</td>
<td>F( 7, 41) = 4.50</td>
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<tr>
<td>residual</td>
<td>2639.7278</td>
<td>41</td>
<td>64.338487</td>
<td>R-squared = 0.5344</td>
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<tr>
<td>Total</td>
<td>4669.85463</td>
<td>48</td>
<td>97.2888466</td>
<td>Adj R-squared = 0.5382</td>
</tr>
</tbody>
</table>

| edlevel | Coef. | Std. Err. | t     | P>|t|  | Beta    |
|----------|-------|-----------|-------|------|---------|
| edstruct | -0.633666 | .9133747 | -0.74  | 0.46 | -0.106838 |
| langrich | -0.9862456 | .4458616 | -2.21  | 0.03 | -0.318047 |
| racetrich | 0.004666 | .5261032 | 0.05  | 0.96 | 0.005266 |
| relrich  | 1.1890955 | .6754926 | 1.75  | 0.08 | .2551668 |
| lgtln    | -0.1011732 | 6.978162 | -1.66 | 0.10 | -0.234220 |
| immigration | -0.002666 | .2520005 | 0.04 | 0.97 | -0.002666 |
| policy   | 0.0424668 | .3125046 | 1.34  | 0.17 | 0.234871 |
| cons     | 0.39516 | 2.48766 | 5.14  | 0.00 |          |
### Indirect Effects – Education Structure

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs = 49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>40.324578</td>
<td>6</td>
<td>6.72076289</td>
<td>F( 6, 42) = 3.66</td>
</tr>
<tr>
<td>residuals</td>
<td>77.175422</td>
<td>42</td>
<td>1.83751005</td>
<td>Prob &gt; F = 0.0052</td>
</tr>
<tr>
<td>Total</td>
<td>117.5</td>
<td>48</td>
<td>2.44791667</td>
<td>R-squared = 0.3432</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Adj R-squared = 0.2494</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Root MSE = 1.5555</td>
</tr>
</tbody>
</table>

| edstruct   | Coef.  | Std. Err. | t     | P>|t|   | Beta      |
|------------|--------|-----------|-------|-------|----------|
| langrich   | -.0650535 | .074651 | -0.87 | 0.388 | -.1325695 |
| raceethrich| .0214847  | .0888168 | 0.24  | 0.810 | .0313463  |
| refrich    | -.0073141 | .1141205 | -0.06 | 0.949 | -.0099628 |
| Tgini      | -.3961312 | 1.028225 | -0.39 | 0.702 | -.0578139 |
| immigration| -.0630649 | .0414592 | -1.52 | 0.136 | -.1921681 |
| polity     | -.1761016 | .0470283 | -3.74 | 0.001 | -.589112  |
| _cons      | 9.481402  | 3.673846 | 2.58  | 0.013 | .          |
APPENDIX D

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>Number of obs</th>
<th>F(  9,    39) = 4.76</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>.795532404</td>
<td>9</td>
<td>.088392489</td>
<td>Prob &gt; F = 0.0003</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>.724014243</td>
<td>39</td>
<td>.018584486</td>
<td>R-squared = 0.5235</td>
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</tr>
<tr>
<td>Total</td>
<td>1.51954665</td>
<td>48</td>
<td>.031657222</td>
<td>Adj R-squared = 0.4136</td>
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</tr>
</tbody>
</table>

| mostppltru-d    | Coef.    | Std. Err. | t     | P>|t| | Beta       |
|-----------------|----------|-----------|-------|-----|-----------|
| edstruct        | .0158605 | .0183324  | 0.87  | 0.392 | .1158934  |
| lgdp            | .0559505 | .0206256  | 2.71  | 0.010 | .4822147  |
| edlevel         | .0002082 | .0030085  | 0.04  | 0.971 | .0059991  |
| langrich        | .0165892 | .0079289  | 2.09  | 0.043 | .2972768  |
| raceethrich     | .0211594 | .0090343  | 2.34  | 0.024 | .2714709  |
| relrich         | .0013044 | .0120175  | 0.11  | 0.914 | .0156236  |
| lgln            | -.3969274 | .109115  | -3.64 | 0.001 | -3.5094084 |
| immigration     | -.0025788 | .0042884  | -0.60 | 0.551 | -.0069081 |
| polity          | -.0033349 | .0055102  | -0.64 | 0.525 | -.1040221 |
| _cons           | .9392112 | .3353697  | 2.73  | 0.008 | .

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REFERENCES
REFERENCES


CURRICULUM VITAE

Neal P. Mccluskey received his Bachelor of Arts in English from Georgetown University in 1995, double-majoring in English and government. He went on to receive his Master of Arts in Political Science at Rutgers University – Newark in 2002. He is currently the Associate Director of the Center for Educational Freedom at the Cato Institute.