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Institutional Arrangements and the Creation of Social Capital: The Effects of Public School Choice

MARK SCHNEIDER, PAUL TESKE, and MELISSA MARSchALL
State University of New York at Stony Brook
MICHAEL MINTROM Michigan State University
CHRISTINE ROCH State University of New York at Stony Brook

While the possible decline in the level of social capital in the United States has received considerable attention by scholars such as Putnam and Fukuyama, less attention has been paid to the local activities of citizens that help define a nation’s stock of social capital. Scholars have paid even less attention to how institutional arrangements affect levels of social capital. We argue that giving parents greater choice over the public schools their children attend creates incentives for parents as “citizen/consumers” to engage in activities that build social capital. Our empirical analysis employs a quasi-experimental approach comparing parental behavior in two pairs of demographically similar school districts that vary on the degree of parental choice over the schools their children attend. Our data show that, controlling for many other factors, parents who choose when given the opportunity are higher on all the indicators of social capital analyzed. Fukuyama has argued that it is easier for governments to decrease social capital than to increase it. We argue, however, that the design of government institutions can create incentives for individuals to engage in activities that increase social capital.

The delivery of services by local governments involves a complex relationship between the institutions that supply them and the citizens who use them. To improve the delivery of public services, many reformers argue that governments should imitate private markets by increasing the number of suppliers and by “empowering” citizens to shop across this expanded choice set. In this model, “citizen/consumers” become better consumers of public services by becoming more informed about their options and by more carefully selecting services that meet their preferences.

We suggest that the benefits of such market-like reforms can extend beyond the consumer behavior that has been the focus of previous analysis. Specifically, we argue that by expanding the options people have over public services, citizen/consumers can also become better citizens, and by so doing, increase the nation’s stock of social capital. We test this hypothesis in the context of public school choice—a set of reforms that increases the control parents have over the selection of schools their children attend. These reforms are of long standing in some communities and are emerging in many others. In this research, we show that the design of public institutions charged with delivering education can affect the formation of social capital.

SOCIAL CAPITAL AND LOCAL CITIZENSHIP

An intense scholarly debate recently has emerged concerning the role of social capital in economic and political development (e.g., Brehm and Rahn forthcoming; Fukuyama 1995; Granato, Inglehart and Leblang 1996a, 1996b; Inglehart 1990; Jackman and Miller 1996a, 1996b; Lipset 1995; Putnam 1993, 1995a, 1995b; Swank 1996; Tarrow 1996).1 One theme in this debate is that social capital may be important to strong democracies for the same reasons that it is important for the functioning of strong economies: High levels of social capital engender norms of cooperation and trust, reduce transaction costs, and mitigate the intensity of conflicts.

While political scientists have only recently adopted the concept of social capital, the term has been used by sociologists for some time (see, e.g., Bourdieu 1980, Loury 1977). Coleman (1988, 1990) brought the term into wider circulation and argued (1988, 101) that social capital is generated as a byproduct of individuals engaging in forms of behavior that require sociability. In his study of 20 subnational governments in Italy, Putnam (1993) argued that the quality of governance is determined by the level of social capital within a region. Fukuyama concurs (1995, 356): The ability to cooperate socially is dependent on prior habits, traditions, and norms, which themselves serve to structure the market. Hence it is more likely that a

Mark Schneider is Professor of Political Science; Paul Teske is Associate Professor of Political Science; Melissa Marshall is a Ph.D. candidate, Department of Political Science; and Christine Roch is a graduate student, Department of Political Science, State University of New York at Stony Brook, Stony Brook, NY 11794-4392. Michael Mintrom is Assistant Professor, Department of Political Science, Michigan State University, East Lansing, MI 48824-1032.

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1 The current debate in political science is focused on somewhat different issues than we address here. However, our research is directly relevant to one central theme of that debate—the role of government in creating social capital. In critiquing what he sees as a critical omission by Putnam (1993), Tarrow (1996, 395) asks: “Can we be satisfied interpreting civic capacity as a home-grown product in which the state has no role?” Similarly, Jackman and Miller (1996a, 655) argue that a political institutional approach that endogenizes civic culture can help explain differential political and economic development.
A successful market economy, rather than being the cause of stable democracy, is codetermined by the prior factor of social capital. If the latter is abundant, then both markets and democratic politics will thrive, and the market can in fact play a role as a school of sociability that reinforces democratic institutions.

While comparisons across nations and the identification of trends over time are obviously important, less scholarly work has focused on how government policies affect the stock of social capital. This is especially true for the analysis of the formation of social capital at the local level, where a small but growing body of work has developed addressing the link between government policies and social capital. Stone and his colleagues have been examining the role of “civic capacity,” a concept similar to social capital, in local economic development and the politics of education (see, e.g., Stone 1996). Berry, Portney, and Thomson (1993) examined the importance of local community activity in the formation of social capital. And, in the context of education, Astone and McLanahan (1991), Coleman and Schneider (1993), and Lee (1993) have examined social capital as a function of the interactions among administrators, teachers, parents, and children.

We follow the approach of Berry, Portney, and Thomson, who emphasize the importance of communities where neighbors talk to each other about politics. In these face-to-face meetings, these authors argue that “democracy moves politics away from its adversarial norm, where interest groups square off in conflict and lobbyists speak for their constituents. Instead, the bonds of friendship and community are forged as neighbors look for common solutions to their problems” (1993, 3). (Also see Mansbridge 1980 on “unitary democracy” and Barber 1984 on “strong democracy.”)

Berry, Portney, and Thomson’s emphasis on “face-to-face” interactions parallels Fukuyama’s (1995) focus on “spontaneous sociability” and Putnam’s (1993) emphasis on the role of networks and membership in voluntary and social organizations as supports for representative democracy (see also the review by Diamond 1992).

In this article, we go beyond documenting levels of social capital by identifying the effects of institutional arrangements governing the delivery of education, the most important public good local governments provide, the formation of social capital. Whereas scholars have recognized the importance of schools in creating social capital for the next generation (see, e.g., Henig 1994, 201–3), for us, schools are also arenas in which social capital can be generated among today’s parents.

We explore the relationship between schools and social capital by considering how school choice can influence parental behavior. Specifically, we examine how school choice may increase levels of voluntary parental involvement in the schools, face-to-face discussions between parents, and levels of parental trust in teachers—behaviors that have all been identified as components of social capital. We test these relationships empirically using a quasi-experimental design that allows us to isolate the link between school choice and citizen behavior. Fukuyama has argued that “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” (1995, 62). We show that institutional arrangements that increase parental control over the schools their children attend may be able to reverse that ratchet.

Some scholars are skeptical that government policies expanding choice can increase social capital. For example, Anderson argues that expanded citizen choice, at best, will cultivate only a “passive understanding” of the demands of democratic participation and that this “consumer’s skill” is not a sufficient basis for “competent citizenship” (1990, 197–8). Carnoy (1993, 187) and Henig (1994, 222) both argue that school choice will increase the social stratification between parents who are more involved and interested in their children’s education and those who are not, fundamentally reducing the ability of communities to address collective problems. And Handler (1996, 185) notes that while choice plans require parents to choose, they cannot force parents to become actively engaged in school activities.

In contrast, other scholars argue that choice and related reforms will foster social capital. As Ravitch (1994, 9) notes: “The act of choosing seems to make parents feel more responsible and become more involved.” And Berry, Portney, and Thomson (1993, 294) cite the shift to parental control over local schools in Chicago in the late 1980s as a rare example of a successful attempt to get low-income parents more involved in local public affairs (also see Handler 1996).

In the analysis that follows, we show that reforms introducing choice can affect the level of social capital within communities. While our findings are limited to one particular aspect of local communities—schools—they provide important evidence that government or community-initiated policies can indeed ratchet up the preexisting levels of social capital and enhance the social fabric necessary for building and maintaining effective democracy. And, we demonstrate that this can be done both in suburban communities, where most Americans now live, and in inner-city neighborhoods, where the stock of social capital may be most depleted and where its absence may have the most deleterious effects (e.g., Berry, Portney, and Thomson 1993; Wilson 1987).

SCHOOL CHOICE

School choice is perhaps the most widely discussed approach to addressing persistent problems in primary and secondary education in the United States. School choice advocates, liberals and conservatives alike, contend that changing the institutions governing school organization will improve student performance by changing the incentives faced by educators and by changing the behavior of students and parents (see Handler 1996, 9).2

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2 Classic theoretical treatments include: Chubb and Moe 1990; Coons and Sugarman 1978; Fantini 1973; Friedman 1955, 1962;
It is possible to define school choice in such a way that it is already the norm. Many families already use residential location to choose the public schools their children attend. Even after the residential decision is made, many private alternatives to public education are available and about 10% of parents nationwide choose that option. School choice, however, is typically construed to involve policies that reduce the constraints that traditional public school arrangements place on schools and students. (For a discussion of distinctions among choice approaches, see Witte and Rigdon 1993.) Most important, school choice policies are designed to break the one-to-one relationship between residential location and the schools students attend.3

Responding to intense policy debates and the growing recognition of the problems of American schools, over the past two decades a growing number of local school districts have changed the institutional frameworks governing the provision of local education giving parents expanded choice over the schools their children attend. We take advantage of this diffusion of the innovation in school choice policy, employing a quasi-experimental approach comparing parental behavior in two pairs of school districts that are demographically similar but vary on institutional arrangements. We analyze the effects of choice on the formation of social capital in a matched pair of inner-city school districts, one with a long history of extensive choice and one without much choice. We then replicate this analysis in two suburban school districts. In each matched pair, the populations are similar demographically, but the institutional arrangements allowing parental choice over the schools their children attend differ.

Our analysis is based on interviews of approximately 300 parents of children in public school grades K–8 across four districts. (Appendix A describes the sample design.) Two of these are inner-city districts in New York City: District 1, which has only recently introduced limited choice, and District 4, which has offered programs of choice for 20 years. The other two are suburban communities in New Jersey: Morristown, which strictly maintains assignment to neighborhood schools, and Montclair, which has had a program of choice since the 1970s.

We begin with a discussion of the two New York school districts, describing in detail the evolution of choice in District 4. We then present an empirical analysis of effects of choice on social capital in the New York setting. Finally, we replicate the analysis using our New Jersey sample.

District 4: A School Choice Innovator

District 4 is located in East or “Spanish” Harlem, one of the poorest communities in New York City. The district serves roughly 12,000 students from pre-kindergarten through the ninth grade. In the early 1970s, the district’s performance was ranked the lowest of 32 city public school districts in math and reading scores. Choice was part of a response to this poor performance.

Fliegel (1990) described the evolution of school choice in District 4 as resulting from “creative noncompliance” with New York City rules and regulations. The factors shaping the emergence of the District 4 can be traced back to the late 1960s when the administration of New York City’s public school system was decentralized to allow for greater community control. Thirty-two separate community school districts were established, each of which was governed by an elected community school board and by the central Board of Education. High schools remained under the authority of the Board of Education. Decentralization was supposed to promote greater parental participation, but it has also led to problems with corruption, overpoliticiation, and poor performance (Cookson 1994, 50–1).

District 4 took full advantage of decentralization, in large part due to the entrepreneurial efforts of Anthony Alvarado, district superintendent from 1972 until 1982. As Boyer (1992, 41–2) notes, Alvarado bent rules, attracted outside grants, and won support from powerful teacher and principal unions. When Alvarado took over as superintendent, District 4 ran 22 schools in 22 buildings. In 1974, the first alternative school, Central Park East Elementary, was developed, followed by an alternative program for seventh and eighth graders with serious emotional and behavioral problems and by the East Harlem Performing Arts School, a program for fourth through ninth graders. These schools were open to parental choice and, as minischools, they were located within existing buildings where space was available. These schools were given greater flexibility over staffing, use of resources, organization of time, and forms of assessment.

The differences between the administration of these alternative schools and the traditional schools led to complaints of favoritism from some teachers and principals in the traditional schools. In response, new opportunities were offered to develop alternate schools using funding from the Magnet Schools Assistance Act (Wells 1993, 56). The district also exceeded its annual budget for many years as these alternative schools were being developed (Heng 1994, 164).

The focus on educational goals was shaped by Seymour Fliegel, appointed District 4’s first director of alternative schools in 1976, who developed small schools designed to provide students, parents, and professional staff with flexibility and a sense of school “ownership” (Fliegel 1990, 209). Fliegel also used choice to encourage this sense of ownership. During the late 1970s and the 1980s more than 20 alternative schools were developed, many with distinctive curricular themes. As the number of schools increased, the

3 These policies include publicly provided vouchers that can be used in a variety of schools, both public and private (see, e.g., Lee 1991), the introduction of magnet schools (see, e.g., Blank 1990), the introduction of charter schools (see, e.g., Wohlhuter, Wenning, and Briggs 1995), and public school choice plans such as those we analyze here.
TABLE 1. District 4 and District 1 Population and Sample Demographics

<table>
<thead>
<tr>
<th></th>
<th>District 4</th>
<th>District 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>Sample</td>
</tr>
<tr>
<td>Number of students</td>
<td>13,806</td>
<td>333</td>
</tr>
<tr>
<td>Number of schools</td>
<td>50</td>
<td>46</td>
</tr>
<tr>
<td>Hispanics</td>
<td>63%</td>
<td>68%</td>
</tr>
<tr>
<td>Blacks</td>
<td>33%</td>
<td>26%</td>
</tr>
<tr>
<td>Whites</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Asian</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Percentage in poverty</td>
<td>54%</td>
<td>NA</td>
</tr>
<tr>
<td>Income &lt;$20,000 per year</td>
<td>NA</td>
<td>67%</td>
</tr>
<tr>
<td>Employed</td>
<td>35%</td>
<td>38%</td>
</tr>
<tr>
<td>High school degree or more</td>
<td>48%</td>
<td>65%</td>
</tr>
<tr>
<td>Single parent</td>
<td>NA</td>
<td>61%</td>
</tr>
<tr>
<td>Female</td>
<td>50%</td>
<td>90%</td>
</tr>
</tbody>
</table>

NA: Since both districts are administrative units for the New York City school system rather than, e.g., census designated units, some demographic data are not available.

Differences between schools became more apparent. With many new schools and the potential for parents and students to make meaningful choices, Smith and Meier (1995, 94) suggest that it “became hopeless” to tell parents or teachers that their assignments would be determined bureaucratically. Thus, in 1982, the district decided to provide all parents with choice. Sixteen neighborhood elementary schools remained intact, with space reserved first for those living in the designated zones. While the emphasis was placed on providing choice at the junior high school level, the district also created a considerable number of alternative elementary schools, many of them bilingual (Smith and Meier 1995, 94).

In District 4, all students must make an explicit choice about the junior high school they will attend. Each sixth-grader receives a copy of a booklet describing the alternative junior high schools. Parents and students attend orientation sessions led by the directors of various alternative schools and are encouraged to visit the schools (Wells 1993, 55). Students and their parents rank and discuss their six choices of junior high schools. Sixty percent of the students in the district are accepted into their first-choice school, 30% into their second-choice school, and 5% into their third-choice school. The remaining 5% are placed in schools thought to be most appropriate for them (Boyer 1992, 52–3). To ensure that all students have viable choices, District 4 administrators monitor the popularity of the various alternative schools, closing or restructuring less popular schools (Wells 1993, 55).

District 1: Limited Choice

Our other New York City research site is District 1 on Manhattan’s Lower East Side. Largely Hispanic and poor, the residents of District 1 share many characteristics with those of District 4. District 1 was created out of the Two Bridges School District, one of most active districts in New York City’s fights over school decentralization in the 1960s. Despite this high initial level of community activism, the schools have foundered over the years. Following the success of District 4, District 1 began experimenting with school choice, and in 1992 created a small number of alternative schools.4

As a result of entrepreneurial efforts to develop choice, District 4 has developed a reputation in the city and in the nation as an innovative, successful district. A sense of mission is evident among parents, teachers, and administrators. While there is some dispute about how much of the success can be attributed to choice per se (see Henig 1994, 124–44), there is no question that performance in District 4 improved from its original low level as choice was implemented. In contrast, despite the high level of community activities during the push for decentralization, District 1 has faced considerable administrative turnover and turmoil for the last few years.

We report some comparative data on the districts in Table 1. Both districts are geographically compact, have large numbers of students from very poor families (more than eight of ten students are eligible for free lunches), and have a majority Hispanic student population.

The Survey Respondents

We contracted Polimetrics Laboratory for Political and Social Research, a survey research facility at Ohio State University, to interview 400 residents in each district in spring 1995, sampling parents (or the person in a household who “makes the decisions about the education of children”). To focus on the schools controlled by the districts, the sample frame was limited to parents with children in grades K–8.5 To randomize, respondents were asked to answer school-specific questions based on the experience of their child in grades K–8 whose birthday came next in the calendar year.

4 In 1993, the New York City Board of Education established a new policy of interdistrict choice. If space is available (usually it is not), students can go to schools outside of their district. The Board did not mandate choice programs within districts.

5 Recall that high schools in New York are run by the central Board of Education.
As Table 1 illustrates, the sample of public school parents in each district is fairly representative of the student population on many key demographic variables. (We chose to interview parents of children who live in the districts but attend private schools as these parents are exercising a form of choice. However, they are not included in the analyses presented below. In District 1, 26% of the respondents sent their child to private school, compared to 17% in District 4.)

Overwhelmingly, we sampled females, both because there are many single mothers in these districts and because we asked to speak with the person in the family who makes the decisions about school. More than 60% of the households were headed by a single parent in District 4, compared to 46% in District 1, and in both districts, more than 85% of the respondents were female.

CONSTRUCTING THE MODELS

With this background in place we now turn to our major goal: to assess the degree to which giving parents more control over the schools their children attend increases their level of social capital. In our analysis we use four measures of social capital, three of which are directly derived from Putnam (1993) and Fukuyama (1995) and the fourth a logical extension. The first measure is whether the parent is a member of the PTA. Putnam uses declining participation in PTAs as one of his indicators of the erosion of social capital.7 Second, we analyze a slightly broader measure of parental involvement in the schools, asking parents if in the past year they had engaged in any volunteer activities for their child’s school. The third measure we investigate is the number of other parents our respondent talked with about school matters. We use this measure to reflect the “spontaneous sociability” Fukuyama emphasizes as underlying social capital and the importance of “face-to-face democracy” emphasized by Berry, Portney, and Thomson (1993). Our final measure reflects the level of trust parents have in their child’s teacher to do the “right thing” for their child.8 For Fukuyama the general level of trust in society is the critical dimension of social capital, since it lubricates economic, political and social transactions. In this research, we concentrate on a single domain-specific dimension of trust (trust in teachers). These activities not only are central to building social capital, they are also critical to building good schools (see, e.g., Anson et al. 1991).

In our selection of independent variables, we measure elements of motivation, resources, time constraints, and school policies that Kerbow and Bernhardt (1993, 116) argue are critical features of parental involvement in the schools. Thus we employ variables related to individual demographic characteristics as well as those related to the schools children are attending.

Three different types of institutional arrangements exist in the two central city districts in our study. The oldest and most traditional form of school organization is the neighborhood model, in which children are assigned to schools based on residential location. The second is universal choice, which characterizes the intermediate school system (grades 6–8) in District 4. Under this type of arrangement all parents must choose a school for their children (i.e., there is no “default” school). Finally, an “option demand” system of choice (see Elmore 1991), which exists in both districts but is much more developed in District 4, allows parents to select a school other than their neighborhood school. We refer to those parents who have decided to exercise choice as “active choosers.” About 20% of our sample fall into the universal choice category (all in District 4), while about 9% of all of the sampled parents in New York are active choosers.

Active choosers present us with the same fundamental problem faced by any research on the behavior of parents in school choice settings—parents choosing alternative schools may not be a random selection of all parents in a school district. And, if parents who self-select alternative schools are also high on social capital then our results will be biased. While other studies have acknowledged this problem and made various efforts to control for selection bias (Chubb and Moe 1990; Coleman and Hoffer 1987; Coleman, Hoffer and Kilgore, 1982; Smith and Meier 1995), we correct for it by constructing a two-stage nonrandom assignment model, in which the first equation models the assignment process and the second equation the “outcome.”

The method, described in Appendix B and based on

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6 The table in Appendix A shows that telephone interviewers had greater difficulty completing interviews in District 1 than District 4; however, as evident in Table 1 our samples of public school parents are nonetheless representative of the population of the districts as a whole.
7 We recognize a limitation inherent in the cross-sectional nature of our research design. Ideally, research on changes in social capital would employ a longitudinal, interrupted time-series analysis, involving panel responses. In this ideal research design, data would be collected prior to institutional changes and, by interviewing the same subject over time, researchers could isolate the specific effect of institutional changes. Unfortunately, few researchers had the foresight or the resources to conduct such a study; trade-offs must inevitably be made. For example, Putnam (1993) used aggregate-level and (some would say) problematic measures of social capital (see, e.g., Jackman and Miller 1996a) and went beyond his data to explore historical differences in the development of Italian regions. The trade-off in our case is that while we can not gather detailed individual-level data on parents in these districts before they chose a school, we do have detailed individual measures today that our cross-sectional design allows us to test while controlling for individual-level demographic and socioeconomic factors. With replication across four different institutional settings, our quasi-experimental design provides a strong cross-sectional test of the causal relationships postulated in the existing social capital literature.
8 Participation in the PTA and in voluntary activities is a dichotomous variable, with 1 indicating membership in the PTA (52% report membership) or voluntary activity (66% report such activity). As Verba, Schlozman, and Brady (1995, 74–9) note and our data confirm, levels of voluntary activity in social organizations are considerably higher in America than in participation in electoral activities. The number of parents a respondent reported talking with is a continuous variable based on the midpoints of categories presented (mean = 4.5; s.d. = 4.6). Trust in teachers is operationalized as a dichotomous variable (1 = trusts teachers most of the time or always [77% report this level of trust]; 0 = never or only sometimes).
the work of Heckman (1978), Heckman, Hotz, and Dabos (1987) and Lord (1967, 1969), corrects for both the nonrandom selection process and other econometric problems associated with the use of dichotomous dependent variables (see Achen (1986) and Alvarez and Brehm (1994) for discussions of the applicability of this method in political science).9

By limiting the possibility that parents likely to make active choices are also likely to engage in other activities that we refer to as part of social capital, the use of this methodology is critical to our argument that making an active choice influences parental behavior.

As noted in detail in Appendix B, we begin with an explicit assignment equation:

\[
\text{Active choosers} = a + B[\text{Demographics}] + B[\text{Values}] + B[\text{Diversity}] + \text{error},
\]

(1)

where Active Choosers is a dichotomous variable indicating whether a parent has elected an alternative school or program for their child (1 = yes, 0 = no); Demographics is a vector consisting of a set of dummy variables for self-identified racial group membership (black, Hispanic, Asian—white is the excluded category), a continuous variable measuring years of schooling of the parent, a continuous variable reflecting the length of residence in the school district, and a 7-point scale measuring frequency of church attendance (1 = never, 7 = once per week). We also include two dichotomous variables reflecting the gender of the respondent (1 = female) and whether or not the respondent is employed (1 = yes). The racial, gender, and employment variables reflect the resources and demographic factors that may influence activities related to social capital. Parental education level may be particularly important—Putnam (1995b, 667) reports that it “is by far the strongest correlate . . . of civic engagement in all its forms.” The length of residence variable reflects the argument advanced by Brehm and Rahn (forthcoming) and by Putnam, who both argue that mobility decreases social capital. In addition, Teske et al. (1993) found that length of residence affected knowledge of school policies. Church attendance is a control variable representing an alternative form of interaction and involvement with the local community.

The Values and Diversity variables indicate whether a parent thought either particular values or diversity as school attributes were important in their choice of schools. In our survey parents were asked to name up to four attributes they thought were most important in a school. Two attributes in particular, the values espoused by the school and the diversity of the student body, were considered important by parents of children in alternative public schools but not by parents of children in neighborhood public schools.10 We therefore include these variables in the assignment equation for theoretical reasons, as they are important predictors of active school choosers. We have no theoretical reason, however, to expect these variables to affect social capital and, indeed, they are not empirically related to the activities we have measured. These are used as exclusions in our outcome equation and provide the necessary leverage for estimating the system of equations.11

Thus, as described in greater detail in Appendix B, we estimate this assignment equation and the predicted value of the active chooser variable is used in estimating the following outcome equation:

\[
\text{Social capital} = a + B[\text{"Predicted" active choosers}] + B[\text{School factors}] + B[\text{Demographics}] + \text{error},
\]

(2)

where Demographics are as noted in equation 1 and Values and Diversity are excluded. “Predicted” Active Choosers is the estimated values from equation 1, transformed into a linear functional form following Goldberger (1964; also see Achen 1986, Heckman 1978). School Factors measure other aspects of the school environment. These factors include a variable measuring the enrollment in the school the child attends, as smaller schools are often considered to be better arenas for building social capital (Harrington and Cookson 1992); a dummy variable (= 1) when the respondent had made a universal choice at the junior high level in District 4; and a measure of parental dissatisfaction with her child’s school.12 Previous research (e.g., Witte 1991) has demonstrated that parental dissatisfaction is negatively correlated with levels of parental involvement and participation in school activities.

When the dependent variable in the outcome equation is continuous, as in our analysis of the number of parents with whom a respondent has talked about schools, the two-stage estimation technique is fairly straightforward. When the dependent variable is a dichotomous variable, however, another round of corrections is necessary because the disturbances are heteroskedastic (see Appendix B; also see Achen 1986, 71–2). Our values and diversity variables for the public schools are closely related to these concepts. Alternative schools in New York tend to emphasize themes and pedagogical approaches that are based on particular social, educational, or civic values. Diversity has a somewhat different meaning in districts where two-thirds of the children are Hispanic.

10 Smith and Meier find that religion and race help explain why some parents choose private schools for their children (1995, 71–2). Our values and diversity variables for the public schools are closely related to these concepts. Alternative schools in New York tend to emphasize themes and pedagogical approaches that are based on particular social, educational, or civic values. Diversity has a somewhat different meaning in districts where two-thirds of the children are Hispanic.

11 To estimate two stage models there must be at least one exclusion in the assignment equation. In other words, we must find at least one variable that significantly influences assignment but not the outcome (Achen 1986, 38). We use these two variables, diversity and values, as exclusions.

12 Our specific measure, indicating whether or not the parent has often thought about moving her child to another school, is a dummy variable coded 1 = yes, the parent has thought about moving her child to a different school. We expect a negative relationship between this measure and our measures of involvement in the schools.

9 While it is also plausible that there could be a two-way or reciprocal relationship between social capital and school choice, the timing of our research design makes this unlikely: Parents made their school choice in spring 1994. They were not interviewed until spring 1995, during which time they answered questions about activities during the previous school year. Thus, they chose first and engaged in the activities we measured later.
40–7). In our analysis of the other three measures of social capital we report these generalized two-stage least squares (G2SLS) results. Note that since the results are generalized linear probability estimates, the coefficients have a straightforward interpretation: They represent the change in the probability of finding an event given a unit change in the independent variable.

THE EFFECTS OF CHOICE IN THE CENTRAL CITY

With these corrections in place, we are now able to estimate the effects of school choice on the behavior of parents controlling for the nonrandom “assignment” across alternative schools.\(^\text{13}\) We present the results in Table 2. Turning first to PTA membership, reported in the first column, we find strong evidence that school choice affects this widely used measure of social capital: Ceteris paribus, participation in the PTA among active choosers is 13% higher than among nonchoosers (\(p < .05\)), the largest effect in our model, apart from gender.

The effects of some other variables are worth noting. First, note that as the length of residence increases, so does participation in the PTA (\(p < .05\), using a one-tail test). Similarly, frequency of church attendance increases participation in the PTA. These findings confirm empirically the arguments presented by Putnam and Fukuyama, as well as findings by education researchers (Kerbow and Bernhardt 1993, Muller and Kerbow 1993). Note too that participation in the PTA increases with the level of parental education—individual human capital and social capital flow together.

In the second column of Table 2, we turn to more general patterns of participation in voluntary events. Here we find that active choosers are over 12% more likely to engage in such activities than are nonchoosers. Paralleling the results reported for PTA membership, church attendance and longer residence are associated with volunteering, as is more years of parental education.

We have shown that active participation in school choice increases levels of involvement with voluntary organizations. We turn next to a measure of “spontaneous sociability”—how many other parents do our respondents engage in discussions about schools? The same cluster of variables emerges as important: Ceteris paribus, active choosers talked with four more parents than nonchoosers (see the third column of Table 2). Again, longer term residents, more educated respondents, and frequent churchgoers talk with more parents than do other respondents.

Finally, we examine trust in teachers. As shown in the final column of Table 2, school factors dominate this model. Active choosers are almost 10% more likely to trust teachers all or most of the time and universal choosers are 9% more likely to do so. In contrast, parents who are dissatisfied with their child’s school and have considered moving the child to a different school are 24% less likely to trust their child’s teachers. Of the demographic factors, only education is related to trust—but this relationship is negative.

Note also that while choosing significantly increases social capital on all four dimensions we measure, school size is not related to any of these measures. Harrington and Cookson (1992) have argued that the introduction of smaller schools in District 4 was the most important innovation accounting for the improvements found in the district. Our results differ—it is choice and not school size that matters.

### Taking Advantage of the Quasi-Experimental Design: Replicating the New York Findings

Replication is one of the most powerful tools available for validating social scientific findings. In the next stage

<table>
<thead>
<tr>
<th>TABLE 2. The Effects of Choice on the Formations of Social Capital in Two New York Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Active chooser</td>
</tr>
<tr>
<td>Universal choice</td>
</tr>
<tr>
<td>Dissatisfaction</td>
</tr>
<tr>
<td>School size</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>Length of residence</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Employed</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Attend church</td>
</tr>
<tr>
<td>Constant</td>
</tr>
</tbody>
</table>

\[ N = 580, N = 580, N = 588, N = 578, F = 66, F = 107, F = 4.4, F = 4.3 \]

\[^* p < .05; ^* p < .01; ^** p < .001\]

\[^{13}\] While the two-stage results are the technically correct ones, we should also note that these findings are robust with a simpler methodology. Using a one-stage model, the results are essentially the same.
of our analysis, we take advantage of our quasi-experimental design to replicate the results of our New York study in another pair of school districts. This replication allows us to explore the robustness of our findings by testing their sensitivity to changes in the context of choice. In our next comparison, we explore the effects of community composition on our findings. In our first analysis, we demonstrated that school choice fosters behavior that builds social capital among parents in low-income central city school districts. Given the multitude of problems facing central cities, this is obviously an important finding. The next question is obvious: Does this relationship hold among suburban parents who now make up a larger share of the American population than do those in the central city?

Second, and more important for us, the institutional factors that define the extent of school choice varies across our two sets of communities. In our next "experiment," we compare patterns of activities in a traditional neighborhood school district (where no one can choose a school except by changing their residential location or by opting out of the public sector altogether) with those in a universal choice district (where there are no neighborhood schools). These institutional arrangements represent more extreme points on the policy continuum than do those in District 1 and District 4. Are the results we found in New York replicated under these different community and institutional conditions? Are the magnitude of the effects similar?

**SCHOOL CHOICE AND SOCIAL CAPITAL IN SUBURBAN COMMUNITIES**

To answer these questions we turn to our second paired set of communities, Montclair and Morristown, New Jersey, two suburban communities within commuting distance of New York City. Given the institutional arrangements governing the schools in these two districts, we can test the effects of universal choice directly, since everyone in Montclair’s public schools chooses and no one in Morristown’s can.

**Montclair and Morristown, New Jersey**

In both communities, court-ordered desegregation decisions in the 1970s led to fundamental changes in the school assignment mechanisms; however, very different responses were developed to achieve racial balance. Montclair adopted school choice, with parents given the right to choose schools from kindergarten through the eighth grade (there is only one high school), with choice constrained by racial balancing. In Morristown, residential zones were created for neighborhood schools. These zones are frequently adjusted so that each school in each zone has the same racial balance, but once set the zones are strictly enforced.

School choice has been operating in Montclair for about as long as in District 4. In 1969, the New Jersey Commissioner of Education ordered Montclair to desegregate or lose state funding. A forced busing plan was implemented in 1972, which caused conflict and considerable white flight. A limited choice program was implemented in 1975 to try to encourage voluntary racial balancing by establishing magnet schools. Several changes were made to the choice plan in Montclair, and in 1984 choice was introduced to the whole district by the symbolic act of turning all schools into magnets.

While choice was initially a solution to racial balancing, parents, teachers, and administrators used it to promote competition and better schools (Boyer 1992, 33). Parents in Montclair are provided with considerable information about the schools. In choosing schools, parents request two options and students are placed in their first choice if it matches the racial balancing goals. The schools are nearly uniformly good and about 95% of parents receive their first choice (Strobert 1991, 56–7). Between 60 and 80% of students are bused to their schools, but now such busing is voluntary.

Table 3 shows the demographics of the public school parents in these two New Jersey districts, overall and for our surveyed sample of 400 parents in each community.

Under the universal system of choice in Montclair,

| TABLE 3. Montclair and Morristown Population and Sample Demographics |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| Montclair                       | Morristown      |
| Population                      | Sample          | Population      | Sample          |
| Number of students              | 5850            | 356             | 5080            | 286             |
| Number of schools               | 10              | 10              | 9               | 9               |
| Hispanics                       | 4%              | 3%              | 9%              | 7%              |
| Blacks                          | 36%             | 34%             | 17%             | 16%             |
| Whites                          | 56%             | 57%             | 70%             | 70%             |
| Asian                           | 3%              | 1%              | 4%              | 5%              |
| Percentage in poverty           | 7%              | NA              | 6%              | NA              |
| Income <$20,000 per year        | 16%             | 8%              | 21%             | 14%             |
| Employed                        | 59%             | 80%             | 58%             | 71%             |
| High school degree or more      | 88%             | 98%             | 86%             | 94%             |
| Single parent                   | 11%             | 23%             | 23%             | 22%             |
| Female                          | 54%             | 78%             | 53%             | 76%             |

Source: For district information, School District Data Book Profiles, 1989–90.
TABLE 4. The Effects of Choice on the Formation of Social Capital in Two New Jersey Districts

<table>
<thead>
<tr>
<th></th>
<th>PTA Member (standard error)</th>
<th>% Change</th>
<th>Voluntary Activity (standard error)</th>
<th>% Change</th>
<th>Parents Talked To (standard error)</th>
<th>% Change</th>
<th>Trust Teacher (standard error)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal choice</td>
<td>0.35** (.11)*</td>
<td>13%</td>
<td>0.21* (.13)</td>
<td>6%</td>
<td>1.24** (.38)</td>
<td>13%</td>
<td>0.28* (.14)</td>
<td>6%</td>
</tr>
<tr>
<td>Black</td>
<td>-0.55** (.13)</td>
<td>-21%</td>
<td>-0.48* (.14)</td>
<td>-14%</td>
<td>-3.38** (.44)</td>
<td>-30%</td>
<td>-0.41** (.15)</td>
<td>-9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-1.24** (.29)</td>
<td>-45%</td>
<td>-0.96** (.26)</td>
<td>-34%</td>
<td>-2.86** (.91)</td>
<td>-12%</td>
<td>0.34 (.38)</td>
<td>6%</td>
</tr>
<tr>
<td>Asian</td>
<td>-0.57 (.33)</td>
<td>-22%</td>
<td>0.15 (.39)</td>
<td>4%</td>
<td>3.49** (1.17)</td>
<td>-11%</td>
<td>0.49 (.55)</td>
<td>8%</td>
</tr>
<tr>
<td>Length of residence</td>
<td>-0.01 (.01)</td>
<td>-0.07%</td>
<td>0.02** (.01)</td>
<td>0.6%</td>
<td>0.07*** (.03)</td>
<td>9%</td>
<td>0.01 (.01)</td>
<td>0.02%</td>
</tr>
<tr>
<td>Education</td>
<td>0.09* (.02)</td>
<td>3%</td>
<td>0.06** (.02)</td>
<td>2%</td>
<td>0.31*** (.08)</td>
<td>16%</td>
<td>0.03 (.03)</td>
<td>0.5%</td>
</tr>
<tr>
<td>Employed</td>
<td>-0.07 (.14)</td>
<td>-3%</td>
<td>-0.06 (.16)</td>
<td>-1%</td>
<td>-0.78* (.47)</td>
<td>-6%</td>
<td>-0.27 (.18)</td>
<td>-5%</td>
</tr>
<tr>
<td>Female</td>
<td>0.40** (.13)</td>
<td>15%</td>
<td>0.52** (.14)</td>
<td>16%</td>
<td>1.22*** (.44)</td>
<td>10%</td>
<td>-0.02 (.16)</td>
<td>-0.5%</td>
</tr>
<tr>
<td>Attend church</td>
<td>0.09* (.03)</td>
<td>4%</td>
<td>0.06* (.03)</td>
<td>2%</td>
<td>0.24*** (.08)</td>
<td>11%</td>
<td>-0.01 (.03)</td>
<td>-0.01%</td>
</tr>
<tr>
<td>Dissatisfaction</td>
<td>-1.76** (.42)</td>
<td>-8%</td>
<td>-0.01 (.14)</td>
<td>-0.1%</td>
<td>0.51 (.41)</td>
<td>6%</td>
<td>-0.73** (.14)</td>
<td>-18%</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.92 (.41)</td>
<td>-0.45</td>
<td>1.71 (.44)</td>
<td>1.71</td>
<td>1.04 (.49)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: in the three probit equations the percentage point change figures indicate the effect of a change from 0 to 1 for the dummy variables and represent the effect of a unit change for the non-dummy variables. For the regression equation (parents talked to) the percentage changes are calculated from the normalized beta coefficients.

*p < .05; **p < .01; ***p < .001

SCHOOL CHOICE CAN HELP BUILD SOCIAL CAPITAL

At the heart of calls for the introduction of market-like reforms into the public sector lies the belief that giving people choices over public goods will increase efficiency. Research into the effects of reforming the “supply side” of the provision of public goods has established that such competitive mechanisms can in fact pressure the producers of public goods to be more efficient and more responsive (for local public goods, see, e.g., Ostrom 1972, Schneider 1989, Schneider and Teske 1995, Tiebout 1956). Recently, scholars have begun to study the effects of reforms on the demand side of the market, leading to debates about the level of information held by citizens and the levels necessary for markets for public goods to work (e.g., Lowery, Lyons, and DeHoog 1995, Lyons, Lowery, and DeHoog 1992, Teske et al. 1993, 1995). This debate has focused

all parents are required to choose a school for their child. Therefore, it is not necessary to specify the selection process as we did for the analyses of our New York City parents—that is, no assignment equation is needed and the extensive corrections noted in Appendix B are not necessary. Thus, the results reported in Table 4 are the results of straightforward multivariate analyses. For comparability with the linear probabilities reported in our analysis of New York, we report the percentage point change for a unit change in the independent variable (for the dummy variable, this is the effect of having the characteristic [1] versus not having it [0]). Since all Montclair parents must choose their children’s school and no one in Morristown public schools can choose (except by moving), the coefficient of the dummy variable for Montclair represents the effects of universal choice, ceteris paribus.

The results in Table 4 show patterns consistent with those in our New York analysis. Choosers are significantly more likely to engage all measures of social capital—PTA membership, volunteering for a school activity, talking to people about schools, and trusting teachers—controlling for other important factors.14

14 We should also note that, for both urban and suburban districts, parents who chose to send their children to private schools are significantly more likely to engage in all of these social capital building activities than public school parents and more so than even active public choosers, with the exception of PTA involvement. This result is not surprising, and has been documented in the literature on private schools.
on only a limited aspect of the behavior of the "citizen/consumer" in the market for public goods, revolving around the question of whether competition can enhance the behavior of citizens as consumers. We broaden the question by asking if government policies that enhance choice over public goods can increase the capacity of the citizen/consumer to act as a responsible, involved citizen. Our results show that in the domain we study, local public education, the answer is yes.

According to Putnam, societies can evolve two different equilibria as they solve collective action problems. One equilibrium is built on a "virtuous circle" that nurtures healthy norms of reciprocity, cooperation, and mutual trust. The other relies on coercion and creates an environment in which only kin can be trusted. Civic engagement is at the core of Putnam's concept of social capital because it breeds cooperation and facilitates coordination in governing. Public schools constitute a domain in which the virtuous circle is essential for improving the quality of education. Hillary Rodham Clinton (1996) has argued that "it takes a village" to raise a child. It may also take a "village" to educate a child: High quality education is dependent on parental involvement supported by high levels of community involvement. In turn, higher quality education is associated with activities that build social capital—a virtuous circle is created.

Our research shows that the design of the institutions delivering local public goods can influence levels of social capital. No present statistical method can fully correct for problems in estimation introduced by the complex causal linkages that motivate our study. Our two-stage modeling, however, clearly addresses the biases introduced by the nonrandom "assignment" of parents as active choosers in New York. Our research shows that in both an urban and a suburban setting and under different institutional settings of choice, the act of school choice seems to stimulate parents to become more involved in a wide range of school-related activities that build social capital. Our results support arguments linking participation and urban democracy and, within the domain of schools that we studied, are directly congruent with Berry, Portney, and Thomson's (1993, 254) claim that "increased participation does lead to greater sense of community, increased governmental legitimacy, and enhanced status of governmental institutions."

Clearly, many factors affecting the formation of social capital are individual-level characteristics effectively beyond the control of government (e.g., social capital increases with church attendance and with length of residence in a community). This fundamentally limits the role that government can play in nurturing the formation of social capital. Despite this, we believe that governmental policies can and do affect the level of social capital. The careful design of governmental institutions may be able to reverse the ratchet that Fukuyama believes has only driven social capital down.

APPENDIX A: SURVEY METHODOLOGY

We contracted the Polimetrics Research and Survey Laboratory at Ohio State University to carry out the survey. To start, Polimetrics identified the zip codes in each of the four school districts. All listed telephone numbers for each zip code were identified. From this, a list was developed using random generation of the last two digits of the appropriate telephone exchanges, so that unlisted numbers were included as well. All known business telephone numbers were removed as they were not eligible to be interviewed. Then, a random sample was taken of the remaining numbers.

To be eligible to be interviewed, respondents needed to live within the school district, have children between grades K–8, be the adult responsible for decisions affecting their child's education, and identify the school their child attended (which could be either a private school or a district public school).

The actual interviews were conducted from March through June 1995. The interviewers were given extensive training and some interviews were conducted in Spanish. Interviews were monitored randomly and, to ensure validity, 15% of all completed interviews were verified with respondents by the supervisors.

The goal was to obtain 400 completed interviews in each of the four districts. The following table shows the call dispositions in each district.

<table>
<thead>
<tr>
<th>TABLE A-1. Disposition of Survey Telephone Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Completed</td>
</tr>
<tr>
<td>Refusals</td>
</tr>
<tr>
<td>No final disposition</td>
</tr>
<tr>
<td>Nonhousehold</td>
</tr>
<tr>
<td>Ineligible</td>
</tr>
</tbody>
</table>

APPENDIX B: CORRECTING FOR NONRANDOM ASSIGNMENT

As Achen (1986) demonstrates, ordinary regression fails to produce unbiased estimates of treatment effects in quasi-experiments when the "assignment" to different conditions is not random (see LaLonde and Maynard 1987; Lord 1967, 1969; Heckman 1978; Heckman, Hotz, and Dabos 1987). Consequently, in addition to specifying the behavioral outcome, we must explicitly model the assignment process. To deal with the dichotomous nature of three of our dependent variables, we apply Achen's generalized two-stage least squares estimator (G2SLS). The steps for this estimation procedure, as well as the standard 2SLS we employ to estimate our continuous outcome equation, are summarized below.

The first stage consists of estimating the assignment equation. This can be done in a straightforward manner by applying the linear probability model. Goldberger's (1964) two-step weighted estimator can be employed to correct for the problems of ordinary least squares (OLS) regression with a dichotomous dependent variable. Before calculating the weights, the predicted values outside the 0-1 interval from the OLS regression should be reset to the bounds. It should also be noted that in order for the system of equations to be estimated, at least one variable in the assignment equation must be excluded from the outcome equation. This variable
Table B-1: Assignment (First-Stage) Equation: Active Public School Choosers in New York

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity</td>
<td>.090</td>
<td>.038</td>
</tr>
<tr>
<td>Values</td>
<td>.115**</td>
<td>.037</td>
</tr>
<tr>
<td>Length of residence</td>
<td>.005*</td>
<td>.002</td>
</tr>
<tr>
<td>Years of schooling</td>
<td>.006</td>
<td>.004</td>
</tr>
<tr>
<td>Black</td>
<td>-.252***</td>
<td>.048</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-.216***</td>
<td>.045</td>
</tr>
<tr>
<td>Asian</td>
<td>-.318***</td>
<td>.116</td>
</tr>
<tr>
<td>Employed</td>
<td>.079**</td>
<td>.028</td>
</tr>
<tr>
<td>Female</td>
<td>-.003</td>
<td>.043</td>
</tr>
<tr>
<td>Attend church</td>
<td>-.003</td>
<td>.006</td>
</tr>
<tr>
<td>Constant</td>
<td>.127</td>
<td>.114</td>
</tr>
</tbody>
</table>

\[ \chi^2 = .05; \ r^2 = .01; \ \*p \leq .01; \ **p \leq .001 \]

N = 684; \( F(10,573) = 10.36; \ r = .000 \)

REFERENCES


Granato, Jim, Ronald Inglehart, and David Leblang. 1996b. "Cul-