

The Civic Side of School Reform: Private Schools, School Vouchers and Civic Education

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This paper asks what effect school vouchers can be expected to have on the civic education of their participants. The analysis begins by examining cross-sectional data from students, and their parents, enrolled in both public and private schools. These data suggest that when compared to the public school population (and controlling for myriad other factors), students in private schools are more likely to engage in community service, have more training in civic skills, express more confidence in their ability to use civic skills, have greater political knowledge, and express a higher degree of political tolerance. However, within the private school population, students enrolled in religious but non-Catholic schools express a lower level of political tolerance than public school students. The analysis then turns to data collected in a national school voucher program, in which vouchers were awarded by lottery. This randomized field trial suggests that after one year in a private school, students have a higher level of political tolerance, but not political knowledge. These results not only speak to the debate over school vouchers as public policy, but also our understanding of the political socialization that occurs in different types of schools.

Political scientists have long had an interest in the civic education of adolescents, although research on the subject has waxed and waned over the last three or four decades. After a flurry of research in the 1960s and early 1970s, studies of civic education and/or political socialization slowed to a trickle, picking up again of late. In the words of one recent review article, “After decades of neglect, civic education is back on the agenda of political science in the United States” (Galston 2001). The neglect of the topic, however, has meant that for the most part “the field as a whole provides disappointing theoretical and empirical bases for undertaking the educational reforms that might strengthen the role of schools in the making of citizens” (Conover and Searing 2000, 91).

At a time when education reform tops the policy agenda, it is unfortunate that political science has so little to say about the possible civic consequences of various reform proposals. The relative lack of research on the subject of civic education is particularly lamentable as a national conversation—often, a heated argument—takes place over proposals to provide state-funded vouchers to pay private school tuition (with a few such programs already in existence). With the Supreme Court’s recent decision in *Zelman v. Simmons-Harris* that a state-funded voucher program in Cleveland passes constitutional muster, it is likely that voucher programs will proliferate.

Some opponents of vouchers raise alarms that private schools do not serve to prepare their students for engagement in a pluralist democracy, and thus that school vouchers will have adverse consequences for the civic development of those who move from public to private schools. For example, in his dissent to the *Zelman* decision, Justice Stevens articulated these concerns by predicting that state-funded vouchers for private, specifically religious, schools will “weaken the foundation of our democracy.” Given that public spending on elementary and secondary education is at least partly justified as a means to “impart the knowledge and skills of citizenship” and “inculcate a set of civic values,” (Gill et al. 2001, 187) it is imperative to ask how a major reform like the widespread availability of publicly-funded vouchers will affect those

aims. To date, however, little empirical evidence exists to test whether public and private schools differ in the civic education that they provide to their students. As Macedo laments, “The comparative success of different types of schools at teaching civic virtues is not much studied” (2000, 234). This paper seeks to fill that void by:

- (1) comparing the civic attitudes and behavior of students in private and public schools
- (2) examining how civic attitudes are affected when students in a school voucher program switch from public to private schools

(1) is accomplished with data from a large national telephone survey of parents and their adolescent children, while the data to answer (2) is drawn from a similar survey administered to participants in a privately-funded national school voucher program, in which vouchers were awarded by lottery. This random assignment means that the program is accurately described as a randomized field trial, giving the analyst tools to address the problem of self-selection that typically confronts any study of public versus private school populations.

Previous Literature

Examining how different types of schools potentially vary in the civic education they provide to their students raises two important questions. First, what constitutes a “civic” education? And second, how might we expect public and private schools to differ in providing it? We turn first, therefore, to definitions. A fundamental difficulty in any study of civic education is defining it, as the term *civic* is notoriously vague and often controversial. I begin by defining a civic education as one that provides preparation for participation in political activity. More precisely, I draw upon the empirical literature in political science to define four objectives in such preparation:

- (1) Participation in public-spirited collective action (community service)
- (2) The capacity to be involved in the political process (civic skills)
- (3) An understanding of the nation’s political system (political knowledge)

(4) Respect for the civil liberties of others (political tolerance)

It should also be noted that rigorous instruction in subjects such as mathematics, history, and literature contributes to a young person's civic development. As Galston puts it, "All education is civic education" (2001, 219). However, the existing literature amply demonstrates how these four components of a civic education directly contribute to both the extent and character of one's civic involvement and thus merit the attention they are given here.

Community Service

Recent years have seen increasing attention paid to participation in non-remunerative community service as an important component of civic engagement. Putnam, for example, describes collective action like volunteer work as providing individuals with templates for collaboration, thus facilitating further collective action in a "virtuous circle" (1993). In a similar vein, Barber argues that "civic education rooted in service learning can be a powerful response to civic scapegoatism and the bad habits of representative democracy" (1992, 252). With the growing popularity of service learning programs in American high schools, clearly many educators have been convinced that community service is an activity secondary schools should encourage. While some observers have suggested that young people turn to community service as an expression of their alienation from the political system, (National Association of Secretaries of State 1999) existing evidence suggests otherwise. Among American youth, the correlation between volunteer activity and political engagement is positive and, over the last two decades, unchanging (Campbell 2000).

Civic Skills

Verba, Schlozman, and Brady (1995) present considerable evidence that political participation is facilitated by the acquisition of civic skills, namely experience in performing tasks like holding meetings, writing letters, and making public statements. Their work focuses on how

adults acquire these skills on the job or in voluntary associations. However, for adolescents we would expect that the main source for developing civic skills is their school.

Political Knowledge

Extensive evidence has accumulated demonstrating that political knowledge is an important component of political involvement. Zaller, (1992) for example, uses indices of factual political knowledge as a critical measure of political awareness. Similarly, in their exhaustive analysis of the causes and consequences of political knowledge, Delli Carpini and Keeter (1996) conclude that it is the key to full participation in democratic politics.

Political Tolerance

Liberal democracy is defined as much by respect for minority rights as governance by majority rule. Consequently, there is a long line of research into individuals' willingness to grant guarantees of free expression, association, etc. to members of unpopular groups, or in other words, *political tolerance*. In the words of Sullivan, Piereson, and Marcus:

Though liberal societies may be divided by intense conflicts, they can remain stable if there is a general adherence to the rules of democratic or constitutional procedure. Tolerance in this sense implies a commitment to the 'rules of the game' and a willingness to apply them equally. (1982, 2)

The question of how adolescents acquire the norm of tolerance is especially relevant to a study of schools, since decades of research into political tolerance has established that tolerance increases with education, although the actual process by which this change occurs largely remains obscure (Nie, Junn, and Stehlik-Berry 1996). Furthermore, normative theorists have identified the promotion of tolerance as fundamental to the mission of public education, underscoring its relevance to the question of how private schools perform in providing a civic education to their students (Gutmann 1999; Macedo 2000).

Schools and Civic Education

While it is fairly straightforward to cull important elements of civic education from the existing literature, it is far more difficult to use existing theory to generate expectations about the features of schools that might contribute to or detract from civics instruction. The development of theory to explain the causal processes of political socialization within schools has been stunted by the periodic attention paid to the subject by political scientists. Early research suggested that courses devoted to “civics” had little impact on adolescents’ preparation for engagement in political participation (Langton and Jennings 1968). More recently, however, Niemi and Junn (1998) have demonstrated that taking courses with political content means that students perform better on the National Assessment of Educational Progress (NAEP) civics test, a gauge of their knowledge about politics. Unfortunately, beyond this straightforward finding—which is itself the subject of some dispute (Greene 2000)—research to explain what schools do to promote civic development is scarce. While political scientists have long noted that educational attainment is a potent predictor of almost every aspect of civic and political activity, as Torney-Purta notes, the processes by which schools facilitate political engagement remain a “black box” (1997).

One area in which there has been discussion—albeit limited—of how schools might affect civic education is in regards to the differences between public and private schools. Galston summarizes what has perhaps been the conventional wisdom:

Public schools have been regarded as the most appropriate sites for forming citizens, while private schools have been regarded with suspicion as sources of separatism, elitism, and antidemocratic principles. (2001, 231)

This view echoes the original justification for public schools. Historically, public—or “common”—schools were created in order to forge a common citizenry within a nation of immigrants. Even though the standards of what constitutes good citizenship are considerably different now than when Horace Mann first advocated the common school, the general objective of public schools to prepare students for democratic engagement has not changed. Currently, many state constitutions justify the existence of public schools by explicitly invoking the need for

an informed and engaged electorate. Nor is this concern merely a quaint anachronism, as contemporary public opinion data show that the vast majority of the general public embraces the civic dimension of education. A 1996 Phi Delta Kappa/Gallup Poll found that 86 percent of Americans reported that “preparing students to be responsible citizens” is a “very important” purpose of the nation’s schools, more than the 76 percent who attached the same level of importance to the statement that schools should “help people become economically self-sufficient” (Elam, Rose, and Gallup 1996).

While most of the discussion of the civic consequences of public and private education refers only to generalities, Gutmann’s work (1999; 2000) is an exception. She moves beyond bromides about public education and stereotypes about private schools to provide a theoretical grounding for the argument that private schools will fall short in the civic education that they provide their students. Gutmann articulates the minimum requirements of what she labels a *democratic education*, which include “religious toleration” and “respect for individual rights,” and expresses concern that private schools largely immune from the democratic process will stray from these ideals. Because private school policies and curriculum are not subject to democratic deliberation by the general public, but are governed only by the beliefs of a particularistic group, there is no way to ensure that they promote civic objectives valued by the public. Macedo (2000) too questions the democratic commitment of those groups, particularly religious fundamentalists, who found private schools.

A second perspective on private schools turns the Gutmann argument on its head. Moe (2000) argues that *because* public schools are subject to public control, they are unable to serve as models of democratic deliberation, and thus cannot be expected to inculcate any values held in common by the electorate. Relying on insights from the social choice literature, Moe contends that because they are situated in a political system, public schools are hopelessly mired in bureaucracy, the antithesis of democratic deliberation. Referring to theorists who write about the democratic purposes of schooling (and citing Gutmann specifically) Moe writes that “the schools

they want are ideal training grounds for democracy—small, flexible, participatory communities that encourage active involvement, information exchange, debate, deliberation, and self-governance.” What they get, however, are schools in which the preferences of politically dominant groups are institutionalized through rule-bound bureaucracy. “A bureaucratic ‘community’ is artificial, built on formally specified relationships, rights, and responsibilities that literally obstruct the development of a true community” (141).

Moe further argues that replacing the education current system with one that allows parents to choose freely among many different types of schools (i.e. a voucher system) would “tend to promote the emergence of schools as true communities. As parents choose their schools, they are more likely to identify with them, to share their values and missions, to trust one another, to participate, and to have respect for teachers and principals” (145). The implication in Moe’s argument is that these are schools that can better provide the education the students’ families want. Specifically, a stronger community will foster the civic values important to that group. Furthermore, by invoking the term “true communities” Moe implies that these schools’ very organizational structure will serve as a model for democratic involvement, enhancing their ability to prepare students for civic engagement

Given their opposing conclusions regarding the value of private education, it is ironic that upon closer inspection, there is much in common between the arguments made by Gutmann and Moe. Moe argues that under a voucher system, schools will be tight-knit communities whose members share clearly defined values. Essentially, Gutmann worries that he is right. Gutmann’s concern is that groups sponsoring private schools will have values that do not meet the criteria of a democratic education, and then be successful in teaching them to their students. Likewise, Macedo worries that private school communities are “liable to be less concerned about reinforcing our overarching civic ideals and more concerned about educating children in their particular ideals” (2000, 253).

Turning from theory to empirics, the few studies that have examined the civic education provided by private schools do not lend support to the concerns raised by Gutmann and Macedo. What we find in this literature is a small set of studies that have examined some of the components of civic education detailed above. For example, Wolf et al (2001) present evidence that when compared to their publicly educated peers, college students who receive their secondary education in private schools score more highly on measures of political tolerance. Greene (1998) finds that students in private schools are more likely to participate in volunteer service than those in public schools, and that administrators in private schools are more likely to report that their schools promote citizenship than do public school administrators. Note that both studies only make a blunt comparison between public and private schools.

Similarly, Niemi, Hepburn, and Chapman (2000) find that students who attend a “church-related” school are more likely to engage in community service than students in public schools. The 1998 National Assessment of Educational Progress (NAEP) Civics Report Card for the Nation reports that students in private schools have higher average scores on the NAEP civics test than their peers in public schools (U.S. Department of Education 1998). However, this conclusion is based on simple cross-tabulations without statistical controls for possible confounding factors like parents’ education. Coleman and Hoffer (1987) did control for family background and found students in private schools, both Catholic and non-Catholic, to have higher scores on the High School and Beyond civics test than public school students, although the differences were not statistically significant.

More recently, Dee (2003) has used longitudinal data to test the impact of attending a Catholic high school on civic involvement in adulthood, and found that alumni of Catholic schools are more likely to vote as adults than those who attended public schools. These results are confirmed when he predicts Catholic school attendance using a number of instrumental variables.

These studies often do not differentiate among various types of schools within the private sector, and none do so within the public sector. Since it could be that the selectivity of a school is a factor in whether it promotes civic education, perhaps selective public schools (e.g. magnet schools) are more similar to private schools than non-selective (assigned) schools. One objective of the current study, therefore, is to examine whether magnet and assigned public schools differ in the civic education that they provide to their students. Similarly, distinctions among schools within the private sector will also be drawn.

Because they draw on data from the public and private school populations as they are currently, and not as they would be under a voucher system, studies such as those I have cited do not address the specific question of whether school vouchers will have a detrimental effect on civic education. It could be that the effects on students who attend private schools only upon receiving a voucher differ from those observed within the private school population as a whole. The first part of the analysis shares this weakness, as it too draws on data from the public and private school populations in general. However, the second section specifically addresses what happens to students who enroll in private schools upon receiving a voucher.

Data

The analytical strategy employed is straightforward. Students in public and private schools—and subcategories within each—are compared on measures of the four elements of civic education detailed above. However, because the private school population is highly self-selected, ensuring that any observed differences are owing to the school a student attends and not other factors is a challenge. Two sources of data are employed, allowing the self-selection problem to be handled in different ways.

The first source of data is the 1996 National Household Education Survey (NHES). Administered by the National Center for Education Statistics of the U.S. Department of Education, the NHES consists of large nationally representative samples of both parents and their adolescent children (U.S. Department of Education. National Center for Education Statistics

1996). Some questions were asked of students in grades 7 through 12, resulting in an N of 7,101. Most others were asked of students in grades 9 through 12, for a total of 3,784 cases. Adults and students completed extensive telephone surveys relating to their involvement in civic and political activity. The NHES is particularly appropriate for this study because parents and their children were asked many of the same questions, meaning that the analysis can include controls for civic influences in students' homes, thus increasing confidence that the model has isolated the effect of their schools. The data contain many items describing both the family's demographic characteristics and the school the student attends. Furthermore, the size of the NHES sample means that it includes an analytically useful number of private school students.¹

While the NHES allows for a comparison of public and private schools under the status quo, it does not allow for analysis of the effects of a private school voucher program *per se*. For that, data from students enrolled in a voucher program is necessary. Previously, this type of analysis has been hindered by the fact that school vouchers have largely been a matter of theory rather than practice. In 1999, however, the Children's Scholarship Fund (CSF) established a large-scale, national, privately funded voucher program that contains provisions found in proposed legislation for state funded vouchers, and that resembles two existing publicly-funded voucher programs in Milwaukee and Cleveland. Furthermore, a recent analysis of public opinion toward vouchers suggests that Americans would be most likely to support a voucher program with the basic characteristics of the CSF (Moe 2001).

Low-to-moderate income families were eligible to receive vouchers to offset the cost of private school tuition for children in grades K-8. Because CSF is a private program and thus raises no constitutional questions, voucher recipients were free to attend any private school of their choosing, including religious schools. The size of the voucher was determined according to a sliding income scale; voucher amounts varied from 25% to 75% of tuition. In order to be eligible to receive a CSF scholarship, applicants needed to have at least one child in grades K-8 and a total household income of less than 270 percent of the federally determined poverty line for

a family of their size. Families with an annual household income below the poverty line qualified for a scholarship of up to 75 percent of tuition at the private school of their choice. Families with an income greater than 185 percent of the poverty line received a subsidy of 25 percent of private school tuition. If a family won the lottery, each of their children in the appropriate grade range was offered a scholarship. The average scholarship was roughly \$1,000, with an average parental contribution of \$1,100.

After a national advertising campaign (including a mention by Oprah Winfrey on her television program), families of approximately 1.25 million children applied to the program. From the pool of eligible families, 40,000 vouchers were awarded. Since applicants far exceeded the number of vouchers available, recipients were selected by lottery. That is, once a family applied to CSF and had their eligibility confirmed, *the only criterion that determined whether they received a voucher was chance*. This analysis thus exploits the power of random assignment to what can accurately be labeled treatment and control groups. This experimental research design parallels studies of other policy interventions, like the effect of reducing class sizes (Krueger 1999) and housing vouchers for individuals with low incomes (Ludwig, Ladd, and Duncan 2001). Similar research has been conducted on how school vouchers in comparable programs affect students' academic achievement (Howell et al. 2002).

The data for this portion of the analysis were collected with a telephone survey administered to a random sample of CSF applicants—both those who won the lottery and those who did not. The sample was drawn to match the overall geographic distribution of applicants to the program. Applicants were surveyed in the summer following the first school year after CSF scholarships were awarded (June to August 2000). In each household, one parent or caregiver was interviewed. In households with a child old enough to meet the study's protocol, that child was interviewed (with parental permission).² This analysis reports results from children in grades 6 through 8, for a total of 448 cases.³

Civic Consequences of Private Education

Community Service

Each component of civic education will be treated in turn; we begin with community service. Simple cross-tabulations reveal that more private than public school students report doing volunteer work in the last year, by a margin of 66% to 47%. Obviously, however, this difference may be due to myriad factors correlated with attending a private school, like parental education for example. Therefore, participation in community service is modeled as

$$C^* = \mathbf{b}S + \mathbf{d}X + \mathbf{g}Y + \mathbf{q}Z + \mathbf{e}$$

where S is a dummy variable indicating whether a student attends a public or private school (private=1); X is a vector of demographic variables; Y is the parental measure that corresponds to the measure being modeled for a student respondent, in this case volunteer activity; and Z is a vector of variables describing various aspects of the student's school. For the most part, our attention will be directed to β , since the remaining variables are included primarily to ensure that any effects attributed to the schools are not owing to omitted variables. C^* is a latent variable measuring the propensity to engage in community service, which is observed as either 1 (did participate) or 0 (did not). Because the dependent variable is dichotomous, probit is used as the estimator.

The list of control variables is extensive, as the objective is to ensure that all potentially confounding factors have been included.⁴ The demographic variables include a series meant to account for social advantage, given the longstanding observation that social status is correlated with participation of many forms (Verba and Nie 1972): these include whether English is spoken at home, academic performance of the student (reported by the parent), the student's own academic expectations (whether she expects to attend college), race (whether the respondent is African-American), Hispanic ethnicity, parents' education level, household income, and whether the student lives in a home with two parents. A control for living in the South is also included.

In addition, the model accounts for the age and gender of the student, given that past research has found that females are more likely to engage in community service, as are students of both genders in the later years of high school (Niemi, Hepburn, and Chapman 2000). The model also controls for the number of hours the student spends working at a job, as we might expect a significant time trade-off between a job and volunteer activity. Furthermore, the model controls for a student's general inclination toward engaging with her wider community with an index measuring her frequency of consuming news in print and on television.

Civic engagement within the student's family is accounted for with controls for parental religious service attendance, whether a parent volunteers in the student's school, and an index of parental political participation. Also, the model includes Y, a measure of whether the student has a parent who engages in community service.

With all of the above variables, we can account for a wide range of factors potentially correlated with both attending a particular type of school and engaging in community service. However, the NHES actually allows the analysis to extend further, and examine whether there are particular characteristics of a school that influence the civic education it provides. First, there is a control for whether the school arranges service opportunities, an intuitively and empirically important factor affecting the likelihood of a student participating in community service (Niemi, Hepburn, and Chapman 2000). The model also includes a control for the racial composition of the school, whether the respondent feels students have a voice in school governance, whether the school has a student government, and whether the student has taken a course that required attention to current events within the last two years. Each of these could plausibly have a bearing on whether a student engages in community service. For example, research by Alesina and La Ferrara (2000) suggests racial homogeneity at the metropolitan area fosters civic involvement, a finding that may or may not extend to the school environment. The questions about the encouragement offered within the school for students to be engaged in participatory activity account for the degree to which the school fosters civic involvement. Finally, the model accounts

for the school's size, although the expectation for this variable is not clear *a priori*. Smaller schools are probably more likely to foster a sense of community, while larger schools may have more resources to make students aware of opportunities to get involved in community service (Jennings 2000).⁵

Table 1 reports the results of the probit model of the likelihood of a student performing community service within the previous year. Note that all of the variables have been coded on a 0-1 scale, allowing us to compare the relative magnitude of their impacts (a practice that will be followed throughout the paper). The coefficient for attending a private school is statistically significant and positive, which means that even with all of the potentially confounding variables included in the model, students in private schools are more likely to participate in community service than are students in public schools. As a rough gauge of its impact, it compares in magnitude with variables like expected college attendance, frequency of church attendance, and having a parent who performs community service. Predicted probabilities generated from the probit coefficients (with all the control variables set to their means) demonstrate that, *ceteris paribus*, the probability that a student in a private school has engaged in community service within the last year is .61, compared to .50 for a student in a public school. This is essentially the same as the gain in the probability of volunteering (.10) that results when the responding parent switches from not being engaged in community service to being a volunteer.

Column (2) presents the same results, only with the data restricted to students whose schools do not have a mandatory service requirement. A reasonable objection to the results in column (1) is that the results are potentially misleading because many schools require their students to perform community service. Normatively, it is not clear whether mandatory service contributes positively to an adolescent's long-term civic activity. Empirically, however, it seems clear that facilitating community service by dictate is qualitatively different than encouraging it through other means. Therefore, the second model in the table excludes students whose schools require them to perform community service. Substantively, the result is very similar to the first

model. The size of the coefficient for private school drops a little, but remains statistically significant at $p < .05$.

If the objective of this paper was simply to compare the blunt categories of public and private schools, columns (1) and (2) would suffice. However, to explore differences that are more fine-grained these broad categories need to be divided further. Thus, column (3) reports a model that distinguishes between five types of schools: assigned public, magnet public, Catholic, religious but not Catholic, and private secular.⁶ It is only because the NHES has a large sample size that it is possible to divide students into these categories. Even with this large sample, though, we are left with the somewhat clumsy category of “religious/non-Catholic schools,” as it is not possible to further distinguish among these schools. Even if it were, the small cell sizes would likely make any statistical comparisons tenuous. This group is thus a residual category of sorts, and includes everything from Jewish to Quaker to Fundamentalist Christian schools.

Magnet public schools refer to public schools that select students on a basis other than geography.⁷ This distinction between public schools is made because of evidence that simply being able to choose a school increases social capital among parents (Schneider et al. 1997); perhaps this is true for students as well, leading to a greater likelihood of volunteer activity. Since the overwhelming majority of American students attend assigned public schools, this is the excluded category. Again, the model only includes respondents whose schools do not mandate community service.

The results in column (3) indicate that it is students in Catholic schools who drive the private school effect observed in columns 1 and 2, although the coefficient for religious/non-Catholic schools is positive and approaches significance ($p=.16$). When probabilities are generated from the probit coefficients, there is a gap of .10 between assigned public and Catholic school students, the same as between public and private school students in model 1. This is identical to the change in probability between a student whose parent reports volunteering and one whose parent does not.

It is important to stress that whatever it is that Catholic schools do to promote voluntarism, it is over and above the school-level factors included in the model, including whether the school arranges service for students, has a student government, encourages discussion of current events in classes, and its size (all of which, except school size, are themselves statistically significant factors predicting participation in community service).

Because many Catholic schools have made community service integral to their mission, perhaps we should not be surprised that their students are the most likely to participate in such service. What about other components of civic education? Do private schools, Catholic or not, differ from their public counterparts?

Civic Skills

The next area of civic education examined is what Verba, Schlozman, and Brady call “civic skills.” More specifically, the NHES asked students in grades 7 through 12:

During this school year, have you done any of the following things in any class at (your current) school . . .

(1) written a letter to someone you did not know

(1) given a speech or an oral report

(2) taken part in a debate or discussion in which you had to persuade others about your point of view

Responses were combined in an additive Civic Skills Index. Table 2 again reports the full results of a model accounting for all of the potentially confounding factors discussed above, except for a few that we would not expect to affect the acquisition of civic skills in school.⁸ Because the dependent variable is a multiple item index, ordered probit is used as the estimator. Once more, the parental measure that echoes the dependent variable is also included. For this model, the parental control consists of an index of two questions that ask whether the parent feels that she could write a letter on behalf of a cause and whether she could give a speech at a meeting.

Column (1) again reports results for the comparison between public and private schools; the coefficient for private school students is positive and significant. Mirroring the results for community service, column (2) reveals that it is only students in Catholic schools who have a significantly higher score on the civic skills index, although again the coefficient for religious/non-Catholic schools is positive and skirts the edge of statistical significance ($p=.18$). Predicted probabilities reveal that the difference in the index scores of Catholic school students and their counterparts in assigned public schools is admittedly modest (about 1/10 of the index's standard deviation), although by way of comparison it is only slightly smaller than the increase in the mean score of a student who has taken a course which required attention to current events, presumably an important source of instruction in civic skills.

The careful reader will note that the parental measure of civic skills for the models reported in Table 2 does not match the student measure precisely. While the students were asked whether they had exercised the three civic skills in question, their parents were asked whether they felt confident exercising similar skills. This raises the question of whether students feel that they could exercise those same skills, which is related to but nonetheless distinct from having exercised them in a classroom environment. To that end, students in grades 9 through 12 were asked:

1. *Suppose you wanted to write a letter to someone in the government about something that concerned you. Do you feel that you could write a letter that clearly gives your opinion?*
2. *Imagine you went to a community meeting and people were making comments and statements. Do you think that you could make a comment or a statement at a public meeting?*

Both items are combined in a Civic Confidence Index. Following the pattern established above, column (1) of Table 3 reports the dichotomous comparison between public and private schools. In this case, the coefficient is positive and highly significant statistically ($p > .01$). Column (2) reports the results when the more refined school categories are included in the model. While the coefficient for magnet public schools is small and insignificant, those for each of the three types

of private schools are positive and significant (although the coefficient for Catholic schools is only significant at $p < .10$). As with the Civic Skills Index, the substantive differences are modest, but comparable to other factors that the current literature would suggest are important. For example, the increase in the mean Civic Confidence Index as the type of school changes from assigned public to religious/non-Catholic school students is the same as the increase when a parent's civic confidence increases from its minimum to maximum (1/4 of a standard deviation).

Political Knowledge

While reasonable people might disagree over whether secondary schools should promote some aspects of civic education, like voluntarism, among their students, it is presumably uncontroversial to claim that schools are to impart knowledge, including political knowledge. Even though common sense would lead us to expect that instruction offered in school affects the level of political knowledge among students, for decades scholars could find little evidence of the relationship. This was due to a combination of factors: poor methods of teaching civics in the classroom, the fact that students learn about politics outside of the classroom (in a way that they are unlikely to learn about other subjects like chemistry or math), and poor measures of political knowledge. With the publication of Niemi and Junn's *Civic Education: What Makes Students Learn?*, there is now considerable evidence that common sense is correct after all: instruction in school can contribute to civics knowledge.

The NHES allows for a test of whether public and private schools differ in the civics knowledge they impart to their students. Respondents to the NHES, both parents and students, answered five factual questions about American politics. (These questions were only asked of students in grades 9 through 12). To avoid contaminating the "test" by having parents and their children answer the same questions, parents and children in a single household answered different questions. Questions were combined in a simple additive index. Table 4 displays the results of an ordered probit model of the Political Knowledge Index, with the same control variables as in

the previous models. In particular, the model includes a control for the amount of time students spend reading the newspaper and/or watching television news, two important means by which students obtain politically-relevant information. In column (1) we see that the coefficient for private school is positive and statistically significant, and ranks in magnitude with being a native English speaker and plans to attend college. In column (2) we see that only the coefficient for Catholic schools retains its significance once terms for each type of school are introduced. The gap between assigned public and Catholic school students' scores on the Political Knowledge Index is comparable to the increase in political knowledge that results from taking a course where current events are discussed (about 1/3 of a standard deviation).

Political Tolerance

The NHES allows us to examine whether public and private education differ in the extent to which they promote political tolerance, the element of civic education where perhaps private schools are most suspect. The questionnaire includes two items modeled after the standard measures of tolerance included on the General Social Survey and similar surveys, asked of students in grades 9 through 12.

- 1. If a person wanted to make a speech in your community against churches and religion, should he or she be allowed to speak?*
- 2. Suppose a book that most people disapproved of was written, for example, saying that it was all right to take illegal drugs. Should a book like that be kept out of a public library?*

The question about churches and religion provides a particularly strong test of political tolerance among students in religious schools, since the hypothetical situation involves advocacy of a position that they will almost certainly reject. Significantly, Gutmann (1999, 301) specifically cites "religious toleration" as an essential component of a democratic education. Responses to these questions were coded so that a "tolerant" response equals 1 (yes to (1) and no to (2)), and the opposite responses equal 0. The responses were then added together to produce a two point scale.

In Table 5 we again see results derived from an ordered probit model incorporating virtually all of the same control variables used throughout this analysis.⁹ Once more, the model accounts for civic influences in the home, in this case the possibility that students are inculcated with the norm of political tolerance by their parents by including a term for an additive index of the parent's response to the identical questions.

Column (1) demonstrates that, on average, private school students have higher tolerance scores than students in public schools. Column (2), however, reveals that the blunt public-private distinction conceals the differences among types of private schools. Students in private secular schools score substantially higher on the tolerance index than students in assigned public schools, while students in religious/non-Catholic schools score substantially lower. Students in Catholic schools score slightly higher, but the difference is only statistically significant at the .10 level. In substantive terms, the gap between the tolerance scores of students in assigned public and private secular schools is greater than the effect of a parent's tolerance index score changing from the lowest to the highest value (1/2 a standard deviation versus 1/3). The corresponding gap between assigned public and religious/non-Catholic students is of a similar magnitude, but in the opposite direction.

The conclusion to be drawn from this analysis, therefore, is that the verdict on private schools and tolerance is mixed. Students in private secular and Catholic schools appear to have higher levels of tolerance than students in public schools (the former more than the latter), while religious/non-Catholic school students' tolerance levels are lower.

The work of Sullivan, Piereson, and Marcus (1982) leads us to ask whether these results are not an artifact of the particular questions that were asked. They show that evaluating responses to survey questions about civil liberties must take the *content* of the question into account. Because one of the questions on the tolerance index deals specifically with the rights of a speaker who is opposed to religion, we might expect students in religious schools to be especially wary of granting full freedom of expression. This is not to diminish the importance of

respect for religious differences as an important component of political tolerance, but only to suggest that other questions might provide more of a “hard case” for students in secular schools. However, results not shown suggest that the low tolerance exhibited by students in religious schools outside of the Catholic tradition is not a function of the question about an anti-religious speech. Rather, the differences between the types of schools is driven more by the question regarding an unpopular book.

It would seem from these results that Gutmann and Macedo are right to be concerned that some private schools do not provide instruction in what Gutmann calls a “common democratic character” (1999, 118). However, it is clear that it is not private education *per se* that facilitates intolerance, as private secular schools are home to students with comparatively high political tolerance scores. Nor is it the case that a religious character means a school fosters attitudes out of the civic mainstream, as students in Catholic schools also exhibit comparatively high levels of tolerance.

It is important to stress that these results should not be considered definitive, as the NHES falls short in accounting for a rival hypothesis—that the low level of tolerance is owing to the religious beliefs of the respondents independent of any experience in school. Unfortunately, the NHES contains only a single indicator of religious involvement, a thin measure of the frequency of church attendance. It is thus impossible to account for denominational affiliation, which past research has found to be a significant factor affecting political tolerance (Wilcox and Jelen 1990). Without controlling for religious affiliation, any causal claim regarding the effect of religious schools on political tolerance is tenuous at best.

To this point, the analysis has covered multiple aspects of civic education; the basic findings are summarized in Table 6. When compared to students in assigned public schools and controlling for myriad confounding factors, Catholic school students score higher on community service, civic skills, political knowledge, and political tolerance. Students in all three types of private schools—Catholic, religious/ non-Catholic and private secular—also score higher on the

Civic Confidence Index, a measure of whether they feel that they could successfully exercise their civic skills. Students in Catholic and private secular schools score higher on an index of political tolerance, while students in religious/non-Catholic schools score substantially lower than students in assigned public schools.

Admittedly, even with the myriad control variables included in each of these models, self-selection remains a real threat to causal inference. Strikingly, however, the conventional wisdom would seem to suggest that self-selection into private schools works against the findings reported here—that is, by selecting themselves out of the public sector, those who attend private schools have a questionable commitment to civic values, especially tolerance. Nonetheless, there is still a lurking suspicion that statistical controls cannot account for a fundamental difference between those in the public and private sectors that might in turn also correlate with the components of civic education measured here.

School Vouchers and Civic Education

Overcoming the selection bias in private school attendance requires some way of predicting who attends a private school that is uncorrelated with any other factors that might in turn affect students' civic attitudes. Because it was a randomized process, the offer of a CSF voucher meets this criterion.

Of course, receiving a voucher is not the same as using one. For a variety of reasons not all families who win the lottery moved their child (or children) from public to private school. One reason is that CSF requires families who receive a scholarship must contribute part of their child's private school tuition. Furthermore, vouchers were awarded in the late spring, meaning that parents had little time to locate a suitable private school for the coming school year. In total, a little less than 30 percent of families offered a voucher used it. Similarly, a small percentage of families who did not win the lottery end up switching their children to private schools anyway. To the extent that these decisions are systematic, the randomization crucial to the analysis is

threatened. However, “noncompliance” like this is not a unique problem, and is common across virtually all real-world experimental manipulations. The correction for the problem is straightforward—use of the randomized offer of a voucher as an instrumental variable in a two-stage least squares (2SLS) model (Angrist, Imbens, and Rubin 1996). Because the offer was made randomly, it is not correlated with a predisposition to attend private school. The experimental studies cited above of class size reduction, housing vouchers for low income families, and school vouchers’ impact on academic achievement all use random assignment as an instrument in the same manner.

More specifically, the model employed can be described with the equations

$$P = \mathbf{a} + \mathbf{b}_1V + \mathbf{e}$$

$$T = \mathbf{a} + \mathbf{b}_2P + \mathbf{e}$$

where V indicates the offer a voucher. P is an estimate of whether a student attends a private school, and \mathbf{b}_2 is the estimated effect of switching from a public to a private school on the dependent variable in question. Because the offer of a voucher is randomized, the demographic characteristics of the treatment and control groups should be, on average, identical. This seems to be the case, as displayed in Table 7. Only one of the differences in the demographic variables, whether the student is an African-American, reaches statistical significance, and then only at the .10 level (two-tailed).¹⁰

The strength of this analysis lies in its experimental design. However, unlike the analysis of the NHES, the use of the voucher offer as an instrument precludes differentiating among types of private schools. Because families who received a voucher offer were free to send their children to any type of private school, the offer can only be considered a predictor of attending a private school *in general*. Note that 53 percent of students who received a CSF voucher enrolled in a Catholic school, 39 percent in a school that would be classified as religious/non-Catholic in the NHES, and 8 percent in a private secular school.

The survey of CSF applicants included two of the four components of civic education, political tolerance and knowledge. Political tolerance is measured with three questions that while not identical to the NHES measures, are very similar.

1. *Some people have views that you oppose very strongly. Do you think these people should be able to come to your school and give a speech?*
2. *Should these people be allowed to live in your neighborhood?*
3. *Should these people be allowed to run for president?*

For each question, respondents could answer yes, maybe, or no. Because the distribution of responses varies substantially across the three questions¹¹, a single index has been created using the maximum likelihood method of factor analysis.¹²

Table 8 reports the results of a two-stage least squares model, with the voucher offer used as an instrument for attending a private school. A hausman test confirms that the use of a two-stage model is appropriate. Even though demographic controls should not be necessary, column (2) has been included in order to rule out the possibility that the results are confounded by differences between the treatment and control groups nonetheless. This model includes a host of demographic characteristics as exogenous variables, mirroring the NHES models in the first part of the analysis. However, unlike the NHES models, it includes controls for whether respondents are “born again” Christians or Catholics, in light of the concern that religious affiliation is correlated with political tolerance. As expected, the addition of these controls has no substantive impact on the results of switching from a public to a private school. (It actually increases the magnitude of b_2). Only two of the controls reach statistical significance (student’s grade and living in the South), and only at $p < .10$.

The data indicate, therefore, that one year in a private school leads to a considerable increase in students’ average level of political tolerance. Substantively, the coefficient means that, on average, students switching from a public to a private school score 0.7 points higher on the political tolerance index, which represents roughly a standard deviation of the scale.

Table 9 repeats the same type of analysis for political knowledge, which is measured with two factual questions:

1. *Who is the Vice-President of the United States right now? Is it George Bush, Al Gore, John McCain, Bill Bradley or don't you know?*
2. *Who was the president of the United States during the Civil War? Was it Thomas Jefferson, Abraham Lincoln, Franklin Roosevelt, George Washington or don't you know?*

Unfortunately, this is a poor index of political knowledge, making it unlikely that any effect will be observed. Having only two items in the index only compounds the problem. Since the second question really tests the student's historical knowledge, not political knowledge as conventionally defined, Table 9 also reports results when the two questions are modeled separately. In each case, the coefficient for attending a private school does not approach statistical significance. These results do not change when control variables are introduced (results not shown)

In sum, the effects of switching from a public to a private school on students' civic education are mixed. Political tolerance—the component of civic education of perhaps greatest concern to voucher critics—is enhanced. Political knowledge, however, appears to be unaffected.

While this analysis benefits from the elegance and statistical power of random assignment, legitimate questions regarding the results remain. For one, students were surveyed after only one year in their new schools; at this point it is impossible to know whether the increase in tolerance will be sustained. Second, experiments are always subject to questions regarding their external validity, and this one is no exception. In this case, participants in the study are representative of the population most likely to be served by a politically feasible publicly-funded voucher program (like those that already exist in Milwaukee and Cleveland). However, should the parameters of a voucher program differ substantially from those of the CSF (like eliminating income requirements, for example), extrapolating from these results would be inappropriate.

Conclusion

This paper has compared public and private school students on a set of measures the political science literature suggests contribute to preparation for active engagement in democratic life, with an eye toward determining whether school vouchers might hinder the civic education of their participating students. A survey of students currently enrolled in private schools suggests that when compared to public school students, they are more likely to engage in community service, develop civic skills in school, express confidence in being able to use those skills, exhibit greater political knowledge, and express a greater degree of political tolerance. Data from a randomized experiment of applicants to a national school voucher program confirm these results for political tolerance, but not for political knowledge. Based on these findings, it would appear that when compared to their publicly educated peers, students in private schools generally perform better on multiple indicators of their civic education, and students who switch from public to private schools show an increased level of political tolerance, which political theorists stress as a fundamental component of civic education.

When the analysis turns to more fine-grained distinctions between schools, however, the concerns raised by both Gutmann and Macedo about private, particularly religious, schools do appear to be warranted. In the NHES data, we find that students in religious/non-Catholic schools express a lower degree of political tolerance than students in assigned public schools while expressing a high degree of civic confidence. Concern might be raised about this potentially explosive combination, as it appears that these students are not receiving a civic education that adheres to the norm of simultaneously facilitating both civic engagement and political tolerance.

The question of how school vouchers will affect civic education, therefore, depends on one's perspective. When viewed in the aggregate, it appears that private schools more successfully provide the four elements of civic education detailed here than their public counterparts. In particular, *on average* we should expect that school vouchers will lead to an increase in students' political tolerance, at least in the short term and at least for students in low-

to-moderate income households. That average, however, masks an apparent decrease in tolerance among students enrolled in religious schools outside of the Catholic tradition. This conclusion is offered with the caveat that many different types of schools are grouped together in the religious/non-Catholic category, and thus at this point it is impossible to say whether one particular type of school drives this result. The results from the randomized field trial of a national school voucher program cannot speak to this question, as the analysis is limited to considering all types of private schools grouped together.

Noting these distinctions between schools implies that researchers interested in learning how adolescents are prepared (or not) to be involved in civic life would benefit from considering the type of school they attend, a factor generally ignored in the socialization literature. The evidence presented here suggests that Catholic schools in particular excel in providing a civic education to their students, which is ironic given that Catholic schools were originally established as an alternative to the public school—the institution designed to teach a common set of civic values. The research of Bryk, Lee, and Holland (1993) provides a starting point to understanding why it is that Catholic schools succeed, as they focus on the way administrators and teachers within Catholic schools deliberately foster a sense of commitment among their students to the wider community. At this point it is unknown whether this is this a unique Catholic effect, perhaps dependent on the religious character of these schools, or if it can be replicated in secular schools. To answer this question, a logical place to begin is with charter schools, as they seemingly strike a compromise between the differing philosophies of Gutmann and Moe for how schools should operate. They are public schools, and thus subject to some regulation, assuaging Gutmann’s concern that all schools should have to conform to some basic curriculum standards (including on civic matters). But they are free from most of the regulation facing other public schools, and explicitly chosen by parents—satisfying Moe’s desire for schools uniting people with common interests. Charter schools that are oversubscribed must admit students on the basis of a lottery, making it feasible to conduct a randomized field trial of their effects on students.

This paper began with the lament that the lack of research into political socialization meant that political science has little to say about the civic consequences of an education reform like school vouchers. While a literature to predict how education reform will affect civic education is lacking, the very proliferation of education reform proposals now being implemented means that researchers are presented with an opportunity to examine how schools affect their students' civic preparation. In doing so, an important contribution would be made to the oft-neglected subject of political socialization. From this understanding it could conceivably be possible to offer education reforms explicitly designed to improve the civic education received by today's youth.

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Table 1. School Type and Community Service (Probit results)

	(1)	(2)	(3)
	Participated in volunteer work? (all)	Participated in volunteer work? (not mandatory)	Participated in volunteer work? (not mandatory)
TYPE OF SCHOOL			
Private	0.248*** (0.072)	0.183** (0.088)	
Magnet public			0.006 (0.066)
Catholic			0.246** (0.125)
Religious, non-Catholic			0.203 (0.153)
Private secular			0.068 (0.160)
Age	0.214* (0.116)	0.189 (0.126)	0.195 (0.126)
Female	0.161*** (0.040)	0.175*** (0.044)	0.174*** (0.044)
English-speaking	0.176** (0.088)	0.251** (0.101)	0.251** (0.101)
Live in South	-0.005 (0.042)	-0.020 (0.046)	-0.018 (0.046)
Academic performance	0.687*** (0.103)	0.686*** (0.113)	0.686*** (0.112)
Academic expectations	0.218*** (0.071)	0.148* (0.076)	0.147* (0.076)
African American	-0.155** (0.065)	-0.096 (0.072)	-0.097 (0.072)
Hispanic	-0.149** (0.075)	-0.037 (0.083)	-0.039 (0.083)
Parental education	0.321*** (0.084)	0.289*** (0.091)	0.290*** (0.092)
Household income	-0.032 (0.089)	-0.073 (0.097)	-0.074 (0.097)
Two parent household	0.016 (0.051)	0.069 (0.056)	0.068 (0.056)
Religious service attendance	0.239*** (0.059)	0.179*** (0.064)	0.176*** (0.064)
Parental community service	0.243*** (0.046)	0.276*** (0.050)	0.275*** (0.050)
Parental participation index	0.029 (0.100)	0.021 (0.110)	0.022 (0.110)
Parent volunteers in school	0.115** (0.046)	0.103** (0.051)	0.100** (0.051)
Interest in news	0.286*** (0.070)	0.356*** (0.076)	0.356*** (0.076)
Hours spent at part-time job	.254* (0.145)	0.283* (0.158)	0.279* (0.158)
School arranges service	0.615*** (0.055)	0.578*** (0.058)	-0.041 (0.069)
School racial composition	0.004 (0.055)	0.026 (0.060)	0.026 (0.061)
Students' opinions matter in school	-0.142 (0.087)	-0.202** (0.094)	-0.203** (0.094)
School has student government	0.181*** (0.055)	0.161*** (0.058)	0.162*** (0.058)
Current events in classroom	0.095** (0.044)	0.077 (0.048)	0.077 (0.048)
Size of school	-0.051 (0.064)	-0.042 (0.069)	-0.041 (0.069)
Constant	-2.357*** (0.168)	-2.318*** (0.184)	-2.318*** (0.184)
Log likelihood	-4349.63	-3666.97	-3666.41
Significance of χ^2	0.001	0.001	0.001
N	6971	5803	5803

Robust standard errors in parentheses. All variables coded as 0-1.

* $p < .10$; ** $p < .05$; *** $p < .01$

Source: 1996 National Household Education Survey

Table 2. School Type and Civic Skills Index (Ordered probit results)

	(1)	(2)
TYPE OF SCHOOL		
Private	0.102* (0.054)	
Magnet public		0.073 (0.052)
Catholic		0.137** (0.069)
Religious, non-Catholic		0.140 (0.105)
Private secular		0.024 (0.106)
Age	-0.485*** (0.088)	-0.490*** (0.088)
Female	0.157*** (0.033)	0.156*** (0.033)
English-speaking	0.046 (0.078)	0.046 (0.078)
Live in South	-0.027 (0.034)	-0.023 (0.034)
Academic performance	0.255*** (0.087)	0.250*** (0.087)
Academic expectations	0.068 (0.058)	0.068 (0.058)
African American	-0.090* (0.054)	-0.094* (0.054)
Hispanic	-0.116* (0.067)	-0.119* (0.067)
Interest in news	0.553*** (0.060)	0.557*** (0.060)
Parental education	0.093 (0.064)	0.090 (0.064)
Household income	0.059 (0.073)	0.063 (0.073)
Two parent household	-0.050 (0.043)	-0.048 (0.043)
Religious service attendance	-0.035 (0.051)	-0.038 (0.051)
Parental community service	0.085** (0.038)	0.083** (0.038)
Parental participation index	0.163* (0.084)	0.156* (0.084)
Parental civic skills	0.224*** (0.085)	0.223*** (0.086)
School racial composition	-0.090* (0.046)	-0.086* (0.046)
Students' opinions matter in school	-0.056 (0.070)	-0.053 (0.070)
School has student government	0.141*** (0.047)	0.143*** (0.047)
Current events in classroom	0.253*** (0.037)	0.254*** (0.037)
Size of school	0.044 (0.052)	0.045 (0.052)
Cut 1	-0.322 (0.146)	-0.314 (0.147)
Cut 2	0.651 (0.147)	0.659 (0.148)
Cut 3	1.796 (0.149)	1.805 (0.149)
Log likelihood	-8700.49	-8698.140
Significance of χ^2	0.001	0.001
N	6971	6971

Robust standard errors in parentheses. All variables coded as 0-1.

* p < .10; ** p < .05; *** p < .01

Source: 1996 National Household Education Survey

Table 3. School Type and Civic Confidence Index (Ordered probit results)

	(1)	(2)
TYPE OF SCHOOL		
Private	0.323*** (0.108)	
Magnet public		0.111 (0.087)
Catholic		0.239* (0.135)
Religious, non-Catholic		0.523** (0.225)
Private secular		0.434** (0.217)
Age	0.934*** (0.255)	0.924*** (0.255)
Female	0.195*** (0.060)	0.194*** (0.060)
English-speaking	-0.009 (0.144)	-0.004 (0.147)
Live in South	-0.225*** (0.060)	-0.225*** (0.060)
Academic performance	0.008 (0.153)	-0.004 (0.153)
Academic expectations	0.153 (0.094)	0.148 (0.094)
African American	0.081 (0.095)	0.080 (0.096)
Hispanic	-0.008 (0.120)	-0.011 (0.121)
Interest in news	0.681*** (0.100)	0.687*** (0.101)
Parental education	0.023 (0.124)	0.018 (0.124)
Household income	-0.066 (0.132)	-0.067 (0.132)
Two parent household	0.049 (0.074)	0.057 (0.074)
Religious service attendance	-0.056 (0.084)	-0.053 (0.084)
Parental community service	0.140** (0.063)	0.137** (0.063)
Parental participation index	0.117 (0.144)	0.111 (0.144)
Parental civic skills	0.307** (0.132)	0.303** (0.132)
School racial composition	0.045 (0.079)	0.050 (0.079)
Students' opinions matter in school	-0.040 (0.038)	-0.038 (0.038)
School has student government	0.185** (0.091)	0.197** (0.091)
Current events in classroom	0.050 (0.063)	0.054 (0.063)
Size of school	-0.022 (0.089)	-0.008 (0.089)
Cut 1	0.428 (0.295)	0.395 (0.296)
Cut 2	0.746 (0.293)	0.781 (0.294)
Log likelihood	-2118.78	-2116.52
Significance of χ^2	0.001	0.001
N	3727	3727

Robust standard errors in parentheses. All variables coded as 0-1.

* p < .10; ** p < .05; *** p < .01

Source: 1996 National Household Education Survey

Table 4. School Type and Political Knowledge Index (Ordered probit results)

	(1)	(2)
TYPE OF SCHOOL		
Private	0.227*** (0.074)	
Magnet public		-0.039 (0.069)
Catholic		0.306*** (0.088)
Religious, non-Catholic		-0.033 (0.153)
Private secular		0.224 (0.148)
Age	1.253*** (0.183)	1.260*** (0.182)
Female	-0.449*** (0.047)	-0.450*** (0.047)
English-speaking	0.204** (0.096)	0.202** (0.096)
Live in South	-0.032 (0.046)	-0.029 (0.046)
Academic performance	1.221*** (0.121)	1.234*** (0.121)
Academic expectations	0.216*** (0.079)	0.216*** (0.079)
African American	-0.276*** (0.074)	-0.278*** (0.074)
Hispanic	-0.231*** (0.080)	-0.233*** (0.080)
Interest in news	0.681*** (0.079)	0.674*** (0.079)
Parental education	0.517*** (0.098)	0.520*** (0.097)
Household income	0.015 (0.107)	0.017 (0.107)
Two parent household	0.090 (0.058)	0.087 (0.058)
Religious service attendance	0.058 (0.068)	0.061 (0.068)
Parental community service	-0.014 (0.053)	-0.011 (0.053)
Parental participation index	0.128 (0.115)	0.127 (0.114)
Parental knowledge index	0.576*** (0.085)	0.574*** (0.084)
School racial composition	-0.044 (0.063)	-0.042 (0.063)
Students' opinions matter in school	0.327*** (0.095)	0.327*** (0.095)
School has student government	0.367*** (0.081)	0.350*** (0.082)
Current events in classroom	0.385*** (0.054)	0.384*** (0.053)
Size of school	0.102 (0.073)	0.090 (0.073)
Cut 1	2.692 (0.206)	2.674 (0.207)
Cut 2	3.513 (0.207)	3.496 (0.208)
Cut 3	4.074 (0.209)	4.056 (0.210)
Cut 4	4.670 (0.214)	4.652 (0.215)
Cut 5	5.368 (0.220)	5.352 (0.220)
Log likelihood	-5736.18	-5733.26
Significance of χ^2	0.001	0.001
N	3727	3727

Robust standard errors in parentheses. All variables coded as 0-1.

* $p < .10$; ** $p < .05$; *** $p < .01$

Source: 1996 National Household Education Survey

Table 5. School Type and Political Tolerance Index (Ordered probit results)

	(1)	(2)
TYPE OF SCHOOL		
Attend private school	0.182** (0.086)	
Magnet public		0.068 (0.074)
Catholic		0.205* (0.107)
Religious, non-Catholic		-0.275* (0.156)
Private secular		0.649*** (0.199)
Age	0.851*** (0.213)	0.839*** (0.214)
Female	-0.054 (0.050)	-0.054 (0.050)
English-speaking	0.313*** (0.109)	0.316*** (0.109)
Live in South	-0.182*** (0.051)	-0.176*** (0.051)
Academic performance	0.102 (0.132)	0.117 (0.131)
Academic expectations	0.104 (0.078)	0.094 (0.078)
African American	-0.058 (0.077)	-0.065 (0.077)
Hispanic	0.022 (0.094)	0.022 (0.094)
Parental education	0.292*** (0.100)	0.291*** (0.100)
Household income	0.108 (0.110)	0.113 (0.110)
Two parent household	-0.026 (0.062)	-0.019 (0.063)
Religious service attendance	-0.291*** (0.070)	-0.274*** (0.070)
Parental community service	-0.020 (0.054)	-0.015 (0.054)
Parental political tolerance	0.375*** (0.078)	0.371*** (0.079)
School racial composition	-0.055 (0.068)	-0.043 (0.068)
Students' opinions matter in school	0.182* (0.107)	0.194* (0.108)
School has student government	0.195** (0.082)	0.177** (0.082)
Current events in classroom	0.031 (0.057)	0.032 (0.057)
Interest in news	0.135 (0.085)	0.124 (0.085)
Hours spent at part-time job	0.229 (0.144)	0.239* (0.144)
Size of school	0.091 (0.080)	0.089 (0.080)
Cut 1	0.015 (0.226)	0.033 (0.226)
Cut 2	1.460 (0.225)	1.483 (0.226)
Log likelihood	-3178.55	-3166.84
Significance of χ^2	0.001	0.001
N	3727	3727

Robust standard errors in parentheses. All variables coded as 0-1.

* p < .10; ** p < .05; *** p < .01

Source: 1996 National Household Education Survey

Table 6. Summary of Results from National Household Education Survey

	<i>Magnet Public</i>	<i>Catholic</i>	<i>Religious/ non-Catholic</i>	<i>Private secular</i>
Community Service		↑		
Civic Skills		↑		
Civic Confidence		↑	↑	↑
Political Knowledge		↑		
Political Tolerance		↑	↓	↑

Results are from probit and ordered probit analyses reported in Tables 1-5. All comparisons are with students in assigned public schools. A gray cell indicates a statistically significant different at $p < .10$ (at least) while the direction of the arrow indicates whether the effect is negative or positive.

Table 7. Demographic Comparisons Between Treatment and Control Groups

	Control	Treatment
Mother's age	40.2	39.9
Lived in current residence for 2 or more years (%)	85.1	84.0
Two parent household (%)	53.9	51.4
Mother works full time (%)	59.7	54.8
Mother's education (5 point scale)	2.99	2.98
Born in USA (%)	84.4	78.2
Black (%)	56.5*	47.3
Hispanic (%)	14.3	17.8
Mother currently married (%)	59.7	57.1
Household income (\$)	24,219	23,615
N	153-154	290-294

* p < .10 (two-tailed test)

Source: Children's Scholarship Fund Survey

Table 8. Private School Attendance and Political Tolerance (Two-stage least squares results)

	(1)	(2)
Private school (voucher offer as instrument)	0.657* (0.366)	0.796** (0.430)
Student's grade		0.145** (0.049)
Female		-0.073 (0.070)
Mother born in USA		-0.004 (0.121)
Live in South		0.104 (0.089)
African American		0.138 (0.115)
Hispanic		0.142 (0.154)
Mother's education		0.044 (0.038)
Family income		-0.009 (0.029)
Two parent household		0.011 (0.076)
Religious service attendance		-0.015 (0.096)
“Born again” Christian		0.082 (0.093)
Catholic		-0.075 (0.136)
Constant	-0.112 (0.110)	-1.275 (0.451)
N	448	435

Two-stage least squares model. Voucher offer used as an instrument for attending a private school.

Standard errors in parentheses. All variables coded as 0-1.

* p < .10; ** p < .05

Source: Children’s Scholarship Fund Survey

Table 9. Private School Attendance and Political Knowledge (Two-stage least squares results)

	(1)	(2)	(3)
	Political knowledge index	“Name of the Vice president”	“President during Civil War”
Private school (voucher offer as instrument)	0.018 (0.422)	-0.272 (0.294)	0.291 (0.268)
Constant	0.852*** (0.122)	0.598*** (0.085)	0.254*** (0.078)
Observations	477	477	477

Two-stage least squares model. Voucher offer used as an instrument for attending a private school.

Standard errors in parentheses

* p < .10; ** p < .05; *** p < .01

Source: Children’s Scholarship Fund Survey

APPENDIX

Question Wordings

National Household Education Survey

Questions were asked of the student's mother. If the mother was not present in the home, questions were asked, as worded in the interview protocol, of the "parent and guardian who knows the most about (Child's) education?"

Type of school: Determined by the following series of questions asked of parents. Does (Child) go to a public or private school? Is it his/her regularly assigned school or a school that you chose? Is the school church-related or not church related?

Age: (Asked of parents) In what month and year was (Child) born?

Female: (Asked of parents in a screener interview) Is this person (referring to child) male or female? (Coded 1 if female, 0 otherwise)

English-speaking: (Asked of parents) What language does (Child) speak most at home? (Coded 1 if English, 0 otherwise)

Live in South: Census Bureau's Southern Region (TX, AR, LA, MS, TN, AL, KY, WV, VA, NC, SC, GA, FL) (Coded 1 if South, 0 otherwise)

Academic performance: (Asked of parents) Would you describe (Child's) work at school as Excellent, Above Average, Average, Below Average, Failing?

Academic expectations: (Asked of parents) Do you think (Child) will graduate from a four year college? (Coded 1 if yes, 0 otherwise)

African American: (Asked of parents) Are you . . . Black? (Coded 1 if Black, 0 otherwise)

Hispanic: (Asked of parents): Are you of Hispanic origin? (Coded 1 if Hispanic, 0 otherwise)

Parental education: What is the highest grade or year of school that you completed? 5 category variable.

Household income: (Asked of parents) In studies like this, households are sometimes grouped according to income. What was the total income of all persons in your household over the past year, including salaries or other earnings, interest, retirement, and so on for all household members? 11 category variable

Two parent household: (Asked of parents): What is your marital status? (Coded 1 if married, 0 otherwise)

Religious service attendance: (Asked of parents) How often have you or the other adults in your household attended religious services in the past year? Would you say Never, About once or twice, Several times during the year, About once or twice a month, or Nearly every week or more? (Recorded for the household member who attends most frequently)

Parental community service: Do you or the other adults in your household participate in any ongoing community service activity, for example, volunteering at a school, coaching a sports team, or working with a church or neighborhood association? (Coded 1 if yes, 0 otherwise)

Parental participation index: Which of the following activities, if any, have you or the other adults in your household done in the past twelve months, that is, since (Month) 1995?

Contributed money to a candidate, a political party, or some political cause? Worked either for pay as a volunteer for a candidate, a political party, or some political cause? Written or telephone an editor or public official or signed a petition about issues that concern you? Attended a public meeting, for example, a town meeting, a political rally, or a meeting of a neighborhood organization? Participated in a protest or boycott? (Each was coded 1 if yes, and an additive index was created)

Parent volunteers in school: Since the beginning of this school year, have you. . . Acted as a volunteer at the school or served on a committee? (Coded 1 if yes, 0 otherwise)

Interest in news: (Asked of youth) Now I have some questions about the national news. This means, for example, news about what is happening in Congress, what the President is doing, or what political candidates are saying. How often do you read about the national news in a newspaper or newsmagazine like *Newsweek*, *Time*, or *U.S. News and World Report*? Would you say Almost every day, At least once a week, At least once a month, or Hardly ever? How often do you watch the national news on television or listen to the national news on the radio? Would you say every day, At least once a week, At least once a month, or Hardly ever? (The two questions were combined in an additive index).

Hours spent at part-time job: On average, how many hours do you work each week during the school year? (Coded as a continuous variable)

School arranges service: Does your school arrange or offer any service activities that students can participate in? (Coded 1 if yes, 0 otherwise)

School racial composition: (Asked of parents) Approximately what percent of the students at (Child's) school are white but not Hispanic/Black/Hispanic/American Indian or Alaska/Asian or Pacific Islander/the same race or ethnic background as (Child)? Would it be Less than 25 percent, 25 to 75 percent, or More than 75 percent?

Students' opinions matter in school: Now I'd like your opinion about your current school. Please tell me whether you strongly agree, agree, disagree, or strongly disagree with the following statements . . . In my school, the opinions of the students are listened to.

School has student government: Does your current school have a student government? (Coded 1 if yes, 0 otherwise)

Current events in classroom: During this school year, have you had any courses that required you to pay attention to government, politics, or national issues? Last year, did you have any courses that required you to pay attention to government, politics, or national issues? (Coded 1 if yes to either question, 0 otherwise)

Size of school: (Asked of parents): Approximately how many students are enrolled in (Child's) school? Under 300, 300-599, 600-99, or 1,000 or more?

Children's Scholarship Fund Survey

Questions were asked of the mother or female guardian. If another person in the household was interviewed, questions were about the mother or female guardian.

Private school: What kind of school does <Child> attend? Is it a neighborhood public school, magnet public school, charter school, or a private school? (Coded 1 if private school, 0 otherwise)

Student's grade: Which grade has <Child> been in this past school year?

Female: Is <Child> a boy or girl? (Coded 1 if female, 0 otherwise)

Mother born in USA: Was the <Child's mother/female guardian/father/male guardian> born in the United States? (Coded 1 if yes, 0 otherwise)

Live in South: Census Bureau's Southern Region (TX, AR, LA, MS, TN, AL, KY, WV, VA, NC, SC, GA, FL) (Coded 1 if South, 0 otherwise)

African American: Which of the following best describes your racial or ethnic background -- Black/African-American, White/Caucasian, Hispanic, Asian-American, or American Indian? (Coded 1 if Black/African American, 0 otherwise)

Hispanic: Same as above, only coding Hispanic as 1.

Mother's education: What is the highest level of education that you completed? Five category variable.

Family Income: What is the yearly income of this household before taxes? Just tell me to stop when I reach the choice that is closest to your income. 7 category variable.

Two parent household: Please tell me which of the following adults live in this household with <Child>. <His/her> mother, grandmother, father, grandfather, other relatives or other non-relatives? (Presence of both mother and father coded as 1, 0 otherwise.)

Religious service attendance: How often do you generally attend church or religious services? Is it never, only on major holidays, once a month, once a week, or more than once a week? (Coded 1 if once a week or more, 0 otherwise)

Born again Christian: Do you consider yourself to be a “born again” Christian or not? (Coded 1 if yes, 0 otherwise)

Catholic: What is your religion? (Coded 1 if Catholic, 0 otherwise)

¹ According to the documentation provided by the National Center for Education Statistics, the response rate for parents’ interviews for the 1996 NHES was 62.5 percent; the rate for youth was 53.4 percent.

² In families with more than one child, the questions were asked about the child who was next to have a birthday. This was also the child interviewed, if he or she was of the appropriate age.

³ The overall response rate for the survey was 46 percent, which is respectable given that the list from which the sample was generated was a year old, and respondents were a low income, and thus transient, population. In accordance with the recommendations of the American Association for Public Opinion Research, this figure represents an adjusted response rate. As detailed in *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*, this response rate uses as its denominator an estimate of the percentage of eligible cases among the unknown cases. I generated that estimate by assuming that the percentage of ineligible households among those contacted is the same as the percentage among those who were not contacted (43 percent). Critically, given the comparison between the treatment and control groups in the analysis, the response rate did not vary significantly between the groups. The treatment group had an adjusted response rate of 45 percent, the control group 47 percent.

⁴ Details about how questions were worded can be found in the appendix.

⁵ Note that the question about community service was asked of students in grades 7 through 12. Also, the small percentage of students who are home-schooled were excluded from the model. The NHES sample is drawn using cluster sampling, which is accounted for by a weight variable (FYWT).

⁶ The breakdown of the number of students surveyed in the different types of schools (for the entire sample) is as follows:

Assigned public	6111	77%
Magnet public	1018	13%
Catholic	424	5 %
Religious/non-Catholic	187	2 %
Private secular	198	2 %

⁷ The term “Magnet” is here used as a catch-all term for all public schools that use some means other than geography to determine eligibility for enrollment. It is unlikely that many charter school students are included in this sample, as the survey was administered in 1996, before the current proliferation in charter schools.

⁸ These are the student’s news consumption, time spent at a part-time job, whether the student has a parent who volunteers in the school, and whether the school arranges volunteer work.

⁹ The only exception from the model for political knowledge is that the parental political participation index has been dropped.

¹⁰ Note that the comparison between treatment and control groups is made only for that subset of families with children in the appropriate age range.

¹¹ The distributions for the three items are as follows:

Give Speech at Your School? Yes 54% Maybe 41% No 5%
Live in Your Neighborhood? Yes 67% Maybe 6% No 27%
Run for President? Yes 51% Maybe 20% No 29%

¹² Factor loadings for Political Tolerance Items

	Factor loading
Live in your neighborhood	0.46
Run for president	0.41
Give a speech in school	0.45

Maximum likelihood used to generate factor