

Civics Exam: Schools of Choice Boost Civic Values

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For centuries scholars and policymakers have debated the question of whether assigned government-run public schools have a comparative advantage over public schools of choice and private schools in steeping their charges in the civic values necessary for democratic citizenship. The theoretical argument in favor of such an advantage is both intuitive and popular. Political philosophers from Benjamin Rush to John Dewey, as well as the more contemporary Benjamin Barber, Amy Gutmann, Eamonn Callan, and Stephen Macedo, argue that diverse public schools are ideally if not uniquely situated to inculcate civic values in American students.² As free government schools, open to all on equal terms, public schools make an important statement about equality, a fundamental democratic value. Because all students in a particular community traditionally are assigned to a specific school, public schools are “common schools,” where children from various backgrounds gather to learn about social cooperation and the toleration of differences. Finally, public schools are, well, public, and the government operation and political control of them ensures that society’s interests in promoting civic values are advanced. The former education secretary Richard Riley aptly captures this argument when he says that civic values are “conveyed not only through what is taught in the classroom, but by the very experience of attending [a public] school with a diverse mix of students.”³

Supporters of school choice and of the option of private schooling are not persuaded by these arguments. They draw upon the theories of Thomas Paine, Alexis de Tocqueville, and John Stuart Mill in claiming that parentally chosen public schools and even private schools are laboratories of democracy as much as, and perhaps even more than, traditional public schools.⁴ Charles Glenn argues that neighborhood public schools are not actually open to all and that the common school vision is largely a myth.⁵ The geographic boundaries that determine public school assignment transform neighborhoods into walled communities, where entry into quality public schools comes at the cost of a residence in the neighborhood - a cost that is often prohibitive for families of modest means. Jay Greene and Nicole

Mellow argue that the walled communities created by neighborhood assignment to public schools results in the exact opposite of what public school advocates seek: traditional public schools are less likely to contain a diverse mix of students than are schools of choice, and within schools, students of different racial backgrounds are more likely to segregate themselves by race if they have been assigned to their school.⁶ As communitarians such as Anthony Bryk and libertarians such as Stephen Gilles argue, schools of choice are more likely than assigned schools to be communities of equality and social cooperation because they are freely chosen.⁷ Their writings provoke the question, How could having the government tell students where they can and cannot go to school possibly be the first step in preparing them for autonomous citizenship in a democracy?

This theoretical argument remains largely unresolved at least partly because neither side has had recourse to much empirical evidence to support their claims. As Macedo states, “The comparative success of different types of schools at teaching civic values is not much studied.”⁸ That assessment was accurate at the time of his writing. However, since that time a number of rigorous empirical studies of the effects of school choice on civic values have been published as articles or research reports. It is time to take stock of the evidentiary record surrounding the question of whether or not assigned public schooling better prepares students for their responsibilities as democratic citizens. That is my purpose here.

A Meta-Analysis of School Choice and Civic Values

For this systematic review, I examine 59 findings from 21 quantitative studies regarding the effects of school choice on seven civic values that relate to the capacity of individuals to perform as effective citizens in our representative democracy. The values, in order from the most studied to the least studied, are:

- Political tolerance - the willingness to extend the full slate of civil liberties even to people and groups that one dislikes,
- Voluntarism - the contribution of one’s time, without material compensation, to support the activities of a charity or community organization,

- Political knowledge - a basic understanding of the U.S. political system and an awareness of current events and political leaders,
- Political participation - the exercise of a number of citizenship responsibilities, including voting, attending public meetings, and contacting government representatives,
- Social capital - the extent to which a person is networked within their community,
- Civic skills - experience in and confidence with activities such as public speaking and letter writing that can be used to influence the political process, and
- Patriotism - a visceral positive connection to one's country and respect for its national symbols and rituals.

Each of the studies examined the effect of private schooling or school choice arrangements on student outcomes regarding one or more of these important democratic values. With the exception of voluntarism, which was sometimes measured by a simple question regarding whether or not a respondent had volunteered recently, the measures of the other civic values were based upon multiple responses to survey questions that were then consolidated into a summated scale or index.⁹ For example, in the studies of political tolerance, respondents were first asked which political group they least liked and then were asked a series of questions regarding what legal activities they would permit members of their least-liked group to engage in.¹⁰ The higher the number of rights they would be willing to extend to someone with whom they disagreed, the higher would be their tolerance scale score.

Figure 1 summarizes the distribution of findings from the studies of the effects of private schooling (most of the studies) or the practice of public school choice on the civic values of the students or parents in private or choice schools relative to those of comparable students or parents in assigned public schools. The individual studies are examined more extensively in, and listed at the end of, the appendix to this article.

A finding is categorized as indicating a “Traditional Public School Advantage” in Figure 1 if the evidence suggests that private schooling or the exercise of choice produced a statistically significant (at

the 90 percent confidence level or better) reduction in the realization of the particular civic value.

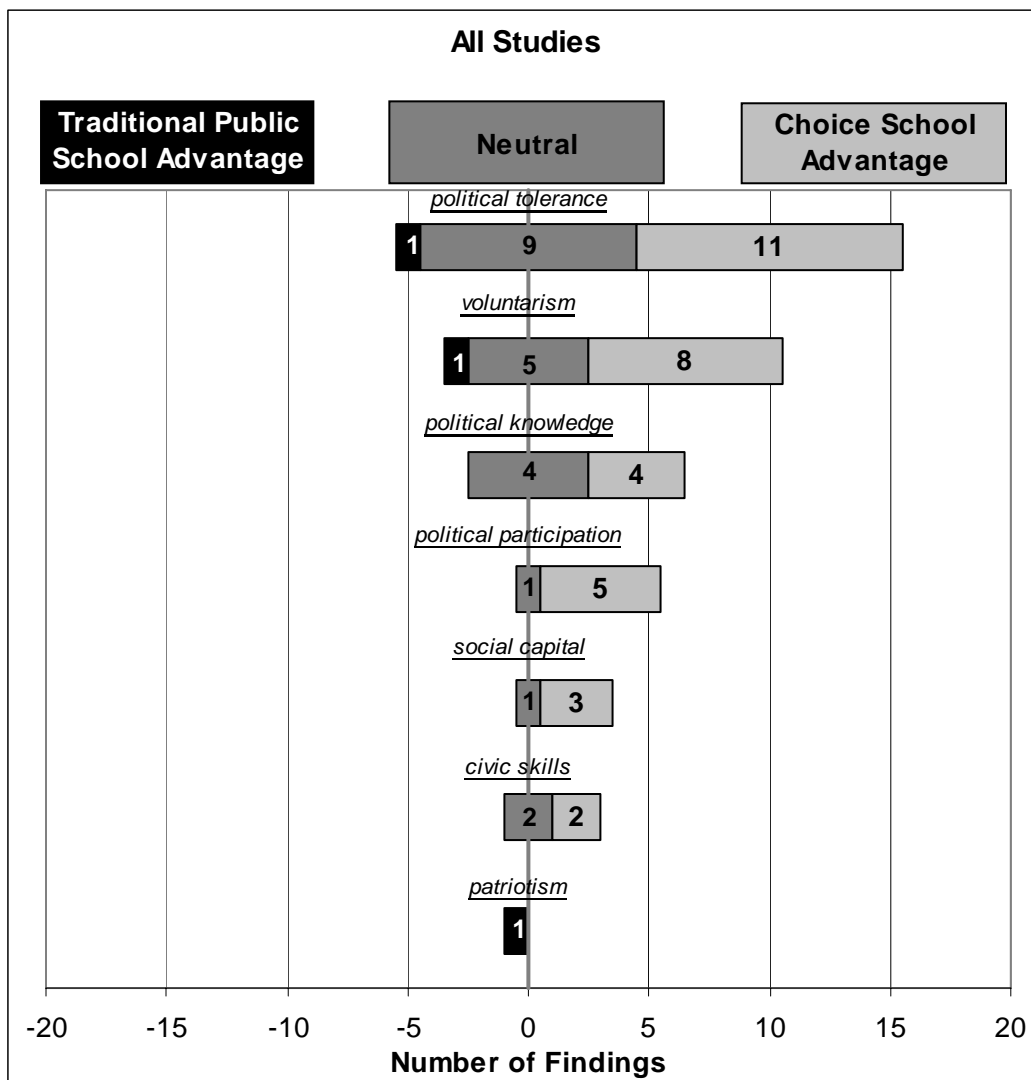
Findings of no significant effect of private schooling or choice on a particular civic value are classified as “Neutral.” Finally, statistically significant results that indicate school choice enhances a civic value are classified as signaling a “Choice School Advantage.”

Each finding summarized in Figure 1 is taken from a large-sample statistical analysis of the effect of school choice or private schooling on one or more civic values. A specific study generated multiple findings if it examined the effects of different varieties of school choice arrangements (e.g. private schools and public charter schools) on a single civic outcome, presented the results of a single school choice arrangement on multiple civic outcomes, or presented findings from various choice arrangements on multiple civic outcomes. The unit of analysis, therefore, was a discreet finding regarding the effect of a particular kind of school choice arrangement on a specific civic outcome compared to outcomes produced by traditional public schools.

Most of the studies that met the methodological standards for inclusion in the analysis focus on students in private schools. Only six of the 59 results pertain to students in charter or magnet schools. This circumstance is somewhat surprising, as magnet schools are often justified as instruments for promoting greater cohesion among students of various racial backgrounds in a given community, and empirical studies of magnet schools tend to focus upon the effects on minority group isolation and student test scores.¹¹ Aside from David Campbell’s studies of the National Household Education Survey (included in this analysis), I am not aware of any other evaluations of magnet schools that take the additional step of determining if the intermediate effects of such schools on integration and achievement translate into higher levels of civic values for their students. Charter schools are sufficiently new to the educational scene that large *N* studies of their effects on civic values have yet to establish a significant presence in the literature. Therefore, the results described below primarily map out the effects of private schooling on civic values.

As can be seen in Figure 1, 56 of the 59 results from the studies suggest that the general effect of private schooling or school choice on civic values trends neutral-to-positive. A total of 33 findings (56

percent) support the position that private schooling or school choice arrangements actually enhance civic values relative to assigned public schools. Twenty-three neutral results appear in the studies (39 percent of all findings), indicating that school choice neither increased nor decreased the civic values of students. Only three findings of a significant traditional public schooling advantage are reported in the studies (5 percent of all findings). As a whole, these 59 statistical findings suggest that the effects of school choice on civic values tend, in almost all cases, to be either positive or nil.



The distribution of findings regarding the effects of school choice on civic values hardly varies by the specific civic value being evaluated, with the exception of patriotism. The lone patriotism finding suggests that traditional public schools outperform schools of choice in fostering that particular value;¹² however, one should be cautious in drawing firm conclusions from a single study. The effects of private schooling and school choice on the remaining six civic values are informed by four or more separate findings, and the results for political tolerance, voluntarism, political knowledge, political participation, social capital, and civic skills all consistently trend neutral-to-positive.

Considering Possible Selection Bias

Not all studies reviewed here are equally rigorous in their design and execution, although all met minimal empirical standards. In education studies perhaps the greatest threat to the validity of an analysis is selection bias. Relatively advantaged parents tend to place their children in more effective educational environments. Often, though by no means exclusively, those environments are private schools. If one merely compares the civic values of parents or students in public versus private schools, one might improperly attribute to private schooling influences that actually are the result of more fundamental familial advantages. To even be considered in this review, a study had to employ some acceptable technique to rule out familial advantage as a cause of the civic values outcomes that were uncovered.

Four different techniques were employed in the studies reviewed here to address problems of selection bias. One was to randomly assign participants to the treatment group (for example, “offered private school scholarship”) or the control group (“not offered scholarship”) before assessing impacts. Such randomized field trials are considered to be the gold standard of educational research, since the randomization process ensures that the two comparison groups are similar, on average, in all respects except for the application of the treatment of private schooling.¹³ For randomized field trials to produce conclusive and reliable information about the efficacy of an educational intervention, however, several conditions must be in place:

1. A large number of subjects must participate in the study,

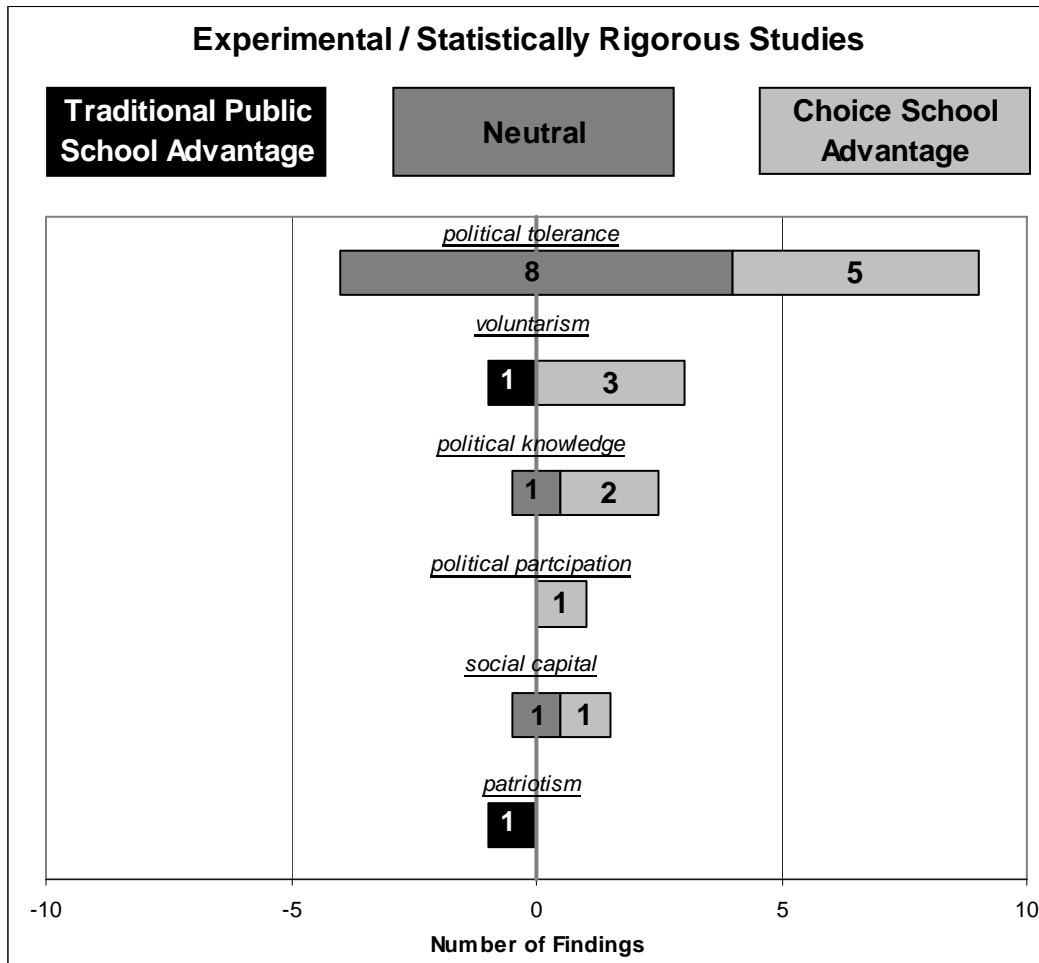
2. High percentages of the treatment group must actually avail themselves of the treatment,
3. Low percentages (ideally, none) of the control group must obtain the treatment on their own, and
4. A large and representative sample of the treatment and control group must return for follow-up evaluation.

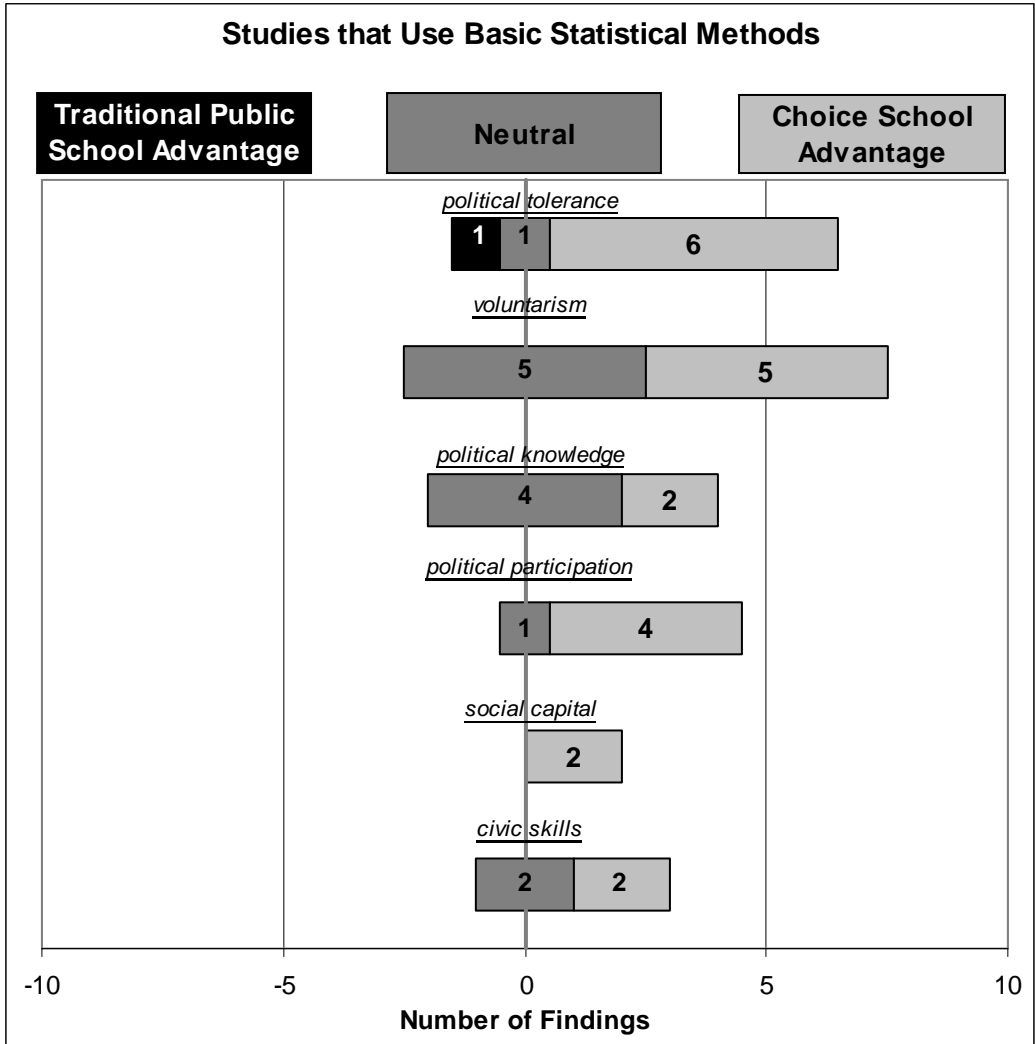
A randomized field trial with all four of these characteristics “meets evidence standards” for valid causal inference without reservation according to the conservative What Works Clearinghouse (WWC) Evidence Standards for Reviewing [Education] Studies. Randomized trials of educational interventions with small-to-moderate shortcomings in any of these four areas “meet evidence standards with reservations” according to the WWC guidelines.¹⁴ The five randomized field trials reviewed here vary somewhat in the extent to which these key conditions obtained (see appendix), and thus in whether or not they would be graded “meets evidence standards” or “meets evidence standards with reservations.” Still, the fact that five experimental studies already exist to speak to the question of how school choice impacts civic values suggests that we have more highly reliable information about this issue than we do about most causal questions in the educational arena.

Absent experimental designs, some research summarized here employed a matching technique, an instrumental variable technique, or both methods to control for possible selection bias. Under the matching approach, the school districts or schools whose populations are to be compared are first matched on important characteristics, such as race and income demographics, before data are collected.

Instrumental variable analysis, in contrast, is a technique employed after data collection to purge data of possible selection bias by replacing an explanatory variable that is likely tainted by selection bias with a related “instrumental” variable that is expected to be free of bias. To be successful in properly correcting for selection bias, the instrumental variable used must be highly correlated with the biased condition (such as private schooling) but uncorrelated with the outcome in the analysis (such as a particular civic value).¹⁵ Thus the studies that employ this strategy and/or a matching approach to control for selection bias were evaluated based upon the effectiveness of the instruments and matching criteria that were used.

The conclusions one draws from the population of findings changes only slightly if one focuses exclusively on those produced by the more rigorous methodologies (Figure 1a). Half of the 24 findings from rigorous studies indicate that schools of choice produce significantly higher levels of civic values in their students than do comparable traditional public schools. An additional 10 rigorous findings (42 percent) suggest that neither choice nor traditional public schools hold a civic values advantage. Two findings from a study that used matching techniques signal that traditional public schools outperformed secular private schools in promoting voluntarism and private schools in general in fostering patriotism.¹⁶





The effects of schools of choice on civic values appear somewhat rosier when only the findings from observational studies that use basic demographic controls are considered (Figure 1b). Sixty percent of the 35 findings from such studies indicate a school choice advantage; and, an additional 37 percent signal no difference between assigned public and schools of choice in advancing civic values. One study that used basic demographic controls (3 percent of all such findings) reported a traditional public schooling advantage in political tolerance compared with non-Catholic religious private schools.¹⁷

This pattern of results – with a distribution somewhat more favorable to choice schools when only results from basic observational studies are examined – suggests that selection bias is a factor in the relationship between schools of choice and civic outcomes. It appears, though, to be a minor factor. If

self-selection bias were the primary cause of the positive results for schools of choice, then we would expect the distribution of results from the studies that control explicitly for such bias to differ more markedly from the results from the basic observational studies in the review. They do not. The evidence is both strong and consistent that something about attending private or public schools of choice is producing civic outcomes that are generally as good as or better than those generated by attending assigned public schools.

The Catholic Schooling Effect

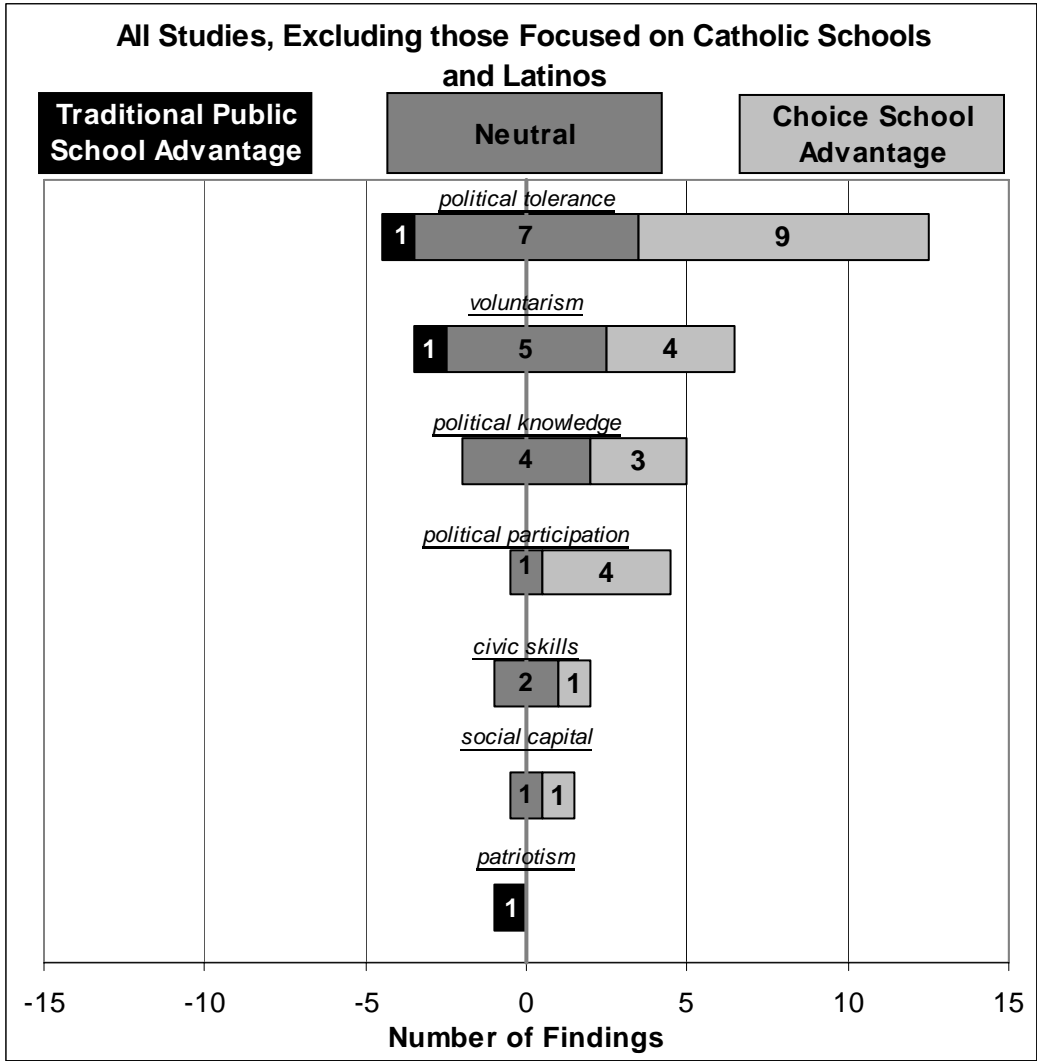
Is Catholic schooling largely responsible for the generally positive school choice effects on civic values?

A slim majority of students educated in private schools are in Catholic schools. Among the subset of religious private schools, Catholic schools dominate the field. Students who switched from public to private schools in the randomized field trials reviewed for this study primarily chose Catholic schools.¹⁸

Privately schooled Latinos, who demonstrate significant advantages vis-à-vis publicly schooled Latinos in their levels of several civic values, are predominantly educated in Catholic schools. Thus the generally positive school choice effects on civic values outlined in Figure 1 might be more properly characterized specifically as Catholic schooling effects. Several prominent scholars have made such claims in the past.¹⁹

If it is true that Catholic schools are the only schools of choice that outperform traditional public schools in promoting civic values, then the change in levels of citizenship preparation wrought by future expansions of school choice could be nil or even negative, should proportionately fewer new choosers select Catholic schools. Although highly speculative (recent expansions of school choice in urban settings have generated a veritable stampede to Catholic schools) this possibility is worth examining. What might happen if Catholic schools (and the Latinos who strongly prefer them) were entirely excluded from a program to expand school choice? Would the likely effects of choice on political tolerance, voluntarism, and other democratic values disappear or turn negative with Catholic schools out of the picture?

Figure 2 provides the findings from Figure 1 excluding all results based on comparisons between public school populations and any private school population that includes Catholic schools or focuses exclusively on the experiences of Latinos. Only about half of the findings from Figure 1 remain in Figure 2, so Figure 2 provides a sketchier portrait of the effects of school choice on civic values, since it deliberately excludes the most commonly studied school choice option. Nevertheless, we are still left with a set of results which clusters in the neutral-to-positive range. Twenty-two positive school choice results remain, suggesting for example that secular private schooling enhances political tolerance, that charter schooling increases voluntarism and social capital, and that education at an evangelical private school increases political knowledge. Twenty findings indicate that school choice has no clear effect, positive or negative, when schools besides Catholic schools are chosen.



The three negative choice findings remain from the earlier figure, suggesting that evangelical Protestant schools reduce political tolerance, that secular private schools decrease voluntarism, and that private schooling of any sort may diminish a particularly passionate form of patriotism. Non-Catholic schools of choice seem to be responsible for the only negative effects of choice on civic values. However, non-Catholic schools of choice also appear to generate many positive outcomes regarding democratic values. These results suggest that the expansion of school choice is more likely to enhance than diminish the civic values of our next generation of citizens, even if *none* of the new choosers end up in communitarian infused Catholic schools.

Discussion

The definitive study of the effects of private schooling and school choice on civic values remains to be completed. Although all of the studies reviewed here have a number of methodological strengths, they also all suffer from at least some empirical limitations (see appendix). Moreover, the studies all draw upon data either about the various school sectors as they existed in the 1980s and 1990s or from modestly sized school choice experiments. The demographic composition of the various school sectors and the independent effects of private schooling and school choice on the civic values reviewed here would likely change somewhat under a complete or even larger-scale school choice regime. Therefore, one should be cautious in drawing strong conclusions from the empirical record to date on school choice and civic values.

The empirical picture regarding the effects of school choice on civic values is not entirely rosy. The lone study on the question indicates that public schools may hold an advantage over schools of choice in fostering patriotism. In one study, attending private secular schools apparently reduced the likelihood of volunteering. Attending an evangelical Protestant school was found to decrease political tolerance in one study and increase political knowledge in another, causing scholars such as Steve Macedo to worry that the combination of the two effects produces young adults who are strongly equipped to act politically on their intolerance.²⁰ The Madrassa schools of radical Islam remind us that under certain conditions private schools of choice can serve to undermine democratic values. With such concerns in mind, it would appear reasonable to require some minimal oversight and regulatory constraints on private schools that accept public monies, such as prohibitions against teaching hate, to ease common fears that expanding school choice might undermine the public purposes of education. John Witte, for one, has argued that parents will rarely place their children in such extremist schools, and the media would quickly expose any that tried to participate in a voucher program.²¹ With parents and reporters keeping watch on choice schools in the U.S., it would seem that only limited government restrictions would be needed to keep a Klu Klux Klan school from thriving in a choice program.

As important as these concerns are, the empirical record to date tends to suggest that civic values are enhanced, or at least not harmed, by the exercise of school choice, especially if results from Catholic schools and the populations that frequent them are included in the mix. The three negative choice effects uncovered are based on empirical studies that lack random assignment. None of those three negative results has been replicated but several of the positive private school results have been. A large number (23) of null findings are reported, at least one for six of the seven civic values considered. However, for every civic value studied, except patriotism, at least one empirical study reports that at least certain types of choice schools actually do a better job than public schools in fostering the skills and attitudes that are important to citizenship. Just as the three negative results reported should give us some pause and inform our deliberations about sound choice regulations, the thirty-three positive results should inform us about the likely beneficial effects of greater school choice.

What aspects of choice schools generate the modestly positive civic values outcomes featured in this analysis? On that point, both the theoretical and empirical literatures require further development. Coleman and Hoffer, John Brandl, and others theorize that schools of choice foster stronger educational communities typified by regular parental involvement and a concern for the welfare of all members.²² Schools of choice are voluntary associations where parents, students, and educators come together to pursue a shared enterprise. As Charles Glenn argues, “Schools that truly belong to the parents who send their children provide settings of unparalleled intensity for the development of the habits of responsible activity on the part of adults and children alike.”²³ Some empirical evidence exists, outside of their own studies, confirming their claims about school choice and the nature of communities that it fosters. Specifically, a report from a major longitudinal evaluation of school choice indicates that parents become more involved in their child’s school if they have selected it.²⁴ However, the three-city experimental evaluation of school voucher impacts led by Howell and Peterson reports mixed results regarding the effects of choice on parental involvement and social capital.²⁵ School choice may foster stronger civic values because of greater parental involvement, but it also may boost students’ preparation for citizenship even while parental involvement remains unaffected.

If parental involvement and the resulting levels of social capital are not necessarily the cause of the general private schooling advantage regarding school choice, and if family background characteristics are largely eliminated as a cause for the outcomes analyzed in this study, then what else might explain these results? Teachers in private schools may be freer to infuse instruction with moral values and discuss controversial issues that are considered too risky for public school teachers to broach.²⁶ Students who regularly encounter value-based claims and perspectives may become more tolerant of people with value-based positions that differ from their own. They also may feel more motivated to volunteer for activities that seek to bring about social and political change. Research in the Netherlands suggests that exposure to a value-rich educational environment is an important motive for parents to exercise school choice.²⁷ Belgium even provides government subsidies to “pluralistic” schools of choice that define their mission as producing “an open mind which acknowledges and respects diversity of opinions and attitudes, and which, despite this diversity, emphasizes common values.”²⁸ Such claims remain highly speculative in the United States, however. Although most studies of school choice programs indicate that parents are more satisfied with the teaching of morality in their child’s new private school, field-based studies have yet to confirm that the moral content of education in private schools differs markedly from that in public schools or to link any such differences specifically to positive civic values outcomes.²⁹

Do schools of choice promote somewhat higher levels of civic values simply because they tend to be more effective schools? A certain level of sophistication may be necessary, particularly for political tolerance, which requires that the person distinguish between opposing a group’s views while still allowing it to seek to advance those views in the public arena. Niemi and Junn argue that the single greatest predictor of the political knowledge of adults is their level of educational attainment.³⁰ Private schooling is increasingly credited with increasing educational attainment, especially for disadvantaged students.³¹ By keeping students in school longer, private schools and other schools of choice unwittingly might be putting them on the path to greater preparation for democratic citizenship.

The most novel, and in my opinion most intriguing, explanation for the apparent school choice advantage in promoting civic values is tied to the generally higher levels of order and discipline in

schools of choice. Public charter schools and private schools tend to be better ordered educational institutions than neighborhood public schools, especially in urban environments.³² A well-ordered and non-threatening educational environment likely contributes to students' feelings of security and confidence. Such feelings might be a necessary precondition for young people to develop a willingness to tolerate potentially disruptive political ideas and political groups and to venture out into the community to promote social causes, an idea suggested by Alan Peshkin in his case study of a Christian fundamentalist school.³³ Conversely, students who are educated in less safe and less predictable environments may develop strong fears of controversial political groups and ideas and, as a result, hesitate to become involved in their communities or in political activities. By first establishing a safe and ordered educational environment for students, private and public schools of choice could also be laying the foundation for students to become more engaged and tolerant citizens. Moreover, a physically safe and secure environment may be the most effective setting for highlighting value-rich moral discussions, which might be considered too explosive in less secure environments. I am not aware of any rigorous empirical field studies that clearly connect a well-ordered educational environment with stronger civic values. However, there is a clear theoretical justification for the link, and I hope that future studies will explore it.

The fact that we cannot pinpoint the exact mechanisms that lead schools of choice generally to produce young adults with somewhat higher levels of civic values should not diminish the importance of what has been learned. At a minimum, the results of the empirical studies fail to confirm the fears of some opponents of choice who claim that private schooling inherently and inevitably undermines the fostering of civic values in a democracy. The statistical record thus far suggests that private schooling and school choice rarely harms and often enhances the realization of the civic values that are central to a well-functioning democracy. This seems to be the case particularly among ethnic minorities (such as Latinos), in places with great ethnic diversity (such as New York City and Texas), and when Catholic schools are the school of choice. Choice programs targeted to such constituencies seem to hold the greatest promise of enhancing the civic values of the next generation of American citizens.

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1. An earlier version of this meta-analysis, based on 19 studies, appeared as Patrick J. Wolf, "School Choice and Civic Values," in *Getting Choice Right: Ensuring Equity and Efficiency in Education Policy*, edited by Julian R. Betts and Tom Loveless (Washington, DC: The Brookings Institution Press, 2005).
 2. See Benjamin Rush, "A Plan for the Establishment of Public Schools and the Diffusion of Knowledge in Pennsylvania; To Which Are Added, Thoughts upon the Mode of Education, Proper in a Republic. Addressed to the Legislature and Citizens of the State," in *Essays on Education in the Early Republic*, edited by Frederick Rudolph (Belknap Press, 1965); John Dewey, *Democracy and Education* (New York: Macmillan, 1963 [1916]); Benjamin Barber, *A Place for Us* (New York: Hill and Wang, 1998); Amy Gutmann, *Democratic Education* (Princeton University Press, 1987); Eamonn Callon, *Creating Citizens: Political Education and Liberal Democracy* (Oxford: Clarendon Press, 1997); and Stephen Macedo, *Diversity and Distrust: Civic Education in a Multicultural Democracy* (Harvard University Press, 2000).
 3. Richard W. Riley, "What Really Matters in American Education," white paper prepared for U.S. Secretary of Education Richard W. Riley for speech given at the National Press Club, Washington, September 23 1997 (www.ed.gov/Speeches/09-1997/matters.pdf).
 4. See Thomas Paine, "The Rights of Man, Part II," in *Political Writings*, edited by Bruce Kuklick (Cambridge University Press, 1989), p. 145; Alexis de Tocqueville, *Democracy in America*, edited by J. P. Mayer (New York: Harper and Row, 1969); and John Stuart Mill, *Utilitarianism, On Liberty, Essay on Bentham: Together with Selected Writings of Jeremy Bentham and John Austin*, edited by Mary Warnock (New York: New American Library, 1974), pp. 238--41.
 5. Charles Leslie Glenn, *The Myth of the Common School* (University of Massachusetts Press, 1988).
 6. Jay P. Greene and Nicole Mellow, "Integration Where It Counts," *Texas Education Review* 1, no. 1 (2000): <http://www.educationreview.homestead.com/integration.html>.
 7. Anthony S. Bryk, Valerie E. Lee, and Peter Holland, *Catholic Schools and the Common Good* (Harvard University Press, 1993); Stephen Gilles, "On Educating Children: A Parentalist Manifesto," *University of Chicago Law Review* 63 (Summer 1996):937-1034..

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8. Macedo, *Diversity and Distrust*, p. 234.
 9. For a description of the methodology commonly used in such studies, see Paul E. Spector. 1992. *Summated Rating Scale Construction: An Introduction* (Newbury Park, CA: Sage Publications).
 10. For examples of early applications of this technique, see John L. Sullivan, James Pierson, and George E. Marcus, *Political Tolerance and American Democracy* (University of Chicago Press, 1982); and George E. Marcus and others, *With Malice towards Some: How People Make Civil Liberties Judgments* (Cambridge University Press, 1995).
 11. For example see American Institute for Research, “Executive Summary,” in *Evaluation of the Magnet Schools Assistance Program, 1998 Grantees: Final Report* (www.ed.gov/print/rschstat/eval/choice/magneteval/finalexecsum.html [August 8, 2004]).
 12. Patrick J. Wolf et al. 1998. “Democratic Values in New York City Schools.” Report of the Workshop in Applied Policy Analysis, School of International and Public Affairs, Columbia University.
 13. William G. Howell and Paul E. Peterson, with Patrick J. Wolf and David E. Campbell, *The Education Gap: Vouchers and Urban Schools* (Brookings, 2002), pp. 39--43.
 14. Available at http://www.whatworks.ed.gov/reviewprocess/study_standards_final.pdf.
 15. Michael P. Murray. 2006. “Avoiding Invalid Instruments and Coping with Weak Instruments.” *Journal of Economic Perspectives* 20:4 (Fall), pp. 111-32.
 16. Wolf et al. 1998. “Democratic Values in New York City...”
 17. David E. Campbell. 2002. “The Civic Side of School Reform: How Do School Vouchers Affect Civic Education?” Working Paper of the Center for the Study of Democratic Politics, Princeton, NJ, April 16.
 18. Although a mere majority (53 percent) of participants in the Children Scholarship Fund program switched to Catholic schools, 72 percent of the participants in Washington, 77 percent of the participants in Dayton, and 84 percent of the participants in New York City selected Catholic schools (see Howell and Peterson, *The Education Gap*, p. 37).

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19. Coleman and Hoffer, *Public and Private High Schools*; Bryk, Lee, and Holland, *Catholic Schools and the Common Good*.
20. Macedo, *Diversity and Distrust...*, pp. 262-263.
21. John F. Witte, "Regulation in Public and Private Schools in the U.S." in *Educating Citizens: International Perspectives on Civic Values and School Choice*, edited by Patrick J. Wolf and Stephen Macedo, with David J. Ferrero and Charles E. Venegoni (Brookings, 2004), pp. 355-356.
22. Coleman and Hoffer, *Public and Private High Schools*; John E. Brandl, *Money and Good Intentions Are Not Enough* (Brookings, 1998); Bryk, Lee, and Holland, *Catholic Schools and the Common Good*.
23. Charles Leslie Glenn, "School Choice as a Question of Design," in *Educating Citizens: International Perspectives on Civic Values and School Choice*, edited by Patrick J. Wolf and Stephen Macedo, with David J. Ferrero and Charles E. Venegoni (Brookings, 2004).
24. National Center for Education Statistics, *Trends in the Use of School Choice, 1993 to 1999: Statistical Analysis Report*, National Household Education Survey 2003-031 (Institute for Education Sciences, U.S. Department of Education, 2003), table 7.
25. Howell and Peterson, *The Education Gap*, pp. 114--39.
26. See Lee H. Ehman, "The American School in the Political Socialization Process," *Review of Educational Research* 50 (1980): 99--119; Gutmann, *Democratic Education*, p. 65; Quentin L. Quade, *Financing Education: The Struggle between Governmental Monopoly and Parental Control* (New Brunswick, N.J.: Transaction, 1996). Neimi and Junn, *Civic Education*, p. 156.
27. See for example Anne Bert Dijkstra, Jaap Dronkers and Sjoerd Karsten, "Private Schools as Public Provision for Education: School Choice and Marketization in the Netherlands," in *Educating Citizens: International Perspectives on Civic Values and School Choice*, edited by Patrick J. Wolf and Stephen Macedo, with David J. Ferrero and Charles E. Venegoni (Brookings, 2004).

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28. Jan De Groof, “Regulating School Choice in Belgium’s Flemish Community,” in *Educating Citizens: International Perspectives on Civic Values and School Choice*, edited by Patrick J. Wolf and Stephen Macedo, with David J. Ferrero and Charles E. Venegoni (Brookings, 2004), p. 172.
29. For example, see John F. Witte, *The Market Approach to Education* (Princeton University Press, 2000); Howell and Peterson, *The Education Gap*, p. 173.
30. Neimi and Junn, *Civic Education*, p. 13.
31. William Evans and Robert Schwab, “Finishing High School and Starting College: Do Catholic Schools Make a Difference?” *Quarterly Journal of Economics* 110 (1995), pp. 947-974; Derek Neal, “The Effects of Catholic Secondary Schooling on Educational Achievement,” *Journal of Labor Economics* 15 (1997), pp. 98-123.
32. See, for example, Howell and Peterson, *The Education Gap*; and Witte, *The Market Approach to Education*.
33. Alan Peshkin, *God's Choice: The Total World of a Fundamentalist Christian School* (University of Chicago Press, 1986).

Appendix – Descriptive Review and Bibliography of The 21 Studies Analyzed

In “Civics Exam: Schools of Choice Boost Civic Values”

A. Descriptive Review

What specific civic values appear to be most affected by school choice programs? How rigorous are the studies that produced this surprising distribution of findings regarding school choice and civic values? In this appendix we consider these important questions in the context of a critical methodological review of the findings. The review is organized by the specific civic value being evaluated, in the order of the most

studied to the least studied values, since many of the researchers explicitly built upon the methods and findings of others.

Studies of Political Tolerance

Of the important civic values considered here, the effect of school choice on the willingness of people to extend constitutional rights to disliked political groups has been studied the most. The popularity of studying political tolerance is partly due to its importance as a civic value and partly because researchers have developed a reliable protocol for measuring a person's political tolerance. Respondents are first asked to either think of their least-liked political group or select one from a list (which tends to include the Ku Klux Klan, Nazis, Communists, prolife groups, prochoice groups, civil rights groups, radical Islamists, and the religious Right). Respondents then are asked if they agree or disagree (and how strongly) with a series of questions about extending legal rights to their least-liked group. The questions generally ask whether the respondent would permit members of the disliked group to exercise constitutional rights such as making a public speech, running for political office, and teaching in the public schools. Responses are aggregated into a tolerance scale, which becomes the dependent variable for the exploration of what factors explain variation in political tolerance.

With one exception, the findings regarding the effect of school choice on political tolerance are confined to the neutral-to-positive range. Five empirical studies conclude that private schooling has a positive effect on political tolerance, regardless of the type of private school attended. Jay Greene, Joseph Giammo, and Nicole Mellow (1999a) studied the effects of private schooling on the political tolerance specifically of Latinos. The authors drew upon the Latino National Political Survey, a nationally representative sample of over 3,400 ethnic Latinos who were interviewed in 1989 regarding a number of factors, including their willingness to tolerate disliked political groups. Specifically, they were asked to choose their least-liked group from a standard list and then were asked if they would permit members of that group to stage a public rally, hold public office, or teach in the public schools.

Respondents also were asked how many years of their education occurred in private schools in the United States. Controlling for country of origin, parental education, gender, age, years of residence in the United States, income, and the respondent's education, the authors find that Latinos who received more of their education in U.S. private schools tend to display slightly higher levels of political tolerance. The independent effect of twelve years of private schooling on political tolerance is estimated to be 0.2 of a standard deviation, a modest effect, which is statistically significant beyond the 95 percent confidence interval. Two possible shortcomings in this analysis are that a few potential confounding factors, such as political ideology, are omitted from the analytic models and that the models themselves explain only 2 percent of the variation in the political tolerance scale scores. Also, missing data limit the analysis to less than 2,000 of the respondents in the sample.

Patrick Wolf, Paul Peterson, and Martin West (2001) used an abridged version of the political tolerance scale to study the effect of switching to a private school on the tolerance of low-income middle school students in Washington, D.C. They surveyed students regarding whether they definitely would permit people whose views they opposed to, one, give a speech in their community; two, live in their neighborhood; and three, run for president. The students in the private school treatment group are more likely to give the tolerant response to all three questions than are members of the public school control group. The size of the differences ranges from 16 percent for giving a speech to 20 percent for living in their community, and all are statistically significant at least at the 90 percent confidence level. The strength of this study is that the students were randomly assigned to treatment and control groups two years earlier. Thus there was no need to control for potentially confounding factors in the analysis. The shortcomings of this study include the sample size, which was only around 350 actual respondents for each question, the abbreviated version of the tolerance protocol employed, and the fact that only 47 percent of the treatment group actually attended private schools and only 50 percent of original study participants attended the second-year data collection sessions.

David Campbell (2002) confirms the results of the Wolf, Peterson, and West experiment in his reanalysis of data collected for an earlier evaluation of the Children's Scholarship Fund's national, privately funded, school voucher program. Campbell is able to include some observations that had been excluded from the original analysis and to thereby obtain clearer results. Vouchers were awarded to participants by lottery, permitting evaluators to conduct a randomized field trial of their effects. The same three-point political scale used in the Wolf, Peterson, and West experiment was employed here; however, the survey was administered by phone instead of in a more controlled environment. In his examination of the evidence from 461 to 474 survey respondents, Campbell finds that, after one year, students who used a voucher to switch to private schools score 0.8 of a point to 1.0 full point higher on the tolerance scale than do comparable students who remained in public schools. This represents a political tolerance gain of 27-33 percent, which is statistically significant beyond the 95 percent confidence level. Campbell's analysis shares most of the strengths and weaknesses of the Wolf, Peterson, and West randomized field trial of vouchers in Washington. The strengths of the Campbell study are the random assignment of students to treatment and control groups and the national scope of the study. Its shortcomings include a low rate of treatment use (29 percent) and only a moderate rate of survey response (46 percent).

Wolf, Greene, Kleitz, and Thalhammer (2001) surveyed college students in Texas regarding their educational backgrounds and levels of political tolerance. Nearly one thousand students at six Texas colleges and universities completed the survey, which used the complete protocol to gauge their levels of political tolerance. Controlling for over twenty factors that otherwise might confound the analysis, including the respondents' political ideology and the extent to which they felt threatened by their least-liked group, the authors find that more private schooling is associated with higher levels of political tolerance, all else being equal. Although the positive effect of private schooling on tolerance appears to be strongest for students who had attended secular private schools, even the students who had received all of their K-12 education in religious schools demonstrated higher average tolerance levels than comparable students from public school backgrounds.

The positive effect of receiving all of one's prior education in private secular schools on political tolerance is nearly one-half standard deviation and is statistically significant beyond the 95 percent confidence level. The positive effect of receiving all of one's prior education in private religious schools on political tolerance is nearly one-third standard deviation and is statistically significant beyond the 90 percent confidence level. The strengths of this study include the fact that it used the full political tolerance measurement protocol, employed a sample drawn from a state that is sometimes maligned for having intolerant religious schools, and included a full slate of control variables in the analytic model. The main shortcomings of the study are, one, the limited ability to generalize the results to young adults who do not attend college or to college students in states other than Texas and, two, the fact that self-selection cannot be ruled out entirely as a contributor to the reported private schooling advantage.

Finally, in an analysis of the 1996 National Household Education Survey, Richard Niemi, Mary Hepburn, and Chris Chapman (2000) report positive results regarding private schooling and political tolerance. The survey contains the complete results of interviews with a random sample of nearly 4,000 high school students and their parents across the United States. Controlling for an impressive array of background characteristics, including parents' level of political tolerance, these researchers find that high school students in private schools are more likely to respond that their school library collection ought to include "controversial" books than are comparable students in public schools. Attending a private school is only slightly less important in explaining political tolerance than is having tolerant parents. The result is statistically significant beyond the 95 percent confidence level. The main advantages of this analysis are the size and scope of the National Household Education Survey and the solid control variables used. The main disadvantages are that the full tolerance measurement protocol was not employed and that private schooling has no clear effect on student responses to the second tolerance question regarding whether people should be allowed to speak out against religion and churches -- a particularly tough tolerance test for students attending religious schools.

A stratified sample of eighth-grade students in New York City and in Dallas-Fort Worth produced two analyses that conclude that certain types of private school have a positive effect on political tolerance. Public, private religious, and private secular schools in both cities were matched on the racial characteristics of their student populations, then all eighth graders in the matched schools were surveyed regarding their demographic backgrounds and attitudes toward politically controversial groups. The complete standard tolerance measurement protocol was used. In an examination of the results from over 900 students surveyed in New York City, Wolf and his colleagues (1998) find that students in private secular schools scored an average of one-quarter standard deviation higher in tolerance than students in public schools, a difference that is statistically significant beyond the 99 percent confidence level. They find no significant difference between the tolerance levels of students in private religious schools and the students in public schools. The analysis controlled for gender, race, academic performance, the extent to which students discussed politics at home, and the extent to which they felt threatened by their least-liked group. In a further analysis, the researchers find that schools in all of the sectors that encourage student government and organized community events at the school tend to produce students who are more politically tolerant, suggesting that the school-based modeling of democratic processes enhances civic values like tolerance. The main shortcoming of the study is the absence of a control variable for family income.

R. Kenneth Godwin, Carrie Ausbrooks, and Valerie Martinez (2001) further analyzed the complete set of over 2,000 eighth-grade respondents in both New York City and Dallas-Fort Worth. They find that students at private secular and non-evangelical religious private schools indicate significantly greater support than public school students for democratic norms in the abstract, whereas students in evangelical private schools demonstrate a level of support for democratic norms that is indistinguishable from the level for public school students. When asked to apply democratic values to the case of tolerating their least-liked groups, the average responses of students in all four types of school (public, private secular, private evangelical, and private non-evangelical) are similar. The researchers also note that

students in evangelical private schools (all in Texas) are much less likely to choose a racist group as their least-liked political group than are students in the other types of school. The strengths of this study are that it draws upon data from two very different locales and employs instrumental variable analysis to adjust for possible selection bias in the samples. The shortcoming of this study is that the instrumental factors used in the correction are quite weak, meaning that they may merely introduce noise into the analysis, blurring real distinctions between the outcomes in the various school sectors.

Following the lead of Niemi and his colleagues, Campbell (2001b) drew upon the 1996 National Household Education Survey to study the effects of various types of private school on political tolerance. Campbell's analysis controlled for about thirty possible confounding factors regarding the student, the student's family, and the school attended. He concludes that private secular and Catholic schools engender somewhat higher levels of political tolerance than do public schools. The advantage of private secular schools in this regard is particularly strong and statistically significant beyond the 99 percent confidence level. However, non-Catholic religious schools (such as evangelical Christian schools) appeared to be significantly (beyond the 95 percent confidence level) worse than public schools in inculcating political tolerance in their students. The strengths of this study are the size and national scope of the sample, the opportunity (because of size) to disaggregate private school students into meaningful subcategories, and the extensive set of control variables employed. By disaggregating the private school variable, Campbell was able to uncover why Niemi and colleagues' earlier results are ambiguous regarding the "free speech against religion" measure of tolerance. The answer is that the opposition to such a principle engendered by evangelical Christian schools partially cancels out support for it by the Catholic and private secular educational experience.

Campbell (2001a) also collected original data on the civic attitudes of students in traditional public, public charter, private secular, and Catholic junior high and high schools in Massachusetts. His stratified sampling method was designed to include a significant number of responses from students in high-performing, average-performing, and low-performing traditional public schools to compare with the

results from three types of choice school (public charter, private secular, and Catholic). Since both schools and students ultimately self-selected into the sample, there is a strong likelihood that his sample is not representative of all such students in Massachusetts, a point that Campbell admits. The selectivity of the sample is particularly high for the traditional public school students in his sample, since they represent less than 12 percent of their respective student bodies. The response rates for the students at public charter, private secular, and Catholic schools are far higher: 41 percent, 45 percent, and 42 percent, respectively. Thus the selection bias in Campbell's sample likely biases comparisons in favor of traditional public schools, which selected only their most cooperative students to participate in the study.

In spite of those conditions, Campbell uncovers results from his analysis of 1,606 survey respondents suggesting a contingent school choice tolerance advantage. Controlling for parental voluntarism, parental education, student's age, student's ethnicity (that is, whether or not Hispanic), student's grades, and frequency of church attendance, Campbell finds that students at secular private schools are significantly more politically tolerant than are the students in traditional public schools. All things equal, the students in public charter and Catholic schools do not differ significantly from the traditional public school students in political tolerance levels. High-, average-, and low-performing public schools do not differ from each other in the average levels of tolerance of their students. As with the previous studies that drew upon the National Household Education Survey, a significantly abridged version of the tolerance protocol was used in this study that focused exclusively on controversial library books and speech critical of religion.

Greene, Mellow, and Giammo (1999b) examined the results of a 1997 survey of the political tolerance of adults in Texas. The poll of a randomly selected sample of 1,000 Texans is administered annually by the University of Texas and relies upon an abbreviated version of the political tolerance index described above. The researchers controlled for demographic factors such as gender, age, race, residential location (urban or nonurban), residential mobility, religion, and income. They also controlled for the degree to which respondents disliked their least-liked group and the extent to which they felt threatened

by it. Greene and his colleagues found the only positive effect of private schooling on tolerance (an increase of nearly one-quarter standard deviation) among the group of respondents who had attended both public and private schools. Texans who had received their entire education in private schools were no more (or less) politically tolerant than Texans who had received their entire education in public schools. The strengths of this study are the fact that respondents were selected randomly and that a rather extensive set of appropriate control variables was employed. The weaknesses are the difficulty in generalizing beyond Texas and the fact that the treatment of private schooling had its greatest effect when tempered by some public schooling, a curious but not inexplicable result.

Finally, the evaluations of three additional randomized field trials of school vouchers by William G. Howell and Paul E. Peterson (2002) include an abridged version of the tolerance index in their surveys of middle school students (grades four through nine). Like the experimental studies of Washington voucher students after two years and the national Children's Scholarship Fund participants described above, the programs that were studied all assigned vouchers to a low-income population of students at random, allowing some to switch from public to private schools. Unlike the second-year Washington evaluation and Campbell's reanalysis of the scholarship fund data, which both find higher levels of tolerance among voucher users, the evaluations of the Washington program after three years, a Dayton program after two years and a San Francisco program after two years uncover no significant differences in the level of political tolerance between voucher users and the randomly generated control group. The random assignment of participants to the private and public school conditions is a clear strength of these studies. However, the sample sizes in each individual study were relatively small (200-900), and the students surveyed may have been too young to produce a reliable assessment of political tolerance. Combined with modest voucher usage rates of 29-36 percent and study response rates that hovered around 50 percent, the resulting noise in the data may explain why no significant differences in tolerance levels are identified in these experiments.

Studies of Voluntarism

Nine different empirical studies generate fourteen results regarding the extent to which private schooling or school choice affects the likelihood that students or parents will volunteer their time in community enterprises. As with the distribution of political tolerance results, with one exception, the school choice effects on voluntarism range from neutral to positive. Greene (1998) examined the information about voluntary activity among twelfth-grade students in public and private schools collected by the U.S. Department of Education via the 1992 National Education Longitudinal Study. Controlling for student's socioeconomic status, race, and the racial composition of their classroom, Greene finds that students in private schools are 20 percent more likely to have volunteered their services in the past two years than are students in public schools, a difference statistically significant beyond the 99 percent confidence level. He finds a similarly large positive effect of private schooling on the percentage of students who say they volunteer every week and a somewhat smaller (but still statistically significant) positive impact on student opinions that it is very important to volunteer in one's community.

The National Education Longitudinal Study is a highly regarded survey, and its national scope is a clear strength of the Greene study. However, since the survey provides information about private and public schools as they existed in 1992, the data may be somewhat outdated. The importance of service learning has been stressed in public schools recently, raising the possibility that newer surveys might reveal a shrinking or even elimination of the private school advantage in promoting voluntarism present in the 1992 data. Also, relatively few control variables were used in the analysis, raising the possibility that confounding factors (such as urban residence) might be biasing the results.

R. Kenneth Godwin and Frank Kemerer (2002) report the results of a successful attempt to replicate Greene's voluntarism findings, using the sample of 2,000 eighth graders in New York City and Dallas-Fort Worth mentioned previously. Employing a dual strategy of matching schools on student demographics and instrumental variable estimation to correct for possible selection bias, they find that private school students are 21 percent more likely to volunteer in their community than are comparable

public school students, virtually identical to the private school advantage that Greene uncovered. They further discovered that private school students report volunteering an average of 50 percent more hours a week than their public school peers. Again, the main shortcoming of this study is the absence of a family income control variable.

Mark Schneider and his colleagues (1997) studied the effects of school choice on the likelihood of parents volunteering in New York City and the New Jersey suburbs. The researchers matched New York's District 4, a hotbed of public school choice options, with the demographically similar District 1, which does not allow school choice. They also compared a sample of parents in Mountclair, N.J., which actually requires all parents to choose their child's public school, with a sample from Morristown, N.J., which they argue is similar in all relevant respects except that it does not permit school choice. In their sample of 1,200 respondents they find that parents in school choice districts are about 6 percent more likely to volunteer than are comparable parents in non-choice districts. The difference is statistically significant at the 95 percent confidence level using the less stringent one-tailed test. To correct for selection bias not controlled for by the matching, the researchers used instrumental variable analysis. However, their instrumental variables -- parental opinions about whether or not their child's school is diverse or espouses certain values -- are questionable, since they are likely associated with the outcome (volunteering) that they are explaining. Nevertheless, this study was published in the flagship political science journal, *American Political Science Review*.

Employing a matching protocol similar to that of Schneider and colleagues as well as individual-level demographic control variables, Wolf and his colleagues (1998) find that private schooling promotes voluntary activity among eighth-grade students in New York City but only if they attend religious private schools.³³ In the most complete analytic model that they estimate, students in private secular schools are nearly 17 percent *less* likely to volunteer than are their public school peers, a difference statistically significant beyond the 95 percent confidence level. However, students in private religious schools are 23 percent *more* likely to volunteer than are their public school counterparts, an effect significant beyond the

99 percent confidence level. As with the study of political tolerance among eighth-grade students in New York, their analysis finds that schools in all sectors that encourage student participation in decision-making significantly enhance voluntarism among their student bodies. The primary weaknesses in this study are the imprecise nature of the matching protocol, which matched schools within the various sectors that fall within a racial demographic range, and limitation in the ability to generalize the results beyond New York City.

In their analysis of the 1996 National Household Education Survey, Niemi, Hepburn, and Chapman (2000) partially confirm the results reported in Wolf and others. Controlling for nine variables, including whether or not the student's parents volunteer, they find that high school students in private religious schools are much more likely to volunteer than are comparable students in public schools. The only variable more closely associated with voluntarism than religious schooling is whether or not the school arranges voluntary activities for its students. Unlike Wolf and others, they uncover no significant differences in the rates of volunteering for students in private secular schools compared with their public school peers. Campbell (2001b) confirms Niemi, Hepburn, and Chapman's results in his follow-up analysis of the 1996 survey. The main advantage of these two analyses is the fact that the survey is a large, nationally representative survey.

Campbell (2001a) further suggests that charter schools in Massachusetts promote voluntarism largely by making it mandatory. Controlling for parental voluntarism, parent's education, student's age, student's ethnicity (whether or not Hispanic), and student's grades, he finds that students in the charter schools in his sample are more likely to volunteer than are students in high-performing public schools, even though the demographics of the charter population would predict a voluntarism rate 13 percent less than the high-performing public school average. As mentioned above, Campbell's original data for this study are not necessarily representative of the student population in Massachusetts, and thus the conclusions drawn from them should be treated as suggestive.

Christian Smith and David Sikkink (1999) analyzed an even larger data set, the 9,393 parental responses to the 1996 National Household Education Survey. Controlling for income, education, age, race, family structure, region, and weekly work hours, the authors find that parents of students in religious private schools or who homeschool their children are significantly more likely to volunteer in their communities. Of the many subgroups examined in this particularly rich database, only the parents of students in secular private schools fail to demonstrate a voluntarism advantage relative to public school parents. The researchers do not specify the levels of statistical significance obtained by their subgroup differences and may not have included all relevant control variables. Still, the size and scope of their analysis is impressive.

Finally, Thomas Dee (2005) studied the patterns of Catholic high school attendance and adult volunteering captured in the High School and Beyond (HS&B) database. The HS and B is a major longitudinal database compiled by the U.S. Department of Education. It contains over 12,000 observations of students who were high school sophomores in 1980, 19 percent of whom were attending private schools. Ten years later they were asked whether they had volunteered in the past month. In multivariate models that controlled for up to 39 background variables and several corrections for possible self-selection bias, Dee found no statistically significant effects of Catholic high school on the propensity of young adults to volunteer.

Studies of Political Knowledge

For democracy to work effectively, citizens must be reasonably well informed about the issues and choices that exist in the political realm. Five studies produce eight findings regarding the effect of school choice on political knowledge. Godwin and Kemerer (2002) report the results of a study of the effects of private schooling on the political knowledge of over 2,000 eighth-grade students in New York City and Dallas-Fort Worth. Using race, parent education, family size, self-esteem, and several interactions of

these factors as instruments to control for selection bias, they determine that private schooling overall modestly improves student levels of political knowledge. Controlling for seven important background factors, they find that attending a private school increases a student's performance on a six-question civics quiz by an average of 0.3, statistically significant beyond the 99 percent confidence level. In a separate estimation on the responses only of the Dallas-Fort Worth students, Godwin and colleagues (1999) conclude that evangelical Christian schooling specifically exerts a powerful positive effect on political knowledge, increasing the quiz score by an average of 1.8 points, all else being equal. The main strength of this study is the use of both matching and instrumental variable techniques to control for selection bias. The primary weaknesses are the limited set of control variables in the regressions and the challenges to generalizing beyond the two arguably unique metropolitan areas studied.

Niemi, Hepburn, and Chapman (2000) include an estimation of the causes of political knowledge in their analysis of the 1996 National Household Education Survey described above. In a regression that includes seventeen important explanatory variables, they find that high school students in private schools score somewhat higher than their public school peers on a five-question civics quiz. Although substantively modest, the private schooling effect is statistically significant.

Campbell (2001b), in his analysis of the 1996 National Household Education Survey, finds that students who attend Catholic schools score significantly higher on an index of political knowledge than do comparable students in assigned public schools. The Catholic school advantage in conveying political knowledge to students is statistically significant beyond the 99 percent confidence level. Campbell uncovers no significant difference in political knowledge levels between students in assigned public schools and comparable students in chosen public schools or non-Catholic private schools.

In the randomized field trial evaluation of the Children's Scholarship Fund program, Paul Peterson and David Campbell (2001) find no significant differences in average political knowledge levels between the users of the fund's vouchers and comparable students in public schools. Analyzing the U.S. Department of Education's High School and Beyond data set, James Coleman and Thomas Hoffer (1987)

similarly uncover no significant difference between public school and Catholic school students on their levels of political knowledge.

Studies of Political Participation

Another seldom studied question is the extent to which private schooling encourages political participation, with four studies producing six results regarding that question. Greene, Giammo, and Mellow (1999a) find that Latinos who received all of their K-12 education in private schools are 16 percent more likely to say that they voted in the last presidential election than are comparable Latinos who were educated exclusively in public schools. The private school advantage for Latino political participation is statistically significant beyond the 99 percent confidence level. Again, the strength of this study is its national scope and automatic control for ethnicity. The weakness of the study is the possibility of uncontrolled selection bias and limits in the ability to generalize the results to adults of non-Latino ethnicity. Greene, Mellow and Giammo (1999b) also report a positive effect of private schooling on the political participation of Texas adults, regardless of their ethnicity.³³ They find that some exposure to private schooling increases the likelihood of voting by 9 percent, all else equal. Curiously, they find that Texans who received all of their education in private schools are no more likely to vote than their public school peers.

Thomas Dee's (2005) study of young adults in the High School and Beyond database also included an examination of the effect of attending a Catholic high school on subsequent political participation. He reported that Catholic schooling increased the rates of voter registration, regular voting, and presidential voting, with levels of statistical significance above the 95 percent confidence level even in the regression model that included 39 control variables. He then tested for possible self-selection bias, first by comparing the results for selective Catholic schools (those that drew students from waiting lists or required entrance exams) compared with non-selective Catholic schools, and later by using the presence of a Catholic high school in a person's county as an instrumental variable to generate an unbiased

estimate of the Catholic schooling effect. Each of the three results was robust to at least one of the selection bias corrections.

Smith and Sikkink (1999) also examined the relationship between private schools and homeschooling and parental political participation, using data from the 1996 National Household Education Survey. Their results mirror those for voluntarism reported above. Parents who enroll their children in private religious schools or who homeschool them are more politically active than are otherwise comparable parents who enroll their children in public schools. Parents of students in private secular schools do not differ significantly from public school parents in their rates of political participation.

Studies of Civic Skills

Civic skills are the final element of democratic citizenship analyzed by Niemi, Hepburn, and Chapman and by Campbell in their studies of the 1996 National Household Education Survey. These two studies generated four diverse findings regarding the effect of school choice on civic skills. The survey asked students, During this school year, have you done any of the following things in any class at your school:

- Written a letter to someone you did not know?
- Given a speech or an oral report?
- Taken part in a debate or discussion in which you had to persuade others about your point of view?

Niemi, Hepburn, and Chapman (2000) report that students in private high schools are more likely to have engaged in these three activities which are central to political efficacy than are comparable students in public high schools. The effects of private schooling on the probability of having given a speech or taken part in a debate are statistically significant; however, the effect on having written a letter appears to fall just short of statistical significance at conventional levels.

Campbell (2001b) finds that students in Catholic schools score slightly higher (1.69) on an index of these three civic skills than do comparable students in assigned public schools (1.56). Although substantively small, the difference is statistically significant beyond the 95 percent confidence level. No significant differences in civic skills were uncovered between students in assigned public schools and comparable students in non-Catholic private schools. However, Campbell does find that students in all three types of private school (Catholic, non-Catholic religious, and secular) indicate greater “confidence” in using their civic skills.

Studies of Patriotism

Finally, Wolf and his colleagues (1998) examined the average scores of the eighth-grade students in various types of New York City schools on an index of patriotism. This represents the only known empirical study of the effect of school choice on patriotism and produced the lonely patriotism result displayed in the figures. The patriotism index includes five questions about each student’s visceral attachment to their country and its symbols (such as the flag and the Pledge of Allegiance). The study reports that students in private schools score somewhat lower on patriotism, on average, than do comparable students in public schools. The size of the negative private school effect on patriotism is about one-quarter standard deviation and is statistically significant beyond the 99 percent confidence level. The report does not separate out religious from nonreligious private schools. However, being Catholic was a control variable in the analysis, and Catholicism displays a strong positive relationship to patriotism. The weaknesses of this analysis are its limitation to New York City schools and the fact that the patriotism scale employed (a scale well established in the psychology literature) could be interpreted as a measure not of true patriotism but of national chauvinism or jingoism.

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