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School Choice: Evidence and Recommendations

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Gary Miron, Kevin G. Welner,
Patricia H. Hinchey, and Alex Molnar (Editors)

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Over the past decade, school choice has been examined by a number of books and other publications. This scholarly work typically examines only a single form of school choice. Looking at specific forms of choice, these efforts have provided valuable insights and information. Vouchers, magnet schools, and tax credit policies have each received appropriate attention, as have home schooling and, most recently, charter schools. Other forms of public school choice, as well as "virtual schools," have also been examined. Each type of choice carries with it different rules and different empirical effects, yet they unquestionably share commonalities.

School Choice: Evidence and Recommendations is collection of 10 policy briefs, each of which comprehensively considers school choice. The briefs probe key choice issues, mustering evidence and developing cross-choice themes and insights.

School choice is a reform ideal that consistently has been debated and contested. This contentious debate arises, in part, because choice means so many different things to different people. But the debate often overlooks the diversity within the broad realm of school choice and the differences in how specific types of school choice are legislated and implemented.

For instance, these reforms can be designed to pursue a range of outcomes. Choice rules can be written to reduce isolation by race, class, or special needs status; alternatively, choice can have the unintended consequence of becoming a vehicle for accelerating resegregation of our public school systems. Depending on the design and funding incentives, school choice reforms can promote innovation and the development of a diversity of options from which parents can choose; or, they can result in a stratified marketplace that appeals to conservative consumers who eschew innovation. Finally, school choice reforms have the potential to promote accountability or—if the oversight mechanisms are not in place—choice plans can facilitate the circumvention or avoidance of oversight.

Common themes and issues. A key goal of this set of policy briefs is to facilitate a more nuanced understanding of school choice. Each contributor was asked to look broadly at school choice, and the contributors have integrated and summarized the evidence spanning a wide range of choice models. Another common thread in these policy briefs is that they make an effort to consider what impact each approach has on the traditional public school system. Based on this evidence and analysis, each contributor has offered recommendations.

The briefs generally encompass the following six choice models: vouchers/tuition tax credits, charter schools, homeschooling, interdistrict choice, intradistrict choice (including magnet schools and open enrollment plans), and virtual schools. We asked each contributor to address all these choice forms, although—as we discovered—the scope of evidence on homeschooling, cyber schools, and varied forms of inter- and intradistrict choice programs is surprisingly limited.

The six-form typology is useful but it should also be understood to be flexible, since the models overlap considerably. For instance, most virtual or cyber schools are actually charter schools, and a large portion of these schools cater to students that otherwise would have been homeschooled. Similarly, policies promoting inter- and intradistrict choice often intersect.

The process of creating this set of policy briefs has spanned more than a year and has benefited from a rich exchange among the four editors and 16 contributors. Although the universities we hail from are distributed across the country, regular communication by e-mail and telephone made it possible to create a highly interactive study group. Aside from the structure and guidance provided by the editors, each brief was sent to at least three blind reviewers with known strengths in the particular content of the brief. The reviewers provided feedback and guidance to our authors.

Although each brief reached conclusions and recommendations, we do not attempt here to summarize them. We do not want to risk damage to the care our authors have taken in crafting their work. We instead direct the readers to the briefs themselves.

Finally, we wish to extent our appreciation to The Great Lakes Center for Education Research and Practice for providing financial support for the work with no strings attached. The autonomy provided allowed us to find talented contributors and to modify the structure and scope of the project as we determined necessary.

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Terri S. Wilson, Ph.D. candidate

Teachers College, Columbia University

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
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Negotiating Public and Private: Philosophical Frameworks for School Choice

Terri S. Wilson, Teachers College, Columbia University

Executive Summary

Beneath controversies about whether school choice "works" are deep philosophical and moral commitments about how choice advances different educational values, purposes and aims. This policy brief takes a step back from practical debates about such issues as efficiency and effectiveness to examine the underlying philosophical debate. In particular, this brief examines how different claims for and against school choice pose different understandings of "public" and "private" educational goals and priorities.

While many scholars, researchers and advocates frequently use the terms "public" and "private," the meaning assigned to these terms varies widely. Philosophy offers resources for clarifying these terms. In particular, different philosophical frameworks allow for the clearer understanding and evaluation of various choice proposals, especially in terms of their implications for the "public" purposes of American education.

The brief begins by describing how school choice policies have shifted commonly accepted definitions of public and private education. This section is followed by a summary of five philosophical frameworks that might provide a basis for clarifying the "public" and "private": liberty, equity, justice, pluralism and democracy. Each of these frameworks construes the relationship between the public and private in different ways. Some arguments, for example, equate the public good with many satisfied individuals, each pursuing their self-interests. Others argue that the public good is synonymous with an active citizenry that creates the schools it thinks best through the processes of democratic deliberation.

Because debates about choice are muddied by imprecise terms and unarticulated philosophies, this brief calls for greater integration between conceptual studies of school choice and educational policy and practice. In particular, it recommends that policy analysts, policymakers and other stakeholders:

- Employ philosophical frameworks, especially those of liberty, equity, justice, pluralism and democracy, to help interpret how various school choice policies affect what is considered desirable in and for schools.

- Employ philosophical frameworks to clarify the assumptions that various empirical studies make about what is desirable in schools.
- Employ and articulate philosophical concepts to frame efforts to direct policy and practice, in order to make assumptions about what is desirable explicit and to better align policy and goals.

Negotiating Public and Private: Philosophical Frameworks for School Choice

Terri S. Wilson, Teachers College, Columbia University

Introduction

Beneath controversies about whether or not choice "works" are deep philosophical and moral commitments about how choice proposals reconfigure commonly accepted definitions of public and private education.[1] Perhaps more so than other educational policies, school choice raises fundamental questions about the nature of American education: how individual rights are tempered by social obligations, how demands for liberty are balanced by demands for equality, and how private interests interact with public goods.

Indeed, concepts of "public" and "private" have been central to arguments for and against choice. Choice is often said to be "redefining" public education, as new organizational arrangements—often privately operated—deliver "public" education. In fact, much of the rationale for choice relies on reconfiguring the very terms "public" and "private" by expanding and reshaping what counts as public education. While both advocates and critics of choice use the language of the "public" and "private," the *meanings* of these terms vary across positions. For advocates, school choice policies provide a means of building equity in education, and acknowledge parents' rights to have their children educated in line with their own values and beliefs. For critics, choice weakens access and opportunity for the most disadvantaged students, and risks segregating students into increasingly unequal schools. Moreover, the very notion of choosing one school from among a "marketplace" of options transforms education into a commodity, in contrast to its history as an essential public good. In these arguments, the very terms "public" and "private" are invested with different meanings and positions.

It is necessary to understand, therefore, what we *mean* by public and private. How are these terms defined? What arguments are made on their behalf? This brief takes a step back from practical debates about such issues as efficiency and effectiveness to examine this *philosophical* debate. Philosophy does not answer empirical questions (what *is* happening here?). Instead, it uncovers the assumptions and judgments (what *ought* to happen?) embedded in empirical questions and arguments. While empirical studies play a crucial role in assembling evidence about the practical *consequences* and *effects* of different choice policies, evidence alone cannot resolve normative debates about appropriate *purposes, aims and values* of choice policies.

This brief reviews major philosophical justifications for and against school choice. In particular, it explores the concepts of "public" and "private" at the heart of the debate. Various arguments, both historical and conceptual, have been made about how school choice can balance private, individual rights against public, social obligations. To place the debates about choice in context, the first section reviews the historical development of the public/private distinction in school choice, tracing shifting definitions of the term "public" in "public education" across time and among different researchers, educators, and policymakers. This review is followed by a survey of major conceptual arguments for and against choice, grouped into five frameworks: liberty, equity, justice, pluralism and democracy. The conclusion sketches out some implications of this philosophical field for school choice policy and practice, and offers stakeholders some recommendations for employing philosophical frameworks in their work.

Public and Private in School Choice

The terms "public" and "private" are notoriously difficult to define because they reflect a complex and shifting cultural, political and ideological terrain. Most often used as modifying adjectives, "public" and "private" often refer to specific kinds of institutions: public transportation or public education, for example. In addition to their ordinary life as adjectives, these concepts can also be understood as substantive categories ("The Public" and "The Private"), as well as modifiers for particular spatial metaphors (the public or private sphere, realm, sector etc.). Particularly important for school choice, public and private are also used to capture a sense of "interest," as in the "Public Interest," or our "private self-interests." Most importantly, perhaps, "public" and "private" are typically defined in relation to and against one another; they are relative, not static terms. The private sphere of action is only definable in relation to a public one: that is, we usually define the "public" by what it is not. Thus, we contrast the private world of the family and home "in here" with the broader public world "out there."[2]

Understanding what counts as "private" and "public" is also shaped by experiences in these kinds of institutions. Experiences with private education—in private schools we may interact with—shapes our sense of the term. Likewise, experiences in public institutions—schools, parks, and the like—help shape how we conceptualize the "public." In this sense, our understanding of what counts as "public" and "private" education has been shaped by the evolution of public and private education in this country.

Development of the "Public School"

Debates about school choice have developed in conjunction with—and in opposition to—what we usually term "public education." Choice is often counter-posed to a "traditional" idea of public education: the district-run, publicly governed, common school. It is important to remember, however, that this "traditional" concept of public education is a relatively recent invention, and one that has evolved considerably over the last century and a half.

Public education, as we currently understand it, started to develop through the antebellum expansion of the "common school" ideal. As Christopher Lubienski details, the common school movement deliberately fought to articulate an emerging school system as "public" in contrast to the "private" system of academies available at the time.[3] In doing so, Horace Mann and other reformers fought for public funding of common schools, accessible to everyone and democratically controlled by their local communities. Many of the characteristics typically associated with public education—public financing, access and governance—grew out of the common school movement. Over the next century and a half, these rural and decentralized schools would take on new roles, and the characteristic concepts of democratic control and equality of opportunity would change with them.

In terms of democratic control, early Twentieth Century urbanization, industrialization and immigration increased the role that public schools played in assimilating newcomers and inculcating common values.[4] At the same time, thousands of locally run schools were centralized into larger, bureaucratically administered districts. Progressive reformers saw these new governance arrangements as forces of efficiency and social improvement; for many local officials, however, the new arrangements transferred power from rural communities to at-large elected officials, and from neighborhoods to city bureaucrats.

Likewise, the ideal of equal opportunity central to American public education has also been a contested concept. As student enrollment increased throughout the last century, schools were also expected to educate larger numbers of students to higher levels of achievement. As the century progressed, public schools were increasingly seen as engines of access, integration and equity; increasingly, they were expected to play an active role in reducing social inequity. Through these new expectations, the very meaning of "equality" would come to encompass more groups of people and higher standards of achievement.

Development of "School Choice"

Just as the meaning of "public education"—associated with public funding, democratic control and equality of opportunity—has evolved, the meaning of "school choice" has also been shaped historically. Many

researchers and scholars credit Milton Friedman with establishing the conceptual argument for school choice more than 50 years ago.[5] Friedman first outlined his proposal for school vouchers in a 1955 essay, "The Role of Government in Education." Further elaborated in 1962's *Capitalism and Freedom*, his argument was that the private sector, responsive to issues of supply and demand, could more effectively provide education. Here, Friedman separated provision of education from funding of education. The proper role of the government, for Friedman, was to provide enough oversight to ensure the functioning of the market, and to provide enough funding (in the form of vouchers) so that students could receive an adequate education for general citizenship. As Jeffrey Henig points out, the power of Friedman's proposal rests on his "detailed and vivid description of the generally harmful consequences of permitting public schools to operate as monopolistic providers."[6]

In contrast to the largely economic and libertarian argument advanced by Friedman, other proponents have advanced the case for choice by drawing on concepts of equity. For example, under the auspices of the federal Office of Economic Opportunity (OEO), the sociologist Christopher Jencks in 1970 advanced a specific voucher proposal focused on expanding educational opportunities for disadvantaged children.[7] Highly regulated, the Jencks proposal required participating schools to accept all eligible students, to use lottery mechanisms for admissions decisions, and to accept the voucher as full payment for tuition.[8] A year later, John Coons and Stephen Sugarman developed another voucher proposal that similarly pursued increased educational equality for disadvantaged students and expanded parental choice.[9] These early proposals and limited experiments helped to repackage choice in terms of equity, pluralism and parental empowerment.[10]

At the same time, public school districts were experimenting with a range of different public school choice programs: magnet schools, intra-district choice plans, alternative schools, charter schools and intradistrict options.[11] All of these experiments in public school choice helped to shape the case for using choice as a vehicle for school improvement, racial integration and educational equity. With these experiments, choice advocates were emerging from different sides of the political landscape. As William Reese points out, "choice" became a rallying cry for both liberals and conservatives after the 1970s.[12] For liberals, choice meant teacher and community-driven alternatives to the "public school monopoly"; for conservatives, it offered ways to inject market solutions and competitive forces into a staid and inefficient educational system.

With the exception of early voucher experiments, these initial programs were all still part of the public school system. Although Friedman's proposals for private choice had attracted attention in select think tanks, academic circles and early experiments, vigorous political opposition halted any widespread implementation. John Chubb and Terry Moe's *Politics, Markets and America's Schools* helped to change this

dynamic.[13] Using empirical evidence on school effectiveness, they argued that schools were failing because they were too democratic.[14] They also popularized a distinction central to the development of choice reforms, differentiating reforms internal to schools ("organizational") from those external to them ("structural"). This distinction implied that only radical—that is, external and market-driven—reforms could fix the broken school system. Organizational reforms internal to schools (new approaches to staff development, different reading curricula) couldn't change schools to the degree that external structural reforms (developing voucher alternatives, allowing parents to freely move children between schools) could if given the opportunity.

In addition, Chubb and Moe's use of empirical evidence helped shift the terms of the debate. Choice was no longer just a theoretical assumption, but something that could be subject to policy experimentation and empirical research. Debates about choice soon became focused on whether or not specific choice programs "worked" to raise student achievement, win parent and student satisfaction, and improve cost effectiveness. Subsequent debates about the efficacy of choice have left questions about the goals and purposes of choice relatively unexamined. That is, questions about the *purposes* of choice were supplanted by questions about the *effectiveness* of choice.

Redefining Public Education

Choice is often said to be "redefining public education," by both critics and advocates.[15] We routinely think of public and private as different *kinds* of schools. That is, public schools are publicly financed and operated schools, accessible to everyone; private schools are privately financed and managed independent schools—sometimes religious—that have limited enrollment. Choice advocates argue, however, that both public and private *institutions* can serve public *purposes*; that is, they believe that public education can be provided by private schools. From this perspective, to provide public education, a school need only be publicly funded, accessible and accountable. In fact, certain advocates prefer to avoid the term "public schools" and instead talk about "district schools" or "government schools" to emphasize that many different kinds of institutions—including private businesses—can, like school districts, function as providers of public education.[16]

This new model embeds a "functionalist" definition of public, one that focuses primarily on the results of institutions. Highlighting this shifting definition, Gary Miron and Christopher Nelson have argued that charter schools, for instance, employ two definitions of public-ness: a traditional, "formalist" definition, which emphasizes public ownership and control, and a newer "functionalist" definition, which requires only that schools serve the public interest, even if they are privately owned and controlled.[17] Andrew Rotherham has employed the same distinction in

analyzing types of charter accountability, arguing that the "public-ness" of charter schools is measured not by ownership and governance, but by the fact that the schools serve the public's children and are publicly accountable.[18] Similarly, Lubienski contrasts the new definition of public education used by contemporary choice advocates with older conceptions of public education used by early common school reformers. Earlier, education was defined as "public" in terms of common values, public governance, equality of opportunity, democratic due process, and the "common good." For contemporary choice proponents, however, public education is defined functionally, in terms of the "instrumentality of its academic mission."[19] That is, public education counts as "public" to the degree that it increases the academic achievement of the nation's students.

From this functionalist perspective, public education is a matter of accountability for public outcomes—academic achievement first among them. This accountability is largely conceived in terms of individual students. That is, schools of choice are only—and understandably—accountable for the achievement of the individual students enrolled in them. This understanding of public accountability, however, represents a significant shift from defining public accountability in terms of an equality of opportunity. Equality of opportunity is concerned not just with the experiences of *individual* students that take advantage of choice schools, but with the *aggregate* experiences of students in school systems. As Tomas Englund argues, recent school reforms have gradually shifted the terms of debate, from understanding education as a public good towards viewing it as a private good.[20] This concern reflects one of the most fundamental criticisms of privatization: that public education will be conceived as a private good, thereby impoverishing the public system as a whole.

David Labaree makes a similar argument through a different analytic lens.[21] For Labaree, three conflicting purposes of education—democratic equality (preparing citizens), social efficiency (training workers) and social mobility (preparing individuals to compete for social positions)—have interacted throughout the history of the American public school. Democratic equality and social efficiency both understand education as a public good, designed to prepare citizens for—respectively—public roles and private advancement. In contrast, social mobility understands education as a commodity: as a private good designed to improve an individual's position in a competitive marketplace. This latter understanding, as Labaree argues, has dominated recent discourse about the public purposes of education.

While there is dispute about how to define public education, few critics or advocates would dispute that school choice, as a reform movement, has deliberately attempted to influence concepts of public and private. Several scholars have detailed the political nature of this redefinition, arguing that the conceptual legacies of school choice were the

result of a concerted and political effort on the part of certain theorists and scholars to shift the terms of a debate.[22]

Frameworks

While we can distinguish between the private and public dimensions of education, it is commonly accepted that education has *both* public and private dimensions. Since it is neither solely a private good nor solely a public one, it is impossible to ask whether education should serve the private *or* the public interest. The real question, of course, concerns just *how* education fulfills and balances both private and public aims. This is a question particularly suited to the method and tradition of philosophy.[23] Much of the philosophic tradition has addressed how we relate private rights to public responsibilities, how we balance the rights of the individual—and the family—against broader social goals. This tradition has particular applicability to questions in education, especially to issues central to school choice.

Instead of arguing for education as a distinctly public duty or private right, different scholars adopt distinct conceptual frameworks to describe *how* education ought to mediate between our private interests and public goals. Some, for instance, emphasize liberty. Others lean towards equality. These different ideals and values offer alternate understandings of the proper relationship between private rights and public obligations, and the particular role that school choice might play in mediating this relationship. This section summarizes these different emphases in the philosophical literature: liberty, equity, justice, pluralism and democracy. Any argument made for or against choice invariably addresses—in some form—each of these different concepts. While each area of scholarship advances all of the values listed above, there are significant differences of *degree* and *emphasis* between arguments.

Liberty[24]

First, many understandings of education emphasize the rights of families to send their children to independent rather than state-sponsored schools. Indeed, parents' rights to secure private education for their children are well recognized and upheld (within certain limitations) by legal precedent.[25] *Pierce v. Society of Sisters*, for instance, deliberately recognized the rights of parents to educate their children as a form of liberty protected under the Fourteenth Amendment. This decision, more broadly, sought to balance the "fundamental values necessary for the maintenance of a democratic political system" against the individual freedom to exit public schools in accordance with the "private beliefs of the student and his or her family."[26] Liberty, then, has been associated both with the right to exit the public schools and with the right to hold certain private beliefs that may conflict with public schooling.

These private beliefs imply the existence and legitimacy of pluralistic visions of what constitutes a flourishing life. Such different visions of a good life do, under certain circumstances, come into conflict with the curriculum and practices of the public school system. One of the most discussed legal cases, *Wisconsin v. Yoder*, offers a demonstration. In this 1972 case, the Supreme Court recognized the right of Amish families to withdraw their children from compulsory public education after eight years in order to strengthen their connection to their Amish community and way of life.[27] Different theorists have employed this case to argue for conceptions of liberty in education. William Galston, for instance, employs the principle evident in this case in arguing for a concept of "expressive liberty" in education.[28] His argument promotes deference to the rights of parents to lead lives, and raise children, as they see fit with minimal intrusion from the state.[29]

Similarly, Eamonn Callan endorses some respect for parental rights, particularly with respect to "culturally dissident minorities," but not to the extent advocated by Galston.[30] Callan argues that the state has a legitimate interest in protecting the future autonomy—in a sense, the future liberty—of children. Sometimes an interest in protecting the developing autonomy of children will conflict with an interest in protecting parents' rights to practice different visions of a flourishing life. The conflict here, as Callan relates, is not between individuals and the state, but between "parental choice and the basic interests (as society defines those interests) of individual children."[31] To protect these interests, various private and independent schools are still subject to various public provisions. Likewise, not all private beliefs are recognized as equally compelling reasons to opt out of the public school system.[32]

In addition to the right to "opt out," other theorists have posited the right of access to specific kinds of schools as a kind of liberty.[33] Here, access to distinctive schools—ones that endorse and support different "reasonable" conceptions of a good life—can be understood to be a kind of right. Similar arguments are offered in support of public funding for private schools and for home schooling. These conceptions of liberty are tied, broadly, to market rationales for choice, despite the fact that many arguments for a market-based system stress only the *effectiveness* of market reform. For some advocates, a market-based system simply provides quality education more efficiently and effectively; for others, market reform provides for the exercise of individual rights.[34] In these latter cases, advocates link a market-based system to arguments for freedom of choice. Individual rights to choose particular approaches to education are juxtaposed against a monolithic and mandatory system of education. The right to choose among market options becomes, in this formulation, a kind of liberty providing defense against invasive forms of state control.

Equity

Other theorists have argued that appeals to liberty, especially those rooted in market choices, were part of the "first-generation" rationales for choice.[35] As choice has matured, arguments have started to emphasize notions of equity instead.[36] Alan Wolfe argues that choice has been most politically successful when it has appealed to equality.[37] Indeed, the language of "equality," "equity" and "fairness" saturates the choice movement. Paul T. Hill remarks that the focus on equity among proponents of choice is part of an "attempt to move the debate on choice ahead by focusing on the risks of choice and how they can be controlled."[38] Opponents, too, often appeal to equity when enumerating the disadvantages of choice programs, particularly for students left behind in district schools. As Stephen Macedo summarizes, "the best arguments for school choice invoke equity, but so do the least defensible arguments and the least-attractive forms of school choice. It all depends on what we mean by equity."[39]

Indeed, definitions of equity vary considerably. The term is often used interchangeably with other concepts: "equality," and, increasingly, "adequacy." The meaning of all three terms is subject to debate. First, the concept of equality, or equal opportunity, has changed over time. In the common school movement, equality meant not making everyone equal, but providing opportunity for everyone to make themselves equal.[40] In a shift, the *Brown v. Board of Education* decision argued that education "must be made available to all on equal terms"[41]; that is, the focus moved to ensuring that the opportunities education provided were equally available to all citizen groups. While the term "equality" was used routinely from common school reform through the civil rights movement, the term "equity" has appeared more frequently in state-level school finance litigations decided in the wake of the 1973 *San Antonio Independent School District v. Rodriguez*. The concept of "equity" tends to emphasize equality of resources rather than opportunities or protections.

In more recent decades, the courts have increasingly moved away from attempts to define equality or equity in favor of "adequacy" standards.[42] Rather than attempting to equalize financial resources across school districts, adequacy standards establish a minimum threshold of education to which all students are entitled. "Minimum standards"—described in New York State, for instance, as a "sound and basic" education—have increasingly replaced the language of "equal educational opportunity" and "equal protection" in legal judgments.[43] This language, as scholars have detailed, presumes that financial—and educational—inequities will continue.[44] Districts and parents, of course, remain free to spend more than what is adequate. Here, arguments for adequacy standards defer to parents' rights.[45]

Applied more specifically to issues of school choice, the concept of equity has increasingly been linked to access and choice. Proponents

argue that parents, regardless of income or residence, should be granted an equal opportunity to choose the schools their children attend. Equality here does not imply that parents will choose between equal schools. Rather, equality means that all parents have an equal opportunity *to* choose.

Justice

Equity arguments closely correspond to arguments that emphasize justice. More general than appeals to equity, appeals to justice commonly place a sense of "fairness" at the heart of school choice debates. While justice is also difficult to precisely define, the concept plays an important role in philosophical considerations of choice.

Most notably, Harry Brighouse argues in *School Choice and Social Justice* that certain choice mechanisms could be arranged to meet the demands of justice and equity.[46] Justice, for Brighouse, requires that "children's prospects…should not be entirely dependent on their own talents and the resources and prudence of their parents."[47] This principle of justice necessarily implies a principle of educational equality. While not arguing for "full privatization," Brighouse nevertheless advocates for a universal system of vouchers that might serve the goals of social justice.[48] Drawing on similar proposals by Herbert Gintis and James Dwyer, Brighouse advocates for a highly regulated voucher policy that would involve increased regulation for eligible private schools and would prohibit parents from "topping off" the voucher amount with available private funds.[49]

Many arguments for justice understand choice as a *mechanism* for achieving certain educational ends, not as an end in itself. Stephen Macedo suggests that if our interest in equity is properly understood as providing a "good public education for all," school choice may not be the most obvious or compelling means to that end. Such arguments demonstrate the different kinds of questions that philosophy can ask: not just questions about what kinds of choice work best, but questions about whether we should have school choice at all. Clarifying educational aims allows for focused inquiry into the best means to realize them. Employing a similar philosophical strategy, but with different results, Harry Brighouse argues that voucher proposals might be more, not less, likely to meet the demands of social justice than other more politically palatable forms of choice, such as interdistrict choice options or charter schools.

Still other theorists equate justice with different *kinds* of ends. Macedo, Brighouse, and other theorists in the liberal tradition generally use a concept of distributive justice, often measured in access to material goods. However, as Kathleen Knight Abowitz argues, justice involves more than fair access to goods. Following Nancy Fraser and other critical theorists, Knight Abowitz contends that justice involves issues of recognition and participation as well as distribution.[50] More recently,

Knight Abowitz has argued that choice schemes might be evaluated according to an ideal of "intergenerational justice," which would attend to the ways in which different educational policies might secure justice for future generations, not just for students presently enrolled in schools.[51] In addition to this conception, other theorists have attempted to revise, expand and critique the tenets of a distributive paradigm.[52] These efforts have resulted in alternate areas of literature on school choice, particularly concerned with the ability of school choice to build *pluralist recognition* and *democratic participation*.

Pluralism

Many arguments for school choice, aiming to increase the diversity and range of schools available to families, draw on conceptions of pluralism. Likewise, many opponents of choice are concerned that pluralist schools will increase segregation and fail to teach a common sense of democratic citizenship in an increasingly diverse society. Either way, concepts of pluralism appear in almost every consideration of choice. William Galston's ideal of "expressive liberty," for instance, while emphasizing freedom, argues for the inevitability of difference and people's rights to express different versions of a good life. Stephen Macedo counters that appeals to religious, social or intellectual pluralism do not provide an adequate justification for the public funding of private schools.[53] While supportive of educational accommodation to pluralism, Macedo argues for a distinction between nonpublic values and aspirations and public goods created through political deliberation.[54] Although there is a place for many nonpublic values pursued by diverse pluralist communities—the desire to teach children distinctly religious views, for example—these values do not have to be publicly supported.

Different theorists take different positions on how much parents' convictions should be respected, protected and sustained.[55] While the basic rights of parents to "opt out" of public schools, in favor of private alternatives or the decision to home-school, are well recognized, many choice theorists argue that the public school system should provide options that recognize and support different ethical convictions. Michael W. McConnell, for instance, contends that pluralism is an inescapable fact of American life, and demands an educational system that is "private and pluralistic," as opposed to one that is "democratic and collective."[56] He believes parents should be able to choose among a wide variety of different schools, public and private, which reflect their values and convictions. Advocating public support for religious schools and home schooling, he contends that parental preferences should be granted wide latitude, constrained only by minimal civic goals and standards of educational quality.[57]

Rob Reich also argues that pluralism is a fact of life in any liberal society.[58] For Reich, school choice provides a potential vehicle for

accommodating pluralist preferences within common ideals, rather than seeking to *assimilate* them to any one particular ideal. Here, Reich distinguishes between the "structure" and the "substance" of a common school ideal. He argues that a variety of school structures, public and private, can uphold common educational values and goals. For Reich, these common goals must include, at minimum, teaching the norms of citizenship and ensuring the future autonomy of students. For Reich, autonomy entails the ability to freely consent to one's political system of governance, and—especially important for school choice—the ability to criticize and even exit the way of life a child grew up in. He is critical of both those who argue against reasonable pluralist conceptions of schooling and those who defend overly expansive versions of pluralism that are incapable of securing the autonomy of students.[59] While supportive of school choice in general, Reich is critical of particular forms of school choice (certain forms of home schooling and religious schools) that preclude the ability of students to reflect on—and potentially exit—the ethical worldview of their parents or community group.

Reich's focus on the importance of autonomy-facilitating education is a theme echoed by many other scholars. Different theorists pair a focus on autonomy with other values: with equality of opportunity (Brighouse), tolerance (Gutmann), or "critical rationality" and "deliberative excellence" (Callan).[60] However they define it, these scholars see autonomy as a central civic goal, and they caution that no school should privilege promoting a particular conception of "the good" over developing students' ability to define and eventually choose their own conception.[61] Other theorists, as is evident in earlier discussion, are less concerned about the development of autonomy[62] or less worried that particularistic schools could threaten student autonomy.[63] Still others are skeptical that choice policies will be able to promote student autonomy in any case.[64]

Here, considerations of pluralism and school choice are implicitly connected to a broader field of scholarship examining the requirements of citizenship and the demands of cultural recognition in education.[65] This scholarship examines the ways in which educational policies, school choice among them, balance the prospective rights of children against the existing rights of distinctive communities. In striking this balance, some theorists emphasize the risks of pluralistic communities for civic cohesion. Walter Feinberg, for instance, argues that the state has a certain interest and role to play in private and religious schools.[66] Although supportive of diverse kinds of private education, Feinberg views these schools as dependent upon a larger system of public education, which should "reproduce the understandings and dispositions needed to secure the political climate where all deeply held religious ideals can be expressed."[67]

This argument—that public schools have a distinct role to play in creating a national identity and common values—goes beyond the

minimal public role advocated by other theorists emphasizing pluralism. Echoed by other scholars, other versions of this argument draw on conceptions of pluralism and diversity to argue against choice, and for the integrating potential of the common, public school.[68]

Democracy

Theorists who focus on democracy are chiefly concerned with students' ability to relate across lines of difference, and privilege concepts of democratic participation in their analysis of school choice. Amy Gutmann, for instance, argues that conceptions of democracy should play a central role in evaluating educational policy. Positing a "democratic ideal," she argues that educational strategies should be measured by how well they prepare children for a life of equal liberty and opportunity.[69] Her argument stresses democratic participation as the best means for achieving these goals of equal liberty and opportunity. For Gutmann, democratic deliberation provides a way to adjudicate the diverse conceptions of the good that will occur in any discussion of public education. In this conception, schools are not just a means for securing certain public *ends*; rather, schools are, themselves, kinds of public *spaces*. As Benjamin Barber contends, "public schools are not merely schools for the public, but schools of publicness: institutions where we learn what it means to *be* a public and start down the road toward common national and civic identity."[70]

Many theorists who privilege democracy, however, are cautious not to suggest specific measures of national identity. While some argue that schools should develop civic knowledge (such as principles of government), virtues (such as tolerance), and skills (such as voting), these theorists argue that such dimensions of citizenship are best created through democratic participation. Here, too, civic education is an indispensable means for achieving these democratic ends. In fact, interaction with others, particularly across lines of difference, is considered to be a necessary part of what makes public schools public. Stephen Macedo argues that this interaction is crucial for the development of civic cooperation and mutual respect.[71] Likewise, Deborah Meier contends that "public schools can train us for such political conversation across divisions of race, class, religion and ideology…what training for good citizenship is all about."[72] Public schools are not just a *means* for achieving civic ends, they are, in themselves, sites of democratic citizenship and worthy as ends in their own right.

For these theorists, public schools secure their legitimacy as public institutions by serving as sites of democratic deliberation and participation. Public schools, in other words, need to be more than just publicly accessible and publicly financed; they must be democratically controlled and operated. Democratic control, however, can be defined in a myriad of ways: as increased parental engagement, decentralized decision-

making, or accountability to some public authority. Some scholars argue that charter schools, for instance, offer parents revitalized possibilities for investment in their local public schools.[73] Others, in contrast, argue that schools of choice—especially as they further increase the segregation of students by race—contribute to the fragmentation of common civic values and erode a broader conception of democratic accountability.[74] Still others understand democratic control, and the politics that come with it, as part of the problem with public education.[75] While some scholars assert that market forces provide efficient and meaningful public participation in education, others argue that public education is, by definition, messy and inefficient.[76] In the latter case, democratic control, while politically frustrating and economically inefficient, is an important part of what makes public education "public."

Defining Public and Private

This brief has reviewed a number of different conceptual frames used in debates for and against choice: liberty, equity, justice, pluralism and democracy. Using these different frameworks, advocates and critics of choice both employ the concepts of "public" and "private" in arguing for or against various choice policies. Different arguments, however, invest these terms with different *meanings*. Even as they use the same language, advocates and critics privilege different values, aims and purposes.

Arguments justifying school choice on the basis of individual liberty and pluralism lean toward one side of this conceptual field, and stress individual choice. Such arguments emphasize education in private terms as a good that meets the needs, interests, and identities of families and children. From this perspective, the public goals of education are met as parents become more involved in their children's education, in turn improving the educational system as a whole. Arguments that privilege pluralism emphasize increasing the number, kind, and types of choices open to parents. These arguments contend that having many different choices among schools reflects the pluralistic nature of American society: there are many different and sometimes competing conceptions of the "good life." Rather than seeking to impose one vision of public education, they argue that proliferating variations produce a more vital sense of the public good.

Arguments privileging democracy and equity lean toward the other side of this field, stressing the social rather than the individual. They suggest that privileging parental liberty and pluralism may lead to the balkanization of education, as individuals choose schools that reflect their narrow interests and identities. Equity proponents fear that individual choices may simply exacerbate inequality as individual students and families compete for limited resources. Another risk is that young people's future autonomy to choose their own ends will be compromised,

as will their ability to encounter and engage with difference. Theorists who emphasize democracy stress schools' function as sites of democratic participation. Choice, in this sense, sidesteps the political processes involved when communities, as a whole, deliberate about shared educational goals and policies.

Arguments that privilege justice try to mediate between these two poles; they attempt a balance between competing values of democracy and liberty, access and effectiveness, equity and choice. Figure 1 briefly summarizes how the different arguments for choice reviewed above frame education as a public or private good.

Figure 1: Arguments for Education as a Public and Private Good

Education as a…	Public Good	Private Good
Liberty	A collection of satisfied and invested individuals.	Parental rights to educate their children as they see fit.
Pluralism	Many proliferating and diverse visions of the good life.	Education that meets the needs and affirms the distinctive values of families.
Justice	Fair balance between social equality and individual liberty	Fair opportunities for individual flourishing regardless of status
Equity	Equality of access and opportunity secured by social institutions	Equal opportunities for individuals to choose schools
Democracy	Creation of common values through democratic participation	An individual's constructive participation and role in society

Each of these frameworks construes the relationship between the public and private in different ways. Some arguments equate the public good with many satisfied individuals, each pursuing their self-interests. Others argue that the public good is synonymous with active citizens, creating schools through the processes of democratic deliberation. In sum, then, while many scholars, researchers and advocates use the language of the "public" and "private" in school choice, philosophy can help us attend to the differences in meaning various theorists assign to these terms. As choice continues to rewrite the nature of public obligations and private rights in education, understanding what we mean by "public" and "private" has never been more important.

Philosophy—in conjunction with a wide variety of empirical research, both quantitative and qualitative—can help research on school choice address the values, goals and purposes of education. In particular, philosophy can help ask questions about the public purposes of education. As this review details, school choice does not serve public *or* private purposes. In contrast, different choice policies, schools and practices enact certain *qualities* of public-ness and private-ness. Conceptual studies

in philosophy, history and related fields can help us attend to the ways in which the meaning of terms and concepts, like the "public school," have changed over time and in response to shifts in policy.

Recommendations

These philosophical considerations often seem far removed from questions of policy and practice. And, indeed, the policy implications from this brief may be less than obvious. This review of philosophical frameworks does not provide any *one* framework for evaluating policy; in contrast, it helps to sketch out a range of arguments and frameworks that policy analysts might use. As Michelle Moses notes, philosophy helps "conceptualize alternative frameworks for the analysis of educational policy and practice."[77] Building on this review, future studies might examine, for instance, how different states' charter school policies further the interests of pluralism. Here, scholars might examine whether charter legislation allows for schools to represent different "conceptions of the good life," or whether increasing accountability requirements have constrained the ability of charter schools to significantly differ from other public schools. The ability of charter schools to serve the interests of pluralism may, for instance, be augmented or restrained by different policy arrangements across states and school districts.

As this example demonstrates, attention to philosophy can in fact be useful in practical policy analysis. Following are three suggestions for approaches that policy analysts, policymakers, and other stakeholders might use to incorporate philosophical considerations into their work, followed by more detailed explanations of each:

- Employ philosophical frameworks, especially those of liberty, equity, justice, pluralism and democracy, to help interpret how various school choice policies affect what is considered desirable in and for schools.
- Employ philosophical frameworks to clarify the assumptions that various empirical studies make about what is desirable in schools.
- Employ and articulate philosophical concepts to frame efforts to direct policy and practice, in order to make assumptions about what is desirable explicit and to better align policy and goals.

Interpreting Consequences

Frameworks of liberty, equity, justice, pluralism and democracy can help *interpret* the normative consequences of different school choice policies—that is, whether the effects of a policy are desirable or undesirable in terms of specific goals. Normative understandings of choice are different from, but connected to, empirical evidence about choice. Working with well-crafted empirical research, philosophy can help to illustrate the *significance* of evidence for claims of justice, equity,

liberty and the like. Take, for instance, studies finding evidence for the claim that charter schools increase segregation between social class and racial groups. While there may be evidence that sorting and segregation are taking place in charter schools, different researchers and scholars reach different conclusions about the significance of this evidence. Some have argued that school choice policies exacerbate existing patterns of racial segregation, worsening inequalities in education.[78] Others argue that sorting from choice policies is no worse than the widespread segregation built into a housing market that constrains access to schools.[79] Still others argue that sorting and segregation into distinctive schools reflects the realities of a pluralist society.[80] Some advocates argue, furthermore, that these distinctive represent the democratic efforts of parents to create schools relevant to their own communities.[81]

More empirical research, while certainly necessary, cannot by itself help us determine which of these conclusions to support. However, as empirical research examines links between different choice policies and patterns of segregation, conceptual studies can ask other questions to help further clarify the situation: is this sorting an acceptable form of pluralism, as communities create schools around their own ethical convictions? Does it reflect an appropriate balance between the rights of parents to choose schools and the need to protect the interests of parents and children who lack practical access or ability to make choices?

Although the frameworks detailed here cannot by themselves provide easy answers to these questions, philosophical analysis can help clarify the questions and values in conflict. For instance, if we assert that schools are serving the interests of pluralism, what exactly do we mean by that concept? Under what circumstances could schools be understood to further different conceptions of the good? Should schools even seek to play that role in a liberal democratic society?

Clarifying Assumptions

In addition to helping interpret the significance of evidence for researchers, policymakers and practitioners, philosophical frameworks can also help to *clarify* the normative assumptions present in various empirical studies. Scholars have long emphasized the inseparability of conceptual questions from empirical research in education.[82] In issues of school choice, normative assumptions about appropriate goals are embedded in the design of various empirical studies. How, for instance, is the effectiveness of a given policy measured? Is it to be assessed by its success in increasing academic achievement? By its success in terms of creating new, quality schools? Or, by its success in providing greater equality of opportunity for a given group of students?

Philosophy can help to clarify the different measures of “success” employed in different research designs. In particular, any one of the goals that educational policy aims at—equity, for example—are often deeply

contested concepts. Conceptual studies can help us examine how terms like "equity" are defined and how they become operationalized in evaluation and research. While many scholars argue that school choice should build equity in education, there is little agreement or clarity about what, exactly, this vision of equity entails. Philosophical inquiry can help illustrate what equity is, how it relates to a larger discourse about equality, and how it may be translated into equality of opportunity.[83]

In examining the assumptions that guide policy and research, philosophical frameworks can also help examine the seemingly neutral or non-normative language of "efficiency," "effectiveness" and "achievement." While academic achievement, for instance, seems to be an uncontroversial goal, the language of "achievement" contains assumptions about the nature of knowledge and the purposes of education. A singular focus on achievement also obscures other, and sometimes competing, goals of education. Philosophy, here, can help to clarify the different goals—particularly moral, social and civic ones—toward which education policy may aim.

Framing Policy and Practice

Philosophy can help to more directly *frame* issues of policy and practice. While many theorists treat different forms of school choice as one static entity, other scholars have started to examine the "nuts and bolts" of choice proposals, drawing such distinctions as those between different kinds of school choice (vouchers vs. charters, for example) and between different implementations of a particular choice option (specific charter legislation across states, for example). From the standpoint of policy, these contributions can help explain why, as David Plank and Gary Sykes write, the "rules matter" in school choice.[84]

Conceptual studies of choice are beginning to engage more fruitfully with more detailed dimensions of policy and practice.[85] Harry Brighouse, for example, has recently examined different voucher policies—universal regulated, universal unregulated, progressive, and targeted plans—against claims of justice.[86] Examining key variables in voucher programs (for example, to what extent providers are allowed to select students), Brighouse developed a measure of different equity levels in various voucher proposals. His scholarship could, in turn, be employed by advocates of choice seeking to design voucher proposals that build equality of opportunity for students from disadvantaged backgrounds. Likewise, using these criteria, Brighouse argues that we might support vouchers and oppose charter schools on grounds of justice.

Choice is, in many ways, here to stay.[87] Scholarship on choice has come to reflect this new reality. Rather than asking whether or not to support choice, researchers and policymakers are increasingly asking what kinds of choice should be supported, under what circumstances.[88] As choice policies continue to expand, it will be more and more important to

draw distinctions between kinds, degrees and variations of choice. Brighouse and the other scholars in this brief offer different examples of how we might make these distinctions. As we have seen, a more developed understanding of the public purposes of school choice offers us one powerful way to start.

Notes and References

[1] By school choice, I refer to a wide range of programs and policies, including: open enrollment policies (both inter- and intradistrict), charter schools, cyber-schools, vouchers, tax credits and deductions, dual/ current enrollment in post-secondary education options, as well as homeschooling. Given the purposes of this brief—a broader review of philosophical arguments that bear on school choice—I often refer to "school choice" of "schools of choice" in general terms. While choice policies certainly differ—and importantly so—from one another, a more comprehensive review of these differences is beyond the scope of this brief.

[2] Gary Fenstermacher contrasts the "in here," and "out there" aspects of the public and private.

Fenstermacher, G. (1997). "On Restoring Public and Private Life." In J.I. Goodlad and T. J. McMannon (eds.), *The Public Purpose of Education and Schooling.*. San Francisco, CA: Jossey-Bass. While the separation between public and private spheres of action remains central to most liberal theory, Fenstermacher also draws our attention to other traditions and understandings of these terms. Feminist thinkers, in particular, have argued that such a separation privileges public over private life, to the disadvantage of women who have historically been excluded by positions of public authority and power.

[3] Lubienski, C. (2001). Redefining "Public" Education: Charter Schools, Common Schools, and the Rhetoric of Reform. *Teachers College Record, 103*(4), 634-666.

[4] As many historians of education have detailed, this process was neither neutral nor without conflict. The seemingly "secular" curriculum of the public school system was saturated with Protestant religious sentiment, which helped to spur the creation of a separate—and largely Catholic—private school system. See, Tyack, D. (1974). *One Best System*. Cambridge: Harvard University Press; Kaestle, C. (1983). *Pillars of the Republic: Common Schools and American Society, 1780-1860*. New York: Hill and Wang.

[5] Friedman, M. (1955). *The Role of Government of Schooling, in Economics and the Public Interest*, ed. R.A. Solo. New Brunswick, N.J.: Rutgers University Press

Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press.

[6] Henig, J. R. (1994). *Rethinking School Choice: Limits of the Market Metaphor*. Princeton, New Jersey: Princeton University Press, pp. 59.

[7] Jencks, C. (1970). Education vouchers: A report on financing elementary education by grants to parents. Washington, DC: Centre for Policy Studies. It is also important to note that these later arguments were usually accompanied by actual—although modest—policy experiments, where Friedman's argument was—at least at the time— a conceptual one.

[8] Viteritti, J. P. (1999). *Choosing Equality: School Choice, the Constitution and Civil Society*, Washington D.C.: Brookings Institution, pp. 55.

[9] Coons, J. E., & Sugarman, S. D. (1978). *Education by Choice: The Case for Family Control*. Berkeley: University of California Press.

[10] As Joseph Viteritti argues, Coons and Sugarman, "saw choice as a vehicle through which families could select schools that revealed their own educational values," thus conceiving "parental empowerment in both political and economic terms."

Viteritti, J. P. (1999). *Choosing Equality: School Choice, the Constitution and Civil Society*. Washington D.C.: Brookings Institution., p.56.

[11] Armor, D., & Peiser, B. (1997). *Competition in education: A case study of interdistrict choice*. Boston: Pioneer Institute.

[12] Reese, W. (2005). *America's Public Schools: From the Common School to `No Child Left Behind'*. Baltimore: Johns Hopkins Press.

[13] Chubb, J. & Moe, T. (1990). *Politics, Markets and America's Schools*. Washington, D.C.: Brookings Institution Press.

[14] Jeff Henig provides an excellent analysis of why this volume became influential. As he argues, the re-emergence of choice as an idea and policy involved linking existing magnet schools to a rationale of choice and an alternative statement of market theory.

Henig, J. R. (1994). *Rethinking School Choice: Limits of the Market Metaphor*. Princeton, New Jersey: Princeton University Press, pp. 64-66. In addition, Chubb & Moe's study won more attention because it presented a detailed model and linked this model to a broader theory of politics and democracy (Henig, 1994, p. 87).

[15] For criticisms of choice, see:

Barber, B. (1997). Public Schooling: Education for Democracy. In J.I. Goodlad and T. J. McMannon (eds.), *The Public Purpose of Education and Schooling.*. San Francisco, CA: Jossey-Bass.

Carnoy, M. (2000). "School Choice? Or is it Privatization?" *Educational Researcher*, Vol. 29, No. 7, 15-20.

For advocates of choice, see: Hill, P. T., Pierce, L., and Guthrie, J. (1997). *Reinventing Public Education: How Contract Schools Can Transform American Education*. Chicago: University of Chicago Press

Nathan, J. (1996). *Charter Schools: Creating Hope and Opportunity for American Education*. San Francisco, CA: Jossey-Bass.

[16] While more extreme advocates of choice generally use the term "government schools," Christopher Lubienski details how a variety of choice advocates in Michigan used this language to broaden the possible definition of public schools.

Lubienski, C. (2001). Redefining "Public" Education: Charter Schools, Common Schools, and the Rhetoric of Reform. *Teachers College Record*, 103(4), 634-666. (See pp. 639-640 in particular.)

[17] Miron, G., and Nelson, C. (2002). *What's Public About Charter Schools?: Lessons Learned About Accountability and Choice*. Thousand Oaks, CA: Corwin Press.

[18] Rotherham, A.J. "Educational modernization and school choice," *Education Forum*, 9, April 2003. Retrieved February 29, 2004, from www.educationforum.org.nz/documents/ policy/briefing_no._9.pdf

[19] Lubienski, C. (2001). Redefining "Public" Education: Charter Schools, Common Schools, and the Rhetoric of Reform. *Teachers College Record*, 103(4), 634-666, 641-642.

[20] Englund, T. (1993). Education for Public or Private Good. In Miron, G. (ed.) (1993). *Towards Free Choice and Market-Oriented Schools: Problems and Promises*. Stockholm: Skolverket.

[21] Labaree, D.F. (1997). Public goods, private goods: The American struggle over educational goals. *American Educational Research Journal*, 34(1). 39-81.

[22] For excellent examples of this kind of scholarship see:

Henig, J. R. (1994). *Rethinking School Choice: Limits of the Market Metaphor*. Princeton, New Jersey: Princeton University Press

Lubienski, C. (2001). Redefining "Public" Education: Charter Schools, Common Schools, and the Rhetoric of Reform. *Teachers College Record*, 103(4), 634-666

Labaree, D.F. (1997). Public goods, private goods: The American struggle over educational goals. *American Educational Research Journal*, 34(1). 39-81

[23] For the purposes of this review, I define "philosophical scholarship" broadly to include work in philosophy, political theory, and educational theory, as well as the different conceptual frameworks employed by scholars of school choice. While not formally "philosophy," the scholarship addressed in this review all addresses, in a variety of ways, conceptual and normative aspects of school choice.

[24] My use of the concept "liberty," here, is different from both the political meaning of "liberal" (a leftist, progressive, political orientation) and the academic meaning of "liberal" (a tradition of academic arguments that emphasize the importance of individual political rights). For the purposes of this review, I do not examine arguments of liberalism, per se, which is a diverse and complex field of scholarship in its own right. Instead, I group arguments for and against school choice, many made by scholars who could be termed "liberal theorists," into different frameworks: liberty, equity, justice, pluralism and democracy. Issues of liberalism appear in each of these frameworks, not just in arguments focused on issues of liberty. For a thoughtful overview of classical, contemporary and "affiliation" liberalism in relation to education, see Walter Feinberg and Kevin McDonough, "Liberalism and the Dilemma of Public Education in Multicultural Societies," in McDonough, K. & Feinberg, W. (Eds) (2003). *Education and Citizenship in Liberal-Democratic Societies*. Oxford: Oxford University Press.

[25] Commonly cited court cases include: *Pierce v. Society of Sisters*, *Wisconsin v. Yoder* and *Mozert v. Hawkins County Board of Education*.

[26] *Pierce*, 1925, cited in Rosenblum, N. (2003). "Separating the Siamese Twins: Pluralism and School Choice." In A. Wolfe, *School Choice: The Moral Debate* (p.80). Princeton, NJ: Princeton University Press.

[27] *Wisconsin v. Yoder*, 406 US 205 (1972).

[28] Galston defines this concept of liberty as "a robust though rebuttable presumption in favor of individuals and groups leading their lives as they see fit, within a broad range of legitimate variation, in accordance with what gives their life meaning and value."

Galston, W. (2002). *Liberal Pluralism*. Cambridge: Cambridge University Press, 3.

[29] Galston, W. (1991) *Liberal Purposes: Goods, Virtues, and Diversity in the Liberal State*. Cambridge: Cambridge University Press.

[30] While supportive of Yoder on grounds of parental rights, Callan ultimately deems the decision "morally unfortunate" because of the state's interest in the "prospective liberty" of children. In, Callan, E. (2006). Galston's dilemmas and Wisconsin v. Yoder. *Theory and Research in Education 4* (3): 263.

[31] Callan, E. (2006). Galston's dilemmas and Wisconsin v. Yoder. *Theory and Research in Education 4* (3): 262.

[32] For example, while the rights of Old Order Amish parents to withdraw their children after eight years of school were upheld (*Wisconsin v. Yoder)*, the rights of fundamentalist Christians to withdraw their children from participation in a given reading program were not (*Mozert v. Hawkins County Board of Education*).

[33] Kemerer, Goodwin and Ruderman, for instance, argue that education ought to respond to diverse conceptions of the good—exemplified in different choice alternatives—and that the "policies that best protect diversity and provide the greatest liberty are those that subsidize all reasonable approaches to education and allow families to choose freely among them."

Kemerer, F. Goodwin, R.K., and Ruderman, R. (2002). "The Political Theory of School Choice," in R. K. Goodwin & F.R. Kemerer, *School Choice Tradeoffs: Liberty, Equity & Diversity* (p. 96). Austin, TX: Univ. of Texas Press.

[34] Jonathan, R. (1997). Right and Choices: Illusory Freedoms. *Journal of Philosophy of Education 31* (1), 83–107.

[35] Viteritti, J. P., (2003). "Defining Equality: Politics, Markets and Public Policy. " In Wolfe, A. (ed.) (2003). *School Choice: The Moral Debate*. Princeton, NJ: Princeton University Press.

[36] It is not immediately clear, though, if this shift is due to a natural process of maturation or is instead the result of the political realities of instituting choice as a policy, which would demand an appeal to broader constituencies.

[37] Wolfe, A. (2003). "The Irony of School Choice: Liberals, Conservatives, and the New Politics of Race," in A. Wolfe, (ed.), *School Choice: The Moral Debate* (pp. 31-51). Princeton, NJ: Princeton University Press.

[38] Hill, P.T. (ed) (2002). *Choice with Equity*. Stanford, CA: Hoover Institute Press, p. 5.

[39] Macedo, S. (2003). Equity and School Choice: How can we Bridge the Gap between Ideals and Realities? In A. Wolfe, (ed.), *School Choice: The Moral Debate* (p. 51). Princeton, NJ: Princeton University Press.

[40] Wolfe, A. (2003). "The Irony of School Choice: Liberals, Conservatives, and the New Politics of Race," in A.Wolfe, (ed.), *School Choice: The Moral Debate* (p. 49). Princeton, NJ: Princeton University Press.

[41] *Brown et al. v. Board of Education of Topeka* et al. 347 U.S. 483 (1954).

[42] Enrich, P. (1995). Leaving equality behind: New directions in school finance reform. *Vanderbilt Law Review* 48:101-194

Viteritti, J. P., (2003). "Defining Equality: Politics, Markets and Public Policy. " In A. Wolfe (ed.), *School Choice: The Moral Debate*. Princeton, NJ: Princeton University Press.

Reich, R. (2006). "Equality and Adequacy in the State's Provision of Education: Mapping the Conceptual Landscape", a report prepared for *Getting Down to Facts*, Stanford University.

[43] Reich, R. (2006). "Equality and Adequacy in the State's Provision of Education: Mapping the Conceptual Landscape", a report prepared for *Getting Down to Facts*, Stanford University, 7.

[44] Minorini, P. A., & Sugarman, S. D. (1999). Educational adequacy and the courts: The promise and problems of moving to a new paradigm. In H. F. Ladd, R. Chalk, & J. S. Hansen (Eds.), *Equity and adequacy in education finance: Issues and perspectives* (pp. 175-208). Washington, DC: National Academy Press.

Ryan, J. & Heise, M. (2002). The Political Economy of School Choice. *Yale Law Journal*, Vol. 111.

[45] As Rob Reich argues, "adequacy seems to press more lightly against parental liberty, for adequacy can be construed as to give wide latitude to parental liberty, so long as all children receive an adequate education."

Reich, R. (2006). "Equality and Adequacy in the State's Provision of Education: Mapping the Conceptual Landscape," a report prepared for *Getting Down to Facts*, Stanford University, 16.

[46] Brighouse, H. (2000). *School Choice and Social Justice*. Oxford, UK: Oxford University Press.

[47] Brighouse, H. (2004, November). What's Wrong with Privatising Schools? *Journal of Philosophy of Education, 38* (4), 617.

[48] Brighouse's connection between school choice and justice has been criticized from a variety of perspectives. Some theorists argue that Brighouse overstates the realities of school choice proposals, and is too optimistic about their egalitarian potential. See:

Foster, S. (2002) School Choice and Social Justice: A Response to Harry Brighouse, *Journal of Philosophy of Education*, *36* (2) 291–308.

Others fault Brighouse for an over-regulation of choice principles, advocating instead for a fuller privatization of education. See

Tooley, J. (2003). Why Harry Brighouse is nearly right about the privatisation of education. *Journal of Philosophy of Education*, *37*(3): 427-47.

[49] Gintis, H. (1995). The Political Economy of School Choice. *Teachers College Record 96* (3), 492-511

Dwyer, J.G. (1998). *Religious Schools v. Children's Rights*. Ithaca: Cornell University Press.

[50] Knight Abowitz, K. (2007). "Fraser, Charter Schools and Justice," paper presented on a symposium session, *Charter Schools as Public Spaces*, Philosophy of Education SIG, American Educational Research Association annual meeting, April 9, 2007.

[51] Knight Abowitz, K. (forthcoming). "Intergenerational Justice and School Choice." In W. Feinberg & Lubienski, C. (eds.), *School Choice Policies and Outcomes: Philosophical and Empirical Perspectives on Limits to Choice in Liberal Democracies*. Albany, NY: SUNY Press.

[52] Some of these alternate views of justice include communitarian conceptions of justice and ideals of justice as caring.

[53] Macedo, S. (2003). "Equity and School Choice: How can we Bridge the Gap between Ideals and Realities?" In A. Wolfe (ed.), *School Choice: The Moral Debate*. Princeton, NJ: Princeton University Press.

[54] Macedo, S. (2003). "Liberalism and Group Identities." In K. McDonough & W. Feinberg, W. (Eds), *Education and Citizenship in Liberal-Democratic Societies*. Oxford: Oxford University Press.

[55] While pluralism clearly plays a central role in many understandings of school choice, Nancy Rosenblum argues that pluralism has no inherent connection with school choice. She contends that the major arguments for choice—which she separates into performance, liberty and equality—do not rely on pluralism to justify choice.

Rosenblum, N. (2003). "Separating the Siamese Twins: Pluralism and School Choice." In A. Wolfe (ed.), *School Choice: The Moral Debate*. Princeton, NJ: Princeton University Press.

[56] McConnell, M.W. (2001). Educational Disestablishment: Why Democratic Values are Ill-Served by Democratic Control of Schooling. In S. Macedo & Y. Tamir (eds.), *NOMOS XLIII: Moral and Political Education*. New York: New York University Press.

[57] McConnell, M.W. (2001). Educational Disestablishment: Why Democratic Values are Ill-Served by Democratic Control of Schooling. In S. Macedo & Y. Tamir (eds.), *NOMOS XLIII: Moral and Political Education*. New York: New York University Press.

[58] Reich, R. (2007). Common Schooling and Educational Choice as a Response to Pluralism. In W. Feinberg & C. Lubienski, (eds.), *School Choice Policies and Outcomes: Philosophical and Empirical Perspectives on Limits to Choice in Liberal Democracies*. Albany, NY: SUNY Press.

[59] Reich cites Levinson as arguing against pluralist conceptions of schooling and McConnell as defending an overly broad version of pluralism. See:

Reich, R. (2007). Common Schooling and Educational Choice as a Response to Pluralism. In W. Feinberg & C. Lubienski, (eds.), *School Choice Policies and Outcomes: Philosophical and Empirical Perspectives on Limits to Choice in Liberal Democracies*. Albany, NY: SUNY Press.

Levinson, M. (1999). *The Demands of Liberal Education*. Oxford: Oxford University Press.

McConnell, M.W. (2001). Educational Disestablishment: Why Democratic Values are Ill-Served by Democratic Control of Schooling. In S. Macedo & Y. Tamir (eds.), *NOMOS XLIII: Moral and Political Education*. New York: New York University Press.

[60] Callan, E. (1997). *Creating Citizens: Political Education and Liberal Democracy*. Oxford: Clarendon Press.

Gutmann, A. (1987). *Democratic Education*. Princeton, N.J.: Princeton University Press.

Brighouse, H. (2000). *School Choice and Social Justice*. Oxford, UK: Oxford University Press.

[61] All scholars do not share this focus on autonomy. In fact, certain critics argue that much of liberal theory is based on a falsely atomistic vision of the individual. See, e.g., Walzer, M. (1983): *Spheres of Justice*. New York: Basic Books.

[62] McConnell, M.W. (2001). Educational Disestablishment: Why Democratic Values are Ill-Served by Democratic Control of Schooling. In S. Macedo & Y. Tamir (eds.), *NOMOS XLIII: Moral and Political Education*. New York: New York University Press.

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Merry, M. (2005). The Ethics of Identity. *Journal of Philosophy of Education 39* (3), 564–567.

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[65] For example:

Levinson, M. (1999). *The Demands of Liberal Education*. Oxford: Oxford University Press.

McDonough, K. & Feinberg, W. (Eds) (2003) *Education and Citizenship in Liberal-Democratic Societies*. Oxford: Oxford University Press

Macedo, S. (2000). *Diversity and Distrust: Civic Education in a Multicultural Democracy*. Cambridge, MA: Harvard University Press.

[66] Feinberg, W. (2006). *For Goodness Sake: Religious Schools and Education for Liberal Democracy*. New York: Routledge/Falmer.

[67] "Public schools, when working as they should, can provide the trust and understanding that can allow single-tradition religious schools at the educational margins. " Feinberg, W. (2006). *For Goodness Sake: Religious Schools and Education for Liberal Democracy*. New York: Routledge/Falmer, p. , 214.

See also, Feinberg, W. (1998). *Common Schools/Uncommon Identities: National Unity and Cultural Difference*. New Haven, CT: Yale University Press.

[68] Levinson, M. (1999). *The Demands of Liberal Education*. Oxford: Oxford University Press.

Macedo, S. (2000). *Diversity and Distrust: Civic Education in a Multicultural Democracy*. Cambridge, MA: Harvard University Press.

Levinson, M. & Levinson, S. (2003). "'Getting Religion:' Religion, Community, and Diversity in Public and Private Schools," in A. Wolfe,(ed.) *School Choice: The Moral Debate* (p.80). Princeton, NJ: Princeton University Press.

[69] Gutmann, A. (1987). *Democratic Education*. Princeton, N.J.: Princeton University Press.

[70] Barber, B. (1997). Public Schooling: Education for Democracy. In J.I. Goodlad and T. J. McMannon (eds.), *The Public Purpose of Education and Schooling* (p. 22). San Francisco, CA: Jossey-Bass.

[71] Macedo, S. (2000). *Diversity and Distrust: Civic Education in a Multicultural Democracy*. Cambridge, MA: Harvard University Press.

[72] Meier, D. (1995). *The Power of Their Ideas: Lessons for America from a Small School in Harlem*. Boston: Beacon Press.

[73] Finn, C. E., Jr., Manno, B. V., & Vanourek, G. (2000). *Charter Schools in Action: Renewing Public Education*. Princeton, NJ: Princeton University Press.

[74] E.g., Frankenberg, E., Lee, C., & Orfield, G. (2003). *A multiracial society with segregated schools: Are we losing the dream?* Cambridge, MA: Harvard University, The Civil Rights Project

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[79] Brighouse, H. (2000). *School Choice and Social Justice*. Oxford, UK: Oxford University Press.

[80] McConnell, M.W. (2001). Educational Disestablishment: Why Democratic Values are Ill-Served by Democratic Control of Schooling. In S. Macedo & Y. Tamir (eds.), *NOMOS XLIII: Moral and Political Education*. New York: New York University Press.

[81] Finn, C. E., Jr., Manno, B. V., & Vanourek, G. (2000). *Charter Schools in Action: Renewing Public Education*. Princeton, NJ: Princeton University Press.

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Moses, M. S. (2002). The Heart of the Matter: Philosophy and Educational Research. *Review of Research in Education*, 26, 1-21.

[83] For a philosophical approach to the issue of equality, see Howe, K. (1997). *Understanding equal educational opportunity: Social justice, democracy and schooling*. New York: Teachers College Press.

Also, see the discussion of inequality that in part draws on Howe's work in Moses, M. S. (2002). The Heart of the Matter: Philosophy and Educational Research. *Review of Research in Education*, 26, 1-21.

[84] Arsen, D., Plank, D., & Sykes, G. (1999). *School choice policies in Michigan: The rules matter*. East Lansing, MI: The Education Policy Center at Michigan State University.

[85] Henry Levin, for instance, poses that any educational system reflects compromises between four basic values: freedom of choice, economic efficiency, equity and social cohesion. Levin's open-ended framework helps us see that the "public" is in no way a penultimate value, but occurs within a complex range of compromises about the social goods of education. From a different perspective, R. Kenneth Godwin and Frank R. Kemerer employ a liberal democratic framework to pose four different aims for education: skills for economic independence, political knowledge and skills for civic participation, moral reasoning motivated toward ethical behavior, and equality of educational opportunity. The authors apply this framework to public and private choice programs in San Antonio, arguing that controversies about school choice policies can be tied to more fundamental disagreements about the social goals of American education.

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Levin, H.M. (1999). The Public-Private Nexus in Education. *American Behavioral Scientist, 43*, (1) 124-137

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GREAT LAKES CENTER
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How Legislation and Litigation Shape School Choice

Julie F. Mead, Ph.D.

University of Wisconsin-Madison

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Julie F. Mead, Ph.D., University of Wisconsin-Madison

Executive Summary

Since its appearance on the educational landscape, school choice has engendered considerable controversy. Those controversies are captured in two forms of "law"—legislation and litigation. Government legislation at all levels codifies the results of political struggles around school choice and defines choices available to parents. Those unhappy with the results have brought litigation to determine whether the policies are consistent with constitutional provisions and other existing laws. This policy brief examines the relationships between various forms of school choice and the legal authority that both binds and bounds them. As the discussion will show, both the development of and legal challenges to school choice in its various forms can be traced to a tension between the legal principle that parents should be able to direct the upbringing of their children and the legal principle of *parens patriae* (the government is the ultimate guardian), which forms the foundation for compulsory education in the United States. As such, school choice legislation and litigation go to the very heart of public education and the societal values it reflects.

In light of recent legal events, the following recommendations are offered to officials to guide their work as they consider the implications of the choice initiatives established, the purposes they intend to serve, and the civic principles embedded by their adoption:

- Examine parental choice programs to ensure that they espouse the values of the communities they serve in a manner consistent with federal and state constitutional guarantees.
- Ensure that parental choice programs serve educational opportunity and equity rather than undercut them.
- Consider carefully the implications of any choice program, not only for those who "choose" but also for those who do not.
- Engage the research community not only to inform the debate about effectiveness, but also to track the implications of the various choice programs undertaken.

How Legislation and Litigation Shape School Choice

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Introduction

Since its appearance on the educational landscape, school choice has engendered considerable controversy. Those controversies are captured in two forms of "law"—legislation and litigation. Legislation at all governmental levels codifies the results of political struggles around school choice and defines the actual choices available to parents. Numerous forms of school choice have been created through this political process, including magnet schools, interdistrict choice, intradistrict choice, charter schools, home schooling, and voucher programs. These choice programs vary with respect to the children eligible to participate, the universe of schools from which a parent may choose, and the funding that may support the choice. Likewise, litigation has been brought to determine whether those legislative enactments are consistent with constitutional provisions and other existing laws. When courts have determined that school choice exceeds legal boundaries, programs have been struck down. Legislation and litigation, therefore, have shaped school choice in direct and significant ways. This brief examines the relationships between various forms of school choice and the legal authority that both binds and bounds them.[1] As the discussion will show, both the creations of and legal challenges to school choice can be traced to a tension between the legal principle that parents should be able to direct the upbringing of their children and the legal principle of *parens patriae* (the government is the ultimate guardian), which forms the foundation for compulsory education in the United States.

Parens Patriae and the History of School Choice Legislation

Parens Patriae

In order to understand how legislation and litigation shape school choice, it is first necessary to understand how various school choice options came to be. Writ large, school choice—the concept that parents decide where and how their children will be educated—has always existed. Initially, of course, education existed only for the wealthy, and any education received was closely aligned with the occupation and status of the parents. It was not until the 19th century that formal public education, supported by a governmental body, began to be offered.[2] Not long after, the first compulsory education laws were adopted, first in

Massachusetts in 1853 and by the majority of states by the end of century.[3] Like many laws designed to promote the "general welfare," compulsory education provisions stem from the legal principle known as *parens patriae*.

Parens patriae is Latin for "father of his country" and refers to the common law doctrine that the state serves as parent to us all.[4] In other words, the state has interests independent from its citizens that may even outweigh the individual interests of those citizens. As applied to schools, it refers to the state's interest in ensuring an educated citizenry and in defining what it means to be educated.[5] Thus, *parens patriae* forms the legal foundation for compulsory school attendance laws. Even if a parent believes that education serves no purpose, that parent may not elect to withhold educational opportunities from a son or daughter. The state may legitimately and lawfully compel all parents to educate their children and penalize any parent who refuses.

But the doctrine of *parens patriae* is not without limits. Several lawsuits have been filed over the years asserting that the state has overstepped its boundaries with respect to compulsory schooling. The Supreme Court's 1925 decision in *Pierce v. Society of Sisters* best illustrates the balance of interests that must be struck.[6] Private school operators challenged an Oregon statute that required children to attend public schools in order to satisfy compulsory attendance requirements. The Court agreed with the schools that the law unjustifiably

> interfere[d] with the liberty of parents and guardians to direct the upbringing and education of children under their control. . . The fundamental theory of liberty upon which all governments in the Union repose excludes any general power of the state to standardize its children by forcing them to accept instruction from public teachers only.[7]

Accordingly, states have the authority to compel children to be educated and to define reasonable minimum expectations for that education, but may not require *public* education. As such, it can be argued that *Pierce* was the first important school choice decision.

Modern School Choice Develops

For many years, then, school choice was limited to a selection between public and private schools for those parents with the means to pay for private education. Children enrolled in whatever public school served their neighborhood or community, and place of residence dictated the public school available to parents.[8]

Those opposed to desegregation in the aftermath of the Supreme Court's decision in *Brown v. the Board of Education* capitalized on the distinction between universal public school access and controlled private

school access as a means to subvert the Court's directive to dismantle segregation with "deliberate speed."[9] For example, officials in Prince Edward County, Virginia, refused to desegregate, choosing instead to close all public schools and provide vouchers to private schools, which they knew to be limited and segregated. These so-called "choice academies" operated in several southern states, including Alabama, Georgia, Louisiana, Mississippi, and Virginia.[10] The Supreme Court struck down the Prince Edward County plan as unconstitutional in 1964 in *Griffin v. County School Bd. of Prince Edward County*.[11] Similarly, five years later, the Court struck down a "freedom of choice" plan that allowed students to select which public school they wished to attend in the previously segregated New Kent County, Virginia, Schools (*Green v. County School Board*).[12] In *Green*, the Court held that public officials had an obligation to take affirmative steps to desegregate public schools and that relying on parental choice, given the history of *de jure* segregation, was an insufficient response to the constitutional injury declared by *Brown*. Accordingly, racial politics and school choice became intertwined.[13]

Also during the 1950s and 1960s, the primary market-based arguments for school choice, the foundational policy arguments, also evolved. Economist Milton Friedman most influenced ideas about school choice.[14] In his seminal 1962 work, *Capitalism and Freedom*, Friedman argued that all parents, rich and poor alike, should have available to them the option to enroll their child in any school.[15] To support those selections, he proposed that parents be provided a "voucher" that could be redeemed at any school, thus creating competition between schools, which, he maintained, would spur excellence in an effort to retain students.

Friedman's idea, however, was not put into practice until the 1970s, and then, only on a modest scale. The application of school choice that evolved during that decade continued the earlier linkage of race and choice, but with an opposite goal. In contrast to earlier efforts to harness parental choice to retain segregation, during this period some school districts began employing choice options as a means to desegregate schools.[16] Often as part of court desegregation orders, school districts created magnet schools, each with a special curricular focus, as a way to attract parents to enroll their children in schools they would not ordinarily attend in order to encourage voluntary integration.[17] Thus, parents could choose to have a child attend a neighborhood school or a magnet school with some special attraction. However, although choices were available, Friedman's concept of competition among schools was largely absent.

Also in the early to mid-1970s, the federal government initiated an early experiment in school choice in Alum Rock, California, to test its effect on student achievement and other things.[18] Sponsored by the Office of Equal Opportunity, the program allowed parents to choose among public schools. Officials originally intended the experiment to include

private schools, but that aspect of the study was never implemented. The results proved not to be instructive, however, due to what study authors concluded were a number of design flaws. Still, the concept of studying a link between achievement and parental choice would foreshadow choice programs that developed later.

During the 1970s and early 1980s, school districts and states also began to develop intradistrict and interdistrict choice programs. Intra-district choice programs allow students to enroll in any school in the district or a portion of the district without regard to residence. Frequently, urban districts divide their schools into attendance zones. Students are guaranteed enrollment within their zone and at a school in which a sibling is enrolled. Open seats are then filled by those residing outside the zone, although there may be some limits on publicly provided transportation. These programs have generally been initiated by local officials, although states may support efforts through funding. Perhaps one of the earliest and best known examples of this type of choice began operation in East Harlem, New York, in Manhattan's District No. 4.[19]

Interdistrict programs allow students to enroll in a school in another school district. There are generally two types of such programs. The first, city-suburban transfer programs, were typically initiated by state legislatures as a means of voluntary integration. They fund transfers between neighboring districts as means to reduce racial isolation in urban areas.[20] The second type of interdistrict choice program allows open enrollment in any public district in the state. As a rule, these public school choice programs grant enrollment priority based on residence, with outside choosers competing for remaining available slots. Currently, approximately 41 states have adopted some sort of interdistrict open enrollment policy.[21]

Statewide open enrollment plans illustrate a shift in the rationale for choice programs. These programs and other school choice plans evolved in the 1980s and 1990s as a means to advance general school reform. It was at this time that political bodies began to embrace Friedman's idea of an educational marketplace. Partly in response to the 1983 National Commission on Excellence in Education report entitled *A Nation at Risk*, which argued that public schools were generally failing in their mission, policymakers at all levels began to look more favorably at choice programs, including voucher programs and charter school programs, on the theory that competition would motivate school authorities to achieve excellence. Perhaps the most vocal champions of this argument were John Chubb and Terry Moe of the Brookings Institution. Chubb and Moe argued that school choice had the capacity to radically reform publicly funded education. As they explained:

> Choice is a self-contained reform with its own rationale and justification. It has the capacity *all by itself* to bring about the kind of transformation that, for years, reforms have

> been seeking to engineer in myriad other ways. . . .The whole point of a thoroughgoing system of choice is to free schools from . . . disabling constraints by sweeping away the old institutions and replacing them with new ones. Taken seriously, choice is not a system-preserving reform. It is a revolutionary reform that introduces a new system of public education.[22]

The most complete expression of this idea was the enactment of voucher programs in Milwaukee and Cleveland, created as a means to allow parents to exit these troubled urban systems by providing eligible low-income students public funds to pay tuition at participating private schools in each city.[23]

Also during this period, Minnesota introduced public charter schools, which are relieved from state regulation in exchange for being bound by a performance contract. As will be discussed more fully below, 40 states, the District of Columbia and Puerto Rico have now enacted public charter school legislation.[24]

Finally, technological advances allowed schools, districts and states to create virtual educational alternatives in the form of cyber schools. At least fifteen state educational agencies now operate some form of virtual school,[25] while more than 200 charter schools offer the same option to parents and students, though not all deliver instruction exclusively via the Internet.[26]

As these publicly funded school choice initiatives were developing, states also relaxed compulsory education statutes to allow parents to educate their children at home. Prior to the 1980s only two states, Nevada and Utah, allowed parents to meet compulsory attendance laws by home schooling. By the middle of the 1990s, home schooling was allowed in all fifty states, though states vary with regard to how much regulation governs home schools.[27]

While all of these options evolved from state and local policies, the federal government, too, played a role. Congress used its power of the purse to enact a number of statutes that supported the various efforts through funding, often in the form of grants. For example, the Magnet School Assistance Program was enacted in 1984 and provided funds to local school districts employing magnet schools in their integration efforts.[28] Likewise, the Charter School Expansion Act of 1998 created grants to support the expansion of charter schools in those states permitting them.[29] Versions of both these laws exist today as part of the No Child Left Behind Act of 2001 (NCLB).[30] In addition, NCLB employs school choice as a penalty for schools that fail to demonstrate adequate yearly progress (AYP) toward universal student proficiency on state assessments of reading, math, and science achievement. NCLB's choice provisions will be described in greater detail below and, as will be shown, mark a dramatic shift in federal support for choice.

As this discussion illustrates, legislation has evolved at all levels to govern an array of school choice options. As each option developed, parents were provided with another means of satisfying compulsory school attendance provisions. Table 1 lists each type of school choice and the level of legislation or policy making that controls the implementation of the school choice options available to parents.

Table 1: Legislation that Defines and Governs Forms of School Choice

	Federal	**State**	**Local**
Charter Schools	Federal funds to support development	State laws define	Local school districts serve as authorizers and operators
Cyber Schools		State laws define	Local board decision
Home schooling		State law defines	Local policies may allow partial enrollment & participation in activities
Interdistrict Choice			
- *City/Suburban Plans*	NCLB encourages for schools that fail to make AYP	State laws define	Local policy directs/elects participation
- *Statewide Open Enrollment*	NCLB encourages for schools that fail to make AYP	State laws define	Local policy directs/elects participation
Intradistrict Choice			
- *Magnet Schools*	Federal law encourages through funding	State law may encourage through funding	Local board decision
- *Intradistrict transfer*	NCLB requires for some students		Local board decision
Vouchers		State laws define	

Litigation Shapes School Choice

In the same way that legislation shapes the school choices available to parents, so too has litigation fashioned the programs currently operating. As with any controversial policy, opponents have sometimes used the court system to mount formal legal challenges to school choice. In some instances, litigants alleged that policy-makers had exceeded boundaries set either by federal or state constitutional guarantees, or both. Others mounted challenges asserting that a program was operating in ways that violated statutory requirements.

The scope of this brief does not permit an exhaustive review of school choice litigation; however, the majority of legal issues raised by such cases fall into six categories, each of which is briefly discussed below:

1. Whether the school choice program violates the establishment or free exercise of religion clauses, or both, in state and federal constitutions.
2. Whether the operation of school choice programs results in discrimination on the basis of race.
3. Whether the regulation of choices impinges on parents' rights without adequate due process in violation of state and federal constitutions.
4. Whether the school choice program is consistent with states' constitutional obligations to offer a public education under each state constitution.
5. Whether school choice programs must provide access and programming to allow children with disabilities to participate in the program.
6. Whether the choice program operates in a manner consistent with statutory requirements.

Religion Clause Cases

The First Amendment contains two religion clauses. The first, the Establishment Clause, prohibits government officials from adopting any policy or practice "respecting an establishment of religion."[31] The second clause of the same amendment prohibits government officials from prohibiting the free exercise of religion.[32] School choice has sparked litigation under both clauses. Establishment Clause cases center on whether a particular choice results in state support or sponsorship of religion or religious teaching. Free Exercise cases examine whether state rules regarding various choice options result in an impermissible infringement on parents' or students' exercise of religious beliefs.

Arguably the legal issue receiving the most public press centers on the whether states can include private religious schools in any voucher program. The Milwaukee, Cleveland, and Washington, D.C., programs all allow private religious schools to participate in their programs, providing public funding for both religious and secular education.[33] Challengers to both the Milwaukee and Cleveland programs alleged that allowing public funds to purchase private religious education violated the Establishment Clause of the First Amendment to the United States Constitution.[34] The question was resolved by a sharply divided U.S. Supreme Court in *Zelman v. Simmons-Harris* in 2002, when the Court upheld the Cleveland program.[35] The five-member majority held that the program served a

legitimate secular purpose of providing low-income families a means to purchase educational opportunities for their children. In addition, the Court held that as long as parents (the recipients of the aid) were not held to religious criteria for participation and had available to them a "genuine choice" from among a variety of secular and sectarian schools, the program was not unconstitutional. A key factor in the ruling was the fact that the decision to enroll in a religious school was made by private individuals, not the state.

While *Zelman* settled the matter under the federal constitution with respect to similarly designed programs, some have questioned whether state constitutions will be similarly interpreted.[36] Some state constitutions appear to set a higher standard for public funds that aid religious institutions even indirectly. So far, however, cases making such claims have generally been decided on other grounds.[37]

Charter schools, too, have been challenged on religious grounds.[38] One recent case considered whether the curriculum adopted by charter schools had improperly employed religious teachings. The Ninth Circuit Court of Appeals reversed the lower court's dismissal of the claim, allowing it go forward.[39] Since charter schools are public schools, the same rules regarding the teaching religious subjects apply to charter schools.[40] That is, public school teachers may teach *about* religion, but may not teach religion *per se*.[41]

Sometimes, however, the challenge is brought by parents wanting more, not less, religious instruction. This type of litigation asserts that parents' right to exercise their religion is unnecessarily abridged by various policy enactments. For example, parents living in a Maine school district without a high school filed suit on the premise that limiting their publicly funded choices to public schools or non-sectarian private schools violated their right to freely exercise their religion as they wished their children to be educated in a religious school. The Supreme Court of Maine rejected the claim, reasoning that while the parents preferred religious education, obtaining it was not central to the exercise of their beliefs.[42] Accordingly, their rights to free exercise had not been violated. After the U.S. Supreme Court upheld vouchers in *Zelman*, some Maine parents renewed this objection in federal court. However, the result was the same.[43] The court relied on earlier decisions and the Supreme Court's holding in a higher education case. That case, *Locke v. Davey*, determined that while religious choices could be made available without offending the Establishment Clause, the Free Exercise Clause did not compel states to include religious options in the choice programs they developed.[44]

Discrimination Cases

Given the history of school choice and its connection to desegregation and the directive from *Brown v. Board of Education,* it is a bit ironic to note that even school choice initiatives aimed at integrating

public schools frequently have had to be defended against claims of discrimination under the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution.[45] As policymakers employed these programs as a means to voluntary integration, programs often used race-conscious student selection processes. That is, students' requests to transfer to a preferred school would be granted only if enrollment aided the district or school in creating integrated educational environments. Such systems necessarily resulted in some students being denied transfer requests on the same basis. These students and their parents have challenged such systems as violating the Equal Protection Clause.

Such litigation recently culminated in the Supreme Court decision in *Parents Involved In Community Schools v. Seattle School District Number 1*.[46] A narrow majority of the Court found unconstitutional the voluntary intradistrict choice programs implemented in Seattle and Louisville. However, no majority of justices agreed on both the holding and the legal reasoning. Chief Justice Roberts and Justices Scalia, Thomas, and Alito concluded that race would be a proper consideration for student enrollment only when plans are used to remedy judicial findings of state discrimination. Justice Kennedy, while agreeing that the Seattle and Louisville programs violated the Fourteenth Amendment, concluded that race-conscious objectives could be pursued as long as they did not result in a student being denied an admission request based on race. Because this decision is so recent, policymakers have only begun to consider its implications for other choice programs that seek to attain racial diversity by persuading parents to enroll students in schools they might not have attended otherwise.

Due Process

As mentioned earlier, *Pierce v. the Society of Sisters* determined that Oregon had unreasonably limited parents' rights to control the upbringing of their children by requiring attendance at public schools. In constitutional terms, this conclusion is an example of a substantive due process violation. Substantive due process, guaranteed under the Fourteenth Amendment, is an issue of fundamental fairness. Violations occur when government policymakers overreach their authority and deny a citizen or group of citizens liberty or property without adequate due process—that is, without adequate justification. All government policies and practices must, at a minimum, be rationally related to a legitimate state interest.

Examples of substantive due process cases in relation to school choice are evident in home-schooling litigation. Some Arkansas parents, for example, attacked the state's requirement that home-schooled students submit to achievement testing, arguing that it violated their right to control their child's education. The court disagreed, finding the requirement a reasonable restriction on home schooling.[47] Likewise, a Maine court

upheld a state requirement that home schoolers submit their educational plan for approval.[48] These two examples also illustrate how difficult substantive due process claims are to win. Unless parents allege that the liberty denied is an explicit constitutional right (freedom of religion, for example), courts will usually apply only the lowest level of scrutiny and require only that the state behave reasonably. Even when religious beliefs are involved in a case, courts sometimes rule against parents if they conclude that the state has sufficient justification for monitoring the educational practices of home schoolers.[49]

Another due process argument that has been somewhat more successful relates to the vagueness of a state's statutory language with respect to "private schools." For example, in *Wisconsin v. Popanz*, a father argued that his conviction for noncompliance with the compulsory education statute should be overturned because the state law at the time required only that a child attend a "public or private school." He argued that he satisfied the requirement by educating his children at home. Moreover, he claimed—and the court agreed—that the term "private school" was unconstitutionally vague, thus depriving him of due process.[50]

Education Clause Cases

Cases brought under the education clauses of state constitutions argue that school choice programs are invalid because they conflict with the specific educational mandate to the legislature with regard to public schools. For example, when charter schools were created in Michigan, a group of taxpayers filed suit, alleging that they were not sufficiently "public" to receive taxpayer funding under the Michigan constitution. The Michigan Supreme Court rejected this claim, finding that the state legislature had maintained sufficient state control over its charter schools to maintain consistency under the state's Education Clause.[51] To date, all challenges to charter school programs under state constitutions have been similarly rejected and all programs upheld.

In contrast, the Florida Supreme Court recently struck down a voucher program as contrary to its constitution's Education Clause. The program at issue, the Opportunity Scholarship Program (OSP), allowed children who attended a public school deemed substandard to use the state monies to enroll in any private school, using funds that that otherwise would have gone to the substandard school. The Florida Supreme Court determined that the constitutional mandate to the legislature to create a "uniform" system of public education precluded the OSP because the state lacked the necessary control over the private schools. Moreover, the Court read the constitution as requiring that public education be provided solely through public schools.[52]

Similarly, the Colorado Supreme Court invalidated a voucher program as contrary to the state's constitutional mandate that local school boards control publicly funded education. Since students taking advantage

of the Colorado Opportunity Contract Pilot Program would enroll in private schools at public expense, the program limited boards' ability to control their funds, raised, at least in part, through local taxes. The court concluded that the program directly violated the explicit local control requirement established in Article IX, Section 15 of the Colorado Constitution.[53]

As these three examples illustrate, the precise wording of an individual state's constitutional provision regarding education may permit some choice programs prohibited in other states. Likewise, within an individual state, some forms of choice may be held to be consistent with the state constitution's education clause, while other forms of choice may not.

Special Education Cases

School choice litigation has also addressed the questions of whether and how special education requirements apply when parents may select their child's school. At issue are two concepts protected under federal disability law: access and appropriate programming. Access is the concept that publicly funded benefits ought to be provided without discrimination on the basis of disability, as required under Section 504 of the Rehabilitation Act of 1973 (Section 504) and the Americans with Disabilities Act (ADA). Accordingly, when policy-makers make school choice available to parents and students, they must ensure that children with disabilities and their parents are eligible to participate. Once access is provided, consideration must be given to the kinds of services necessary to make the access meaningful.

Access to voucher programs for children with disabilities has generated only limited litigation. In fact, the only decision on the issue is a trial court opinion on a challenge to the original version of the Milwaukee Parental Choice Program. In that decision, the judge determined that participating private schools needed only to accept children with disabilities to the same extent required of nonparticipating private schools. This ruling meant that participating schools had to accept voucher students with disabilities unless doing so would require them to substantially alter their educational program. The court determined that since the schools were not required to provide special education and related services, they could not be required to comply with the Individuals with Disabilities Education Act (IDEA).[54]

Access to and programming in other publicly funded choice options has also sparked legal challenge, but most often in the form of administrative challenges and policy letters.[55] The combined lessons from these challenges can be expressed in four reasonably clear directives:

1. All publicly funded choice programs must be accessible to children with disabilities.[56]

2. Parents and children can not be required to waive needed services in order to participate in the choice program.[57]
3. A student's right to "free appropriate public education" must be preserved in any choice program delivered in public schools.[58]
4. States need to determine which entity (the sending district, receiving school or district, a combination, or some other entity) will serve as the responsible "local education agency" for purposes of IDEA.[59]

Even when a program complies with these requirements, school choice clearly complicates the application of special education law. Numerous authors have commented on the tension between allowing parents to select a school and the strict IDEA requirement that all placement decisions be made by a team of persons knowledgeable about the child's abilities and needs.[60] What happens if parents "choose" a program that the team considers inappropriate? How must school authorities reconcile choice and appropriateness under the IDEA?

The answer to these questions under current law appears to be that parents may choose, so long as their choices are consistent with the concept of a free, appropriate public education (FAPE) as guaranteed by both IDEA and Section 504. Choice programs, therefore, must consider how to provide the necessary services in order to make FAPE available.[61]

Statutory Construction Cases

Finally, a review of school choice litigation must include cases involving statutory issues. Such cases require courts to determine whether a particular program is consistent with existing laws or how a particular provision should apply in a particular instance.

The latter type of case is exemplified in judicial review of charter denials, revocations, or non-renewals. Because some charter statutes explicitly allow for judicial appeals of charter school denials,[62] disappointed charter school aspirants have often used this option to force authorizers to reconsider their application.[63]

In addition to such review of authorization decisions, other cases may allege that a particular choice option is invalid given existing statutory requirements. For example, when a school district in Wisconsin created a cyber charter school and allowed students living outside of the district to enroll via statewide open enrollment, challengers raised three statutory issues: (1) that the school was not located within school district boundaries as required by the state's charter school law; (2) that since some of the students never attend a school physically located within district boundaries, payments from resident school districts to the district operating the cyber charter school violated the state's open enrollment statute; and (3) that since parents assume the primary instructional role,

the school violated statutory requirements that only licensed teachers teach in public schools. The Wisconsin Court of Appeals found merit in each claim and determined that the challengers were entitled to summary judgment on each allegation.[64] In clarifying its ruling, the court explained:

> We express no opinion on the merit of [the cyber charter school's] educational model, or on the relative competencies of licensed teachers and dedicated parents to recognize and make the most of "teachable moments." [The cyber charter school] may be, as its proponents claim, a godsend for children who would not succeed in more traditional public schools, as well as a welcome new option for parents who want their children to receive a home-based education for any number of reasons. But it is also a public school operated with state funds, and its operation violates the statutes as they now stand. It is for the citizens of this state, through their elected representatives in the legislature, to decide whether and how their tax money is going to be spent. If the citizenry wants tax money spent on virtual schools like [the challenged school], that is fine. Let the citizens debate it and set the parameters, not the courts.[65]

As this quotation makes clear, courts are limited to applying existing statutes. As more innovations occur, whether through school choice or not, they must comply with existing statutory frameworks or risk litigation to force such compliance. Alternatively, those statutes must be revised to allow for new conceptions of education and choice.

Table 2, following, provides a summary of the types of litigation filed with respect to each type of school choice.

It is interesting to note that voucher programs and charter school programs have prompted the broadest array of legal challenges. As both vouchers and charters arguably best illustrate Friedman's competition model, it is not surprising that they would encounter the most litigation. It is equally unsurprising that home schooling has faced the fewest legal challenges, since it is an exit from public funding.

Table 2: Issues Raised in Litigation of School Choice Options

	Religion Clauses	Discrimination	Due Process	Education Clause	Special Education	Statutory Issues
Charter Schools	✓	✓		✓	✓	✓
Cyber Schools					✓	✓
Home-schooling	✓		✓			✓
Interdistrict Choice						
- City-Suburban Plans		✓				
- Statewide Open Enrollment		✓			✓	
Intradistrict Choice						
-Magnet Schools		✓			✓	
-Intra-district transfer		✓			✓	
Vouchers	✓	✓		✓	✓	✓

Recent Developments

As this discussion illustrates, both legislation and litigation have played and continue to play an important role in shaping school choice. Three recent developments in the relationship between law and school choice deserve further discussion: the expansion of charter schools, NCLB's choice provisions, and the recent Supreme Court decision regarding voluntary integration programs.

The Expansion of Charter Schools

Charter schools first appeared in Minnesota in 1990. By 2003, the number of states allowing charter schools had increased to 40, with approximately 2,700 schools serving 684,000 students.[66] Current estimates put the numbers at more than 4,000 charter schools serving more than a million students.[67] By any measure, these figures show that charter

schools have become a feature of many states' public educational systems. Given the fact that charter schools have enjoyed broad bipartisan support,[68] including federal funding through the Charter Schools Expansion Act, it is not surprising that their number and influence have increased since their introduction a decade and a half ago.

The growth of charter schools has been accompanied by the evolution of charter school laws. Charters were established, at least in part, as a way to introduce market-driven education in a public-only context.[69] In return for some freedom from traditional regulation through state statutes and administrative codes, charter schools agree to accountability through performance contracts and parental choice. States have periodically examined this tradeoff to determine whether charter schools are both sufficiently autonomous and sufficiently accountable. In some instances, states have made statutory schemes more permissive by allowing new entities to authorize charters and by further relaxing other state controls. In other cases, states have increased their regulatory hold on charter schools by adopting more stringent standards for adoption, operation, renewal, and revocation.[70] Charter school proponents refer to such tightening of state control as "regulatory creep," a phenomenon they believe should be avoided.[71] However their actions are viewed, state policymakers clearly remain involved in determining how to fit charter schools into the public school system.

NCLB's Choice Provisions

A second recent and notable development involves the choice provisions codified as part of the No Child Left Behind Act. Congress is currently in the process of reauthorizing NCLB and therefore its members are examining the law's merits and shortcomings as they determine whether and how to revise its existing provisions. As matters currently stand, however, school choice is an integral part of NCLB. When the law was enacted, the U.S. Department of Education named four "pillars" as its foundation, one of which was "more choices for parents."[72] This "pillar" led to several school choice provisions—perhaps most notably as part of NCLB's accountability system, which imposes choice as a penalty for schools not making "adequate yearly progress" for two consecutive years.

"Adequate yearly progress" (AYP) refers to a school's incremental progress toward NCLB's mandated goal of having 100% of students score at or above proficiency standards on state assessments in reading, math, and science by 2014. Students must be tested annually in grades 3-8 and once during grades 9-12. While states set the curricular standards and develop the assessments, both must be approved by the United States Department of Education. States also set progressively more stringent goals for schools each year (the annual AYP) as they target 100% proficiency in each subject.

Schools must annually report test scores to the public, including a comparison of scores disaggregated by race, socioeconomic status, gender, language, and disability. A school could be declared "in need of improvement" if it tests less than 95% of its student population or if too few students meet proficiency standards set for each assessment. Moreover, all goals must be met, not only for the student population as a whole, but also for each disaggregated group. For example, a school could be declared "in need of improvement" because only 90% of students learning English took the state's assessment. Likewise, if test scores revealed that all groups except children with disabilities had met the proficiency standards, the school would be deemed "in need of improvement" and the accountability provisions would apply. [73]

Penalties for failure to meet AYP are substantive. Schools designated "in need of improvement" for two or more consecutive years are subject to NCLB's choice provisions. Schools in such circumstances must notify parents of the situation and allow student transfers to other public schools that have met AYP. In addition, schools must set aside a portion of the funds received under NCLB to cover transportation costs for the students. If a school does not test enough students or student test scores do not demonstrate sufficient progress for a third consecutive year, NCLB funds must be made available to parents to allow them to purchase supplemental educational services (tutoring). When a school fails the standards for a fourth year, the district must take corrective action; if failure persists into a fifth consecutive year, the district must restructure the school. Restructuring may include converting the school to a charter school, if it is not one already. Moreover, the penalties are cumulative. That is, parents with children entitled to supplemental educational services are also entitled to transfer to a school of their choice. In addition, if an entire school district is declared "in need of improvement" under NCLB for a fourth consecutive year, the state must take corrective action, with one suggested alternative being to permit students to transfer to another school district. Finally, parents with children enrolled in schools deemed "persistently dangerous" must be given the option to choose another school regardless of how well or poorly students perform academically in the dangerous school.[74]

These NCLB provisions are significant as they represent the first federalized school choice program. They were controversial at the time of adoption and remain controversial now.[75] In fact, President Bush first argued for NCLB to include private as well as public school choice.[76] Under the bill he originally proposed, parents would have been given a voucher to attend any public or private school whenever a public school failed to perform at the required standard. Although private school choice did not survive the political process,[77] the fact that Congress embraced any form of school choice as means to school reform marks an important advancement of Friedman's market-based conception of school accountability. Whether current choice provisions will remain when

NCLB is reauthorized sometime in 2008 or 2009 will reveal much about the country's commitment to and confidence in school choice as a tool to leverage educational improvement.

The Impact of *Parents Involved*

Finally, as noted above, the Supreme Court's decision in *Parents Involved in Community Schools v. Seattle School District Number 1* will likely have significant impact on school officials' efforts to integrate student populations through controlled parental choice programs. Chief Justice Roberts concluded simply that "[t]he way to stop discrimination on the basis of race is to stop discriminating on the basis of race." And yet, it is clear that the tie between race and opportunity has not yet been broken. Indeed, research documents the resegregation of America's schools along racial lines, with many more schools now more racially isolated than they were even a decade ago.[78] While Justice Kennedy's opinion holds out hope that policymakers may still pursue integrated education as a goal, the decision in *Parents Involved* severely restricts current efforts to do so. Literally hundreds of programs exist across the country that use parental choice as an inducement to integrate. Those plans must now all be reviewed to determine whether they might similarly be considered in violation of the Constitution. Further litigation examining boundaries of those programs seems inevitable.

Many consider the decision in *Parents Involved* to be a dramatic shift away from the promise of integrated education and equal educational opportunity espoused by *Brown*. Justice Breyer's dissent forcefully made this point when he concluded:

> Finally, what of the hope and promise of *Brown?* For much of this Nation's history, the races remained divided. It was not long ago that people of different races drank from separate fountains, rode on separate buses, and studied in separate schools. In this Court's finest hour, *Brown* v. *Board of Education* challenged this history and helped to change it. For *Brown* held out a promise. It was a promise embodied in three Amendments designed to make citizens of slaves. It was the promise of true racial equality—not as a matter of fine words on paper, but as a matter of everyday life in the Nation's cities and schools. It was about the nature of a democracy that must work for all Americans. It sought one law, one Nation, one people, not simply as a matter of legal principle but in terms of how we actually live. . . . The last half-century has witnessed great strides toward racial equality, but we have not yet realized the promise of *Brown*. To invalidate the plans under review is to threaten the promise of *Brown*. The plurality's position, I

> fear, would break that promise. This is a decision that the Court and the Nation will come to regret.[79]

Justice Breyer's comment recognizes that the Court's decision will require any school choice program that includes race-conscious provisions to determine whether its criteria are allowed. Programs similar to those in Seattle and Louisville are no longer permissible as a means to integrate public schools.

How then may integration be accomplished? Many consider Justice Kennedy's concurrence to be the roadmap for such an examination. Clearly Justice Kennedy wrestled with the issues laid bare by *Parents Involved*[80] and worried about the effects the decision would have on the racial composition of public schools. While ultimately invalidating the Seattle and Louisville choice programs and what he characterized as "crude" systems of classifying individual students by race,[81] he expressed the view that "[t]his Nation has a moral and ethical obligation to fulfill its historic commitment to creating an integrated society that ensures equal opportunity for all of its children."[82] He listed six methods by which he believed such a goal could be accomplished consistent with the constitution: (a)"strategic site selection of new schools;" (b) "drawing attendance zones with general recognition of the demographics of neighborhoods;" (c) "allocating resources for special programs;" (d) "recruiting students and faculty in a targeted fashion;" (e) "tracking enrollments, performance, and other statistics by race";[83] and (f) "if necessary, a more nuanced, individual evaluation of school needs and student characteristics that might include race as a component."[84]

It remains to be seen whether this decision will curtail parental choice programs in the locales they now operate. Justice Kennedy does not explicitly name parental choice as one of the six factors, though the first (strategic site selection), the fourth (recruiting students and faculty), and the last (an individual examination of student characteristics including race as one factor among many) may be related to various choice initiatives. However, the Court's decision could cause officials to dismantle existing race-conscious choice programs in order to avoid litigation on the issue. Alternatively, they may simply continue to allow parental choices without regard to impact on the racial composition of student populations. What is inescapable, however, is that the decision in *Parents Involved* requires such an examination of each program to determine whether it aligns with guidelines the ruling provides. More litigation on the relationship of race and choice is likely as policy-makers grapple with the application of *Parents Involved*.

Discussion

As this examination illustrates, law shapes school choice in tangible and unmistakable ways. The work of legislators at federal, state

and local levels defines and funds various choice options. The work of jurists and litigators considers whether those initiatives and their implementation are lawful. Whether through legislation or litigation, sources of law continually re-examine the balance struck between *parens patriae*—the state's interest in compelling and controlling education—and parents' individual liberty to make decisions for themselves and their children.

Of course, school choice is not limited to the United States, but also has a place in other countries' educational systems. David Plank and Gary Sykes report that school choice is gaining in popularity and operates to some extent in a number of countries including England, Chile, South Africa, the Czech Republic, China, Australia, New Zealand, and Sweden.[85] In fact, while not specifying school choice as it has come to be defined in the United States, the United Nations Universal Declaration of Human Rights asserts that "[p]arents have a prior right to choose the kind of education that shall be given to their children."[86] Of course, the particular contours of the choices available to parents in any country depend on the laws binding them.

It is therefore fitting to emphasize the fact that law not only defines and constrains parental choices, it is also a codification of collective values. With the input of their constituents, politicians and other policymakers debate the wisdom and effectiveness of various programs. Eventually decision makers ratify any compromises by making formal policy pronouncements. Each provision reflects the collective will and principles that survived the democratic, decision-making process. Even decisions about funding speak to what a body politic most values.

What values, then, do choice programs espouse? That question is at the heart of the debate surrounding school choice. The answer depends on the type of choice, its breadth, and the details of its operation. Does choice serve as an instrument to another deeply held commitment such as diversity or opportunity, or is choice itself the value? Will school choice help the collective achieve the vision desired, or will it undercut the very values it intends to promote? If parental choice results in racially homogeneous schools, does that comport with or debase the concept of "public" schools? Likewise, if parents select a school or a curriculum that emphasizes science but omits art, are the children being sufficiently "educated" for the public? If parents have the predominant voice in educational policies through school selection and control of educational funds, how do schools then serve the childless portions of the electorate? Do schools serve only parents and children, or do they serve communities? These debates have long swirled around conceptions of parental choice.[87]

As such debates continue, whether in the form of reviewing current choice initiatives or considering the development of new forms of choice, law will play an inevitable role. This conclusion is unavoidable simply because law reflects the democratic processes created by the body politic. The creation and review of policy in the form of "law" is the means by

which we collectively consider the relationship between the citizen and the state, between private choices and the public good. As Tyack and Cuban explain:

> In continuing the tradition of trusteeship of the public good, this engaged debate about the shape of the future, all citizens have a stake, not only the students who temporarily attend school or their parents. And this is the main reason that Americans long ago created and have continually sought to reform public education.[88]

Legislation and litigation are the products of our public struggle concerning the role of public education in a democratic society. Since the nation's founding, many have considered and continue to consider public education a necessary predicate for democracy to function.[89] That realization suggests that parents' choices will likely always be constrained by some measure of state control, maintaining the constant tension identified earlier between *parens patriae* and parents' rights to direct their children's education. How robust either principle is in relation to the other will depend on how particular forms of choice strike a balance between them. Legislation will continue to codify those balances and other choice arrangements, and litigation will continue to probe their consistency with existing constitutional and statutory requirements. The legislative and judicial activities reviewed here—in particular the three recent developments of charter school expansion, the advent and reauthorization of NCLB, and recent Supreme Court decision curtailing the use of race in the Seattle and Louisville choice programs—demonstrate that the balance between *parens patiae* and parents' rights is in constant flux. Legislation and litigation are two tools that capture the status of that equilibrium at any given moment in time.

Recommendations

As policymakers undertake the daunting task of defining public education for current and future generations, it is likely that school choice will continue to play some role. Accordingly, the following recommendations are offered to officials to guide their work as they consider the implications of the choice initiatives established, the purposes they intend to serve, and the civic principles embedded by their adoption.

- Examine parental choice programs to ensure that they espouse the values of the communities they serve in a manner consistent with federal and state constitutional guarantees.
- Ensure that parental choice programs serve educational opportunity and equity rather than undercut them.

- Consider carefully the implications of any choice program, not only for those who “choose” but also for those who do not.
- Engage the research community not only to inform the debate about effectiveness of various options, but also to track the implications of the various choice programs undertaken.

Notes and References

[1] Traditional methods of legal research were employed by this study. Primary sources included constitutions, federal and state case law, statutes, and regulations. Secondary sources included books, law review and other articles related to choice as well as the web sites of major policy groups and organizations.

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[5] Alexander, K. & Alexander, M.D. (2005). *American Public School Law* (6th ed.). Belmont, CA: Thomson West.

[6] *Pierce v. Society of Sisters of the Holy Names of Jesus and Mary*, 268 U.S. 510, 45 S.Ct. 571 (1925).

[7] *Pierce v. Society of Sisters of the Holy Names of Jesus and Mary*, 268 U.S. 510, at 534-535 (1923).

[8] Some sparsely populated rural areas in Maine and Vermont also offered what might be considered a form of school choice. In those areas, if communities did not operate schools at a particular level, parents could enroll their children in neighboring school districts and the resident district would pay a form of tuition on behalf of the students. This practice was later expanded to allow enrollment in private non-religious schools on the same basis. See 20-A M.R.S.A. § 5204 and 16 V.S.A. §821-822. These programs continue today.

[9] *Brown v. Board. of Education of Topeka*, 349 U.S. 294, 301 , 75 S.Ct. 753, 757 (1955).

[10] Viteritti, J.P. (1999). *Choosing Equality: School Choice, the Constitution, and Civil Society*. Washington, DC: Brookings Institution Press.

[11] *Griffin v. County School Bd. of Prince Edward County*, 377 U.S. 218, 84 S.Ct. 1226 (1964).

[12] *Green v. County Sch. Bd*., 391 U.S. 430 (1968).

[13] For more on this topic, see, for example: Hill, H. and Jones, J.E. (Eds.), (1993). *Race in America: the Struggle for Equality*. Madison, WI: The University of Wisconsin Press; Forman, J. (2005). The Secret History of School Choice: How Progressives Got There First. *The Georgetown Law Journal*, *93*, pp. 1287-1319; Viteritti, J.P. (1999). *Choosing Equality: School Choice, the Constitution, and Civil Society*. Washington, DC: Brookings Institution Press.

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[16] For a discussion of policy arguments supporting this use of choice, see: Coons, J. & Sugarman, S. (1978). *Education by choice: The case for family control*. Berkeley: University of California Press.

[17] Metz, M. (1990). Magnet Schools and the Reform of Public Schooling. In W. Boyd & H. Walberg (Eds.), *Choice in Education: Potential and Problems* (pp. 123-147). Berkeley, CA: McCutchan Publishing Corporation.

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[19] Chubb, J.E. & Moe, T.M. (1990). *Politics, Markets, & America's Schools*. Washington, DC: The Brookings Institution, pp. 212-215.

[20] See for example a discussion of Wisconsin's Chapter 220 Program, Wisconsin Legislative Fiscal Bureau. (2007). School Integration (Chapter 220) Aid, Informational Paper #28. Retrieved January 11, 2008, from http://www.legis.state.wi.us/lfb/Informationalpapers/28.pdf.

[21] *Open Enrollment: 50-State Report*. Denver, CO: Education Commission of the States. Retrieved November 8, 2007, from http://mb2.ecs.org/reports/Report.aspx?id=268.

[22] Chubb, J.E. & Moe, T.M. (1990). *Politics, Markets, & America's Schools*. Washington, DC: The Brookings Institution, p. 217 (emphasis in original).

[23] The National School Boards Association lists 8 currently operating voucher programs. Three programs serve cities (Milwaukee, Cleveland, and Washington, D.C.) and five programs are small limited statewide voucher programs for particular students (e.g. those with disabilities) in Arizona, Florida, Georgia, Ohio, and Utah. To date, no state has approved and begun operation of a full scale statewide voucher program of the type Freidman envisioned. For details on existing programs, see Voucher Strategy Center, National School Boards Association, Retrieved January 22, 2008, from http://www.nsba.org/site/page_nestedcats.asp?TRACKID=&CID=88&DID=220.

[24] Green, P.C. & Mead, J. F. (2004). *Charter schools and the law: Establishing new legal relationships*. Norwood, MA: Christopher Gordon Publishers, Inc.

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[27] Gordon, W.M., Russo, C.J., & Miles, A.S. (1994). *The Law of Home Schooling*. Topeka, KS: National Organization on Legal Problems in Education.

[28] Magnet School Assistance Program, 20 U.S.C. §7201-7213 (1994).

29 Charter School Expansion Act of 1998, Public Law 105-278, Oct. 22, 1998.

30 No Child Left Behind Act of 2001, Public Law 107-110, Jan. 8, 2002.

[31] The Establishment Clause of the First Amendment reads: "Congress shall make no law respecting an establishment of religion. . ." (U.S.Const. Amend. 1).

[32] The Free Exercise Clause of the First Amendment reads: "Congress shall make no law . . prohibiting the free exercise [of religion]. . . " (U.S.Const. Amend. 1).

[33] An issue related to school vouchers is the provision of tax deductions or credits for those enrolling their children in private religious schools. The Supreme Court first upheld such a plan in *Mueller v. Allen*, 463 U.S. 388 (1983). A full discussion of such programs is beyond the scope of this review. For a discussion of these types of programs, see: Mawdsley, R.D. (2007). Tax Exempt Bond Financing for Religious Educational Institutions: What Is Required Under The U.S. Constitution? *West's Education Law Reporter*, 221, pp. 459-483.

[34] Milwaukee: *Jackson v. Benson*, 578 N.W.2d 602 (Wis. 1998), *cert. denied* 119 S.Ct. 466 (Nov. 9, 1998). Cleveland: *Zelman v. Simmons-Harris*, 536 U.S. 639, 122 S.Ct. 2460 (2002). The Washington, D.C. program was created in 2004 after the Supreme Court's ruling in *Zelman*.

[35] *Zelman v. Simmons-Harris*, 536 U.S. 639, 122 S.Ct. 2460 (2002).

[36] See e.g., Green, P.C. (2001). Charter Schools and Religious Institutions: A Match Made in Heaven. *West's Education Law Reporter*, pp. 1- 18.; DeForrest, M.E. (2003). An Overview and Evaluation of State Blaine Amendments: Origins, Scope, and First Amendment Concerns. *Harvard Journal of Law and Public Policy*, 26, pp. 551- 626.

[37] See e.g., *Bush v. Holmes*, 919 So.2d 392 (Fla. 2006).

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[47] *Murphy v. State of Arkansas*, 852 F. 2d 1039 (8th Cir. 1988).

[48] *McDonough v. Ney*, 599 D. Supp. 679 (D.Me. 1984).

[49] See for example, *State v. Schmidt*, 505 N.E.2d 627 (Ohio 1987).

[50] *Wisconsin v. Popanz*, 112 Wis.2d 166, 332 N.W.2d 750 (Wis. 1983).

[51] *Council of Organizations about Parochiaid v. Governor*, 566 N.W. 2d 208 (Mich . 1997).

[52] *Bush v. Holmes*, 919 So.2d 392 (Fla. 2006).

[53] *Owens v. Congress of Parents, Teachers*, 92 P3d 933 (Colo 2004).

[54] *Davis v. Grover*, Case No. 90-CV-25765 (Dane Cty. Cir. 1990); For a discussion see: Mead, J.F. (2000). *Publicly Funded School Choice Options in Milwaukee: An Examination of the Legal Issues*. Milwaukee, WI: Public Policy Forum.

[55] Mead, J. F. (1995). Including students with disabilities in parental choice programs: The challenge of meaningful choice." *West's Education Law Reporter*, 101 (2), pp. 463-496; Green, P.C. & Mead, J. F. (2004). *Charter schools and the law: Establishing new legal relationships*. Norwood, MA: Christopher Gordon Publishers, Inc.

[56] Letter to Lunar, 17 IDELR 834 (OSEP 1991); Letter to Evans, 17 IDELR 836 (OSEP 1991); Letter to Bina, 18 IDELR 582 (OSEP 1991); Letter to Bocketti, 32 IDELR 225 (OCR 1999); Letter to Gloecker, 33 IDELR 222 (OSEP 2000).

[57] *Fallbrook Union Elementary School District*, 16 IDELR 754 (OCR 1990); *San Francisco Unified School District*, 16 IDELR 824 (OCR 1990); *Chattanooga Public School District*, 20 IDELR 999 (OCR 1993).

[58] Letter to Lunar, 17 IDELR 834 (OSEP 1991); Letter to Evans, 17 IDELR 836 (OSEP 1991); Letter to Bina, 18 IDELR 582 (OSEP 1991); Letter to Bocketti, 32 IDELR 225 (OCR 1999); Letter to Gloecker, 33 IDELR 222 (OSEP 2000).

[59] *San Francisco Unified School District*, 16 IDELR 824 (OCR 1990); Letter to Bocketti, 32 IDELR 225 (OCR 1999); Letter to Gloecker, 33 IDELR 222 (OSEP 2000).

[60] See e.g.: McKinney, J. (1992). Special education and parental choice: An oxymoron in the making. *West's Education Law Reporter*, 76, pp. 667-677; Mead, J. F. (1995). Including students with disabilities in parental choice programs: The challenge of meaningful choice." *West's Education Law Reporter*, 101 (2), pp. 463-496; Ahearn, E., Lange, C., Rhim, L., and McLaughlin, M. (2001).

Project Search: Special Education as Requirements in Charter Schools, Final Report of a Research Study. Alexandria, VA: National Association of State Directors of Special Education.

[61] When those parental choices would violate provisions of the law, it is less clear how to reconcile these principles. One situation in which such conflicts are most apparent involves charter schools designed specifically for children with disabilities and potential conflicts with IDEA's requirement that children with disabilities be educated with children without disabilities to the maximum extent appropriate. For a discussion of these issues, see: Mead, Julie F. (2007, in press). *Charter Schools Designed for Children with Disabilities: An Initial Examination of Issues and Questions Raised.* Alexandria, VA: National Association of State Directors of Special Education.

[62] Green, P.C. & Mead, J. F. (2004). *Charter schools and the law: Establishing new legal relationships.* Norwood, MA: Christopher Gordon Publishers, Inc., pp. 26-29.

[63] See e.g., *Shelby School v. Arizona State Board of Education*, 962 P.2d 230 (Ariz. Ct. App. 1998); *Beaufort County Board of Education v. Lighthouse Charter School Committee*, 516 S.E.2d 655 (S.C. 1999); *West Chester Area School Ditrict v. Collegium Charter School*, 760 A.2d 452 (Pa. Commw Ct. 2000).

[64] *Johnson v. Burmaster*, Case # 2006AP1380 (Wis. Ct. App., Dist. II 2007).

[65] *Johnson v. Burmaster*, Case # 2006AP1380, slip op. at 14-15 (Wis. Ct. App., Dist. II 2007).

[66] Green, P.C. & Mead, J. F. (2004). *Charter schools and the law: Establishing new legal relationships.* Norwood, MA: Christopher Gordon Publishers, Inc., p. 1.

[67] Charter Schools. Washington, DC: The Center for Education Reform. Retrieved December 7, 2007 from http://www.edreform.com/index.cfm?fuseAction=stateStats&pSectionID=15&cSectionID=44

[68] Vargari, S. (Ed.), (2002). *The Charter School Landscape*. Pittsburgh, PA: University of Pittsburgh Press.

[69] Finn, C.E., Manno, B.V., & Vanourek, G. (2000*). Charter Schools in Action: Renewing Public Education*. Princeton, NJ: Princeton University Press.

[70] Green, P.C. & Mead, J. F. (2004). *Charter schools and the law: Establishing new legal relationships.* Norwood, MA: Christopher Gordon Publishers, Inc.

[71] Finn, C.E. & Manno, B.V. (1998). *The 12 Labors of Charters Schools*. Washington, DC: Thomas B. Fordham Foundation. Retrieved November 14, 2007 from http://www.edexcellence.net/institute/publication/publication.cfm?id=91; see also Hassel, B.C. (1999). *The Charter School Challenge: Avoiding the Pitfalls, Fulfilling the Promise*. Washington, D.C.: Brookings Institution Press.

[72] *Four Pillars of NCLB.* United States Department of Education, Retrieved November 16, 2007 from http://www.ed.gov/nclb/overview/intro/4pillars.html.

[73] Public School Choice: Nonregulatory Guidance (2004). Washington, DC: U.S. Department of Education. Retrieved November 16, 2007 from http://www.ed.gov/policy/elsec/guid/schoolchoiceguid.pdf.

[74] Public School Choice: Nonregulatory Guidance (2004). Washington, DC: U.S. Department of Education. Retrieved November 16, 2007 from http://www.ed.gov/policy/elsec/guid/schoolchoiceguid.pdf.

[75] Sunderman, G.S. (2006). *The Unraveling of No Child Left Behind: How Negotiated Changes Transform the Law*. Cambridge, MA: Civil Rights Project. Retrieved November 7, 2007 from http://dwot.org/nclb_unravel.pdf.

[76] Alvarez, L. (2001, May 4,). On the Way to Passage, Bush's Education Plan Gets a Makeover. *The New York Times*, Section A, Column 1, p.16;

Kornblut, A.E. (2001, January 4). Bush Ties School Aid, Test Scores Vouchers are Downplayed; Kennedy Sees Room for a Deal. *The Boston Globe*, p.A1.

[77] President Bush also championed a more modest federal voucher program as part of the aid package to the Gulf Coast following hurricanes Katrina and Rita. As with the NCLB voucher proposals, Congress refused to enact this part of his proposal.

[78] Orfield, G. & Lee, C. (2007). *Historic Reversals, Accelerating Resegregation, and the Need for New Integration Strategies.* Los Angeles, CA: The Civil Rights Project.

[79] *Parents Involved in Community Schools v. Seattle School District Number 1*, 127 S.Ct. 2738, at 2836 (2007) (Breyer, J., dissenting).

[80] In fact, sixty-four *amicus curiae* (friend of the Court) briefs were filed in conjunction with Parents Involved; 11 briefs supported the petitioners' view that the programs were unconstitutional, while 53 argued that the programs operated consistent with the constitution and should survive scrutiny.

[81] *Parents Involved in Community Schools v. Seattle School District Number 1*, 127 S.Ct. 2738, at 2790 (2007) (Kennedy, J., concurring).

[82] *Parents Involved in Community Schools v. Seattle School District Number 1*, 127 S.Ct. 2738, at 2797 (2007) (Kennedy, J., concurring).

[83] Strategies listed as a-e in the text may be found at: *Parents Involved in Community Schools v. Seattle School District Number 1*, 127 S.Ct. 2738, at 2792 (2007) (Kennedy, J., concurring). Kennedy argues here that employing any one or combination of these strategies would be constitutionally permissible and would not require an application of strict scrutiny to be found so.

[84] It should be noted that Kennedy cautioned that any use of race as part of a review of multiple factors prior to admission would still have to satisfy the dictates of strict scrutiny. That is, such a use of race would have to be necessary and narrowly tailored to a compelling state interest. Moreover, Kennedy's use of the modifying phrase –"if necessary"- also suggests that such a use would only be proper if other non- or less race-conscious means could be proven ineffective. *Parents Involved in Community Schools v. Seattle School District Number 1*, 127 S.Ct. 2738, at 2793 (2007) (Kennedy, J., concurring).

85 Plank, D.N. & Sykes, G. (2003). *Choosing Choice: School Choice in International Perspective*. New York, NY: Teachers College Press

[86] United Nations Universal Declaration on Human Rights, Article 26. Retrieved January 11, 2008, from http://www.hrweb.org/legal/udhr.html.

[87] See eg.: Chubb, J.E. & Moe, T.M. (1990). *Politics, Markets & America's Schools*. Washington, DC: The Brookings Institution

Ascher C., Fruchter, N., Berne, R. (1996). *Hard Lessons: Public Schools and Privatization*. New York: The Twentieth Century Fund Press

Hill P.T., Pierce, L.C. & Guthrie, J.W. (1997). *Reinventing Public Education: How Contracting Can Transform America's Schools*. Chicago, IL: The University of Chicago Press

Engel, M. (2000). *The Struggle for Control of Public Education: Market Ideology vs. Democratic Values.* Philadelphia, PA: Temple University Press

Good, T. L. and Braden, J.S. (Eds.), (2000). *The Great School Debate: Choice, Vouchers, and Charters*. Mahwah, NJ: Lawrence Earlbaum Associates.

[88] Tyack, D. & Cuban, L. (1995). *Tinkering toward Utopia: A Century of Public School Reform*. Cambridge, MA: Harvard University Press, p. 142.

[89] Goodlad J.I. & McMannon, T.J. (Eds.), (1997). *The Public Purpose of Education and Schooling*. San Francisco, CA: Jossey-Bass.

Cuban, L. & Shipps, D. (Eds.), (2000). *Reconstructing the Common Good in Education: Coping with Intractable American Dilemmas*. Stanford, CA: Stanford University Press.

The Impact of Advocacy Funding on the School Choice Debate

Wendy C. Chi, J.D.; Ph.D. candidate

University of Colorado at Boulder

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Wendy C. Chi, University of Colorado at Boulder

Executive Summary

A contentious movement for school choice has advanced to the forefront of education debates in the past few decades. Broadly speaking, the movement promises to expand education alternatives in both private and public schools to allow parents to choose the type of schooling they believe appropriate for their children. Prominent forms of school choice include vouchers, charter schools, home schooling, interdistrict choice, and intradistrict choice. Each type of school choice has its own set of advocates and opponents, but also shares some of the same key players.

This policy brief examines some of the major funding sources of this movement and their potential impact on policy. While some data—such as contributions from individuals and local unions—are not included because of the lack of access to information, this snapshot of major grants and contributors is revealing. Funding sources for both advocates and opposing forces are examined. Data were drawn from several sources, including individual websites of foundations and other organizations; informational databases of foundations and of grant recipients; and foundations' tax filings, which list their dispersals. This policy brief also explores strategies funders use to reach the media, policy makers, and the public in their efforts to promote or impede the school choice movement.

Key findings include the following:

- *A small number of funders provides the majority of the funding for the school choice debate.* In the past two decades, more than half of the total amount granted to think tanks promoting school choice came from only three foundations. In 2005, among funds provided for activities relative to K-12 education, 84% of the amount funded for school choice came from only two foundations.
- *There are more school choice supporters than opponents making generous donations.* At least six foundations have made notable contributions supporting school choice. In comparison, only two key funders have supported oppositional efforts.
- *The funding of school choice supporters is higher than the funding of those against school choice.* In 2005, for example, the top two funders supporting school choice efforts provided $87,782,260 more than the top two funders opposing school choice, or 21 times as much.

Therefore, it is recommended that:

- Policy makers, media, and the public become aware of relationships between donors and recipients—of who receives money from whom, and for what purposes.
- Policy analysts and other stakeholders be proactive in educating their general audiences about research quality issues, including potential sources of bias and the importance of peer review—or its absence.

The Impact of Advocacy Funding on the School Choice Debate

Wendy C. Chi, University of Colorado at Boulder

Introduction

School choice has sparked a contentious movement that has advanced to the forefront of education debates in the past few decades. Broadly speaking, the movement promises to expand education alternatives in both private and public schools to allow parents to choose the type of schooling they believe most appropriate for their children. Prominent forms of school choice include vouchers, charter schools, home schooling, interdistrict choice, and intradistrict choice.

Many constituencies have voiced their views, sometimes in support, sometimes in opposition, and sometimes in an effort to shape specific policy. Yet, behind the large numbers of voices are a few key players whose influence may be more substantive than many suspect. Simply put, those devoting a large amount of money to the issue are the ones who may ultimately wield the most power over policy. Most notable among these are philanthropists who have strategized to promote school choice by funding free-market think tanks that frequently issue supportive reports.

In this brief, the funding sources of school choice advocates and opponents and their potential impact on policy are examined. In addition, the strategies funders use to promote or oppose the school choice movement are explored.

Data Sources and Methodology

Funding data were compiled from a combination of sources: foundation and organizational websites, foundations' grant recipient databases, and tax filings listing foundation contributions.[1, 2, 3] Methodology was drawn from the work of Hassel and Way.[4] Data from the Foundation Center[5] for 2005, the most recent year for which information was available, were analyzed to determine top funders targeting the issue of school choice, and supplemented with results retrieved from Guidestar's database.[6, 7] Both grants that supported efforts to influence policy and grants made to directly support school choice practitioners are included. As a base for calculating the contributions of each of the top foundations in support of pro- or anti-choice efforts, 990-PF forms (which record individual donations as line items) filed with the Internal Revenue Service (IRS) in 2005 were used.[8] Similarly, as a base

for calculating contributions from national teachers' unions, LM–2 reports[9] recording unions' income and expenses were used.[10]

Analysis of the data involved several challenges. First, it was difficult to determine what to include as school choice funding. When filing tax forms, organizations must list their grant recipients and funding amounts, but they do not need to provide any additional information, such as specifics on how the funding will be used. Due to the large number of grants made (especially by top funders such as the Walton Family Foundation [Walton] and the Bill and Melinda Gates Foundation [Gates]), it was not always possible to determine whether a given grant's purpose was intended to support or oppose school choice. Therefore, criteria for which monies to include in these calculations were developed. Figures reported here include only recipients who: (1) have an identifiable choice-related word in their name, (2) have such a word in the description of their grant (when descriptions were available), or (3) are recognized as an advocate for or opponent of school choice (unions or specific think tanks, for example). Groups that actually are involved in the choice debate may have been excluded if their names give no indication of their commitment. Moreover, the full amount of a grant was included in cases where it was not possible to determine whether all or only part of the grant was actually used for choice activities. As a result of inexactness in available records, then, it is likely that results reported here are similarly inexact, although they are representative.

Another analytical challenge was that some contributions were made to advocacy groups while others were made directly to school choice practitioners—substantively different strategies. The latter group consists primarily of grants to help start charter schools or to fund private voucher programs. To acknowledge the difference, results for each group are separately calculated and reported. While this brief is most concerned with funding that advances competing policy agendas, direct support for practitioners is included because successful choice schools are powerful arguments for further choice development. From a political analysis standpoint, however, these donations are qualitatively different from those donations intended to directly influence the media or policy makers, and so they are separately categorized.

Other choices affecting the results involved the elimination of some other possible funding. Specifically, foundations with revenues below $25,000 were excluded from the analysis because they do not have to file 990-PF forms. In addition, grants awarded to private schools, which sometimes but not always indicate support for school choice, were disregarded. Further, since tax-exempt foundations are allowed only limited involvement in political activities, some philanthropists no doubt donated their own money to political campaigns in support of certain stances on the choice issue. However, such contributions are beyond the scope and intent of this analysis, so personal donations from philanthropists were excluded.

Predominant Views on School Choice

Who Supports Choice?

Although the school choice controversy cannot be easily split along partisan lines,[11] it still can be loosely characterized by two core orientations.[12] In rough outline, school choice is supported by those who advocate market-oriented reforms for public education. These advocates generally believe that the public school system is too rigid, unaccountable, and bureaucratic, and that it has been generally unsuccessful.[13] Nobel Laureate economist Milton Friedman, who was a strong believer in the power of the marketplace, was the original architect of the market approach to education.[14] Those with a core free-market philosophy tend to be the strongest supporters of school choice, arguing that a competitive system will lead to the improvement (or dissolution) of public school systems.[15] Many do not want to invest more money in existing public schools, but are interested instead in new structural reforms such as charter schools as a way to improve the national education system.[16]

Below this surface distinction, however, differences among advocates, and funders, emerge. Individual choice options each have their own advocates, who may be drawn from a variety of groups. For example, the Milwaukee voucher plan was supported by some liberal black Democrats as well as conservative white Republicans.[17] And, as Sugarman and Kemerer note, "Although vouchers are often characterized as a conservative or libertarian and Republican idea, certain regulated school voucher plans have won the support of some Democrats who think of themselves as progressives."[18] Despite such variation, and in part because then-president Ronald Reagan supported the voucher idea in its infancy, the voucher concept has gained a Republican label.[19] Furthermore, many continue to associate it with the Republican party because of support from several 2008 Republican presidential candidates, including Rudy Giuliani, John McCain, Mitt Romney, and Fred Thompson.[20] However strong the Republican label, the reality is that voucher supporters come from widely varied political quarters because many believe vouchers are a reform that will help low-income students escape failing schools.[21]

Charter schools receive support from other types of advocates, including those who support *public* school choice, but not privatization.[22] For some, charter schools as public schools are a less extreme reform than vouchers.[23] For example, the Gates Foundation, one of the top funders of school choice initiatives, supports charters but not vouchers.[24] Similarly, policy makers such as former President Bill Clinton and former Education Secretary Richard Riley support charters even though they have opposed vouchers.[25]

A number of supporters of home schooling believe that public schools are socialist and undermine American individualism.[26] Key advocates, such as the Home School Legal Defense Association

(HSLDA), are also often closely allied with conservative and fundamentalist Christian organizations and individuals. In fact, the Home School Foundation, which HSLDA founded to assist home-schooling families and promote home schooling, sponsors several funds, many indicating an overt Christian affiliation.[27] However, home schoolers also now include families pursuing progressive education.[28] Parents tend to be the strongest advocates of home schooling, perhaps because they must accept an extremely active role in their children's education. In general, home schooling is most supported by parents who want to control their children's curriculum and avoid the bureaucratic public school system.[29]

Cyber schools, providing instruction online, share some commonalities with both charter schools and home schooling. Some parents home school their children via Internet courses, so home-schooling parents may also be cyber school supporters. Cyber schools may be sponsored by public districts, or by for-profit companies. For example, K^{12} Inc., an organization founded by former Secretary of Education William Bennett, has created and marketed an online curriculum to home schoolers.[30]

It is more difficult to characterize supporters of interdistrict and intradistrict choice options, largely because they have received little attention from either advocates or opponents of school choice. In competitive choice environments (and like some charter schools), districts sometimes create a school or schools around curricular or pedagogical themes (Montessori or Core Knowledge, for example). Some of these public school choice programs were originally designed to combat segregation by appealing to a wide variety of families. However, voluntary racial constraints were struck down recently by the U.S. Supreme Court and the impact of that decision remains to be seen.[31] Generally, however, it seems likely that those who support public school choice like new charter schools may be as comfortable, or perhaps even more comfortable, supporting interdistrict and intradistrict choice.[32]

Who Opposes Choice?

Organized supporters of the public school system (for example, teachers' unions, Parent Teacher Associations, school boards, the Council of Great City Schools, and the Council of Chief State School Officers), advocacy groups (such as Americans United for the Separation of Church and State, People For the American Way [PFAW], and the National Association for the Advancement of Colored People [NAACP]), school administration organizations, progressive foundations, and some academics often oppose school vouchers but take more nuanced positions on other forms of school choice. Their opposition is strongest when a given policy is perceived as threatening the health or survival of the public schools.[33] Choice opponents generally contend that free-market mechanisms have unintended consequences when applied to American

education. In particular, many argue that school choice can exacerbate the inequalities in education, through the "skimming" of higher-scoring students and increased segregation. They also suggest that new inequities will result from the fact that parents have disparate abilities to make informed decisions.[34] For example, a non-English-speaking parent unfamiliar with American schools would be less well-equipped to make an informed decision than a parent fluent in English and experienced with schools.

Many oppose private school vouchers because they endorse the tradition and concept of the public school as open to all, funded by public dollars and democratically governed. Like Horace Mann, called by some the "father of education," they believe public schools are necessary to promote a common curriculum and a common philosophy—and to nurture an "American" identity.[35] Teachers' unions and others have argued vigorously against voucher initiatives based in part on an expressed concern that they would funnel resources away from the public schools.[36] Still other voucher opponents worry about lack of accountability for public dollars channeled into private schools. Others, including Protestant and Jewish organizations, oppose support for private religious-affiliated schools based on church-state separation principles of the U.S. Constitution.

Teachers' unions also have raised concerns about charter schools, especially when the playing field has not been perceived as level in terms of standards of performance. Moreover, since charter school teachers in some states do not have to join collective bargaining units,[37] these unions lose dues and political influence.[38]

As is true for other types of school choice, public school advocates are generally against home schooling. The National Education Association (NEA), for example, has expressed serious concerns about home schooling, asserting that unlike public schools, "home-schooling programs cannot provide the student with a comprehensive education experience."[39] As with vouchers, home schooling defies the tradition of the public school system and tosses out some of the original reasons for schooling, such as fostering a common system of morals, culture, and community.[40] Some also feel that home schooling, like other forms of school choice, adds to the problem of education inequality, since families who choose to home school are usually of middle to upper income with two parents, so that one parent can stay at home to school their children; the worry is again that they will drain off resources needed by public schools to educate less-privileged students.[41] Many groups pose similar objections to cyber schools. Concerns have also arisen about quality in cyber schools, as well as instances of fraud. In fact, some state teachers' unions have filed lawsuits against charter cyber schools, arguing that some are not using certified teachers as required by law.[42]

Many opponents of choice reject even interdistrict and intradistrict choice plans, including magnet schools. Although many such plans grew

out of a desire to further integration, they have not always been successful. For example, some African-Americans intended to benefit from choice have felt unwelcome at predominantly white schools, with the result that segregation remained or intensified.[43] Furthermore, like other choice options, open enrollment plans, by "skimming" high-achieving students, can increase education inequalities and possible stratification by race and socioeconomic status. Unequal resources in different schools and districts also compound the equity issue.[44]

Advocacy Favoring School Choice

Major philanthropic funders, identified below, offer substantive financial support to school choice advocacy, much of it to support vouchers and charter schools.[45] Other supporters contribute in ways other than funding. Think tanks and advocacy organizations sponsor and promote research reports that support their position, and they work to influence politicians and policy.

Key Players

Philanthropists. According to Hess, a handful of funders provided more than half the total philanthropy relative to K-12 education in 2002, resulting in a small number of funders wielding a large amount of influence.[46] Similarly, a small core group supported school choice, spending millions of dollars doing so.[47] Many assert that it is difficult to make dramatic changes in education, but school choice as a reform strategy has exploded, due in part to the financial support it has received from key foundations. From 1993-2003, the number of children who chose to attend schools other than their assigned schools increased from 8.6 million to 12.5 million.[48] In this same time period, the majority of states (38 out of the 40 states that currently allow charter schools) adopted charter school laws, and the number of home schoolers tripled (from 345,000 to 1,100,000 students).[49] In 2006, seven states[50] created or expanded private school choice options.[51] It is safe to assume that the school choice movement would not have grown so quickly without these funders' donations to free-market think tanks and associations supporting school choice. Many organizations depend on these large contributions for survival. For example, in 2003, the National Charter Schools Alliance struggled financially because it failed to receive funding expected from the Walton and Gates foundations.[52]

According to Media Transparency,[53] the top funders of think tanks that promote the free-market ideals of school choice are The Lynde and Harry Bradley Foundation (Bradley); the Sarah Scaife Foundation (Scaife); and the John M. Olin Foundation[54] (Olin). A 2007 study by Rabin and Chi of 15 prolific think tanks that have a free-market focus[55] found that more than half (59%) of the total amount granted to these

school choice advocates from 1985-2005 came from Bradley, Scaife, and Olin.[56]

Table 1 presents the funding activity of the three foundations that provided the most funding to prominent think tanks during 1985-2005, reported in three categories. The first, titled "Amount Granted Explicitly for Choice," includes projects specifically labeled as related to school choice, such as Bradley's donation to the Hudson Institute for $34,000 to "support a study of school choice."[57] The second, titled "Amount Granted with Discretion to Support Choice," includes discretionary funds that went to organizations known to advocate school choice—described in the data, for example, as "no purpose given," "project support," "program support," "operating support," and so on. The third indicates the total amount Bradley, Scaife, and Olin contributed to choice advocacy think tanks overall. A similar table (Table 6) for 2005, the central concern of this brief, appears in a later discussion. This background data is, however, instructive.

Table 1: Top Three Funders and Amount Granted to 15 Free-Market Think Tanks from 1985-2005[58]

Foundation	Amount Granted Explicitly for Choice	Amount Granted with Discretion to Support Choice	Total Amount Granted
Bradley	$1,350,250 (3% of total granted)	$22,336,960 (58% of total granted)	$38,808,432
Scaife	$0 (0% of total granted)	$35,692,000 (93% of total granted)	$38,252,000
Olin	$85,000 (0.3% of total granted)	$9,125,100 (37% of total granted)	$24,507,335
Total	$1,435,250 (1% of total granted)	$67,154,060 (66% of total granted)	$101,567,767

Source: Media Transparency

Significant financial support for school choice, although mainly for advocacy organizations other than think tanks, also comes from the DeVos family. Richard DeVos founded All Children Matter, an organization that funds political candidates who support school choice.[59] His son, Dick DeVos, created a foundation with his wife (the Dick and Betsy DeVos Foundation) that supports school vouchers.[60] According to PFAW, which opposes vouchers and is critical of the foundation, the Dick and Betsy DeVos Foundation has financially supported a national network of advocacy organizations.[61]

Table 2: Amount Granted to Free-Market Think Tanks in 2005

Think Tank	Amount Granted with Discretion to Support Choice	Total Amount Granted
American Legislative Exchange Council	$5,000 (13% of total granted)	$40,000
Buckeye Institute	$115,000 (100% of total granted)	$115,000
Cato Institute	$710,750 (86% of total granted)	$830,750
Center for Education Reform	$1,233,914 (100% of total granted)	$1,233,914
Center of the American Experiment	$40,000 (80% of total granted)	$50,000
Heartland Institute	$138,500 (80% of total granted)	$173,500
Heritage Foundation	$3,812,000 (93% of total granted)	$4,107,000
Hoover Institution	$1,845,627 (85% of total granted)	$2,170,015
Hudson Institute	$175,000 (13% of total granted)	$1,399,275
Mackinac Center	$511,100 (67% of total granted)	$761,100
Manhattan Institute	$1,482,500 (75% of total granted)	$1,974,967
M&R Friedman	$208,000 (100% of total granted)	$208,000
Reason Foundation	$230,000 (99% of total granted)	$232,500
Thomas B. Fordham Institute	$30,000 (100% of total granted)	$30,000
Wisconsin Policy Research Institute	$460,000 (100% of total granted)	$460,000
Total	$10,997,391 (80% of total granted)	$13,786,021

Source: Media Transparency

Free-Market Think Tanks and Their Funders. The think tank sector operates largely as a policy research industry separate and apart from academia. The first wave of think tank development (1900-1945) originated from the desire for organizations where researchers could work without what many see as the distraction of teaching, a routine part of a researcher's responsibilities in academic settings.[62] These think tanks provided a stronger connection between university-trained experts and policy makers, as some academics began to leave universities to join policy-oriented think tanks.[63] More recently, think tanks have grown in number and influence. In fact, over the past several decades, the number of think tanks has more than quadrupled. Likewise, the news media have

increasingly used the works of think tanks in their news presentations. From 1995-2001, the number of times the news media cited think tanks almost doubled (from over 15,000 to approximately 26,000 citations).[64] Many of these think tanks, about two-thirds, are considered aligned with conservative ideology. The growth of conservative think tanks during this time period was fueled by the financial support of the Bradley, Smith Richardson, and Scaife foundations.[65] The 15 free-market think tanks listed above, in Table 2, all indicate a clear advocacy for school choice, based on their mission statements.[66] For example, the mission statement of the Milton and Rose D. Friedman Foundation (M&R Friedman) states that the foundation focuses on "[p]romoting school choice to improve, through competition, the quality of K-12 education for all."[67] Table 2, above, indicates how much funding each of these think tanks received from the funders analyzed by Media Transparency in 2005. On average, 80% of the funding provided to them was discretionary, and therefore available for school choice activities.

School Choice Organizations/Practitioners and Their Funders. Table 3, following, provides a categorical chart of school choice funding for the 20 largest education donors in 2005. The first category, titled "Choice Advocacy Funding," includes funding for advocacy organizations and activities. The second, titled "School Choice Funding," includes grants made directly to choice practitioners (charter schools, for example). Because, as also noted above, successful choice implementation is a powerful argument in favor of more choice, an inclusive picture of advocacy funding must include both types of grants. The third category, "Overall K-12 Education Funding," indicates how much total funding each donor provided to education-related projects.

Again, data was retrieved from IRS 990-PF forms, which do not provide information about the foundations' political activities—unlike LM-2 reports which provided data for teachers' unions (discussed below). Since philanthropists' contributions to political candidates and organizations were not identified, the substantial figures below are almost surely an underestimate of their total funding to support school choice.

As the table illustrates, the Walton foundation ranks first among the top supporters of school choice in the United States, and the Gates foundation ranks second. Their combined support for advocacy activities and for practitioners accounts for over 80% of the total reported here. Among the top 20 foundations, Walton and Gates provide 84% of school choice grants and 94% of school choice advocacy grants. Unlike the foundations that fund think tanks, however, the Gates foundation and, to a lesser extent, the Walton foundation focus on grants to organizations that create and support diverse types of choice activities—that provide scholarships to families, for example, or that operate charter schools.[68]

Table 3: School Choice Funding in 2005[69] by the Top 20 Largest Education Donors[70]

Foundation	Choice Advocacy Funding[71]	School Choice Funding	Overall K-12 Education Funding	Total Amount Funded
Gates Foundation (Calendar Year [CY] 2005)	$1,537,850 (10% of top 20 total)	$28,944,426 (31% of top 20 total)	$241,531,703	$1,355,371,860
Walton Foundation (CY 2005)	$12,477,125 (84% of top 20 total)	$49,348,250 (53% of top 20 total)	$63,401,189	$157,989,927
Lilly Endowment (CY 2005)	$0	$0	$44,545,703	$427,465,199
Wallace Foundation (CY 2005)	$0	$0	$42,989,000	$55,820,174
Annenberg Foundation (7/1/04—6/30/05)	$0	$0	$38,927,911	$251,663,628
Broad Foundation (CY 2005)	$15,000	$8,622,370	$26,874,087	$40,992,554
Ford Foundation (10/1/04—9/30/05)	$0	$0	$19,029,670	$511,847,276
Oberkotter Foundation (12/1/04—11/30/05)	$0	$0	$17,565,120	$24,689,137
William and Flora Hewlett Foundation (CY 2005)	$0	$23,000	$14,565,333	$320,091,473
H. N. and Frances C. Berger Foundation (10/1/04—9/30/05)	$0	$2,500	$14,410,000	$79,077,453
Daniels Fund (CY 2005)	$825,000	$1,682,253	$13,340,088	$35,982,658
J. A. and Kathryn Albertson Foundation (CY 2005)	$0	$2,040,000	$12,361,312	$23,820,448
Starr Foundation (CY 2005)	$0	$175,000	$12,300,000	$159,130,952
Carnegie Corporation of New York (10/1/04—9/30/05)	$0	$0	$10,330,700	$91,053,489

Foundation	Choice Advocacy Funding	School Choice Funding	Overall K-12 Education Funding	Total Amount Funded
Community Foundation Silicon Valley (7/1/04—6/30/05)	$0	$1,110,000	$10,212,862	$54,402,324
Ahmanson Foundation (11/1/04—10/31/05)	$0	$895,000	$9,716,550	$41,218,405
Freeman Foundation (CY 2005)	$0	$0	$8,886,759	$42,067,148
William Penn (CY 2005)	$0	$49,500	$8,877,037	$64,641,331
Brown Foundation (7/1/04—6/30/05)	$0	$10,000	$8,801,838	$52,849,201
New York Community Trust (CY 2005)	$0	$206,500	$8,765,935	$142,064,232
Total	$14,854,975	$93,108,799	$627,432,797	$3,932,238,869

The Walton foundation is also a significant contributor to free-market think tanks[72]; the Gates foundation is not. In 2005, the Gates foundation funded only one think tank advocating school choice, the Thomas B. Fordham Institute (Fordham). Only three other organizations shared in the $1,537,850 that Gates provided for choice advocacy: (1) the New Schools Venture Fund (NSVF) (to help create the Education Sector think tank); (2) California Charter Schools Association (to support a campaign advocating the charter school movement); and (3) Charter School Leadership Council (for general operating support).

Walton and Gates also differ in the specific choice options they fund. Gates supports charters, but not vouchers. In 2002, 94% of Gates' school choice funding supported public choice (charter schools, for example). The remaining 6% was allocated to private schools, but as direct grants to schools rather than through voucher plans. Walton, on the other hand, funds charter schools and vouchers in relatively equal portions.[73]

Other important supporters of school choice include the Broad Foundation, the Pisces Foundation, NSVF, and the U.S. Department of Education (DOE). For the most part, these organizations tend to support charter school initiatives rather than advocacy organizations like think tanks.

Part of the Broad Foundation's mission is to improve urban public education through competition.[74] Accordingly, it concentrates its focus on nonprofit charter management organizations to increase the number of

charter schools.[75] The foundation's support for charter schools and pro-charter organizations follows from this mission, amounting to more than $8 million in 2005.[76]

In 2005, the Pisces Foundation (funded by Don and Doris Fisher) spent about $6 million to support school choice. It focuses its funding on promoting high-quality charter schools.[77] Like the Broad Foundation, the Pisces Foundation funds schools run by the Knowledge Is Power Program (KIPP), which is an organization that creates and supports a network of predominantly charter schools (55 out of the 57 existing KIPP schools are charter schools).[78] It also joins the Walton and Bradley foundations in supporting the Charter School Growth Fund, which awards grant and loan packages to charter operators.[79]

NSVF funds entrepreneurial efforts (both for-profit and nonprofit) in education, such as charter school incubators or charter management organizations.[80, 81] This fund has financially supported about 20 charter management organizations, including some that are also supported by the Broad Foundation.[82] In 2005, it spent approximately $10 million on these efforts.

Finally, the DOE is a large contributor to school choice efforts, with a focus on charter schools. Overall, it spent $101,705,115 on school choice activities in 2005.[83] Most of this amount ($76,411,071, or 75% of the total) was allocated toward charter school offices within state education departments. Another portion ($12,275,291, or 12% of the total) was allocated to individual charter schools or districts with charter options. DOE provided a similar amount ($13,018,753, or 13% of the total) to choice organizations, including the Brighter Choice Charter Schools, California Charter Schools Association, National Association of Charter School Authorizers, and Public Charter Schools Center for Student Support Services.

Strategies of School Choice Supporters

Philanthropists have employed many different strategies in their fight for school choice. As mentioned above, they heavily fund think tanks that can reach the media, policy makers, and the public.[84] Think tanks are able to navigate the political system—through increased political connections to powerful politicians and policy makers, large budgets, and high-powered leaders who are known experts in the field.[85] They generally know how to take full advantage of their publications with aggressive marketing and skillful publicity,[86] as well as timing calculated for dissemination into the policy process,[87] easily understandable information,[88] and strategic framing of their information to promote agendas.[89]

Foundations supporting school choice also spend money on advertising (including television and newspaper advertisements as well as mailings), promotional book tours, and informational pamphlets for

politicians.[90] One example of clever marketing is illustrated by charter school supporters who took out a full page advertisement in *The New York Times* titled "Charter School Evaluation Reported by *The New York Times* Fails to Meet Professional Standards," attacking a report by the American Federation of Teachers (AFT) that found charter school students lagging behind students in regular public schools.[91] Through this advertisement, these supporters were able to use the media to voice their criticisms of AFT's research methods—even though, as others reported, the methods were the same as those commonly used by the advertisement's sponsors.[92]

In addition to such publicity, foundations also support activities like conferences and research on the effectiveness of choice programs, and they create organizations for such purposes as unifying charter schools, providing information to parents, encouraging parent networking and collaboration, and providing scholarships to private schools.[93]

Possibilities are limited only by the imagination of funders and grantees. The Bradley foundation, for instance, has used some particularly aggressive strategies. It funded the Landmark Legal Foundation, a school choice advocacy group, to support Milwaukee's passage of voucher legislation in 1991. Along with Olin, it also funded John Chubb and Terry Moe's book, *Politics, Markets, and America's Schools*, which has been highly influential in the choice debate.[94]

Among the most important strategies are those designed to pressure policy makers into enacting and strengthening such school choice reforms as charter schools and publicly funded voucher programs.[95] Foundations hire lobbyists to promote their causes,[96] and similarly they fund lawyers to argue for school choice.[97] In addition, major philanthropists can fund political organizations with personal funds rather than through their organizations. For example, in 2004, John Walton, Bill Gates, and Don Fisher each contributed $300,000 of their own money to support charter schools in Washington State's referendum.[98]

School Choice Opposition

Key Players

Unlike school choice advocates, opponents of choice do not enjoy substantive philanthropic support. While conservative foundations have been increasing their funding for free-market think tanks, there is no comparable success story for school choice opponents.[99] Liberal foundations, most likely to be choice opponents, are not as likely to use think tanks to further their agenda.[100] For instance, foundations like Ford with a generally progressive or liberal orientation have shied away from funding projects and think tanks they consider too political, in an attempt to remain neutral and unbiased.[101] Conversely, free-market think tanks aggressively solicit donations from key philanthropists, who generally consider them a top funding priority.[102] Nevertheless, like the school

choice advocates, there are a few key players opposing school choice who can and do exert their power in meaningful ways.

Teachers' Unions. Teachers' unions are arguably the most visible force opposing vouchers and charters. The local, state, and national teachers' unions can greatly influence political processes and decisions, as they have a strong, educated, and engaged membership and ample resources.[103] There are two main national unions: NEA and AFT. Teachers' unions have become very skeptical of the charter school movement, even though Al Shanker, the former AFT president, was one of those who initially popularized the concept. Support for charters may have waned in part because Shanker's vision of charter schools focused on teacher empowerment and innovation, which is no longer the current focus.[104]

As is true of figures for choice advocates, the totals reported here are also surely underestimates. Notably missing here (like personal contributions above) are the contributions of state and local unions to actively oppose laws authorizing the establishment of more charter schools, lobby against choice in general, and oppose charter school expansion and vouchers.[105, 106] Still, the larger picture presented here is informative.

Financial reports of the NEA reveal that it funds organizations opposing aspects of the choice movement, such as PFAW (described below) and Protect Our Public Schools.[107] Table 4, following, details funding activities relevant to choice for NEA and AFT in 2005. Based on information retrieved from IRS 990-PF forms and LM-2 reports, categories include political activities as well as grants, both to defeat choice reforms and to support public schools.

Political activities include the support of campaigns, ballot initiatives, policy development, advertising, voter registration, lobbying, political endorsements, and political strategy consulting (although the LM-2 reports did not provide detail on the political efforts listed). Sometimes—as in a contribution clearly designated to help defeat charter schools in Washington State[108]—the specific use of a grant could be identified, but most listings could not be so well labeled.

Funding disclosure documents indicate that national teachers' unions have contributed relatively little toward advocating against choice or supporting public schools. However, it is not clear whether this is actually the case or if, perhaps, funding disclosures are inadequate. Anecdotally, it is known that teachers' unions have been very effective at funding and organizing to oppose statewide voucher initiatives.[109] This targeted funding has helped teachers' unions in their advocacy efforts against vouchers and, to a lesser extent, charter school expansion. Also, endorsements from teachers' unions are very important to many political candidates, especially for Democratic candidates for state legislatures in many, if not most, states.[110]

Table 4: Union Spending in 2005: Political Activities and Grants

	Political Activities Advocating Against Choice[111]	Political Activities Supporting Public Schools	Total Political Activities	Grants Advocating Against Choice	Grants Supporting Public Schools	Total Grants
NEA	$500,000	$600,000	$24,985,250	$45,000	$2,145,302	$65,489,536
AFT	$155,000	$0	$15,776,764	$550,000	$516,089	$1,728,813
Total	$655,000	$600,000	$40,762,014	$495,000	$2,661,391	$67,218,349

Anti-Choice Organizations. As mentioned above, NEA has supported PFAW, an organization that is opposed to school vouchers and fights against pro-voucher legislation and initiatives. It provides legal support to voucher opponents and educates the public about the problems with vouchers.[112]

NEA and AFT have also funded the Economic Policy Institute (EPI), a think tank that "conducts original research on economic issues, makes policy recommendations based on its findings, and disseminates its work to the appropriate audiences."[113] EPI has reexamined existing research on charter schools that argue a charter school advantage in terms of achievement. For example, it was EPI personnel who reported that conservative criticism of an AFT report (cited above) was invalid because the research methods criticized were the same as those used by researchers in conservative organizations.[114]

Public School Supporters. Just as school choice funding can be disaggregated into advocacy and direct support for choice initiatives, school choice opposition can also characterized in two ways: efforts to limit or end school choice policies and efforts to directly support public schools. Table 5, following, describes some of the prominent organizations supporting public schools.

Strategies of School Choice Opponents

Those opposed to school choice have strategies similar to those who advocate for school choice. They lobby against voucher legislation and sometimes against charter legislation, advocating more restrictive charter laws.[115] At times, they work toward creating practical obstacles to specific choice efforts, using such strategies as: forcing compliance with municipal zoning laws (for example, by arguing that a designated location is inappropriate for a school); creating transportation obstacles (for example, by providing a meager transportation voucher instead of providing service); and, spreading rumors about charter schools (for example, by advertising via flyers that a charter school is floundering).[116]

Table 5: Public School Supporters

Organization	Description	Public School Funding in 2005[117]
Boston Plan for Excellence	Supports Boston's public schools by testing new ideas that may accelerate education improvements and by encouraging the district to assess its policies and practices.	$4,193,913 (7/1/04—6/30/05)
Fund for Public Schools	Works to improve New York City's public schools through investments in school reform and greater involvement in the education of children.	$8,225,879 (7/1/04—6/30/05)
Learning First Alliance	Strives to improve student learning in public schools based on quality research.	$0 (7/1/04—6/30/05)
NEA Foundation for the Improvement of Education	Invests in public education to advance student achievement and prepare children for the changing world.	$1,437,000 (9/1/04—8/31/05)
New Visions for Public Schools	Develops innovative programs that help public school students achieve their fullest potential.	$18,716,946 (7/1/04—6/30/05)
Parents for Public Schools	Works to ensure that all public schools serve and attract all children.	$0 (5/1/04—4/30/05)
Total		$32,573,738

School choice opponents also support choice studies and lawsuits,[118] as well as research. Research support has included the already cited and prominent AFT study, whose finding that charter school students are not achieving to the same degree as those in regular public school was later duplicated in government-funded studies[119]; and NEA and AFT support for EPI, which reviews school choice research.[120] This brief, too, was funded by NEA, in another of its grants for choice research studies.[121]

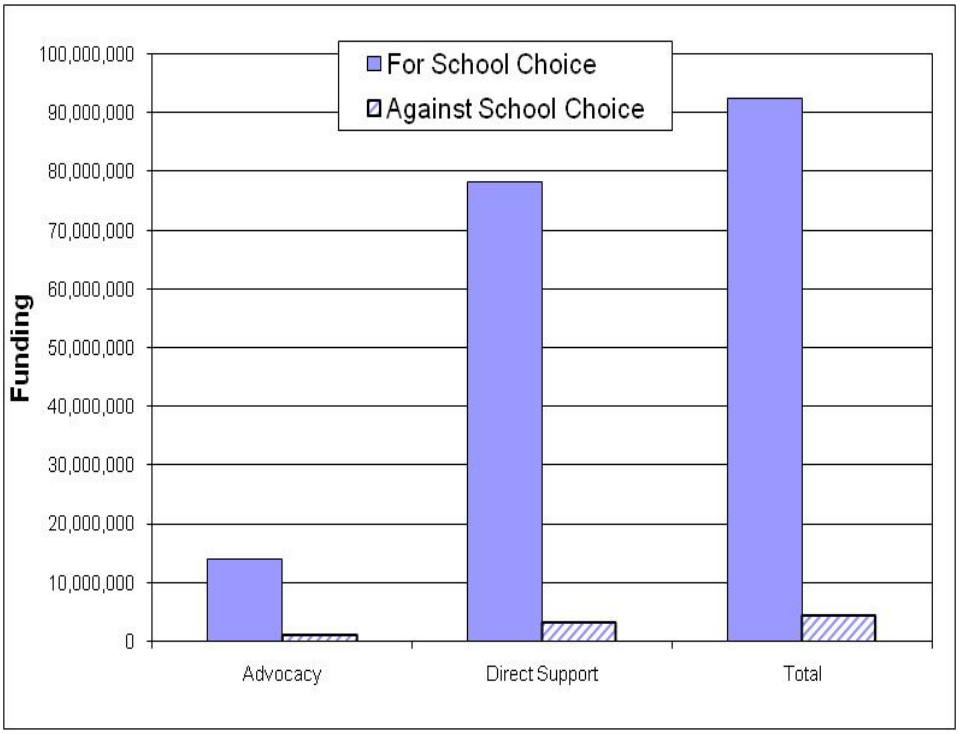
Philanthropy provided to those opposing school choice is not comparable to funding from school choice supporters. Furthermore, compared to the advocates of school choice, philanthropists and think tanks that oppose school choice are generally not as vocal. Dolny's study of media citations of think tanks found that out of the ten institutions with the most media citations in 2000, EPI was the only one skeptical of school choice.[122] The financial and political influence of those against school choice does not surface to the same degree or in the same ways.[123]

Comparisons

The most striking finding of this report is the tremendous imbalance between funding for choice advocacy and its opposition. School choice opponents are not funding to the same degree as advocates. Even

when funding in support of political activities and of public schools is included, the total amount granted by the top two funders (NEA and AFT) to oppose school choice was $3,261,391 in 2005. In stark contrast, the top two supportive funders (Walton and Gates) contributed $78,292,676. Even when grants given directly to practitioners are excluded from this total, advocacy grants are still significantly higher than opposition grants: Walton and Gates' $14,014,975 as compared to NEA and AFT's $1,150,000 in 2005. Figure 1 illustrates these funding differences between top funders.

Figure 1: Comparison of 2005 Funding of School Choice Supporters and Opponents



Even this picture, however, does not capture the extent of the discrepancy, since it does not include DOE funding ($101,705,115) supporting charters, nor Bradley, Scaife, and Olin's support ($101,567,767) for think tank projects. Another $3,565,000 is added to the total if discretionary choice grants provided to think tanks are included (see Table 6). Since these free-market think tanks do focus on promoting school choice causes, it can be speculated that some, if not most, of this discretionary funding has been used to support the school choice reform.

Given the discrepancy in funding, it is not surprising that conservative, free-market think tanks are generally larger, better funded, and more organized than their liberal counterparts.[124] Moreover, as illustrated in Table 2 and Table 6, conservative think tanks often have far more discretion in spending their grants, allowing them not only to

develop better infrastructure but also to engage in more diverse activities in support of their political goals.[125] For example, they frequently provide commentary on television, and the media often use their reports.[126]

Table 6: Top Three Funders and Amount Granted to 15 Free-Market Think Tanks in 2005

Foundation	Amount Granted with Discretion to Support Choice	Total Amount Granted
Bradley	$1,740,000 (68% of total granted)	$2,540,275
Scaife	$1,250,000 (100% of total granted)	$1,250,000
Olin	$575,000 (100% of total granted)	$575,000
Total	$3,565,000 (82% of total granted)	$4,365,275

Source: Media Transparency

It is only fair to note that those advocating school choice arguably need more financial support because it is more difficult, and thus expensive, to promote change in an existing system than it is to defend the status quo: many people resist the unknown in any area. Therefore, it can be argued that school choice opponents can often foil choice advocacy plans with minimal effort and resources.[127] Whether that is true in a case of such dramatically unequal resources, however, remains to be seen.

Summary of Findings and Recommendations

Key findings of this study include the following:

- *A small group of philanthropists provides the majority of the funding in support of school choice.* From 1985-2005, three foundations provided more than half (59%) of all grants to think tanks supporting school choice. In 2005, only two of the top 20 funding foundations provided 84% of all grant monies.
- The teachers' unions (NEA and AFT) are the major contributors in opposition to school choice.
- The funding of school choice supporters is considerably higher than the funding of opponents.

Two key points important to the public are evident in these findings. The first is that the debate over school choice is being funded, and therefore dominated, by a very few key players. In terms of public debate, it means that information on the issue is largely coming from partisans rather than from objective analysts. As a result, some reports might well reflect the bias of funders and promoters. Unlike academic

research, many reports released by think tanks and other advocacy organizations do not go through a peer review process in which unbiased and uninvolved scholars assess and verify the quality of the research methodology before a report is published.[128] Thus, not all information published on the issue is likely to be equally reliable.

Second, funding for each side is dramatically unequal, which opens the possibility that the issue will be decided by money rather than by other considerations, such as the role public schools may play in sustaining a democratic society. If school choice is implemented based solely on wealth, then it is likely to survive despite its effectiveness and long term impact.

In the interest of a well-informed and balanced public debate, it is therefore recommended that:

- Policy makers, media, and the public should become familiar with the relationships among donors, their ideological commitments, and advocacy activities. “Following the money” can be an important tool in sifting through and evaluating information.
- Researchers and policy analysts prioritize efforts to educate the general public about quality issues in research, including specifically: (1) sources of potential bias in the work, and (2) the value of peer review and the significance of its absence in some advocacy research.

Notes and References

[1] Media Transparency (2007), an organization that catalogs grants from what it labels as conservative philanthropies, provides information about funders of school choice. As of 2007, it had compiled information on 37 philanthropies that have funded more than $3.4 billion through more than 50,000 grants.

[2] The Foundation Center (2007), based in Washington, DC, collects and organizes information on funders and their grants, reporting on who funds education and to what degree.

[3] Rick Hess of the American Enterprise Institute has, however, warned that the Foundation Center may have inaccurate data because of ambiguous and inconsistent grant classifications. See Hess, F.M. (Ed.) (2005). *With the best of intentions: How philanthropy is reshaping K-12 education.* Cambridge, MA: Harvard Education Press.

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[7] GuideStar (2007) collects information on nonprofit organizations and their funders.

[8] The 990-PF forms of the top 20 funders of K-12 education in 2005 were searched for the following terms: "choice," "option," "voucher," "scholarship," "tax credit," "charter," "home school," and "homeschool." These forms were also searched for donations to think tanks and other organizations that are involved in choice advocacy, identified through sources such as the National Center for the Study of Privatization in Education, who labels organizations as supporting and opposing privatization in education.

See also: National Center for the Study of Privatization in Education. (2007). *Information resources: Links.* Retrieved October 28, 2007, from http://www.ncspe.org/info-links.php.

The U.S. Department of Education's funding activities were identified through a grants database found on its website, employing the same search criteria used on the 990-PF forms.

[9] Through the Labor-Management Reporting and Disclosure Act of 1959, Congress requires that unions file annual financial reports (Form LM-2, LM-3, or LM-4) that are available for public disclosure in the Office of Labor-Management Standards. The LM-2 form is used by the AFT and NEA because these labor organizations have at least $250,000 in total annual receipts.

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[70] As mentioned in the text, some of these foundations do not fund choice at all, as this list is the top 20 funders in K-12 overall.

[71] Advocacy funding may be grossly exaggerated because of the lack of detail in the grant information, leading to the inclusion of: (1) funding activities of advocacy organizations (for example, think tanks) even though they may not have been concentrating on education/choice; and (2) funding of an organization that is advocacy-oriented (but also engage in other activities such as supporting charter schools).

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School Choice and Accountability

Gregg Garn, Ph.D.
University of Oklahoma

Casey Cobb, Ph.D.
University of Connecticut

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Gregg Garn, University of Oklahoma

Casey Cobb, University of Connecticut

Executive Summary

This policy brief explores the intersection of school choice and accountability. Based on a review of research since 1970, we first develop a typology of four distinct models of accountability: *bureaucratic*, *performance*, *market* and *professional*. We both define these and demonstrate how they are embedded in the school choice movement. Second, we examine several school choice options—vouchers and tax credits, charter schools, virtual/cyber schools, home schools and inter- and intradistrict choice—and detail the varied accountability systems inherent in each. Third, we explore the impact of school choice programs on the accountability of traditional district schools. Finally, we provide four practical recommendations for policymakers and other interested parties:

- Consider school accountability as something more than testing performance or providing information for parents-as-consumers—the emphases reflected in the current prevalence of performance- and market-based systems. Instead, shape accountability systems to examine whether schools are directly contributing to the greater societal good.
- When creating or judging school choice policies, consider local context. Choice policies and accountability systems vary widely across the US and from one community or locale to another.
- Consider employing different types of accountability at different levels and in different combinations to hedge risk. Accountability systems that rely on a single accountability mechanism are susceptible to inefficiencies or inequities.
- When evaluating accountability systems, rely on empirical research. Possible future studies investigating the effects of various combinations of accountability types may be particularly useful.

School Choice and Accountability

Gregg Garn, University of Oklahoma

Casey Cobb, University of Connecticut

Overview

Accountability, a term used extensively in the popular press and educational reform literature, is a fundamental principle of the school choice movement. However, the concept of accountability appears analogous to a Rorschach test: everyone sees something slightly different in the details. Educational researchers have long noted the lack of commonly defined terminology in the modern school choice and accountability movement, which dates from 1970. As early as 1974, Levin called attention to "the great diversity in the use of the word accountability."[1] Thus, our first task in this study was to review nearly four decades of research (1970-2007) and to distill it into a typology of four distinct accountability models: *bureaucratic*, *performance*, *market* and *professional*. In early segments of this brief, we define these forms, explore their evolution, and demonstrate how they are embedded in the school choice movement.

Having detailed the typology, we then move to examining the varied accountability systems inherent in several popular school choice options: vouchers and tax credits, charter schools, virtual/cyber schools, home schools and inter- and intradistrict choice. After considering the impact of choice programs and their attendant accountability systems on traditional district schools, we close by offering four practical recommendations for policymakers developing school choice accountability frameworks.

Clarifying Accountability: A Typology

In 1975, Browder completed an extensive review of existing accountability literature and concluded:

1. There were no commonly agreed upon definitions.
2. Accountability needed conceptual refinement. With no common framework, confusion abounded among such terms as *general accountability*, *institutional accountability* and *technological accountability*.
3. Accountability had become highly politicized. Various groups who might be held accountable attacked the concept and pounced on malfunctions in order to discredit it.[2]

Throughout recent decades, many researchers aware of these issues have attempted to more precisely define forms of accountability—producing still more

diversity. In a 1974 effort, for example, Levin identified four strands of accountability: (a) performance reporting, (b) technical process, (c) political process, and (d) institutional process.[3] In 1986, Kogan presented three education accountability models: (a) state or public control, (b) professional control, and (c) consumer control.[4] Two years later, Darling-Hammond posited five models of accountability: (a) political, (b) legal, (c) bureaucratic, (d) professional, and (e) market.[5] And in 1990, Kirst recognized six types of educational accountability: (a) performance reporting, (b) monitoring and compliance with standards or regulations, (c) incentive systems, (d) reliance on the market, (e) changing the locus of control, and (f) changing professional roles.[6] Our detailed review of these models uncovered substantive overlap, however, allowing us to synthesize them into four main types of accountability: bureaucratic, performance, market and professional.[7] These four conceptions have appeared repeatedly in the school choice literature over the past 37 years and provide a useful lens for exploring the school choice movement.

Bureaucratic Accountability. Kirst described bureaucratic accountability as "monitoring and compliance with standards and regulations. . . . [with the] key accountability criterion [being] procedural compliance. Prominent examples include individualized education plans (IEPs) for handicapped children and targeting funds under Chapter 1 programs."[8] Darling-Hammond understood bureaucratic accountability as being embodied in "agencies of government which promulgate rules and regulations intended to assure citizens that public functions will be carried out in pursuit of public goals voiced through democratic or legal processes."[9] Cuban, however, underscored that an emphasis on meeting procedural requirements might not align with an emphasis on meeting the needs of students.[10] Because standards and regulations are often subject to legal challenge, the emphasis on compliance has resulted in the courts substantively shaping accountability requirements in bureaucratic accountability systems.

Performance Accountability. Rather than procedure, performance accountability is concerned with outcomes, with how schools and students perform. Levin's definition is "a periodic report of the attainments of schools and other educational units."[11] Kirst details the concept this way:

> Performance reporting includes such measurement techniques as statewide assessment, National Assessment of Educational Progress (NAEP), school report cards, and performance indicators, and it has some similarities to the audit report in business. In essence, performance reports assume that information per se will stimulate actions to improve education. . . . Also, state performance reporting can be used to monitor regulatory compliance for such state requirements as minimum graduation requirements. . . . This technique can be used to produce rewards as well as sanctions.[12]

The Federal Office of Educational Research and Improvement has defined performance accountability as "a set of indicators or statistics that provides information about how well schools are performing."[13] The current policy environment is dominated by performance accountability as brought on by federal and state mandates.

Market Accountability. According to Kirst, "[market] accountability occurs when consumers choose between schools, with the bad schools presumably closing if the pupils leave," although he cautioned that "choice restricted to the public sector may not be a powerful accountability device."[14] Darling-Hammond notes that in market accountability system,

> governments may choose to allow clients or consumers to choose what services best meet their needs; to preserve the utility of this form of accountability, government regulations seek to prevent monopolies, protect freedom of choice, and require that service providers give truthful information.[15]

Chubb and Moe, however, argued for redefining terms in the market place accountability model by maintaining that public schools are essentially a monopoly.[16] Students, they said, are forced into the local district school and enroll regardless of performance levels. They held that, in contrast, marketplace accountability must allow parents to choose among public and private schools, forcing schools to compete for students.

Professional Accountability. In professional accountability, experts in practice assume responsibility for setting and meeting standards of practice. According to Rivera,

> In this model, teachers as professionals (assuming competence and knowledge) are obligated to make decisions in a responsible manner and adhere to standards of professional practice. The process of peer review for tenure and dismissal . . . is considered a professional accountability mechanism.[17]

Firestone and Bader offer a similar description:

> Professionals are keepers of important values . . . only they have the knowledge to determine if those values are being adequately met. From this perspective educators must show the value of their work to other educators, not to the public.[18]

Several common policies reflect this model of accountability, including, Kirst noted, "school accreditation, teacher-controlled boards for initial licensing of graduates from university teacher education programs and policies to devolve policy decisions to teacher led school site councils."[19]

Systemic Interactions. Each of the four accountability models has particular strengths and weaknesses. As Kirst noted, they are not mutually exclusive, so that implementing multiple types simultaneously might compensate for the limitations of individual types.[20] Conversely, however, Kirp suggested that various models frequently conflict when they occur within the same accountability system:

> Professionalism, legalism, bureaucratization, and politicization pull and tug against one another. . . . problems arise when one or another framework becomes too powerful—for instance, when legalism engulfs in procedural snarls questions that may either be unresolvable or better resolved less formally, when professionals deprive parents of effective voice in decisions concerning their children, or when bureaucratic rules undermine the exercise of wise professional discretion. Policy remedies take the form of redressing the balance among these frameworks.[21]

With the awareness that combinations of accountability models may work synergistically or antagonistically in practice, we turn next to examining accountability across the spectrum of school choice programs.

Accountability in Popular School Choice Programs

The following discussion examines accountability types implicit in popular school choice programs: vouchers and tax credits; charter schools; virtual or cyber schools; home schools; interdistrict choice; and, intradistrict choice.

Vouchers and Tax Credits

In the 1950s, economist Milton Friedman first endorsed offering parents vouchers, funded by taxes, which they could use to send their children to any school.[22] He reasoned, as do many contemporary supporters, that school vouchers would create competition among schools for students, forcing schools to improve their services. However, the move from this theory to practice has uncovered significant implementation challenges. For example, it has proven difficult to determine an adequate and fair voucher amount because per-pupil costs vary significantly across and within private and public schools.

Support for taxpayer-financed vouchers remains relatively weak overall.[23] There are a dozen publicly-funded voucher plans currently in practice, and most of them limit participation to specific populations.[24] The eligibility criteria typically include such factors as family income, disability, or area of residence. Five states have voucher programs for students with disabilities. Ohio and Arizona have separate programs for students with autism and students in foster care, respectively.

Milwaukee, Cleveland and Washington DC are home to the most notable examples of publicly funded voucher programs. All three target low-income

families. In 2005-2006 Milwaukee's voucher plan provided $6,501 to 17,410 students. In that same year the D.C. plan issued $7,500 vouchers to 1,802 students.[25] The Utah legislature passed a voucher program of $3,000 per student in 2007, but it was later repealed in a statewide referendum. In 2006 the Florida Supreme Court struck down the fledgling Opportunity Scholarship Program.

Privately funded voucher programs are more prevalent than taxpayer-funded plans. Examples include Milwaukee's Partners Advancing Values in Education, the Educational Choice Charitable Trust in Indianapolis, the New York City School Choice Scholarships Foundation, and the Washington D.C. Scholarship Fund.[26] These programs typically operate in large city districts and are often sponsored by mayoral offices, private or religious organizations, or corporations. The monies are raised privately and distributed in most cases to economically needy families seeking non-secular school choice options. The programs are thus targeted and limited in scope, much like the existing publicly funded voucher programs.

Tax credit programs operate very similarly to school vouchers. Under tax credit programs, education-related expenses are reimbursed through tax relief. Tax credits can be designed for individuals, parents or corporations, reimbursing them for education expenses or contributions to public schools or school tuition organizations.[27] Seven states currently support some form of tax credit program.[28]

In theory, school voucher and tax credit programs fall most directly under market accountability. In practice, however, vouchers can be highly regulated, invoking bureaucratic accountability that distances them from Friedman's free market conceptualization. Eligibility rules for low-income students or students with disabilities, caps on total student participation and voucher amounts, and other considerations suggest that these programs operate in quasi-markets. Vouchers for students attending public schools are subject to the same performance accountability standards required of those schools. Voucher programs that support enrollment at non-secular schools are not influenced by performance accountability to the same extent.

Regulated voucher plans provide for some degree of the consumer-driven competition that market accountability intends to generate, since schools may compete for students' tuition dollars. However, the bureaucratic accountability embedded in voucher plan regulations is often a contested element. Voucher detractors believe that bureaucratic rules are necessary to provide a fair choice system and to ensure appropriate use of public funds. Voucher proponents, on the other hand, argue that many of the bureaucratic rules simply serve as undue protection for monopolistic public schools and that such over-regulated environments are at odds with free market competition.

Free-market accountability, where an invisible hand weeds out poor quality schools and rewards high quality schools, does not appear to operate in the public-private school system in the current context. Vouchers have not been fully operational outside of a handful of programs that, for the most part, target low-income families. From an accountability perspective, bureaucratic forces are operating within the education marketplace.

Tax credits, however, seem less susceptible to bureaucratic influence than voucher programs. They arguably provide "the most indirect path of public money to private schools." As a result, suggest Huerta et al., "policymakers may feel less inclined to impose state regulations on private schools that enroll tax credit beneficiaries than on voucher recipients."[29]

Charter Schools

A charter school is a publicly funded alternative to traditional district schools. Charters involve a contract between a district and the charter's organizer/s. In exchange for a broad waiver from bureaucratic accountability requirements, a charter school must achieve specific performance outcomes documented in its contract. Theoretically, the district renews a charter's contract if the school meets contractual goals and closes the school if it fails to meet goals.

The charter schools concept is credited to Ray Budde, a retired Professor at the University of Massachusetts and author of a 1988 paper titled "Education by Charter: Restructuring Schools Districts."[30] The same year, Albert Shanker, then president of the American Federation of Teachers (AFT), also wrote about the charter concept in an influential piece in the *Peabody Journal of Education*.[31] Joe Nathan and Ted Kolderie introduced the idea to Minnesota state legislators in the early 1990s, resulting in the first charter school legislation in 1991.[32] The Center for Education Reform reports that as of September 2006, 40 states and Washington DC have charter school legislation, encouraging the creation of 4,100 schools serving 1.2 million children.[33]

Charter school accountability varies dramatically across and even within states, although all charter schools are grounded on performance accountability—that is, certain consequences occur when a charter meets or fails to meet its performance objectives. However, market accountability is also embedded in charters, since they provide families with a choice outside the traditional public schools and so involve some competition. Theoretically, bureaucratic accountability is not a part of charter school accountability. Because charter schools rely on public tax dollars, however, they must comply with a number of local, state and federal standards and regulations even though some are waived. How strongly bureaucratic accountability is monitored varies tremendously among contexts. And finally, charter schools offer the potential for professional accountability as well. Shanker's vision for charters included the vision of teachers holding one another to high standards of professional practice. Thus, it is conceivable that any charter might be subject to a variety of accountability models, with various models receiving varying degrees of emphasis.

Cyber/Virtual/Internet Schools

Clark defines a cyber school as an educational organization that offers K-12 courses through Internet or web-based methods.[34]

> [I]nstruction is delivered through…pre-packaged software programs, and teacher-directed distance learning or cyber learning where students receive either asynchronous or synchronous instruction via the Internet from a teacher or other instructor.[35]

Although on-line learning is becoming a common component of the American K-12 education system, a comprehensive on-line school is a 21st century choice innovation. Cyber schools have emerged only in the last few years, and their magnitude is still very small. There are a few virtual schools operated by school districts or states, but cyber schools are primarily authorized as an innovative branch of the charter school model. Estimates of Internet-based charter schools in January 2007 indicate 173 cyber schools are operating in 18 states.[36]

Even though the majority of cyber schools operate under a charter school agreement, the accountability mechanisms are less developed when compared with other reforms. At the inception of the virtual school reform, accountability expectations were almost exclusively market based. Market-based accountability remains the accountability type. However, bureaucratic regulations for virtual schools are being developed in Ohio, Colorado, Pennsylvania and California[37] (the states where this reform is maturing) due to financial scandals involving several virtual school operators. Unresolved issues remain regarding tracking student enrollment, monitoring instructional time, and developing fiscal accountability regulations.

Home Schooling

Isenberg reports that two separate issues drove the modern home-schooling movement, dating from its inception in the 1970s: concerns by religious parents about the moral standards of public schools and concerns by other parents about deteriorating academic standards.[38] The most current estimates by the National Center for Education Statistics put the number of home-schooled children at 1.1 million.[39] Every state allows home schooling; however, state regulations vary tremendously in such areas as procedures for parents to inform the state of their intent to home school, qualifications for parents, student participation in state testing, and student performance evaluations.[40] Rudner found the great majority of home-schooled students are at the elementary level and come from non-Hispanic white, married families with higher levels of income and formal education when compared to national averages.[41] However, Weiner and Weiner, citing limitations in the data used by Rudner, argue home-schooled children are actually more diverse, ethnically and socio-economically, than traditional public school students.[42]

In most states, accountability for home schooling is based almost entirely on market accountability, since it is driven primarily by parental dissatisfaction with other schooling options. Isenberg notes that home schooling has largely avoided bureaucratic accountability by actively opposing it: “fearing the possibility of state regulation, home-schooling interest groups succeeded not only in winning a legal status with minimal regulation but also in restricting the data

that could be collected about home-schoolers."[43] The exceptions are the few states that require home school teachers to meet some basic requirements (a college degree, or state certification, for example), or that require home-schooled students to participate in statewide testing programs. Thus, bureaucratic, performance and professional accountability play a very minor role in accountability for children schooled at home.

Interdistrict Choice

Interdistrict choice plans offer options for students to attend public schools outside their home districts. Forty-two states have interdistrict choice policies.[44] Roughly 43% of the nation's districts permit transfers out to another district and 46% allow transfers in.[45]

Under interdistrict agreements, student participation is mostly voluntary. This stems from the 1974 Supreme Court decision in *Milliken v. Bradley*, which effectively stifled legally imposed, cross-district transfer programs. The two most common forms of interdistrict plans involve magnet schools and student transfer programs, which typically seek to encourage students to voluntarily move across district lines to reduce de facto racial segregation. Examples of the latter include Hartford's Open Choice program, Boston's Metropolitan Council for Educational Opportunity (METCO) program, Rochester Urban-Suburban Interdistrict Transfer program, Milwaukee's Chapter 220 Voluntary Student Transfer Program, and the Choice is Yours Program in Minneapolis.

Interdistrict arrangements are determined on a case-by-case basis. Because pupil spending varies across districts, interdistrict programs are always complicated by fiduciary considerations and responsibilities. For instance, under some plans, a portion of a district's per-pupil funding follows the child; in other instances, such as some court-ordered desegregation plans, the state subsidizes a portion of the program's expenditures, including transportation costs.

Interdistrict choice is influenced primarily by market accountability, although markets can run the gamut from controlled markets to laissez faire ones. Local conditions can vary widely between those extremes, but interdistrict choice is most commonly offered in a modestly regulated environment.

Intradistrict

Within-district school choice comes in many forms, with the two most common being specialty school programs and general open enrollment plans. Specialty school programs, also known as "non-neighborhood schools," include alternative, technical, thematic, and magnet schools, among others. Students are not typically assigned to specialty schools based on their family residence, but instead follow an admissions process. Admission can be on a first-come, first-served basis, or through lottery. In some instances, admission depends upon performance-based criteria, as in an engineering or performing arts school that requires mathematical or artistic acuity. Some districts seek or require balanced

racial compositions across their schools, thus making race an admissions consideration.[46]

General open enrollment programs can occur at the entire district level ("choice districts") or at the student level on a case-by-case basis (individual student transfers). *Choice districts* represent situations where parents and students are free to choose, or at least to apply to, all schools in a district. Cambridge, Mass., was one of the first districts to adopt this approach in 1981, followed by several other Massachusetts cities, Buffalo, N.Y., Montclair, N.J., Berkeley, Calif., and New York City's formerly named District 4.[47] In many of these cases the districts are seeking racial redistribution and thus may regulate admission to the extent permitted by law. Such programs are often referred to as controlled-choice plans. *Individual student transfer* programs allow students to attend a school in their district other than their neighborhood-assigned or zone school. Districts with student transfer policies range in terms of their willingness to allow transfers; some districts openly endorse the policy while others reserve it for special situations only.

The number of students actively participating in open enrollment plans nationwide has been estimated around 4 to 5 million.[48] The No Child Left Behind Act (NCLB) choice option, although not explicitly limited as such, is a form of intradistrict school choice. It does not fall under the category of open enrollment, however, as only students in low-performing schools are eligible to transfer to another school.

In contrast to interdistrict forms of school choice, intradistrict plans tend to be more free-market based. Of the two basic intradistrict types, open enrollment relies more on market accountability; specialty schools, less so. For instance, magnet programs that are part of court-ordered or voluntary desegregation plans have some degree of bureaucratic accountability. Rules of admission, participation and resource allocation are part of the system. Even open enrollment policies, however, have some bureaucratic provisions, such as eligibility and transportation rules. Nonetheless, while "open enrollment" seldom is as open as it sounds, such policies are more viable within districts than across them.

School Choice Programs Across the Accountability Typology

Table 1 below summarizes and illustrates the relative emphasis each of the four accountability models on the various choice programs. Shading corresponds to degree of influence. The lighter the shade, the less evident or influential a particular accountability model; the darker the shade, the greater the influence. This is by no means an exact science to show the relationship between accountability types and school choice programs. The purpose of Table 1 is to provide a basis for continued reasoned conversation on school choice and accountability.

The analysis summarized in Table 1 suggests that vouchers/tax credits, charter schools, cyber schools and intradistrict plans are strongly influenced by market accountability.[49] Vouchers, cyber schools, and home schools are less influenced by performance accountability, at least as judged by today's test-based

accountability environment. It also appears that intradistrict, interdistrict, and charter plans invite the potential for the "most" accountability across the four types, and that home and cyber schooling invite the least. For the sake of comparison, traditional public schools appear as the last row in the table. Bureaucratic and performance accountability have much more influence in traditional publics than they do in nearly every choice option, while market accountability has significantly less influence. To be sure, prior to NCLB, traditional public schools did not get penalized in any meaningful way for students who did not learn, who dropped out, or both.

Table 1. The proposed relationship between types of accountability and school choice programs

	Accountability Type			
Choice Program	**Bureaucratic Accountability**	**Performance Accountability**	**Market Accountability**	**Professional Accountability**
Vouchers/Tax Cr.				
Charters				
Cyber school				
Home school				
Interdistrict				
Intradistrict				
Trad. Public				

Strongly influential
Influential
Both influential and not influential
Not influential

All school choice forms discussed above reflect the influences of market-type accountability, although in practice educational markets often operate in quasi-regulated markets and bureaucratic influences often emerge in specific choice plans. Regulated or quasi-regulated markets are in play for current voucher plans, tax credits, many charter schools, some cyber schools, and many intra- and interdistrict enrollment plans. Regulated markets include, for example, controlled choice plans or voluntary choice plans designed to create more equitable opportunities for racially isolated or economically disadvantaged students. Less regulated plans, such as certain open enrollment programs, mimic laissez-faire markets more closely. An important point here is that school vouchers as envisioned by Friedman remain a theoretical concept that has not yet been fully realized in practice. Nevertheless, regulated vouchers, even with their

participation and per-pupil funding restrictions, imply a degree of market accountability.

Accountability Constituents for School Choice Programs

All public schools have an obligation to our democracy and society writ large. The democratic entities that represent the greater polity include local governments, such as city councils and school boards, as well as state governments, such as legislative and executive branches and state agencies. Schools are also directly accountable to parents and the children who attend them. Table 2 illustrates how strongly each school choice model is accountable to its various constituents. Formal attempts to hold public schools accountable are done through these democratic entities, or constituents, which represent a particular citizenry. For instance, an elected school board is responsible for the quality of local schools and (in theory) represents the goals of its electing body.

Vouchers, charter schools, cyber schools and home schools offer strong accountability directly to the parents and children (consumers), consistent with their market-based orientations. In theory, charter schools are also directly accountable to their local governing boards, state governing boards, or both; in practice, however, the level of accountability appears to vary on a state-by-state basis. For instance, charter school boards in Arizona are designed to serve their immediate school community (parents and students) and do not represent citizens in any particular town or city. Inter- and intradistrict plans offer accountability to the state and local democratic entities, and to a lesser degree, families. Intradistrict plans offer the strongest accountability to local governing bodies that oversee them.

Table 2. School choice accountability strength by constituency

	Accountability Constituency		
Choice Program	**Parent/child**	**State govt/ democratic entity**	**Local govt/ democratic entity**
Vouchers/Tax Cr.	■	□	□
Charters	■	▒	▒
Cyber school	■	▒	□
Home school	■	□	□
Interdistrict	▒	■	▒
Intradistrict	▒	■	■

■ Strong accountability
▒ Moderate accountability
□ Weak accountability

Two cautions apply to the judgments offered in Table 2. The first is that stakeholders with school choice experience may reasonably disagree with the assessments made based on their own experience. Because policies on any option

vary widely across and even within states, a strong generalization will not apply to every instance. The second is that the three constituents we identify only begin to encompass stakeholders in what we would refer to as "the greater public good." Policy discussions should include a thorough exploration of how schools and school policies will advance accountability for greater societal goals.

Extending Notions of Accountability

At its core, accountability implies an obligation between debtor and debtee, between provider and constituent. It suggests that two parties enter a reciprocal relationship where a promised service is made in return for a payment of some type.[50] Bureaucratic, performance, and professional accountabilities all identify explicit criteria allowing for judgments about whether obligations have been met. School choice accountability presents a very different challenge. In the context of school choice accountability, payment can be construed as a student's enrollment at a school (and the tuition dollars that follow); the measure of whether a school has met its service or educational obligations can be considered the level of parents' satisfaction.

But this is only one way to look at accountability—as something imposed and assessed externally. Possibilities for accountability are not exhausted by the four models discussed here. For example, accountability can also be internal, as when teachers hold themselves accountable for students' learning or well-being.[51] In this case there is no external source holding teachers accountable. The distinction here is the difference between *being* accountable (internal) and being *held* accountable (external).

Moreover, accountability systems need not depend on the specific, explicit criteria required in bureaucratic, performance, and professional models. Instead, "goal-free" forms of accountability (to borrow a term from Michael Scriven's theory on evaluation) involve no predetermined or mutually agreed upon performance goals. Accountability to markets and to parents are goal-free in the sense that goals are not explicit; rather, they are in the minds, preferences, and utility functions of families—in other words, consumers—who make choices. Adam Smith's "invisible hand" dictates winners and losers in the educational marketplace while parents' school-related goals for their children remain either tacit, undocumented or both.

Thus, although the accountability models discussed at length here wield widespread influence, policymakers are cautioned to remember that these four models do not exhaust the range of accountability possibilities. Not all accountability need be externally imposed; not all levels of satisfaction or dissatisfaction can be neatly correlated to specific, explicitly articulated criteria.

Impact on Traditional Public Schools

Has school choice influenced the accountability of traditional public schools? Although causal claims are tenuous here, traditional public schools seem to have responded to the choice movement by offering or expanding their own

choice options. At the very least one can ask whether market forms of accountability are showing up more explicitly in traditional public schools. District open enrollment plans, theme or specialty schools, and entire "choice districts" such as Cambridge, Mass., offer examples where market accountability is manifest.

Charter schools were created to lessen the bureaucratic accountability on schools in exchange for increased emphasis on performance and market accountability. Some traditional district schools are reinventing themselves or emerging under similar conditions. Adaptations of traditional public schools such as Boston's Pilot Schools, Oklahoma City's Enterprise Schools, and Connecticut's CommPACT Schools reveal charter-like characteristics, particularly with respect to their autonomous and deregulated environments. Yet on the whole, bureaucratic accountability remains strongly influential among traditional publics.

Performance accountability is the strongest form of accountability currently operating in traditional public schools, yet it did not derive from the choice movement. This form of accountability emerged from federal and state mandates requiring performance-based accountability systems. The federal No Child Left Behind Act dramatically increased the emphasis on student test score performance for all types of public schools. Finally, the influence of professional accountability has remained fairly constant in the context of traditional public schools.

Conclusions and Recommendations

From a theoretical perspective, we have recommended elsewhere that multiple forms of accountability might collectively contribute to better educational accountability, all the while maintaining the "public" in our democratic schools.[52] Following a five-year study of the Milwaukee voucher program, Van Dunk and Dickman suggested that the market-based program also had a "need for strict performance accountability…to allow choice to succeed in improving education."[53] There is some agreement, then, that multiple forms might be productively combined. However, policymakers need to be aware as well that multiple accountability models can also undermine at least free-market accountability, as Kirp noted.[54] For instance, bureaucratic and performance accountability could compromise the logic underlying free-market voucher systems. Restricting voucher participation by certain criteria or to meet racial balancing requirements (bureaucratic accountability) closes the open market. Likewise, holding private schools accountable to state performance standards by way of state testing (performance accountability) could dissuade their participation in a voucher system.

Policymakers would be wise to keep in view the forest, and not overly focus on the trees. For instance the preceding few sentences might suggest an argument for relying solely on market accountability, devoid of bureaucratic and performance influences. But if the larger policy objective is to reduce inequities in

educational opportunities, releasing bureaucratic oversights gives up significant leverage to represent those who may not be served well by the market.[55]

Policymakers need to balance their concerns thoughtfully when creating an overall accountability system to ensure that its various components work in concert rather than in opposition to each other and that it attends to all constituents—parents and their children, of course, but also the taxpayer and society writ large. In sum, it is recommended that policymakers:

- Consider school accountability as something more than test performance or information for parents-as-consumers, the emphases reflected in the current prevalence of performance and market-based systems. Instead, shape accountability systems to examine whether schools are directly contributing to the greater societal good.
- When creating or judging school choice policies, consider local context. Choice policies and accountability systems vary widely across the US and from one community or locale to another.
- Consider employing different types of accountability at different levels and in different combinations to hedge risk. Accountability systems that rely on a single accountability mechanism are susceptible to inefficiencies or inequities.
- When evaluating accountability systems, rely on empirical research. Possible future studies investigating the effects of various combinations of accountability types may be particularly useful.

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Funding Formulas, School Choice, and Inherent Incentives

Clive Belfield, Ph.D.

Queens College, City University of New York

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Funding Formulas, School Choice, and Inherent Incentives

Clive Belfield, Queens College, City University of New York

Executive Summary

An array of school choice options now exists across the U.S., including: charter schools, voucher and private schools, interdistrict and intradistrict choice, and home schooling. These options can be contrasted with local public schools, where places are allocated primarily based on residency. This paper examines how these options might be funded and the challenges associated with including them in funding formulas. The primary difficulty is that local public schools and school choice options are not easily compared. Public schools and choice options differ in terms of: (1) mission; (2) regulations; (3) resources provided (staffing and buildings, for examples); and (4) cost of resources provided. They also differ in the characteristics of their student bodies. Consequently, deciding how much funding to allocate is difficult. The result is that states have adopted varied funding approaches to educational choice and created varied incentive structures. This study offers examples of such variety across the Great Lakes states, surveying each choice form but focusing particularly on charter schools, where the evidence is greatest.

Funding formulas are complex in part because they involve funding from many agencies, are shaped by various rules, or both. Because simple absolute differences in expenditures alone cannot reveal whether funding is optimal, a full cost accounting is needed for appropriate allocation of funds.

It is recommended that policymakers and funding agencies considering school choice funding:

- Find the closest comparison schools and examine the funding they receive, taking into account student characteristics, school location, and specific services to be provided.
- Recognize that cost differences are inherent among schools in choice programs because the more flexibility a school has, the more it can lower its costs.
- Consider all revenue sources available to choice schools (grants or tuition, for example) when calculating funding.
- Hold all schools accountable and regularly monitor all choice schools to ensure that funds are spent directly on education.

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Introduction

This paper reports on funding and financing of school choice across the U.S. School choice includes a range of policy reforms, including: the promotion of private schools through vouchers and tuition tax credits; the introduction of charter schools; the liberalization of public school options within and across district boundaries; and deregulation to allow home-schooling options. These options may be contrasted with local public schools where places are allocated primarily based on residency and financing relies heavily on the local tax base. How school choice is financed will influence both its prevalence and its effectiveness in improving education as an alternative to local public schools.

This paper examines how funding formulas and financing systems encourage or discourage school choice. We begin with a brief overview of funding mechanisms and the rationale for incentives. Because school choice reforms vary, we consider each variation, but our focus is primarily on charter schools. Charters illustrate many key issues that arise in other choice forms as well, and they are the most researched option. We draw on evidence from across the U.S., although we pay particular attention to the Great Lakes states. Our discussion explores the impact of funding mechanisms on each of the school choice models.

Our task here is not to argue for or against greater incentives but simply to describe how choice incentives are structured. We adopt the position that school choice is worth exploring *a priori*, but policymakers must be aware of all funding issues before deciding whether choice is feasible or practical in a particular situation. We do not investigate whether public schools are under- or over-funded against any social criteria. We focus only on issues of *relative* funding for school choice options and current public school spending.

We note that many claims regarding incentives for school choice reflect political, ideological, or self-interested predispositions rather than a dispassionate review of evidence.[1] Opponents of school choice argue that incentives are too generous and that local public schools are being undermined. Proponents argue that school choice options need greater incentives so that they can compete with local public schools. It is a challenge, however, to give a simple, universal, and uncontested response to the question of what constitutes optimal funding and appropriate incentives for school choice. In practice, funding and incentives can vary extensively. New options are not the same as the traditional public schools

they compete with. Often they have different goals and serve different student populations, and the extent of such differences varies from state to state. Therefore, a raw comparison of per-student funding across choice schools and local public schools offers insufficient evidence to make a general determination about the strength of financial incentives. The correct incentive level for choice options depends on local circumstances.

Funding Systems for Education

Basic Principles

Much government funding for education is based on formulas tied approximately to student enrollments.[2] Student enrollment formulas start with an estimate of base foundational aid for regular instruction per child. Estimated foundation aid is then typically weighted to account for differences in educational costs using a cost-of-education index (at the national level, one such index is Taylor and Fowler, 2006).[3] Foundation aid also varies by grade level to reflect typical differences in class size and materials, such as laboratories and theaters.

The base amount is then augmented by two types of supplementary funding. One is student-driven, such as supplements for special education, at-risk status, or limited English proficiency. The other is cost-driven, reflecting the local economic conditions, particular circumstances, historical service patterns, and transportation costs. Duncombe and Yinger give a fuller account of how costs might differ according to geography, student disadvantage, and school size.[4]

In theory, such formulas seem straightforward: classify each student and decide on funding amounts per classification. These student-weighted formulas may be more equitable than allocations based simply on historical patterns. In practice, however, formulas are typically extremely complicated. Students' needs vary substantively, as do district and school organizations. As an alternative to funding based on per-student weights, categorical grants may be implemented, for special education budgets or for low-income students, for example.[5]

Funding allocated using such formulas comes from three public sources: federal, state, and local government. Of course, the tax base for each differs. In addition, each level of government emphasizes a different element of the formulas's base: student-driven, and cost-driven components. For K-12 schooling, the federal government primarily funds student-driven or cost-driven components. For example, Title I provides basic programs to help low-income or disadvantaged children meet state standards, and it also funds educational services for children with disabilities. Generally across the U.S., state governments provide approximately 45% of education funding, local governments another 45%, and the federal government 10%. These proportions, however, vary

significantly across states: in Minnesota, for example, the state provides almost three-quarters of total funding.

Formulas to raise revenues for schools may be structured through foundation programs, Guaranteed Tax Base programs, or a combination of the two.[6] And, some states have adopted legislation that significantly changes how revenues are raised for education, such as Proposal A in Michigan or Proposition 13 in California.[7] While this discussion is concerned with allocating revenue rather than raising it, it's worth noting that the structure of revenue-raising mechanisms may have some influence on school choice. Broadly, the greater the reliance on a single revenue source (the state, for example), the more likely it is that school choice options will be introduced. If there are multiple jurisdictions funding education, then these jurisdictions must all agree—or be mandated—to fund the school choice option to the same level as that for students in local public schools. The financial implications of school choice may differ across jurisdictions, however. For example, local districts incur costs when a student transfers in without extra funding, but the transfer is neutral from a state's perspective. Such was the case in Michigan. After Proposal A, schools were largely funded by a state sales tax (rather than property taxes), and the state was therefore able to unilaterally introduce more school choice options.

In principle, per-student funding need not be allocated only to students in traditional public schools. It could be allocated to any charter school directly, or to any private school student through a voucher system. It could also follow students across districts, or from school to school within a district. Even home-schooling parents might receive state funding through such mechanisms as tax breaks. If appropriate, per-student funding could be modified for each choice option using a cost-driven weight. For example, private schools might receive 75% of the funding provided for each public school student in the same district. Alternatively, contributions from each level of government might be modified: for example, charter schools might receive no local funds but more state funds.

The absolute generosity of the funding formula for various choices reflects incentives for choice options. Where funding is greater and restrictions on access are fewer, incentives for school choice are likely to be stronger, and more school choice options will be forthcoming for students.[8]

In thinking about incentives, it is important to realize that they influence choices only relatively—that is, they encourage one option in comparison with other options. Alternatives are implicit in any incentive structure, which intends to promote certain behaviors and choices. Often the alternative to the choice option is the local public school, but it need not be. For example, when we think about vouchers as an incentive to attend private school, often the assumed alternative is to attend the nearby public school. However, comparison of other alternatives may also be

relevant; in a particular instance, it might be useful to compare charter school incentives with private school incentives. Because schools are (loosely) in competition with each other for enrollees, an incentive created for one type of school may often be thought of as a disincentive to another type. Hence, it may be helpful to think of a continuum of (strong and weak) incentives to zero incentives through to (weak and strong) disincentives. So, choice schools may receive: more than a sufficient share of funding (strong incentive); some funding but less than a comparable public school (weak incentive); zero funding (no incentive); or negative funding. That is, they may actually lose resources by attracting public school students (disincentive). Incentives can be thought of in relative or symmetrical terms: a strong incentive for one type of school represents a strong disincentive for the other types.

Challenges to Setting Funding Formulas

In principle, setting a funding formula to permit greater school choice appears straightforward. The first step is to calculate how much money—for a student with a given set of characteristics—public schools spend or need to meet the state's education requirements (these are not necessarily the same). The second step is to make this amount available to any school, public or private. This would provide "equal incentives" for each type of school to serve students with a given set of characteristics, maximizing students' available choices.

However, fundamental trade-offs are often involved in implementation of funding formulas. For example, a formula may be designated "cost-plus," which requires schools to submit receipts and then reimburses their expenditures up to a fixed maximum. This case limits the possibility that a school will receive surpluses (or profits), but the school has no incentive to cut costs below the designated maximum.

Alternatively, the formula may be designed as "fixed price," which provides schools with a fixed amount of funding regardless of what they actually spend. The surplus goes as "profit" to the owner/manager of the school. In "fixed-price" cases, schools that are very efficient may reap very large profits—an economic imperative that cannot be eliminated. Once a school (or any enterprise) is allocated a fixed budget, it will seek ways to reduce costs and generate surplus (or profits). For example, Miron has described the cost-saving strategies used by Education Management Organizations.[9]

Nor are these the only potential complications. There are several practical challenges to implementing a funding formula from its first step: identifying how much is being spent or should be spent. To begin, it is necessary to find a comparable local public school against which to compare a choice school. This comparison should be based on factors that influence costs, such as location, grade level, school size, and student characteristics. However, such comparison simply may not be possible:

since one of the goals of school choice is to introduce educational options that did not previously exist, there may not be a comparable public school. In such cases, costs have to be calculated from a direct "bottom-up" assessment of a school's every need. Such assessment may be very expensive for a district to perform on a case-by-case basis.

Moreover, even if the goals of public and choice schools are the same, their costs may differ for several reasons. First, the regulations for choice schools may differ. For example, a private school may be exempt from collective bargaining rules for teachers, allowing it to pay teachers less (or hire teachers with different qualifications or skills). A looser set of regulations will give a school more freedom to make choices that may either increase efficiency or reduce costs. Second, various schools may differ substantively in teaching staff and facilities. Choice schools may be able to recruit teachers from a wider labor market than local public schools; they may be able to reduce salaries by hiring less experienced teachers or (in the case of religious schools) teachers who regard education as a vocation rather than an occupation. Local public schools, however, may have an advantage in terms of facilities, since they have access to public buildings and below-market rent; private or choice schools, on the other hand, may have to pay full market rent for any spaces they buy or lease.

Observable differences may also be evident in students. For example, choice schools may offer only elementary education, or may enroll fewer students with special educational needs. In cases where a school enrolls only students with characteristics associated with below-average cost, it is not efficient for it to be allocated average funding. When such characteristics can be observed, then the funding formula can account for them and provide each school with appropriately adjusted amounts. Ideally, choice schools should receive regular per-pupil funding for students with disabilities according to an independent cost estimate of required services for specific conditions (such as an Individualized Education Program). Some states (Pennsylvania, for example) offer extra incentives for charter schools to enroll students with disabilities, although they are typically for mild or moderate disabilities, which tend to be less costly to educate.

Students, however, may differ in ways that are hard to observe. For example, a choice school may recruit students whose families are expressly committed to the mission of the school. These students may be "easier to teach" and so require fewer resources (for such services as remedial education or school counseling). Families may be required to contribute resources to the school. Such invisible factors, though influential, cannot be incorporated into any choice funding formula.

Funding considerations also must include the effects of new options on existing enrollment patterns, which may potentially be large and with unpredicted budget consequences. For example, because they are not geographically limited, cyber-charter schools may grow to enormous

size, fast outstripping their projected budget needs. Another possibility is found in the fact that some families may be sending their children to private school because of dissatisfaction with the local public school. If a high-quality charter school opens, parents may choose to enroll their children there, so that their education becomes a public expense rather than a private one. A direct subsidy to a private school would have the same effect, so that cost for previously enrolled students would no longer be paid by their families, but by taxpayers. In short, new school choice funding formulas could create government educational obligations for millions of families who would otherwise have received no, or very limited, government funds. Creating school choice options has far-reaching ramifications for private as well as public schools, whose costs might also change significantly in the complex matrix of choice.

Finally, choice schools may have streams of revenue in addition to government subsidies. Therefore, even if an appropriate comparison with a local public school is possible and funding determined, it is not certain that public taxes should provide full funding. For example, private schools charge fees to parents and may receive donations; similarly, charter schools may obtain grants from philanthropic agencies. Even when a private school accepts vouchers, it may continue to impose fees. Although policymakers may try to prevent such "topping-up," in practice it will be very difficult to enforce any rule against it. For example, schools might claim that fees are for services over and above regular instruction. In addition, such fees may be politically sensitive because a school may use them to restrict access to certain student groups. Yet, to withhold funding from choice schools because they have access to funding from other sources would discourage these schools from diversifying their revenues.[10]

Funding Systems for Charter Schools

Funding Mechanisms

Charter schools—publicly funded schools run by independent agencies and enterprises—illustrate the many challenges associated with school choice funding. Functioning under a contract with a state or district authority, charters are often subject to similar, but slightly looser, regulations as local public schools. Some are former public or private schools which have converted to charter status; others are run by private, for-profit organizations called Educational Management Organizations (EMOs).

As is true in principle generally, devising a funding system for charter schools should be a straightforward task. It might seem that charter schools should receive the same amount of per-student funding as local public schools, from the same sources (federal, state, and local), and in the

same proportions.[11] Yet, as noted above, there are several practical challenges.

For each state in the Great Lakes region, Table 1 describes the source of funding and the financing system for charter schools and how funds are allocated to them.

Table 1: Financing system for charter schools: Great Lakes States

State	Funding from	System of financing
Illinois	School district	Negotiated with sponsor school district and specified in charter, but 75%-125% of per-capita student tuition multiplied by the number of students residing in the district enrolled in the charter school.
Indiana	State	Charter schools receive 100% of the per-pupil funding that traditional schools receive.
Michigan	Charter authorizing body	100% of state and school district operations funding follows students, based on average school district per-pupil revenue, not to exceed a certain amount that rises from year to year based on state aid formula.
Minnesota	State	State portion of operations funding follows students, based on average state per-pupil revenue. School district portion of operations funding does not follow students.
New York	School district	School districts must provide 100% of a state-specified per-pupil funding calculation, although this amount may be reduced based on an agreement between the school and the charter authorizer.
Ohio	State	A statewide base cost formula with adjustments, which includes a county-level cost of doing business factor.
Pennsylvania	School district	Funding follows students, based on average school district per-pupil budgeted expenditure of the previous year. For regional charter schools, funds come from the school district of a student's residence. Charter schools receive extra funding for special needs students.
Wisconsin	School district or state	Funding for a charter school authorized by a city, university or technical college is the sum of per pupil funding in the previous school year plus any revenue increase per pupil in the current school year. Funding for a charter school authorized by a local school board is determined by negotiation between the two parties.

Source: ECS Charter School Profiles (www.ecs.org), 2006 information.

Even within this region, funding sources vary significantly. Some charters are funded by school districts (Illinois and Minnesota, for example), while others are funded by states (Indiana and Ohio, for

example). These differences may reflect student demography. If charter schools enroll students from across school districts, it may be more appropriate to fund them at the state level rather than the district level. Generally, funding follows students, although the relationship varies across states and most states adjust their public school funding amounts. For example, in New York, there is some flexibility on charter school funds; in Wisconsin, the amounts may depend on which agency authorizes the charter school. Several key factors influence such adjustments.

First, charter schools often receive funds from non-government sources, including community groups and non-profit charities.[12] These agencies may provide in-kind funds rather than money, so that their contributions do not appear in the school's formal accounting system. Based on a study of 10 charter schools in New York City in 2000-2001, Ascher et al. found a diverse array of supports for charter schools. Schools or district agencies provided such services as workshops. Charter school organizations assisted with information, networking, technical assistance, and political consultation.[13] Charter school authorizers provided legal assistance and information on accountability and operations. Non-profit organizations provided funds for development. Finally, charter schools allied with non-profit partners to provide instructional and operational services. Collectively, these supports may be a significant supplement to the funds from government agencies.[14] The key issue for funding charter schools is whether to subtract public funding to offset this additional outside funding or to allow charters full funding despite their outside funding, thereby allowing them to spend more than the local public school. The decision is a trade-off: either charter schools are penalized for successful external fund-raising, or they are allowed greater funding than local public schools.

Second, charter schools may be regulated differently than local public schools. Any schools operating in highly regulated systems will have higher costs: they must satisfy particular accountability rules and standards, including rules that may restrict their spending decisions (as when they must hire more expensive, certified teachers). Regulations can be structured either to support charter schools or to undermine them. For example, many states require school districts to provide in-kind services to charter schools, including transportation, classroom and library materials, extracurricular activities, personnel services, and school testing.[15] Transportation, in particular, is a significant fraction of total spending in school districts. Thus, it can be argued that charter schools that do not have to provide those services should receive less funding than regular public schools; when they receive full funding, they have a clear financial advantage.

However, charter schools typically also have short-term contracts with authorizing agencies (generally three or five years). If the agency deems that the contract has not been satisfied, the charter school may be closed. This threat imposes a risk on the charter school that is typically not

imposed on public schools. In turn, risk imposes costs: teachers must be paid more to offset the higher probability of job loss; entrepreneurs will demand a higher profit or surplus to offset the possibility that the school may be prematurely closed. Yet, accountability mandates also apply to public schools: under No Child Left Behind, public schools failing to make Adequate Yearly Progress face sanctions that include possible closure. Therefore, the costs of a closure risk are similar across public and choice schools.

While external factors, such as whether the school operates in a low- or high-cost market, affect expenses, regulatory differences also can obviously produce cost differences between charter schools and local public schools.[16] Table 2 shows some regulations for charter schools in the Great Lakes states, indicating their variety.

Table 2: Charter School Regulations

	School district collective bargaining agreements	**Facilities funds or other facilities assistance**	**Start-up or planning grants**
Illinois	No	Yes, for use of school buildings	Yes, based on student enrollment
Indiana	Yes, but may seek waivers	Yes, financing from local public improvement bond bank	No
Michigan	Yes, if local school board charters	No	No
Minnesota	No	Yes, through state grants per student	Yes, for two years at $50,000 or per student enrollment
New York	Yes, if conversion charter	Yes, for use of vacant state buildings	No
Ohio	Yes, if conversion charter	Yes, through loans under the Facilities Loan Guarantee Program	Yes, at $50,000 unless school receives federal grant
Pennsylvania	No	Yes, for use of buildings approved by the state department of education	Yes
Wisconsin	Yes, if charter school is a district school	No	No

Source: ECS Charter School Profiles (www.ecs.org)

The first column of Table 2 indicates whether charters must adhere to the local school district's collective bargaining agreement and hire teachers comparable to those in the local public school. Other personnel regulations might involve charters' requirements in relation to state

retirement pension payments, or costs for in-service training or professional development. Because teacher salaries and benefits constitute a large part of the school budget, such regulations could result in significant cost differences between charters and public schools. In a number of states, no charter has to adhere to the local collective bargaining agreement (Illinois, Minnesota, and Pennsylvania, for example); in other states, only conversion charter schools must adhere to collective bargaining agreements (New York and Ohio, for example). Charter schools with greater flexibility on employment contracts might be able to save more than public schools on personnel.

The second column of Table 2 indicates which states in the Great Lakes states provide funds for facilities, another key area of cost differences.[17] Several researchers have identified shortfalls in funding for charter schools' facilities, in part because they do not have access to municipal bonds and because they cannot find facilities.[18] As Table 2 shows, state funding for charter facilities varies, and most often it is less than that available for local public schools.

A third cost differential area is charters' initial start-up costs.[19] Specifically, charter schools must secure a facility, purchase instructional materials, design a curriculum, hire educators, administrators, and possibly legal and financial experts, and advertise their services before opening.[20] For many of these services, public schools already have an operating procedure. As the final column of Table 2 shows, only a few states provide start-up grants to help charters develop their procedures.[21] Additionally, some charter schools may lack the administrative staff needed to take advantage of federal and state grants to offset development costs.[22]

Such differences in sources and regulations will lead to different organizational forms. For example, if charter schools must meet certain educational standards to satisfy their contracts, they may under-invest in resources, such as libraries, not clearly linked directly to achievement.[23] Alternatively, if charter schools must spend more on facilities and so have less money for staffing, they may hire less experienced or qualified teachers.[24] Most importantly, charter schools may be less likely to provide education for high-need populations.[25] As Miron and Nelson found, in Michigan many charter schools "specialize in low-cost, basic elementary education, with few students requiring special education services."[26] This decision is expressly motivated by incentives in the funding formula.

These issues are pertinent not only across public and charter schools, but also within the charter school sector. Perhaps the most notable feature of Table 2 is the significant variation in regulations across states. Charter schools are not uniform and so do not all incur the same costs. Using national data from 1999-2000, Bodine et al. have found significant differences among charter schools in teacher quality, student-staff ratios, length of the school day, and propensity to unionize.[27] An analysis of the 1999-2000 Schools and Staffing Survey by Fuller et al. revealed that

conversion charter schools, which are more like traditional public schools, have greater access to public funding than do start-up charter schools.[28] As a result, conversion charter schools, on average, offer higher teacher salaries and employ more credentialed teachers and fewer part-time teachers. Miron found that Education Management Organizations (EMOs) may be better prepared to access capital funds than other types of charter schools.[29]

All of these differences may be attributable to the regulations across states, the types of students served, and the charter school's origin (conversion versus start-up school). Therefore, even if a district believes that it has funded one charter school optimally, the funding amount may not apply appropriately to other charter schools.[30]

Evidence on optimal funding for charter schools

We now turn to the evidence on whether charter schools—at least on average—are funded comparably to public schools.

Nationally, studies find that charter schools are funded at levels slightly below those for local public schools.[31] These studies typically look only at public funding, however, not total funding from all sources. Moreover, this overall conclusion may mask within-state differences. For New York, Huerta and d'Entremont reported that charter schools are under-funded relative to local public schools. However, the difference is probably small: Jacobowitz and Gyurko calculated that the disparity may be only 5%-10% of total public funding.[32] For Michigan, Miron and Nelson reported that although charter schools do receive less public funding, the types of students served by Michigan charters more than compensates for the difference.[33] For Indiana, Plucker et al. found no significant differences in how charter schools allocate resources.[34] The situation appears significantly different in Dayton, Ohio, where Hassel et al. studied the 2001-02 finances of ten community or charter schools. There, after adjusting for some enrollment and district characteristics, they found that the charters received over 25% less funding than local public schools.[35] And finally, in Philadelphia, charter school costs are higher, which may perhaps be because of contracts with Educational Management Organizations.[36]

Funding and Incentives for Other Forms of School Choice

Many of the financing issues raised above in relation to charter schools are relevant to any form of school choice. Each form of school choice is different, however, and therefore this section highlights financing issues for three other choice models: private schools made available through voucher or tuition tax credits; interdistrict school choice; and home schooling.

Vouchers and Private schooling

School choice systems may promote private schooling. One such approach is to provide students with vouchers that provide funding directly to whichever school enrolls a student. As of 2007, there are four formal, publicly funded voucher programs operating across the U.S.: in Milwaukee, Wis.; Cleveland, Ohio; Florida; and Washington, D.C.

In 1990, Milwaukee introduced the nation's first voucher program: the Milwaukee Parental Choice Program. The program was initially limited to low-income families comprising no more than 1% of Milwaukee Public School students, but the cap was subsequently lifted. Initially only non-religious schools could participate in the program, but this restriction, too, was lifted in 1998. By 2004, more than 100 schools and 12,800 students were enrolled in the program. The voucher was initially $2,446 in 1990; in 2004, it had reached $5,882. In comparison, per-pupil funding for public schools across the state of Wisconsin was $8,600 (including transportation).

The Cleveland Scholarship and Tutoring Program was introduced in 1995. Children residing in the Cleveland Municipal School District received vouchers allowing them to attend any participating private school, with low-income families given preference. Again, the voucher amount was significantly below per-pupil funding in the local school district: for low-income families, the voucher amount was $2,250; for families with incomes above 200% of the poverty line, the amount was $1,875. Across Ohio, average per-student spending was $8,100.

The Florida Opportunity Scholarship Program was established in 1999: schools that receive a grade of F for two out of four years must either allow their students to move to another public school or provide them with a voucher to attend a private school. The voucher's value is up to $4,500 in comparison to public school funding of $6,300. Finally, the D.C. Opportunity Scholarship Program, introduced in 2004, was the first federal government initiative to fund K-12 education for low-income families residing in the DC public school district. The Washington voucher amount is $7,500 in comparison to public school funding of $12,100.

These voucher programs are clearly new incentives for private schools, since they provide public funds for schools that would otherwise have none. However, in each program the value of the voucher is far less than the average per-pupil expenditure in the local school district (even if transportation costs are subtracted). Therefore, it is unlikely that these programs will expand school choice options significantly. These amounts simply are not a large incentive to attract existing private schools or to generate new ones. Of course, lesser voucher amounts may nevertheless be optimal from the governmental perspective. Providing vouchers to all private school students will inevitably benefit some families who would otherwise have paid for private schooling themselves; for these families,

vouchers act as a straight subsidy and neither change behavior nor encourage an expanded set of school choice options. Thus, voucher funding requires a trade-off: without sufficient funding, schools will not accept vouchers; however, if the funding is too generous, too many families will receive windfall subsidies for going to private school. A low-value voucher may therefore expand school choice slightly, without generating a large fiscal deficit.

In some respects, funding for special education operates as a voucher system: student need is identified, and funding for it may be portable across public and private institutions. Individual evaluations determine that a student has particular needs (specified in an Individualized Education Plan); funds for services follow the child, so families may choose any institution capable of providing necessary services. The funding system in this case should be fairly straightforward. However, financial incentives do influence identification and placement rates: greater amounts of funding per child are associated with higher placement rates.[37] In most states, private institutions play only a very limited role in special education, although Florida has an explicit voucher program. Since 2001, its McKay program has been providing vouchers to children with disabilities so that they can attend private schools. In 2006-2007, total funding was $119 million across 18,900 students. But the values of the vouchers range from about $5,000 to $21,900, depending on the child's disabilities, with an average amount of $7,200. Thus, there is considerable variation in the resources a school might be allocated for each student.[38]

Tax codes offer another way to encourage private school choice. Specifically, states can provide tax exemptions either for private schools or for families' expenses for educational items. Such exemptions may be offered through taxable status, tax deductions or tax credits.[39] For example, private schools are considered not-for-profit and therefore do not have to pay taxes; they may also benefit from using church spaces, which provides a number of other tax incentives.

A tax policy that has recently grown more popular is the allowance of tuition tax credits, which permit families to subtract a portion of private school tuition costs from the amount of taxes they owe. [40] (Tax deductions work differently, allowing families to deduct some private schools costs from the amount of their taxable income.) Since 1997, six states have enacted tuition tax credits for education (Arizona, Florida, Illinois, Iowa, Minnesota, and Pennsylvania). Thus far, the credit amounts are often small (typically less than $1,000). Nevertheless, they are another way in which the government may finance alternative school choices.

Home schooling

Home schooling is growing in popularity.[41] As is true for other school options, the rate of home schooling varies significantly across

states: as of 2005, home-schooling enrollments were estimated at 1,000 in Michigan (less than 0.1% of public school enrollment); 14,600 in Minnesota (1.7%); 23,900 in Pennsylvania (1.3%); and 21,300 in Wisconsin (2.4%). Some of this variation undoubtedly reflects the incentives embedded in state and district policies.

Generally, home-schooling families receive no public funding for their children's education, so at first they may appear at a considerable financial disadvantage compared to families choosing other options. However, home schoolers are allowed to use public school resources: in fact, they are entitled to use public school resources on a part-time or temporary basis, and legally they cannot be denied access to the public school system. Although data is sparse, it is believed that many home schoolers do use public school resources, either temporarily or part-time. Such use is most probably for expensive programs, such as sciences, and for physical education (which requires large spaces). Moreover, some home schoolers enroll in cyber-charter schools, which means they receive direct support from the district or state. In additions, some states allow home-schooling families to claim increased tax credits and tax deductions. Whether these forms of support are sufficient to allow home-schooling families to offer adequate education is unknown; no research exists on the optimal resources needed for home schooling.

As with other choice forms, the incentive to home school also depends on regulations that home-schooling families must satisfy: the more regulations, the higher the cost and the less desirable the option. Home-schooling regulations vary from state to state but may include notification to districts of the intent to home school; submission of plans for educating their children; and test-taking. Still, these are far less burdensome that the regulations faced by public schools, charter schools, or private schools. Moreover, compliance with home-schooling regulations is unverified, and enforcement is often weak. In terms of regulations, then, home schooling enjoys a greater incentive than choice or traditional public schools.

Calculating the optimal amount of public funding needed for home schooling is difficult, however, because resources for home schooling are very different from those for schools. For example, one of the parents (typically the mother) instructs the children, which means that parent does not work outside the home. Hence, the full "opportunity cost" for home-schooling families includes not only the loss of public school resources but also the parent's lost income. Estimating the lost income is difficult. While the parent's predicted earnings can be reasonably calculated, it would also be necessary to calculate the intrinsic rewards of teaching one's children (as opposed to working in an office, for example). Home-schooling parents may also acquire other resources at different prices than schools pay. For example, many home-schooling families draw on community resources, such as libraries and churches, for learning

materials and curricula. As yet, no rigorous estimate of home-schooling costs to the state has been calculated.

A related form of home-based education is cyber schooling. In most states, cyber schools are funded just like charter schools, although they are perhaps closer to home schooling. Importantly, cyber schools have operating costs that are substantially different from regular schools.[42] They do not, for example, incur transportation costs, although they often allocate students a laptop computer for home use.

As for other choice options, it is important to compare costs for cyber schools against costs for local public schools. One approach to financing cyber schools is to set funding as a percentage of regular funding and then progressively manipulate the percentage. In California, for examples, the cyber charter law initially set funding at 90% of that for regular schools, then later reduced the percentage to 70%. Subsequent revisions were tied to expenditures on "certified staff salaries and benefits" as well as on "instruction-related items." Home school cyber charters were expected to progress to a point where they spent at least 50% of their revenues on certified staff and salaries; nearly half of them failed to meet this threshold.

However, an additional funding issue in cyber schools is that they may have volatile enrollments that can create an insupportable funding commitment. An illustrative case is that of Western Pennsylvania Cyber Charter School. This school expanded enrollments to more than 1,000 within a few years of opening, but local school districts were unwilling to remit the per-pupil funds based on these enrollment claims, in part because the districts could not be certain that the students were part of their populations. Such situations are exacerbated when states have weak accountability systems for cyber schools.

Interdistrict and intradistrict school choice

Finally, interdistrict and intradistrict school choice expands educational options for students while keeping them in traditional school systems. For example, in 1996 Michigan adopted an interdistrict choice program (Schools of Choice) that allows students to choose public schools outside their home district. School districts can determine whether to accept nonresident students, but they cannot prohibit their students from choosing a school in an alternative district. Approximately 80,000 students across the state are involved in the program.[43] Intradistrict, or "open enrollment," programs that allow students to choose among schools within a district are also becoming more common. For example, the Chicago Public School district offers students considerable choice.

It may be relatively easy to develop funding formulas for inter- and intradistrict choice. Every year, many thousands of students transfer across districts, with the fiscal consequences fairly easily absorbed.[44] When education is funded at the local level, however, transfers can generate a

significant strain on the local tax base if sufficient funds don't follow students from district to district. Also, the amount of funding per school within a district may vary (for magnet schools or remedial schools, for example). Such funding differences may be attributable to the factors considered above: differences in student populations, the use of particular resources, the prices of those resources, the availability of alternative funding sources (federal funding for magnet schools, for example), and services these schools might provide (transportation, for example). At the same time, intradistrict schools share the same administrative, managerial, and governance structures. Therefore, the absolute differences in costs may be smaller than for other forms of school choice.

Conclusion

Appropriate financial incentives are those that reward desirable outcomes and penalize undesirable outcomes. This is as true for education and school choice as for any other government service. Designing an incentive system, then, involves as a first essential step making decisions about which school choice reforms are desirable and which are not. Such decisions are beyond the scope of this paper. Instead, the focus here has been to highlight various issues involved in designing funding formulas and financing mechanisms, given the assumption that incentives can be created to promote school choice.

While the issues are many, the central question is: Do choice schools receive enough public resources compared to traditional public schools to give them real incentive to offer students places? Simply, if the incentives are strong enough, more types of schools will emerge to offer more places.

Based on this review of the evidence we make the following recommendations for policymakers or funding agencies. As we show below, these recommendations may not always cohere with each other, creating a set of trade-offs.

- When funding school choice options, find the closest comparison school and examine the amount of resource that school receives. These comparisons should be made based on the characteristics of the students served, the location of the school, and the specific services that are being provided by the new school choice options.
- Recognize that school choice options will have different costs relative to traditional public schools. Costs also vary among various choice options (charter schools compared to home schooling, for example). Such variation will exist even within a state. Policymakers must appreciate these differences and consider the implications for funding allocations.

The challenge is to try to fund school choice options equitably while recognizing real cost differentials. One approach is to directly investigate specific resources each school type requires and estimating their costing. Another is to examine the schools' year-end balances to see whether the choice incentives appear too strong or too weak. A third approach is to expand school choice options incrementally, progressively strengthening incentives to encourage more options and optimal choice conditions.

Other recommendations include:

- Take into account the full set of revenues that school choice options may have available.
- Consider the opportunity costs associated with school choice. Instead of simply investigating funding parity, examine the fiscal consequences of school choice.
- Mandate accountability and regularly monitor all forms of school choice (as well as traditional public schools).

A related set of recommendations are relevant for journalists, researchers and analysts who wish to compare funding across diverse forms of school choice:

- Realize that funding formulas are complex, with funding from many agencies and according to various rules.
- Do not relay on absolute differences in expenditures to determine whether choice schools are adequately funded. A full cost accounting is needed to see where choice schools may be spending more or less than regular public schools.
- Consider that choice schools will have lower unit costs if they do not offer such services as transportation and special education, but may have higher costs if they have no capital for facilities.
- Remember that schools with more flexibility will have lower unit costs.

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GREAT LAKES CENTER
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Teacher Qualifications and Work Environments Across School Types

Marisa Cannata, Ph.D.

Vanderbilt University

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Marisa Cannata, Vanderbilt University

Executive Summary

The academic success of any school depends on the instruction provided by high quality teachers. Yet the impact of school choice on teachers and teaching has received less attention than other components of school operations. This brief addresses that lack by reviewing teacher quality in choice schools and differences in work environments across school types. It also includes the scant information available about what impact school choice may have upon the teacher labor market.

Findings, broken out by types of schools, are based on a review of relevant research as well as original analyses of the 2003-2004 Schools and Staff Survey published by the National Center for Education Statistics. Both the existing literature and the new analyses find differences in the qualifications of teachers across private, charter, and public schools. Among private schools, Catholic school teachers appear most similar to teachers in traditional public schools. There are some differences in the qualifications of teachers in public choice schools, but they are not consistent. While choice schools tend to have more teachers who graduated from more selective colleges and fewer teachers who graduated from less selective colleges, they also have more inexperienced teachers.

Private school teachers are the most satisfied with their jobs, despite having the lowest salaries. This may be partially due to the finding that they also have smaller class sizes and work fewer hours. Contrary to expectations, charter schools have class sizes similar to those in traditional public schools. Overall, the analysis suggests that teachers in forms of public school choice and in traditional public schools have similar work environments.

There is limited evidence that charter schools use different hiring practices than public schools, although the extent to which these differences may contribute to qualification differences is unknown. The little that is known about what impact school choice has upon the teacher labor market suggests that public schools do not experience competition for high quality teachers, and they make few changes in staffing policies as a result. Although charter and private schools lose teachers at higher rates than public schools, there is no strong evidence about the place of choice schools in teacher career patterns.

Based on these findings, it is strongly recommended that extensive additional research be conducted to fill the many existing knowledge gaps exposed in this study, especially regarding the question of how school choice affects the overall teacher labor market.

Teacher Qualifications and Work Environments Across School Types

Marisa Cannata, Vanderbilt University

Introduction

Teachers are vital to any school: academic success depends on high quality teachers providing high quality instruction. Indeed, teachers are the most important school resource for student learning.[1] Yet the impact of school choice on teachers and teaching has received less attention than other components of school operations. This brief reviews what is known about teacher quality across types of schools and the impact of school choice on teachers' qualifications and work environments; it includes as well the little that is known about the impact of choice on the teaching labor market.

Because increasing school choice creates options for teachers as well as students, teacher qualifications and work environments might be expected to differ across school types. Traditionally, large districts serve as the single employer of teachers within a particular geographical area.[2] Teachers who want to work in a particular community have generally had to work for a certain district, which typically has had centralized hiring, staffing, and compensation policies. With little or no competition for teachers, many districts have had few incentives to create enticing work environments. However, increasing numbers of private schools and charter schools have increased the number of potential employers for whom teachers may work, introducing a competitive environment for traditional public school districts. Moreover, the employment options that choice schools present may vary not only in such practical criteria as salary but also in such areas as commitment to a particular educational philosophy or curriculum. Overall, choice schools may appeal to teachers on a variety of factors. Creating more schools of choice could thus alter dynamics in the teacher labor market.

The presence of various types of schools does not necessarily mean that they are competing for the same pool of teachers, however. Choice schools may differ in their teaching forces because of teacher characteristics or school characteristics, or both. Additionally, hiring practices in choice schools may differ, also contributing to a differentiated teaching force.

This brief explores the question of how the increasing growth of school choice has affected the teaching force to date. Specifically, this research asks:

- *How do teacher qualifications compare across schools of choice and traditional public schools?* In answer to this question, information is provided across school types on teachers' certification status, educational level, selectivity of undergraduate college, and experience. Relevant data came from both existing research and original analyses.
- *Are schools of choice creating attractive work environments for teachers?* In answer to this question, both the results of recent research and new analyses offer a sketch of how teacher community, autonomy and influence, salary, and working conditions vary across traditional public schools and choice schools.

To the extent possible given scant existing research, this paper also explores whether hiring practices appear to differ in public, private and charter schools and whether choice has affected the teaching force in terms of attrition, retention, and competition.

Methods and Data Sources

Findings reported below are based on both a review of the existing literature on teachers in choice schools and on original analyses using the 2003-2004 Schools and Staffing Survey (SASS).[3] SASS is administered by the National Center for Education Statistics and is the largest national sample of teachers available. The 2003-2004 SASS surveyed 43,244 public and charter school teachers and 7,979 private school teachers, as well as their schools, principals, and districts.[4] The SASS sample includes teachers from every state and so can provide representative estimates at both the state and national levels. When school and district information is linked to the teacher survey, a rich set of contextual variables is available for comparison of teacher characteristics across settings.

More specifically, the analysis compares descriptive statistics of teacher qualification measures (certification, advanced degrees, teaching experience, and college selectivity) and work environments (salary, class size, hours worked, and overall satisfaction) using the SASS data.[5] Analyses are presented for all teachers in the SASS as well as for a subpopulation of teachers in urban schools. The distinction between groups is significant because schools of choice are clustered in urban areas, which tend to have less qualified teachers and less desirable working conditions.

One indicator of teacher quality used in this analysis is college selectivity because teachers with high general ability, as measured by high test scores, are more effective at raising student achievement.[6] The selectivity of the college from which a teacher graduated is a common indicator of general ability.[7] This analysis uses the selectivity rating of a teacher's undergraduate college, which is based on average test scores and other indicators of those admitted to the college, in Barron's Profile of American Colleges. Colleges labeled "highly competitive" or "most

competitive" are considered highly selective in this analysis, while those labeled "less competitive" or "noncompetitive" are considered least selective. Colleges labeled "very competitive" or "competitive" are considered moderately competitive. Only the percentages who went to highly selective or least selective colleges are shown in the tables due to space considerations. Teachers who went to "special" schools, such as art colleges, that were not given a competitiveness rating were excluded from this analysis.

The definitions of other qualifications and work environment indicators in this analysis appear in the appendix, while definitions of the various types of choice schools appear below.

Types of School Choice

As types of school choice proliferate, clarifying terminology becomes a challenge. Existing literature on teachers in choice schools employs varied terms and inconsistent definitions for different types of schools. Some existing research uses fine-grained distinctions in its categories (as in the distinction between private independent day and boarding schools) while other studies use much more general categories. For these reasons, it is necessary to clarify terms employed in this study. The following paragraphs, then, describe and define the terms used in discussing choice schools; they also explore why teacher qualifications and work structures in choice schools may differ from those in traditional public schools.

A major characteristic of many choice schools is that they are private rather than public. In this study, the general term *private school* refers to all private schools.[8] Among private school teachers, distinctions are made among those teaching in *Catholic schools*, in *other religious private schools*, or in *non-religious private schools*.[9] While all private schools share some similarities, there are reasons to consider each of these categories separately. All private schools may hire non-certified teachers, and they are free from district and state oversight. All also have freedom to define their goals and philosophy, possibly creating more enticing work environments. Perhaps most importantly, in addition to being exempt from state teacher certification requirements, private schools are also exempt from NCLB mandates for Highly Qualified Teachers. Thus, private schools are not constrained by state or federal policy about whom they can hire.

On other measures, however, private schools may differ significantly among themselves. Many Catholic schools have a diocesan board or other governing hierarchy that supervises their operations, so that they lack the autonomy of many other private schools. In addition, because the mission of Catholic and other religious schools is tied to religious affiliations, these schools may attract or hire teachers from a pool of applicants somewhat different from the pool for non-religious private

schools. Another variance among private schools is participation in voucher programs. Unfortunately, the SASS data do not discriminate between private schools that do and do not accept voucher students. While some inferences about voucher schools may be made by examining the characteristics of private school teachers, it is not possible to directly compare voucher and non-voucher private schools.

The term *charter school* refers to public charter schools.[10] When evidence on distinctions among charter schools (such as start-up or conversion schools) is available, differences are noted. A start-up charter school is a school that was newly created, while a conversion charter school is a school that previously operated as a traditional public or private school before converting to a charter school. Teacher qualifications and work environments in charter schools may be affected by greater flexibility in staffing policies. Moreover, charters may also design a school around a particular mission, creating the possibility that they will attract a different pool of teacher applicants. Further, charter schools usually have no collectively bargained contracts or other teacher union agreements, which may also influence teacher work environments and school staffing policies.

An important distinction among charters is that some are linked to home schooling, as reflected in the categories *charter schools with a home school focus* and *charter schools without a home school focus*.[11] Non-classroom-based charters offer some information about teacher qualifications and work environments associated with home schooling, about which little is known generally. However, for the purposes of this study, it is important to note that the data available pertain only to the teachers who oversee home-schooled students—it does not indicate the qualifications of the person/s directly providing instruction. (While 11 states require that a certified teacher supervise home-schooled students or approve their curriculum,[12] most of the instruction for home-schooled students is actually provided by non-school personnel, such as a parent. Nine states place requirements on the parent, usually to have a high school diploma or equivalent.) It is also important to note that many home-schooled students are not enrolled in charter schools but are supervised or sponsored by a public school district, and so their experience is not reflected here. Also clouding the picture is that many charters are cyber or virtual schools rather than traditional home-based schools. Given these variations, data presented in this study—which apply only to school-based personnel in charter schools—should not be considered an indication of the quality of instruction provided to all home-schooled students.

The terms *public school* and *public school choice* refer to any district-run, non-charter, public schools and choices; included here are magnet schools, open enrollment districts, interdistrict choice plans, and traditional public schools. Such an inclusive definition was necessary because earlier research rarely provides enough detail to determine whether these forms of public school choice were excluded from

comparison groups designated "public schools." While charter schools are also publicly funded schools and are thus a form of school choice within the public sector, they are separately categorized and discussed because their operations and governance tend to be significantly different from that of the other schools grouped here.

The term *magnet school* refers to a public school that has a school-wide magnet program or that has a special program emphasis. Two characteristics of magnet schools may produce differences in their teacher qualifications and work environments. First, magnet schools often receive extra money from federal programs or foundations, which may help provide more resources or otherwise improve working conditions. Second, the special emphasis of a magnet school may serve as a unique attractor for high quality teachers or high quality principals, who then contribute to a positive school culture and foster a strong professional community. However, while magnet schools may thus have higher quality teachers self-select into them, their specialized focus may also repel teachers who do not agree with the mission. Thus, creating a new magnet program in an existing school or district may lead to teacher turnover. Because magnet school teachers remain part of the public school teaching force, other elements of the magnet school work environment may be less variable: a district may use the same salary schedule, union contracts, and staffing policies across all of its schools, including magnets.

Open enrollment districts have a public school choice program that allows students to attend either their assigned school or another school in the same district. *Interdistrict choice programs* either allow their students to attend schools in other districts at no cost or allow students from other districts to attend their district at no cost. The competition for students induced by open enrollment or interdistrict choice may spur schools to focus on attracting and retaining high quality teachers. However, staffing practices in these districts and programs remain similar to those in traditional public schools because the districts retain a traditional governance structure. Indeed, some districts participate in open enrollment or interdistrict choice only because of state mandates.

The term *traditional public schools* refers to public schools offering no choice options. That is, the term refers to public schools that are neither charter nor magnet, in districts offering neither open enrollment nor interdistrict choice.

How do teacher qualifications compare across schools of choice and traditional public schools?

Certification and Education

Previous literature indicates differences in the certification and education of teachers across private schools. Public schools have the most certified teachers (nearly all), followed by Catholic schools and then by

other private schools.[13] Catholic elementary teachers are less likely to have a master's degree than public elementary teachers, but there is no such difference between Catholic and public secondary teachers.[14] A study focusing on magnet high schools, however, found that magnet school teachers have more education than Catholic school teachers.[15] Teachers in independent private schools, however, are more likely to have a master's degree than public school teachers.[16] An exception to this generality appeared in the Cleveland voucher program, where an evaluation found that public schools and participating private schools had equal numbers of certified teachers, but that the private school teachers had less education.[17]

Table 1 – Percent teachers with certification or at least a master's degree

	All schools			Urban schools only		
School type	Certified	Master's degree	N	Certified	Master's degree	N
Private (all)	*48.4%***	*35.3%***	*7,979*	*47.6%***	*38.7%***	*2,949*
Private, Catholic	66.2*	35.6*	2,884	62.3*	37.9*	1,203
Private, other religious	37.2*	29.1*	3,727	36.2*	32.1*	1,188
Private, non-religious	43.7*	45.6	1,368	43.3*	50.2	558
Charter (all)	*75.2***	*32.9***	*1,066*	*71.9***	*33.1***	*#*
Charter, no home-school focus	74.7*	33.6*	999	71.6*	33.2*	597
Charter, home-school focus	81.7*	24.0*	67	#	#	#
Public non-charter (all)	*95.8*	*48.3*	*42,178*	*94.6*	*49.1*	*#*
Magnet	94.1	51.4	2,241	92.8	54.1	1,293
Public, open enrollment	97.4*	47.0	1,731	97.2	46.9	732
Public, interdistrict choice	97.3	52.0	483	#	#	#
Traditional public	95.9	48.1	37,723	94.7	48.3	8,255

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
Estimates are not shown due to small sample size in subpopulation.
* Statistically significant difference from "traditional public" schools.
** Statistically significant difference from "Public non-charter (all)" schools.

Existing literature also finds that charter schools have fewer certified teachers and less educated teachers than public schools,[18] although the relative number of certified teachers varies among charter

schools. Conversion charter schools have more certified teachers than start-up charters.[19] Among non-classroom-based charter schools, home-study schools have certified teacher rates similar to those in public schools; however, other non-classroom-based charter schools have fewer certified teachers.[20] The percentage of teachers with a master's degree also varies among charter schools, with some charter schools having high rates of teachers with advanced degrees and others having very few such teachers.[21]

The original analyses reveal that teachers in traditional public schools and in public choice schools have similar levels of certification and education (see Table 1, preceding). There is some evidence that teachers in districts with open enrollment are more likely to be certified than teachers in districts without open enrollment, although the difference is small. Teachers in private and charter schools, however, are much less likely to have certification or a master's degree than teachers in traditional public schools. This is also true when the sample is restricted only to urban schools. Charter schools, however, have more certified teachers than private schools. Interestingly, teachers in non-religious private schools are equally as likely as teachers in traditional public schools to have a master's degree. This may reflect the presence of highly educated teachers in private independent schools noted in existing literature.[22]

With the exception of the rates of certification among charter schools with a home-schooling focus, these findings are consistent with the existing literature. A previous study on home-study charter schools in California found they have rates of certified teachers similar to those in public schools. While the new analyses presented here indicate charter schools with a home-schooling focus have relatively high rates of certified teachers, they still have fewer than traditional public schools. The difference may be due to differing regulations around home schooling and charter schools. Eleven states require at least some of their home-schooled students to be supervised by a certified teacher, leading to high rates of teacher certification in these states. In other states, charter schools with a home-schooling focus may be caught between regulations governing home schooling and those governing charter schools. Many home-schooling focused charter schools may be virtual or cyber schools. For example, Wisconsin does not require students in a home-based educational program to be instructed by a certified teacher.[23] Yet a recent court ruling found that instruction provided through a home-based virtual school under parent supervision violates teacher licensure requirements.[24]

Teaching Experience

Previous research has consistently found that charter school teachers have fewer years of experience than their peers in public schools.[25] Although many charter schools are new schools, the average years of experience of charter school teachers has stayed constant over

time.[26] Further, teachers in home-study-based charter schools have years of experience similar to those for teachers in other charter schools.[27] While little is known about the relative experience of magnet teachers and traditional public school teachers, there is evidence to suggest that teachers in multi-focus magnet schools are more experienced than teachers in single-focus magnet schools.[28] When making comparisons between private and public school teachers, Catholic school teachers have less experience than public school teachers, and non-Catholic private school teachers have even fewer years of experience than Catholic school teachers.[29]

Table 2 – Average years of total teaching experience and percentage of teachers with more than three years of experience

	All schools		**Urban schools only**	
School type	Total experience	Teachers with more than 3 years experience	Total experience	Teachers with more than 3 years
Private (all)	*12.6***	*77.6%***	*13.2*	*80.1%*
Private, Catholic	14.2	80.8*	14.1	81.4
Private, other religious	11.6*	75.4*	12.4	78.3
Private, non-religious	12.2*	76.9*	12.9	80.9
Charter (all)	*7.8***	*63.4***	*7.8***	*62.1***
Charter, no home-school focus	7.7*	62.3*	7.8*	62*
Charter, home-school focus	8.4*	77.3	#	#
Public non-charter (all)	*14.3*	*84.5*	*13.7*	*82.2*
Magnet	13.1*	82.1	13.2	80.4
Public, open enrollment	15.0	85.6	15.1	83
Public, interdistrict choice	17.4*	89.4	#	#
Traditional public	14.3	84.5	13.6	82.4

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
Estimates are not shown due to small sample size in subpopulation.
* Statistically significant difference from “traditional public” schools.
** Statistically significant difference from “Public non-charter (all)” schools.

According to the SASS data, teachers in charter schools, both with and without a home-schooling focus, have the fewest years of teaching experience across charter, private, and public schools (see Table 2). Charter schools without a home-schooling focus have the fewest experienced teachers. Among forms of public school choice, there is some evidence that teachers in magnet schools have less experience and teachers in districts that participate in interdistrict choice have more experience, but these differences disappear when the sample is restricted to urban schools. Catholic schools have teachers with similar average years of experience as traditional public schools, but slightly fewer teachers with more than three years of experience. This may occur if Catholic teachers have many teachers in their first three years and many quite experienced teachers, with fewer teachers with a moderate amount of experience. Teachers in non-Catholic and non-religious private schools are less likely to be experienced teachers than teachers in traditional public schools, but these differences are not present when the sample is restricted to urban schools. Within urban schools, only non-home-school charter schools have fewer experienced teachers than traditional public schools.

College Selectivity

The existing literature on the types of colleges from which teachers graduate indicates that generally, teachers in private schools and charter schools come from more selective colleges.[30] This is particularly true of teachers in private independent schools. Catholic school teachers, however, graduated from undergraduate colleges of similar selectivity as those attended by public school teachers.[31]

Table 3 reports original analyses that indicate notable differences in the selectivity of colleges from which teachers across various forms of school choice graduated. Teachers in non-religious private schools are most likely to have graduated from highly selective colleges and the least likely to have graduated from less selective colleges. This is true among all schools and among schools in urban areas only. Teachers in non-Catholic private schools and charter schools are more likely to have graduated from highly selective colleges than teachers in traditional public schools. When the sample is restricted to schools in urban areas, the difference between charter and public school teachers is no longer statistically significant, but remains relatively large. Catholic school teachers and teachers in traditional public schools are similar in terms of the selectivity of the colleges from which they graduated. Among public choice schools, teachers in magnet schools were more likely to graduate from highly selective colleges, and teachers in districts with interdistrict choice less likely to do so. Among urban schools, teachers in districts with open enrollment are the most likely to come from less selective colleges, and teachers in non-religious private schools the least likely to do so.

Table 3 – Percentage of teachers who graduated from highly selective and less selective colleges

	All schools		Urban schools only	
School type	Highly selective college	Less selective college	Highly selective college	Less selective college
Private (all)	*15.6%***	*20.2%***	*17.5%***	*19.2%***
Private, Catholic	8.6	23.9	9.8	22.9
Private, other religious	14.8*	20.9*	18.6*	19.7
Private, non religious	26.5*	14.0*	27.9*	13.1*
Charter (all)	*14.7***	*18.4***	*15.4*	*21.6*
Charter, no home-school focus	14.5*	18.7*	15.4	21.2
Charter, home-school focus	17.3*	15.1	#	#
Public non-charter (all)	*8.7*	*25.2*	*10.5*	*26.1*
Magnet	12.8*	23.8	14.5	26.7
Public, open enrollment	8.9	32.1	8.8	40.6*
Public, interdistrict choice	2.8*	20.2	#	#
Traditional public	8.5	25.0	10.0	24.9

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
Estimates are not shown due to small sample size in subpopulation.
* Statistically significant difference from "traditional public" schools.
** Statistically significant difference from "Public non-charter (all)" schools.

Are schools of choice creating attractive work environments for teachers?

Working Conditions

One way schools of choice offer a unique work environment is by focusing on a particular school mission. As public schools must serve a diverse constituency, they are less able to define a specific school focus. Many charter schools, for example, cater to a specific educational niche and attract teachers who want to serve that niche. Indeed, studies of charter school teachers find they value the mutual selection process of school choice and want to work in a school that shares their goals or has like-minded colleagues.[32] Likewise, Catholic school teachers are often

drawn to their schools because of an interest in the school's religious mission.[33]

Teachers may also be attracted to schools of choice because of the greater sense of community and collegiality than is found in traditional public schools. There is some evidence that charter, private, and magnet schools have higher levels of professional community than traditional public schools,[34] and that charters in particular attract teachers who want to work in an innovative atmosphere with a strong professional culture.[35] Other studies, however, have found more mixed results for the collegiality within choice schools[36]—which may be due to the lack of time for collaboration in some choice schools.[37] Although charter schools have slightly higher levels of professional community than public schools, in-school processes that lead to strong communities are similar in charter and public schools.[38]

Many forms of school choice, including private, charter, and magnet schools, give teachers more autonomy and independence within their classrooms.[39] This is not true for all schools of choice, however. Two studies of teachers in charter and public schools in Colorado find conflicting results in terms of the relative autonomy charter school teachers experience.[40]

There is mixed evidence about whether choice schools also offer teachers more influence in the school-wide arena. Charter schools, private schools, and single-focus magnet school involve teachers in school-wide decision-making and curriculum.[41] Other studies, however, have found that teachers in charter and deregulated public schools did not necessarily have more influence on school governance and policy than their peers in traditional public schools.[42] Further, some studies have found charter school teachers actually have less influence over school-wide decisions than public school teachers.[43]

Working conditions vary among different types of schools as well as among schools in the same sector.[44] Private schools consistently have smaller classes compared to public schools,[45] with the exception of private schools participating in Cleveland's private school voucher program, which had larger classes than the public schools.[46] Evidence concerning relative class size in charter and public schools is mixed,[47] perhaps because of differences between grade levels. One report suggests that charter schools have smaller elementary classes than public schools, but similar or larger class sizes in high schools.[48] The relative class size in magnet schools compared to non-magnet public schools also varies depending on the grade levels in the school.[49] Non-classroom-based charter schools appear to have the largest student-teacher ratio, but teachers report spending an average of only 4.5 hours per month with each student.[50]

Besides class size, other working conditions vary among sectors. For example, charter teachers report greater dissatisfaction with the physical facilities than teachers in public schools.[51] Staff firing policies in

charter schools may be very informal, and teachers may be unable to initiate grievance procedures on such important staffing concerns as being paid on time.[52] Charter school teachers are attracted to charter schools because they have safe environments, but they are typically critical of the amount of instructional materials or planning time provided.[53] Teachers in choice schools also work longer hours and have longer school years.[54] Particularly in private independent schools, teachers work long hours with many non-instructional duties.[55]

Table 4 – Average class size and average hours worked per week

School type	Class size, self-contained teachers	Class size, departmentalized teachers	Hours worked per week
Private (all)	*17.5***	*18.7***	*48.0***
Private, Catholic	21.6*	23.1*	49.6*
Private, other religious	15.9*	17.6*	46.1*
Private, non religious	14.9*	14.9*	49.2*
Charter (all)	*20.0*	*21.3***	*51.0*
Charter, no home-school focus	20.2	21.2*	51.7
Charter, home-school focus	18.3	21.5	41.2*
Public non-charter (all)	*20.3*	*24.7*	*51.6*
Magnet	20.5	25.4	51.0
Public, open enrollment	20.6	27.3*	50.8
Public, interdistrict choice	19.4	22.1*	51.8
Traditional public	20.3	24.6	51.7

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
* Statistically significant difference from “traditional public” schools.
** Statistically significant difference from “Public non-charter (all)” schools.

The original analyses using the SASS data indicate that there are few differences in the working conditions of teachers among forms of public school choice (see Table 4). The only difference is that teachers with departmentalized instruction (usually secondary school teachers) in districts with open enrollment have larger classes while teachers in interdistrict choice districts have smaller classes. There are no differences in class size for teachers with self-contained classes (usually elementary teachers) among forms of public school choice.

More differences appear, however, in the working conditions of private and charter school teachers as compared to those of traditional public school teachers. Departmentalized teachers in charter schools and

private schools have smaller class sizes than traditional public school teachers. Charter school teachers in self-contained classes have similar class sizes as their peers in traditional public schools, while Catholic school teachers have slightly larger classes and other private school teachers have smaller classes. In contrast to previous research findings on teachers in private independent schools, this analysis finds that teachers in private schools also work fewer hours per week than traditional public school teachers. Teachers in charter schools with a home-schooling focus work the fewest hours per week, perhaps because they spend less time instructing students.[56]

Salary and Satisfaction

Salaries also vary among the different types of schools.

Table 5 – Average school-related earnings

School type	All teachers	First year teachers	Teachers with 10-15 years experience
Private (all)	*$30,307***	*$22,976***	*$30,262***
Private, Catholic	30,970*	23,987*	30,294*
Private, other religious	25,948*	19,328*	26,013*
Private, non religious	36,930*	28,910*	37,438*
Charter (all)	*37,136***	*30,514***	*43,326*
Charter, no home-school focus	37,378*	31,079	43,207
Charter, home-school focus	34,069*	#	#
Public non-charter (all)	*45,643*	*33,395*	*45,399*
Magnet	46,534	35,814	47,593
Public, open enrollment	48,007	33,303	48,337
Public, interdistrict choice	46,581	#	43,506
Traditional public	45,471	33,250	45,114

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
Estimates are not shown due to small sample size in subpopulation.
* Statistically significant difference from “traditional public” schools.
** Statistically significant difference from “Public non-charter (all)” schools.

Charter school teachers earn less than their peers in public schools with similar credentials and experience.[57] Although charter schools are less likely than districts to use a standard salary schedule, their salary structures are still quite similar to districts’, with education and experience being the largest contributors to a teacher’s salary.[58] Other research

suggests that charter schools have more flexibility to adjust to market conditions in the competition for teachers.[59] Within the charter school sector, salaries and benefits may vary. Charter schools that converted from existing schools spend more per pupil on teacher salaries and benefits than newly created schools.[60] However, newly created charter schools are more likely than conversion charters to provide bonuses for teachers in certain subject areas or for teachers with National Board for Professional Teaching Standards (NBPTS) certification.[61] Private school teachers earn the lowest salaries[62] and teachers in public schools cite pay and benefits as the reason they are not working in private schools.[63]

Table 6 – Average overall satisfaction

School type	Overall satisfaction[1]
Private (all)	*3.7***
Private, Catholic	3.7*
Private, other religious	3.7*
Private, non religious	3.6*
Charter (all)	*3.4*
Charter, no home-school focus	3.4
Charter, home-school focus	3.7
Public non-charter (all)	*3.5*
Magnet	3.4
Public, open enrollment	3.5
Public, interdistrict choice	3.6
Traditional public	3.5

Note: Original analysis by the author using the 2003-04 Schools and Staffing Survey.
* Statistically significant difference from "traditional public" schools.
** Statistically significant difference from "Public non-charter (all)" schools.
[1] Overall satisfaction is the extent to which a teacher agreed (on a one-to-four scale) with the statement "I am generally satisfied with being a teacher at this school." 1=Strongly disagree; 4=Strongly agree.

The original analyses show that teachers in charter and private schools earn lower salaries than do traditional public school teachers. However, average salaries mask differences due to real salary gaps and differences due to teacher experience levels.[64] As indicated above, charter and private school teachers also have less experience; thus it is not surprising that they earn lower salaries. It is more appropriate to compare the average salaries of teachers with common qualifications across school types. Among first year teachers, private school teachers continue to earn substantially lower salaries than public school teachers. There is some evidence that first year charter school teachers also earn lower salaries, but the difference is smaller. Among experienced teachers, charter school teachers earn salaries similar to those of public school teachers, while

private school salaries continue to lag behind. There is considerable variation in salaries among types of private schools, with teachers in non-religious private schools earning about $9,000-$11,000 more than teachers in non-Catholic religious private schools.[65]

Overall, the existing literature indicates teachers across all schools appear satisfied with their school environments.[66] This may be due to self-selection as teachers seek out types of schools that can provide what they want.[67] Charter school teachers are satisfied with many aspects of their school, including their relationships with their colleagues, the professional environment, and the educational philosophy of their schools, but are dissatisfied with the facilities, the relationships with the district and union, and the lack of grievance procedures.[68]

Despite lower salaries, teachers in private schools report higher levels of overall satisfaction than their peers in traditional public schools, perhaps because of smaller class size or shorter hours evident in the SASS data.[69] Charter school teachers appear equally satisfied with their jobs as traditional public school teachers. As with other findings, there are few differences among forms of public school choice.

Do schools of choice use different hiring practices than traditional public schools?

Schools of choice and traditional public schools may use different hiring practices and so may recruit different teaching personnel. Overall, there is little research on the hiring practices of school leaders in choice schools, although some studies have compared charter and public school hiring processes and personnel practices. Charter school teachers are more likely than public school teachers to have had an interview at the school before they were hired; however, that interview tended to be only with the principal.[70] Charter school teachers also submitted a broader range of materials in their applications,[71] and charter school principals were willing to hire uncertified teachers if they had other desired attributes.[72] That willingness is somewhat surprising given the mandate for Highly Qualified Teachers in NCLB for both charter and public schools. Private schools, on the other hand, do not have such hiring restrictions, which may explain the finding that fewer private school teachers are certified.

What is the impact of increasing school choice on the teacher labor market?

Teacher Attrition and Retention

Previous research suggests that charter schools have higher attrition than public schools.[73] The high turnover rate may be a function of high dismissal rates, as charter schools dismiss a higher proportion of

teachers than both public and private schools.[74] Private school teachers also have higher attrition than public schools, perhaps because they are more likely to plan on teaching for only a few years.[75]

There is mixed evidence about the fluidity of teachers' movement between school types when they move to new schools. Some evidence suggests that teachers are open to moving between schools of choice and a public school. Two-thirds of teachers in private independent schools would consider working in a public school, and one-third began their careers in a public school before moving to an independent school.[76] Teachers in public schools, however, were most likely to have spent their whole career in a public school, even though they considered teaching in a private school.[77] One study of teacher mobility in Florida found that teachers in both charter and public schools who move are more likely to move to a public school.[78] In Ohio, however, teachers who leave charter schools appear more likely to quit teaching altogether rather than move to another school.[79]

The Impact of School Choice on Traditional Public Schools

As schools of choice increasingly compete with traditional public schools for teachers, the teacher labor market might be affected. To date, however, there is little research on this important issue. Some evidence suggests that more private school competition for teachers results in higher teacher salaries and teachers who are more effective at raising student test scores.[80] Additionally, a study of teacher mobility between charter and public schools found that the pattern of movement between sectors leads to lower quality teachers in public schools and higher quality in charter schools, the apparent result of the lower quality teachers in charter schools being likely to move to public schools.[81] Yet, school choice appears to have had little impact on district hiring and staffing practices. One study found that less than 5% of public school principals said that the introduction of charter schools impaired their ability to recruit or retain teachers or affected their teacher compensation structure.[82] Similarly, only 6% of public school principals said they changed their staffing policies due to charter school competition.[83]

Discussion

Both the existing literature and these original analyses find differences in the qualifications of teachers across private, charter, and public schools. Among private schools, Catholic school teachers appear most similar to teachers in traditional public schools, while the evidence on the qualifications of teachers in magnet, interdistrict and intradistrict choice schools is mixed. There are some differences among the qualifications of teachers in public school choice, but they do not tell a consistent story.

Determining whether schools of choice have higher or lower quality teachers than traditional public schools requires specifying criteria for quality. The most consistent criteria in the literature include having at least three years of experience and high general ability. Even on only these two measures, the relative quality of teachers in choice schools is unclear. While choice schools do tend to have more teachers who graduated from more selective colleges, and fewer teachers from less selective colleges, they also have more inexperienced teachers.

What explains these differences? One possible explanation is that choice schools, free from restrictions on teacher certification and hiring, attract a different pool of applicants. Individuals who graduated from highly selective colleges and want to teach may find themselves unable to obtain jobs in public schools without state certification; therefore, they apply to private schools. Another explanation is that private and charter school principals actively recruit and hire teachers from more selective colleges, altering the characteristics of their teaching force regardless of the composition of the applicant pool. That Catholic school teachers look more like public school teachers may point to the importance of hiring preferences. Like all private schools, Catholic schools are legally free to hire uncertified teachers. That they hire certified teachers from less selective colleges may reflect their hiring preferences or practices, which prioritize other teacher characteristics.

In terms of working conditions, private school teachers are the most satisfied with their jobs, despite having the lowest salaries. This may be partially due to the finding in this analysis that they also have smaller class sizes and work fewer hours. Contrary to expectations, charter schools have class sizes similar to those in traditional public schools. Overall, the analysis suggests that teachers in forms of public school choice and in traditional public schools have similar work environments.

There is limited evidence that charter schools use different hiring practices than public schools, although the extent to which these differences contribute to the qualification differences is not known. There is also little known about how school choice may be affecting the teacher labor market. The evidence that does exist indicates that public schools do not experience competition for high quality teachers and make few changes in staffing policies as a result. Although charter and private schools lose teachers at higher rates than public schools, there is no strong evidence about the place of schools of choice in teacher career patterns.

Conclusion and Recommendation

The literature review revealed several gaps in existing research on teachers and teaching in schools of choice. First, there is little research on how hiring practices may differ among school types or on whether the differences evident in teacher qualifications are due to teacher or school decisions. While there are a few studies of hiring and staffing practices in

charter and public schools, a better understanding of how private and magnet schools select staff can promote a better understanding of school staffing across school types. Second, there is little evidence on whether competition from school choice affects the overall dynamics of the labor market. The research that does exist focuses on how competition affects salaries.

In addition, the amount of research across choice schools varies, with a great deal of recent research on charter schools and limited research on private schools, home schooling, magnet schools and programs, and other forms of public school choice. There is especially sparse research on teachers in home schools or cyber schools. Because most home-school instruction is provided by non-school personnel, no evidence on the relative quality of such instruction is available. There is similarly sparse information about the qualifications and work environment of teachers in private voucher schools. Most evaluations of publicly funded voucher programs focus on student achievement results, not on the internal school operations. An analysis of the instructional quality in private voucher schools as compared to that in public schools would provide better insight into achievement results.

These gaps point to future areas of research on teachers in choice schools. Additional work on how school choice is affecting the labor market could help to tease out whether differences in teacher composition across school types are due to teachers self-selecting into different types of schools or to different hiring practices across school types. For example, do principals in choice schools use different hiring criteria or processes? Do similar types of teachers apply to schools in multiple sectors? Do forms of public school choice have unique staffing structures in their districts? The relative amount and type of movement of teachers between schools of choice and traditional public schools can illuminate variations in teacher career patterns across school types as well as the degree of segmentation in the teacher labor market.

More work is also needed on teachers' motivations for choosing to work in a particular type of school. Given the variation in working conditions and salary across school types, it is probable that teachers select into schools with the work environments they most value. Public school teachers, for example, may come from a pool of applicants who value the high salary and job security a public school provides. Private school teachers, on the other hand, may come from a pool of applicants who are willing to trade a lower salary for a shorter workday and a school that shares their vision for education. It is not clear if teachers would be willing to move between school types if they would still be able to get either the working conditions or salary they want.

Finally, research on the extent to which increasing competition for teachers leads traditional public school districts or private schools to change existing staffing policies or hiring practices is also needed. Teachers are central to the operations and educational success of all

schools. If school choice is to have a competitive effect on traditional public schools, then that should become apparent in school operations. While there are many potential changes a school or district could make, altering the teaching force and the work that teachers do is a potentially powerful method of responding to competitive pressures from choice schools. Understanding the impact of school choice on traditional public schools requires examining how school choice affects teachers, teaching, and the teacher labor market.

Based on these findings, it is strongly recommended that extensive additional research be conducted to fill the many existing knowledge gaps exposed in this study, especially regarding the question of how school choice affects the overall teacher labor market.

.Appendix: Measures of Teacher Qualifications and Work Environments

Using teacher qualifications as indicators of teacher quality is problematic, as few qualifications are consistently linked to student performance. While teacher quality is an important component of student achievement, it is hard to isolate the effects of observed characteristics.[84] Despite this limitation, some qualifications are commonly used as indicators of quality. The common indicators employed in this study include teacher certification, educational level, years of experience, and college selectivity.

Teacher certification is an important measure as it is required of all public school teachers. In this analysis, teachers are considered certified if they have a regular, probationary, or provisional certificate in their state, regardless of whether it was acquired through an alternative route or not. Teachers with temporary or emergency certificates are not considered certified because the Highly Qualified Teacher provision of the No Child Left Behind Act does not include emergency certifications as Highly Qualified and because teachers with less than full certification have lower performing students.[85] Teacher educational level indicates whether the teacher has a master's degree or more.

The years of experience criteria include the total years of full or part-time teaching the teacher has accrued, in public or private schools. The percentage of teachers in their first three years of teaching is included because some research suggests that teachers become more effective in their first three years.[86]

The measures of work environments include salary, class size, hours worked per week, and overall satisfaction. Teacher salary is the total school-related earnings during the regular school year. It is the sum of academic year base teaching salary, additional compensation earned for additional activities such as coaching or tutoring, and other income from school sources such as a merit pay bonus or state supplement. It does not include salary from teaching summer school or working in a non-school job. Gaps in average teacher salaries between school types may exist even if all schools offer similar salaries to teachers with similar qualifications, because teaching qualifications vary among schools. For this reason, salaries are also compared for teachers with similar experience levels.

The average class size for teachers is reported separately for teachers in self-contained or departmentalized settings. A self-contained setting refers to teachers who instruct the same group of students most of the day in multiple subjects, most commonly in elementary schools. A departmentalized setting refers to teachers who have several classes of different students throughout the day. Departmentalized instruction is most prominent in secondary schools, where, for example, a math teacher may instruct five different groups of students in algebra during one day. For self-contained teachers, the class size is the number of students the

teacher reported in an assigned class. For departmentalized teachers, the class size is the average of the number of students the teacher reported across all assigned classes.

The hours worked per week is a teacher-reported variable that indicates the total hours spent on teaching and other school-related activities during a typical full week. Overall satisfaction is the extent to which a teacher agreed (on a one-to-four scale) with the statement “I am generally satisfied with being a teacher at this school.”

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[3] The existing literature was identified by a search of electronic databases using a combination of keywords that identified the school type and teacher qualification or work environment. The references of the identified literature were also reviewed to identify additional relevant studies. Articles in scholarly journals, policy reports, and state evaluations were included. To be included in the literature reviewed, previous studies must have made some effort to either compare different forms of school choice or compare a type of school choice to a public school. Reports that presented data on one school type without making comparisons were not included.

[4] SASS uses a complex sampling design with teachers clustered within schools. Sampling weights are used to produce nationally representative estimates for the population of public and private school teachers.

[5] Chi-square tests were used to test the distribution of categorical measures among school types. Comparisons of means were used to analyze the differences for continuous variables. In the analyses teachers in all private and all charter schools were compared with teachers in all public non-charter schools. In the detailed analyses, teachers in each type of school choice are compared to teachers in traditional public schools. An alpha level of .05 was chosen so that only differences where there is less than a 5% probability that the difference occurred by chance are noted as statistically significant. Because multiple comparisons are made for each variable (i.e., the educational level of traditional public school teachers is compared to both private and charter school teachers), a Bonferroni adjustment was made to limit the possibility of Type I errors.

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[8] In this brief, private school teachers include any teacher included in the private school teacher data file in SASS.

[9] The religious affiliation was obtained from the school survey.

[10] Charter school teachers are defined as those teachers in schools that indicated they are a public charter school on the SASS school survey.

[11] Charter schools with a home-school focus are those charter schools that indicated that more than 2 percent of their students are home-schooled students. This cut-off point was chosen because the

distribution of percentage of home-schooled students indicated that 77% of charter schools had 2% or less of their students in a home school.

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Educational Innovation and Diversification in School Choice Plans

Christopher Lubienski , Ph.D.

University of Illinois

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Christopher Lubienski, University of Illinois

Executive Summary

The concept of innovation has been closely tied to the push for school choice, serving as a key rationale for such choice plans as charter schools, vouchers and other alternatives to neighborhood-based school assignment.

While innovation continually occurs to varying degrees throughout American education, some versions of school choice are specifically designed to accelerate the pace of innovation, not only in how education is organized, but more importantly in teaching and learning, where substantive innovation is thought to have the greatest and most direct impact for students. While some choice reforms are specifically designed to force innovation by generating competition, questions remain as to what extent and how these reforms actually do so.

This review points to several considerations for encouraging substantive educational innovations:

- As with innovations in other sectors, educational improvement entails directing considerable resources into particular schools to develop and pilot specific new approaches to teaching and learning with different populations, rather than trying to do it on the cheap through the relatively simple restructuring of choice models.
- The development of innovations involves nurturing and shielding such efforts from immediate mandates and competitive pressures, rather than forcing schools representing new ideas to sink or swim in the educational marketplace.
- As noted, there are unique qualities around education that defy the easy application of basic market models. If markets are to be used effectively for organizing the production and distribution of education, more thought has to be given to the type of market reflected in education, such as the specific conditions that can best encourage innovation.
- Inability to routinely provide good information about school quality can motivate schools to choose symbolic action rather than substantive innovation; for markets to work effectively, informational "asymmetries" between producers and consumers need to be addressed.

We cannot rely on competition alone to generate quality information for families. While many point to value-added modeling or parent information centers, non-market efforts such as rigorous school inspections (as in the United Kingdom) that provide parents with information on multiple dimensions of school quality can also be useful.

- Furthermore, governments are often better suited than independent market actors to provide a range of options for families. We know that professional activity in the state sector has often been more successful at generating innovations. It could also be that innovation will flow more from government-guaranteed choice plans such as magnet schools, where efforts are made to establish and sustain a range of options.

Educational Innovation and Diversification in School Choice Plans

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The concept of innovation has been closely tied to the push for school choice, serving as a key rationale for such choice plans as charter schools, vouchers and other alternatives to neighborhood-based school assignment. In particular, critiques of traditional public schooling arrangements have played upon the idea that governance by districts stifles creativity and entrepreneurial ingenuity in schools. Such critiques portray a "one-size-fits-all" public education system that neglects the needs of diverse communities and individual learners—presenting a serious equity issue. Hence, according to this thinking, education should be organized under competitive models to nurture new and different instructional approaches, resulting in a range of alternatives for families. Promoters hope that with a set of real options, parents will be able to make decisions based on different curriculum and instructional approaches, rather than on, say, the racial or social-class composition of schools.

Some choice reforms—policies and movements such as charter schools, vouchers, open enrollment and home schooling—are specifically designed to generate competition and thereby force innovation in schools. As a result of such focused efforts, innovation may appear, not only in the new forms of schooling, but also within competing public schools. However, important questions then arise regarding these reforms:

- To what extent do various manifestations of school choice represent innovations in policy?
- How can school choice generate innovation?
- Where do those innovations occur, and what forms do they typically take?
- What factors encourage or inhibit innovation, and what are the consequences?

This review of research notes the dual goals of innovation and diversification of options. It finds that school choice is providing alternatives in some communities, but innovations generated by competitive forces are often focused in areas where they are least likely to improve equitable access to quality education. On the other hand, many useful innovations are emerging from sources not predicted by theories that focus on competition.

The first part of this review notes the promise of innovation, highlighting its significance, but also outlining some of the conceptual difficulties that emerge when we look more deeply into the concept with

regard to education. Following this overview is a typology and survey of the types of innovations born of school choice, examined in light of its promoters' high expectations. The survey identifies areas where the most innovative practices are occurring, explores how such innovation may or may not provide new options for families, and examines factors that encourage or inhibit the generation and dissemination of educational innovation. Contrary to much of the simplistic rhetoric promoting choice as a sure route to innovation and improvement, a discussion of the structures and attributes unique to education demonstrates why it resists easy analogy to innovation in other fields. The concluding discussion suggests that the most beneficial innovations may emerge from professional, rather than competitive, impulses.

The Logic of Innovation in School Choice

There are many expectations and promises for school choice, including community empowerment, parental satisfaction, educational entrepreneurship, and, of course, higher achievement. But a central argument of the school choice movement has been that choice will both lead to and capitalize on beneficial innovation. That is, innovation has been promoted both as goal in itself and as a necessary condition for establishing environments and incentives that will inevitably lead to the ultimate goal of increased educational quality.

Choice advocates and theoreticians have been explicit in linking more market-like structures in school choice plans to the opportunities and incentives required to generate innovation.[1] The thinking is that provider competition and liberated consumer choice is sure to generate widespread innovation in choice schools, a picture in direct opposition to that painted of public schools, which are characterized as imposing unnecessary constraints on creativity. Few have set out this logic as clearly as Nobel Laureate economist Milton Friedman, the intellectual author of the school choice movement, who argued that public education systems "repel the imaginative and daring," leading to an "excess of conformity."[2]

Nowhere is this perspective more evident than in the charter school movement, particularly in its early assessment of the potential of charters to serve as "laboratories" or "research and development" (R&D) centers for innovative educational practices. As John Flaherty argues: "One of the foremost arguments in favor of charter schools in public education is the increase in innovation that *will surely follow* from the autonomy granted to charter schools" (emphasis added).[3] Many expect that reforms harnessing competitive pressures to attract students will lead to a flowering of different program options from which families may choose.[4] Friedman, for instance, contends that choice systems will provide "many more choices, there will be a whole rash of new schools that will come into existence. The government schools will improve, and the private school system will improve."[5] This is because competition

> would produce a much wider range of alternatives—unless it was sabotaged by excessively rigid standards for approval. The choice among public schools themselves would be greatly increased.... And most important, new sorts of private schools could arise to tap the vast new market.[6]

Thus, most of the legislation authorizing charters is explicit about the expectation that they will produce a flow of innovation in teaching and learning.[7] As Flaherty notes, the "search for innovative teaching methods was foremost on the minds of legislators."[8]

Similar expectations are also associated with other versions of school choice, since freedom from regulation is often equated with freedom to innovate. Such is the case with private schools. The Friedman Foundation—one of the leading champions of vouchers for sending children to private schools—argues that private schools produce superior outcomes because they are unregulated:

> Private schools are good largely because they are free to innovate. Forcing them to use the same standards as public schools, to take mandatory tests based on curricula chosen by the state rather than parents or to comply with unnecessary red tape, is bad news.[9]

Other forms of school choice are also associated with innovation, but in different ways. For instance, virtual or cyber schooling, which is increasingly important in areas such as home schooling, is seen as an innovative delivery mechanism, though there is no particular expectation that it will deliver innovative content. Likewise, public school choice programs, such as magnet schools and open-enrollment plans, are considered innovative in expanding the options offered to parents, but are not necessarily considered a lever to force innovation in teaching and learning.

Conceptual Issues Regarding Innovation and School Choice

For all of the certainty that innovative practices "will surely follow" from charters and other choice plans, the core concept of innovation is actually remarkably nebulous, and often conflated with other ideas. For instance, if a school is said to be "innovative," that could mean several different things. As commonly understood, the term could indicate that the school is (a) a result of a policy innovation, such as a school created by new legislation authorizing charter or alternative schools; (b) producing innovations, such as a school creating a new pedagogical approach; or (c) adopting innovations generated by other schools, such as a school that borrows innovative models from other schools.[10] Moreover,

people often speak of "innovation" when they are actually referring to *diversification* of options in a local context.

In fact, there are different established definitions of the concept, which may contribute to the confusion in its application to school choice. A common understanding, drawing on the primary meaning of the term, is that something must be new in order to be innovative.[11] That is, innovation is the act of creating something original—for example, in the case of schooling, a novel practice or approach. However, most "new" things draw from pre-existing ideas or practices. Therefore, this purist definition slights innovations that are the result of combinations of previous practices, or ideas that have been transplanted from another field. Indeed, in some sense, any change represents innovation.

A more subjective conception classifies things as innovative if they are new to a local context.[12] However, this perspective ignores well-known problems with policy borrowing (that is, transplanting policies across contexts), while expecting each local community to reinvent the wheel is also a highly inefficient use of resources. Moreover, this subjective approach conflates the idea of *innovation* with *diversification*—an important consideration with regard to school choice. Even if "innovation" may refer to the creation of a new practice, something would *appear to be new* if it has not been seen before in a local context. And, indeed, creating new options for families is one of the primary themes of school choice in general, and one of the specific goals of innovation in particular. But a subjective focus on a local context can also dilute the larger push for producing new approaches by confusing the diffusion of practices with the creation of new ones. In fact, much of the argument advancing school choice acknowledges this distinction. For example, many of the laws authorizing charter schools see them as a mechanism to encourage "different and innovative teaching methods," indicating that reformers want both innovation *and* diversification of options.[13] Hence, innovations are anticipated not simply in organizational structures, but specifically in teaching and learning.[14]

Thus, the idea of innovation is itself vague, particularly in a politicized area such as school reform. Perspectives from economics and organizational theory provide some insights into the question of how change occurs, and how it may be distinct from "innovation." For instance, Rogers highlights the notion that a practice is innovative if it appears to be novel to people in local contexts.[15] Yet this perspective may blunt the push for new innovations overall by conflating the invention of a practice with its dissemination. For example, is opening a McDonald's restaurant in a town that previously had only a Wendy's an innovation? Most people would probably say no. Although some changes may appear to be innovations in a local context, they may represent nothing new in the broader scheme of things. Indeed, change alone is not innovation. As Daft and Becker observe: "Innovation is the adoption of something new; change is the adoption of something different."[16] Organizational theorists

contend that true innovation involves "at least partly exogenous support or legitimization"[17]—an issue of "valuation," where marketplace value is an indicator of innovation.[18] Theories of management tend to equate innovation with invention, since organizations pursue innovations through research and development in order to gain a competitive advantage.[19] Similarly, economists note that innovation, unlike change, "presumes a net improvement"; from an economic perspective, innovation is something that produces improvements in efficiencies and outcomes.[20] The industrial organization literature perceives innovation as the keystone in a process whereby inventions/innovations are commercialized and then propagated through the market largely through emulation.[21]

Regardless of the specifics of the meaning, the idea of encouraging innovation through competition in education, from the perspective of policymaking on this issue, presumes two prerequisites. First, innovations must be replicable—that is, what has been found to work in one school needs to be transferable to other schools. While this may seem obvious, inasmuch as school choice also encourages diversification and specialization, more successful practices may be unique (or uniquely effective) for a particular population or community, or may not be suited to more comprehensive models of schooling common in the district sector. Secondly, there must be some mechanism to facilitate the spread of a practice. Many market advocates argue that competitors will emulate successful practices. However, this also assumes that information about innovations is available to competitors, and that they are allowed to use them. Because of problems in this regard, some have argued that competition is not itself enough to encourage innovations, but that formal networks are also necessary to help in the dissemination of innovations.[22]

Discussions of innovation through school choice plans can be remarkably vague—partly because the nature of innovation can be unpredictable, but also because there is no consensus about what innovation means, especially in its difference from diversification. The next section pursues more clarity in the discussion by offering a typology of change that can be considered innovative to varying degrees. This typology draws on the empirical record of change and innovation evident in different school choice programs, and offers a brief overview of the types of innovation typical of various school choice models.

A Typology of Innovation for Examining School Choice

To better assess the logic applied to school choice—that competition will inevitably spark educational innovation and improvement—it is important to consider the different dimensions in and through which change may occur, so that we can weigh the extent that such changes might be considered innovations, a subset of change. These dimensions include the level at which innovation is perceived (school, district or classroom level, for example); the nature of practices thought to

be innovative (marketing or pedagogical strategies, for example); and how innovations are prompted and nurtured by such choice mechanisms as charter schools, open-enrollment programs, inter- and intradistrict choice, voucher plans, and home schooling and virtual or cyber schooling. By examining these issues, we can better illuminate where changes are more substantive, more symbolic, or simply non-existent — an important notion if we are to understand factors that nurture or inhibit innovations, and to design systems in which innovation is encouraged. As described in the concluding discussion, contrary to much of the simplistic rhetoric that promotes choice as inevitably leading to innovation and improvement, structures and attributes unique to education resist easy analogies about innovation drawn from other fields.

Levels of Innovation

A substantive discussion of educational innovation requires distinguishing among policies that conceptualize innovation as input and those that conceptualize it as intended outcome—or both. Policymakers may seek to promote improvements in schools by adopting innovative governance policies (as with charter schools), school funding (as with vouchers), or delivery mechanisms (cyber schooling)—all inputs at the *governance level*. Such changes may be ends in themselves, or may be intended to spur innovations more immediately evident to students—for instance, in a school's orientation or organization, or in the classroom. On the other hand, policymakers may seek to implement improvements directly at the classroom level—for example, by mandating a specific curriculum. However, school choice as a reform movement generally refrains from such top-down micro-management. The assumption is that local actors (including parents and teachers) understand the individual needs and preferences of a child better than bureaucrats and policymakers.[23] Consequently, policymakers interested in choice focus instead on institutional levers for creating the optimal environment and structural incentives to compel schools to improve. Hence, in this thinking, classroom-level innovation is best encouraged through structural reforms, rather than specified by policymakers.[24]

After leveraging policy to produce changes in governance, a second and sometimes intermediate level is the local *school (or district)*. Institutional policies are typically targeted at precipitating improvements in schools. For instance, due to the competition generated in school choice systems, many schools have taken on a more entrepreneurial orientation, hiring business managers, cutting costs through contracting for services, or employing marketing campaigns. Freed from many school regulations, charter schools have a number of opportunities in this area, and many have pursued innovations in terms of new forms of organization, alternative employment practices, accessing private capital, or targeting niche markets.[25] While these might appear most obviously in individual schools,

their significance is most notable in terms of aggregate effects. A single school may make internal changes in terms of how teachers are evaluated or how the school promotes itself, but the larger impact is in how other schools in that area respond in creating a range of new and, it would be hoped, improved options for families in the community.

In fact, it is expected that these changes will then have an impact in the *classroom*. Policymakers can change institutional arrangements and shape alternative structures and incentives for schools, and schools can respond to those factors in how they organize themselves and arrange their resources. But, without improvements in educational quality—a classroom-level concern—other institutional and organizational reconfigurations are only so much reformist posturing. As Richard Shavelson observes, "the real issue is whether what goes on in the classroom has substantially changed."[26] Indeed, reforms such as charter schools make this a central consideration. However, educational historians warn that classroom practice—what organizational theorists call the "technical core" of the educational enterprise—is the area most resistant to change.[27]

Nature of Changes

In addition to the known difficulty of effecting classroom change, there are several other reasons to believe that many changes presented as "innovations" in education may be more about appearance than essence—particularly in view of the enhanced incentives to pursue innovations in the new education marketplace of school choice. In view of the weight of demographic factors, the degree to which schools have a primary impact on student learning is questionable, and it is not clear that educational innovations can significantly increase that effect.[28] Thus, because it is so difficult to increase student learning, instead of focusing on innovations in teaching and learning, schools often focus on marketing innovations to simply attract "better students." An "innovative" school may thus appear to have changed its impact on student learning when what has actually changed is the student body. Moreover, many parents are not particularly interested in sending their children to an "innovative" school, preferring instead schools that focus on traditional practices. Furthermore, in an area such as education, families are at an "informational disadvantage" relative to schools because of the complexity of the organizational processes involved.[29] Because of this asymmetry, it is relatively easy for schools to suggest innovation even when little or none is taking place.[30] This issue is exacerbated because of the rise of marketing in areas with more intensive school choice programs.

Therefore, it is important to consider the nature of changes and practices that are presented as innovations. Some innovations entail fundamental and sustained improvements in teaching and learning. For instance, computer assisted instruction that seeks to individualize

education for different learners might be shown to improve academic outcomes. Innovations in systems and structures might also represent real change, but they may not automatically have the anticipated impact on teaching and learning—change might remain at the structural level. But innovations in symbols and marketing may become more common; such "innovations" may be of value more for their use in shaping perceptions of the educational enterprise, as with changing the name of a school or an administrative title, or the addition of school uniforms, or a school logo.[31]

Diversification and Innovation

As noted earlier, innovation should not be too easily equated with diversification. While creating more alternatives is important, and is certainly a co-equal goal, it is important to note that innovation is a prerequisite for diversification. That is, innovation generates new options, whereas diversification extends the fruits of innovation into multiple local contexts, where families could then choose among different options. Thus, although innovation and diversification are closely related, they are distinctly different processes. Observers must take a big-picture perspective when considering innovation in schools in order to assess whether new practices are either initiated or replicated at a given school.

One question to consider is whether school choice is itself a prerequisite for, or a result of, innovation. If the former, then markets may be better suited for creating alternatives, since competitive forces generated through choice can spark innovations, which will lead to a greater diversity of options. But if, it is the latter—if choice results from innovation—then governments, capitalizing on research and development efforts, might more easily establish contrasting programs at different schools in order to offer families alternatives. That is, the state could provide diverse options, reflecting innovations already in existence. While further innovations may then transpire, the primary point in this scenario would be to offer alternatives.

This issue is illustrated in the example of charter schools, which were advanced as R&D centers for new practices and approaches in teaching and learning. The idea behind this thinking was that autonomy from direct state oversight, competition, and choice would generate innovations, and thus diversification in the form of new options for families. Although some ideas were truly novel, many charter schools quickly trended towards more familiar educational practices, and charter school "innovations" in teaching and learning were for the most part already evident in other schools (see below). Notably, this includes state-run schools of choice such as magnet schools, through which district-run schools were already using practices that were then considered "innovative" in charter schools. Consequently, the rhetoric around charter school innovations shifted, so that advocates saw them as "laboratories" or "greenhouses" where unique practices available elsewhere could be

further developed. Later, some saw charters only as "showrooms" where new practices could be brought to local contexts, making them primarily delivery mechanisms, as opposed to development mechanisms. In this sense, it is not clear that greater innovation necessarily results from competitive choice systems. Instead, insofar as the "innovations" evident in charter school classrooms were already evident elsewhere, one could make the case that innovations were already occurring in larger state systems.

Assessing Innovation in School Choice Models

With these considerations in mind, a brief overview of practices in different school choice schemes suggests that innovations tend to vary somewhat by school type, and most often appear outside of the classroom.[32] Furthermore, few substantive innovations may be occurring in teaching and learning, but the paucity of good research on innovation in many of these models suggests that this topic is drastically under-studied.

- Perhaps the model with the greatest level of innovation is *cyber schooling*, including blended models of on-line and face-to-face instruction that cut across not only instructional approaches but also public and private sectors. Cyber schooling, or virtual schooling, an innovation in content delivery, is particularly popular with home schoolers, although it has spread far beyond that audience. Nearly 150 charter schools are cyber schools, and numerous other public and private schools use Internet delivery as a resource to varying degrees.[33] Cyber schooling affords parents additional opportunities to monitor children's work, and it gives administrators new means to employ, supervise and assess teachers.[34] Although there are many opportunities for further educational innovations in this respect, this new forum for schooling also presents significant accountability and resource challenges in some areas, such as questions of quality and training for teachers on the public payroll.[35]

- *Home schooling* is often associated with traditional family values, and frequently represents a reaction against overly modern curriculum and pedagogy, but it also offers the potential for developing great innovations in teaching and learning. Home schooling families are developing strong networks, and are even establishing "institutions," such as learning centers, to support learning in ways that parallel, but differ from, conventional schooling.[36] Home schooling is also blurring boundaries between different sectors, as charter schools and public school districts seek different ways of catering to this growing population.[37] However, the little research that has been done on this model strongly suggests that, despite its potential for innovation, most home schooling in fact focuses on traditional forms of pedagogy.[38]

- *Charter schools* are the choice model most explicitly tied to the idea of innovation. Because their substantial autonomy provides great opportunity for creativity, and because of the competitive pressures charters face, reformers have been clear in their expectations to see substantive innovations in charter classrooms. However, research suggests that in charters—the most studied model in terms of innovation—most innovations are happening outside the classroom. For instance, charters have embraced alternative employment practices such as merit pay, and they have taken the lead in using marketing to attract students.[39] Yet larger scale studies indicate relatively few innovations in charter classrooms, with most practices tending toward familiar or traditional approaches.[40]

- *Magnet schools* may also have the opportunity to innovate, due to their distinctive missions, and often more homogenous community. However, since they may deal with more specific and sometimes more affluent students, opportunities to innovate may result more from demographics than school type. Still, there have been relatively few studies of innovation in magnet schools. In the early 1990s, over one-third of magnets focused on a specific subject, and over one-quarter had a unique pedagogical focus.[41] Teachers in magnet schools report greater levels of autonomy and less standardized curricula, but few substantive differences in classrooms compared to other schools.[42] Some magnet schools have attempted to re-orient themselves to be more student-centered, and in pursuit of this goal have adopted such practices as project-based learning.[43]

- *Intra- or interdistrict* choice plans are typically not geared specifically towards generating innovations, as are, say, charter school programs. Instead, they primarily allow for greater freedom of choice. Still, some research has suggested that some schools in such districts are pursuing information about parental decision-making practices—perhaps a form of administrative innovation.[44] In some instances, though, districts provide for the establishment of individual schools or sets of schools specifically for research and development, "to develop best practices and to be a catalyst for change that could be transferred to the rest of the system" (see below).[45] These efforts, brought about by professional impulses to improve, rather than to generate competitive incentives, have garnered some acclaim from across the political spectrum for the extent of their educational innovations.[46]

- *Vouchers for private schools* are advanced more with parental control, rather than innovation, in mind. However, private schools in voucher programs in many ways best approximate the theoretical conditions for producing innovations: they are free of district regulation, must

> compete for students, and are held accountable to consumers largely on results. Thus, the pro-voucher Friedman Foundation contends that "Private schools are good largely because they are free to innovate."[47] Yet while vouchers programs themselves might be considered to be innovative at the policy level, there is virtually no evidence to suggest that private schools accepting vouchers are generally any more innovative—especially at the classroom level—than any other schools. In fact, parents might very well pursue private education for their children largely because it is often associated with more traditional curriculum and instruction. Even on a wider scale, looking at public and private schools in general, the picture is quite mixed. Some progressive private schools (not the type to accept vouchers) are known to adopt non-traditional forms of curriculum and pedagogy,[48] but independent private schools are also the most conventional and often the most internally standardized.[49]

Thus, in general, there is a considerable amount of activity and change in and around schools, although differences in that regard do not appear to be strictly associated with school type or model. Instead, once again, evidence of substantive and symbolic innovation is clearer at policy and administrative levels, such as with employment and promotional practices, while evidence of new and different classroom practices is relatively sparse or, where it exists, often concentrated in the state sector—contrary to the logic of some competition-oriented reforms.

Factors that Inhibit or Encourage Innovation

In order to understand the patterns of innovation and conformity in different models of school choice, it is important to understand the sources of innovation, at least on a theoretical level. Then we can recognize how these do or do not play out in the real world of schooling and, more importantly, appreciate the obstacles to innovation that are inherent in different models, and in education itself.

How Innovations Emerge

Essentially, theorists point to two general sources of innovation. The first is driven by professional or social-benefit ideals; the second by marketplace incentives. Innovation can emerge from professional motivations where innovators seek to meet a social need or to advance the public good through improvements and inventions. An impulse toward such innovation is built into the norms of many professions.[50] Historically, advances in the field of medicine illustrate the desire to improve care for humanitarian reasons. In such instances, innovations are developed for the public good by non-profit entities. However, in the current environment, there is some concern that introducing competitive incentives into

traditionally non-profit sectors—including education—can re-orient or diminish such impulses.[51]

Of course, in the marketplace, competitive environments have generated innovations in many areas. In an arena focused on material gain, individuals and organizations pursue innovations in order to maximize profits and win competitive advantages. The market then rewards the most flexible and effective innovators who can provide consumers with higher quality options and lower costs. The need for ever-increasing innovation is woven into the fabric of markets, but support for it can take different shapes. Some markets, such as information technology, are structured to nurture small-scale, independent innovators; for example, many improvements in computers have been developed by people working in their basements (or a garage, in the case of Apple Computers). Other markets, like aerospace engineering, rely on larger corporate firms with access to considerable resources for R&D.[52]

In considering both professionalism and competition as sources of innovation, it is important to examine how each affects both the rate and the focus of innovation. Economists such as Gary Becker argue that competitive market incentives "would induce a more rapid rate of innovation into curriculum and teaching"—but to what end is not clear.[53] For instance, the competitive pharmaceutical industry directs a considerable amount of innovation toward profitable, but not necessarily widespread, problems.[54] Furthermore, it is not clear that markets necessarily produce a greater rate of innovation in education, since such incentives work better in some sectors than others, and it remains unclear what type of market education represents.[55]

Under these two models, different factors can be leveraged to encourage the development of substantive innovations in education. The market-based perspective emphasizes that competition provides structural incentives to compel schools to pursue new and better ways of teaching individual learners. Therefore, the focus in the market model is largely on enhancing effectiveness at the school and classroom level by structuring the external incentives to induce innovation, which in turn will enhance effectiveness at the school and classroom level. Eschewing the idea that schools might benefit from more resources, market advocates rely on competition and its threat of fewer resources to force schools to innovate. Consequently, teachers' qualifications become less important than their ability to think creatively in response to competitive pressures. But in this equation such creativity is also thought to require autonomy from external (i.e., district, union) regulations that leave little room for entrepreneurial activity.

In contrast, the social-benefit perspective acknowledges that education professionals are specially trained to deal with issues in schools. Therefore, they can be expected to seek solutions to problems by innovating, both because they are aware of a professional responsibility to do so and because better meeting students' needs is an intrinsically good

thing to do. Still, while professionals may not be primarily motivated by financial gain, efforts to create and improve systems for meeting the needs of students require major resources—for instance, to support professional or curriculum development, or program creation and administration. Moreover, successful innovations can be elevated and disseminated as "best practices," but the possibility is easily undermined. Where there is a lack of professional autonomy, bureaucratic mechanisms often impose new practices on practitioners, irrespective of context and most often with thoroughly inadequate professional development.

While professional and market models for innovation differ widely in their assumptions and implementation, however, both face significant structural barriers to change inherent in the current educational environment and processes.

Impediments to Innovation

There are also many serious impediments to innovation in education under both market and professional models. Market advocates highlight one of the most serious challenges in publicly administered schools: the control exerted by the "education establishment"—the hegemonic alliance of school boards, bureaucracies, and teachers unions. Critics note that self-interested parties controlling education governance focus resources and efforts towards their own purposes, rather than towards improving the education of children. Indeed, although there is some interest from unions and education officials in reforming education, concerns about special interests cause many to suspect that such reforms are largely about further enriching and empowering the established interests.[56]

While this is a strong and compelling critique, there is research indicating that innovations have often resulted from government or bureaucratic intervention when choice-based systems were failing to generate innovations—indicating that competitive markets may also involve barriers to innovation.[57] Indeed, some of the most innovative educational practices in the US are evident in district-run programs.[58] In fact, key aspects of public education, such as open access and public funding, defy the logic of purer market models, and the blunt application of markets in education may create *disincentives* for substantive educational innovation.[59] It appears that education markets embody incentive structures that corrupt market pressures to innovate, so that such markets might actually cause many schools to standardize curricula rather than innovate.[60] This is particularly true in cases where consumers have common goals for a service such as education (which are often reinforced through such standardized measures of quality as standardized tests).

Other challenges are found in characteristics of the current teaching force and profession. As market advocates correctly point out, under current arrangements, teachers do not own—and therefore cannot

profit from—any innovations they develop, thereby undercutting the incentive to innovate. Additionally, new ideas about teaching children can be blocked by district and union regulations. Moreover, high rates of turnover in the profession and a disproportionate share of inexperienced and unqualified teachers in poorer schools make it difficult to develop and sustain new pedagogies. On the other hand, it could be that less experienced teachers may be *better* situated to develop innovations, since their approach to teaching is not yet as established.

Other potential barriers to innovation are evident at the organizational level of the education enterprise. For instance, it could be that newer organizations, such as a newly established charter school, are not bound by previous practices and traditions, and thus are better positioned to develop and embrace alternative practices—an argument for new charter schools. But sociologists also point out that such organizations are more desperate to establish "legitimacy," and have to prove themselves in the marketplace—incentives to adopt established practices.[61] Indeed, there is some evidence that new schools established as alternative educational models quickly recognize pressures to conform to common methods of schooling.[62] (In fact, the greater autonomy offered as the remedy to escape standardization often serves instead as a device that allows schools to avoid at-risk students, as well as the educational innovations that could help those students.[63]) And as with teachers, schools generally do not own any innovations they develop. This is particularly evident in the contradictory position in which charter schools find themselves. Unlike district-run models, such as Boston's Pilot Schools, which are also designed as R&D centers to create innovations for other public schools, charter schools are expected to share any innovations they develop with the competition. Private schools and education management organizations (EMOs) are in some ways better positioned to deal with the problem of owning and profiting from innovations, but this would mean using legal protections to withhold innovations from competitors.

The issue of scale also has implications for encouraging or inhibiting innovations. Reformers often highlight the importance of small, independent "mom and pop" schools as the best model for innovation in education, as local providers can pursue different ways of meeting the needs of individuals. Yet, because it is so difficult to observe instructional processes and measure learning outcomes in multiple small sites, questions about legitimacy and quality constantly plague such operations.[64] Furthermore, sizable organizations such as large school districts or private EMOs have the institutional capacity to develop and nurture innovations by directing additional resources—what economists call "monopoly rents"—to R&D efforts *shielded from direct competition*. Larger organizations, however, have a greater interest in developing "process innovations" that reduce costs than they do in developing benefits to clients. While market theorists point to incentives for

bureaucracies to be self-focused, the for-profit motive of the new education management industry suggests that different types of large educational organizations share an incentive to redirect the purpose of innovation away from students and towards organizations. In order to access savings from such innovations, EMOs have an incentive to standardize their model. And, indeed, many claim that it is not just public school districts, but also private management companies that lead to "cookie-cutter" models of schooling.[65]

Conclusion: The Potential for Innovation in School Choice

The question of innovation in education is significant because of the need to find new ways of reaching chronically underserved students. As critics correctly note, traditional approaches to education too often deny individual students and whole communities equitable access to quality educational opportunities. Innovation is a key mechanism for developing more effective ways of meeting the needs of diverse learners, and for improving the quality of education. Without substantive improvements in educational opportunities, parents may be more likely to choose schools based on criteria other than quality, such as the demographic characteristics of students at a school. But the question of how to encourage useful educational innovations has substantive implications for this issue. Contrary to the expectations of competition-based reform models, some of the more innovative practices—such as mentoring programs or the use of new technologies and manipulatives in mathematics—are emerging due to professional activity in the public sector. However, not only does it appear that choice itself is no panacea when it comes to further outcomes such as raising achievement,[66] but when competition is introduced as a significant factor in local education markets, schools, unfortunately, may recognize perverse market incentives to adopt symbolic innovations in areas such as marketing in ways that may further sort students.[67]

Indeed, the question of innovation is problematic because of the notable resistance to change traditionally exhibited by the education system in the United States. In fact, historians and others have highlighted not only the remarkable continuity of educational practices over the decades, but also the ability of the system to deflect and co-opt efforts to make substantive changes.[68] Partly this may be due to the ways that teachers and parents internalize and then replicate their own schooling experiences for the next generation, and in the process construct a defined notion of what "real" schooling should look like.[69] Moreover, the system is designed in such a way that constant reform can generate much activity at policy levels in terms of governance, accountability, or funding, while teachers still seem to hold a rather consistent view of what they need to do on a daily basis. In fact, as an institution, the education system is inherently conservative in terms of the pace of change. Although many—

perhaps too many[70]—fads come and go, core practices remain remarkably similar through the years.[71] While this is rightly seen as a fault in the system in terms of its chronic failure to meet the needs of disadvantaged communities, it may also indicate that teachers focus on some stable learning goals rather than on every new instructional trend.

In any event, competition-based school choice reforms seek to reconfigure the institutional arrangements of schools in order to change the incentives that drive activity in schools. While such choice reforms have been quite successful in re-shaping activity at the policy or administrative levels, they have been less so in terms of creating change at the key point in these organizations: in teaching. In fact, there is some evidence that public sector institutions have been at least as successful in promoting substantive educational innovations.[72] The main obstacle to educational innovation through market mechanisms is that education itself does not easily fit into a market model. Continued public participation in terms of governance and funding, and public values of open access and equity, represent quite a different set of values than in purer market models. Additionally, the incentives for innovation are not necessarily comparable to what one finds in sectors that produce computers or cars. Indeed, in some markets, competition can generate standardizing tendencies, rather than incentives to innovate or diversify.[73]

Consequently, we are seeing somewhat of a retreat from the idea of innovation as a central goal for school choice—at least among more thoughtful reformers. While innovation was one of the most commonly cited goals earlier in the school choice movement, and particularly for charter schools, it may have served more of a symbolic service as a rhetorical device for advancing school choice reforms, rather than as a substantive goal. In fact, the idea has largely disappeared from much of the discourse around school choice, and some early advocates are now backtracking from their initial expectations about the ease of inducing innovations in education through school choice.[74]

More importantly, though, is the point that innovation is not automatically beneficial. While “innovation” has often been cited as a reason to embrace school choice, the autonomy and competitive incentives unleashed in school choice schemes can also lead to negative consequences, in view of the values commonly held for public education. School choice allows families to choose schools outside of traditional attendance areas that too often reflect race and class divisions. While it is possible that competition can ramp up effectiveness in schools and provide quality options for underserved students, it is also entirely possible that it might do precisely the reverse: competition might result in schools pursuing more effective marketing campaigns to attract already advantaged students, thus actually exacerbating racial and class divisions.[75] For example, the rise of marketing that has accompanied school choice programs has not been simply informational, but has often targeted specific groups, playing on race and class issues in ways that may

further erode opportunities for equitable education.[76] Other opportunities for innovation created by the push for organizational autonomy may have similar detrimental effects, as when schools choose locations likely to attract more advantaged students.[77] That may be an innovation, but it is not necessarily desirable.

If reformers are serious, as they have said, about inducing greater rates of educational innovation in classrooms in order to better meet the needs of different students, it may be that the R&D capacity needs to be substantially re-imagined. Simply replicating current practices in different communities may provide more choices, but it is far from clear that the act of choosing in itself leads to better education, or that more effective practices already exist for the many different underserved learners. Indeed, there is real concern that the families of students most in need to alternatives are often those least likely to take advantage of choice. Consequently, diversification is a worthy but insufficient goal without educational innovations to generate new and better ways of serving diverse learners. This review points to several considerations for encouraging substantive educational innovations:

- As with innovations in other sectors, educational improvement entails directing considerable resources into particular schools to develop and pilot specific new approaches to teaching and learning with different populations, rather than trying to do it on the cheap through the relatively simple restructuring of choice models.
- The development of innovations involves nurturing and shielding such efforts from immediate mandates and competitive pressures, rather than forcing schools representing new ideas to sink or swim in the educational marketplace.
- As noted, there are unique qualities around education that defy the easy application of basic market models. If markets are to be used effectively for organizing the production and distribution of education, more thought has to be given to the type of market reflected in education, such as the specific conditions that can best encourage innovation.
- Inability to routinely provide good information about school quality can motivate schools to choose symbolic action rather than substantive innovation; for markets to work effectively, informational "asymmetries" between producers and consumers need to be addressed. We cannot rely on competition alone to generate quality information for families. While many point to value-added modeling or parent information centers, non-market efforts such as rigorous school inspections (as in the United Kingdom) that provide parents with information on multiple dimensions of school quality can also be useful.
- Furthermore, governments are often better suited than independent market actors to provide a range of options for families. We know that

professional activity in the state sector has often been more successful at generating innovations. It could also be that innovation will flow more from government guaranteed choice plans such as magnet schools, where efforts are made to establish and sustain a range of options.

Notes and References

[1] Futurist Lewis Perelman concurs, noting that "'Choice' as a synonym for free markets—where consumers are free to choose and vendors are free to create and sell a variety of products and services—is undeniably essential to cure education's morbid productivity and festering irrelevance.…We need commercial choice and competition in education first to goad technical innovation—the profit motive is essential to reward the creation and provision of productive technologies. Profit-motivated competition also is necessary to provide quality control. Only markets can create the information needed to determine 'what works' economically."

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[2] Friedman, M. (1962). *Capitalism and Freedom*. Chicago: University of Chicago Press. This thinking is echoed by Andrew Coulson, currently of the Cato Institute, in noting that "there is nothing in the public schools' procedure for selecting pedagogical methods that will ensure the continued use of effective approaches, that will tailor existing approaches to meet changing demand, or that will spur successful innovation and the development of new methods."

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This thinking regarding choice, competition and innovation is reflected in the arguments for charter schools by a wide variety of advocates.

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Similarly, many teachers are drawn to the idea because of the possibility of experimenting or trying new models of curriculum and instruction:

Education Commission of the States & National Conference of State Legislatures. (1998). *The Charter School Roadmap*: Office of Educational Research and Improvement, U.S. Department of Education.

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Vouchers represent in some ways an even more dramatic innovation in the institutional arrangements of education, whereby students and public monies are redirected outside of the publicly governed sector. That institutional innovation is then expected to promote choice and competition, and a re-orientation of organizations to be more consumer-centered; relatively few observers see vouchers (as opposed to charter schools) leading to innovations in teaching and learning.

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School Choice and Segregation by Race, Class, and Achievement

Roslyn Arlin Mickelson, Ph.D.
Martha Bottia, M.A.
Stephanie Southworth, M.A

University of North Carolina at Charlotte

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Stephanie Southworth, M.A.

Executive Summary

This chapter summarizes the empirical literature on the growth in school choice options, the increasing diversity of the school-aged population, and the segregation of America's schools by race, socioeconomic status, and student ability. Research findings suggest choice schools and programs are as segregated, and in some instances, more segregated by race and socioeconomic status (SES) than the other schools in their local community. Moreover, many forms of choice also segregate students by ability and achievement levels. The ways that school choice options are designed and implemented result in very little desegregation. The exceptions to this generalization are intradistrict full magnet programs that operate under conditions of controlled choice, interdistrict desegregation plans, and some secular private schools.

The reasons that most choice options are segregated by race, SES, and in some cases by ability, are complex. Four principal reasons emerged from the research findings, however: (1) many choice programs are designed to provide education to selective student populations, such as the gifted or special-needs students; (2) choice programs formally and informally allow schools to select students, thereby including some youth while excluding others; (3) there is a scarcity of interdistrict choice options that could capture the diversity in larger metropolitan communities; and (4) parents exhibit preferences for schools with student bodies similar to their own demographic backgrounds.

The preponderance of social science research indicates that students who participate in almost all forms of choice attend schools that are segregated but this need not be the case. If policy makers are interested in promoting choice schools that are diverse, they can design programs that support and encourage integrated schools.

Policymakers can restructure existing choice plans and design new ones that create genuine and realistic opportunities for diverse education. To that end, it is recommended that policymakers:

- Redesign current choice policies to ensure diversity.

- Provide more transportation to students and information about diversity and choice options to parents.
- Increase and enforce accountability among choice schools.
- Redesign public/private sector relationships to ensure diversity.

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Introduction and Overview

In the past two decades a range of school choice forms have become viable educational options for students in all 50 states and the District of Columbia. School choice is a complex, politically charged, imprecise concept that subsumes a vast array of practices across both the public and private education sectors. The various forms of public school choice include intradistrict magnets, a limited number of interdistrict options, charters, and public voucher programs. Private schools, private voucher programs, and home schooling comprise private sector choice options. Since the 1980s school choice has become more popular with local, state, and federal policymakers who look to market principles for restructuring education. Choice also has appeal to parents and educators frustrated with the slow pace of school improvement in many low-performing urban schools, and to those whose ideologies maintain markets can provide more efficient education than the state.[1] Choice advocates expect that implementation of various forms of choice will trigger broad-based gains in academic achievement and greater equity, both in the choice schools and their host school systems.[2]

Efforts to reform education through market principles have been circulating for decades.[3] Market principles involve competition, choice, deregulation, accountability, and the individual pursuit of rational self-interest. Various choice options, along with efforts to privatize educational services and school management, reflect ideologies that seek to diminish the role of the state in public and private domains, to reassess the distinctions between private and public realms, and to advance market forces in the provision of essential social services including education. In theory, school choice will empower parents to match the needs of their children with an array of educational options, thereby maximizing the quality of their child's education. Deregulation and competition will foster innovation and reform among choice and non-choice schools, and market forces ultimately will eliminate schools that do not provide the high quality education that parents demand.

Choice advocates gained important allies during the presidencies of Ronald Reagan and George H.W. Bush as the executive branch of the federal government renewed its focus on the shortcomings of public education.[4] Chubb and Moe's influential 1990 book *Politics Markets, and America's Schools*[5]

brought additional attention and mainstream policy legitimacy to claims that school choice could be the "silver bullet" for school improvement.

As market-inspired school reforms gained momentum among conservative policymakers in federal and state governments, the continuing crisis in urban education, despite decades of compensatory education programs and desegregation efforts, led many parents of low-income students of color to consider choice reforms as an alterative strategy for improving their children's educational opportunities. For example, choice in the form of vouchers gained traction in Milwaukee, home of the nation's first public voucher plan, through an alliance between ascendant political conservatives and powerful black Milwaukee legislators, who together made common cause with parents frustrated over the failing Milwaukee Public Schools.[6]

Choice, Desegregation, and Segregation

Integrated schooling is rooted in the concept of equality of educational opportunity. However, school choice has not always fostered integration or educational equity; in fact, the practice has notorious roots in the historic desegregation struggles that followed the 1955 *Brown II* decision.[7] After the Supreme Court ordered school districts to end de jure segregation with all deliberate speed, in lieu of dismantling their dual systems Southern school districts devised "freedom of choice" plans that ostensibly allowed black and white students to attend any school of their choice. In practice, freedom of choice plans were a conscious strategy of resistance to desegregation.[8] These choice plans did nothing to desegregate public education because only a handful of blacks enrolled in white schools, while no whites enrolled in black schools. Eventually the Supreme Court ruled that freedom of choice plans by themselves were not sufficient to achieve integration, and it approved other means, such as busing.[9]

Decades later various forms of public school choice were reintroduced as reforms specifically designed to voluntarily desegregate public schools. Magnets designed as desegregation tools employed "controlled choice" pupil assignment plans that considered how an applicant's race contributed to the magnet school's racial balance.[10] Today, controlled choice pupil assignment plans continue to be used in both mandatory and voluntary desegregation plans.

In 2007, however, the Supreme Court held voluntary desegregation plans in Seattle and Louisville were unconstitutional. The Seattle and Louisville decision left many school leaders and citizens confused about the future use of race in school assignments. Although a majority of the Justices recognized the importance of diversity and avoiding racial isolation in K-12 public schools, the Court struck down particular aspects of the Seattle and Louisville student assignment plans because they relied too heavily upon only an individual applicant's race as an admission criterion.[11] While the Court placed limits on the ability of school districts to take account of race, it did not—as is sometimes reported—rule out any and all consideration of race in student assignment. In fact, a majority of Justices explicitly left the window open for school districts to take

race-conscious measures to promote diversity and avoid racial isolation in schools,[12] and even invited educators and citizens to collaborate creatively to design diverse schools. Justice Kennedy's opinion also endorsed specific strategies, including choice option like magnets and interdistrict plans.

The justices' affirmation of the centrality of diversity to educational equity and excellence aligns with social and behavioral science research that shows the demographic composition of schools is strongly related to the opportunities to learn within them.[13] Research indicates that socioeconomic status, racial backgrounds, and achievement levels of other students in a school are factors strongly associated with that school's academic climate and the material differences in learning opportunities within it—especially students' access to qualified, licensed, and experienced teachers—which, in turn, affect the levels of equity and excellence in the school. Specifically, the preponderance of the evidence shows that racially and ethnically diverse schools and schools without concentrated poverty can be optimal learning environments for students from all ethnic backgrounds, socioeconomic levels, and academic potentials.[14] Diverse schools foster academic achievement, break the intergenerational transmission of racial misunderstanding and hostility, and prepare students for citizenship and work in a pluralistic democratic society that is part of a globalizing economy.[15] However, research suggests diverse schools can be resegregated by ability grouping and tracking. The benefits from integrated schools are weakened when ability grouping and tracking deny students the opportunity to learn in diverse classrooms.[16]

Two trends related to the issues above are now clearly in evidence: school choice and its various options are becoming widespread and America's schools are resegregating. Racial isolation levels, in fact, are rising to the levels of the 1970s.[17] These concurrent trends raise an important question: are school choice options promoting diversity, or are they instead contributing to segregation?

Definitions and Methods

The widespread growth of school choice and the length of time that many forms have operated are now sufficient to permit empirical examinations of the relationships between choice and various dimensions of diversity within and among schools, including race, SES, achievement, and ability composition.. The present study uses this literature to investigate if the design and implementation of various choice options promote diversity or segregation in choice schools themselves and among the other schools in their communities. It is worth noting that the choice literature remains rife with methodological, measurement, and epistemological debates that reflect the intensely political and ideological nature of school choice policy.[18]

Race is the first focus of this brief. Contemporary racial and ethnic categories are socially constructed, historically contingent, and fluid.[19] Nevertheless, this research utilizes the conventional categories of American Indian, Asian, black, Latino, and white to refer to the major racial and ethnic groups, even though these designations cannot capture the dynamic aspects of

America's demography or the ethnic variations within each major racial group. These variations include multiracial designations, identities that are increasingly embraced by younger people wishing to claim all aspects of their heritage.

The second focus of the brief, socioeconomic status (SES), reflects a family's location into the social stratification hierarchy. Researchers often use free or reduced-price lunch status or parental educational attainment to indicate SES. Race and SES are highly correlated because people of color are disproportionately poor. The intersection of race and SES is especially relevant to how particular forms of choice affect school segregation, because many choice options are designed to target low-income children.

Most schools organize instruction by ability groups or academic tracks,[20] the third focus of this brief. Although ability and achievement are related constructs, achievement refers to the performance of students, while ability captures whether a student has certain identified intellectual gifts or learning disabilities that entitles him or her to special education services. Certain choice options are designed to target students with disabilities or those who are gifted, again illustrating how the design of a choice option may contribute to the demographic composition of a school.

This brief summarizes the authors' survey and synthesis of existing research on how forms of school choice affect diversity in school composition—both within choice schools and in the host community's non-choice public schools. The synthesis includes published journal articles, books, chapters in collections, and unpublished reports from scholars and a variety of research institutions including the federal government.[21] The breadth of the literatures on magnets, interdistrict plans, vouchers, charters, private schools, and home schooling allows for a report only on major trends, rather than more nuanced findings. Whenever possible, findings from state and national studies are included; case studies are discussed if they illustrate a general point, or in some instances, if they are the only studies available on a particular topic.

The remainder of this report is organized into three sections. The first section addresses how school choice forms may or may not promote segregation by race and socioeconomic status. The second section examines whether various forms of school choice foster segregation by ability or achievement. The final section summarizes the findings and offers policy recommendations.

Segregation by Race and Socioeconomic Status

History and Background

As school choice reforms grew in popularity during the 1990s, the population of American students became more racially and ethnically diverse. During the last two decades, America's schools have resegregated by race and socioeconomic status. The resegregation of American schools is a reversal of a trend toward greater desegregation that peaked at the end of the 1980s. At present, resegregation is growing in Southern and Border states that were once largely desegregated. In the Northeast, Midwest, and West—regions that experienced less

desegregation—segregation is taking on an ethnic complexity not seen before as the nation becomes increasingly multiracial.[22]

Asian students constitute the most integrated ethnic group while whites are the most racially isolated. Whites typically attend schools where only one out of five students comes from other racial groups. Roughly three-fourths of black and Latino students attend racially isolated minority schools. A majority of racially isolated black and Latino neighborhood schools are also schools of concentrated poverty. A school's SES composition is strongly predictive of its students' academic achievement. Racially isolated schools with high concentrations of poor students have very high drop-out rates and very low achievement scores.[23]

Many factors contribute to the resegregation of America's schools. For one, as the relative size of the white population declines, students of color have fewer interracial contacts. Changing residential patterns—the spatial footprint of race and SES inequality—also contribute to resegregation. Federal court decisions and school district policies also contribute to resegregation. For example, in the 1990s, a series of Supreme Court decisions ending mandatory desegregation allowed many school districts to return to racially segregated neighborhood-school based assignment plans.[24]

Given the concurrence of resegregation with the increasing popularity of school choice, it becomes important to ask to what extent school choice may also be contributing to segregation by race and social class. The following sections examine this question.

Choice Options and Segregation by Race and Socioeconomic Status

Magnet schools offer families a range of curricular and instructional options within a school system (intradistrict choice) and in rare instances, across school boundaries (interdistrict choice). About 3% of all public school students in the United States attend magnet schools, which are found in more than half of the states.[25] Common intradistrict magnet options are specialized schools (full magnets) or programs within schools (partial magnets). Magnets are characterized by their curricular themes (such as science and art) or pedagogic emphases (such as discovery learning) that are intended to appeal to students across ethnic and SES boundaries. Specialized magnet schools may employ selective admissions requirements (such as test scores or artistic performance). The designs of magnet schools are central to whether they promote diversity or contribute to resegregation by race and SES. Many magnets were designed to voluntarily desegregate schools through "controlled choice." Race-neutral intradistrict choice plans permit families to choose any school in the district and less often have diverse student bodies.

It is possible for a magnet to attract a diverse student body yet have an internal organization that produces second-generation segregation.[26] For instance, a diverse magnet school can be internally segregated by race, SES and achievement if it is a partial magnet or it uses academic tracking or ability grouping.[27] Schools with partial magnets or dual magnets (a school with two distinct magnet themes) can be quite diverse in terms of their overall SES, race,

and achievement composition. However, the student population in the partial magnet can be strikingly different from the rest of the school. [28]

The most common forms of interdistrict choice plans are interdistrict open enrollment and interdistrict desegregation plans.[29] Interdistrict open enrollment plans allow students to transfer between school districts. Because they are guided by competitive market forces, interdistrict open enrollment policies are not designed specifically to address the needs of students in failing urban schools. Instead, the policies are intended to provide families with educational choices and to encourage competition among districts as a means of stimulating school improvement. In 2003, 487,000 students were enrolled in open enrollment plans permitted by 42 states and Puerto Rico. By 2007, almost all states had interdistrict open enrollment policies and almost half of all school districts (46%) accepted students from other districts. However, many suburban districts refuse to accept transfer students from urban school systems.

Interdistrict—or metropolitan—desegregation plans have enabled students to cross over existing school district boundary lines for the purpose of voluntary race, ethnic, and socioeconomic school desegregation. These equity-inspired plans were designed to remedy past race and class inequalities in educational opportunities. Interdistrict desegregation plans allow suburban students to attend schools, typically magnets, in urban areas and urban residents to attend schools in suburban districts. Interdistrict desegregation plans have been implemented in St. Louis, Hartford (Conn.), East Palo Alto (Calif.), Boston, Indianapolis, Milwaukee, Rochester (N.Y.), and Minneapolis. Several plans (most notably St. Louis) grew out of federal mandates, while other plans originated in state court responses to desegregation or fiscal equity lawsuits. The Boston and Rochester plans were initiated through state and community efforts to avoid litigation. The eight plans provided transportation, incentives for receiving districts, and outreach for recruitment. The plans tended to be small, with between 500 and 10,000 student participants. Their enrollments have diminished over the last decades due to waning legal and political support for interdistrict school desegregation.

Charter schools are another public choice option shaped by their enabling statutes. Since 1990, 40 states, the District of Columbia, and Puerto Rico have enacted charter school legislation. Jurisdictions with the greatest proportion of public school students in charter schools are the District of Columbia, with 22.4%, and Arizona, with 8.4%. The racial and SES composition of charters is affected both by legislation, which varies from state to state,[30] and by local and state demographics.[31] Varying legislation[32] leads to charters with diverse missions, pedagogical styles, and informal admission practices, all of which affect the schools' levels of diversity or segregation.

More than 80% of the charter schools have a theme or curricular focus such as math and science or the arts; students' academic needs (gifted and talented, special education); instructional approaches (Montessori, experimental learning), or ethnic themes (Afrocentrism). Pre-existing schools may be converted to charters, as is happening in Washington, D.C., where the Catholic archdiocese recently announced it will convert seven Catholic elementary schools into

charters.[33] And, 18 states permit Internet-based cyber charters, which blend home schooling with an Internet-based "virtual" school.[34]

Voucher programs are a limited and controversial form of public school choice. Voucher programs are not designed to promote school diversity by race, SES, or ability. Most public vouchers are targeted at low-income students in urban schools, those attending failing schools, or students with disabilities. In 2007, publicly funded voucher programs existed in Arizona, Florida, Maine, Ohio, Utah, Vermont, Wisconsin, and the District of Columbia, the first federally funded voucher system.[35] As of 2002, there were 78 privately funded voucher programs open to low-income recipients in 38 states and the District of Columbia.[36] Because of the paucity of information about privately funded programs, this brief focuses on publicly funded vouchers.

District-level public voucher programs for low-income students exist in Cleveland, Milwaukee, and Washington, DC. Milwaukee's program is the largest, serving 17,410 students in 2007.[37] In theory, vouchers can be used to gain entrance into any receptive private or public school; in practice, most vouchers recipients attend religious private schools.[38] The Supreme Court held in *Zelman* (2002) that public funds for vouchers could be used to pay for private education in parochial schools.[39]

Several statewide public voucher programs are also in place. Maine and Vermont provide vouchers to rural high school students whose communities have no secondary schools. Arizona, Florida, Ohio, and Utah offer special education voucher programs or vouchers for students in low-performing schools. Florida offers vouchers to low-income students.[40] In November, 2007, Utah voters defeated an expanded plan for a universal program that would have provided all students with tuition vouchers to attend a sectarian or secular private school of their choice.[41]

As of 2003, about 10% of all students in the US attended private schools. Secular private schools are less racially segregated than public schools because they draw their students from a broad geographic area. However, almost 80% of private school students attend religious schools where levels of racial segregation are quite high.[42] In Catholic and other religious private schools, the levels of segregation are often equal or greater than the levels in nearby public schools. Forty-eight percent of private schools are Catholic, another 28% are other religious—primarily conservative Christian denominations—and the remaining 24% of private schools are secular.[43] Elite, secular private schools also tend to be segregated by SES.

Home schooling is a rapidly growing diverse practice that ranges from highly formal and structured to informal, child-centered, and flexible approaches to curricula and instruction.[44] While parents instruct their children in core subjects in their homes, they often join with other home schoolers in their communities for field trips to concerts and museums, foreign language instruction, organized sports, music and dance lessons, and social activities. Home schooling has become a social movement—a collective project with a history, well-developed social networks, and organizational and material supports.[45] Roughly 20% of those who practice home-based education draw upon the resources of local

schools or virtual charter schools as a supplement. Importantly, a number of home-schooled students attend schools for long periods of their childhoods.[46] For example, during 2007 Senator John Edwards and his wife home schooled their two younger children while he campaigned for the Democratic Party presidential nomination.

There are growing numbers of on-line and virtual schools available for home schoolers. Roberts reports there are more than 30 virtual schools representing both Christian and secular perspectives.[47] Virtual schools often blur the line between charter and home schooling. Several states have on-line charter schools that cater to home schoolers. Some states accept out-of-state students who pay tuition, thereby allowing students from one state to be "home schooled" in another state.[48]

Race and SES Enrollment Patterns in Choice Schools

Because many choice schools seek to serve a particular population, their designs influence their demographics. Charter school students are more likely to be black or Latino and less likely to be white or Asian than those who attend regular public schools.[49] In almost every state, the average black charter school student attended school with a higher percentage of black students and a lower percentage of white students than her noncharter counterpart. Although whites are less likely to attend charters than minority students, due to the disproportionately high enrollment of minority students in charter schools, white charter schools students are likely to go to school with more non-white students than whites who attend regular public schools. An exception tends to be charters devoted to gifted education, which are disproportionately white.

Ethnic self-segregation is evident among many charter school populations. These trends are not due to white flight from charters, but to white, black, Native American, and Latino parents who choose schools based more on their racial composition than on the relative academic quality of the charter school. Parents often seek charter schools with a majority of students from their own race, schools that often have lower test scores than the school their children exit.[50]

Racial segregation is also evident in voucher programs. In Florida the percentage of black voucher recipients was much higher than the percentage of blacks in the overall state population. A majority of students in voucher programs in Milwaukee, Cleveland, and Washington, D.C., are black.[51] Hanauer reported that 53% of voucher recipients in Cleveland were black, compared with 71% of public school students.[52] In contrast, rural voucher recipients in Vermont and Maine, states with very small minority populations, are overwhelmingly white.

Approximately three-fourths of private school children are white, 9% are black, another 9% are Hispanic, 5% are Asian/Pacific Islander, and 1% is American Indian or Alaskan Native. Asians and white students are twice as likely to enroll in private school as are blacks and Latinos, who despite being Catholic, have become less likely to enroll in private schools, including Catholic schools, in recent years. Private school enrollment rates are higher among middle-class and affluent families than poor families. One in four private schools serves wealthy,

elite families. While most Catholic schools have some students who qualify for free or reduced-priced lunch, other types of private schools are much less likely to have low-income students[53] Elite, nonsectarian, private schools frequently offer a limited number of scholarships to less affluent students of color. Middle- and upper-class white students are overrepresented in private school populations.

The nation's approximately 1.35 million home-schooled students represent 2.2% of the nation's school population[54] In 2004, about 2.7% of white students were home schooled compared to 1.3% of blacks and 0.7% of Hispanic students.[55] This means that whites were twice as likely as blacks and four times as likely as Hispanics to be home schooled. Home schoolers come from diverse social class, race, and ethnic backgrounds. While they hold a wide spectrum of political, ideological, religious, and educational beliefs,[56] a majority are Evangelical Christians.[57] Many home-schooling parents are religiously motivated to protect their children from what they perceive as secular humanism and other antireligious forces in public schools. In addition to the larger "Christian" majority, there is a much smaller "inclusive" camp within the home-school movement.[58]

While the above trends are documented, accurately describing the size and demographics of the home-school population is a difficult task because of the essentially private, largely unregulated nature of education.[59] Existing studies suggest that home-schooling families are more likely to be English speakers, white, slightly more affluent, and more religious than the general population. In addition, families are more likely to be large, headed by adults with more education, and more politically conservative than families that send their children to school.[60]

Which Choice Designs Promote Race and SES Segregation?

Intradistrict magnets are designed to be more racially and socioeconomically diverse than their surrounding neighborhood schools.[61] They generate the voluntary desegregation of public schools by offering students alternatives to neighborhood schools, which most often have homogeneous race and SES compositions. Racially diverse magnet schools also tend to be diverse in terms of student SES.[62] Some school districts that once employed controlled choice magnet programs to satisfy court-mandated desegregation kept their magnet programs after being granted unitary status. But when Dade County, Fla.,[63] Charlotte-Mecklenburg (N.C.) and Nashville[64] changed the designs of their magnet programs and dropped controlled choice, schools resegregation by race and SES followed.

While, in theory, open enrollment interdistrict choice plans could counteract the race and SES resegregation in urban schools by providing students with an opportunity to transfer to higher-performing suburban schools, the evidence indicates open enrollment plans have not done so. Almost every state and the District of Columbia have open enrollment plans, but the number of students involved in them is limited. Practical problems (lack of transportation) and structural limitations (receiving districts can choose not to participate or

refuse to accept inner-city students) often render open enrollment plans more symbolic than genuine. In fact, open enrollment plans allow more advantaged students to transfer to relatively whiter, more affluent school systems, thereby exacerbating race and SES inequality between districts.[65]

In contrast, interdistrict desegregation plans were designed to foster racial and social class integration. Interdistrict magnet plans reflect the reality that cities and their suburbs are spatially and politically integrated metropolitan areas with interdependent economies, workforces, utilities, and transportation systems.[66] For example, at its peak St. Louis's interdistrict plan involved almost 13,000 black urban students in suburban schools and 1,500 white suburban students who attended urban magnets.[67] Boston's METCO plan currently enrolls about 3,300 students who attend 34 school districts in metropolitan Boston and four school districts outside Springfield.[68] Holme and Wells report that not only do interdistrict desegregation programs promote racial and socioeconomic diversity, but overall, urban and suburban residents, students, and educators participating in them grow to like them the longer the program continues. Despite the evidence of the relative satisfaction of parents, and their success in promoting race and SES diversity, metropolitan area interdistrict desegregation plans remain rare.[69]

Rossell found that magnet schools increase interracial exposure, particularly in districts with mandatory desegregation plans.[70] For example, in San Diego, all students tended to apply to magnet schools that had a higher percentage of white students than their neighborhood schools. Magnet programs increased the exposure of white and middle-class youth to non-whites and low-income students because as more minority than white students applied to magnet schools, the magnets became more integrated, and the neighborhood schools became less segregated.

The effects of magnet schools on the racial and SES composition of other schools in the host district also depend upon the demographics of a local community. Within a school district, the location of a magnet school in relationship to residential patterns is crucial to a magnet school's capacity to generate racial and SES diversity. Magnets could have a negative effect on desegregation if there are too many or if they are placed in white neighborhoods.[71] Saporito reported that whites were more likely to apply to magnet schools as the percentage of non-white students in their neighborhoods increased.[72] Minorities, however, were not more likely to apply as the percent of non-white students in their neighborhoods increased. He concluded that school choice among magnets in Philadelphia led to increases in economic and racial segregation in neighborhood schools. However, Archibald found that magnet schools did not increase economic segregation among schools. Economic segregation was prevalent in all districts whether or not they had magnet schools.[73]

Charter schools tend to be more racially segregated than the other public schools in their school systems[74] but both types appear to have comparable socioeconomic compositions.[75] The majority of charter schools are located in central cities where 65% of students are low-income, whereas in rural and urban fringe districts the proportion of low-income students drops to about 30%.[76] Although a majority of black and Latino students in both regular and charter

schools are low-income, slightly fewer low-income blacks and Latinos attend charters in urban fringe and rural schools. Irrespective of a charter's location, relatively few white charter students are from low-income families.[77]

Rather than promoting racial diversity, charter schools tend to be places of racial isolation. Charter schools in most states enroll disproportionately high percentages of minority students. As a result, students of all races are likely to attend charter schools that have a higher percentage of minority students than their host district's other schools.[78] Segregation is worse for African-American than for Latino students, but is very high for both. For example, Cobb and Glass found that Arizona's charter schools are significantly more racially segregated than the traditional public schools.[79] They reported that charter schools enrolled a considerably higher proportion of black students than traditional public schools. Rapp and Eckes examined charter school enrollment data in the Common Core of Data. They concluded that although charter schools have the opportunity to be more racially integrated than non-choice schools, they rarely are. Even when students have the flexibility to enroll in charters across traditional school district boundary lines, which would generate more diverse enrollments, students infrequently do so.[80]

Because there are relatively few charters in most school districts, it is unlikely that they affect the racial composition of the other schools in the host district.[81] Carnoy and his colleagues found that charters enrolled the more advantaged of the disadvantaged student population. In school districts where large proportions of the student population enroll in charters, like Washington, D.C., it is possible that charters contribute to the concentration of most disadvantaged of the low-income students in the host district's non-choice schools.[82]

By design, most public voucher programs are targeted at low-income students. The limited evidence available suggests that low-income students who have more knowledgeable and informed parents are the ones who take advantage of voucher plans. Witte found on average Milwaukee parents of voucher recipients had higher education levels but lower incomes than non-recipients.[83] Similar results were found in Cleveland. Although incomes of voucher recipients and those who are eligible for vouchers did not significantly differ, twice as many mothers of voucher recipients completed college as the mothers of those who were eligible but who did not receive vouchers.[84]

Very little information is available about the SES and racial composition of the schools that accept vouchers. Available data suggest that vouchers do not promote racial desegregation. Most voucher recipients are from low-income black and Latino families, and those families tend to choose private religious schools that are frequently racially segregated.[85] There is evidence from Milwaukee that voucher students attended racially identifiable schools, although the schools may be less segregated than Milwaukee Public Schools.[86] Forster reported that urban voucher schools, while still segregated by race and SES, were somewhat less segregated than the other schools in the host district.[87] Because vouchers are sometimes equivalent only to partial funding for most private school tuition, families of recipients often must supplement the voucher in order to utilize them

in private schools, something the poorest of low-income families cannot afford.[88] Available data do not permit estimates of vouchers' likely effects on the racial or SES composition of the public school systems from which their recipients exit, although an earlier assessment of vouchers in Milwaukee found that choice has no effect on overall racial balance of the public schools.[89] At best, charters and vouchers do not undermine or counteract trends toward greater segregation. At worst, they slightly exacerbate them.

As noted above, private schools, the most widespread form of school choice, typically are segregated by race and SES. Reardon and Yun[90] found that, overall, private schools are racially segregated and that private school segregation contributes to the segregation in the public sector. They conclude that segregation within the private sector does more to produce racially homogeneous schools than do patterns of segregation between public and private sectors.[91]

At all income levels whites are more likely to enroll in private school than their black, Latino, or Asian counterparts. On average, whites are more racially isolated in private than in public schools, and they experience the most racial isolation in Catholic schools. Levels of black-white segregation are greater within the private school sector than within public schools, and they are highest in black Catholic schools. While, nationally, white enrollments are twice as large as those of minorities, in certain local markets whites enroll in private schools at rates up to 10 times that of minorities. White enrollment rates in private schools are highest in school districts with the largest percent black students. Latino-white segregation is greatest in public and Catholic schools and relatively lower in secular private schools. Latino public school students are more racially isolated than black public school students, but those who attend private schools are more integrated than their peers in the public sector.[92]

Whether as an intended or unintended consequence, home schoolers are segregated by race and social class because they learn among children who are almost always the same race and social class—members of their own family. Parents choose home schooling for a variety of complex and multidimensional reasons.[93] In some cases, parents are attracted to home schooling precisely in order to insulate their children from people in schools (students and educators) who are different in terms of religion, culture, behavior, and academic performance. Other parents choose to home school in order to celebrate and reinforce their own culture—Afrocentric home schoolers, for example.[94] Because home schoolers represent a relatively small portion of the overall student population and are widely dispersed geographically, there is insufficient evidence of the practice's effects on the race and SES composition of the school systems the students would otherwise attend.

Segregation by Ability & Achievement

History and Background

Racial and socioeconomic isolation are not the only forms of segregation affected by the design and implementation of school choice. Choice can also

isolate academically gifted or learning-disabled students from mainstream populations. Historically, for example, students with disabilities were segregated from other students in separate schools and classrooms. In 1975 the Education for All Handicapped Children Act[95] gave students with disabilities the right to an education in mainstream classrooms rather than in restrictive settings presented within separate classrooms and schools. Today many choice forms give special-needs students and their families the option to be mainstreamed or to attend selective programs or programs targeted to their educational needs.

Curricular tracking and ability grouping are widespread practices found in most schools. Tracking and ability grouping separate students by prior achievement or ability level, ostensibly in order to target instruction and curricula to their needs. However, because race and SES are correlated with school performance, ability grouping or tracking often result in segregation by race and SES—as well as by ability and prior achievement—even in schools that are racially diverse.[96] There is very little systematic research available about the role of tracking and grouping in the promotion of segregation by achievement level within choice schools. Given the widespread practice of ability grouping and tracking in non-choice schools, it is unlikely that choice schools expose their students to levels of segregation by ability or achievement that are greater than non-choice schools. For this reason, the remainder of this discussion will primarily focus on the evidence on segregation by ability levels among choice options.

Choice Options and Segregation by Ability and Achievement

Just as some forms of school choice may promote race and SES desegregation or segregation by virtue of their designs, a choice option also may promote segregation by ability or achievement. This segregation may occur when parents choose a magnet, voucher program, private, or charter school specifically designed for special-needs or higher-ability students, or when educators "counsel" students away from certain schools.[97]

A magnet's student body can be academically diverse or segregated depending upon the school's design or theme. For instance, there is a long tradition of selective exam, college preparation, or gifted magnet schools that segregate by ability. Certain charters segregate by student achievement or disability because they are designed to meet differing academic needs of specific student populations. They serve students along the achievement and ability continua: special education students, adjudicated youth, English language learners, teen parents and gifted and talented students.[98]

As Mclaughlin and Broughman point out, private schools have a complicated relationship with special education. On the one hand, public school administrators regularly contract with the small number of specialized private schools to educate students with severe disabilities who cannot be adequately served in public schools. On the other hand, many private schools (especially elite, secular ones) have admission requirements that screen out low-ability

students or low-performing students. Only half of all private schools offer remedial reading and math, and very few offer special education services.[99]

Enrollment Patterns by Ability and Achievement in Choice Schools

Since many charters, magnets, vouchers, and private schools are designed for gifted, general, and special-needs students, it follows that such options will attract a particular type of student and, therefore, promote segregation by achievement or ability level. Choice options designated for gifted students, particularly schools that require certain test scores to enter, will by design resegregate students by achievement. And because achievement is correlated with race and SES, exam school students tend to be disproportionately white, Asian, and middle-class.

Importantly, public charter schools and magnets are legally obligated to ensure that students with disabilities enjoy equal consideration for admission, though interpretation of the law varies by state.[100] However, special-needs students appear to have differential access to choice programs that target specialized populations. In Pennsylvania, Miron, Nelson, and Risely found that charter schools had lower percentages of gifted students than traditional public schools.[101] Similarly, aside from the charter schools that explicitly focus on special-needs children,[102] charter schools tend to have smaller proportions of students who have disabilities requiring special educational services (8%) than district-operated regular public schools (11%).[103] In Michigan, for instance, special education enrollment in charter schools is about 3.7%, while the public school enrollment is 12.3%.[104] Other states report similar gaps in enrollments of special-needs students.[105] This may be because some charter schools steer and counsel parents of special-needs students in ways that dissuade them from enrolling their children in a particular charter school.[106] School policy may also affect the numbers of special-needs students who attend charter schools.[107] Lacireno-Paquet found that admissions criteria, college prep curriculum and transportation availability all affected the types of students who attended the charter school.[108] The actual percentages of special-needs students in charter schools may not be adequately assessed because some parents may hide the disability status of their children when applying to a charter school.[109]

Although some voucher programs target special-needs students, there is some evidence that voucher programs have not provided them with more attractive or accessible opportunities.[110] For example, in Cleveland, voucher recipients were more likely to come from higher-achieving schools. The Cleveland schools that lost 17 or more students to vouchers all had test scores above the district's or the state's average.[111] The voucher students' exit may have reduced the mean achievement in the public schools they left and thereby increased the stratification of achievement within low-income public schools, but the evidence is inadequate to definitively assess whether voucher programs affect the achievement composition of the public school systems voucher students choose to leave.[112]

Private schools are much less likely than public schools to provide services to children with disabilities.[113] This is the case in Catholic schools, the largest private system. The exceptions to this statement are the small number of private schools that specialize in teaching children with learning disabilities. Elite, nonsectarian schools frequently admit students by exam, thereby screening out those with academic weaknesses or special needs. And finally, there are insufficient data to draw any conclusions about home schooling and diversity by ability.

Which Choice Designs Promote Segregation by Ability and Achievement?

Whether a choice school will mainstream or segregate students of varying abilities and achievement levels depends upon the school's theme, its design, and its resources. For example, charter schools tend to have fewer special-needs students than other schools in the host district,[114] which may be explained by economies of scale. Charter schools tend to be smaller and have fewer resources than traditional public schools and therefore have fewer means to adequately educate special-needs students.[115] In contrast, North Carolina charter schools enroll a higher percentage of special education students than traditional public schools. However, their special education students are at the low end of the needs spectrum, and those with more severe needs appear to have been "counseled out."[116] Similarly, a report on Pennsylvania charter schools found that not only did charter schools enroll a lower percentage of special-needs students than traditional public schools, but many of the special education students enrolled either were speech- or language-disabled.[117]

Academically selective magnets, charters, and private schools, by design, have high-achieving or gifted students. These selective schools may also affect levels of segregation by ability in other schools in the host district. For example, Neild examined effects of the presence of academically selective magnet schools on surrounding neighborhood schools in Philadelphia.[118] She found that academically selective magnets had very little effect on low-achieving, non-choice schools. This is because the students within those schools were less likely to apply to the magnet schools. However, because academically selective magnets tended to draw more academically talented students from higher-achieving schools, they can reduce the sending school's overall achievement.[119] Dills reported similar results in a Washington, D.C., suburb. She estimated the effects of introducing an academically selective magnet school into a district and found that removing higher-performing students from non-magnet schools not only lowered the mean achievement of the sending schools, but also lowered the actual performance levels of the students in those schools.[120] Except for the 30% of charter schools that have gifted and talented themes,[121] there is little evidence that charter schools generally cream higher-achieving students away from the host district's public schools.

Table 1. Summary of Research Findings on Effects of Various Forms of Choice on Race, SES, and Achievement Diversity Within Choice Schools and Between Choice Schools and Local Non-choice Schools

Type of School Choice		Effects on Race & Ethnicity Diversity	Effects on SES Diversity	Effects on Ability & Achievement Diversity
Vouchers				
	Within voucher school.	Segregation.	Segregation.	Insufficient information.
	Between voucher school and local non-choice schools.	Effects unlikely due to limited number of students participating.	Effects unlikely due to limited number of students participating.	Some evidence that higher-achieving students leave higher-achieving urban schools for voucher schools.
Intradistrict Magnets				
	Within magnet school or magnet program	Diversity in full magnets; segregation in partial magnets.	Diversity, but less SES diversity in race-neutral plans.	Segregation in gifted and talented magnets.
	Between magnet school/program and local non-choice schools.	Increased non-choice school diversity when magnets are not placed in white neighborhoods.	Inconclusive-Some studies show no effect. Other studies show increase in SES segregation.	Some evidence of segregation in high achieving non-choice schools due to exit of high performers to gifted magnets.
Interdistrict Plans				
	Within interdistrict plans.	Diversity if controlled choice desegregation plan.	Diversity if controlled choice desegregation plan.	Insufficient data to generalize.
	Between interdistrict plans and local non-choice schools.	Some evidence open enrollment resegregates schools in sending district.	Some evidence open enrollment resegregates schools in sending district.	Insufficient data to generalize.
Charters				
	Within charter school.	Segregation.	Segregation.	Segregation in exam charters and for special-needs and gifted children.
	Between charter schools and local non-choice schools.	Effects unlikely due to the relatively small number of charters in most school districts.	Effects unlikely due to the relatively small number of charters, and their comparable SES compositions to local non-choice schools in district.	Lower proportion of student with disabilities in charter schools. Some evidence that charter schools cream higher-achieving students away from host district's public schools.
Private				
	Within private school.	Segregation.	Segregation.	Segregation in schools for special-needs students.
	Between private schools and local non-choice schools.	Segregation.	Segregation.	Inconclusive due to contradictory findings.

Type of School Choice	Effects on Race & Ethnicity Diversity	Effects on SES Diversity	Effects on Ability & Achievement Diversity
Home Schooling			
Within home schools	Segregation.	Segregation.	No effect.
Between home schools and local non-choice schools.	Effects unlikely because home schooling represents a relatively small portion of the overall student population and they are widely dispersed geographically.	Effects unlikely because home schooling represents a relatively small portion of the overall student population and they are widely dispersed geographically.	Effects unlikely because home schooling represents a relatively small portion of the overall student population and they are widely dispersed geographically.

Discussion and Policy Analysis

This study synthesized research findings on the relationships of various forms of school choice to the racial, SES, achievement, and ability composition within six choice options—intradistrict magnets, interdistrict desegregation plans, vouchers, charters, private schools, and home schooling—and how the composition of each option, in turn, affected the composition of the other non-choice schools in local communities. Table 1 summarizes the chapter's findings. The cells in the table represent generalizations grounded in the research reviewed in the chapter. There are, of course, exceptions to most generalizations. When possible, the nuances that do not appear in the cell were captured in the more expansive discussions that appeared above.

Discussion: Does Choice Foster Diversity?

Choice theory can be interpreted as sympathetic to diversity or as inherently unrelated to it. Some choice advocates believe market forces will break down the ethnic, racial, and socioeconomic barriers to school attendance that at present relegate many poor children of color to utterly failing urban schools. In contrast, others see the market principles underlying choice as theoretically unrelated to diversity. Market principles are not egalitarian; they are blind to race and SES. As such, market mechanisms are more likely to perpetuate racial and SES stratification in educational opportunities than generate greater equality in them.

Contrary to the assertions of advocates who argue that choice will promote diversity and enhance learning, the empirical evidence presented in this brief suggests that, overall, choice options have neither fostered greater equity in educational outcomes nor stimulated improvement in non-choice schools.[122] In practice, choice schools and programs are as segregated, and in some instances, more segregated, by race and socioeconomic status than the other schools in their local community. School choice design and implementation have resulted in very

little desegregation within any of its forms. The exceptions to this generalization are full magnet programs with controlled choice, interdistrict magnet plans, and some secular private schools. Rarely do any of the other choice options offer students a racially or socioeconomically diverse educational experience. Moreover, many forms of choice also segregate students by ability and achievement. The reasons that most choice options are segregated by race, SES, and in some cases by ability are complex but four reasons emerged from the research findings.

Design of Choice Program. Many choice options are intended to serve a homogeneous population such as gifted, special-needs, or low-income children. Under these circumstances, the design of the choice school itself, established by statutes or school board policies, permits schools to segregate.

Schools Choosing Students. As long as choice schools informally (and in some cases, formally) select their pupils despite statutes and policies prohibiting selection, some choice schools and programs will discourage the parents of English language learners, low performers, students with discipline problems, and special-needs children from enrolling in them.

Scarcity of Interdistrict Choice. Most choice options are confined within a school district's boundaries. If a district has high proportions of low-income and ethnic minority students, it is impossible to achieve race and SES diversity. Metropolitan programs remain rare even though interdistrict choice programs have been successful in fostering diverse schools.

Parental Preferences. Some Native American, black, Latino, white parents, and parents of special-needs children choose schools segregated by race or ability. Parents frequently say they choose better quality schools for their children, but the evidence reviewed in this chapter indicates that they are often guided less by a school's academic reputation and more by its demographic profile. Parents appear to select a choice school with a student body similar to their own race, even if the choice school has lower test scores than their current school. The economic theory that proposes parents will choose better schools for their children is based on the unrealistic assumptions that everyone agrees what makes one school "better" than another and that parents have perfect information about their choice options. However, parents of children with different abilities or from various race and SES backgrounds may construct the concept of a "better" school in various ways, sometimes preferring schools where the background of the students is similar to their own. Even in cases where parents define "better" schools as having higher levels of student academic achievement (the assumed universal definition), they may lack good information about the academic quality of specific schools. In such cases, many parents use a school's SES, race, and ethnic composition as a proxy for its academic quality and level of safety.

Recommendations

Although education policymakers cannot influence the composition of schools in the private sector, shape housing policy, or influence the rapid demographic transformation of the student population, if they wish to avoid

continued segregation by race, SES, ability and achievement, they can restructure existing choice plans and design new ones to create genuine and realistic opportunities for diverse education. [123] They can, that is, accept Justice Kennedy's invitation to devise creative and comprehensive plans that take account of race as well as other diversity factors as part of a "nuanced, individual evaluation of school needs and school characteristics."[124] In addition, all public choice policy can be modified either to negatively sanction designs that segregate or to reward those that generate diversity. Publicly funded choice schools can be required to actively pursue racial, SES, and achievement representation. Recommendations for policymakers and other stakeholders who wish to pursue this goal include:

I. Redesign current choice policies to ensure diversity.

- Because unregulated school choice leads to de facto segregation by race, SES, and at times by achievement, return to controlled-choice admission plans based on combinations of residential census tracts, student achievement, and SES (and in some cases, student race as well).[125]
- Create new magnet schools and site them in integrated or inner-city communities, not white neighborhoods. Do not give neighborhood students preferences for admission to magnets.
- Given that most communities already have multiple metropolitan area-wide plans for public services (e.g., water, power, transportation, telecommunications), and that interdistrict plans have proved popular and successful, renew and expand metropolitan area-wide choice options that transcend school district boundaries.
- Design public vouchers so that they can only be used in diverse schools.
- Avoid the use of informal admission criteria (for example, requiring parental volunteers), steering, counseling, and other practices that result in magnet and charter schools choosing students, not students choosing schools.
- Disincentivize other public schools or local education agencies from opting out of choice plans.

II. Provide transportation to students and enhanced information to parents.

- Provide free transportation to all students involved in school choice.
- Provide comprehensive and accessible information to parents about the value of diverse schools and the opportunities diverse schools offer to all children, and dispel stereotypes about racial and social class and disability.

III. Increase and enforcing accountability among choice schools.

- Hold charters and voucher schools to the same accountability standards as public schools.
- Revise the accountability incentives so that those who operate choice schools are not motivated to shape their clientele in ways that exclude students deemed less desirable.

- Hold charter schools accountable for failing to meet the diversity standards of their establishment agreements.

IV. Redesign public/private sector relationships to ensure diversity.

- End public funding, support, or collaboration with home schooling and cyber schools because they are inherently segregated by race and SES.
- Decline public sector cooperation with private voucher programs.
- Do not permit public voucher programs to be used for enrollment in racially or SES-segregated private schools.

Notes and References

[1] Initial research on diversity effects on student outcomes was supported by grants to the first author from the American Sociological Association, the Poverty & Race Research Action Council, and the National Science Foundation (REESE 06-0562).

[2] Available empirical evidence does not support claims that school choice triggers gains in academic achievement. Other chapters in this volume address this issue in greater detail.

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The Competitive Effect of School Choice Policies on Performance in Traditional Public Schools

David Arsen, Ph.D.
Michigan State University

Yongmei Ni, Ph.D.
University of Utah

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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David Arsen, Michigan State University

Yongmei Ni, University of Utah

Executive Summary

This policy brief reviews research on what impact the competition introduced by vouchers and charter schools has upon the effectiveness and efficiency of traditional public schools (TPSs). Only recently has such research been possible in the U.S., as choice options became sufficiently widespread to elicit competitive responses from TPSs. We summarize conflicting theoretical predictions about how competition affects students who do not actively choose, and we identify features of policy design, implementation and local settings likely to influence the nature of competition. We find that results from available empirical studies are mixed and do not yet allow for firm conclusions about the effects of competition on traditional schools and non-choosing students. The review notes methodological challenges and possible lines of future research.

We recommend that policymakers exercise caution when assessing predictions that school choice policies will benefit students who are not active choosers, since the evidence in support of this claim is not yet strong or conclusive.

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David Arsen, Michigan State University

Yongmei Ni, University of Utah

Introduction

One of the most important arguments for market-based educational policies is that they create competition that will pressure educational systems to use their resources more efficiently. School efficiency, also referred to as productivity, is the extent to which educational inputs (such as teaching hours) produce desired student outcomes (such as achievement gains). Increased efficiency means attaining better student outcomes with the same inputs, or the same student outcomes with fewer inputs. Ever since Milton Friedman proposed a voucher system more than half a century ago, school choice proponents have maintained that the competition introduced by choice policies will spur improvements in traditional public schools (TPSs) and so benefit students who remain in them. This argument has been central to countless school choice policy debates in recent decades. This brief surveys available evidence on this question. We do not address the large number of studies of student performance in choice schools (charter schools or voucher schools, for example), but focus instead on the effects of school choice competition on TPSs.

School choice advocates appeal to theories of market competition to predict how TPSs will respond to choice policies. According to this argument, TPSs ordinarily have little incentive to improve their efficiency because they operate in relatively monopolistic markets. If, however, policies offer parents and students expanded choices and tie funding to enrollment, then educators will have an incentive to increase their productivity by working harder and implementing previously neglected administrative and educational improvements. This theory predicts that more productive schools will prosper by attracting increased enrollment, while less productive schools will be forced to improve or shut down.

On the other hand, some predict that a more competitive system will not benefit all students, but rather will create both winners and losers relative to the status quo. Increased choice and competition could diminish the quality of at least some TPSs as choice schools draw away motivated students, funding, effective teachers, or all three. If highly motivated students are more active in choosing to attend choice schools, less motivated students would become clustered in increasingly disadvantaged TPSs. These schools in turn could have difficulty responding to the competitive challenge because of negative peer effects over which school

administrators have limited control. Choice policies could also introduce inefficiencies associated with high levels of student or teacher mobility or through the underutilization of facilities in schools losing students. Given relatively fixed operating expenses in the short run, average per-pupil costs may increase in TPSs that lose students. If revenues decline faster than costs in these schools, they may be forced to cut programs, which could spur the loss of additional students and resources and trigger a downward spiral.

As school choice policies grow, it is increasingly important to gain a better understanding of the validity of these contrasting predictions, since, for the foreseeable future, most students will remain in the TPS system. Relevant studies have not been possible in the U.S. until recently, however, since they require sufficiently high rates of choice program participation over a long enough period to elicit TPS responses. Although a variety of school choice policies could potentially generate market pressures, we focus on vouchers and charter schools because they are the only choice policies for which the competitive impacts on TPS outcomes have been studied systematically.[1] In this early stage of research, the initial results are mixed and inconclusive.

To frame our discussion of the empirical research, the next section offers some conceptual observations on various ways competition might affect school outcomes. We argue that in principle, choice policies could generate either positive or negative consequences for students remaining in TPSs. We also identify features of choice policies and local settings likely to affect the distribution of costs and benefits among various constituencies and some key methodological issues for researchers. Finally, we summarize the empirical research on the competitive effects of vouchers and charter schools, and we offer some concluding observations.

Conceptual Background

Discussions of the competitive consequences of school choice are most often framed in terms of economic theories of how markets affect the behavior of consumers and suppliers. School choice policies are intended to create market incentives thatl change the behavior of both families (consumers) and schools (suppliers). Even in theory, however, these behavioral responses and hence the educational consequences of competition are uncertain.

Proponents of school choice typically anticipate that given the opportunity, students (and families) will select higher quality schools, generally defined as schools that more efficiently produce desired student outcomes. Thus, high quality schools, including new entrants to the market like charters, are expected to gain students and resources at the expense of low-quality schools. This drain on low-quality schools is expected to prompt them to improve their *technical* efficiency as administrators move employees to work harder and/or implement better

educational practices or programs. Indeed, schools that attract choice students would provide administrators of other schools with useful information on how their practices or resource allocation could be improved. In addition, choice could generate improvements in *allocative* efficiency as students sort themselves across schools into more compatible groupings based on their learning needs and interests. Such groupings would allow educators in both choice and traditional public schools to better adapt instructional programs to their particular student bodies.

This theoretical conception entails three interrelated mechanisms through which choice and competition could affect student achievement and efficiency.[2] First, it presumes that students will shift from lower- to higher-productivity schools, thereby raising the education system's overall efficiency. Second, it involves a re-sorting of students across schools, which will generate peer effects on student achievement. Third, it presumes that TPSs will respond to competition in particular ways, although those expectations may or may not be realized. Consideration of each of these mechanisms highlights ways in which the systemic adjustments predicted by choice advocates are highly uncertain and contingent.

First, if school choice is to generate improvements in student outcomes, choices should be based on schools' academic quality. However, if parents choose schools for other reasons—student racial or socioeconomic composition, sports facilities, proximity to home—their choices may not pressure schools losing students to improve their academic performance. In fact, parents often lack good information on schools' academic quality, and in such situations they may well use more visible features, including student demographics, as a proxy for school quality.[3]

Second, the re-sorting of students under school choice policies will generate peer effects for the education of students who remain in TPSs. Proponents expect that choice policies will produce positive peer effects by fostering groupings of students in schools with more compatible learning needs. However, if parents select schools based on peer characteristics, choice could increase socioeconomic and ability stratification across schools, harming some students who remain in TPSs. This is a particularly likely outcome if low-achieving students benefit from interaction with higher-achieving classmates and active choosers are disproportionately higher-achieving. In such cases, peer effects could harm the education of disadvantaged students who become more concentrated in TPSs.

Finally, it is not at all clear that schools losing students will respond by improving their educational performance, either by implementing better educational practices or inspiring harder work among employees. Such responses are certainly possible, but so are a variety of other potential strategies. For example, administrators in TPSs may choose to cooperate with one another or with new entrants to the local

education market. Alternatively, TPSs might work together to create barriers to some choices in order to restrict families' options and blunt the potentially damaging impact of competition. Then again, TPSs may simply adopt a passive stance, being content to let other schools draw away certain students. Among schools and districts that do compete, efforts to improve school quality constitute only one of a range of strategic actions (such as marketing, extracurricular programs, upgrading facilities), each with differing consequences for school efficiency. In short, TPSs are likely to respond to competition with diverse strategies, including some that are unlikely to improve educational outcomes. While all of these potential responses have been reported anecdotally, we have as yet an incomplete understanding of which responses are most prevalent—and why.

Whatever the response of TPS educators to market-based reforms, they may need to overcome two additional sources of inefficiency that choice policies could introduce. First, school choice will increase student mobility. While low levels of mobility can be accommodated, high levels generate a turbulent educational setting that undermines teaching and learning. Second, choice may hinder efficiency in TPSs losing students, if they are forced to underutilize their capital facilities or personnel. Given relatively fixed operating expenses, average per-pupil costs could easily increase in TPSs losing students, at least in the short term.

Conditioning Factors

School choice policies initiate a complex set of adjustments among participants in educational systems that can have either positive or negative results. The likelihood of either depends on choice program design and on local circumstances. We call these *conditioning factors*. While the research literature yields disparate findings on the effects of choice and competition, attention to conditioning factors may help to provide coherence to apparently conflicting findings. Moreover, a better understanding of such factors can help shape policies that preserve the benefits of choice policies while minimizing the potential harm. This list of conditioning factors is illustrative, not exhaustive, attending to four primary categories: (1) financial arrangements, (2) regulations, (3) policy implementation, and (4) local settings.

Financial Arrangements

The nature of competition among schools depends critically on the link between student flows and school funding. If resources are not at stake, schools are unlikely to compete for students. Choice policies vary greatly in the share of per-pupil funding that schools lose when students depart. Moreover, it is difficult to know how high the stakes should be. If the loss of revenue when a student leaves is less than the marginal cost of

educating that student, then the school actually benefits financially from declining enrollment. But if, on the other hand, revenues decline faster than costs when students leave, schools losing students have difficulty avoiding cuts to existing programs; still less are they able to marshal resources necessary to improve services.[4] One way for policy to address this tension is to phase in the full per-pupil funding loss over a period of years.

In addition, student funding must be adequately adjusted for higher-cost students (such secondary versus elementary, or special versus regular education students); otherwise, choice schools have an incentive to compete for the cheapest and easiest students to educate. Insofar as choice schools are successful in enrolling low-cost students and excluding high-cost students, they reduce their own average cost. They accomplish this not by increasing their efficiency, however, but by increasing the average cost for TPSs that continue to enroll high-cost students.[5]

Regulations

The regulations governing choice policies strongly influence the incentives and constraints that market participants face. The predicted benefits of school choice for non-choosers apply only if students choose schools, not the other way around. To reduce the risk of harmful effects on students who remain in TPSs, rules prohibiting selective admissions practices at choice schools are therefore necessary. Rules that establish a uniform process for enrollment at choice schools decrease the opportunity to enroll or exclude students on the basis of cost or other student characteristics. Regulations regarding curriculum, teacher preparation, or testing in choice schools narrow the scope for educational innovation, but they can also help to level the playing field for competition among schools.

Policy Implementation

How a choice policy is implemented also affects outcomes. For example, parents typically lack complete information on the quality of alternative schools, and all schools have incentive to present only favorable information. Policies that ensure that families receive information on application procedures and academic programs of available schools help parents make sound choices. Moreover, they help schools learn from one another and encourage widespread adoption of best practices.[6] Prospects for positive changes in TPSs are also enhanced when implementation involves moderately paced expansion of choice participation, technical assistance for schools in need of improvement, and rigorous oversight of the policy rules by public agencies.

Local Setting

A particular policy can elicit diverse effects in different states or across local districts. For example, the rate of population growth or decline in a region will strongly condition the competitive pressures of choice policies. In rapidly growing areas, the competitive threat of choice policies is greatly muted. Public schools may even welcome the departure of students to alleviate enrollment pressure. In areas with declining population, however, choice is more likely to generate strong competitive pressure on TPSs, especially in states where districts lack the ability to raise additional funding locally. This combination of circumstances also poses the greatest risk that choice will touch off a downward spiral in at least some TPSs.

Another element of the local setting that affects choice outcomes is the degree of preexisting inefficiency in an area's public schools, which itself may be the result of the range of private or public school choices historically available. Similarly, the potential for choice policies to generate either positive or negative peer effects on students remaining in TPSs depends on the degree of preexisting racial and socioeconomic segregation. Finally, the prospect for school choice to spur improvement also clearly depends on the quality of administrative leadership. If leadership is weak, politically divided and subject to rapid turnover, a school or district will have limited capacity to respond effectively to competitive pressures.[7]

In sum, the competitive effects of school choice on students who remain in TPSs are conditional and uncertain. Further research is needed to clarify the competitive effects of specific policy features in conjunction with given local conditions in order to minimize the potential harmful effects of choice competition on some students. Many school choice advocates themselves acknowledge the potential risks that choice policies can pose for non-choosers. When they nevertheless argue that every child will benefit from school choice, they are usually relying on the idea that "school productivity would increase sufficiently to swamp any negative allocative effects that some students might experience."[8] For this reason, empirical evidence of school choice competition generating improved TPS efficiency becomes important. We turn now to an evaluation of empirical research on this issue.

Methodological Challenges in Assessing Competitive Effects

School choice policies are seldom implemented as controlled experiments, so scholars must rely on non-experimental, statistical methods to assess competitive effects. Researchers usually try to identify a causal relationship across local areas between the level of competition and TPS student achievement. In order to do so, however, they must overcome some key methodological obstacles. These include the non-

random nature of choice school location and choice student participation, and the challenge of accurately measuring the intensity of choice competition.

First, the availability of choice options is not randomly distributed across local communities, but rather is likely to be related to the performance of local public schools. It is reasonable to expect new schooling options to be disproportionately established in areas where families are least satisfied with local public schools. However, this poses a methodological problem. Suppose, for example, researchers observe that a lower level of public school quality correlates with a higher degree of competition. It is possible that low public school quality induced more choice options—or, alternatively, that competition lowered public school quality. To reliably estimate the competitive effect, therefore, researchers must address this chicken-and-egg problem with statistical procedures such as fixed-effect transformations or instrumental variable (IV) estimators.[9]

Second, students who participate in school choice may differ systematically from those who do not in terms of their past performance, socioeconomic background, parental motivation, and innate ability. By drawing certain students away, school choice might significantly change the student composition of conventional public schools. For example, if choice schools tend to draw lower-performing students, the average achievement level of students remaining in TPSs would automatically go up, even without any competitive effect. To correct for potential biases associated with student self-selection, researchers can include extensive control variables representing student characteristics in their estimations. Alternatively, when multi-year, student-level data are available, researchers can control for unobserved student characteristics such as parental motivation and innate ability through fixed-effects transformations.

Finally, studies of competitive effects must devise suitable measures of the intensity of competition that TPSs experience. Many studies of private schools' competitive effects have used the percentage of total enrollment in an area attending private schools. Charter school studies have measured the level of competition by the number of charter schools within a given radius of public schools, the distance from a public school to the nearest charter school, or the share of public school students who have left to attend charter schools. None of these measures is perfect, however, and there is no consensus about which is most suitable. Moreover, all reflect the existence of multiple suppliers, not the intensity of competition or whether and how schools or districts compete.[10]

Evidence on the Effects of Choice Competition

With the proliferation of school choice programs in recent years, there has been a steady growth in studies of the competitive effects of

vouchers and charter schools on TPS performance. As a backdrop for our review of this research, it is useful to note Belfield and Levin's survey of more than 40 studies of "traditional" forms of competition on TPSs. This includes competition between public and private schools as well as competition among public schools that is realized when households choose to live within a particular school district in an area (Tiebout choice).[11] Belfield and Levin conclude that these forms of competition produce at most small positive effects on student achievement and efficiency. On average, they found that an increase of one standard deviation in competition produces less than a 0.1 standard deviation increase in public school test scores.

Competitive Effects of Vouchers

Evidence of vouchers' competitive effects comes mainly from two publicly funded programs, one in Milwaukee and one in Florida. Established in 1990, the Milwaukee Parental Choice Program (MCPC) offers vouchers for students from low-income families to attend secular private schools. The program was expanded in 1995 to include religious private schools. The MCPC remains the largest voucher program in the nation. The program's financial impact on Milwaukee public schools is muted by design; the district loses roughly 30 percent of state aid associated with each voucher student. In 1999, Florida adopted the "A-Plus" accountability system, which included the Opportunity Scholarship Program that allowed students in low-performing schools (those receiving "F" grades for two consecutive years) to receive vouchers to attend private schools.[12]

Hoxby's study of the MCPC found a substantial positive competitive effect of vouchers.[13] Analyzing school-level data, she compared changes in the average performance of fourth-graders prior to and after the widespread use of vouchers. She found that public schools with the highest percentage of voucher-eligible students had significantly higher increases in achievement than schools with fewer or no voucher-eligible students. In math, for example, the annual increase in test scores in the schools with the highest proportion of voucher-eligible students was 7 percentile points, compared to 5 and 4 percentile points in schools with few or no voucher-eligible students. She also found that productivity, measured as test scores per thousand dollars spent, increased faster in schools subject to the most competition.

While voucher advocates have broadly cited Hoxby's study, critics say it overstated competitive gains because it did not take into account changes in the mix of TPS students. In a follow-up study of the MCPC, Chakrabarti refined Hoxby's method to include controls for student composition and likewise found greater improvement in test scores in schools facing greater voucher competition.[14] In another MCPC study, however, Carnoy and his colleagues used recent data and two alternative

methodologies, including one based on Chakrabarti's work, and found "essentially no evidence that students in those traditional public schools in Milwaukee facing more competition achieve higher test-score gains."[15]

Evaluations of Florida's Opportunity Scholarship Program have also generated controversy. In a 2001 study and a follow-up study with Winters, Greene compared test scores gains in voucher-eligible schools (those receiving "F" grades) with schools graded A-D.[16] Both studies found that voucher-eligible schools made greater gains than other public schools. These conclusions have been challenged on a number of statistical grounds.[17] Using fixed-effects strategies, Chakrabarti compared changes in the performance of "F" and "D" schools before and after the voucher program and also found that "F" schools made greater performance gains.[18]

However, the Florida voucher program's integral connection to the state's broader accountability system complicates efforts to distinguish the voucher component's competitive effect. Carnoy, Ladd and others have suggested that the observed performance gains in voucher-eligible schools represent responses to the state's grading of schools, rather than the small voucher component of the program, because similar patterns of test score changes have been observed in other states (such as North Carolina) that grade schools but do not have a voucher program.[19] In a separate analysis of Florida's vouchers, Figlio and Rouse also found some improvements in reading scores in voucher-threatened, low-performing schools. The authors reported, however, that the gains were largely explained by changes in student composition and the stigma of failure rather than pressure from voucher competition.[20]

Recently, Greene and Winters estimated the competitive effects of a federally-sponsored program that provides a $7,500 voucher to low-income students in Washington DC.[21] Using data for 2003-04 and 2004-05, the years before and after the voucher program's implementation, the authors employed a series of multivariate regression models to measure the impact of the physical proximity to voucher schools on public school achievement, controlling for demographic characteristics and baseline school test scores. The authors found no impacts of the voucher program on student achievement in the District's public schools, but this is not surprising for the initial year of the program, and the longer-term competitive effects may differ.

Taken as a whole, the U.S. evidence on vouchers' competitive effects remains extremely limited. The available evidence, however, neither refutes nor strongly supports the prediction that vouchers will improve TPS outcomes. Estimates of positive competitive effects appear sensitive to the use of stronger controls for student self-selection and other measurement issues. Existing evidence so far only hints at how specific features of voucher programs (funding arrangements, regulations, and implementation) could be structured in order to enhance the overall beneficial consequences of voucher competition.

Competitive Effects of Charter Schools

More evidence is available on the competitive effects of charter schools. Studies have focused on states such as Arizona, California, Florida, Michigan, North Carolina, and Texas, where charter school enrollment is sufficient to potentially generate competitive pressures on TPSs. Among these studies, the results are once again very mixed.

Researchers have found charter competition to have a positive impact on TPS student achievement in Florida, no effect in California, and a negative effect in Ohio. Each of these studies employed multiple measures of the degree of charter competition.

Sass analyzed student-level Florida data for grades 3-10 over a three-year period with fixed-effect regressions and found a small significant positive competitive effect on TPS math achievement, but no effect on reading. [22] Buddin and Zimmer also used student-level, fixed-effect regressions to analyze data from six large California school districts between 1997-1998 and 2001-2002 and found no significant effect of charter school competition.[23] Carr and Ritter employed a pooled time series regression analysis of Ohio data and found a slight negative competitive effect.[24]

Two studies of North Carolina yielded contrasting findings. Holmes, DeSimone, and Rupp report that TPSs facing competition increased their test scores by approximately 1%, or about one quarter of the average yearly growth.[25] Bifulco and Ladd, on the other hand, examined a student-level panel dataset for grades 3-8 from 1996 to 2002 and found no significant competitive effects on reading or math scores in nearby TPSs.[26] Bifulco and Ladd attribute the different findings in the two studies to their ability to better control for shifts in student composition through the use of student-level data.

As in North Carolina, studies of Michigan have produced conflicting results. Hoxby analyzed trends in school-level performance between 1992-1993 and 1999-2000. She found that achievement and productivity in Michigan's TPSs increased once charter school competition reached at least 6% of district enrollment.[27] The estimated increase was largest in the 4th grade, about 2.4 scale points a year in reading and 2.5 scale points in mathematics. In the same study, Hoxby also found similar positive charter school competitive effects in Arizona. The major qualification in assessing Hoxby's findings is that she did not control for student composition and other school characteristics that may change as charter schools enter the educational system. Bettinger analyzed school-level Michigan data from 1996-1997 to 1998-1999, incorporating controls for student characteristics and the possibility that charter location is influenced by the performance of public schools. He found no significant competitive effect of charter schools on test scores in nearby TPSs.[28]

Both the Hoxby and Bettinger studies were conducted at a relatively early stage in the development of Michigan's charter schools policy. Using 11 years of school-level data, Ni was able to analyze the evolution of charter schools' competitive effect over time. She refined Hoxby's measure of charter competition and controlled for several student and school characteristics.[29] Based on multiple estimation strategies, including fixed effects, Ni's results show that charter competition exceeding 6% of district enrollment had a negative impact on student achievement and school efficiency in Michigan's TPSs. This effect is small or negligible in the short run, but becomes more substantial in the long run (after six years of sustained competition). In the long run, for schools in districts where charter schools have drawn away a significant share of students, charter competition decreases math and reading test performance in the range of 0.1 to 0.2 standard deviations.

So far, Texas is the only state in which two studies have found consistent positive charter school competitive effects, if modest ones.[30] Bohete used a pooled time series regression analysis on district-level data for 1996 to 2002 and found that a one percentage point increase in countywide charter school enrollment was associated with a 0.1 percentage point increase in district test pass rates. Booker and colleagues used student-level data over eight years for grades 4-8 in fixed-effects regressions and found that the presence of nearby charter schools generated a small but statistically significant increase in test scores (effect size < 0.1).[31]

The sensitivity of research findings to methodology is further illustrated by Imberman's recent study, which employed both fixed-effect transformations and IV estimates to examine the impact of charter schools on TPS achievement in an anonymous urban school district. [32] He found moderate gains in TPS test scores when using fixed-effect methods, but negative effects when using IV procedures.

While charter schools offer the best opportunity to study the competitive effect of school choice policies in the US, thus far the available evidence fails to yield a clear and consistent set of findings. If anything, the weight of the research suggests that charter school competition is not a very consistent force in its impact on TPSs achievement in one way or another. Several studies find no effects. When statistically significant effects have been found, they are generally small.

Is it possible to identify patterns across studies that might account for the diversity of research findings? In principle, differences in findings could arise from differences in (1) research methodologies, (2) state charter school policies, or (3) state settings.

First, as noted above, a key methodological choice for researchers is how they measure the degree of competition. Yet a review of past studies indicates no clear relationship between findings and measures of charter competition. Indeed some studies find largely consistent results using multiple competition measures.[33] Alternatively, the units of analysis

vary across the studies. However, there is no apparent relationship in competitive effect estimates between studies that employ student-level analyses versus those based on building- or district-level analyses.[34]

Second, the funding arrangements and regulations governing charter schools vary across states in ways that could significantly modify their competitive impacts on TPSs. In some states, for example, only part of per-pupil revenue follows students to choice schools when they leave their resident TPSs. In Michigan, however, where Ni found negative competitive effects, students take the full amount of school funding with them to charter schools, and local districts have no ability to increase local revenues to maintain their operations. Moreover, the state's per-pupil foundation levels have declined in real terms since 2002. Whether such policy features can help explain interstate differences in estimated charter school competitive effects has yet to be determined.

Third, state and local contexts, including the pace of overall enrollment growth or decline, appear to condition competitive effects. In states with growing enrollment, such as California, Florida, and Texas, traditional public schools are less likely to experience acute competitive pressure when students move to charter schools. If TPSs are overcrowded, charter schools can serve as a welcome "release valve" to ease enrollment pressure. By contrast, in states with declining student populations, charter school policies create more intense zero-sum competition for students and resources. Among states that have been studied, Michigan and Ohio have the slowest overall enrollment growth, and studies in both have found competition to have a negative effect on TPS performance.

International Experience

School choice policies in other countries provide insights from large-scale programs that have been in effect for many years, although caution is required in relating findings from different educational settings abroad to the U.S. context. On balance, the international evidence remains mixed. In the Czech Republic, Filer and Munich found that school districts facing significant competition from private schools, which are partially funded by the state, had greater success in getting their students into university than did other districts.[35] Gibbons, Machin, and Silva, studying primary schools in England that are funded largely by the central government, found that students with a wider range of public school choices achieved better academic outcomes.[36]

On the other hand, studies of national school choice policies in Chile and New Zealand have produced less favorable evidence on competitive outcomes. Hsieh and Urquiola's study of Chile found no evidence that choice improved average educational outcomes in public schools, while Carnoy and McEwan found that competition led to small achievement gains in metropolitan areas, but small negative effects in the rest of the country, where three-quarters of Chile's primary students live.[37]

In New Zealand, Ladd and Fiske found that competition reduced the quality of elementary student learning as perceived by teachers, and generated negative effects on other aspects of schooling, such as teachers' job satisfaction.[38]

Experience with both Chile and New Zealand's large-scale choice plans reinforces the concern that schools with large concentrations of disadvantaged students have difficulty competing for students and resources, as more advantaged students leave for better schools.[39] It also undercuts predictions that the implementation of larger-scale voucher programs in the U.S. would generate greater improvements in TPS outcomes than current, small-scale programs. Taken as a whole, the international evidence has yet to establish consistent evidence that choice programs make educational systems significantly more productive than they otherwise would be.

Case Studies of Public School Responses to Competition

Case studies hold the promise of providing a more nuanced understanding of how traditional public schools respond to competition. While quantitative studies are suited to evaluate statistical links between choice competition and TPS achievement, so far they have not provided much insight into how public school operations change in response to vouchers or charter schools. Case studies offer the opportunity of looking inside the "black box" of school organizational practices. Do educators in TPSs subject to competition work harder, become more responsive to student needs, or change their curricula or instructional practices?

Not surprisingly, the findings from case studies of TPS responses to choice policies are extremely heterogeneous. While the quantitative literature points to variations in competitive effects across states, case studies remind us that school and district responses vary widely within states as well. Indeed, competition can spur multiple responses within given schools, with some having potential to improve academic performance, and others not. Case studies also generally reinforce the notion that choice policies elicit stronger responses among TPS administrators as their perception of the financial threat from new competitors increases.[40] It is less apparent from the case study literature, however, whether these competitive responses can be expected to improve student achievement or school productivity.

Competition from vouchers and charter schools may spur public school districts to open new schools, change school leadership or set higher performance goals. They may also encourage public school educators to be more solicitous of parents and attentive to their concerns. Other possible responses include launching marketing initiatives, or creating "add-on" programs, such as all-day kindergarten and extracurricular activities.[41] Or, a TPS may instead choose to vilify charter competitors or otherwise obstruct charter school openings and

operations.[42] Thus far, however, there is little evidence that choice competition stimulates significant changes or innovations in TPS instructional practice.[43]

Summary, Implications, and Recommendations

Only recently have choice policies been implemented in the U.S. on a scale sufficient to potentially elicit competitive responses from public schools. As yet, existing empirical studies permit no firm conclusions regarding the effects of school choice policies on student achievement and efficiency in traditional public schools. While the research base is growing, it remains limited. Available studies neither refute nor strongly support the prediction that voucher and charter school competition will improve traditional public school performance. Among studies with suitable statistical controls, some find positive effects, others find negative effects, and some find no significant effects at all. The substantive effects of choice policy competition also appear modest. Among studies finding statistically significant effects, most indicate small effect sizes in the range of (+/-) 0.1.

The research surveyed here suggests, rather than conclusively establishes, that competition from vouchers and charter schools is no more beneficial for TPS performance than competition from nearby private or public schools in environments with no choice policy. Indeed, Belfield and Levin's review of studies of these traditional forms of school choice shows a higher proportion of findings indicating statistically significant positive effects on TPS outcomes than is evident among existing studies of voucher and charter school competition.[44]

The accumulating evidence is, however, beginning to point to interesting differences across state settings. This diversity of findings is not surprising, as we suggested in our discussion of conditioning factors at the outset. Additional research is needed on how specific policy features (financial arrangements, regulations, policy implementation), and the characteristics of local settings influence the impacts of choice reforms on the public school system. This will require comparative analysis of state-level studies. Even within states, however, there is clearly a need for research that moves beyond estimating mean state-level competitive effects to more closely exploring the causes of variations in competitive effects across local communities. Such an undertaking could benefit from careful coordination with case study research. While evidence suggests that the effects of competition are not linear, we cannot translate that finding into useful guidelines for policy until we better understand the thresholds for beneficial or harmful competition, and the duration or trajectories of effects over time.

Finally, the absence of strong evidence that choice policies improve the efficiency of traditional public schools does not rule out other potential benefits of these policies, such as improved outcomes for active

choosers, a better match between families' values and school programs, or expanded freedom to choose. Likewise, an overall evaluation would also consider the equity and social cohesion impacts of school choice policies.[45]

We recommend that policymakers exercise caution when assessing predictions that school choice policies will benefit students who are not active choosers, since the evidence in support of this claim is not yet strong or conclusive.

Notes and References

[1] So far, very little research has appeared on the competitive impacts of home schooling or "cyber" schools. Intradistrict choice programs typically elicit only minor competitive effects, since they do not alter the funding available to district administrators. Interdistrict open enrollment policies carry stronger financial incentives than intradistrict choice, but their competitive impacts on TPS outcomes have received very little scholarly attention.

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[4] Goldhaber, D., Guin, K., Henig, J.R., Hess , F.M., & Weiss, J.A. (2005). How school choice affects students who do not choose. In J.R. Betts & T. Loveless (Eds.), *Getting choice right: Ensuring equity and efficiency in education policy*. Washington, DC: Brookings Institution Press.

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[8] Hoxby, C. M. (2003). School choice and school productivity: Could school choice be a tide that lifts all boats? In C. M. Hoxby (Ed.), *The economics of school choice* (p. 287). Chicago: University of Chicago Press.

[9] Fixed-effect transformations eliminate most attributes of public schools and communities that influence the likelihood of choice schools setting up, including unobserved attributes. Use of fixed-effect methods, however, typically requires researchers to have several years of data for their sample schools. Instrumental variable (IV) estimators represent an alternative strategy. Suitable instrumental variables should be related to the degree of choice competition, but have no impact on unexplained student achievement (i.e., they should be external to student achievement). However, truly external IVs are very hard to find in school choice research. Using weak IVs that do not satisfy both assumptions is problematic, since a slight correlation between the IVs and the measure of choice competition could cause larger bias than estimates using no IVs.

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[11] Belfield, C.R., & Levin, H.M. (2002). The effects of competition on educational outcomes: A review of the US evidence. *Review of EducationalRresearch, 72*, 279-341.

[12] In 2006, the Florida Supreme Court ruled the private school option of the Opportunity Scholarship Program unconstitutional. Students assigned to a failing school are no longer offered the opportunity to enroll in a private school. However, they can still attend a higher-performing public school.

[13] Hoxby, C.M. (2003). School choice and school productivity: Could school choice be a tide that lifts all boats? In C.M. Hoxby (Ed.), *The economics of school choice*. Chicago: University of Chicago Press.

[14] Chakrabarti, R. (2007). *Can increasing private school participation and monetary loss in a voucher program affect public school performance? Evidence from Milwaukee*. (Staff Report no. 300). Federal Reserve Bank of New York: New York.

[15] Carnoy, M., Adamson, F., Chudgar, A., Luschei, T. F., & Witte, J. F. (2007). *Vouchers and public school performance: A case study of the Milwaukee parental choice program*. Washington, DC Economic Policy Institute, page 2.

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[24] Carr , M., & Ritter, G. (2007). *Measuring the competitive effect of charter schools on student achievement in Ohio's traditional public schools* (No. 146). New York: National Center for the Study of Privatization in Education, Columbia University.

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[26] Bifulco, R., & Ladd, H. F. (2006). The impacts of charter schools on student achievement: Evidence from North Carolina. *Education Finance and Policy, 1*(1), 50-89.

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The Impact of School Choice Reforms on Student Achievement

Gary Miron, Stephanie Evergreen, and Jessica Urschel

The Evaluation Center, Western Michigan University

The Great Lakes Center for Education Research & Practice
PO Box 1263
East Lansing, MI 48826
Phone: (517) 203-2940
Email: greatlakescenter@greatlakescenter.org
Web Site: http://www.greatlakescenter.org

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Gary Miron, Stephanie Evergreen, and Jessica Urschel

The Evaluation Center, Western Michigan University

Executive Summary

This policy brief closely examines and summarizes the evidence regarding school choice and its impact on student achievement. After surveying studies across various choice forms, we selected 87 based on specific criteria. Each of these has been analyzed and assigned impact and quality ratings. Impact ratings indicate whether the choice schools' student performance was better or worse than comparison groups'; quality ratings reflect a study's score on a weighted scale that assesses six dimensions of research design. Results for both impact and quality ratings are summarized and mapped to facilitate reference and comparisons.

Key questions addressed in this policy brief were: What is the relative scope and quality of empirical research on school choice and student achievement? What are the overall conclusions that can be drawn from empirical research on school choice and student achievement?

Overall, the existing body of research on school choice reveals a mixed picture, with some studies suggesting positive impacts, and others indicating negative impacts. Large differences appear across school choice types in terms of the amount of research available, the overall quality of the research, and the conclusions the research supports. Voucher studies, generally of high quality, indicate a slightly positive impact, particularly for African American students. Studies of home schooling are few and fairly weak, with mixed or positive impact findings. There are also few studies of inter-, intradistrict choice and magnet programs, with mixed quality and impact scores. Charters school studies are most numerous, but their quality is also mixed; they indicate that charters generally perform similarly to traditional public schools, a finding that has not changed with time or with the addition of newer, higher-quality studies in recent years.

Aggregate findings across types of school choice hide considerable differences. Within all school choice models, there are certainly successful schools or cases as well seriously flawed ones. At a macro level this policy brief can tell us what the body of research says and whether these models are worth replicating. Nevertheless, all forms of school choice could benefit from a better understanding of factors leading to success within particular schools or groups of schools.

Recommendations

The mixed findings and quality of the studies analyzed leads to the following recommendations, which may help generate a better informed context for future research and policy design.

- **Improve research on school choice.** Attention to methods should include care in using lottery lists to stimulate random assignment, more matched student designs as state assessment systems improve and expand, and more longitudinal studies. More research is also needed on home schooling and on differences within and among forms of school choice. All researchers should be sure to articulate research design and limitations clearly, and they should offer appropriate cautions to readers about interpreting findings.
- **Improve the interpretation of research on school choice.** Policymakers and other research consumers should not evaluate school choice solely on the basis of outcomes from standardized tests. They should also be skeptical of sweeping conclusions and of press releases with no technical report to back them up. Instead, readers need to consider and reach their own conclusions about such methodological considerations as the population studied, sample size, and relevance of comparison groups. Studies weak in such areas, or that don't offer such detail, cannot be considered reliable. Research consumers should also consider whether the source of a study is an advocacy group—one that never sponsored a study with findings contrary to its position.
- **Reject any claims that research has produced definitive answers on school choice questions.** There are no definitive studies.

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Gary Miron, Stephanie Evergreen, and Jessica Urschel

The Evaluation Center, Western Michigan University

Introduction

One of the most common—and most widely disputed—claims about school choice is that it will lead to improved student learning and performance on standardized tests. With growing interest in school choice and the expansion and improvement of state accountability systems, an increasing number of studies have taken up the question of whether student performance improves in the many school choice models relative to performance in comparable non-choice schools. This policy brief closely examines a wide range of evidence regarding school choice and its impact on student achievement.

Studying student achievement in school choice is complicated by a number of factors. First, there is limited evidence for many types of school choice. Generally, as is evident in other briefs in this collection, there are six choice models: vouchers/tuition tax credits, charter schools, cyber schools, home schooling, interdistrict choice, and intradistrict choice (including magnet schools and open enrollment plans). The scope of evidence on home schooling, cyber schools, and varied forms of inter- and intradistrict choice programs is very limited.

Another factor that complicates a synthesis of research evidence on school choice is that considerable weaknesses appear in available data. In fact, a majority of the studies available on school choice are limited by the researchers' access to student-level data and availability of relatively similar evidence that can be linked from year to year. In recent years, studies of school choice have been aided by the expansion of state assessment programs under the No Child Left Behind Act (NCLB), which now require testing in grades 3 to 8. A growing number of states are also moving to value-added accountability models that require student-level data sets. While excessive testing and preparation for testing is clearly taking away from time for instruction, a substantial evidence base that researchers and evaluators can draw upon is also accumulating.

A third factor that overshadows the body of evidence on school choice is the predominance of partisan researchers and activist organizations that carry out the research. Especially in the areas of home schooling, vouchers, and charter schools, the bulk of studies that find positive impacts in favor of school choice have been conducted by advocacy groups. That is not to say that research commissioned by advocacy groups and conducted by professional researchers will all result

in positive findings. What we can see, however, is that not one study released by groups advocating for school choice found that school choice had a negative impact on student achievement. Given the role of advocacy and opposition groups in pursuing research on student achievement to justify their agenda, it is not surprising to find that the two most polarizing and widely disputed forms of school choice (vouchers and charter schools) have been most studied.

In this paper we attempt to summarize what currently is known about the impact of various forms of school choice on student achievement. Key questions addressed are:

- What is the relative scope and quality of empirical research on school choice and student achievement?
- What are the overall conclusions that can be drawn from empirical research on school choice and student achievement?

The purpose of this brief is not to explore or explain the large differences in performance among diverse forms of school choice. Instead, we aim to provide answers to broad policy-related questions regarding whether the overall policies that promote school choice are likely to result in higher levels of student achievement. Our synthesis of findings follows the next section, which details our methodology and addresses such issues as how student achievement can reasonably be measured, which existing studies merit serious consideration, how the quality of studies can be assessed, and how findings can be reasonably combined into a "bottom line" statement of overall impact.

Methods

The process of synthesizing existing research is dependent on several key methodological decisions. Most important are the selection criteria for studies to be included. That is, what characteristics make a study worth including, and how can the number of studies be limited in order to make a review a manageable—but still meaningful—undertaking? Most commonly, selection criteria deal with study design, quality issues, time limits (only studies between 2002 and 2004, for example), and/or geopolitical borders. The following discussion details selection criteria for this review as well as methods used to determine quality ratings and to synthesize findings. A discussion of limitations concludes this section.

Selecting Studies

In deciding which studies to include, we applied seven criteria.

1. Presence of a technical report offering a clear account of analytical procedures used.

2. Presence of aggregate analysis and conclusions. That is, we chose to exclude studies that would have required us to conduct our own analysis and draw our own conclusions based on others' data.
3. Use of standardized tests to measure student achievement. Standardized test results often provide the only way to compare achievement across a wide range of charter and noncharter schools.
4. Use of comparison groups. Any attempt to assess a given school's achievement impact requires some understanding of how choice students might have performed in the absence of choice schools. While randomized experiments with control groups are one of the most promising ways to determine impact, practical considerations have limited school choice researchers to observing "naturally" occurring comparison groups of non-choice schools.[1] In cases where studies included a variety of research designs, we considered only the methodologically strongest design.
5. Exclusion of duplicated studies. Only findings from the most recent study were included in cases where a particular author or group issued an update of earlier work using the same study design.
6. Exclusion of case studies or single school studies. These were excluded because it is unlikely findings can be reasonably generalized to the larger population of schools.
7. Exclusion of studies on school choice outside the United States of America. Although we recognize the importance of lessons that can be drawn from the experiences of other countries, we were concerned that we could not identify and consider a representative sample of international studies on school choice.

We considered and rejected two other selection criteria. First, we chose not to limit the time period because that would have resulted in few available studies for some choice models. And second, we chose not to exclude studies by advocacy or opposition groups, because doing so would have required making several difficult and subjective judgments. Instead, we have trusted that our quality rating methodology for weighting the evidence would—in part—reflect the inherent biases in research conducted by such groups.

Impact Ratings

For the purpose of our analyses, the key finding for each study was its assessment of impact on student achievement. It is important to bear in mind that impact is not necessarily synonymous with absolute

achievement levels. For example, a magnet school with low test scores might still have significant positive impact if its students are gaining at a faster rate than similar students in other district schools. Conversely, a charter school with high test scores might have negative impact if its students are gaining more slowly than similar students in non-charter public schools. It is for this reason we considered comparison groups critical to assessing impact.

We assigned each study an impact rating according to the scale shown in Table 1. Positive values indicate that a study showed a particular school choice form to increase student achievement, and negative values indicate that it showed the model to decrease student achievement.[2]

Table 1. Scale for Impact Ratings of Studies of Student Achievement in Diverse Forms of School Choice

Scale Value	Description
2	Positive overall impact
1	Slightly positive overall impact
0	Mixed impact
-1	Slightly negative overall impact
-2	Negative overall impact

Due to the wide variety of measures and methods employed across the studies, it would be difficult, if not impossible, to derive an overall "effect size."[3] Instead, we have systematically combined ratings of the studies' findings with an assessment of their design quality.

Assessing the Quality of the Studies

In a scheme similar to Scriven's weight and sum methodology,[4] each study was rated on six weighted dimensions of overall quality: research design, duration of study, controls, measures used, scope of the study, and completeness of the technical report (see Table 2, following). Assigned weights ranged from 0 to 10 points depending on the importance of the dimension; scores on each dimension were added to produce a rating of overall study quality. All ratings are based solely on information in technical reports or publications.

Out of a possible 32 points, high quality studies generally scored 20 or more. The very weakest and least rigorous studies typically had quality scores ranging from 3 to 10.

Table 2. Weighting Scheme for Quality Ratings of School Choice Studies on Student Achievement

Dimension	*Values or Variations Within Each Dimension*	*Points*	*Total Possible Points*
Research Design	Randomized	10	**10**
	Matched students	8	
	Same cohorts	4	
	Consecutive cohorts	1	
	Cross sectional	0	
Duration of Study	More than 3 years of data	4	**4**
	2-3 years of data	3	
	1 year of data (cross-sectional)	0	
Controls	1 point for each of the following controls considered in the design: (i) family income, i.e.,FRL; (ii) eth-nicity; (iii) special education and/or LEP; (iv) starting performance level or use of gain score; (v) parents' education level; (vi) indicator of length of exposure	0-6	**6**
Measure of Student Performance	NPR, NCE, or Scaled Score	2	**2**
	Cut score (% meeting state standard)	1	
	General rating or grade	0	
Scope of the Study	Scope is based on 3 separate scores related to (i) relative size of the population studied, (ii) number of grade levels covered, (iii) number of subjects included.		**6**
	Relative size of population studied: 3 points for large comprehensive studies, 2 points for moderately comprehensive studies, 1 point for small studies, and 0 points for very small studies.[5]	0-3	
	Grade levels covered in the study (2 points for at least one grade at each of the three school levels; 1 point for at least one grade at two levels; 0 for at least one grade at one school level)	0-2	
	Subjects covered in study (1 for math & reading, 0 for one or neither)	0-1	
Complete-ness of the Technical Report [6]	Technical report with clear and complete methods section	0-2	**4**
	Complete set of findings	0-1	
	Limitations of study included	0-1	
	TOTAL POINTS		**32**

Because the values or variations within each dimension of study design are specific and concrete, the process of assigning scores was an objective activity. However, the total scores assigned for each dimension

are subjective and reflect our judgments regarding the relative weight that each dimension should receive. For example, the overall study design can receive a maximum of 10 points, whereas the outcome measure is worth only 2 points. These judgments, though subjective, were informed by earlier syntheses of charter school research conducted by Miron and Nelson in 2001 and 2004.[7] The weighting system has evolved and become more elaborate to account for the characteristics of the broader field of school choice research.[8]

Given the wide variety of methodological rigor across studies, quality ratings are especially important in a synthesis of school choice research. Our approach includes studies with substantial limitations, but we give them less weight than other studies. We judged it important to include some of these less rigorous studies because they have attracted considerable attention and have been important in driving policy. By including them in our synthesis, we are able to present these weaker studies in a framework that allows readers to see the relationship between rigor and influence.

Combining Impact Scores and Study Quality Scores

The impact ratings can be combined to provide a single impact score. Rather than simply calculating a mean impact rating, however, we have calculated a weighted mean in which each study is weighted by quality.

Additionally, we have developed a method to map the impact and quality ratings for each study analyzed. In our maps, each study is charted on a horizontal axis according to its relative quality, and along a vertical axis according to its impact rating for a particular choice model. Impact ratings range from strongly negative to strongly positive, as Table 1 above indicates. The results maps illustrate three important facets: (1) breadth and scope of available research, (2) overall quality of research, and (3) overall concentration of findings in terms of impact ratings.

Limitations

We are mindful of some important limitations in this synthesis of research on student achievement across diverse forms of school choice. First, any thorough evaluation of schools and school choice models should examine non-achievement outcomes, such as equity, student and family satisfaction and market accountability, curricular quality and relevance, and instructional effectiveness. Moreover, even when student achievement is the only concern, standardized test results are but one of many ways to assess it.

Like any review or meta-analysis, our portrayal of the existing literature is colored by the selection of studies for examination. We have made explicit the rules that guided our search for and selection of studies,

and where possible, we sought to test our findings' sensitivity to these assumptions. Generally, we have been somewhat surprised at the paucity of studies of student achievement and the difficulty we had in obtaining some of the studies. As readers will see in the next section, we attempted to set out clear evaluative criteria and to apply them fairly to all studies reviewed.

Student Achievement for Vouchers Programs

Since first being proposed in the 1950s by Milton Friedman,[9] vouchers have been discussed and debated widely. Publicly funded school voucher programs have been established in Milwaukee (as of 1991); Cleveland, Ohio (as of 1996); and Washington, D.C. (as of an act of the U.S. Congress in 2003). Some small, privately funded programs have also generated evidence regarding the effect of vouchers on student achievement in New York City; Dayton (Ohio); Washington, D.C.; and Charlotte (N.C.).[10]

In theory, we would have grouped tuition tax credit programs with vouchers because of their similar nature. However, because we could find no empirical studies examining academic achievement in tuition tax credit programs,[11] we focus here solely on voucher programs.

Figure 1 (following) illustrates our findings for 11 studies across the various voucher programs. We grouped the studies based on the particular program, and assigned letter codes for each program accordingly. Our discussion also groups studies by specific programs.

Milwaukee. Milwaukee has the longest running voucher program in the nation. The program was started in 1991, and Witte and colleagues from the University of Wisconsin-Madison were contracted to evaluate the program.[12] Their evaluation used a host of demographic controls to match students from the Milwaukee Public School District. The final conclusion from their multiyear evaluation found that voucher students generally performed similarly to comparable students in math and reading.[13]

In 1996, Green, Peterson, and Du analyzed the Milwaukee data and came to a different conclusion than Witte. Because the program had more applicants than spaces available, a lottery was used to randomly select students to be admitted into the program. When comparing scores of those students who were lottery winners against those of lottery losers, Greene, Peterson and Du found a significant difference in favor of the admitted and enrolled choice students in both math and reading. A more polished update of their findings was published in 1999.[14] Witte questioned their randomized approach on a number of grounds, including that some students who were refused subsequently enrolled in private schools, thereby biasing the control group through attrition, and potentially leaving the remaining control group with lower-performing students.[15] Rouse was the third party to reanalyze the same data. She also

used students from the lottery lists as a control group and found that voucher students were making gains in math but not in reading.[16]

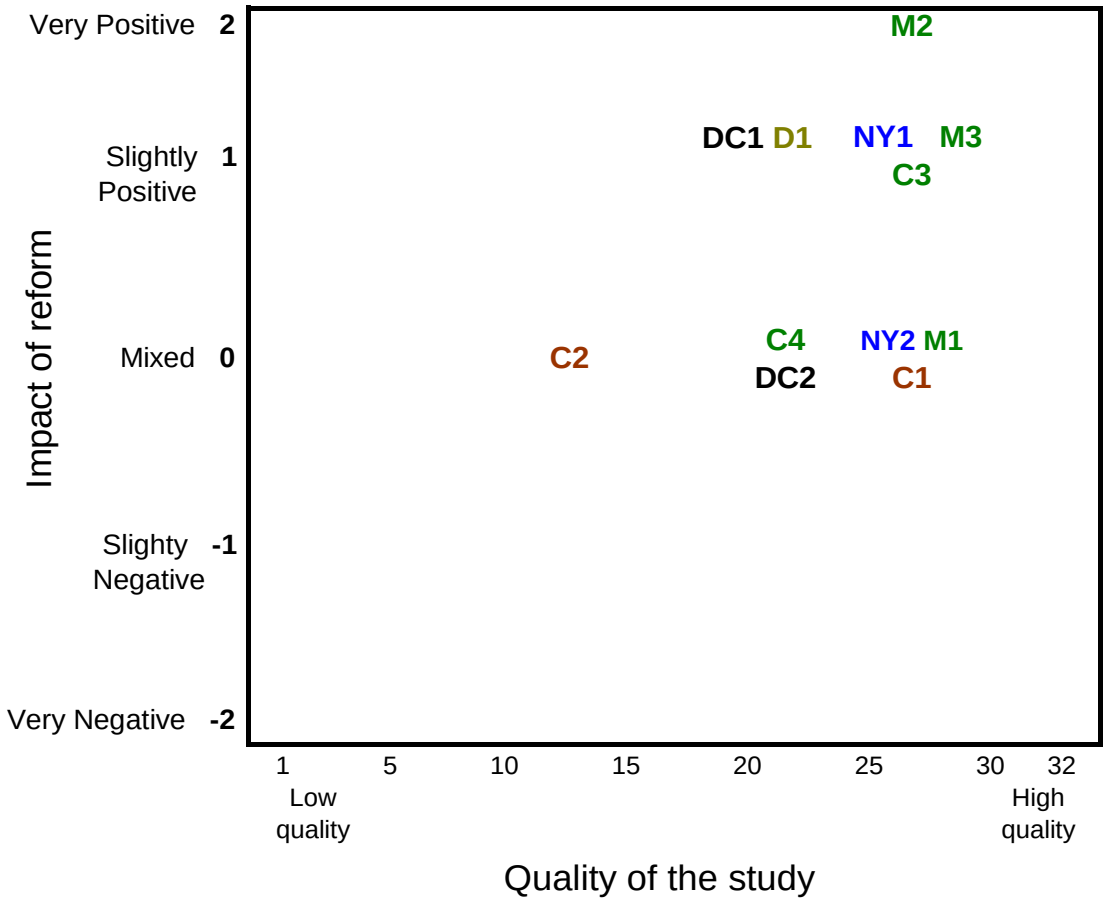

Figure 1. Quality and Impact Ratings for 11 Studies of Student Achievement in Voucher Programs

Note: This map illustrates estimated impact and quality ratings for 11 studies completed during the last decade.

M1 = Witte (1998). [Milwaukee]
M2 = Greene et al. (1999). [Milwaukee]
M3 = Rouse (1998). [Milwaukee]
C1 = Metcalf et al. (2004). [Cleveland]
C2 = Greene, et al. (1999). [Cleveland]
C3 = Plucker et al. (2006). [Cleveland]
C4 = Belfield (2006) [Cleveland]
NY1 = Mayer, et al. (2002). [New York City]
NY2 = Krueger & Zhu (2004). [NYC]
DC1 = Wolf et al. (2000) [District of Columbia]
DC2 = Wolf et al. (2007). [D.C.]
D1 = West et al. (2001). [Dayton]

There were a number of limitations in all of these studies. While Witte and Rouse carefully presented detailed methods, rationales for

decisions during the course of their analysis of data, and limitations in the interpretation of findings, this was not the case with the Green, Person, and Du study.

Cleveland. The Cleveland voucher program was approved in 1995 and started operating in 1996. This program had a much smaller voucher amount available to help cover tuition at a private school than did the Milwaukee program, but it made available a larger number of vouchers.

The Ohio Department of Education hired Metcalf and colleagues from Indiana University to evaluate this program; the most recent publication led by Metcalf was in 2004.[17] In 2006, another group of evaluators led by Plucker released an updated report on the Metcalf work. The Plucker group added one more year of data and also altered some of the analysis techniques for imputing missing data. Its evaluation found that voucher students had made noticeable gains relative to the comparison groups after entry into middle school.[18]

Similar to their work in Milwaukee, Greene and Peterson were quick to come up with their own analysis of the Cleveland results (see Greene, Howell & Peterson, 1997).[19] Their analysis of test data was limited to only two voucher schools, and they initially concluded that voucher students in those schools were making significant gains relative to a national norm. They updated the study in 1999 with additional years of data, at which point they found results to be mixed and in some cases negative. Nevertheless, the authors concluded that the program should be continued.[20] We have included only the second of their reports in our analysis, since both studies involved similar methods and authors, and the second reflected access to more data.

Washington, D.C. The D.C. Opportunity Scholarship Program was the first federally funded private school voucher program in the United States. The U.S. Congress created the program in 2003, providing scholarships of up to $7,500 for low-income residents of the District of Columbia to send their children to local participating private schools. The U.S. Department of Education contracted a team of researchers led by Wolf to evaluate the program. The evaluation used a randomized controlled trial that compared students that received a place in a school via a lottery selection with students that did not. The third-year report concluded that there was no evidence of statistically significant differences in test scores between voucher recipients and students who applied but did not receive a voucher. This evaluation is ongoing and should yield more concrete results within the next few years.

In addition to this large, publicly funded voucher program, there is also a smaller, privately funded voucher program in Washington, D.C. An evaluation report after one year reported significant gains in math for African-American students who switched to private schools in grades 2 through 5.[21] Unfortunately, no subsequent reports have been released on the student achievement results from this program.

New York City and Dayton, Ohio. A study of a privately funded voucher program in New York City[22] concluded that the program was resulting in significantly higher test results for African-American voucher recipients, although no effects were seen for other ethnic subgroups. Krueger and Zhu[23] reanalyzed the data and found some serious shortcomings, including what they reported as exclusion of students and an inappropriate method for categorizing race. Their reanalysis indicated no effect favoring voucher students.

This program also was studied initially by some of the same persons involved in the studies of the New York and Washington, D.C., private voucher programs. Findings from Dayton reported by West, Peterson, and Campbell[24] concluded that there were no differences between voucher recipients and non-recipients. The one exception was for African-American students, who gained more than similar non recipients.

Figure 1 illustrates that a moderate number of empirical studies have been completed on student achievement in voucher programs. Given the few voucher programs in the nation, however, the number of studies is surprisingly large. The figure also shows that most studies were of higher quality (with a mean quality rating of just over 25 points on a 0-32 scale). In fact, the quality ratings for the voucher research are considerably higher than the research for other areas of school choice. On the whole, the voucher studies suggest a moderate effect in favor of private schools that participated in the voucher programs; the weighted mean for the impact ratings was +0.62. It is important to note that nearly half of the studies had mixed findings, and three of the five with slightly positive findings had positive results only for African-American students. None of the studies, however, indicated that vouchers were deterring learning for students who switched from public to participating private schools.[25]

Appendix A contains details on the voucher studies included and their ratings.

Student Achievement for Home Schooling

Research on the student achievement of home schoolers has been the most difficult area of school choice to assess. Some of the obstacles are due to an inability to accurately measure the home-school population, a lament well noted in home-school research. A more important difficulty that we encountered was locating and identifying studies that met our minimum criteria for inclusion. While there are many studies on home schooling—as Ray's 2008 Annotated Bibliography[26] attests—not all examine academic achievement. Within the group that does, only a small percentage use standardized tests as the outcome measure.[27] Often, studies cited in home-schooling magazines or journals that appeared to have a rigorous design could not be obtained or located, even though they were cited by other home-schooling researchers.[28] Home-schooling research studies generally tended to cite the same literature and to include many

dated works (20 years old or older); many were also doctoral dissertations.[29] Other studies lacked such important items as a technical report, so that we were unable to discern quality. A few studies with strong designs were compromised by sample bias, researcher bias, or both. As noted earlier, however, we chose to include the studies with obvious bias, although they are down-weighted when these biases affect the design, scope of the study, or the completeness of the technical reports. Given the biases and errors built in to the existing body of home-schooling research, it comes as no surprise to learn that, on the whole, studies find high academic achievement among home schoolers. In fact, a home-schooling specialist we talked with said he couldn't think of any study on academic achievement among home schoolers that reported a negative finding.[30]

The scope of studies on achievement within home schooling is generally quite small. This is due, in part, to the difficulty faced in accurately defining populations. Because standardized tests are the comparison tool, population samples tend to be comprised of home-schooling families willing to have students tested. Often, researchers have obtained their samples through a testing center or a home-schooling advocacy group. In both situations, the fact that the sample lacks non-responders implies that it is biased, an issue more prominent in research on home schooling than in research on other forms of school choice. Generalizability, therefore, is very limited. An additional methodological issue is that home-schooling studies often use no demographic controls for comparisons.

We have included studies with sample biases because to exclude them would leave essentially no viable studies on home schooling for analysis. Nevertheless, it is important bear sample bias in mind when considering the overall report from the field that academic achievement among home schoolers is high. Routine standardized testing is not a part of the "set" curricula for home schoolers in the way that it is for, say, public school students, who all are tested at multiple grades. The first time that many home schoolers may take a standardized test is when they are preparing to enroll in college.

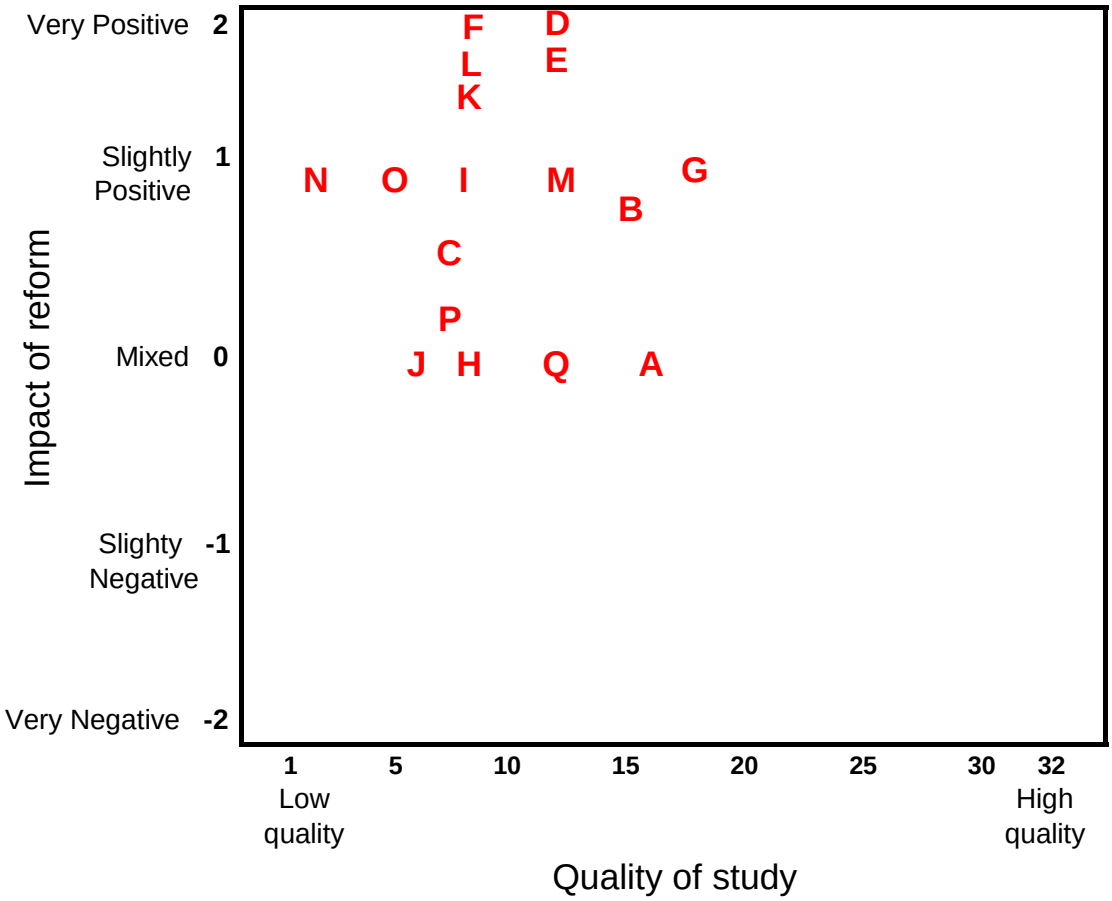

Figure 2. Quality and Impact Ratings for Studies of Student Achievement in Home Schooling

Note: This map provides an illustration of estimated impact and quality ratings for 17 studies completed during the past 22 years.

A = Boulter (1999)
B = Collom (2005)
C = Galloway (1995)
D = Ray (2000)
E = Rudner (1999)
F = Clemente (2006)
G = Qaqish (2007)
H = Delahooke (1986)
I = Gray (1998)
J = Holder (2001)
K = Witt (2005)
L = Richman, Girten, & Snyder (1990)
M = Wartes (1990)
N = Rakestraw (1988)
O = Jones, & Gloeckner (2004)
P = Frost (1987)
Q = Belfield (2005)

Certainly, the characteristics of these children are different from those choosing not to pursue higher education, which leaves the field of home-school research with a large gap in its understanding of the students who are not tested or considered in these achievement studies.

Within the context of considerations detailed above, we found 17 studies on home schooling and academic achievement that met our minimum selection criteria. Figure 2 (preceding) charts them by their own report of impact and our rating of study quality.

In contrast to the graphs on the other forms of school choice, all the studies on home-schooling research are clustered in the upper left quadrant of the graph. Generally speaking, then, the body of home-schooling research on academic achievement is of low rigor and low overall quality.

As is apparent in Figure 2, we were unable to find any studies that found explicitly negative impacts of home schooling on academic achievement. However, the quality of the research designs that produced such positive findings is low. Within our 0-32 point rating scheme, the overall quality score for the home-schooling research studies we included was 9.88, indicting fairly low design rigor. The highest quality rating for an individual study was 18, a score still only slightly more than half the points available. The mean weighted impact rating for the studies was 1.0, indicating overall consensus among the researchers that home schooling as a method of school reform has had a positive impact.

One of the most widely cited studies in home-schooling literature that met our selection criteria was Ray, who found home-schooled children scored at or above the 80th percentile on standardized tests (Study D).[31] Even though he used a relatively large sample and his results may be true for the population he included, his sample left out home-schooled students who do not take tests. His technical report is also a bit misleading when it claims random selection of participants. A closer reading of the report shows that he gained access to the population through the mailing lists of home education organizations. He randomly selected from those mailing lists, not from the home-schooled population in general, leaving his work vulnerable to the same sample bias that runs through nearly all home-schooling research.

Ray has conducted much of the research in the field himself and is widely cited in nearly every study on home schooling. He is the founder and president of National Home Education Research Institute, and he edits and publishes a journal about home schooling, The Home School Researcher, in which many others have established their publishing record.[32] Though Ray's work is commonly considered the foundation of home-schooling research, only one of his studies qualified for our analysis, largely because most of his published work does not consist of original data.

Rudner's 1999 study of home schoolers[33] (Study E) is as frequently cited as Ray's work, though Rudner did not subsequently publish anything else on the topic. His original work was a large study that found home-schooled students scored in the 70th to 80th percentile on standardized tests. However, in addition to self-selection bias in his population, his sample was shaped by having been accessed through the

testing center at Bob Jones University, a southern Christian school with an overtly racist tradition. Welner and Welner[34] argued that the results of the study suffer from limited generalizability. The same critique can be applied to Galloway's popular 1995 study showing home schoolers' equal preparation for college, based on scores on the English subtest of the ACT (Study C). Her population sample came from an unnamed "large, private Christian University located in the Southeast,"[35] while her byline shows she was writing from Bob Jones University at the time. These two studies have served as foundational pieces in the field of home-school research, but their results reflect a largely white, Christian student population; reliance on them has skewed perceptions about home schoolers and their performance on standardized tests. An increasing number of families of color are home schooling, but they generally have been left out of nearly all empirical research on the topic.[36]

Thus, the most widely cited studies in home schooling are subject to researcher and sample bias, although we incorporated them in our analysis. Appendix B lists all of the studies we examined, including some that we originally intended to include but excluded when close examination revealed that they lacked critical components.[37] Appendix B also details points awarded for quality elements of each study along with the rationale for judgments made.

Student Achievement for Interdistrict, Intradistrict, and Magnet School Programs

This section examines diverse forms of school choice found within the traditional public school sector, including inter- and intradistrict choice programs. Magnet schools, which are part of a federally funded program, are also considered in this section since they are a form of intradistrict choice that is overseen by the local district school board.

Magnet schools[38] have received less attention, inspired less controversy, and generated less research than the other forms of school choice, although they remain the most common school choice option. While charter school accountability has been a prominent topic in school reform literature over the last 15 years, a review of American Education Research Association (AERA) conference programs reveals only one paper focusing on magnet schools from1998 through 2006. Originally, magnet schools were devised as a strategy to decrease segregation in schools and as a response to violent protest against mandatory reassignment policies introduced in the mid-1970s.[39] Research literature on magnet schools is prolific in regard to nonacademic topics, including desegregation. However, very few isolate academic achievement and use standardized testing as a measure of success. From those few we have culled an even smaller number that met minimum selection criteria.

The majority of magnet school studies included in this analysis employ demographic controls, as any good study of school choice reform

models should. Demographic controls are particularly important because such research is often subject to confounding variables. For example, parental involvement can be an interceding effect: parents who make the effort to research options and actively choose a school are likely to be more involved in a child's school life overall, contributing to higher academic achievement. Likewise, magnet schools tend to attract a greater percentage of students with high prior academic achievement, leaving non-magnet schools in the district with more at-risk students and rendering comparisons incompatible. Therefore, it is critical to strong research design that a study include a control for starting performance level or some other determination of a gain score.

Figure 3 maps the studies on magnet, intradistrict, and interdistrict choice schools that we analyzed. These three forms are grouped because too few studies met selection criteria in each category to allow for substantive individual analysis. For the combined forms, we identified nine studies of student achievement. Wide variety among the studies makes it important to consider them as a group. Some focused only on high school, while others focused on elementary or middle school levels. They also varied significantly in scope, from a single district to a national sample.

On average, these studies scored 19.56 on quality, although as Figure 3 indicates there was a significant spread in design quality as well as impact. Based on each study's perceived impact on student academic achievement, the overall impact rating for magnet schools is +0.26, reflecting the general view that magnet schools have had a slightly positive impact on student achievement, as measured by standardized tests. The highest quality score was for Ballou et al.[40] at 29 points (Study B). Appendix C offers a chart detailing quality ranking for studies in these categories.

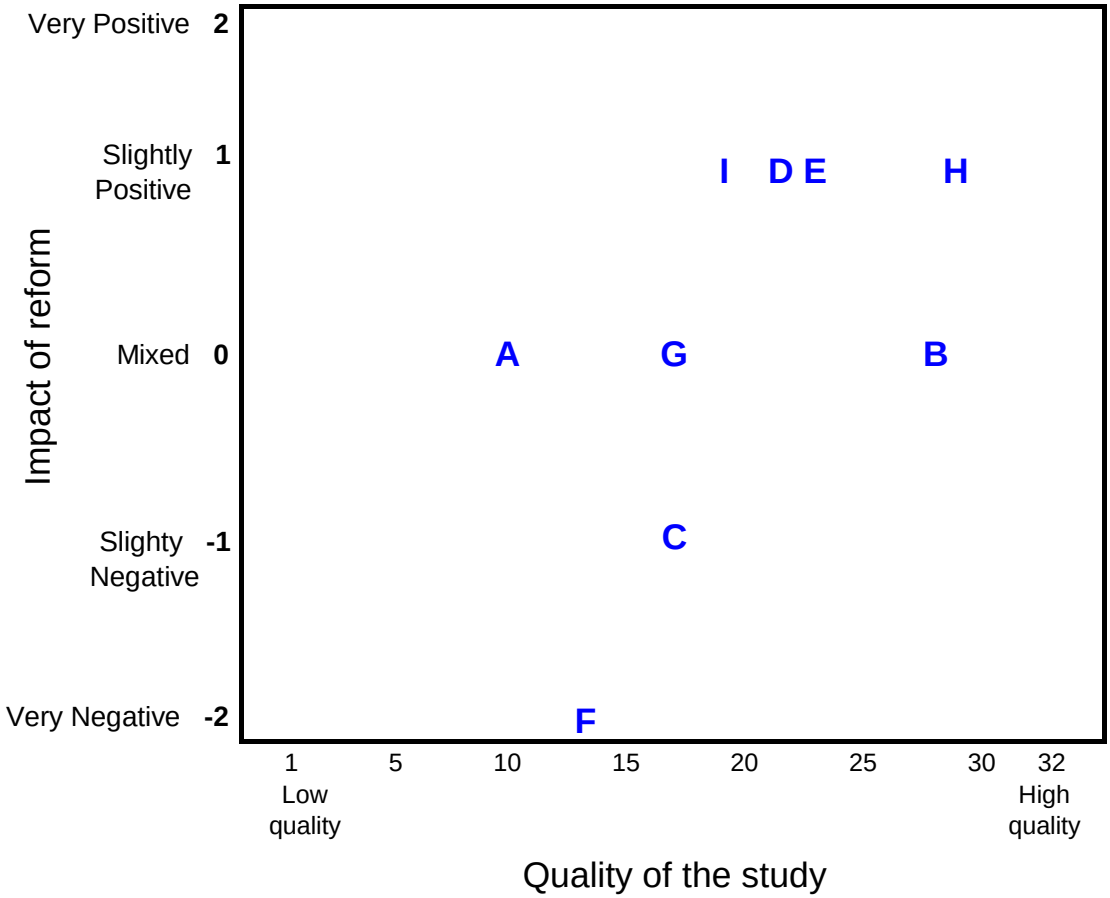

Figure 3. Quality and Impact Ratings for Studies of Student Achievement in Magnet or Interdistrict Choice Schools

Note: This map provides an illustration of estimated impact and quality ratings for 9 studies completed during the last 13 years.

A = Beaudin (2003)
B = Ballou, Goldring, & Liu (2006)
C = Crain et al. (1992)
D = Gamoran (1996)
E = Heebner (1995)
F = Inst. for Assessment and Evaluation (2006)
G = Christenson et al. (2003)
H = Betts et al. (2006)
I = Eagle & Ridenour (1969)

Generally, studies discussed here tended to score high on design criteria. This is so in part because magnet school admission is typically decided by a lottery, in which many students submit a request to attend the school, and attendees are randomly selected from that pool (although sometimes preference is given to students in the school's surrounding neighborhood or to those with a sibling already admitted). Such an admission lottery facilitates random assignment for study design purposes. The target population is known (all students in the lottery pool), and the

experimental and control groups are clear—the latter being the students who were not selected in the lottery. However, the two comparison groups are not exactly random or similar. Students are awarded entry by the school, but there is still a self-selection bias that remains because students (and their families) can and do reject admission. Our weighting scheme cannot account for this slightly-less-than-random design, but such accommodations were made by Ballou et al., (Study B), Crain et al., (Study C), and Heenber (Study E).

Studies including a national sample tended to have only moderately high quality designs (Gamoran [Study D] and Christenson et al. [Study G]), largely because they did not take advantage of randomization. Those two studies will be discussed below. A statewide study from Connecticut (Study A by Beaudin) and four studies county-wide or smaller are also included.

Gamoran (Study D)[41] is characterized by a large sample size and the use of the same cohorts to track student achievement over time. The study also used demographic controls and considered students' starting performance to determine value added. However, only two years of test data are used to draw conclusions. The data are also quite dated, from test years of 1988 and 1990. Also, only two grades were tested, implying limited generalizability to K-7 education. The study was published in 1996, indicating the need for new, rigorous research with wide scope and longitudinal data.

The other national study in our analysis (Study G) was conducted in 2003 by Christenson and colleagues,[42] who were contracted by the U.S. Department of Education. The access to national data rendered a large sample size, but the data were limited to school-level information. Further, the analysis procedures highlight a difficulty in using national samples and standardized testing: individual states administer different standardized tests. This study addressed such incompatibility by converting multiple state tests to a common scale. As with the Gamoran study, this work has limited generalizability because it focused on only the elementary level.

Scoring details for the two national studies as well as the other five studies included appear in Appendix C. It is surprising that we do not have more studies meeting our minimum criteria, given the somewhat natural randomization of students in magnet schools and their more than three decades of existence. The studies that allowed for analysis, however, depict a rather neutral, though slightly positive, comparison with public schools in terms of student performance on standardized tests.

Student Achievement for Charter Schools

Today, charter schools have the largest number of studies examining student achievement. The mounting evidence is very welcome after so many years with few comprehensive evaluations or achievement studies. In 2001, Gill et al. found only three studies of charter schools that

met their criteria for a summary of evidence.[43] In the same year, Miron and Nelson[44] found 15 studies of charter school achievement; in a 2002 update (published in 2004[45]), they identified only 17 studies for analysis. Thus, the total 47 studies included here reflects significant growth in the field.[46]

As the number of studies on charter schools has increased over the last five years, so, too, has the overall quality of the studies. While there is only one study of two Chicago charter schools that uses randomized assignment based on oversubscribed waiting lists, there are now rather rigorous matched student designs for California, Delaware, Florida, and Texas. Older studies with weaker designs and few years of test data are being supplanted by studies with more rigorous designs and more years of data. Also, with the expansion of state testing systems to cover more grades, it is now easier for studies that rely on school level data to track cohorts or groups of students as they progress from grade to grade.

Close examination of Figure 4 reveals that studies vary widely in impact reported and design quality. Overall, 19 studies had positive findings, 12 studies had mixed findings, and 16 had negative findings. The mean impact rating for charters was +0.04. The weighted mean (adjusted for quality of studies) was +0.1. These findings indicate a mixed effect. Although not a strong or significant correlation, there is a very slight tendency for the studies with more rigorous designs to conclude that charter schools were outperforming their comparison groups. Appendix D details impact and quality scores assigned to each study.

Nearly all the charter studies are state studies. This is not surprising given that charter schools are a state-based reform model; 40 states and the District of Columbia have passed charter school laws, and more than 3,500 charter schools are now operating across the nation. Eight of the studies look at multiple states or use national data sets.

Figure 4 illustrates the number and geographic variation of the studies, which is impressive relative to the other forms of school choice. The impact ratings are more dispersed for charter schools than for the other forms of school choice we have examined. Similarly, quality ratings of the charter school studies vary widely. The mean quality rating is 17.5, much lower than that for voucher or district choice studies, but still much higher than that for home-schooling studies.

A few studies provide evidence of a substantial positive charter school effect. The Solmon and Goldschmidt (2004) analysis of Stanford Achievement Test (SAT9) scores in Arizona, for instance, found that charter schools had a significant positive impact on SAT9 scores in reading and a mixed to positive impact in math. At the other end of the spectrum, three of the four studies of achievement in Michigan charter schools are negative.

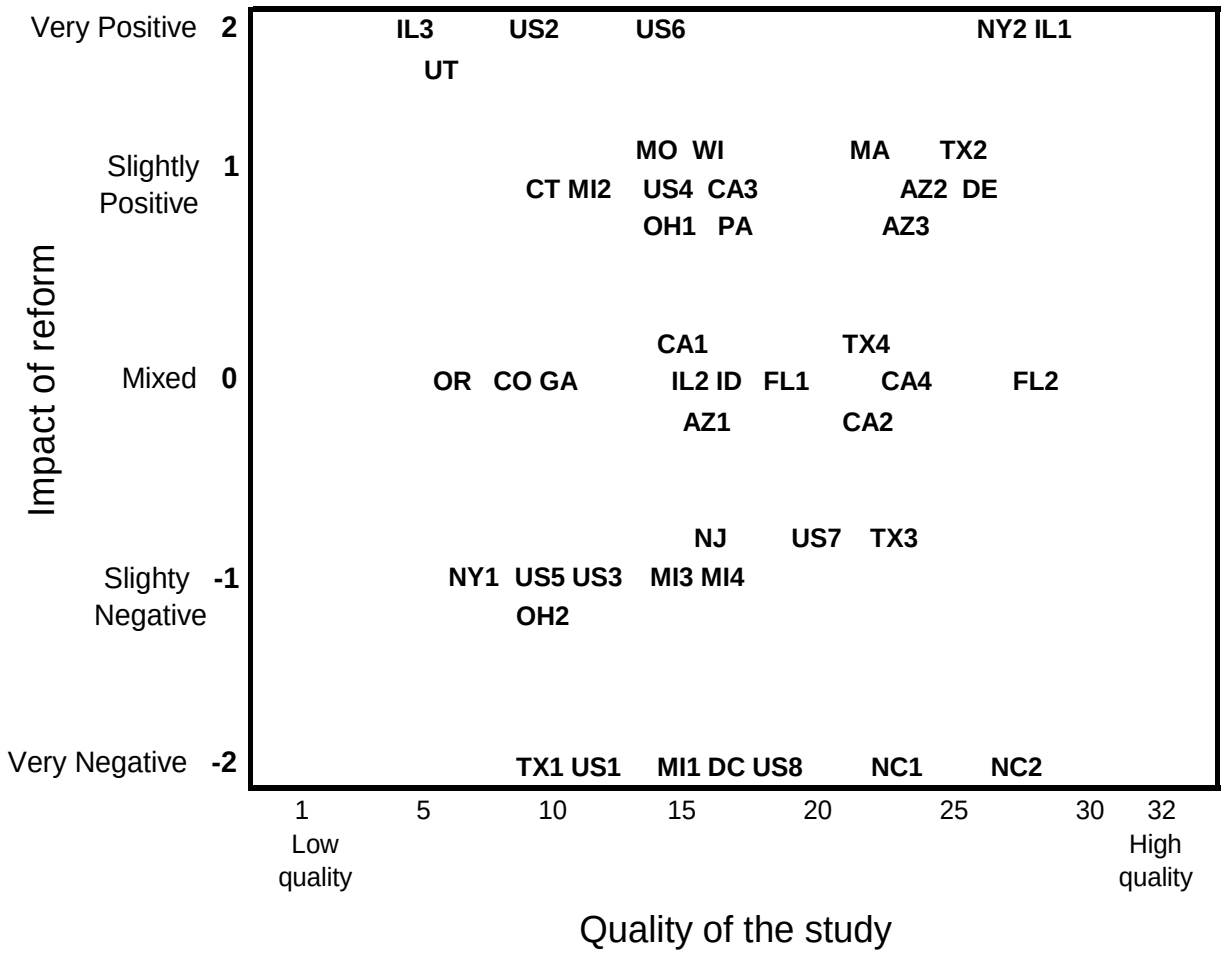

Figure 4. Quality and Impact Ratings for Studies of Student Achievement in Charter Schools

Note: This map provides an illustration of estimated impact and quality ratings for 47 studies completed during the last nine years.

AZ1 = Mulholland (1999)
AZ2 = Solmon & Goldschmidt (2004)
AZ3 = Garcia (2008)
CA1 = EdSource (2007)
CA2 = Rogosa (2003)
CA3 = Raymond (2003)
CA4 = Zimmer et al. (2003)
CO = Colorado Dept. of Education (2006)
CT = Miron (2005).
DC = Henig, et al. (2001)
DE = Miron, et al. (2007)
FL1 = Florida Dept. of Education (2006)
FL2 = Sass (2006)
GA = Plucker, et al. (2006)
ID = Ballou, Teasley, & Zeidner (2006)
IL1= Hoxby & Rockoff (2004) [Chicago]
IL2 = Nelson & Miron (2002)
IL3 = Chicago Public Schools (2007)
MA= Massachusetts Dept. of Ed. (2006)
MI1 = Eberts & Hollenbeck (2002)
MI2 = Michigan Dept. of Ed. (2007)
MI3 = Bettinger (2005)

MI4 = Miron & Nelson (2002)
MO = Metis Associates. (2004)
NC1= Noblit & Corbett (2001)
NC2 = Bifulco & Ladd (2006)
NJ = Barr (2007)
NY1 = New York Board of Regents. (2003)
NY2 = Hoxby & Murarka. (2007)
OH1 = Carr & Staley (2005)
OH2 = Legis. Office of Ed.Oversight. (2003)
OR = Bates & Guile (2006)
PA = Miron, Nelson, & Risley (2002)
TX1 = Maloney et al. (2007)
TX2 = Gronberg & Jansen, (2005)
TX3 = Hanushek., Kain, & Rivkin (2002)
TX4 = Booker et al. (2004)
UT = Was & Kristjansson (2006)
WI = Witte et al. (2004)
US1 = Finnigan et al. (2004)
US2 = Hoxby (2004)
US3 = US-DOE [NCES] (2004)
US4 = Loveless (2003)
US5 = Nelson, Rosenberg, & Van Meter (2004)
US6 = Greene, Forster, & Winters (2003)
US7 = Miron, Coryn, & Mackety (2007)
US8 = Braun, Jenkins, Grigg & Tirre (2006)

It is important to note that no studies have been completed on student achievement in cyber or virtual schools, which are typically charter schools catering to home-schooling families. In a 2003 study of California charter schools, Zimmer et al.[47] included some non-classroom-based charter schools and found that they had lower achievement scores than traditional public schools and other charters. In a 2002 evaluation of Pennsylvania charter schools, Miron et al.[48] similarly found that four virtual charter schools performed worse than or similar to comparison groups.

The unweighted average impact score across all studies was +0.04, suggesting that as a group the studies provide a mixed picture of the charter school effect. Two explanations are possible. One possibility is that large gains or losses in some charter schools are offset by losses or gains in other charter schools, yielding a mixed achievement impact. A second possibility is that impact is consistent across charter schools, but small. That the impact ratings are widely dispersed suggests an explanation that gains and losses are frequently offset.

Summary of Findings

Overall, the existing research on school choice models and achievement provides a mixed picture, with some studies suggesting positive impacts and others indicating neutral or negative impacts. Except for the research on home schooling, the inclusion of relatively lower quality studies did little to change the overall findings.

There were large differences across school choice type, both in terms of the amount of research available as well as the conclusions that can be drawn from the research. The entire body of the literature leads to the following key findings.

Vouchers

- Given that few voucher programs exist, a relatively large number of studies on them are available.
- The quality of the studies is reasonably high, with many relying on lottery lists to generate comparison groups of students.
- The results—on the whole—are slightly positive, particularly with regard to performance of African-American students.

Home Schooling

- Relatively few studies exist.
- Most of the studies are especially weak in design quality.
- All findings are mixed or positive in favor of home schooling.

Inter-, Intradistrict Choice Programs and Magnet Schools

- Relatively few studies exist.
- The quality of magnet school research is generally mixed, although the lottery lists from oversubscribed schools could facilitate more rigorous designs.
- Overall findings were mixed.

Charter Schools

- The most studies are available on charter schools, with rapid growth in the literature appearing over the past six years.
- Design quality for research on charter schools varies considerably; for some half of the studies, relatively weak quality is due to the absence of—or inability to obtain—student-level data.
- Cumulative results from charter school research indicate that, on the whole, charters perform similarly to traditional public schools. Results from individual studies have remained mixed over time, even with the addition of newer and higher quality studies.

Table 3 and Figure 5 (following) facilitate comparison of findings across diverse choice models; together they summarize the total number of studies analyzed for each model as well as the impact and quality ratings in each category. Voucher studies had the highest overall quality ratings, and home schooling the lowest. Impact ratings include not only the mean but also the weighted mean, which takes into account study quality. On average, home school studies had the most positive impact ratings, and charter schools the least positive—although still mixed. Figure 5 charts the general position of these four broad forms of school choice in terms of relative quality and impact. On the whole, we could discern no correlation

between the studies' quality and their findings relative to choice's impact on student achievement.

Some Observations on the Findings

In considering import of the findings, we have been disappointed to note—especially relative to charter schools—that most of the media attention and public debate has focused on relatively weak cross-sectional studies. It appears that discussion is being shaped by research that does not merit the emphasis it is receiving.

As this analysis demonstrates, the research and evaluation literature has not yet produced clear and unambiguous factual statements about achievement across any of the key types of school choice. Thus, stakeholders must weigh the strengths and weaknesses of the evidence. Since it is unlikely that there will ever be a single definitive study, the most reasonable approach for interpreting the evidence is to conduct a meta-analysis or assemble a picture of the findings across the broad body of research, as we have done here.

Still, it is important to simultaneously remain aware that aggregating findings across types of school choice hides considerable differences. Within all models, there are certainly successful choice programs and schools as well as seriously flawed ones. At a macro level this policy brief can tell us what the body of research says and whether these reform models are worthy of replication. Nevertheless, all forms of school choice could benefit from a better understanding of factors leading to success within particular schools or groups of schools.

Table 3. Mean Quality and Impact Ratings Across Diverse Forms of School Choice Research

Type of Choice	Studies (N)	Quality Rating (0 to 32 scale)		Impact Rating (+2 to -2 scale)		Weighted Mean Impact
		Mean	SD	Mean	SD	
Voucher	12	25.58	4.67	0.58	0.67	0.62
Charter	47	17.49	6.06	0.04	1.25	0.10
Home school	17	9.88	4.12	1.00	0.79	1.01
Intra-/Inter-/Magnet	9	19.56	6	0.11	1.05	0.26

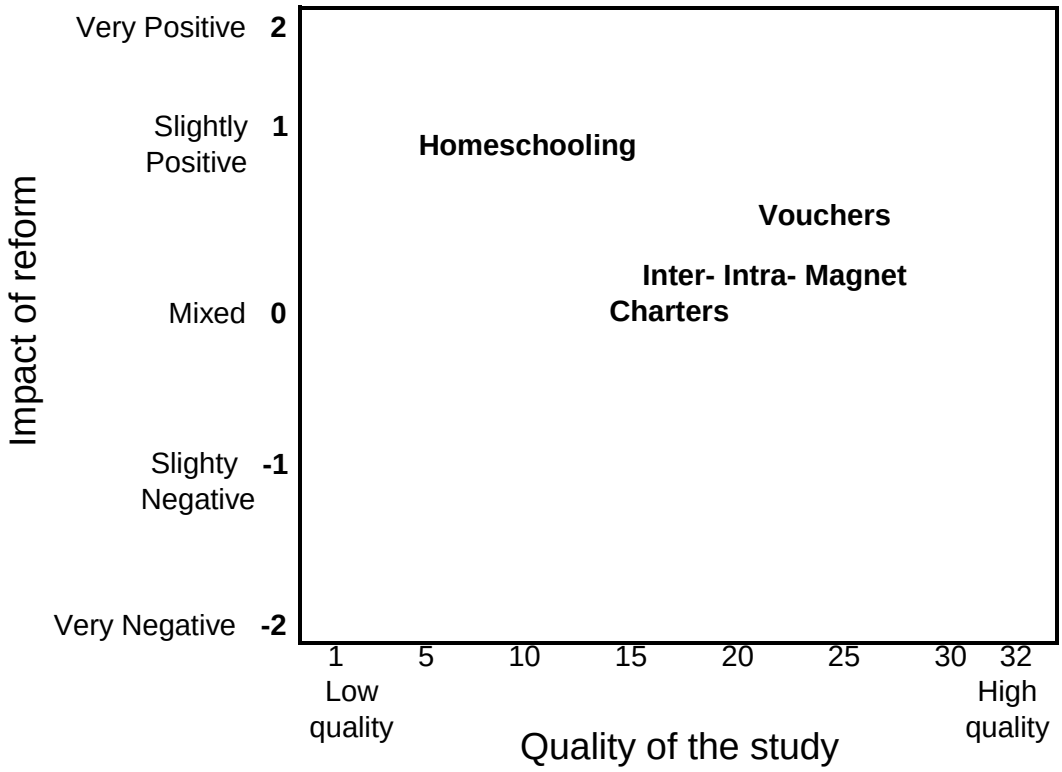

Figure 5. Illustration of the Overall Findings Across Diverse Forms of School Choice

A Cautionary Word on the Role of Advocacy Research

Given that school choice is a highly politicized issue, there are many attempts to influence policy with sensational claims about student achievement by advocacy or opposition groups. Typically, these claims allude to empirical research. Press releases with data charts and talking points appear in papers or on Web sites. Our preliminary review of the existing research had to weed through piles of these pseudo-studies/evaluations. Most were not included here because they lacked technical reports specifying the number of students and schools involved in a study or offering details on methodology. While technical reports may take many forms, the public should be aware that when one is not included, there is no way to determine whether conclusions are justified or findings can be verified and replicated.

Several advocacy studies of relatively high quality were included in this analysis. However, as with pharmaceutical companies doing rigorous research on their new drugs, findings that do not support the position of groups with a vested interest are often not released, so that caution in interpreting significance of results is advisable.

Recommendations

The analysis detailed here yields two core recommendations for researchers and policy makers. The first is to improve research on school choice, and the second is to improve interpretation of school choice research.

Improve Research on School Choice

- Take care in creating comparison groups from lottery lists at choice schools. Selection bias may occur since some selected students may choose not to attend the choice school because of transportation or other barriers. The technique is promising, but researchers must still confirm and control for differences in the group of students who are accepted and those who are not.
- Consider using matched student designs, which are affordable and will be increasingly useful as state assessment systems improve and expand. Our analysis shows that studies using matched student designs often score high overall on quality ratings since they get more points for scope of study, demographic controls, completeness of technical reports than studies using other designs.
- Remember that impact can be adequately captured only with longitudinal designs. Thus, cross-sectional studies are most useful in assessing relative performance and describing the types of students enrolled in particular choice models.
- Promote more research on home schooling, especially as increasing numbers of home schoolers enroll in cyber schools.
- Promote research exploring differences across and within forms of school choice to help identify factors and conditions most likely to support successful school choice reforms.
- Clearly articulate research designs and methodologies, at the very least in an appendix or a Web document.
- Specify limitations and precautions that readers should consider when interpreting the findings.

Improve the Interpretation of Research on School Choice

- Remember that performance on standardized tests is only one of several important outcome indicators. Standardized tests are the easiest but not necessarily the best way to evaluate student learning.
- Be skeptical of sweeping conclusions drawn from the body of existing research; the range of findings and relative weakness of many studies does not support such claims. Remember that there simply are no definitive studies.
- Be aware that many commonly discussed and debated studies have weak research designs, as evidenced by their failing to meet our minimal

selection criteria or, if included, by their quality ratings often being among the lowest.

- Consider the breadth of findings available regarding any single form of school choice, and when interpreting the research, remember the importance of study design, sample size, and the relevance of the comparison group.
- *Beware the press release.* Findings highlighted in press releases should be ignored if no technical report exists with details on the population studied or the study design used.
- When interpreting research, consider the source. Was the research funded or conducted by an advocacy group? Have the researchers ever released findings counter to their current results? Lead researchers of these studies typically have extensive experience, and the odds—for example, that someone would never have a finding that was in support of traditional public schools, or vice versa—speak loudly about the nature and purpose of their work.

Notes and References

[1] Inasmuch as many school choice programs have schools that are oversubscribed and regulations that require students to be selected at random from their waiting lists, randomized experiments ought to be possible, in principle. However, waiting lists often are not audited over time and are insufficient for the construction of a good randomized experiment since they are often out of date, contain an accumulation of names over a number of years, and often cannot be readily produced when requested.

[2] Readers should bear in mind that our 5-point scale might understate the variation in impacts found across studies.

[3] See, e.g., Light, R., & Pillemer, D. (1984). Summing up: *The science of reviewing research*. Cambridge, MA: Harvard University Press.

Hedges, L., & Olkin, I. (1985*). Statistical methods for meta-analysis*. Orlando, FL: Academic Press.

[4] Scriven, M. (1981**).** The "weight and sum" methodology. *American Journal of Evaluation,* (2); 85-90.

[5] A large comprehensive study (3 points) requires more than 25 schools (school as unit of analysis) OR more than 1,000 students (if student is unit of analysis). A moderately comprehensive (2 points) requires between 11 and 25 schools, OR 121-1,000 students. A small study (1 point) is defined by 5-10 schools OR 50-120 students, and a very small study (0 points) considers 2-4 schools OR less than 50 students. Studies with only one school are not included.

[6] Replication and verification are facilitated when there is a complete technical report. In interpreting findings, we generally perceive studies with comprehensive technical reports to be more credible. Some studies are most rigorous with randomized assignment, but they lose points due to the completeness of the technical report. It was surprising to us to see how many studies had weak or incomplete technical reports. Some of these had sparse details on methods and only reported on a restricted range of findings. Common in the weaker technical reports was that no mention was made of caveats or limitations that readers should taken into consideration.

[7]Miron, G., & Nelson, C. (2004). Student achievement in charter schools. In K. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools* (pp. 161-175). New York: Teachers College Press.

Miron, G., & Nelson, C. (2001) *Student academic achievement in charter schools: What we know and why we know so little*. Occasional Paper No. *41*. National Center for the Study of Privatization in Education, Teachers College, Columbia University. [http://ncspe.org/keepout/papers/00041/590_OP41.pdf].

[8] The scores assigned in the weighting scheme have also benefited from input from colleagues at the Western Michigan University Evaluation Center, where the weighting scheme has been vetted and opened up to public input in connection with two presentations (one in 2005 and one in early 2008).

[9] Friedman, M. (1955). The role of government in education. In R.O. Solo, (Ed.), *Economics and the public interest*. New Brunswick, N.J.: Rutgers University Press.

[10] We have not included research on the earliest voucher pilot program from Alum Rock, California, which was started in 1972 because of their complications in implementing the program and also because the published research on this program did not yield specific results regarding the academic achievement of students taking advantage of the voucher.

[11] Zimmer & Bettinger, also confirm that they could not find any research on tuition or education tax credits and student achievement.

Zimmer, R., & Bettinger, E. (2008). Beyond the rhetoric: Surveying the evidence on vouchers and tax credits. In H.F.Ladd & E.B.Fiske (Eds.), *Handbook of research in education finance and policy*. New York: Routledge.

[12] A number of annual reports were issued to the Wisconsin State Legislature, but because these analyses were superseded by subsequent reports, we have only considered the most recent analysis, which was summarized in a refereed article published by John Witte in 1998 [see Witte, J. F. (1998].

[13] Witte, J.F. (1998). The Milwaukee voucher experiment. *Educational Evaluation and Policy Analysis, 20*(4), 229-251.

[14] Greene, J.P., Peterson, P.E., & Du, J. (1999). Effectiveness of school choice: The Milwaukee experiment. *Education and Urban Society, 31*, 190-213.

[15] Witte, J.F. (1999). The Milwaukee voucher experiment: The good, the bad and the ugly. *Phi Delta Kappan, 81*, 59-64.

[16] Rouse, C. (1998). Private school vouchers and student achievement: An evaluation of the Milwaukee Parental Choice Program. *Quarterly journal of economics*, *113*(2), 553-602.

[17] Metcalf, K.K., Legan, N.A., Paul, K.M., & Boone, W.J. (2004, October). *Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2003*. Bloomington: Indiana Center for Evaluation & Education, Indiana University.

[18] Plucker, J., Muller, P., Hansen, J., Ravert, R., & Makel, M. (2006). *Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2004*. Bloomington, IN: Center for Evaluation and Education Policy.

[19] Greene, J.P., Howell, W.G., & Peterson, P.E. (1997). *An evaluation of the Cleveland scholarship program*. Cambridge, MA: Program in Education Policy and Governance, Harvard University

[20] Greene, J.P., Howell, W.G., & Peterson, P.E. (1999). *An evaluation of the Cleveland voucher program after two years*. Cambridge, MA: Harvard University, Program on Education Policy and Governance.

[21] Wolf, P.J., Howell, W.G., & Peterson, P.E. (2000). S*chool choice in Washington, DC: An evaluation after one year*. Cambridge, MA: Harvard University, Program on Education Policy and Governance.

[22] Mayer, D.P., Peterson, P.E., Myers, D.E., Tuttle, C.C., & Howell, W.G. (2002). S*chool choice in New York City after three years: An evaluation of the school choice scholarships program* (No. 8404-045). New York: Mathematica Policy Research.

[23] Krueger, A., & Zhu, P. (2004).Another look at the New York City school voucher experiment. American Behavioral Scientist, 47, 658-698.

[24] Peterson, P.E., West, M.R., and Campbell, D.C. (2001).*School Choice in Dayton, Ohio After Two Years : An Evaluation of the Parents Advancing Choice in Education Scholarship Program.* Program on Education Policy and Governance Occasional Paper, Harvard University, PEPG 01-04.

[25] Based on his extensive review of the research evidence on school vouchers, Carnoy concluded that "vouchers' effects on student achievement are almost certainly smaller than claimed by pro-voucher researchers. Although programs in many cities were designed to be like randomized-trial medical experiments—with high validity and reliability—common problems in implementation may have compromised validity and produced misleading results. Moreover, the results are marked by broad inconsistencies across grades, academic subjects, and racial groups. See Carnoy, M. (2001). *School vouchers: Examining the evidence*. Washington, DC: Economic Policy Institute.

[26] Ray, B.D. (2008). *Home centered learning annotated bibliography, seventeenth edition.* Salem, OR: National Home Education Research Institute.

[27] Several studies on home schooling have pointed to the inadequacy of standardized testing in measuring the success of home-schooled students, e.g.,

Meehan, N. & Stephenson, S. (1994). *Homeschooling in the United States; A review of recent literature*. (ERIC Document Reproduction Service No. ED 424 922);

Burns, J. (1999). *The correlational relationship between homeschooling demographics and high test scores.* (ERIC Document Reproduction Service No. ED 439 141);

Collom, E. (2005). The ins and outs of homeschooling: The determinants of parental motivations and student achievement. *Education and Urban Society, 37*(3), 307-335;

Ray, B.D. (2000). Home schooling: The ameliorator of negative influence on learning? *Peabody Journal of Education, 75* (1&2), 71-106; and

Rudner, L.M. (1999). Scholastic achievement and demographic characteristics of home school students in 1998. *Education Policy Analysis Archives, 7*(8) (ERIC Document Reproduction Service No. ED 435 709).

Therefore, a portion of the field has focused on alternative measures of student success, such as first year college GPA (Jones, P., & Gloeckner, G. [2004]. First-year college performance: A study of home school graduates and traditional school graduates. *The Journal of College Admission, 183*, 17-20; Sutton, J.P. & Galloway, R.S. [2000]. College success of students from three high school settings. *Journal of Research and Development in Education, 33*(3), 137-146); perceptions of college admissions officers (Ray, B.D. [2001]. *Home education in Ohio: Family characteristics, academic achievement, social and civic activities, and college admissions officers' thoughts.* Salem, OR: National Home Education Research Institute); self-confidence (Sheffer, S. [1995]. *A sense of self: Listening to homeschooled adolescent girls*. Portsmouth, NH: Boynton/Cook Publishers); leadership skills (Montgomery, L.R. [1989]. The effect of home schooling on the leadership skills of home schooled students. *Home School Researcher, 5*(1) 1-10); and adulthood characteristics (Ray, B.D. [2004]. Homeschoolers on to college: What research shows us. *The Journal of College Admission, 185*, 5-11; Knowles, J.G. & Muchmore, J.A. [1995]. Yep! We're grown-up home-school kids – and we're doing just fine, thank you! *Journal of Research on Christian Education, 4*(1), 35-56).

[28] State department reports fell into this category. We saw Arizona Department of Education (1989). *Students taught at home: 1989 average grade equivalents*; North Carolina Division of Non-Public Education (1989). North *Carolina home school nationally standardized achievement test results 88-89 school term*; Arkansas Department of Education (1988); and Tennessee Department of Education (1987). Home school student test results: 1986 and 1987. These were reported often but we could not locate those reports anywhere. The major researcher citing these studies, Klicka, also did not have them any longer (Ridley, V.N., legal assistant to Christopher J. Klicka, Esq., personal communication, December 18, 2007).

[29] Some examples are Rakestraw, J.F. (1987). *An analysis of home schooling for elementary school-age children in Alabama*. Unpublished doctoral thesis, University of Alabama, Tuscaloosa;

Delahooke, M.M. (1986). *Home educated children's social/ emotional adjustment and academic achievement: A comparative study*. Doctoral dissertation, California School of Professional Psychology, Los Angeles;

Tipton, M. (1990). Untitled, unpublished MA thesis. Antioch University.

[30] Muchmore, J., personal communication, September 21, 2007.

[31] Ray, B.D. (2000). Home schooling: The ameliorator of negative influence on learning? *Peabody Journal of Education, 75*(1&2), 71-106.

[32] Further widely cited reports by Cisek, G. J. (1991). Alternative assessments: Promises and problems for home-based education policy. *Home School Reseacher, 7*(4), 13-21; Lyn Boulter from Boulter, L. & Macaluso, K. (1994). Individualized assessment of home schooling education. *Home School*

Researcher, 10(2), 1-6; Rhonda Galloway from Galloway, R. A. & Sutton, J. P. (1995). Home schooled and conventionally schooled high school graduates: A comparison of aptitude for and achievement in college English. *Home School Researcher, 11*(1), 1-9; Wartes, J. (1987). Report from the 1986 home school testing and other descriptive information about Washington's home schoolers: A summary. *Home School Researcher, 3*(1), 1-4. Other well-known homeschool researchers not studying academic achievement also made their public reputation known through *Home School Researcher*, such as Marlee Mayberry and J. Gary Knowles. In this analysis, Qadish (2007) is sourced from *Home School Researcher.*

[33] Rudner, L.M. (1999). Scholastic achievement and demographic characteristics of home school students in 1998. *Education Policy Analysis Archives, 7*(8). (ERIC Document Reproduction Service No. ED 435 709)

[34] Welner, K.M. & Welner, K.G. (1999). Contextualizing homeschooling data: A response to Rudner. *Education Policy Analysis Archives, 7*(13). (ERIC Document Reproduction Service No. EJ 588 923)

[35] Galloway, R.A.S. (1995). *Home schooled adults: Are they ready for college*? Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco. P. 8

[36] Cooper, B.S. & Sureau, J. (2007). The politics of homeschooling. *Educational Policy, 21*(1), 110-131; Welner, K.M. & Welner, K.G. (1999). Contextualizing homeschooling data: A response to Rudner. *Education Policy Analysis Archives, 7*(13). (ERIC Document Reproduction Service No. EJ 588 923); McDowell, S.A., Sanchez, A.R. & Jones, S.S. (2000). Participation and perception: Looking at home schooling through a multicultural lens. *Peabody Journal of Education, 75*(1&2), 124-146.

[37] Rothermel, P. (2004). Home-education: Comparison of home- and school-educated children on PIPS baseline assessments. *Journal of Early Childhood Research*, 2(3), 273-299; and Watkins, M.A.C. (1997). *Are there significant differences in academic achievement between homeschooled and conventionally schooled students?* Doctoral dissertation, University of Alberta. These initially looked promising, but were based on data outside of the United States.

[38] In this section, we use the words "magnet schools" consistently, but we intend that term to also include interdistrict and intradistrict forms of school choice. We know the terms are not synonymous, but to use each term individually throughout the section would be laborious for the reader. If we were to put each of these forms of school choice into their own sections, the sections would be so small as to be not worth reporting. Finally, intradistrict choice also goes by the name of "open enrollment" in the research literature, and that is also included in this section.

[39] See Fuller, B., Burr, E., Huerta, L., Puryear, S., & Wezler, E. (1999). *School choice: Abundant hopes, scarce evidence of results.* Berkeley, CA: Policy Analysis for California Education for a discussion of this aspect of magnet schooling.

[40] Ballou, D., Goldring, E., & Liu, K. (2006, March). *Magnet schools and student achievement*. New York: National Center for the Study of Privatization in Education, Columbia University.

[41] Gamoran, A. (1996). Student achievement in public magnet, public comprehensive, and private city high schools. *Education Evaluation and Policy Analysis, 18*(1), 1-18.

[42] Christenson, B., Eaton, M., Garet, M. S., Miller, L. C., Hikawa, H., & DuBois, P. (2003). *Evaluation of the magnet schools assistance program, 1998 grantees*. Washington, DC: U. S. Department of Education, Office of the Under Secretary.

[43] Gill, B., Timpane, P.M., Ross, K.E., & Brewer, D.J. (2001). *Rhetoric versus reality: What we know and what we need to know about vouchers and charter schools*. Santa Monica: RAND.

[44] Miron, G., & Nelson, C. (2001) *Student academic achievement in charter schools: What we know and why we know so little.* Occasional Paper No. 41. National Center for the Study of Privatization in Education, Teachers College, Columbia University.

[45] Miron, G., & Nelson, C. (2004). Student achievement in charter schools. In K. Bulkley & P. Wohlstetter (Eds.), *Taking account of charter schools* (pp. 161-175). New York: Teachers College Press.

[46] In more recent years, a number of reviews and Web-based systems have facilitated the tracking of charter school research. Most noteworthy is an online searchable database of studies maintained by the National Charter School Research Project at the University of Washington. This useful database now contains 70 studies that consider charter school student achievement, although many lacked the technical reports or comparison groups required for this synthesis. (See National Charter School Research Center. University of Washington. Retrieved March 7, 2008, from http://www.ncsrp.org/cs/csr/print/csr_docs/pubs/achieve_wp.htm)

Hassel et al. (2007) also identified 70 charter school studies, although his particular methodology allowed for some studies to be counted 2 or 3 times. Diverse studies and publications on charter schools are also available from the searchable database on the US Charter Schools Web site—maintained by varied charter supporters. See Hassel, B., Terrell, M.G., Kain, A., Ziebarth, T. (2007). Charter school achievement: What we know. Washington, DC: National Alliance for Public Charter Schools. Retrieved March 7, 2008, from http://www.publiccharters.org/content/publication/detail/2974/

[47] Zimmer, R., Buddin, R, Chau, D., Gill, B., Guarino, C., Hamilton, L., Krop, C., McCaffrey, D., Sandler, M., & Brewer, D. (2003). *Charter school operation and performance: Evidence from California.* Santa Monica: RAND.

[48] Miron, G., Nelson, C., & Risley, J. (2002). *Strengthening Pennsylvania's charter school reform: Findings from the statewide evaluation and discussion of relevant policy issues. Harrisonburg,* PA: Pennsylvania Department of Education.

APPENDIX A VOUCHER STUDIES

Code Used in the Chart	Title of Study/Evaluation	Description of the Study	Key Findings	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study: Scope of study 0-3	Scope of the Study: Grades levels covered 0-2	Scope of the Study: Subjects covered 0-1	Completeness of the Technical Rep: Clear and complete methods section 0-2	Completeness of the Technical Rep: Complete set of findings 0-1	Completeness of the Technical Rep: Limitations of study included 0-1	Quality Rating 0-32	Impact Rating -2 to +2
M1	Witte, J.F. (1998). The Milwaukee voucher experiment. *Educational Evaluation and Policy Analysis* , *20* (4), 229-251.	Student level data for more than 1,300 students (slightly different in math and reading); Iowa Test of Basic Skills scores in reading and mathematics collected for 1990-1994; because of problems with lottery losers as unreliable comparison group, Witte compares choice participants and MPS low-income students *Limitations:* Limited generalizability, because of matched design, controls used may not control for differences adequately	Mixed: No substantial difference over the life of the program between choice and MPS families, especially MPS low-income students	8	4	5	2	3	2	1	2	1	1	**29**	**0**
M2	Greene, J.P., Peterson, P.E., & Du, J. (1999). Effectiveness of school choice: The Milwaukee experiment. *Education and Urban Society, 31,* 190-213.	Individual level scores on math and reading Iowa Test of Basic Skills, lottery winners compared with lottery losers in a randomized design *Limitations:* Questions raised about legitimacy of comparison group; did not report findings based on low-income MPS students; nonrandomness of attrition.	Strongly positive: Statistically significant changes for winners in their third and fourth year in the program when demographic controls are used	10	4	4	2	2	2	1	2	0	0	**27**	**2**
M3	Rouse, C. (1998). Private school vouchers and student achievement: An evaluation of the Milwaukee Parental Choice Program. *Quarterly Journal of Economics, 113* (2), 553-602.	This analysis sample consists of African-American and Hispanic students who applied to the choice program between 1990 and 1993 for grades K–8; compares the test scores of students selected to attend a participating private school with those of unsuccessful applicants and other students from the Milwaukee Public Schools *Limitations:* Questions about the nonrandomness of attrition	Slightly positive: Students selected for the choice program scored approximately 1.5 to 2.3 percentile points higher per year in math compared with unsuccessful applicants and the sample MPS students. Math learning gains are higher for choice students and statistically significant; however, reading	10	4	6	2	2	1	1	2	1	1	**30**	**1**
C1	Metcalf, K.K., Legan, N.A., Paul, K.M., & Boone, W.J. (2004, October). *Evaluation of the Cleveland scholarship and tutoring program: Technical report 1998-2003.* Bloomington: Indiana University, School of Education.	The study followed 780 first-grade scholarship students attending private schools, 541 first-grade public school applicant nonrecipients, and 1,233 first-grade nonapplicants; achievement data collected from same cohort each spring; reports findings from autumn, 1998 (early first grade) through spring 2003 (late fifth grade). *Limitations:* Questions about the nonrandomness of attrition	Mixed: Program does not show any substantial gains for voucher users relative to other comparison groups. The CSTP is not differentially effective for African-American students.	10	4	4	2	3	0	1	2	1	1	**28**	**0**
C2	Greene, J.P., Howell, W.G., & Peterson, P.E. (1999). *An evaluation of the Cleveland voucher program after two years.* Harvard University, Program on Education Policy and Governance.	California Achievement Test in fall 1996 and spring 1997 and spring 1998 scores for two academies were collected and group learning gains determined; 2 academies used were created in response to the Cleveland Scholarship Program; average student gains from these schools compared with national average *Limitations:* Only 2 academies from the program used; school level data; compared with national averages, not a specific comparison group with	Mixed: During first year, NPRs in both math and reading rose significantly but did not continue to rise during the second year; some actually declined, one score significantly declined. However, authors recommend that program is continued	4	3	0	2	1	0	1	1	1	1	**14**	**0**
C3	Plucker, J., Muller, P., Hansen, J., Ravert, R., & Makel, M. (2006). *Evaluation of the Cleveland Scholarship and Tutoring Program: Technical report 1998-2004.* Bloomington, IN: Center for Evaluation and Education Policy.	Student level data used in mixed model, longitudinal approach on Terra Nova standardized test scores; controls for prior achievement, student mobility, and poverty status included. Compares lottery winners and nonwinners over time. *Limitations: M* issing data for some students had to be mathematically estimated; controls are	Positive: In first and second grades, CSTP outperformed public school students; but with more exposure, differences disappeared (except for language arts, in which CSTP maintained higher scores)	10	4	4	2	3	1	1	2	1	1	**29**	**1**
NY1	Mayer, D.P., Peterson, P.E., Myers, D.E., Tuttle, C.C., & Howell, W.G. (2002). *School choice in New York City after three years: An evaluation of the school choice scholarships program (No. 8404-045*). Princeton, NJ: Mathematica Policy Research	Compares Iowa Test of Basic Skills scores of lottery winners and nonwinners for baseline and for several subsequent years; uses several demographic controls *Limitations:* Response bias, attrition	Slightly positive: After 3 years, no significant difference; some positive results for African Americans	10	4	5	2	3	0	1	2	1	1	**29**	**1**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study	Key Findings	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Rep			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
NY2	Krueger, A.B., & Zhu, P. (2004). Another look at the New York City voucher experiment. *American Behavioral Scientist, 47* (5), 658-698.	Data were collected from low income students in grades k-4 and their parents at baseline and in the spring of each of the next 3 years. Base weights constructed so sample was representative of the pool of eligible applicants. Students were given the Iowa Test of Basic Skills (ITBS) at baseline and in the spring of each of the 3 follow-up years. Study compares gains over time for lottery winners and losers. *Limitations:* Lack of generalizability to other grades and voucher programs	Mixed: When students with missing baseline scores are taken into account, results are insignificant	10	4	4	2	3	0	1	2	1	1	**28**	**0**
DC1	Wolf, P.J., Howell, W.G., & Peterson, P.E. (2000). *School choice in Washington, DC: An evaluation after one year.* Cambridge, MA: Program on Education Policy and Governance, Harvard University.	Involved 1,584 students in grade 2-8 who applied to scholarship and had not previously attended a private school; students tested at baseline and follow up sessions, scholarship winners and nonwinners were compared in terms of Iowa Test of Basic Skills gains in math and reading *Limitations:* Did not look at high school effects; legitimacy of comparison group questioned; attrition patterns may be threat to internal validity; no significance for any racial group except African Americans but conclusions reported as extremely positive	Slightly positive: African-Americans switching to private schools in grades 2 through 5 outperformed public school students by 3 percent in reading (not statistically significant), 7 percent in math (statistically significant); African American students attending private schools in grades six through eight scored 2 national percentile points higher in math (not statistically significant) but trailed their public school peers in reading by 8 points (statistically significant).	10	1	3	2	3	1	1	1	1	0	**23**	**1**
DC2	Wolf, P., Gutmann, B., Puma, M., Rizzo, L., & Eissa, N. (2007). *Evaluation of the DC Opportunity Scholarship Program: Impacts After One Year.* Washington: Institute of Education Sciences, U.S. Department of Education.	Randomized controlled trial used to assess the first-year impacts of the Program on those who applied for and were given the option. OSP impact sample group includes the randomly assigned members of the treatment and control groups and comprises 57 percent of all eligible applicants in the first 2 years of Program operation *Limitations:* only one year of data, not generalizable to other programs	Mixed: No statistically significant impacts, positive or negative, on student reading or math achievement for the entire impact sample in year 1, or on subgroups	10	1	3	2	2	2	1	2	0	0	**23**	**0**
D1	West, M.R., Peterson, P.E., & Campbell, D.E. (2001, August). *School choice in Dayton, Ohio after two years: An evaluation of the Parents Advancing Choice in Education scholarship program.* Cambridge, MA: Program on Education Policy and Governance, Harvard University	Included 458 of 803 included in Howell, & Peterson (2000). Statistical model estimated to take nonrandomness of the placement of students in public and private schools. Each student's status as a member of the treatment or control group was used as an instrumental variable in a two stage least squares regression in which the dependent variable in the first-stage regression was whether or not the student attended a private school *Limitations:* Positive for one subgroup in some areas, but expressed as positive rather than mixed; attrition may be important	Slightly positive: After two years African American students who attended private schools scored higher in reading and on combined reading and math score. Their score also increased in math, although not statistically significant. Non-African American students did not differ significantly	10	3	3	2	2	1	1	1	1	0	**24**	**1**
C4	Belfield, C. (2006). *The evidence on education vouchers: An application to the Cleveland Scholarship and Tutoring Program.* Occasional Paper 112. New York: National Center for the Study of Privatization in Education.	Compares TerraNova scores for scholarship users, non-users, rejected applicants and a public school comparison group *Limitations:* Lack of generalizability to other programs, only used second and fourth graders	Mixed: No academic advantages for voucher users in second or fourth grade; results do not vary according to: adjustments for prior ability, intention-to-treat versus treatment effects, and dosage differences; not differentially effective for African American students	8	3	4	2	3	0	1	1	1	0	**23**	**0**

APPENDIX B HOMESCHOOL STUDIES

Code Used in the Chart	Title of Study/Evaluation	Description of the Study	Key Findings	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
A	Boulter, L.T. (1999). *Academic achievement in home school education.* Salisbury, NC: Catawba College.	Compares scores of homeschool students on Woodcock Johnson revised test with national average *Limitations:* Incomplete methods section (lack of information on sampling procedure); sample was all white, middle or upper-middle class, and demographic controls used; sample includes fewer than 50 homeschoolers	Mixed: Homeschoolers were at or above 50th percentile on all subsets of test, but percentile scores for all four clusters were negatively correlated with years in home schooling; significant decline in broad written language and broad knowledge	4	4	1	2	0	2	1	1	1	0	**16**	**0**
B	Collom, E. (2005). The ins and outs of homeschooling: The determinants of parental motivations and student achievement. *Education and Urban Society, 3* (3), 307-335.	Compares scores of 175 homeschooled students on SAT9 to the national average *Limitations:* Limited design in one school, hinged on option to complete parental motivation survey that was merged with test data, school factor clouds results, cross sectional	Slightly positive: Homeschoolers scored in the 54th percentile on reading, language, and math	0	0	4	2	2	2	1	2	1	1	**15**	**1**
C	Galloway, R.A.S. (1995, April). *Home schooled adults: Are they ready for college?* Paper presented at the annual meeting of the American Educational Research Association, San Francisco.	Compares homeschooled graduates with both private and public graduates who all attend the same Christian university on ACT scores *Limitations:* Sample was taken from one Christian university, no demographic controls used, cross sectional	Slightly positive: Only significant difference was for English subset ACT scores—significantly higher for home school students over private school graduates ONLY; no other statistically significant differences were found between the groups	0	0	0	2	2	0	0	2	1	0	**7**	**1**
D	Ray, B.D. (2000). Home schooling: The ameliorator of negative influences on learning? *Peabody Journal of Education, 75* (1-2), 71-106.	Compares self-reported homeschoolers' scores on various tests obtained through home education organizations' mailing lists to national averages *Limitations:* Cross-sectional, uses self-report measures, sample obtained through home education organizations' mailing list so representativeness of all homeschoolers is in question, scores on various tests reported	Strongly positive: Homeschoolers scored at 87th percentile in reading, math 82nd, complete battery 87th	0	0	3	2	3	0	1	1	1	1	**12**	**2**
E	Rudner, L.M. (1999). Scholastic achievement and demographic characteristics of home school students in 1998. *Education Policy Analysis Archives, 7* (8).	Obtains sample from those homeschoolers using a particular testing center; compares scores of homeschooled children with national averages for "grade level" *Limitations:* Testing site at Bob Jones University so representativeness of all homeschoolers is questionable, cross- sectional, no demographic controls used	Strongly positive: Median scores for homeschoolers at 75th percentile	0	0	0	2	3	2	1	2	1	1	**12**	**2**
F	Clemente, D.F. (2006). *Academic achievement and college aptitude in homeschooled high school students compared to their private-schooled and public-schooled counterparts.* (UMI No. 3218862). Unpublished doctoral dissertation, Regent University, Virginia Beach.	Compares SAT scores of college freshmen who previously had been homeschooled with those who graduated from public and private high schools; sample obtained from 7 Christian colleges and universities *Limitations:* Limited generalizability due to sample used, questionable appropriateness of using a directional analysis of variance analysis, cross-sectional	Strongly positive: SAT scores for homeschoolers significantly higher using both data analyses; difference between public and private schooled freshmen's SAT scores not significant	0	0	0	2	3	0	0	2	1	1	**9**	**2**
I	Gray, D.W. (1998). *A study of the academic achievements of home-schooled students who have matriculated into post-secondary institutions.* (Doctoral dissertation, University of Florida, Sarasota, 1998). Dissertation Abstracts International, 59 (021).	Compares SAT scores of random sample of public and private school graduates with population of previously homeschooled college freshmen at three Georgia universities *Limitations:* Homeschooled could not be separated from those with GED, limited generalizability due to sample used	Slightly positive: Slightly higher scores for homeschooled though not statistically significant	0	0	0	2	1	0	1	2	1	1	**8**	**1**
J	Holder, M.A. (2001). *Academic achievement and socialization of college students who were homeschooled.* Unpublished doctoral dissertation, The University of Memphis. (UMI No. 3829894).	Compares ACT scores for random sample of public school graduates and population of homeschooled from one university *Limitations:* Small sample size (N=34), limited generalizability due to sample being taken from one university, cross-sectional, no demographic controls used	Mixed: No statistically significant differences in ACT scores among homeschooled and public schooled students	0	0	0	2	0	0	1	2	1	0	**6**	**0**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study	Key Findings	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
K	Witt, V.L. (2005). A comparison and descriptive analysis of homeschool reading and vocabulary scores to the national average. *Dissertation Abstracts International, 65* (01), 1696. (UMI No. 3174333).	Compares homeschooled students' percentiles on reading and vocabulary subtests of California TerraNova with national averages. Data came from existing database, but participants were selected by parents who returned questionnaire *Limitations:* Small sample size (N=103), cross-sectional, representativeness of all homeschool students questionable	Strongly positive: Homeschooled math scores at 79th percentile, vocabulary at 78.5 percentile	0	0	0	2	1	2	0	2	1	1	**9**	**2**
H	Delahooke, M.M. (1986). Home educated children's social/emotional adjustment and academic achievement: A comparative study. *Dissertation Abstracts International, 47* (2), 475A. (UMI No. 8608759).	Compares homeschooled students' scores to private school students' scores on parts of Wide Range Achievement Test-Revised *Limitations:* Small sample size (N=60), no random selection, participants chose to participate in study from private and homeschool settings, no demographic controls used, cross-sectional	Mixed: Study found no differences in test results on parts of Wide Range Achievement Test-Revised	0	0	0	2	1	1	1	2	1	1	**9**	**0**
G	Qaqish, B. (2007). An analysis of homeschooled and non-homeschooled students' performance on an ACT mathematics achievement test. *Home School Researcher, 17* (2), 1-12.	Compares homeschoolers' ACT mathematics scores to non-homeschoolers' ACT mathematics scores using matched student design *Limitations:* Cross-sectional, math only	Slightly positive: On average, non-homeschoolers performed better than homeschoolers, by about 2 items out of 60 items, on the ACT mathematics test that was analyzed	8	0	2	2	3	0	0	2	1	0	**18**	**1**
N	Rakestraw, J. (1988, December). Home schooling in Alabama. *Home School Researcher, 4(* 4).	Compares homeschooled students' scores on SAT with "grade level" *Limitations:* limited generalizability because homeschooled participants were solicited through home education organizations/church ministries; small sample size; technical report is unclear about comparison groups, sample and sampling procedures; no limitations discussed and complete findings are not presented; cross-sectional	Slightly positive: The academic achievement of the homeschooled children in Alabama was at grade level or above in almost all subject areas, except mathematics for Grades 1 and 4 and in reading comprehension and vocabulary for Grade 5, in which homeschoolers were below grade level	0	0	0	0	1	0	1	0	0	0	**2**	**1**
L	Richman, H.B., Girten, W., & Snyder, J. (1990). Academic achievement and its relationship to selected variables…*Home School Researcher, 6* (4), 9-16.	Compares homeschoolers' standardized test scores with national averages *Limitations:* nonrandom sampling (parents had to pay to take test), small sample size, cross-sectional	Strongly positive: Math score for homeschoolers corresponded to 73rd national percentile; reading score correlated with 86th national percentile rank for achievement test	0	0	0	2	2	2	1	0	1	1	**9**	**2**
M	Wartes, J. (1990). Recent results from the Washington homeschool research project. *Home School Researcher, 6* (4), 1-7.	Compares homeschoolers' scores on Stanford Achievement Test to national norms; multiple years of data gathered but no longitudinal analysis *Limitations:* Complete findings are not presented, cross sectional	Slightly positive: Homeschoolers scored comparably to public composite scores for 1986 68th percentile, 1987 65th or 66th, 1988 65th percentile, 1989 65th percentile	0	0	3	2	3	2	1	0	0	1	**12**	**1**
O	Jones, P., & Gloeckner, G. (2004). First year college performance: A study of home school graduates and traditional school graduates. *The Journal of College Admission* , 17-20.	Compares homeschooled and nonhomeschooled college freshmen ACT scores *Limitations:* Small sample size (N=108), insufficient demographics reported on sample, limited generaliability due to sample tested, cross-sectional, no control for demographics used	Slighly positive: Homeschoolers scored higher on ACT but not significantly so. More variance in homeschoolers' scores	0	0	0	2	1	0	1	0	1	0	**5**	**1**
P	Frost, E.A. (1987). A descriptive study of the academic achievement of selected elementary school-aged children educated at home in five Illinois counties. (Doctoral dissertation, Northern Illinois University, 1987). *Dissertation Abstracts International, 48* (7), 1589A.	Sample of 74 students from personal contacts with homeschool educators; uses group level characteristics to select comparison groups *Limitations:* Nonrandom sampling, limited generalizability, cross-sectional	Mixed: Homeschoolers were above grade level in reading, but below grade level in math. Findings ultimately presented as composite, masking inferior math test scores by combining them with test data on unusual subject areas like "work study skills"	0	0	1	1	1	0	2	2	1	1	**7**	**0**
Q	Belfield, C.R. (2005). Home-schoolers: How well do they perform on the SAT for college admissions? In B.S. Cooper (Ed.), *Home schooling in full view: A reader.* Charlotte, NC: Information Age Publishing.	Compares one year of national SAT scores with large national sample of homeschoolers *large sample of reported homeschoolers (N=6033) *Limitations:* Cross-sectional, description of access to population absent	Mixed: Homeschooled students scored high on reading but lower than comparison on math. When demographic controls introduced, there were no noticable differences between groups	0	0	4	2	3	0	2	1	0	0	**12**	**0**

APPENDIX C INTER-, INTRADISTRICT CHOICE AND MAGNET SCHOOL STUDIES

Code Used in the Chart	Title of Study/Evaluation	Description of the Study	Key Findings	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study: Scope of study 0-3	Scope of the Study: Grades levels covered 0-2	Scope of the Study: Subjects covered 0-1	Completeness of the Technical Report: Clear and complete methods section 0-2	Completeness of the Technical Report: Complete set of findings 0-1	Completeness of the Technical Report: Limitations of study included 0-1	Quality Rating 0-32	Impact Rating -2 to +2
A	Beaudin, B. (2003). *Interdistrict magnet schools and magnet programs in Connecticut: An evaluation report.* Bureau of Evaluation and Educator Standards, Division of Evaluation and Research.	Compares cut scores of interdistrict magnet schools with statewide averages over two years of test data *Limitations:* No demographic controls used, no understanding of value addded by reform, school level data	Mixed: Positive results for interdistrict magnet schools on one standardized test, negative results on the other standardized test	0	3	0	1	3	1	1	1	0	0	**10**	**0**
B	Ballou, D., Goldring, E., & Liu, K. (2006, March). *Magnet schools and student achievement.* New York: National Center for the Study of Privatization in Education, Columbia University.	Compares lottery winners with losers, adding controls for 7 potential confounding variables *Limitations:* One district studied, no data on magnet high schools	Mixed: Positive impact of magnet schools on mathematics scores until prior achievement and student demographics are taken into account, suggesting attrition patterns are causing differences in scores	10	4	4	2	3	1	1	2	1	1	**27**	**0**
C	Crain, R.L., Allen, A., Thaler, R., Sullivan, D., Zellman, G., Little, J.W., & Quigley, D.D. (1992). *The effects of academic career magnet education on high schools and their graduates*. Berkeley, CA: NCRVE.	Aggregates student level data to program level and compares randomly accepted students' scores with randomly rejected students' scores *Limitations:* Sample of programs not defined, not generalizable to all magnet programs, cross-sectional	Slightly negative: Students in academic career magnet schools do not have higher or lower reading scores, but do have slightly lower math scores	10	0	0	0	3	1	1	2	1	0	**17**	**-1**
D	Gamoran, A. (1996). Student achievement in public magnet, public comprehensive, and private city high schools. *Education Evaluation and Policy Analysis, 18* (1), 1-18.	Using NELS test data, compares gains from eighth to tenth grade for magnet schools, public comprehensive schools, and Catholic schools *Limitations:* Old data, school level data	Slightly positive: Magnet school advantages in reading and social studies	4	3	3	2	3	1	1	2	1	1	**21**	**1**
E	Heebner, A.L. (1995). The impact of career magnet high schools: Experimental and qualitative evidence. *Journal of Vocational Education Research, 20* (2), 27-35.	Uses data from five schools in one city to compare lottery winners and nonwinners on pretest and posttest *Limitations:* Incomplete methods sections (years of data obtained are unclear), not generalizable to other programs	Slightly positive: Lottery winners had higher math scores; students with medium reading scores benefited from winning the lottery	10	3	2	2	1	0	1	1	1	1	**22**	**1**
F	Institute for Assessment and Evaluation. (2006). *Knox County magnet schools evaluation.* Knoxville: Author, University of Tennessee.	Uses county data to track consecutive cohorts over four years; gains compared with national norms *Limitations:* No demographic controls used, no data on high schools, school level data	Strongly negative: Magnet schools perform more poorly than in Knox County and the state mean	1	4	1	2	1	1	1	2	1	0	**14**	**-2**
G	Christenson, B., Eaton, M., Garet, M.S., Miller, L.C., Hikawa, H., & DuBois, P. (2003). *Evaluation of the magnet schools assistance program, 1998 grantees.* Washington: U. S. Department of Education, Office of the Under Secretary.	Using national school level data, schools are matched based on student demographics and gains compared for matched magnet and traditional public schools *Limitations:* Multiple state tests used, school level data, data limited to elementaries only	Mixed: When controls for the composition of the schools used, gains of MSAP-sponsored schools were not significantly different than others.	1	3	4	2	3	0	0	2	1	1	**17**	**0**
H	Betts, J.R., Rice, L.A., Zau, A.C., Tang, Y.E., & Koedel, C.R. (2006). *Does school choice work? Effects on student integration and achievement.* San Francisco: Public Policy Institute of California.	Compares three forms of intradistrict choice in San Diego district using natural lottery to compare winners and nonwinners *Limitations:* Incomplete methods section (no sample size), comparison limited to one district	Slightly positive: Magnet enrollees showed higher scores in high school math in the second and third year of school placement	10	3	5	2	3	2	1	1	1	1	**29**	**1**
I	Eagle, N., & Ridenour, G. (1969). Differences in academic performance and report card grades between "open enrollment" and "matched home" elementary school children, after one and two years. *Urban Education, 4*, 115-123.	Focuses on effect of desegreation on academic achievement *Limitations:* Old data, small sample size, few demographic controls utilized, limited generalizability	Slightly positive: magnet enrollees did not show differences after one year of treatment; but as grade level increased, so did a statistically significant achievement level	8	3	2	2	2	0	1	0	0	0	**19**	**1**

APPENDIX D CHARTER SCHOOL STUDIES

Code Used in the Chart	Title of Study/Evaluation	Description of the Study (include details about the design, comparison groups, test and outcome measure used, and scope of study)	Key Findings (Include rating and then bulleted summary of key findings)	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study: Scope of study 0-3	Scope of the Study: Grades levels covered 0-2	Scope of the Study: Subjects covered 0-1	Completeness of the Technical Report: Clear and complete methods section 0-2	Completeness of the Technical Report: Complete set of findings 0-1	Completeness of the Technical Report: Limitations of study included 0-1	Quality Rating 0-32	Impact Rating -2 to +2
AZ1	Mulholland, L. (1999, March). *Arizona charter school progress evaluation*. Tempe: Morrison Institute for Public Policy, Arizona State University.	Analysis of consecutive cohorts with comparison group and statistical controls; stratified sample of individual gain scores from 82 out of 137 charter schools open in Arizona at the time *Limitations:* Low matching rate in high schools (32%-66%); rate is higher in charter schools	Mixed: No difference overall	1	3	0	2	3	2	1	2	1	1	**16**	**0**
AZ2	Solmon, L.C., & Goldschmidt, P. (2004). *Comparison of traditional public schools and charter schools on retention, school switching and achievement growth.* Policy Report: Goldwater Institute. No. 192.	Three-level hierarchical linear model used to measure achievement growth trajectories; used 158,000 test scores of more than 60,000 Arizona students attending 873 charter and traditional public schools statewide over a three-year period *Limitations:* None addressed, controls included may not address all differences in students	Slightly positive: Achievement growth varies by grade level; elementary charter school students' growth was higher; in middle grades traditional and charter growth comparable; higher grades, traditional public school achievement growth was higher; overall charter school students gained faster	8	3	2	2	3	2	1	2	1	0	**24**	**1**
AZ3	Garcia, D.R. (2008). *Growing pains: Revisiting academic achievement in the earliest years of the charter school movement.* Manuscript submitted for publication.	Compares the academic achievement of charter and traditional public elementary students while controlling for prior achievement, grade, student demographics, school mobility, and student entrance into a first-year charter school *Limitations:* Differences may not be adequately controlled for	Slightly positive: Charter schools outperform traditional public schools in total scores; advantages largely attributable to greater achievement gains relative to traditional public schools in the basic skills areas of reading vocabulary and mathematics procedures	8	4	3	2	3	1	1	2	1	0	**25**	**1**
CA1	EdSource. (2007). *California's charter schools: Measuring their performance*. Mountainview, CA: Author.	Cross-sectional analysis with statistical controls used to compare charter schools scores with noncharter school scores; 60% of charter schools in operation in 05-06 and 79% of noncharter schools in operation in same year *Limitations*: Doesn't account for motivation or differences in funding; cross-sectional, school level data	Mixed: Negative for elementary charters, positive for middle school charters, positive but inconsistent for charter high schools	0	0	4	2	3	2	1	2	1	1	**16**	**0**
CA2	Rogosa, D. (2003). *Student progress in California charter schools, 1999-2002.* Palo Alto, CA: Stanford University.	Controls for API and Stanford 9 test scores; all students in 93 charter schools and 6,584 noncharter schools in most complete analysis; uses consecutive cohort and same cohort designs *Limitations:* School level data, controls may not be adequate	Mixed: More comparable gains than in Rogosa (2002)	4	4	1	2	3	2	1	2	1	1	**21**	**0**
CA3	Raymond, M.E. (2003). *The performance of California charter schools.* Palo Alto, CA: CREDO: Hoover Institution, Stanford University.	Multivariate regression models were constructed for each year of API scores from 1999 to 2002, regressing school scores on student body characteristics, family education characteristics and school attributes *Limitations:* Shortcomings of the API, school level data	Slightly positive - Against all other California schools, the changes in charter schools' API scores at the elementary and middle school levels are not statistically different, but slightly lower. Compared with other California high schools, California charter high schools on average have growth in API scores that is positive and statistically significant. Charter elementary and middle schools were found to create equivalent gains for students as their conventional peer schools. Charter high schools produced significantly more positive changes in API scores	1	3	2	2	3	2	1	1	1	1	**17**	**1**
CA4	Zimmer, R., Buddin, R., Chau, D., Gill, B., Guarino, C., Hamilton, L., Krop, C., McCaffrey, D., Sandler, M., & Brewer, D. (2003). *Charter school operation and performance: Evidence from California.* Santa Monica: RAND.	Approach III: Longitudinally links student-level data→ value-added estimate of the contribution of charter schools to student achievement. *Limitations*: Availability of data in only a few districts; no comparison between different types of charter schools possible	Mixed: Slightly negative for math score comparisons on primary and secondary school level; reading–positive for secondary school level in comparison with public schools but neutral for primary school	8	4	3	2	3	1	1	1	0	1	**24**	**0**
CO	Colorado Department of Education. (2006). *The state of charter schools in Colorado in 2004-05: The characteristics, status, and performance record of Colorado charter schools.* Denver: Author.	Comparison of average charter school % meeting standards and noncharter school students meeting standards *Limitations:* No use of gain score or controls; cut score is used	Mixed: Charter schools scored better in lower grades; noncharter school students scored better in high school grades	0	0	0	1	3	2	1	2	1	0	**10**	**0**
CT	Miron, G. (2005). *Evaluating the performance of charter schools in Connecticut.* Kalamazoo: The Evaluation Center, Western Michigan University.	Looks at changes in average scaled scores for same and consecutive cohorts *Limitations*: School level data, CAPT had weaker design	Slightly positive: 3 of 4 cohorts in lower grades made much larger gains than comparison groups, but 10th grade results mixed to negative	4	3	0	2	1	2	1	2	1	1	**17**	**1**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study (include details about the design, comparison groups, test and outcome measure used, and scope of study)	Key Findings (Include rating and then bulleted summary of key findings)	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
DC	Henig, J.R., Holyoke, T.T., Lacireno-Paquet, N., & Moser, M. (2001, February). *Growing pains: An evaluation of charter schools in the District of Columbia; 1999-2000.* Washington, DC: The Center for Washington Area Studies, The George Washington University.	Comparison of poorly performing public and charter schools with similar proportions of needy students; also a comparison of stability of test scores between the two types of school over time *Limitations* : Group level data	Strongly negative: Consecutive cohorts: DCPS schools more likely to have improved, less likely to have declined than charter schools. Cross-sectional analysis: more charter schools scored "below basic" than DCPS schools; differences hold up under statistical elaboration	1	3	1	2	3	2	1	2	1	1	**17**	**-2**
DE	Miron, G., Cullen, A., Applegate, E.B., & Farrell, P. (2007). *Evaluation of the Delaware charter school reform: Final report.* Kalamazoo: The Evaluation Center, Western Michigan University.	Students matched on 4 student-level characteristics; 4x4 factorial ANCOVA; for group or school level analysis, residual gains analysis was used *Limitations:* Cannot be generalized to other states' programs controls may not adequately account for differences	Positive: Charter schools at secondary level gaining more as compared with traditional public school students	8	4	5	2	1	2	1	2	1	1	**27**	**1**
FL1	Florida Department of Education. (2006). *Florida's charter schools: A decade of progress.* Tallahassee: Author.	Examines change in FCAT Development Scale Score (DSS) from grade to grade for charter and traditional students from 2001-2002 to 2005-2006 *Limitations:* No demographic controls, no statistical significance tests	Mixed: No consistent pattern	4	4	0	2	3	2	1	1	1	0	**18**	**0**
FL2	Sass, T. R. (2006). *Charter schools and student achievement in Florida*. Gainesville, FL: American Education Finance Association.	Longitudinal data, control for student level fixed effects, uses econometric model of student achievement *Limitations:* Those who leave one form for another may have unobservable characteristics not controlled for	Slightly positive: Achievement initially lower in charters; but by fifth year of operation, achievement is on par and reading achievement scores are higher than traditional school counterparts	8	4	5	2	3	2	1	2	1	0	**28**	**1**
GA	Plucker, J., Eckes, S., Rapp, K., Ravert, R., Hansen, J., & Trotter, A. (2006, April). *Baseline evaluation of Georgia's charter schools program.* Atlanta: Georgia Department of Education.	Cross-sectional series of analyses of covariance (ANCOVA) were conducted, reliance on both statistical significance and effect size interpretation, controls for student ethnicity and gender *Limitations:* Incomplete methods section, cross-sectional, no control for SES	Mixed: Charter schools are achieving at similar levels as their peers statewide and in comparison schools, with significant variations by subject area, grade, and length of time attending charter schools; most differences between charter and comparison schools favor charter schools, but not universal	0	0	2	1	3	1	1	1	1	1	**11**	**0**
ID	Ballou, D., Teasley B., & Zeidner, T. (2006). *Charter schools in Idaho*. Nashville, TN: National Center on School Choice. Prepared for the National Conference on Charter School Research at Vanderbilt University on September 29, 2006.	Student gain scores were calculated for students' math scores in grades 2-10; virtual schools (5) dropped from sample, and those students who switched during year dropped from sample; models created using ordinary least squares and controls for grade level, ethnicity, and special education *Limitations:* Fixed effects model and no fixed effects model produce completely different results, school level data	Mixed: Analysis of switchers favors CS, while simpler gains analysis does not. Elementary students in CS have made greater gains than they would have made had they remained in traditional public schools (though the difference in higher grades is reversed or insignificant). The smallest drop in gain scores occurred among students who moved from the district schools to CS. The largest drop occurred among students who moved in the opposite direction.	4	3	2	2	0	2	0	1	1	1	**16**	**0**
IL1	Hoxby, C.M., & Rockoff, J.E. (2004). *The impact of charter schools on student achievement.* Nashville: Working Paper Series, National Center on School Choice.	Compares gains for lottery winners and lottery losers; student level analysis for lottery applicants to 3 CICS schools in 2000, 2001, and 2002 *Limitations* : Not generalizaible to nonapplicants; private school students can't be compared	Strongly positive: After 2 years in a charter school, average of 6 percentile points higher on standardized tests	10	3	5	2	3	1	1	2	1	1	**29**	**2**
IL2	Nelson, C., & Miron, G. (2002). *The evaluation of the Illinois charter school reform: Final report.* Report submitted to the Illinois State Board of Education. Kalamazoo: The Evaluation Center, Western Michigan University.	Compares percentages passing state tests in charter schools and demographically similar schools statewide *Limitations:* Cross-sectional, small sample of schools	Mixed: Statewide, charter schools perform slightly below demograpically similar schools; in Chicago, charter schools have higher proportions scoring at or above national norms than do demographically similar schools	1	3	3	1	2	1	1	2	1	1	**16**	**0**
IL3	Chicago Public Schools. (2007). *Charter schools: 2005/2006 annual performance report.* Chicago: Author.	Compares percentage of high, middle, and low ratings received by 21 charter schools and district schools on absolute student and operational performance measures; looks at changes from 2002-2006 Limitations: Aimed at charter school supporters, school level data, use of general rating as measurement	Strongly positive: Charter schools had higher percentage of high and middle ratings than did district schools	0	1	0	1	2	2	1	0	1	0	**8**	**2**
MA	Massachusetts Department of Education. (2006). *Massachusetts charter school achievement comparison study: An analysis of 2001-2005 MCAS performance.* Boston: Author.	HLM growth models for each charter school and its corresponding comparison sending district *Limitations:* School level data, concerns about MCAS scaled scores and interpreation across 5-year period, length of charter school operation not taken into account	Slightly positive: HLM data show some charter scores as highest of all schools	4	4	3	2	3	2	1	1	1	1	**22**	**1**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study (include details about the design, comparison groups, test and outcome measure used, and scope of study)	Key Findings (Include rating and then bulleted summary of key findings)	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
MI1	Eberts, R.W., & Hollenbeck, K.M. (2002). *Impact of charter school attendance on student achievement in Michigan.* Kalamazoo, MI: Upjohn Institute Staff Working Paper. No. 02-080.	Pairs charter schools with public school districts, used fixed effects to control for factors in the areas common to both types of schools *Limitations:* No use of gain scores, cross-sectional only, analysis explains only small proportion of variance	Strongly negative: With student, building, and district controls, students attending charters have lower test scores	0	4	2	2	3	0	1	2	1	1	**16**	**-2**
MI2	Michigan Department of Education (December, 2007). *Public school academies: Michigan Department of Education report to the legislature.* East Lansing: Author.	Comparison of proficiency levels for PSAs, host districts, and non-PSAs for MEAP and other measures; broken down by age of PSA, economically disadvantaged students, ethnicity, students with disabilities, and correlation of proficiency level with percentage of free and reduced price lunch students (all controls/subgroups analyzed separately) *Limitations:* None addressed, cross-sectional, cut scores used, emphasis on elementaries and middle schools performing well	Slightly positive: Elementary and charter middle schools consistently have a higher percentage of proficient students on MEAP than do counterparts in geographical districts in which PSAs are located; charter high schools "are struggling"	0	0	3	1	3	2	1	1	1	0	**12**	**1**
MI3	Bettinger, E.P. (2005). The effect of charter schools on charter students and public schools. *Economics of Education Review, 24* (3), 133-147.	Estimates charter scool achievement for charter schools opening in 1996/97; difference in difference estimator for consecutive cohorts; second model controls for ethnicity and free and reduced lunch *Limitations: G*roup-level data, limited to charters opened in 1996-1997 school year	Slightly negative: charter schools' scores "may" decline; results are negative	8	3	2	2	3	0	1	2	1	1	**23**	**-1**
MI4	Miron, G., & Nelson, C. (2002). *What's public about charter schools? Lessons learned about choice and accountability* (pp. 134-147). Thousand Oaks, CA: Corwin.	Compares changes in school-level passing rates between charter schools and districts *Limitations: S*chool level data, passing rates as measure of performance	Slightly negative: Host districts' passing rate gains exceed charter school rate gains for all subjects and grades except 4th grade math	1	4	1	1	3	1	1	2	1	1	**16**	**-1**
MO	Metis Associates. (2004). *A study of the Kansas City, Missouri, charter public schools 2000-2003.* New York: Author	Compares change in average charter school score with average change in district and state score *Limitations* : No controls used, group-level data	Slightly positive: Charter school students start out behind but close gap	1	4	0	2	2	2	1	1	1	1	**15**	**1**
NC1	Noblit, G.W., & Corbett, D. (2001). *North Carolina charter school evaluation report.* Raleigh: North Carolina State Board of Education.	Compares percentage of traditional public school students proficient with % of charter school students proficient *Limitations* : Percentage of students proficient used as measure of performance, cross-sectional	Strongly negative: Charter school students start with higher prior achievement scores, bu lose ground to their peers in all grades and subject areas	8	4	1	2	2	1	1	2	1	1	**23**	**-2**
NC2	Bilfulco, R., & Ladd, H.F. (2006). *School choice, racial segregation and test-score gaps: Evidence from North Carolina's charter school program* . Paper presented at the annual meeting of Allied Social Science Associations, Boston.	Models include grade/year fixed effects and are estimated using "within" student estimator. Dependent variable is annua gain in end of grade development scale scores transformed into standard scores *Limitations:* not applicable to other states' charter schools; students who switch sectors may have unobservable characteristics that are not adequately controlled for, introducing sampling bias	Strongly negative: Charter schools have produced larger achievement gaps between Caucasian and African-American students	8	4	3	2	3	2	1	2	1	1	**27**	**-2**
NJ	Barr, J. (2007). *Charter school performance in New Jersey*. (Working Paper #2007-006). Newark: Rutgers University.	Regression analyses done on panel data of fourth graders from 1999 to 2006; 35 charter schools in 18 districts included; comparisons made only to those districts that have a charter school; first regression analysis looks at each school's passing rate on 4th grade standardized language arts and mathematics exams *Limitations:* School level data, cut score used as measure of performance	Slightly negative: Charter schools have lower performance than public schools in the same districts on fourth grade standardized tests for language and math, but performance improve with experience. The estimated time to close the gap between charter and traditional schools is about a decade	1	4	3	1	3	0	1	2	1	0	**16**	**-1**
NY1	New York Board of Regents. (2003). Report to the governor, the temporary president of the senate, and the speaker of the assembly on the educational effectiveness of the charter school approach in New York State.	Compares percentage of students passing from 2002-2003 between charter schools and their districts *Limitations:* Cross-sectional, school level data, no use of gain score	Slightly negative: No real aggregate results/conclusions presented, but for some charter schools, greater % classified with serious deficiencies	0	0	4	0	2	1	1	1	0	0	**9**	**-1**
NY2	Hoxby, C.M., & Murarka, S. (2007). *Charter schools in New York City: Who enrolls and how they affect their students' achievement.* Cambridge, MA: National Bureau of Economic Research.	Comparison of students who are lotteried-in and lotteried-out of charter schools using instrumental variables regression *Limitations:* Known underreporting of special education status	Strongly positive: For every year in charter schools, students gain 3.8 scale score points in math (12% of performance level), 1.6 scale score points in reading (3.5% performance level)	10	4	2	2	3	2	1	2	1	1	**28**	**2**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study (include details about the design, comparison groups, test and outcome measure used, and scope of study)	Key Findings (Include rating and then bulleted summary of key findings)	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
OH1	Carr, M., & Staley, S. (2005).*Using the Ohio proficiency test to analyze the academic achievement of charter school students: 2002-2004.* Columbus, OH: The Buckeye Institute.	Compares gains of percentage of students passing Ohio Proficiency Tests made by low-performing charter and distric schools, controlling for family income, race, poverty *Limitations:* School level data, not generalizable to all community schools in Ohio, sample restricted to lowest performing districts, cross-sectional study	Strongly positive: In all cases and both analyses, charter schools performed as well as or better than traditional schools	1	3	3	1	3	2	1	1	0	0	**15**	**1**
OH2	Legislative Office of Education Oversight. (2003).*Community schools in Ohio: Final report on student performance, parent satisfaction, and accountability.* Columbus, OH: Author.	Compares scores on Ohio Proficiency Test and the percentage proficient through matching of schools based on grades served and demographics *Limitations:* School level data, cross-sectional, method for matching schools is incomplete	Slightly negative: District schools generally outperformed community schools, but small differences; when there were statistically significant differences, generally favored district schools	0	0	0	2	3	1	1	2	1	1	**11**	**-1**
OR	Bates, M., & Guile, D. (2006). *Oregon charter schools 2004-2005 evaluation report*. Salem: Oregon Department of Education.	Examines AYP general ratings for charter and traditional public schools at the elementary, middle school, and high school levels *Limitations: G*eneral rating used as measurement, cross-sectional, no use of demographic controls, complete set of findings not presented	Mixed: Charter schools outperform at elementary benchmark levels; traditional publi schools outperform charters at middle and high school benchmark levels	0	0	0	0	2	2	1	1	0	1	**7**	**0**
PA	Miron, G., Nelson, C., & Risley, J. (2002). *Strengthening Pennsylvania's charter school reform: Findings from the statewide evaluation and discussion of relevant policy issues.* Kalamazoo: The Evaluation Center, Western Michigan University.	Compares charter school scores with similar district schools using regression analysis; determines how charter school scores change in conjunction with length of operation *Limitations:* School level data, cross-sectional study	Slightly positive: Pennsylvania charter schools appear to be attracting students with lower-than-average achievement levels and producing small relative gains (15 points per year, on average) in their achievement level	1	4	4	2	3	2	1	2	1	1	**21**	**1**
TX1	Maloney, C., Sheehan, D., Huntsberger, B., Caranikas-Walker F., & Caldera, S. (2007).*Texas open-enrollment charter schools: 2005-06 evaluation*. Austin: Texas Center for Educational Research	Cross-sectional comparisons for each year, each grade, each subject; patterns for different ethnicities also determined *Limitations:* No controls used, cross-sectional study, no use of gains	Strongly negative: Accountability ratings are negative for charter schools at each year; TAKS scores: all subjects, all years, negative for charter schools; differences in magnitude of negative change by ethnicity, but Caucasia and African-American students both have lower scores in charter schools	0	0	0	2	3	2	1	2	1	0	**11**	**-2**
TX2	Gronberg, T., & Jansen, D.W. (2005). *Texas charter schools: An assessment in 2005.* Austin: Texas Public Policy Foundation.	Comparing gains in z scores for 2003 and 2004 for charter school students and predicted gain in z scores if those students had continued to attend TPS; matched student design employed *Limitations:* Concerns over attrition patterns, longitudinal but only 2 years of study	Slightly positive: Gains for students in lower grades who stay in charter schools are higher than matched students in district schools; at-risk charter school students do better than their matches at district schools; students in charter high school score lower than their matches	8	3	3	2	3	2	1	2	1	1	**26**	**1**
TX3	Hanushek, E.A., Kain, S.G., & Rivkin, S. (2002).*The impact of charter schools on academic achievement*. Unpublished manuscript.	Compares average test score gains of charter students with the same students' gains in district schools *Limitations*: Incomplete methods section (sample size not included); students who switch sectors may have different unobservable characteristics, controls employed may not be adequate	Slightly negative: Charter schools gains are initially lower, but no significant differences after 2 or 3 years of charter school	8	4	4	2		2	1	1	0	0	**22**	**-1**
TX4	Booker, K., Gilpatric, S.M., Gronberg, T., & Jansen, D. (2004). *Charter school performance in Texas*. College Station: Texas A & M University.	Examines student gains for TAAS test in reading and math using student-level data and fixed effect method *Limitations:* Though overall sample is very large, paper does not indicate number of students in different categories of "movers," which is central to analysis; controls may not adequately account for unobserved differences in students	Strongly positive: After controlling for the mobility effect (the initial negative effect that transferring to a charter school causes), charter schools significantly improve the performance of students in both math and reading, with some evidence that school performance may improve as new charter schools progress beyond their first year in operation. African-American students in charter schools perform particularly well	8	4	1	2	3	1	1	2	1	1	**24**	**0**
UT	Was, C., & Kristjansson, S. (2006). *An analysis of charter vs. traditional public schools in Utah.* Salt Lake City: Utah State Charter School Board.	Cross-sectional, ANOVA used to compare standardized test scores in charter schools and traditional public schools, HLM used as well *Limitations:* Cross-sectional, school level data, no information on scope	Slightly positive: Charter schools outperform traditional public schools in lower grades, traditional public schools outperform high schools in grade 10	0	0	2	2		2	1	1	1	0	**9**	**1**
WI	Witte, J.F., Weimer, D.L., Schlomer, P.A., & Shober, A.F. (2004). *The performance of charter schools in Wisconsin.* Madison: Wisconsin Charter Schools Study.	Multichotomous logit group analysis, consecutive cohorts used to compare charter schools' and traditional schools' scores on Terra Nova test in grades 4 and 8 *Limitations*: School level data, does not examine charter high schools because 90% are aimed at high risk populations	Positive: For charters in elementary and middle grades across most comparison. High school results not shared due to concern that many of the charter schools at this level serve at-risk students.	1	3	4	0	2	1	1	2	1	1	**16**	**1**

Code Used in the Chart	Title of Study/Evaluation	Description of the Study (include details about the design, comparison groups, test and outcome measure used, and scope of study)	Key Findings (Include rating and then bulleted summary of key findings)	Study Design 0-10	Duration of Study 0-4	Controls Used 0-6	Measure of Performance 0-2	Scope of the Study			Completeness of the Technical Report			Quality Rating 0-32	Impact Rating -2 to +2
								Scope of study 0-3	Grades levels covered 0-2	Subjects covered 0-1	Clear and complete methods section 0-2	Complete set of findings 0-1	Limitations of study included 0-1		
US1	Finnigan, K., et al. (2004). *Evaluation of the public charter schools program: Final report.* Prepared for U.S. Department of Education by SRI International, Washington, DC.	Logistical regression with background characteristics at school level controlled for *Limitations:* Cross-sectional, differences in standards and definitions of background characteristics from state to state	Strongly negative: Charter schools less likely to meet state standards than traditional public schools when background controls are taken into account	0	0	2	1	3	2	1	2	1	1	**13**	**-2**
US2	Hoxby, C.M. (2004). *Achievement in charter schools and regular public schools in the US: Understanding the differences.* Cambridge, MA: Harvard University and National Bureau of Economic Research.	Compares percentage proficient at charter school elementaries with those proficient at geographically closest elementary and with similar by race public school *Limitations:* Elementaries only, cross-sectional, various state standards used, single grade (4th) used	Strongly positive: Charter students are 5.2 percent more likely to be proficient in reading and 3.2 percent more likely to be proficient in math on their state's exams; stronger advantage for older charter schools, those with high minority populations, states with strong charter laws	0	0	1	1	3	0	1	2	1	1	**10**	**2**
US3	U.S. Department of Education, Institute for Education Sciences, National Center for Education Statistics. (2004). *The nation's report card: America's charter school report*, NCES 2005-456. Washington, DC: Author	Compares NAEP national reading and math scores in charte schools and district schools *Limitations:* Cross-sectional, school level data	Slightly negative: Charter school students performed worse in math; free/reduced lunch students in charter schools performed worse; similar performance by ethnic groups	0	0	2	2	3	0	1	2	1	1	**12**	**-1**
US4	Loveless, T. (2003). *The 2003 Brown Center report on American education: Charter schools: Achievement, accountability, and the role of expertise.* Washington, DC: The Brookings Institution.	Compares changes in average charter school and district tes scores in 10 states from 2000 to 2002. Brown Center researchers computed z-scores for charter schools, indexing charter schools' test scores relative to the mean and standar deviation of test scores within each state, and then examining z-scores nationally *Limitations* : School level data, tests vary from state to state, no controls used	Slightly positive: Charter schools have lower scores but larger gains	1	3	0	2	3	2	1	2	1	1	**16**	**1**
US5	Nelson, H.F., Rosenberg, B., & Van Meter, N. (2004). *Charter school achievement on the 2003 National Assessment of Educational Progress.* Washington, DC: American Federation of Teachers.	Comparison of NAEP scores for charter and traditional public schools *Limitations:* Cross-sectional, controls in separate analyses	Slightly negative: Charter school students worse in both fourth grade subjects, statistically significant	0	0	1	2	3	1	1	2	0	0	**10**	**-1**
US6	Greene, J.P., Forster, G., & Winters, M.A. (2003). *Apples to apples: An evaluation of charter schools serving general student populations.* (Education Working Paper No. 1). New York City: Center for Civic Innovation at the Manhattan Institute.	Regression analysis on two most recent years with year-to-year change reported *Limitations:* School level data, different tests used for different states, some states excluded from results	Strongly positive: Cross-sectional and longitudinal positive were overall positive for charter schools; TX and FL were most positive for charter schools	1	3	1	1	3	1	1	2	1	0	**14**	**2**
US7	Miron, G., Coryn, C., & Mackety, D. (2007). *Evaluating the impact of charter schools on student achievement: A longitudinal look at the Great Lakes states.* East Lansing, MI: Great Lakes Center for Education Research and Practice.	Linear regression models used to estimate student achievement patterns, producing three estimates: (1) actual scores, based on observed student achievement data provided by each school; (2) predicted scores, based on the performance of demographically similar public schools across the state; and (3) residual scores, based on the difference between predicted and actual charter school student achievement *Limitations* : School-level data, varied quality of achievement tests, missing or incomplete data for some schools	Slightly negative: Not currently outperforming demographically similar traditional public schools; scores lower than demograpically similar traditional public schools with scores on achievement tests lower than TPS, especially for those with the newest charter school initiatives, IN & OH. IL has highest relative results, maybe because of effort to close low-performing charters? All states have some high performing charter schools	1	4	4	1	3	2	1	2	1	1	**20**	**-1**
US8	Braun, H., Jenkins, F., Grigg, W., & Tirre, W. (2006). *A closer look at charter schools using hierarchical linear modeling.* Washington: U.S. Department of Education	Phase 1: Charter schools are compared with all public noncharter schools, using a variety of models that incorporate different combinations of student and school characteristics (HLM); Phase 2: Charters classified into those who affiliated with public school districts and those not affiliated with public school districts; Phase 3: subset of publi schools in urban areas with large minority populations are compared *Limitations:* Cross-sectional, self-selection bias may not be accounted for	Strongly negative: After adjusting for student characteristics, charter school mean scores in reading and mathematics were lower than public noncharters. Differences between publi noncharter schools and charter schools affiliated with a public school district were not statistically significant, while charter schools not affiliated with a public school district scored significantly lower on average than public noncharter schools	4	0	3	2	3	1	1	2	1	1	**18**	**-2**

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