

The Friedman Foundation for Educational Choice

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The Greenfield School Revolution and School Choice

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Executive Summary

The recent explosion of educational innovation has focused primarily on creating wholly new models of what a school can be. From KIPP to Carpe Diem, education is entering a revolutionary period driven by the reinvention of the entire school rather than by gradual programmatic reforms. Although some of these new models have been more successful than others, and the level of success for any given new model can be debated, there is a growing consensus that these new school models collectively represent a dramatic challenge to the status quo in education.

These “greenfield school models” do not just challenge our assumptions about schooling. They also challenge the assumption that one school model can provide the right education for every child. The public mind has been opened to the potential of educational options as never before.

The nation faces two crucial challenges as we enter this new period. Only a tiny fraction of the promise and potential of greenfield school models has been tapped so far. How can we create far more of these models, with greater variation and more institutional support for innovation? And how is it possible for greenfield school models to create improvement in the vast majority of schools, the “un-reinvented” regular public schools, given that even gradual attempts at programmatic reform within those schools have been ineffective over the past 50 years?

Universal school choice has great potential to meet both of these challenges. Although the private school sector provides structures that should be inviting to entrepreneurs, currently they do not find the private school sector attractive. The “tuition barrier” locks out institutional change; private schools can’t reach out to a large enough base of families seeking

different learning environments, because they must charge tuition. By lowering the tuition barrier and allowing private schools to serve new populations, universal choice would provide educational entrepreneurs with dramatically more freedom and support than they currently enjoy even in charter schools. Entrepreneurs would be more free to innovate beyond the confines of the “default” public school model, giving them the ability to truly reinvent the school.

Moreover, universal choice is the only way to create an institutional context in which regular public schools will innovate and improve in response to greenfield school models. Currently, their institutional culture consistently experiences reform efforts as threatening and illegitimate. Because public schools have a captive client base, institutions never see the need for change as urgent; thus, they respond to pressure for change in counterproductive ways. By putting parents back in charge of education, universal school choice would focus the urgency in schools needing change, facilitating the emergence of an institutional culture that would experience

Where Do the Data Show a

State or Jurisdiction	Sector Size	Sector Consolidation
Milwaukee	Small	Small
Florida	None	None
Arizona	None	Small
Ohio	None	None
Cleveland	None	None
Pennsylvania	None	None
Washington, D.C.	None	None
Minnesota	None	None



reform as legitimate, necessary, and empowering. Enacting a universal choice policy would not by itself create all the necessary changes, but enacting universal choice is a necessary precondition of change.

A large body of high-quality research consistently establishes that school choice has a positive impact on both the students who use it and students in nearby public schools.¹ However, in most cases the size of this impact is moderate.

Existing school choice programs are a far cry from universal choice. They are small, underfunded, and overregulated. The limited size and scope of existing programs make it unreasonable to expect they will drive miraculous changes. It is an open question whether these existing programs provide any support for educational entrepreneurs or greenfield school models.

This study uses descriptive data from the U.S. Department of Education to examine the composition of the private school sector in localities

with sizeable school choice programs. If existing school choice programs are attracting educational entrepreneurs and unlocking the potential of new school models, we should expect to see significant changes in the sector’s composition. While the available data do not allow us to examine every aspect of schooling, the founding of new school models ought to produce visible changes in school types, school sizes, and other visible metrics.

However, the data examined here provide little evidence that existing school choice programs are transforming the structure of private schools. In its current form, school choice does not appear to be having an impact that is sufficiently large enough to produce visible transformation of the private school sector. Existing choice programs transfer students from marginally less effective public schools to marginally more effective private schools, but they do not seem to drive more ambitious school reforms.

It appears that universal choice programs are needed before an alliance between school choice and the greenfield school revolution can emerge.

Potential Impact from School Choice on the Private School Sector?

Religious Classifications	Minority Composition	Coeducation	School Type	School Level	Teacher/Student Ratio
Small	Large	None	None	None	None
None	None	None	None	None	None
Small	None	None	None	None	None
None	None	None	None	None	None
None	None	None	None	None	None
None	Small	None	None	None	None
None	None	None	None	None	None
None	None	None	None	None	None

From Gradualism to Greenfield

Education is entering a revolutionary period. New models are emerging that radically question our assumptions about how schools work. There is a growing realization that our model for what a school is and does has changed little in the past 100 years, and the 1912 school is fundamentally inadequate for the challenges of 2012. More importantly, reformers are not just talking the talk—they are succeeding in creating successful and sustainable new models of schooling.

Leading education scholar Frederick Hess refers to this development as “greenfield schooling”:

“*Greenfield* is a term of art typically used by investors, engineers, or builders to refer to an area where there are unobstructed, wide-open opportunities to invent or build In real estate, *greenfield* refers to a piece of previously undeveloped land, one that is in its natural state or used for agriculture. In the jargon of software engineering, a *greenfield project* is a new application that operates without any constraints imposed by prior versions. A *greenfield labor agreement* is the first deal struck between a company and its employees.

“In schooling, creating greenfield requires scrubbing away our assumptions about districts, schoolhouses, teacher training, or other familiar arrangements so that we might use resources, talent, and technology to support teaching and learning in smarter, better ways.”²

The recent explosion of educational innovation is driven by schools that reinvent many aspects of the school at once, creating wholly new models of what a school is and does. This represents a turn away from introducing narrower programmatic changes one at a time within the existing school model—an approach that has produced no overall improvement in education over the past 50 years. In the new approach, the basic unit of change is not the student or the teacher, not the curriculum or the pedagogy, not the policies or the organization chart, but the school itself—and along with it, all those other things.

Adapting Hess’s terminology, we see greenfield school models as the emerging center of education reform. While “greenfield schooling” is a broader term, by “greenfield school models” we mean efforts to apply the greenfield mind-set to the entire school. Rather than only “scrubbing away our assumptions” regarding one or another particular aspect of schooling, greenfield school models scrub away our assumptions on a more basic level, challenging us to rethink how schools are designed from the ground up. In other words, if we were starting from scratch, would we design schools in a way that even remotely resembles what we have today, or would we come up with something much better? As someone once said, the only effective place to intervene in a vicious circle is everywhere at once. The emerging leaders in school reform are educational entrepreneurs, creating new institutions that do everything differently, or else radically turning around existing institutions so that they do everything differently.

Far from putting all their eggs in one basket, as so many flash-in-the-pan educational fads have done



in the past, this movement has created dozens of new models for what a school can look like. Perhaps the most well known is KIPP, the Knowledge is Power Program, a charter school network that creates intense personal leadership and mentoring relationships between teachers and students, focused on rigorous accountability for behavior and success. More recently, models that take advantage of new technology in the reinvention of the school have emerged. At the Carpe Diem charter school in Yuma, Arizona, students receive some instruction individually on computers, and are then organized for small-group classroom instruction based on their individual needs, providing a customized educational experience for each student. Carpe Diem also provides wholly online instruction, as does Khan Academy, which is entirely online (“a free world-class education for anyone anywhere”).

Not all of these schools are successful, and no doubt more will fail as time goes on. The risk of failure is inherent in the greenfield approach. However, most of these greenfield school models are charter schools, where parents can leave if the school doesn’t work. Moreover, the risk of failure in greenfield school models has to be weighed against the certainty of failure if sclerotic, bureaucratic systems are allowed to plod on forever unchallenged.

Many greenfield school models exist in school networks rather than as isolated one-building institutions. These networks permit schools to mobilize economies of scale; 10 schools can recruit and train personnel, buy supplies, etc., more efficiently than one, and 100 schools more efficiently than 10. Where the networks exercise

a high degree of central control, standardization across schools facilitates the emergence of a school brand. Julie Trivitt and Patrick Wolf recently found that Roman Catholic schools benefit from a brand effect, and some greenfield school models seek to do so as well.³ Where the networks do not exercise a high degree of central control, they allow for variation and innovation within a greenfield model—perhaps not to the extent of establishing “greenfield within greenfield” but at least enough to allow space for the model to develop. This also permits schools to tailor themselves to the particular needs of their students and communities. And it allows entrepreneurs in individual schools more freedom and control, a critical dimension of entrepreneurial leadership.

The broad variation in these models suggests the enormous scope for innovations that can better unlock the potential of the rising generation of Americans. Every child is unique and has unique educational needs. The assumption that one school model can provide the right school for every child has been one of the key drivers of failure in American education over the last century. By producing greenfield school models, educational entrepreneurs effectively challenge that assumption.

This exciting development is a sharp break from the pedagogical gradualism of the past half-century. After the collapse of the Deweyan movement in education—which sought to invent radically new school models based on romantic and relativistic theories about human nature, truth, and learning—the idea of inventing new school models fell into disrepute in many circles. In the second half of the 20th century, efforts to challenge the

one-size-fits-all model appeared from time to time but were relatively short-lived. Even as the nation repeatedly took up the cause of education reform, educational and political leaders usually conceptualized reform as something taking place within the universal model rather than challenging that model or offering alternatives to it.

This led to a half-century of stagnation. Gradualism failed to produce even gradual improvement. Over and over again, seemingly effective reforms were identified and major efforts (including billions of dollars and countless man-hours of work) were invested in promoting them. Yet these good reforms always failed to “scale”—they only worked in the localities where they had been invented. The overall results of the system remained unchanged even as the amount of money fed into the system doubled, and then doubled again, in inflation-adjusted, per-student terms.⁴

Why Greenfield School Models?

At first greenfield school models seem to some like an inefficient way to change education. It’s very unlikely that more than a small fraction of America’s schools will undergo the kind of radical transition needed to become a greenfield school. Perhaps these educational entrepreneurs are providing a better education for the relatively small number of students who attend their schools, but what will be done for the vast majority of students who remain in “un-reinvented” schools?

In fact, we believe greenfield school models are necessary to drive education reform not just in the new schools themselves, but throughout all schools. Greenfield approaches to schooling will

not be successful in any schools except to the extent that greenfield school models are, and are seen to be, the entrepreneurial cutting edge of education reform. We believe this for two reasons.

Our first reason is that only greenfield school models will create and sustain the greenfield mind-set necessary to cultivate successful school reforms. Successful reforms require people carrying them out with the right frame of mind, and a frame of mind can’t be sustained over the long term or transmitted to new people unless it has institutional grounding. Only greenfield school models can create schools that, as institutions, embody (and therefore sustain and transmit) a greenfield mind-set.

This will become clearer if we look at what caused the recent transition from gradualism within the system to greenfield school models built by educational entrepreneurs. The change has been driven by a complex combination of factors, but two sources of change stand out in particular.

One is simply the extremely large, pent-up demand for change among educational leaders. The educational and social needs of students in our rapidly changing society have been increasing dramatically for decades, while the system has remained moribund and unchanging. Mounting outrage and demand for change among education reformers was bound to eventually break the deadlock. Frustration and anger over the failure of reform efforts within the existing model have led a sufficient number of reformers to try more radical innovations, leading the emergence of the current class of educational entrepreneurs. The decline of the one-size-fits-all school model in the



face of overwhelming frustration is only the latest illustration of Herb Stein’s Iron Law: “If something cannot go on forever, it will stop.”

The other factor, however, is a new way of looking at the barriers to reform. Throughout the era of gradualism, the great conundrum was always why the educational practices, policies, or reforms that worked wonders in School A could not be successfully implemented in School B. The school reform movement has passed through three successive stages of thought about why the School Bs of the world can’t seem to get on top of the reforms that work in School A.

The natural first suspicion was that the *idea* had not really made the transition. School B didn’t really “get it” and wasn’t really doing the new policy, program, or practice. The people at School B were just going through the motions. Maybe it was inertia, or maybe the new idea was too much of a challenge to comfortable old ways and entrenched interests. In response, many school reformers invested heavily in oversight and accountability structures designed to ensure that the School Bs of the world really adopted the reforms they were being told to adopt. Others, unwilling to go along with such structures, simply became frustrated.

More recently, attention has been focused on the *individuals* carrying out the idea. Maybe the people at School B understand the idea and like it, but lack the talent or motivation to carry it out. A large body of research has established the importance of teacher quality to student outcomes, so for reformers, getting the right teachers in School B became paramount. Hence, reform of teacher hiring, firing, and tenure has risen to the top of the

agenda. These reforms are promising, but are still in the early stages. Moreover, by its very nature this approach cannot be expected to produce big results in a short period. Just the political battle to enact the new policies will take years, maybe a decade—and then the long, slow wait for personnel turnover begins.

By contrast, the new movement toward greenfield school models grows from an increasing realization of the role of *institutions*, and especially of institutional culture.⁵ Even if School B has the right ideas and the right individuals, School B is still School B. If School B has an institutional culture that isn’t conducive to reform, reform will fail even if there are people in School B who are both willing and capable of carrying it out. This has led to an endless stream of “best practices,” which have failed repeatedly when transplanted from the school of origin to new schools.

“Institutional culture” refers to the ways in which institutions shape what counts as good or desirable behavior within those institutions. The meaning of human behavior is defined not only by what it is (idea) and who does it (individual), but by the institutional context within which it occurs—as you may have noticed the last time you tried to make out with your spouse in your workplace. Or to take a more educationally relevant example, this is why prayer in public schools would raise First Amendment concerns even if everyone in the class believed in and practiced the same religion; the institutional context (a government school) changes the nature of the act itself.

Each institution has its own culture—its own distinctive set of social assumptions about what

is good and bad behavior within that institution. This applies not only across different types of institutions—such as the home versus the workplace—but also across different institutions of the same type.

Thus the same policy or practice could easily have a dramatically different meaning if implemented in School A as opposed to School B. And of course, if institutional culture and context change the meaning of a policy or practice, it impacts its effectiveness. This explains the new movement toward greenfield school models: If School B cannot implement the reform that works in School A because of its institutional culture, then either School B must radically change and become a wholly different kind of institution, or else School B is irrelevant and someone must create a School C.

In short, inventing greenfield schooling requires a greenfield mind-set. A greenfield mind-set can be sustained only in a greenfield culture. And a greenfield culture can be sustained only in a greenfield institution. Transferring these reforms to “un-reinvented” schools is certainly a difficult challenge, but there will be no successful reforms at all unless they are first invented and incubated by educational entrepreneurs who create new school models.

How Greenfield School Models Change Everything

To see how this works, consider how the use of standardized testing for accountability purposes works differently in different institutional contexts. The No Child Left Behind Act created

tests that were understood and experienced, in most local institutional contexts, as something unfairly imposed by a distant power structure that couldn’t be relied upon to work properly. Not surprisingly, this failed to motivate changes and had no measurable nationwide impact.⁶

The role of institutional culture in undermining No Child Left Behind was dramatically illustrated by the revelation in spring 2011 of pervasive cheating throughout Atlanta Public Schools (APS). From the superintendent down through the great majority of individual APS schools, and within each school from the principal down through the teachers, flagrant cheating was the norm. Teachers held “cheating parties” at which they systematically went through tests changing answers. Cheating was not just acceptable but demanded. “APS is run like the mob,” one teacher told investigators; she said she engaged in this dishonest behavior because *she feared retribution from her peers and superiors if she didn’t cheat.*⁷

How could such things happen? This is not just the generic corruption of human nature but the unfolding of a very specific institutional and cultural dynamic. Within the culture of APS, the No Child Left Behind tests were experienced as something evil and a threat to the integrity of education. Cheating was normalized, expected, and demanded because it was understood to be necessary to defend schools against a system that was perceived to be tyrannical and corrupt.

In Florida, by contrast, the understanding and experience of accountability testing was different. The state had ranked consistently at or near the bottom of the nation in educational outcomes and



there was a palpable desire for serious reform. Gov. Jeb Bush worked to accomplish the right kind of institutional support so that his reforms would be understood and experienced positively, as part of a statewide change of educational direction. The unions bleated, but Gov. Bush built enough of the right kind of support to motivate change. This probably helps explain the positive impact of his accountability testing reforms.⁸ (Statistical testing gives us high confidence that Florida's test score improvements were not a result of cheating.⁹)

However, the success of accountability testing has been even more dramatic in greenfield school models, where the whole school culture has been reinvented from the ground up to create strong student/teacher mentoring and leadership relationships that are structured around high standards and responsibility for performance. In this context, testing is understood and experienced not simply as an external accountability mechanism, but as an integral part of the personal student/teacher relationship that drives the students' learning and personal growth every day.

David Brooks summed up the difference whole-school innovation makes. Defending the extensive use of testing in greenfield school models, he acknowledged what he called a "core tension": "Teaching is humane. Testing is mechanistic." However, this is not how testing is experienced in the context of greenfield schools. "The schools that best represent the reform movement . . . put tremendous emphasis on testing. But these schools are also the places where students are most likely to participate in chess and dance. They are the places where they are most likely to read Shakespeare and argue about philosophy and

physics." Getting rid of tests "just leads to lethargy and perpetual mediocrity. The real answer is to keep the tests and the accountability but to make sure every school has a clear sense of mission, an outstanding principal, and an invigorating moral culture that hits you when you walk in the door."¹⁰

The key point is that greenfield school models are not a separate kind of school reform, standing alongside other reform ideas such as accountability testing and tenure policy. Greenfield school models create the new institutional context that makes other reforms effective. They create, sustain, and transmit a culture in which reforms are experienced as necessary and good rather than as a threat to good education.

Private Schools and Greenfield School Models

Now we come to the second reason we believe greenfield school models are necessary to drive reform. Reinvented schools provide not only an institutional context that is highly receptive to reform; the success of these schools has a strong tendency to change the culture within the other "un-reinvented" schools, and make them more receptive to reform as well.

To see why, first we need to look at the policy context that has shaped greenfield school models. These new school models seem to be emerging mostly among charter schools and similar alternative spaces within the government-owned school system. At minimum, the models that get the most attention among reformers fit this description.

This is not surprising because government schools are free to the families who use them, but parents must pay significant out-of-pocket expenses to attend private schools. Government schools are not, of course, “free” ultimately. In fact, the government school system consumes extraordinary amounts of money—\$11,500 per student in 2007–08.¹¹ By comparison, private schools deliver a better quality education at a much lower cost.¹² There is, however, another critical difference. In the government school system, costs are borne by taxpayers at large rather than specifically by the families using the schools. In private schools, the financial burden falls entirely on the participating families. This “tuition barrier” excludes most families from private schools, trapping them in the inferior government system solely because of their reduced access to resources.

As in every other sphere of human life, entrepreneurial alternatives to the existing system do not emerge until there is a sufficient client base to support them. Clients able and willing to stretch outside the default position of the existing system will always be a small percentage of the total population; thus, a large total population is needed to generate a sufficient client base for entrepreneurial alternatives. Because the tuition barrier excludes most families from private schools, the emergence of new models among private schools faces an insurmountable obstacle—until the tuition barrier problem is overcome.

School Choice and Greenfield—the Potential

School choice programs are designed to lower the tuition barrier, thereby increasing the pool of

clients who are able and willing to stretch beyond the default school model. In a variety of ways—such as vouchers, education savings accounts, and tax credits for donations to scholarship organizations—these programs permit families to attend private schools using public funds. This offers families who cannot pay the steep financial penalty a way to access private schools.

Because school choice lowers the tuition barrier, we might expect school choice programs to support the emergence of greenfield school models among private schools. Indeed, school choice advocates have long argued that choice would support the kind of radical educational innovation needed to push schools into the new century. Since Milton Friedman’s original school choice proposal in 1955, the point of school choice has not been to transfer students from one existing school system (the government system) to another existing school system (private schools). It has been to create an institutional environment that would encourage ever-higher performance in all schools—for a rising tide lifts all boats.¹³

The default system is moribund, and has been so for decades, because it is a monopoly. When any institution has a captive client base, not only do the clients get trapped in an exploitative situation, but support for innovation vanishes. Reform requires people and institutions to do uncomfortable new things, and change will not occur until discomfort with the status quo becomes greater than the discomfort of the change.¹⁴ This doesn’t happen without institutional structures that can make the need for change seem plausible, legitimate, and less threatening. A captive client base ensures that such structures supporting change



cannot be sustained, because an urgent need for change cannot be demonstrated with sufficient plausibility. An institution with captive clients can continue to function into the foreseeable future, more or less as it always has, without change. Why not just continue doing things in the way that feels comfortable and natural?

This is the reason even gradual reforms that seem easy to implement have consistently failed to scale within the government system. Institutional culture in the existing system is hostile not just to this or that reform, but to reform as such, because it excludes the only institutional basis for making the need for change seem plausible and legitimate: the prospect of losing the institution's client base and the funding that goes with it.

That's what school choice advocates are talking about when they discuss the value of competition. "Competition" does not mean a cutthroat, ethics-free environment where individuals and institutions seek their own good at the expense of others. Rather, competition is the life-giving force that drives institutions to become their best and continuously innovate; it is the only way to hold institutions accountable for performance in a way that is both productive (because it aligns the measurement of institutional performance with people's needs) and humane (because it creates accountability in a decentralized way rather than through a command-and-control power structure). Where real competition is present, the cutthroats and self-servers are generally the first to fail. Consider that the sectors of the economy most notorious for greed, shady dealings, and scandal are the ones least exposed to vigorous competition, because they are heavily dominated by cozy

political power relationships that allow large firms to exclude competition by manipulating laws and regulations: the finance industry (from "Wall Street greed" to government bailouts), manufacturers of heavily regulated products (consider GM, which got the laws bent for its bailouts, and GE, whose longtime CEO Jack Welch was the most notorious cutthroat in recent memory) and government contractors (at the Pentagon, for example). The reason corruption and avarice dominate in these sectors is because competition punishes such behavior everywhere else in the economy.

In fact, it is the individuals and institutions that focus on serving the needs of others who find success. Considerable research on leaders and entrepreneurs confirms that a focus on improving other people's lives rather than on personal prosperity is consistently associated with success on a variety of measurements.¹⁵

This is the most important reason school choice has improved educational outcomes for both the students who use it and for students in public schools. Studies of school choice programs consistently find that students using choice have better outcomes, and also that public schools improve in response to the presence of school choice.¹⁶ The explanation is simple: School choice puts parents back in charge of education, freeing the captive client base and creating an institutional environment in schools that makes the need for change seem plausible and legitimate. Discomfort with change is also reduced for parents because school choice restores their control over their children's education.

Greenfield school models combined with universal

school choice would have a transformative impact on the institutional culture of all schools. The greenfield models themselves would be transformed for the better, and they would be in a position to create real competition that would drive “un-reinvented” schools to embrace or at least accept reform.

If the tuition barrier were lowered through universal choice, private schooling would provide a much better institutional basis for greenfield school models than charter schools and other halfway-houses within the government system. Private schools are much freer to innovate along numerous dimensions. Unlike charter schools, private schools have more freedom from policy and political control, including the capricious winds of interest-group bargaining that shape state-level education policies. (The National Education Association and its subsidiaries were the top institutional providers of state-level contributions in the 2008 election cycle.¹⁷) Private schools have more freedom from external authorities (“authorizers” in charter school jargon) who may have their own agendas. They have more freedom from false expectations that mimicking the government system is the default “right” way to educate. And they have more freedom to articulate and live out an institutional mission grounded in a distinctive understanding of human life and the role of education within it.

The even-better greenfield school models that could emerge in the context of universal school choice would also greatly magnify the impact of reforms in the default school system. The government school monopoly is pervasively hostile to change because of its captive client base;

universal choice combined with greenfield school models would create such radical disruption that reform and change would come to be experienced as legitimate, and as less threatening than maintaining the status quo.

School Choice and Greenfield—the Challenges

School choice in its existing form does not seem to be aligning with greenfield school models or driving radical reform in either public or private schools. Although school choice has improved educational outcomes, the results so far have mostly been moderate in size. Areas with school choice are not producing many well-known examples of greenfield school models in private schools. Is there an “untold story” of greenfield school models fueled by school choice that reformers are missing? Or are existing school choice programs not nurturing the emergence of greenfield school models—and if not, why not?

Nurturing a thriving marketplace of alternatives is a complicated task. Among the many challenges, two interrelated factors are likely to be the most important obstacles to the emergence of an alignment between school choice and greenfield school models.

One is that existing private schools provide a very unpromising starting point for educational entrepreneurs. This isn’t their fault. It’s the inevitable consequence of the government school monopoly. Milton Friedman was once asked what would happen if the government gave away free hot dogs on every street corner. The private hot dog vendors would disappear, he answered. He



was making the point that existing private schools don't represent what private schooling is capable of; they're the flotsam left behind by the monolith of the public school monopoly.

The private schools that survive in the face of the monopoly are likely to be the least conducive to greenfield schooling because they serve niche markets. They only need to be a little better or a little different than public schools to establish themselves in comfortable security. Go back to the hot dog example. If any private stands survive the government hot dog monopoly, they'll be stands that cater to niches. Perhaps they'd sell kosher hot dogs (courts might prevent government hot dog stands from providing those on First Amendment grounds), or vegetarian hot dogs, or hot dogs made for people with specific allergies and medical needs, or fancy hot dogs for people who want something better than the free handout everyone else gets. Moreover, the government hot dog stands would force many fast-food restaurants out of business, even if they don't sell hot dogs, because free food beats food for which you have to pay. That's basically what the private school sector is right now—a limited market, which survives by catering to niche markets that strongly desire specific services government schools don't provide, such as religious and moral instruction, specialization in specific disabilities, or social prestige.

Ask any economist: Niche market providers are some of the least entrepreneurial of all enterprises. They are in little danger of losing their client base, because their clients have few options they find highly attractive. (That's what makes it a niche market in the first place.) Private schools don't innovate very much for the same reason the

government school monopoly doesn't innovate at all. They don't have to.

True, families using private schools are far more able to change schools than the captive clients of the government monopoly. This is the main reason private schools currently deliver somewhat better outcomes than public schools. However, while private school families are more able to change schools, they are not highly likely to do so because they are stuck in a niche. As superior as private schools may be in other respects, when it comes to institutional support for innovation, existing private schools are at best only marginally better than standard public schools.

If school choice is going to foster greenfield school models in private schools, it will be necessary to attract educational entrepreneurs who create entirely new schools and new school systems. This would explode the narrow niche markets of private schooling into broad and diverse educational marketplaces where parents have a real variety of real choices.

This brings us to our second problem. Existing school choice programs are poorly designed in general, and in particular they are not well suited to attract and support educational entrepreneurs. They look nothing at all like Milton Friedman's model of universal choice.

In any field of human endeavor, whether education, medicine, politics, art, religion, or manufacturing, entrepreneurs who want to strike out in new directions and do things radically differently need a client base. There must be people who will benefit from the new direction and support it. And that

client base must be robust on three dimensions: size, strength, and suffrage. There must be enough supporters; they must have enough ability to provide support; and they must have enough freedom to decide for themselves what to support.

Existing school choice programs are not designed to provide a client base of large size. School choice programs are extremely limited in student participation. Sometimes these limits are demographic, permitting only a certain kind of student to participate. In other cases there is simply an arbitrary cap on total participation. The outcome is the same: Not enough students have a real choice.

Also, current choice programs do not provide their client base with much strength. In education, the strength of the client base is measured by the dollars available to purchase education services; this is what lowers the tuition barrier. However, only a portion, and usually a small portion, of the funding public schools get is available to students exercising school choice. An ideal school choice program would provide incentives to economize and not waste money—the recent policy innovation known as education savings accounts is a promising step in this direction.¹⁸ And funds for school choice should supplement, not replace, parents’ willingness to invest financially in their children’s education. But educational entrepreneurs will not be attracted to create new private schools until the financial resources devoted to the private school market are sufficient to counteract the exclusionary force of the public monopoly.

On the other hand, existing school choice programs are not as badly designed in the area of

client suffrage. In most school choice programs, restrictions on families’ freedom to choose the schools that will best serve them are not severe. Problems do exist in some programs—a few of them have testing requirements that may force all participating schools to move in the direction of a single, monopolistic curriculum and pedagogy, thus reproducing the existing default school model. And in some cases programs have restrictions that are especially onerous for entrepreneurs; existing schools are strongly privileged because new schools are required to clear high hurdles, supposedly to prove they aren’t fly-by-night con artists. But on the whole, the picture here is better.

These two challenges to educational entrepreneurship in school choice programs—the institutional unsuitability of existing private schools to innovate on account of their niche status, and design flaws in school choice programs that hinder entrepreneurship—are interrelated. Existing private school systems are major supporters of school choice programs, and this cannot help but have an impact on the design of such programs. Until the school choice coalition broadens to include more constituents whose concern is to look out for the interests of educational entrepreneurs, it is unlikely that anything like Milton Friedman’s universal choice model will come to fruition.

Data and Methods

This study examines systematic data on public and private schools as a first step to investigating empirically whether school choice is contributing to the emergence of new school models. Systematic data on school models as such are difficult to



obtain. However, the data we do have on public and private schools permit us to lay some important empirical groundwork for investigating the nexus of school choice and greenfield school models.

If existing school choice programs are attracting educational entrepreneurs and unlocking the potential of new school models, we should expect to see significant disruptions in the sector's composition. Although the available data do not allow us to examine every aspect of schooling, the founding of new school models ought to produce visible changes in school types, school sizes, and other visible metrics.

In this study we present observational and descriptive data. This means we do not provide a statistical analysis that can justify causal conclusions. We can observe, for example, that after the introduction of a school choice program, private school enrollment went up or stayed flat, or that the variety of private school types grew greater or lesser, etc. However, we do not have a statistical analysis establishing a causal connection between the school choice program and these changes. Perhaps other factors impacting the private school sector were the cause of the changes we're observing.

Nonetheless, descriptive data can be highly illuminating. Sometimes, the insights provided by descriptive data are more important than those provided by causal analysis. This is particularly true when a new set of social and policy concerns leads us to approach the data with a set of questions that has not guided previous statistical research, as is the case here. We must get the lay of the land—come to understand the state of

things as it is—as a starting point for developing hypotheses about causal connections. Careful and thorough hypothesis development is a necessary precondition of sound causal analysis.

We collected data from the U.S. Department of Education's Private School Survey (PSS). This survey has been administered every two years since 1990. Data on student ethnicity have been collected since 1994. Rather than a random sample, the PSS strives to include every existing private school. It is the most widely used, and is generally regarded as the most comprehensive and reliable, source of data on the private school sector.

The PSS typology for religious schools includes 30 categories. For clarity, we condense these categories in our figures. In each figure, we divide schools into at least three categories: "Roman Catholic," "Other Religious," and "Nonsectarian." "Roman Catholic" and "Nonsectarian" are two of the 30 PSS categories; we combine the other 28 categories as "Other Religious."¹⁹ In Milwaukee, we separate Lutheran schools from the "Other Religious" group because of its size and importance in the community.²⁰ Similarly, in Florida we separate the "Baptist" category from the "Other Religious" group. The PSS offers schools the choice to designate themselves as "Christian" and reports these schools as "Christian (unspecified)"; in this study the term "Christian (unspecified)" refers to that PSS category. In our Arizona figure, we separated this category from the "Other Religious" group. In all figures where we separated an additional category, the "Other Religious" group contains all PSS categories not represented in the other categories depicted in the

figure. For example, in the Milwaukee figure, the “Other Religious” group contains all schools not included in the “Roman Catholic,” “Lutheran,” and “Nonsectarian” categories, while in the Arizona figure the “Other Religious” group contains all schools not included in the “Roman Catholic,” “Christian (unspecified)” and “Nonsectarian” categories.

We also collected data from the U.S. Department of Education’s Common Core of Data (CCD) on regular public schools and charter schools. Analogous to the PSS, the CCD strives to include every school, is the most widely used data source for public schools, and is regarded as the most comprehensive and reliable source of data on public schools. Unlike the PSS, the CCD collects data every year. When mapping trends, we imputed PSS data points in odd years. Because we are conducting only descriptive analysis, this is not a very important limitation.

Data on charter schools are only available starting in 2000. CCD data on public schools before 2000 include charter schools alongside regular public schools. Because there were few charter schools before 2000, even in states that were early pioneers of charter schooling, this is also not a very important limitation.

Private Schools Nationwide

The nationwide data on private schools show some reason to be optimistic about the prospects for private greenfield school models. Although the obstacles previously outlined are real, some of the structural features of private schooling present opportunities for educational entrepreneurs.

The only widely cited measure of the size of private schooling is the percentage of U.S. students who attend private schools. This figure is relatively small—eight percent if we use PSS data (other data sources produce a slightly different figure). However, the percentage of U.S. schools that are private is more substantial at 22 percent. For greenfield school models, the unit of change is schools, not students. Thus, the institutional starting point for educational entrepreneurs in private schools is more robust than it may seem at first from the more widely cited enrollment figures.

See Table 1 and Figure 1

Because the percentage of U.S. schools that are private is larger than the percentage of U.S. students who attend private schools, it follows that private schools are substantially smaller than public schools. This also would tend to make private schools more attractive to entrepreneurs; smaller institutions are easier to change. Although the typical greenfield school model is a newly founded school, in the current high-threat environment where many private schools are struggling, educational entrepreneurs might find attractive turnaround opportunities where wholesale institutional change could be leveraged.

Private schools also currently provide a home to a wide variety of program types. Whereas some special program types arise in response to niche markets, such as schools that specialize in serving students with specific special needs, other private schools have developed unique educational programs out of an entrepreneurial drive to reinvent the school. Montessori schools



Private schools represent 8% of student enrollment...

Table 1

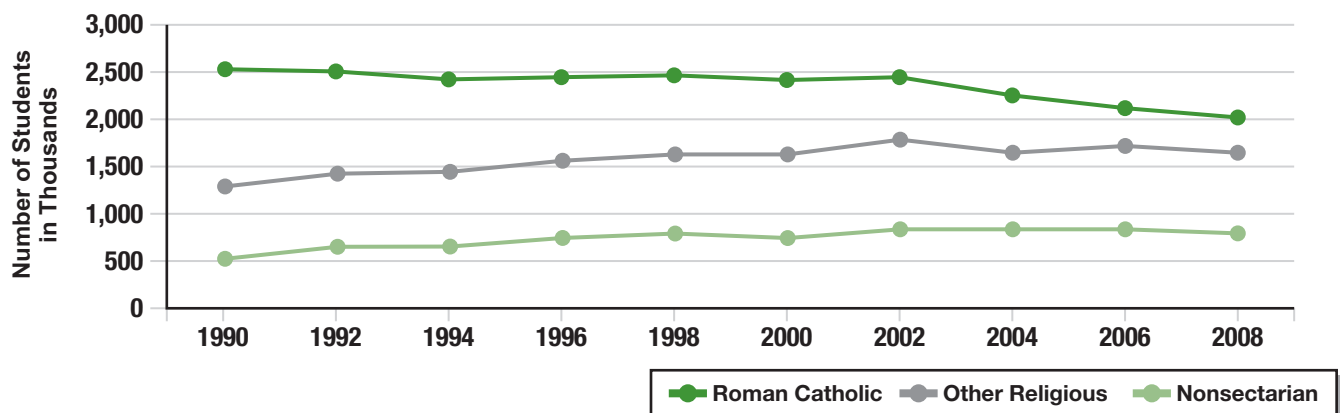
ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	4,332,194	–	–	40,501,948	44,834,142	9.7%
1992	4,583,995	–	–	41,948,861	46,532,856	9.9%
1994	4,514,494	–	–	43,278,061	47,792,555	9.4%
1996	4,737,635	–	–	44,684,213	49,421,848	9.6%
1998	4,862,896	–	–	46,012,123	50,875,019	9.6%
2000	4,795,048	46,349,695	339,678	46,689,373	51,484,421	9.3%
2002	5,063,828	46,947,594	571,029	47,518,623	52,582,451	9.6%
2004	4,736,264	47,564,044	789,479	48,353,523	53,089,787	8.9%
2006	4,673,107	47,899,179	1,012,906	48,912,085	53,585,192	8.7%
2008	4,459,628	47,633,294	1,276,731	48,910,025	53,369,653	8.4%

...and 22% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	20,766	–	–	83,425	104,191	20%
1992	23,766	–	–	84,578	108,344	22%
1994	28,450	–	–	85,393	122,026	30%
1996	28,622	–	–	87,125	115,747	25%
1998	30,255	–	–	89,508	119,763	25%
2000	29,159	90,488	1,524	92,012	121,171	24%
2002	30,812	91,764	2,348	94,112	124,924	25%
2004	30,071	92,749	2,977	95,726	125,797	24%
2006	29,784	93,602	3,780	97,382	127,166	23%
2008	28,450	94,974	4,561	99,535	127,985	22%

Private school enrollment by school type

Figure 1



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).

and Waldorf schools represent alternative school models that follow a very distinct idea of what a school is and does, defined in opposition to rather than in imitation of the prevailing model—comparable in many ways to the newer greenfield school models, indicating that the private school sector can sustain such alternatives.

Disproportionate shares of private schools are elementary rather than secondary schools—66 percent of private schools versus 54 percent of public schools. Although there is a need for greenfield school models at all levels of schooling, leading educational entrepreneurs seem to be favoring elementary schools somewhat as the place to begin reinventing the school. The private school sector provides much fertile ground in this regard.

As a result of the tuition barrier that makes it harder for lower-income students to attend private schools, the population of students in private schools is a little skewed toward white students. Although the size of this racial difference is much smaller than many people believe, it is nonetheless present.

Some have expressed concerns about whether private schools would welcome more minority students if the tuition barrier were lowered, but the empirical evidence unanimously shows that they do. There have been seven empirical studies of racial segregation in the context of school choice programs, and all of them find that school choice reduces racial segregation.²¹ This is only to be expected. Public schools are heavily segregated because they assign students to schools by residence. By breaking down the artificial connection between a student's ZIP Code and what

school he or she attends, school choice lowers racial barriers and enables families to choose schools where the students may look different. Moreover, school choice makes parents more comfortable with the desegregation process, because they have more confidence in a private school's ability to handle it—and because they aren't made to feel powerless. The expectation that private schools won't welcome minority students has been revealed by the evidence to be an irrational prejudice. Educational entrepreneurs shouldn't adopt these unsubstantiated views of the private school sector.

Milwaukee

Examining the structure of private schooling in locations with school choice programs, we turn first to the nation's most famous choice program, in Milwaukee. We examined data for all private schools listing their addresses in Milwaukee.²²

See Table 2 and Figure 2

In 1990, Wisconsin created the nation's first modern school choice program in Milwaukee. It began as a tiny pilot program, serving very few students and including only secular private schools. The number of students who could participate was gradually expanded over its first few years, and each time the participation cap was expanded the program grew to meet it. In 1995, the state expanded participation much more dramatically and also allowed religious schools to participate. However, the participation of religious schools was delayed until 1998 by lawsuits, so the really big expansion in participation did not begin until that year. The participation cap continued



In Milwaukee, private schools represent 24% of student enrollment...

Table 2

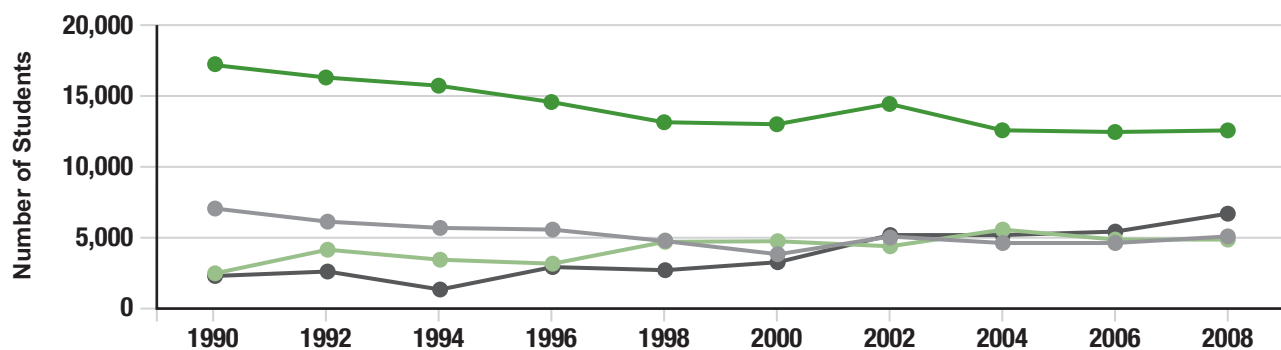
ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	28,961	–	–	95,318	124,279	23%
1992	29,025	–	–	96,942	125,967	23%
1994	26,299	–	–	98,129	124,428	21%
1996	26,098	–	–	101,207	127,305	21%
1998	25,255	–	–	104,449	129,704	19%
2000	24,818	100,816	818	101,634	126,452	20%
2002	28,987	92,275	9,442	101,717	130,704	22%
2004	27,959	89,929	12,731	102,660	130,619	21%
2006	27,283	82,048	16,241	98,289	125,572	22%
2008	29,250	76,288	17,549	93,837	123,087	24%

...and 36% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	121	–	–	156	277	44%
1992	124	–	–	164	288	43%
1994	124	–	–	157	286	45%
1996	123	–	–	162	285	43%
1998	135	–	–	214	349	39%
2000	129	205	2	207	336	38%
2002	165	196	24	220	385	43%
2004	145	204	35	239	384	38%
2006	140	200	54	254	394	36%
2008	136	180	58	238	374	36%

Milwaukee private school enrollment by school type

Figure 2



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).

to be a point of contention in subsequent years, sometimes causing the program's growth to plateau before the cap could be raised again. The program now serves 20,328 students. In 2011, the state created a new voucher program in the nearby city of Racine.

Turning to the data, we see that the year 1998 marks an important change in direction for private schooling in Milwaukee. Different aspects of this change are revealed by looking at two measures: the percentage of all students who attend private schools and the percentage of all schools that are private schools. On the one hand, 1998 reversed what had been a slow decline in the percentage of students attending private schools. On the other hand, the percentage of all schools that were private actually began to decline in 1998. Although the absolute number of private schools did bump up slightly, growth in regular public schools and charter schools eclipsed it. Even the absolute number of private schools shortly ceased to climb and began descending. Both the enrollment and school number trends have continued.

We do not have a statistical analysis showing that these changes were caused by the expansion of the voucher program, but if they were, it appears that the program is expanding the private school sector but also consolidating strength in schools that are comparatively bigger and presumably more stable and even insular. The monopoly of the default school model is being slowly eroded, but the private school sector as a whole is becoming less diverse and entrepreneurial.

This stands in stark contrast to the expansion of charter schools in Milwaukee. Charter schools

have grown rapidly in both enrollment and school numbers since our data source began tracking them in 2000.

On the other hand, the composition of the private school market has become more diverse in another respect. The two dominant private school types are increasingly supplemented by other types that used to be rarer, but have grown in the context of the voucher program.

Throughout the period covered by our data, Roman Catholic schools have declined consistently in both enrollment and school numbers. This decline is occurring among schools classified by PSS as "parochial"; "diocesan" and "private" Roman Catholic schools, a small share of the Milwaukee sector, are flat. These downward trends at parochial schools are not substantially different after the expansion of the voucher program.

Lutheran schools, a considerable presence because of Wisconsin's large Lutheran population, were declining until 2000 but have been flat since then. Vouchers may have stemmed their decline.

By contrast, nonsectarian schools have grown substantially in the period covered by our data—much faster in Milwaukee than nationwide. The percentage of all private school students attending nonsectarian schools has grown by about twice as much in Milwaukee as in the nation at large (from eight percent to 17 percent versus 12 percent to 18 percent, respectively). The number of nonsectarian schools boomed from 1998 through 2002, while the number of Roman Catholic and Lutheran schools declined substantially. That growth in school numbers was eventually reversed,



and the number of nonsectarian schools declined almost to where it had been before it boomed. But enrollment numbers in the remaining schools continued to rise.

At the same time, religious schools that are not affiliated with any of the longstanding major types (Roman Catholic, Lutheran, Baptist, Episcopal, Jewish, etc.) also grew—slowly but surely. The largest category in this group is Christian (unspecified). Other schools in this group are mostly Pentecostal, though there has been growth in Islamic schools as well. These schools are still a small part of the picture in Milwaukee, but a growing one.

Another major change to private schools in the context of the voucher program has been the radical reversal of private school ethnic demographics. Whereas 75 percent of private school students were white in 1994 when ethnic data were first tracked, that had dropped to 35 percent in 2008. Meanwhile, black students have grown from 16 percent to 45 percent, and Hispanic students from six percent to 16 percent.

It is worth noting that this change has had an impact at more than the aggregate level. A large body of empirical studies has found that Milwaukee schools participating in the voucher program are far less racially segregated than Milwaukee's public schools. So the change in ethnic demographics in the private school sector has not been driven by the emergence of all-black private schools standing apart from all-white private schools. The Milwaukee voucher program is a highly successful racial desegregation program—the only one in American history.

Florida

Florida has been a national leader in the adoption of school choice programs. It adopted the Opportunity Scholarship Program as part of the statewide “A+” accountability system; students at two failing schools became eligible for vouchers in 1999, and a larger number (but never a significant percentage in terms of the total state population) became eligible in 2002. The program ended in 2006. The McKay Scholarship Program, which provides a voucher for every special-needs student in the state, was taken statewide in 2000 after a small local pilot program. It currently serves 21,054 students. The state also has a tax-credit scholarship program for low-income students. Scholarships became available in 2002, and currently 28,927 students use them.

See Table 3 and Figure 3

Turning to the data, we see that there has been no increase in the overall private school sector in Florida. The share of students in private schools has been stable at 10 percent.

Some gradual long-term trends are visible across school types, but no dramatic disruptions. Roman Catholic schools saw modest enrollment growth from 1992 to 1998 but have not grown since then. Baptist schools have been flat by both enrollment and school numbers. Both school types are declining as a percentage of the private school market. Nonsectarian and Christian (unspecified) schools grew through 2006, with growth becoming somewhat faster after 2000.

By contrast, charter schools have grown steadily.

In Florida, private schools represent 10% of student enrollment...

Table 3

ENROLLMENT

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	188,103	–	–	1,769,901	1,958,004	9.6%
1992	193,462	–	–	1,929,310	2,122,772	9.1%
1994	215,507	–	–	2,037,684	2,253,191	9.6%
1996	236,794	–	–	2,175,308	2,412,102	9.8%
1998	253,437	–	–	2,294,001	2,547,438	9.9%
2000	259,855	2,364,229	17,251	2,381,480	2,641,335	9.8%
2002	278,722	2,460,010	40,468	2,500,478	2,779,200	10.0%
2004	292,351	2,520,082	67,472	2,587,554	2,879,905	10.2%
2006	301,205	2,582,689	92,335	2,675,024	2,976,229	10.1%
2008	289,847	2,561,588	105,223	2,666,811	2,956,658	9.8%

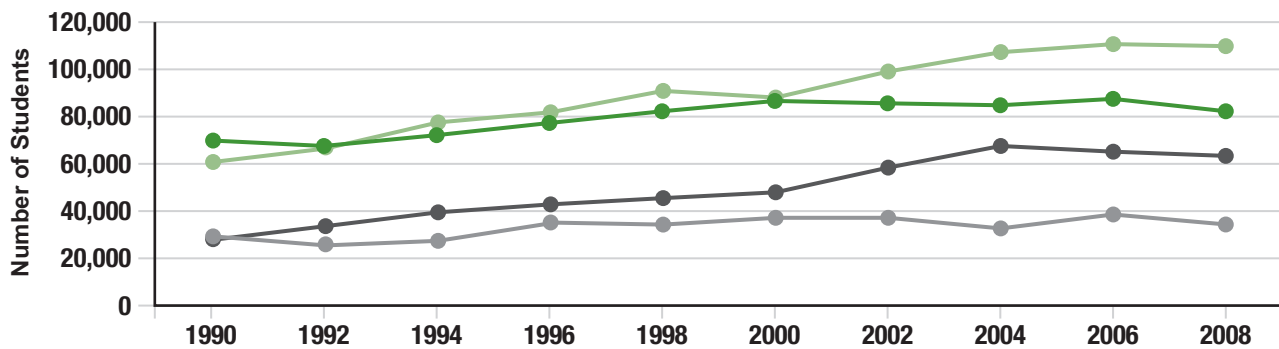
...and 29% of schools.

NUMBER OF SCHOOLS

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	932	–	–	2,505	3,437	27%
1992	1,069	–	–	2,517	3,586	30%
1994	1,239	–	–	2,615	4,459	41%
1996	1,330	–	–	2,761	4,091	33%
1998	1,532	–	–	2,888	4,420	35%
2000	1,487	3,096	113	3,209	4,696	32%
2002	1,658	3,227	192	3,419	5,077	33%
2004	1,734	3,170	257	3,427	5,161	34%
2006	1,819	3,381	342	3,723	5,542	33%
2008	1,668	3,633	433	4,066	5,734	29%

Florida private school enrollment by school type

Figure 3



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).

● Roman Catholic ● Baptist ● Other Religious ● Nonsectarian



Enrollment and school numbers grew steadily and significantly starting when charter data became available in 2000.

Small private schools have had strong growth in Florida. Before 1998 the growth was centered in the smallest school category (fewer than 50 students), but thereafter it shifted to the second and third smallest (50 to 149 and 150 to 299 students).

Homeschool support in Florida private schools is significant. Whereas only three schools reported in 1990 that they provided educational support to homeschooling families, and only 17 in 1998, that number rose to 88 in 2000 and 144 in 2006 before declining to 102 in 2008.

It is difficult to find support for a hypothesis that Florida's school choice programs have had much structural impact on the private school sector. This is only to be expected. Both of its existing programs are large-scale but limited to select populations and are geographically dispersed across a large state.

Arizona

Arizona has been another national leader in adopting school choice programs. A tax-credit scholarship program was enacted in 1997 and became available to students in 1998; the program is not limited by income, but provides relatively small scholarships (\$1,889 on average). Currently 27,582 students receive scholarships. Another tax-credit scholarship, this one supported by corporate taxpayers rather than individuals, was enacted in 2006; it serves 3,652 students. Much smaller voucher programs were enacted to serve special-needs and foster-care students; these programs

were struck down by courts and then replaced with a tax-credit scholarship that currently serves 472 students. In 2011, Arizona enacted the nation's first education savings account program; this is a new type of school choice designed to serve families like a voucher but provide more efficient financial incentives by allowing families to roll over unused funds from year to year.

See Table 4 and Figure 4

The data indicate that the percentage of students attending private schools, already low compared to the nation as a whole, has not risen in Arizona. The number of private schools actually grew substantially before the implementation of school choice and declined afterward. Concurrently, charter schools have grown very impressively in Arizona.

There are indications, however, the composition of the private school sector has changed since 1998—and in the opposite direction from changes in the nation at large. Roman Catholic schools, which are the largest type by enrollment, have grown noticeably faster in Arizona since 1998. This increased growth is occurring in diocesan schools, in the dioceses of Phoenix and Tucson. By contrast, nonsectarian schools, which are the largest type by number of schools, saw their enrollment growth peak in 1998, and have been declining more recently, particularly in number of schools. Christian (unspecified) schools grew before 1998 on both measures but plateaued thereafter. These trends are the reverse of nationwide trends, which show Roman Catholic schools declining and nonsectarian schools on the rise.

In Arizona, private schools represent 4% of student enrollment...

Table 4

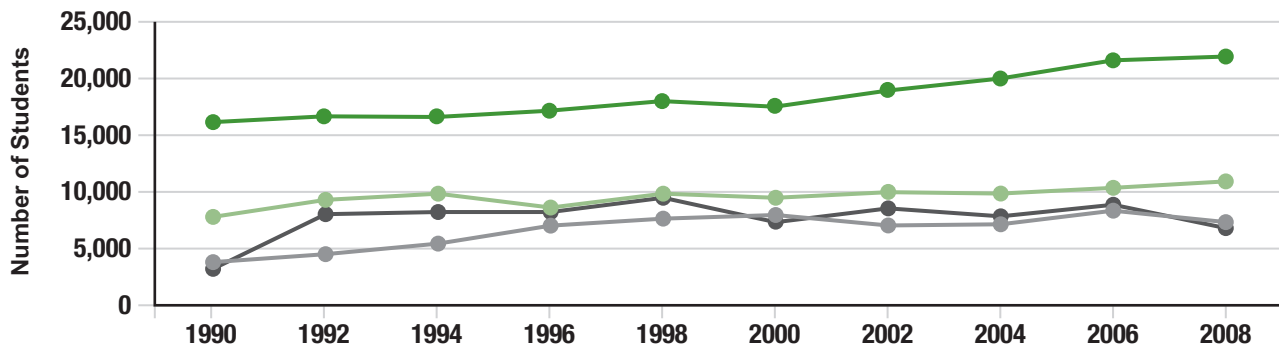
ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	30,467	–	–	607,615	638,082	4.8%
1992	38,246	–	–	656,980	695,226	5.5%
1994	39,892	–	–	709,453	749,345	5.3%
1996	40,848	–	–	743,566	784,414	5.2%
1998	44,996	–	–	814,113	859,109	5.2%
2000	42,281	821,436	31,176	852,612	894,893	4.7%
2002	44,407	860,609	61,571	922,180	966,587	4.6%
2004	44,695	930,343	81,725	1,012,068	1,056,763	4.2%
2006	49,331	1,003,857	90,597	1,094,454	1,143,785	4.3%
2008	47,091	987,969	99,478	1,087,447	1,134,538	4.2%

...and 13% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	183	–	–	1,026	1,209	15%
1992	249	–	–	1,091	1,340	19%
1994	333	–	–	1,133	1,480	23%
1996	336	–	–	1,133	1,469	23%
1998	385	–	–	1,429	1,814	21%
2000	336	1,396	245	1,641	1,977	17%
2002	388	1,445	370	1,815	2,203	18%
2004	360	1,511	505	2,016	2,376	15%
2006	379	1,577	501	2,078	2,457	15%
2008	333	1,646	489	2,135	2,468	13%

Arizona private school enrollment by school type

Figure 4



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).

● Roman Catholic ● Christian (unspecified) ● Other Religious ● Nonsectarian



Also, the number of private schools in the smallest size category (less than 50 students) grew before 1998. But the growth leveled off after that year.

Although we have no statistical analysis to connect these data to the impact of school choice, some realities about the design of Arizona's school choice programs are worth noting. The programs provide large numbers of students with scholarships of low dollar value. This makes it unlikely that school choice is lowering the tuition barrier to help large numbers of students who would otherwise attend public schools enter the private school sector. Rather, the program is more likely to provide financial support disproportionately to families already using private schools. This creates incentives for private schools to mobilize their populations to connect to the program; and over time, families choosing private schools may be expected to migrate to school systems that are more successful in doing so. Entrepreneurial creation of new school models, however, is not supported by the program design.

Ohio

Ohio is part of both the early history of the modern school choice movement and also its more recent development. In 1995, Ohio enacted the second modern voucher program in the country of Cleveland; vouchers became available in 1996. The program serves 5,678 students. The state enacted a voucher program for students with autism, an extremely small portion of the total student population, in 2003. School choice became more widely available in 2005, when Ohio enacted the EdChoice voucher program for students in failing public schools. EdChoice vouchers became available in 2006, and

that program now serves 13,213 students. In 2011, the state created a new voucher program to serve all special-needs students, supplementing the earlier autism voucher program.

Statewide

In Ohio, private school enrollment as a percentage of total enrollment is somewhat higher than in the nation as a whole, but has been trending downward since 2002. The percentage of all private schools is a little lower than in the nation as a whole and has roughly followed national trends, peaking in 1994. Enrollment in Roman Catholic schools is so high in Ohio it dwarfs enrollment in all other private school types. Enrollment in Roman Catholic schools began moving sharply downward in 2004. The number of these schools has trended slowly downward throughout our data set. This decline is most pronounced among parochial schools, which represented 63 percent of all Roman Catholic schools in 1990 but only 49 percent in 2008; diocesan schools grew until 2004 and then declined, while private Roman Catholic schools remained flat.

See Table 5 and Figure 5

Among other types of private schools, only Christian (unspecified) has grown during the period since 2004 while Roman Catholic schools declined. Nonsectarian and other types of religious schools have been roughly flat or slightly declining during this period.

Charter schools, by contrast, greatly accelerated their growth in 2004. The number of charter

In Ohio, private schools represent 10% of student enrollment...

Table 5

ENROLLMENT

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	232,293	–	–	1,795,656	2,027,949	11.5%
1992	239,379	–	–	1,798,120	2,037,499	11.7%
1994	231,008	–	–	1,809,589	2,040,597	11.3%
1996	242,541	–	–	1,837,041	2,079,582	11.7%
1998	243,939	–	–	1,871,436	2,115,375	11.5%
2000	241,804	1,876,209	9,809	1,886,018	2,127,822	11.4%
2002	245,627	1,846,163	22,569	1,868,732	2,114,359	11.6%
2004	225,726	1,794,260	46,130	1,840,390	2,066,116	10.9%
2006	207,091	1,768,312	68,679	1,836,991	2,044,082	10.1%
2008	196,284	1,740,096	81,539	1,821,635	2,017,919	9.7%

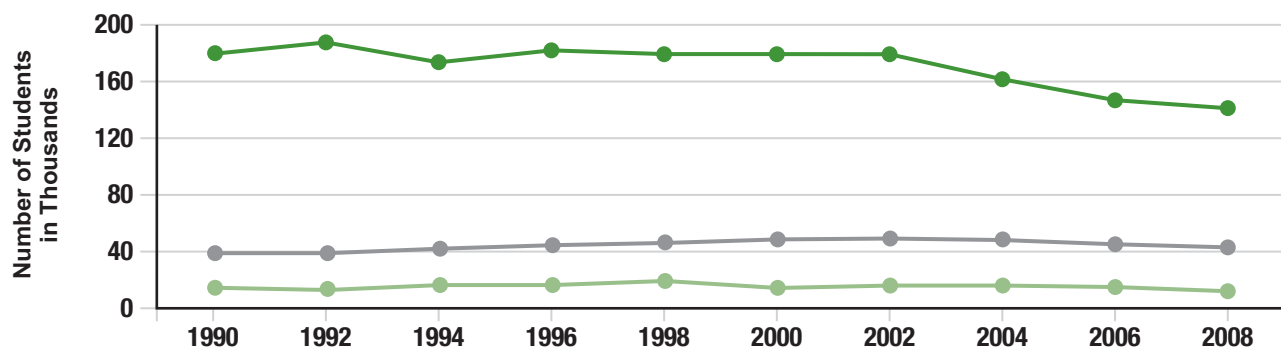
...and 19% of schools.

NUMBER OF SCHOOLS

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	889	–	–	3,715	4,604	19%
1992	911	–	–	3,805	4,716	19%
1994	1,349	–	–	3,818	5,167	26%
1996	999	–	–	3,865	4,864	21%
1998	1,114	–	–	3,945	5,059	22%
2000	1,062	3,846	48	3,894	4,956	21%
2002	1,102	3,827	85	3,912	5,014	22%
2004	1,054	3,777	165	3,942	4,996	21%
2006	953	3,691	316	4,007	4,960	19%
2008	932	3,605	349	3,954	4,886	19%

Ohio private school enrollment by school type

Figure 5



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).



schools almost doubled between 2004 and 2006, whereas charter enrollment was up about 50 percent.

In the last four years of our data, minority enrollment in private schools increased slightly. White enrollment drops from just over 87 percent to just under 85 percent, while black enrollment increases from eight percent to 10 percent and Hispanic enrollment increases from just over two percent to just under three percent. These are the highest enrollment levels for either of these two minority groups since data were first collected in 1994.

Although we cannot statistically connect these trends, the data lend themselves to the hypothesis that charter schools are having a dramatic impact on the private school sector in Ohio, but school choice is not. The “failing schools” voucher model presents significant challenges to family participation, and even more so to educational entrepreneurs. Student eligibility is not geographically stable since the local school in a given area may fail in one year and not in the next. Moreover, this changing eligibility is unpredictable, and communication of eligibility to parents usually ranges from incomplete to nonexistent; most parents who are eligible for vouchers likely don’t find out until it’s too late to apply.

Cleveland

We also examined data specifically for Cleveland. As with Milwaukee, we selected all schools that listed their address in the city.²³

See Table 6 and Figure 6

The percentage of all students who are enrolled in private schools is high, but has been trending downward since 1994. The percentage of schools that are private is trending only slightly downward. Roman Catholic schools, by enrollment the only school type of significant size, and also dominant by school numbers, reflect this decline. Both parochial and diocesan schools have experienced major decline; private Roman Catholic schools, interestingly, have actually bucked the trend and increased somewhat. Other school types are also generally trending downward, except for Christian (unspecified) schools, which have oscillated.

Whereas private schools have declined, charter schools have grown explosively. Charter enrollment and charter school numbers have more than doubled between 2004 and 2008. By 2008 there were almost as many charter schools in Cleveland as regular public schools (50 versus 61, respectively).

Minority student enrollment in private schools is increasing. The percentage of private school students who are white has dropped from 81 percent in 1994 to 61 percent in 2008. The percentage who are black has increased during the same time from 14 percent to 29 percent, and the percentage who are Hispanic from three percent to eight percent.

Although we cannot confirm causality statistically, there seems to be little indication that school choice in Cleveland is impacting the private school sector. The growth of charter schools provides the most plausible hypothesis to explain the decline of private schools relative to public schools.

In Cleveland, private schools represent 20% of student enrollment...

Table 6

ENROLLMENT

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	30,228	–	–	70,698	100,926	30%
1992	31,204	–	–	72,294	103,498	30%
1994	30,448	–	–	73,947	104,395	29%
1996	24,076	–	–	75,199	99,275	24%
1998	21,873	–	–	77,259	99,132	22%
2000	22,092	74,378	2,145	76,523	98,615	22%
2002	20,934	68,939	3,745	72,684	93,618	22%
2004	16,891	63,133	6,469	69,602	86,493	20%
2006	14,295	49,242	9,961	59,203	73,498	19%
2008	13,244	40,454	12,026	52,480	65,724	20%

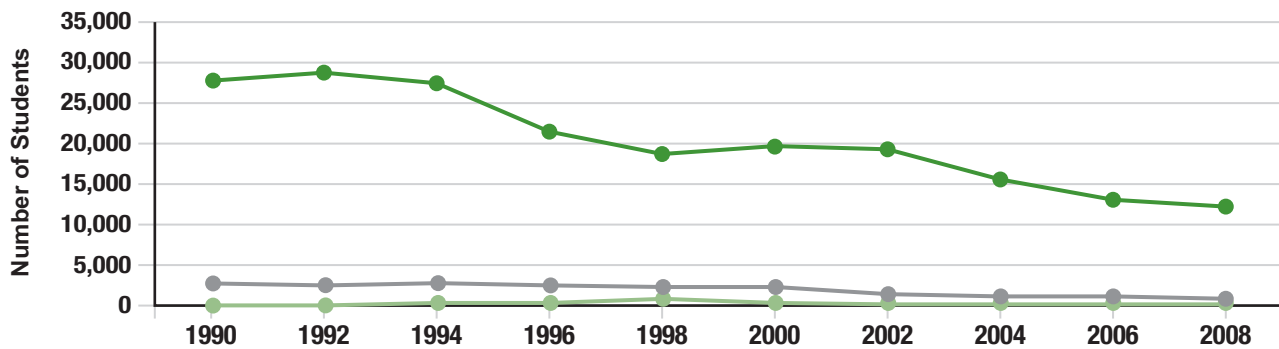
...and 32% of schools.

NUMBER OF SCHOOLS

	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	89	–	–	130	219	41%
1992	93	–	–	132	225	41%
1994	96	–	–	131	268	51%
1996	77	–	–	133	210	37%
1998	84	–	–	127	211	40%
2000	78	116	10	126	204	38%
2002	72	113	14	127	199	36%
2004	56	103	21	124	180	31%
2006	51	65	40	105	156	33%
2008	50	61	46	107	157	32%

Cleveland private school enrollment by school type

Figure 6



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).



Pennsylvania

Pennsylvania enacted a tax-credit scholarship program in 2001. Scholarships are available to low-income students. As in Arizona, the average scholarship is small (\$1,044 on average). The program now serves 38,646 students.

See Table 7 and Figure 7

Private school enrollment in Pennsylvania is high as a percentage of total enrollment, but it has been on a downward trend since 1994. The percentage of all schools that are private is also high and has been stable since its growth plateaued in 1996.

As in Ohio, enrollment in Roman Catholic schools dwarfs enrollment in all other private school types. Enrollment in these schools has been on a major downward trend throughout our data set. The decline is occurring among parochial schools; diocesan and private Roman Catholic schools are flat. Other types of private schools generally have not shown significant enrollment growth to pick up the students from this decline. Exceptions include a period of growth in nonsectarian schools from 1990 to 1998, and slow growth in Christian (unspecified) schools.

The number of Roman Catholic schools also has been declining. Although their enrollment level is still much higher than that of other types, they have been surpassed in number of schools by our (somewhat artificial) classification of religious schools not belonging to older, more established school types. This group has been rising steadily in school numbers throughout

our data set. In Pennsylvania, schools belonging to this group are overwhelmingly (77 percent) Amish and Mennonite. The number of Roman Catholic schools also has been closely matched by nonsectarian schools ever since there was an anomalous one-time boom in the number of those schools in 1994.

Charter schools have grown significantly since data began tracking them in 2000. Growth in both enrollment and number of schools has been strong and steady throughout this period.

Minority enrollment in private schools has been trending slowly upward throughout our data set, and that trend accelerated somewhat after 2002. White enrollment has gone from 88 percent in 1994 to 85 percent in 2002 to 80 percent in 2008. Black enrollment was eight percent, nine-and-a-half percent, and 12 percent in those years, while Hispanic enrollment was two percent, three percent, and four-and-a-half percent.

Thus the picture in Pennsylvania is very similar to that in Ohio. We cannot connect trends statistically, but the immediately plausible hypothesis is that charter schools are impacting the private school sector, while school choice is not.

Pennsylvania's tax-credit scholarship program does not face the problems of Ohio's failing schools model, but it provides small scholarships and is income-restricted. The latter condition also may explain why Pennsylvania has not seen private school growth analogous to the growth of diocesan schools in Phoenix and Tucson; Arizona's main tax-credit scholarship program is not income-restricted.

In Pennsylvania, private schools represent 12% of student enrollment...

Table 7

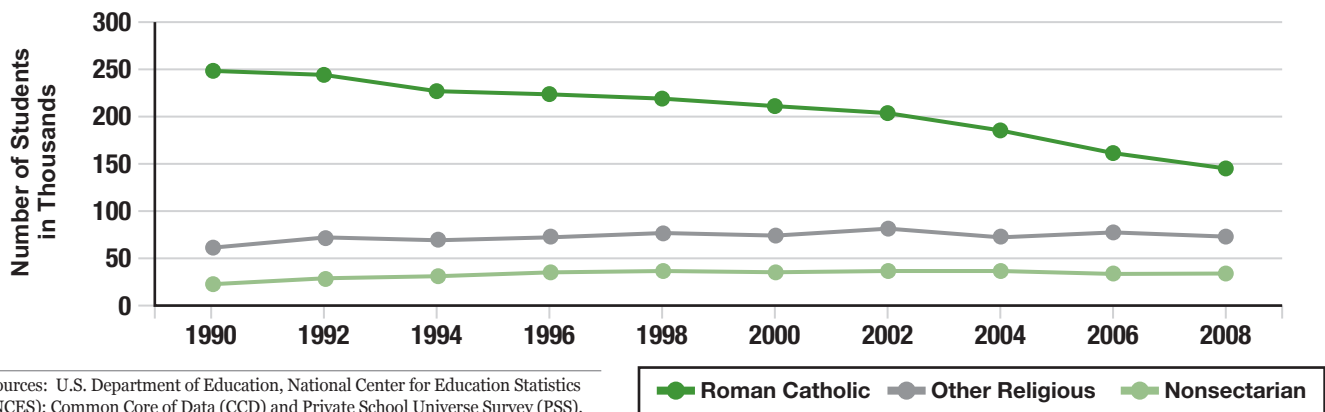
ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	331,543	–	–	1,655,379	1,986,922	17%
1992	345,443	–	–	1,692,797	2,038,240	17%
1994	326,409	–	–	1,744,082	2,070,491	16%
1996	332,124	–	–	1,787,533	2,119,657	16%
1998	332,681	–	–	1,815,151	2,147,832	15%
2000	321,270	1,805,303	11,413	1,816,716	2,137,986	15%
2002	321,770	1,793,174	28,453	1,821,627	2,143,397	15%
2004	294,028	1,780,032	41,114	1,821,146	2,115,174	14%
2006	272,443	1,772,657	55,630	1,828,287	2,100,730	13%
2008	251,530	1,720,538	67,275	1,787,813	2,039,343	12%

...and 40% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	1,467	–	–	3,276	4,743	31%
1992	1,784	–	–	3,252	5,036	35%
1994	2,526	–	–	3,193	5,719	44%
1996	2,255	–	–	3,182	5,437	41%
1998	2,307	–	–	3,181	5,488	42%
2000	2,264	3,183	47	3,230	5,494	41%
2002	2,287	3,174	77	3,251	5,538	41%
2004	2,249	3,157	102	3,259	5,508	41%
2006	2,253	3,134	116	3,250	5,503	41%
2008	2,158	3,121	125	3,246	5,404	40%

Pennsylvania private school enrollment by school type

Figure 7





Washington, D.C.

In 2003, the U.S. Congress enacted a voucher program serving low-income students in Washington, D.C. Vouchers became available in 2004. The program serves 1,322 students.

See Table 8 and Figure 8

The education sector in Washington, D.C., has been dominated by dramatic growth in charter

schools during this same period. By 2008, charter schools enrolled significantly more students than private schools (20,231 versus 16,411). The strongest growth occurred in 2002-2004.

Enrollment in private schools has oscillated between high levels of 19 percent or 20 percent and low levels around 16 percent or 17 percent. The percentage of schools that are private, however, has trended downward since 2002.

Roman Catholic schools have declined in both

In Washington, D.C., private schools represent 17% of student enrollment...

Table 8

ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	18,612	–	–	81,301	99,913	19%
1992	17,291	–	–	80,618	97,909	18%
1994	14,920	–	–	80,678	95,598	16%
1996	16,625	–	–	79,802	96,427	17%
1998	15,623	–	–	77,111	92,734	17%
2000	14,788	70,762	6,432	77,194	91,982	16%
2002	19,156	68,449	6,943	75,392	94,548	20%
2004	15,428	65,099	12,958	78,057	93,485	17%
2006	17,232	59,616	17,260	76,876	94,108	18%
2008	16,411	57,877	20,231	78,108	94,519	17%

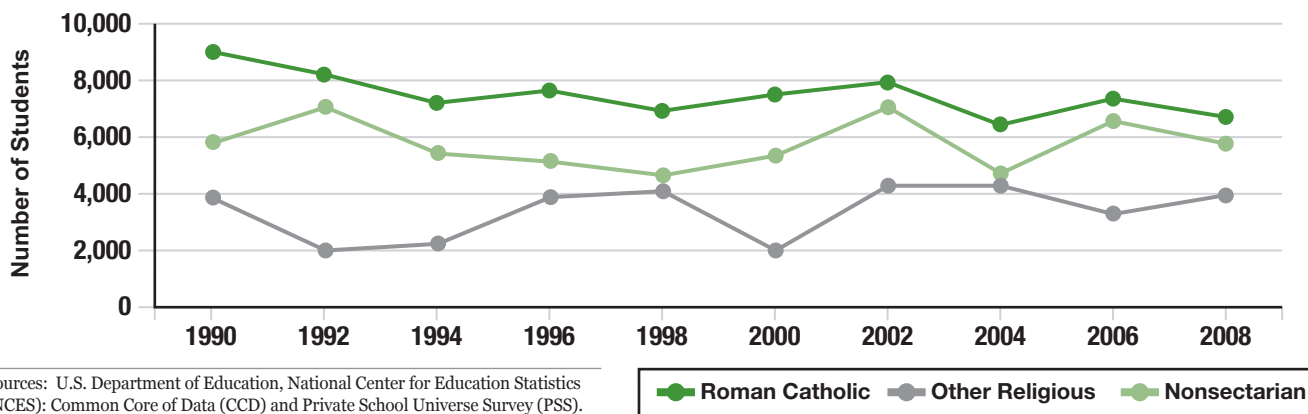
...and 26% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	76	–	–	184	260	29%
1992	79	–	–	180	259	31%
1994	93	–	–	173	266	35%
1996	81	–	–	186	267	30%
1998	83	–	–	171	254	33%
2000	83	162	27	189	272	31%
2002	98	165	33	198	296	33%
2004	95	169	37	206	301	32%
2006	87	177	52	229	316	28%
2008	84	167	77	244	328	26%

Sources: U.S. Department of Education, National Center for Education Statistics (NCES); Common Core of Data (CCD) and Private School Universe Survey (PSS).

Washington, D.C., private school enrollment by school type

Figure 8



enrollment and number of schools. Parochial schools are collapsing while diocesan schools, a smaller share of the total, are growing. Nonsectarian schools have oscillated in enrollment numbers; in school numbers they grew until 2004 and then declined. Both these school types experienced a significant dip in enrollment in 2004.

The smallest school-size category (fewer than 50 students) experienced dramatic growth in 2004, only to return to its previous level. The next size category (50 to 149 students) saw a small dip in that same year.

Enrollment of minority students in private schools has always been high in this heavily minority city. Black enrollment has been trending downward since data began, going from 50 percent in 1994 to 37 percent in 2008; white enrollment has trended upward, going from 42 percent to 52 percent, while Hispanic enrollment is flat (from five percent to six percent). These trends are not significantly varied at different times in our data set.

The D.C. voucher program is so small that no impact on the private school sector could reasonably be expected. These data, though only descriptive, lend themselves to support that expectation.

Minnesota

One way of providing school choice is to give tax relief directly to families who take on the financial burden of education by choosing private schools. Minnesota has the only such program of significant size.

See Table 9 and Figure 9

Since 1955, Minnesota has been offering a small tax deduction (up to \$1,625 per child in grades K-6 and \$2,500 per child in grades 7-12) for education expenses, including private school tuition. Currently, 196,726 families take the deduction, with an average value of \$1,169. The state added a tax credit in 1997 that is worth 75 percent of education expenses, up to \$1,000 per child. But the credit, unlike the deduction, does not include



In Minnesota, private schools represent 9% of student enrollment...

Table 9

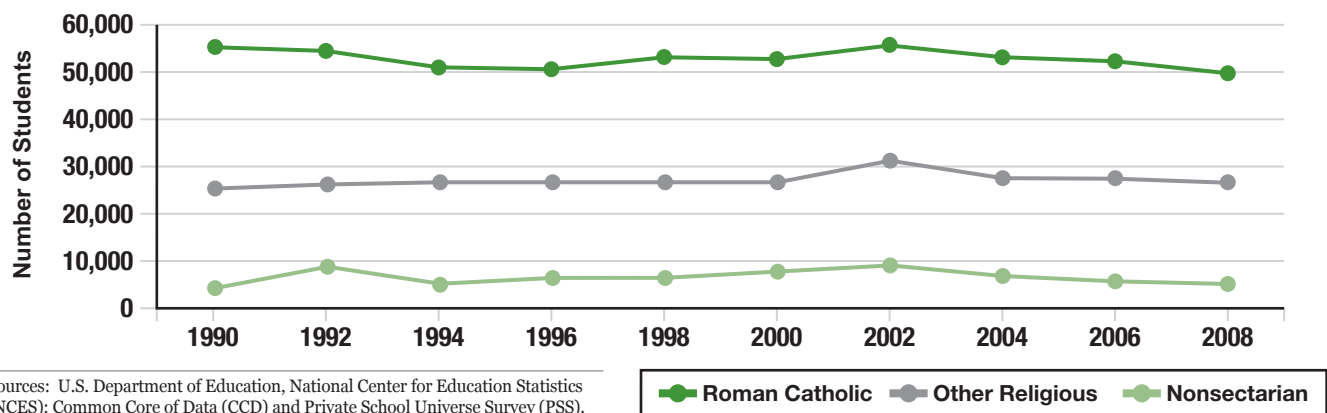
ENROLLMENT						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	84,670	–	–	719,210	803,880	10.5%
1992	89,094	–	–	688,953	778,047	11.5%
1994	82,783	–	–	810,425	893,208	9.3%
1996	83,454	–	–	834,140	917,594	9.1%
1998	86,019	–	–	853,355	939,374	9.2%
2000	86,941	846,514	7,794	854,308	941,249	9.2%
2002	95,809	841,178	10,206	851,384	947,193	10.1%
2004	87,301	828,598	14,256	842,854	930,155	9.4%
2006	84,845	818,481	20,603	839,084	923,929	9.2%
2008	81,133	809,544	28,034	837,578	918,711	8.8%

...and 17% of schools.

NUMBER OF SCHOOLS						
	Private	Regular Public	Charter	Regular + Charter	Total	Private % of Total
1990	506	–	–	1,564	2,070	24%
1992	559	–	–	1,635	2,194	25%
1994	551	–	–	2,083	2,784	25%
1996	557	–	–	2,157	2,714	21%
1998	545	–	–	2,260	2,805	19%
2000	547	2,299	62	2,361	2,908	19%
2002	578	2,331	77	2,408	2,986	19%
2004	550	2,440	105	2,545	3,095	18%
2006	542	2,483	161	2,644	3,186	17%
2008	535	2,512	176	2,688	3,223	17%

Minnesota private school enrollment by school type

Figure 9



Sources: U.S. Department of Education, National Center for Education Statistics (NCES): Common Core of Data (CCD) and Private School Universe Survey (PSS).

tuition as an education expense and has a reduced value for claimants who are not low-income. The income limit is especially important because low-income families pay much less state income tax to begin with. Currently, 56,642 families take the credit, with an average value of \$267.

Minnesota private school enrollment as a percentage of all enrollment is erratic but trends downward. The percentage of all schools that are private is on a strong downward trend since the number of private schools is flat while the number of public schools has greatly increased.

As in Ohio and Pennsylvania, enrollment in Roman Catholic schools dwarfs all other private school types. This enrollment level went down from 1990-1996, then rose until 2002 when it decreased again. The number of schools that are Roman Catholic has trended slowly downward throughout our data set. The decline in Roman Catholic schools is concentrated in parochial schools; diocesan schools are slightly up.

The number of nonsectarian schools grew significantly from 1990-1994 and then remained stable; however, enrollment did not rise much. Lutheran schools have been flat except for an anomalous spike in the data for number of schools in 1994. Christian (unspecified) schools have grown slowly.

Charter schools have grown slowly but steadily in Minnesota. Growth has accelerated somewhat in more recent years.

As in Arizona and Pennsylvania, the small number of dollars available to families through Minnesota's

programs reduces the likelihood that the program is impacting the private school sector. Moreover, Minnesota's program is income-limited, further reducing expectations for impact.

Conclusion

These data provide only a limited window into school models. A greenfield school model and an old-fashioned private school might look the same on the dimensions measured by these data. Moreover, as descriptive observations, these data do not provide a statistical analysis of causation.

This caveat does not minimize the importance of these data. A few isolated greenfield school models nurtured by school choice programs are no doubt hiding underneath the generality of these aggregate data. However, there are strong reasons to expect that if there were substantial numbers of such greenfield school models, large-scale changes would be visible in the data. The absence of any clear evidence of disruption in the private school sector that could plausibly be attributed to school choice—with the sole exception that in Milwaukee the variety of school types has increased—is stark and sobering.

For decades, school choice advocates have argued that choice is the key to an educational revolution. If there were an educational revolution going on, we would expect to see it reflected in the data gathered for this study. But we do not.

Choice advocates have failed to communicate effectively that it is not merely "choice," any kind of choice, any kind of program, that is the key to an education revolution. It is universal choice—choice



that creates a client base of families that has the size, strength, and suffrage to support greenfield school models. Regrettably, no empirical research can be performed on the impact of universal choice, because no such program exists yet. What we do know is that the choice programs we have now—small, underfunded, and overregulated—are not driving the radical educational innovation we need.

Notes

¹ Greg Forster, “A Win-Win Solution: The Empirical Evidence on School Vouchers,” Friedman Foundation for Educational Choice, March 23, 2011.

² Frederick Hess, “Education Unbound: The Promise and Practice of Greenfield Schooling” (Alexandria: ASCD, 2010), 1.

³ Julie Trivitt and Patrick Wolf, “School Choice and the Branding of Catholic Schools,” *Education Finance and Policy* 6.2 (2011): 202-245.

⁴ Jay Greene, Greg Forster and Marcus Winters, “Education Myths” (Oxford: Rowman & Littlefield, 2005).

⁵ We borrow the tripartite analytical rubric of ideas, individuals, and institutions from James Davison Hunter, “To Change the World” (New York: Oxford University Press, 2010).

⁶ Greg Forster, “No Child Left Behind’ Law Produces Few Gains,” *Pajamas Media*, May 9, 2009.

⁷ Heather Vogell, “Investigation into APS Cheating Finds Unethical Behavior across Every Level,” *Atlanta Journal-Constitution*, July 6, 2011.

⁸ Greg Forster, “Lost Opportunity: An Empirical Analysis of How Vouchers Affected Florida Public Schools,” Friedman Foundation for Educational Choice, March 25, 2008.

⁹ See Jay Greene, Marcus Winters and Greg Forster, “Testing High Stakes Tests: Can We Believe the Results of Accountability Tests?” *Teachers College Record* (June 2004): 1124-1144.

¹⁰ David Brooks, “Smells Like School Spirit,” *New York Times*, July 1, 2011.

¹¹ Digest of Education Statistics, 2010 edition, U.S. Department of Education, Table 191.

¹² Forster, “A Win-Win Solution.”

¹³ Milton Friedman, “The Role of Government in Education,” “Economics in the Public Interest,” ed. Robert Solo, (Newark: Rutgers University Press, 1955). See also Robert Enlow and Lenore Ealy, eds., “Liberty and Learning: Milton Friedman’s Voucher Idea at Fifty,” Cato Institute, 2006.

¹⁴ Michael Fullan, “The New Meaning of Educational Change,” fourth edition, (New York: Teachers College Press, 2007).

¹⁵ This research is summarized in Arthur Brooks, “The Road to Freedom,” (New York: Basic Books, 2012).

¹⁶ Forster, “A Win-Win Solution.”

¹⁷ National Institute on Money in State Politics, <http://www.followthemoney.org/database/top10000.phtml?topl=1&topnum=10000> (accessed January 17, 2012).

¹⁸ Matthew Ladner and Nick Dranias, “Education Savings Accounts: Giving Parents Control of their Children’s Education,” Goldwater Institute, January 28, 2011.

¹⁹ The U.S. Department of Education codes any schools not listing an affiliation as nonsectarian, so all schools in the other 28 categories have affirmed a religious affiliation.

²⁰ Our “Lutheran” category combines four PSS categories containing Lutheran schools: Lutheran Church—Missouri Synod, Evangelical Lutheran Church in America, Wisconsin Evangelical Lutheran Synod, and Other Lutheran. In 1990 the PSS only had one “Lutheran” category.

²¹ Greg Forster, “Freedom from Racial Barriers: The Empirical Evidence on Vouchers and Segregation,” Friedman Foundation for Educational Choice, October 2006.

²² Because some schools use a mailing address different from their physical address, it is possible some schools listed a mailing address in the city while their buildings are located outside it.

²³ Because some schools use a mailing address different from their physical address, it is possible some schools listed a mailing address in the city while their buildings are located outside it.



About the Authors



Greg Forster, Ph.D., is a senior fellow with the Friedman Foundation for Educational Choice. He conducts research and writes on school choice policy. Forster has conducted empirical studies on the impact of school choice programs in Milwaukee, Ohio, Florida, and Texas, as well as national empirical studies comparing public and private schools in terms of working conditions for teachers, racial segregation, and teacher and staff misconduct. He also has conducted empirical studies of other education topics, including charter schools, accountability testing, graduation rates, student demographics, and special education.

Forster's research has appeared in the peer-reviewed publications "Teachers College Record" and "Education Working Paper Archive," and his articles on education policy have appeared in the *Washington Post*, *Los Angeles Times*, *Philadelphia Inquirer*, *Education Next*, *Chronicle of Higher Education*, and numerous other publications. He is co-author of the book "Education Myths: What Special-Interest Groups Want You to Believe about Our Schools and Why It Isn't So," from Rowman & Littlefield. Forster is also a contributor to Jay P. Greene's Blog (jaypgreene.com).



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Prior to accepting his position at UAF, Woodworth worked 11 years as a classroom teacher for the Mansfield Public Schools. He also served six years active duty with the United States Marine Corps. Woodworth has presented research at The Association for Education Finance and Policy (AEFP) and at the American Education Research Association (AERA) annual meetings, and regularly writes research briefs and program evaluations as part of his duties with the OEP.

A native of Harrison, Arkansas, Woodworth attended Arkansas Tech University for both his undergraduate studies in music education and his M.Ed. in educational leadership.

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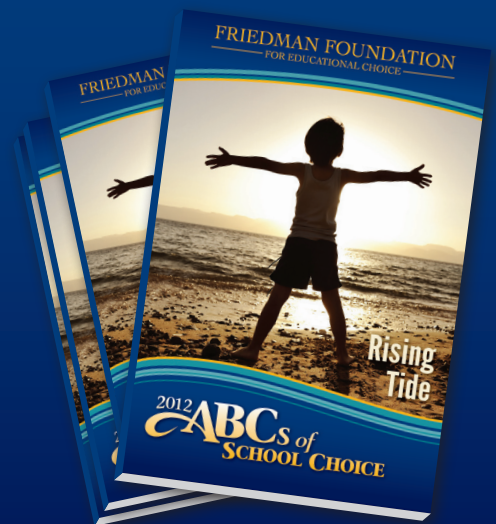


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