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**Article**

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## SCHOOL CHOICE AND SCHOOL QUALITY IN THE US

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Over the past several decades, education policy discussions in the US have become increasingly sophisticated as initial hopes for the promise of public school spending equalization have given way to the disappointment of persistent and often worsening inequality of educational opportunities within the public school system. Gone are the days when court mandated state aid to public schools is viewed as the solution to desperate conditions for the nations poorest children. Instead, policy makers and the public are beginning to look more favorably for creative solutions that empower families who currently are ill served by primary and secondary public schools. And increasingly these solutions involve some form of increased choice, particularly for low-income parents.

At the same time, debates on policy options that include increasing school choice are often mired in ideological fervor and rooted in simplistic frameworks which ignore the very economic forces that have led to the problems policy makers are trying to address. Advocates for increased choice cite the power of competitive markets to elicit efficiency gains from an overly bureaucratic public school sector, while opponents cite fears that private or public “choice schools” would divert resources and “skim the cream” off traditional public schools – thus leaving a troubled public school sector even worse off. This debate, however, neglects some important forces, and a better understanding of these forces can lead to a better appreciation of the potential of increased choice to improve not only schools but also the communities that are most troubled by bad public schools.

### Causes of bad public schools

It is often observed that the US primary and secondary public school system is already infused with much choice. Since entrance into most public schools is gained by living within some specified district or neighborhood boundary, most parents choose schools for their children implicitly by choosing where to live. In fact the bundling of residential location decisions with school choice is so ingrained in the US that people often forget that many choose their neighborhood in large part because of the access to particular schools that this choice implies. Real estate agents frequently act as important conduits of information about local schools, and an increasing number of web resources provide new residents with school related information. It is therefore not surprising that a plethora of academic studies have conclusively established that residential housing markets and public schools are closely linked, a fact which shows up nowhere more strikingly than in the differential housing prices for equivalent house qualities in different public school districts (Epple and Nechyba 2004).

Given all this choice, why would any parent then choose an inferior public school? The answer is that some parents cannot afford housing anywhere but in those school districts that provide inadequate opportunities to children. In part because of zoning regulations that prohibit low-income housing in good school districts, in part because of housing prices that incorporate the value of good public schools, and in part because good school districts tend to be found in areas with poor access to low-income job opportunities, therefore some parents do not have much of a choice within the public system. Schools within districts that are open to the disadvantaged have little incentive to serve them while at the same time being faced with the enormous challenges that arise in schools serving predominantly disadvantaged children.

The root of the problems faced by many low-income parents is therefore found in the way that



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choice is exercised in a system which bundles residential location and schooling decisions. Housing markets have become structured around the idea that there are fiscal benefits from keeping out the poor (who pay less in taxes and whose children sometimes require additional resources), and those with the ability and the means to move take advantage of good educational opportunities that public schools in good districts provide. The problem is exacerbated by market forces that incorporate public school quality into housing prices – thereby inflating house prices in good school districts and depressing prices in those with bad schools. Poor families do not necessarily value education less than other parents – a residence-based public school system simply does not provide them with the opportunity of “purchasing” good schools as they are out-bid for housing in districts which provide such schools.

### Learning from public school choice

Nevertheless, one can learn to a limited extent about the relationship between school choice and school quality from the different degree to which public school choice (linked to residential housing markets) differs across metropolitan areas in the US. This research finds its roots in the pioneering work of Hoxby (2000), who uncovered a positive relationship between the degree of public school choice and public school quality within the US metropolitan areas – with more residence-based school choice producing better schools at lower cost. At the same time, it is not at all clear that increased traditional public school choice benefits all groups equally. Rather, it appears that families who are more able to exercise choice within such a system benefit most, while families who are less able to choose (due to income constraints) are sorted into underperforming schools (McHugh 2004).

This evidence therefore suggests that there is truth in both sides of the choice debate: on the one hand, increased choice appears to produce efficiency gains, but it also leads to increased sorting that deprives some districts of resources that are quite fundamental for high quality schools. While the debate tends to center on financial resources that might be drained from the system under increased private school choice, the bigger concern (in light of much evidence that the marginal product of

additional financing is low) centers around the lack of non-financial resources in underperforming districts. These resources include parents that monitor schools, peers that bring with them positive externalities and good teachers that follow good peers. The tension between increased efficiency on the one hand and increased sorting on the other therefore places severe limits on the degree to which public school choice linked to residential housing markets can improve schools serving the most disadvantaged children (Nechyba 2004).

### Increasing public and private choice

Given these limits to traditional public school choice, two alternative (and potentially complementary) approaches of increasing choice have been proposed. First, the charter school movement in the US has focused on creating more choice *within the public system* by allowing the creation of new public schools that can experiment with new approaches to educating children while not restricting admission to those who reside within a particular geographic area. Second, the private school voucher movement has focused on using private and public funds to *extend choice to private schools*.

Lumping all choice approaches into these two categories, however, obscures many of the subtleties associated with particular choice proposals. In any proposal aimed at increasing choice, whether within the public system or into the private system, decisions must be made as to who is eligible to participate and under what conditions households and schools may participate. Private school vouchers, for instance, could be extended to all, or to only low-income households, or to only households in underperforming schools (Nechyba 2000). Similarly, schools may be deemed eligible to participate only if they abide by particular rules of admission or curricula, and students that impose different costs on schools may be granted different voucher levels. As a result, the debate about extending choice within the public school system in the US is really a debate about what kind of choice should be extended to whom and under what conditions.

The evidence on the impact of increased choice from charter schools or private school voucher programs is still quite limited in large part because

charter school programs are still relatively new, and private school voucher programs are too narrowly targeted to result in systemic effects. Recent work investigating charter school impacts nation-wide suggests that children in charter schools on average perform better academically (Hoxby 2004) while work on charter schools in particular states is more mixed (Ladd 2004). Similarly, it appears that children who switch to private schools under limited voucher programs improve their performance (Rouse 1998). But a full empirical evaluation of the impact of choice on school quality awaits larger policy interventions that can be used to test not only the impact of school choice on those who choose but also on the entire system more generally.

### **How can we further predict the impact of increased choice on school quality?**

With no large voucher experiments to analyze and with the charter school movement still in its infancy, the challenge for policy analysts is then to come up with a method of predicting the impact of increased choice in a way that does justice to the complexity of the economic forces underlying the current difficulties. In a series of papers over the past seven years, I have attempted to develop such a method.<sup>1</sup> It begins with the specification of an economic model which combines a realistic housing market, a private school market and a political market that responds to new policies. More specifically, families within the model are assumed to choose between different housing options across different school districts, to vote on how much support to lend to public schools funded by a combination of local property and state income taxes, and to determine whether or not to send their children to private schools offered by the market.

School quality in the model results not only from spending in schools but also from the mix of parents and students that attend the school. Thus, the framework can realistically model not only the role played by school spending, but also the fact that other resources – such as teacher quality, peer quality and parental involvement – are essential components of good schools. Housing prices in the model incorporate not only the local public school quality and local tax rates, but also other local

amenities such as crime rates, public parks and so forth. And political support for education is determined by the desires of voters (who are assumed to support low levels of spending if they choose private schools). Finally, private schools are assumed to have an advantage in that they can choose not to accept students with low “peer quality”, while public schools have the advantage that they are free.

The next step in the analysis is to use real world data to “calibrate” the model. Thus, key parameters in the model are set in order to replicate the observed outcomes in schools, housing markets and political markets. For instance, the distribution of house quality across different districts is specified so that the model accurately predicts the distribution of house prices in the data. Family incomes in the model are set so as to replicate the income distribution in the real world, and the desire of voters for spending in schools is set so as to accurately predict the observed levels of public school spending that arise out of the political process. Finally, the weight placed by parents on spending versus other factors such as the peer composition in the school is set in order to allow the model to accurately predict the level of private school attendance in the absence of vouchers.

The result of this work is a complex computer model which incorporates the relevant economic forces and which accurately replicates the current state of the world – i.e. housing prices, public school quality levels, per pupil spending levels, private school attendance rates, etc. It is at this point in the analysis that new policies can be introduced on the computer, and the computer can then solve the model to predict how outcomes will change under the new policy. The maintained assumption throughout is that the economic forces that can explain why the world looks the way it does today will continue to operate as new policies are introduced. This approach has then allowed for an analysis of the likely impact of previously untried public policies in a framework that fully recognizes the underlying connection between different economic forces we know are important.

### **Impact of private school vouchers on communities**

Even with a rich framework such as this, the computer model cannot be expected to offer a single

<sup>1</sup> The technical details of the underlying theoretical model are outlined in Nechyba (1999), with details on how data is used in combination with the theoretical model in, among others, Nechyba (2003a).

answer to the question of how a large choice or voucher program will impact educational opportunities for children. Voucher proponents argue that there are likely to be efficiency gains in public schools that will result in better use of public resources and thus better public schools, while opponents point out that private schools may leave the public sector drained of important resources even if the remaining resources are used more efficiently. Given that we still have relatively little evidence on how large these competing effects are likely to be, it is therefore prudent to begin the analysis with a “worst case scenario” – one that assumes no efficiency gains from increased competition, full “cream skimming” by private schools and a decline in public support for taxation to support public schools. This provides “lower bound” benchmark prediction. We can then move on to consider how the predictions will change if assumptions more favorable for vouchers are introduced.

The most striking outcome of this approach is the robustness of one particular result: *regardless of how pessimistic the underlying assumptions, private school vouchers that are available to all parents or those targeted to parents living in poor districts result in a substantial lessening of income segregation across school districts* (Nechyba 2003b). The underlying reason for this prediction follows straightforwardly from an understanding of the economic forces that have led to the current US public school crisis in poor neighborhoods. Because house prices are inflated in good districts and depressed in poor districts, those parents that choose to use a private school voucher will tend to choose housing in poor districts. After all, if a middle-income family currently living in a good public school district chooses to switch to private schools as a result of a voucher, why should it continue to pay inflated prices for housing as well as higher local taxes that go to support local public schools? The reason that many families stretch their family budgets and choose to pay such inflated prices and high taxes is that this is required in order to gain access to good public schools. The public school system therefore provides the incentive for families to segregate based on their incomes, an incentive that is removed (and in fact reversed) when *school choice policy un-bundles the residential location and schooling choices*. Families that switch from public to private (or public choice) schools can therefore afford more housing in poor districts

without facing the prospect of using bad public schools in those districts.

For this reason, the model predicts that vouchers – those universally available and even more those targeted to residents of poor districts – will change the way that many families will choose to live. Regardless of what happens within schools, under realistic levels of voucher funding this invariably leads to a lessening of income segregation. Furthermore, home values in poor districts will rise as poor districts become more attractive and housing demand there increases, while home values in rich districts will decline as there is less of a need for such prices to incorporate the premium due to good public schools in those districts. In the real world, these changes are, of course, likely to unfold over time. While some families might choose to move immediately in order to take advantage of a voucher in the poor district, others will simply move for reasons unrelated to education but will then make their next residential location decision differently than under a system that firmly bundles this decision with school choice.

An important caveat to this result is that it is true for vouchers that are available to all families and even more to vouchers that are targeted to families residing in failing public school districts, but *it is not true for vouchers targeted only to very low-income families*. Under the first two types of vouchers, there are implicit and (in the case of district-targeted vouchers) explicit incentives for middle-income families to move into low-income districts like inner cities, but these incentives are absent if vouchers are only available to families with very low incomes. Since it is likely that any large scale voucher proposal will be targeted in some way, it is therefore important to realize that *district targeting is very different from income targeting*. District targeting spreads competition to all public school districts – not just those that are targeted, while income targeting insulates middle and high-income districts from any threat that large numbers of families in those districts may choose private schools. To policy makers considering targeted voucher programs, this research therefore suggests that district targeting is much more effective in infusing competition into the entire system than income targeting, and large decreases in residential segregation flow only from the former and not the latter type of proposal.



### Impact of increased choice on traditional public schools

While the result highlighted above holds universally regardless of assumptions about the responses of public schools in terms of more effective resource use, regardless of how much “cream skimming” is undertaken by private schools and regardless of the impact of declining political support for public education, the predicted impact on public school quality is more sensitive to these kinds of assumptions. Still, because of the segregation effects highlighted above, even the worst-case assumptions yield predictions that are less dire than a more simplistic approach might suggest. The results discussed below are restricted to universally available or district targeted vouchers that are funded through a state income tax (Nechyba 2003c).

There is no mechanism under the worst-case scenario that would allow public schools to improve overall under vouchers. However, because, many of those choosing private schools would eventually move from good public school districts in order to take advantage of housing deals in poorer neighborhoods, public school quality would decline throughout the public school system – not just in poor communities where private schools would form. In fact, the model predicts that public school quality in poor districts would decline the least because of an increased local tax base (since housing prices rise) and because a large fraction of families that pay local taxes in the poor district would in fact not make any demands on the local public schools, thus leaving more spending per pupil in those schools. Even under the worst-case assumptions, the model therefore suggests only modest declines in public school quality in poor districts, with slightly larger declines in other districts.

Few people, of course, believe that there would be no response from public schools to increased competition, and private schools typically do not “cream skim” from public schools to the extreme extent assumed under the worst case assumptions. The structure of the model then allows for the introduction of a modest level of public school response in the form of better resource utilization. The results suggest that under such responses, modest voucher levels (in the range of \$2,500 per pupil with the option for parents to pay additional tuition if they choose) can cause increases in public school quality in all districts while at the same time leading to a narrowing of the quality gap between rich and poor districts.

### Conclusion

The clearest winners of vouchers (or other forms of non-residence based choice) – particularly proposals that target families who live in poor districts – are families who own homes in those districts (because their property appreciates substantially in value) and who have children with good peer characteristics that switch from bad public schools to better private schools. The clearest potential losers are families who own homes in wealthier districts with good public schools (because their property depreciates substantially as the public school premium declines.) In addition, if voucher advocates are wrong and public schools will not respond to increased competitive pressures, then average public school quality may decline somewhat with an introduction of school vouchers. This suggests that voucher plans – particularly those targeted to poor districts – should be accompanied by careful attention to what is happening to public schools, especially those that are already quite bad in poor districts. It does not, however, take away the potentially larger benefits that are likely to arise as healthier communities form when vouchers unbundle the residential location and school decisions – thus removing the current incentives for income segregation across school districts. Vouchers will do more than just change schools – they will change the way households choose to live and interact with one another, and this is true regardless of whether one takes the grim view or the optimistic view on other aspects of the school choice debate.

The primary argument against choice programs targeted at poor districts therefore seems on shaky grounds given the large benefits for poor communities that are likely to arise from the un-bundling of housing and schooling decisions. This argument essentially claims that we cannot afford to allow schools to compete for poor parents because we need those parents to stay in public schools for the benefit of children whose parents will not exercise choice under a voucher system. Put differently, the argument states that we must use poor parents that want to exercise choice but cannot under the current system in order to prop up the only public school they can afford to attend. Few would accept such an argument if extended to its logical next step – removing choice from middle and high-income parents who choose good public schools. It is difficult, then, to see how the US can continue to restrict choice to those who are most powerless

when it is not willing to accept such restrictions on others. This becomes particularly difficult when research suggests that – even under the worst case scenarios – increased private school choice brings with it substantial benefits to residents of poor districts.

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