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NEPC Review: The School Choice Voucher: A "Get Out of Jail" Card?

Clive Belfield

CUNY Queens College, clive.belfield@gmail.com

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REVIEW OF *THE SCHOOL CHOICE VOUCHER: A “GET OUT OF JAIL” CARD?*

Reviewed By

Clive Belfield
Queens College, City University of New York

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Summary of Review

In a new report, University of Arkansas researchers studied the relationship between school vouchers and crime. Using data from the Milwaukee Parental Choice Program (MPCP), they compared crimes processed through the Wisconsin courts for program participants and a matched sample of public school students. Based on a series of comparisons, it finds that some groups of MPCP students are less likely to commit crimes as adults. This result is plausible: education and crime are often found to be negatively correlated and the MPCP has generated some, albeit modest and mixed, benefits. However, the study’s title should not imply that voucher programs are a “get-out-of-jail” card, and the evidence in the study is not causal. One concern is that the paper employs a matching method that omits some important factors that explain school choice and crime. Also, the results are highly variable, with most of the association between MPCP participation and measures of adult crime showing statistically insignificant results. Indeed, a valid interpretation of the paper is that vouchers and crime are not correlated. Conversely, for subgroups and estimation approaches that do yield statistically significant associations, the MPCP effects appear to be too extreme. Even assuming that vouchers do reduce adult crime, it remains unclear by what mechanisms vouchers might do so.



Kevin Welner
Project Director

William Mathis
Managing Director

Joseph Boselovic
Academic Editor

Alex Molnar
Publishing Director

National Education Policy Center

School of Education, University of Colorado
Boulder, CO 80309-0249
Telephone: (802) 383-0058

Email: NEPC@colorado.edu
<http://nepc.colorado.edu>

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<http://www.greatlakescenter.org>
GreatLakesCenter@greatlakescenter.org

REVIEW OF *THE SCHOOL CHOICE VOUCHER: A “GET OUT OF JAIL” CARD?*

Clive Belfield, Queens College, City University of New York

I. Introduction

The working paper under review here – *The School Choice Voucher: A “Get Out of Jail” Card?* – by Corey DeAngelis and Patrick J. Wolf of the University of Arkansas Department of Education Reform (EDRE)¹ begins by describing the voucher program under analysis: the Milwaukee Parental Choice Program (MPCP) and how most of the attention has been focused on whether the program boosts student achievement. In this contribution, the researchers look at whether the program reduces criminal activity in adulthood. They perform a series of econometric tests on the association between MPCP participation and various measures of adult crime. The results are suggestive of a negative link. Hence, one of the benefits of this voucher program, it is claimed, is lower crime in the future.

At a general level, there is considerable evidence of a negative association between education levels and crime. The broad conclusion is therefore plausible. However, the study here does not establish such specific results for the MPCP. The voucher-crime association is sensitive to the study’s model specifications and sample groupings. Even assuming that vouchers do reduce adult crime, it remains unclear by what mechanisms vouchers might do so.

II. Findings and Conclusions of the Working Paper

The main finding is that participating in the MPCP reduces criminal activity in adulthood for some subgroups and for some of the researchers’ estimation approaches. Specifically, the finding is that Average Treatment Effect estimates for males who participate in MPCP for an extended time (“full dose”) show statistically significant reductions in rates of misdemeanor, felony, accusation, conviction, drugs, theft and traffic offenses. No set of estimates shows a positive association between the MPCP and crime.

The conclusion of the paper is that this association is compelling. The proposed next step is further research on vouchers and crime, as well as on the mechanisms by which the association is generated.

III. The Paper's Rationale for Its Findings and Conclusions

The paper bases its findings and conclusions primarily on one set of estimates of the association between voucher participation and crime, specifically for males. Most of the estimates the authors present of voucher participation on adult crime are not statistically significant even at the atypical and less demanding 0.1 and 0.15 levels they employ (see the 56 estimates reported in Table 11 of the paper). Looking at the preponderance of evidence, therefore, would lead to acceptance of the null hypothesis: there is no statistically significant difference in crime across MPCP participants and a comparison group.

However, there are reasonable grounds for examining education and crime associations just for males and particularly for those who are minorities or from low-income households.² These individuals are much more likely to be involved in the criminal justice system. Other student groups have much lower involvement rates such that it is very difficult to identify causal factors. Consequently, it is plausible that the preponderance of estimates, applied across the general population, will not find any association but that the MPCP may be beneficial for a subgroup of at-risk students.

IV. The Paper's Use of Research Literature

Given the focus of this research on the relationship between vouchers and criminal activity, this paper has to consider two large and complex bodies of literature: the research on the effects of vouchers (in particular, the MPCP) and the research on the determinants of crime.

On vouchers, the paper cites relevant research, but it is not clear how helpful those citations are for the current project. The most relevant study cited is by Deming (2011),³ but that study is based on a district-wide school lottery where the control group is lottery participants and where the difference in school quality for lottery winners versus lottery losers is extremely large. The paper does not mention a prominent study on a Chicago school choice program that finds no effect on youth delinquency.⁴

The paper relies on a general claim, one which has some modest but far from overwhelming evidentiary support, that vouchers are educationally beneficial.⁵ Yet, much of the voucher research has examined or emphasized achievement as the educational benefit.⁶ As discussed below, this emphasis creates a puzzle for interpreting this paper.

On crime, there is an enormous body of literature on how to measure crime, how to model crime over the early life-course, and who is at-risk for criminal activity.⁷ This literature is only briefly reviewed in this paper.

V. Review of the Paper's Methods

The paper compares a cohort of MPCP students to a matched comparison group. Matching is performed based on an expected propensity to enroll in the MPCP. Using these two groups, the paper estimates a series of specifications to explain adult crime. Criminal activity is measured in seven different ways and participation in the MPCP is identified in three different ways. The paper tests to see whether these estimates are statistically significant.

The primary step in the analysis is matching of the MPCP students with an observationally equivalent group of students. The success of this matching approach depends on whether all the factors that influence both participation and outcomes are included. Unfortunately, the matching approach used did not include student-level factors that might plausibly explain adult crime, such as direct measures of socio-economic status, parental status, or income. (These factors are taken into consideration in the estimation but not in the initial matching of MPCP to control students.) Despite the paper's unusual and unsupported claim – that neighborhood matching is adequate because “families who live in the same neighborhoods tend to share similar unmeasured background factors such as moral values” (p. 6) – it is not certain that the MPCP and comparison group are equivalent in their latent criminal proclivities.

Once the match sample is constructed, the researchers estimate a series of models for various sample groups. Although this estimation approach – many estimates with different specifications – is common research practice, it increases the likelihood that statistically significant results will appear by chance. Also, the paper uses a non-standard p-value ($p < 0.15$, instead of $p < 0.05$) for statistical significance in some of estimations that it provides. This means that the probability of a given result appearing by chance is 15%, rather than just 5%.

The paper claims these methods justify causal inference. This claim is dubious; the authors offer five justifications and four are simply incorrect. It is not appropriate to claim causality based on the theory proposed or the results of the study (claims 1, 3 and 4). Also, it is not appropriate to claim causality based on the fact that no other studies exist (claim 5). Causality depends on the method applied (claim 2). Although there is some debate, there is certainly no guarantee that any instrumental variables estimation or propensity score match will establish causality. These methods are an improvement over correlational approaches without matching; but these methods may not eliminate bias.⁸ The methods need to be extensively tested in order to justify that the associations are causal.

VI. Review of the Validity of the Findings and Conclusions

On the surface, the findings and conclusions of the paper appear reasonable. If the MPCP enhances educational outcomes, it seems plausible that it would reduce criminality given the well-established negative association between education and crime.⁹ However, for any findings to be conclusive they need to be based on a valid measure of crime, and the results

should be both substantively significant and robust.

The paper provides little information on the validity of the crime measures. First, crime incidence is drawn from the Wisconsin Circuit Court Access System, an online database of crimes processed through the Wisconsin courts, with matches based on names and birth dates. But it is not clear how accurate this match is (using a similar approach, another study¹⁰ reports an 87% match rate) or how many crimes under which jurisdictions are covered. Second, it is unclear how adult crime relates to juvenile crime, which is not considered in this study and is a more direct and immediate measure of delinquency. Finally, there is no information on whether crime rates in this study correspond to expected crime rates for these populations. Wisconsin's criminal system is a national outlier: the state incarceration rate for African American males at 12% is almost double the national average.¹¹ Criminal activity reported in this study (e.g., a misdemeanor rate of 9%) seems low; and with such low crime rates, measurement error becomes more critical.

The results from the estimations are sensitive to model specification and subgroup analysis. Most of the associations reported in the tables are not statistically significant. As the model specification changes and the samples change, both the coefficients and standard errors (measures of spread) change by a large magnitude. For the group most at risk of criminalization – (predominantly minority) males – the associations become statistically significant. This is plausible. But the reported results are substantively enormous: the likelihood of committing a felony as an adult is reported to be 79% lower for MPCP participants; drug abuse is predicted to be almost completely (93%) eliminated under the MPCP. These impacts appear extreme.

Given the paper's particular focus and results, readers should not presume that vouchers are 'get-out-of-jail' cards

Additionally, there are some puzzling associations. One is that the correlation between academic achievement and criminal activity is not robust or strong. If achievement does not affect criminality, it is unclear how vouchers should affect criminality. Interestingly, Deming (2011)¹² also finds that achievement does not mediate changes in criminality.

The mediating effect of income is also confusing. Vouchers might reduce crime by increasing income and correspondingly increasing the opportunity cost of crime (i.e., what is lost by committing crimes and potentially going to prison). Yet, the paper finds that “children of families with higher incomes actually are more likely to commit misdemeanors or drug crimes, ceteris paribus, but that could be because, within a low-income population, more resources bring with them more temptations.” If so, the fact that vouchers might boost income would seem to be a disadvantage.

Finally, although the paper presents some positive results of the MPCP, the title is somewhat misleading. Setting aside the concerns raised in this review about the validity of those results, it is not obvious – and the paper pays no attention to – how the MPCP results might generalize across voucher programs. The evidence is not about vouchers in general

but only the MPCP, which is distinct from other voucher programs and operates in an area with very high arrest rates. Yet as phrased, the title implies that the paper will demonstrate how voucher programs might serve as get-out-of-jail cards. Moreover, the paper does not show that vouchers are get-out-of-jail cards: at best, the paper shows mixed evidence that participation in the MPCP might be associated with lower crime in adulthood and that there is no evidence that it is associated with higher crime. Given the paper's particular focus and results, readers should not presume that vouchers are 'get-out-of-jail' cards.

VII. Usefulness of the Paper for Guidance of Policy and Practice

Despite the methodological concerns highlighted above, the paper contributes to policy and practice in one important respect. It looks at how educational processes influence behavioral outcomes – criminal activity – rather than cognitive outcomes – test scores. The paper thus adds to the growing consensus that behavioral change is more important – for policy and practice – than cognitive change. This point has been made forcefully, near-exhaustively and compellingly by Professor James Heckman.¹³ In this respect, the focus of voucher researchers on behaviors – and particularly high-risk ones – is a welcome and sound contribution.

Moreover, where there is a genuine effect on criminality, this would represent a significant economic benefit. Voucher programs might therefore be justified on benefit-cost terms, although the exact rate of return remains to be worked out.

However, it is unclear how useful the actual findings of this paper are for policymakers. The main reason is that the results appear either not statistically significant or very substantively significant, depending on the method and subsample. Given this sensitivity, it may be difficult to feel confident about the effects of any particular voucher policy.

The most important consideration for policy and practice is that there is little consideration of how voucher programs might actually influence criminality. If it is simply through improved school quality, then it may be equally effective to raise school quality directly. If the influence comes by allowing students to move away from criminal "peers," then the overall effect on crime would be attenuated as a voucher system is expanded (and criminal "peers" also move to different schools). If the effect is through enhanced college enrollment or higher income, then these two conditions would need to occur in order for the MPCP to reduce crime. Also, it is not clear how a voucher program would reduce crime for students who do not change schools.

Without understanding the relationship between voucher programs and criminal activity, it is unlikely policymakers can be easily persuaded. Indeed, as the authors concede in their final sentence: "Research on exactly how and why parental school choice reduces the proclivity of students to commit crimes would be especially welcome." To this concession of "exactly how and why," one might also add, "*if and when* vouchers do reduce crime."

Notes and References

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AUTHORS: Corey DeAngelis and Patrick J. Wolf

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REVIEWER: Clive Belfield, Queens College, City University of New York

E-MAIL ADDRESS: Clive.Belfield@gmail.com

PHONE NUMBER: (917) 821-9219

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