The Washington, DC, School Voucher Program: Differential Achievement Impacts and Their Implications for Social Justice

Patrick J. Wolf
Professor and 21st Century Chair in School Choice
Department of Education Reform
College of Education and Health Professions
201 Graduate Education Building
University of Arkansas
Fayetteville, AR, USA, 72701
Phone: 479-575-2084
FAX: 479-575-3196
pwolf@uark.edu
http://www.uark.edu/ua/der/People/wolf.html

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Are school voucher programs just? That question is fiercely debated in the United States. School vouchers are instruments to "provide government resources to parents to enable them to enrol their children in independent private schools of their choosing" (Wolf 2008a). In the U.S., vouchers allow eligible students to attend private secular and religious schools with the benefit of government subsidies, as is common in many European countries, but do so indirectly and with minimal regulation of the education that is provided to voucher students (Macedo and Wolf 2004). Proponents argue that school vouchers provide disadvantaged families with the kinds of private schooling opportunities normally reserved for the wealthy (e.g. Coons and Sugarman 1970). Critics claim that only advantaged families will have the resources and motivation to be effective private school choosers, leaving disadvantaged families either to be "scammed" by educational charlatans or left behind as the inevitable "losers" (e.g. Fuller et. al. 1996).

To determine if school vouchers as experienced in the U.S. tend to advance or degrade social justice I marshal guidance from both theory and practice. The theory I consult includes John Rawls' principles of justice (Rawls 1971; 1993), Milton Friedman's economic theory of education (1955), and Terry Moe's politics of institutional design (2008). The practice that guides my analysis is the set of results from an experimental analysis of the impacts of a school voucher program in Washington, DC (Wolf et. al. 2005; Wolf et. al. 2006; Wolf et. al. 2007; Wolf et. al. 2008).

In January of 2004, the U.S. Congress passed and President Bush signed into law the *District of Columbia School Choice Incentive Act*, establishing the first federally funded, private school voucher program in the United States.[1] Since that time, more than 7,800 students have applied for what is now called the DC Opportunity Scholarship Program (OSP). A rigorous evaluation of the Program, mandated by Congress, has been ongoing.

Like the other 11 government-financed school voucher programs in the U.S., the DC OSP is targeted to disadvantaged students (Wolf 2008b). To be eligible to receive a voucher of up to $7,500 annually, students must live in the District of Columbia and have a family income at or below 185 percent of the federal poverty level -- about $36,000 for a family of four (Wolf et al. 2005, p. ix). Vouchers are awarded by lottery, since the program is oversubscribed, but preference in the lottery is given to public school students attending schools that have been

[1] Title III of Division C of the *Consolidated Appropriations Act*, 2004, P.L. 108-199.

designated “in need of improvement” under the federal government’s *No Child Left Behind* accountability system. Students awarded vouchers can use them at any of 60 participating private schools in DC, including elite preparatory schools such as Sidwell Friends, where President Obama and his wife have chosen to send their children.

School voucher programs remain contentious in the United States. Republicans tend to support vouchers as a free-market education reform that encourages consumer choice and brings accountability to education by forcing schools to compete for resources. Although many Democrats in urban areas support vouchers, particularly as a matter of social justice, the Democrat party in the U.S. is strongly influenced by the teachers unions in formally opposing school vouchers, preferring to target resources on government-run public schools (Miller 2005). With majority control of both houses of Congress and the Presidency for the first time since 1995, last month Democrats in the House of Representatives moved to end the DC Opportunity Scholarship Program (Dillon 2009; Bacon 2009; *Wall Street Journal* 2009; *Washington Post* 2009).[2] The DC voucher program and others like it across the U.S. will likely survive or die over the coming decade based on whether or not they improve outcomes for disadvantaged students and thereby advance the cause of social justice.

Does the DC voucher program reach its target constituency of low-income, educationally disadvantaged students? If so, what effect does the use of a voucher have on the achievement of those students? Are there differential achievement effects on more or less disadvantaged subgroups of participating students? If so, what are the implications of the differential achievement effects, from a Rawlsian perspective, for the social justice function of targeted voucher programs such as the OSP? This paper will explore those important questions.

The evidence for the paper is drawn from the government-mandated evaluation of the OSP, for which the author serves as principal investigator. The evaluation is experimental in design, taking advantage of the fact that vouchers have been awarded by lottery, thereby creating a “treatment” and “control” group that are being tracked longitudinally. The data indicate that the program serves a highly disadvantaged population of low-income, minority, low-performing students (Wolf et al. 2005, p. xv). Thus far, program-induced test-score gains have been limited to certain subgroups of participating students with relative advantages (Wolf et al. 2008, p. 38). There is no evidence that any group of students, whether advantaged or disadvantaged, voucher participants or non-participants, has been harmed by the operation of the Opportunity Scholarship Program. Moreover, the voucher program itself represents an

[2] The move has provoked dozens of stories and editorials in *The Washington Post*, *The New York Times*, and *The Wall Street Journal*, and led Republicans in the Senate to filibuster the appropriations bill that contains the "program sunset," thus far preventing its passage into law.

expansion of liberty, of sorts, for a disadvantaged stratum of the U.S. population. As such, I conclude that the continued operation of the District of Columbia Opportunity Scholarship Program can be justified on Rawlsian social justice grounds, although it would be easier to do so if the least advantaged participants were the subgroup benefitting academically from the program.

The paper proceeds with a section on the relevance of theories of social justice to the concept of private school choice. Section 2 provides background information about the DC Opportunity Scholarship Program. The third section examines the impacts of the Program on parents and students that have been reported to date. Section 4 discusses the implications of this pattern of findings to considerations of Rawlsian standards of social justice. The fifth section concludes.

I. School Choice and Social Justice

John Rawls is widely regarded as one of the great moral philosophers of the Twentieth Century. Three concepts are central to Rawls' theory of social justice. First, systems of justice themselves should be evaluated based on whether a completely impartial jurist, ignorant to his or her own station in life, would select such a system to rule their world (Rawls 1971, p. 12). In addition to specifying that the jurist be sequestered behind the "veil of ignorance," Rawls assumes that a person so completely stripped of knowledge as to who they will be and what they will have will, in response, endorse principles of justice that are most beneficial to the least advantaged in society so as to minimize the risk that they will suffer persecution or extreme privation (p. 152-157). He reasons that such a person will choose Rawls' two principles of justice to govern society.

The two principles of justice that Rawls argues would be endorsed in "the original position" described above are a principle of expansive liberty and a principle of distributive justice that combines equality of opportunity with a preferential option for the highly disadvantaged. His "first principle of justice" is that a just society establishes and defends the most extensive set of universal rights and liberties possible (Rawls 1971, p. 60). His "second principle of justice" is that any inequalities of power and wealth can only be justified if they are likely to benefit all social groups and be achievable by members of any of them (i.e. equality of opportunity) (pp. 60-61). To determine if all social groups benefit from a given inequality, Rawls requires that we focus specifically on whether or not the scheme "improves the expectations of the least advantaged members of society" – a directive known as "the difference principle" (p.

75). So, from a Rawlsian standpoint, an educational intervention such as school vouchers would be just if vouchers satisfy any of three criteria:

1. They expand the universal set of personal liberties, thereby advancing the first principle of justice;
2. They generate an inequality but one that results in benefits accruing to all social groups equally; thereby satisfying the equality of opportunity aspect of the second principle of justice; or,
3. They generate an inequality that redounds to the benefit of the least advantaged affected social groups, thereby advancing the difference principle element of the second principle of justice.

So, if school vouchers expand liberty, enhance equality of opportunity for all, or at least improve the expected outcomes for the least advantaged in society, from a Rawlsian standpoint, school vouchers are just.

Before we examine the justness of school vouchers based upon the three criteria above, we need to apply them to the primary alternative to vouchers, namely residential assignment of all students to neighborhood public schools. It is instructive to do so because Rawls insists that the jurist in the original position evaluate the justness of institutional arrangements and policies based on comparisons with reasonable alternatives and not utopian ones. As such, policies need not be perfect or utopian to be just. They simply need to be the "best" realistic alternative (Rawls 1971, pp. 122-123).

Mandatory residential assignment to neighborhood public schools fairs poorly when evaluated based on the three criteria derived from Rawls' two principles of justice. Residential assignment to public schools is often referred to as "school choice by mortgage" because it creates a situation whereby the quality of the education that a child receives depends largely on the affluence of the neighborhood where the child lives (Wolf 2005). Families with great wealth or high incomes can afford to locate in neighborhoods with high-quality public schools (Nechyba 2003), and their child's access to those elite public schools simply reinforces the positive effect of the home-based educational benefits of their wealth such as books, computers, and instructional summer camps. Because public schools do and always will vary greatly in the quality of the education that they provide, under mandatory residential assignment to neighborhood public schools family wealth and income become dangerously close to educational destiny. The rich get smart and the poor get hosed. Not surprisingly, mandatory residential assignment to neighborhood public schools fails to fulfill any of the three justice criteria. It does not expand liberty, as parents have no educational options once they have

established a residence. It does not improve equality of opportunity. To the contrary, it undermines equality of opportunity. Far from benefiting the least advantaged affected social group – low income families and children -- it actually harms them. The jurist in the original position acting on Rawlsian principles of justice would likely choose any conceivable alternative to residential assignment to public schools.

Is mandatory residential assignment to neighborhood public schools for all students the only alternative to voucher-driven school choice? Families in the U.S. always have had at least some educational alternatives to their neighborhood public school. Currently, about 11 percent of elementary and secondary students in the U.S. attend private schools without any government subsidy. An additional two percent are home-schooled – again with no government financing involved. Like school choice by mortgage, the opportunity to experience private or home schooling is highly dependent upon family resources, so their availability does not render residential assignment to public schools any more just in its treatment of the disadvantaged. Approximately 17 percent of students exercise some form of non-residential school choice within the public school system, such as charter schooling, intra-district choice (e.g. open enrollment), or inter-district choice (e.g. magnet schooling). That leaves about 70 percent of students in the U.S. who are residentially assigned to public schools. Residential assignment remains the primary mechanism for determining where a child is educated and is the status quo condition against which voucher-based school choice is and should be compared.

School Vouchers and the Three Criteria for Justice

In theory, school vouchers certainly could satisfy any or all of the three criteria for evaluating public policy gleaned from Rawls' two principles of justice. First we must distinguish the universal from the targeted forms of vouchers. Universal vouchers have been most famously advocated in the U.S. by Nobel Prize-winning economist Milton Friedman (1955). Friedman argues that a public good like elementary and secondary education should be financed by the government but provided by any entity, public or private, which individual parents think will be best for their child. This general point about public goods is echoed by Rawls when he writes that "there is no necessary connection" between the financing and provision of public goods such as education, as "Having agreed politically to allocate and to finance these items, the government may purchase them from the private sector or from publicly owned firms." (Rawls 1971, p. 270) Of course Friedman's universal school voucher scheme specifies that parents, not the government, should make the choice regarding which public or

private school should provide their child's education. He further argues that vouchers should be universally available regardless of family circumstances.

Targeted school vouchers, in contrast to universal vouchers, contain eligibility restrictions designed to limit their use to students that are disadvantaged in educationally relevant ways (Wolf 2008a). They are designed to be compensatory. In the U.S., private school voucher programs have been targeted to students with disabilities (5 programs), from low-income families (5 programs), in rural areas that lack public schools (2 programs), in perennially failing public schools (2 programs), and in foster care (1 program), collectively enrolling 70,268 students (table 1).[3] Although critics claim that school vouchers will primarily or exclusively benefit relatively advantaged students (e.g. Fuller et al. 1996; Smith and Meier 1995), as Terry Moe has pointed out, who benefits from vouchers is a question of policy design (Moe 2008). In the U.S., each of the 13 government-funded school voucher programs is targeted exclusively to some needy population of students.[4]

So how do universal and targeted vouchers rate in terms of the three criteria of social justice? Universal vouchers clearly satisfy criterion 1 drawn from Rawls' first principle of justice. Providing every parent with both the right and the resources to enroll their child in a school of their choosing expands the set of universal rights possessed by all citizens in society. Since satisfying one of the two principles of justice is sufficient, from a Rawlsian standpoint, to render a policy just, universal vouchers meet the test of social justice. An additional right is possessed by citizens when the government provides all parents with the authority and the resources to choose the private or public school that their child will attend.

3. Information compiled from School Choice Yearbook 2008-09 (Washington, DC: Alliance for School Choice, 2009) and The ABC's of School Choice 2006-2007 (Indianapolis, IN: Friedman Foundation for Educational Choice, 2008).

[4] In addition to these 13 school voucher programs funded directly by government, 6 U.S. states allow corporate or individual tax credits that finance voucher-like scholarships for an additional 109,604 students (School Choice Yearbook 2009, p20).

Table 1. The 13 School Voucher Programs in the United States

Location	Eligibility	Initiated	Students
Vermont	Rural – no public school	1869	4,445
Maine	Rural – no public school	1873	6,052
Milwaukee	Means-Test	1990	19,538
Cleveland	Means-Test	1996	5,752
Florida	Disability	1999	19,571
Ohio	Disability – Autism	2003	1,005
D.C.	Means-Test	2004	1,716
Utah	Disability	2005	500
Ohio	Failing Public School	2006	9,654
Arizona	Disability	2006	211
Arizona	Foster Children	2006	228
Georgia	Disability	2007	1,596
New Orleans	Means-Test & Failing School	2008	NA
Total			**70,268**

Although the fulfillment of the first criterion from Rawls' first principle of justice is all that is absolutely necessary for universal vouchers to be judged to be just, much of the policy discussion surrounding them focuses on their expected differential impacts. Voucher supporters argue that universal vouchers would be consistent with the principle of equal opportunity since, as the Black Alliance for Educational Options proclaims on their website: "School choice is widespread in America -- unless you are poor."[5] But critics claim that a universal voucher program, like any unregulated free-market system, will disproportionately benefit the parents who are best positioned to make effective school choices and whose children are more attractive to the staff of quality private schools (Fuller et al. 1996; Smith and Meier 1995). Some evidence from Chile's universal school voucher program suggests that the families who choose to choose are somewhat more advantaged economically and educationally than the families who choose to remain in their neighborhood public school (Carnoy and McEwen 2001; Urquola and Tsiu 2005). It is not clear, therefore, if universal vouchers satisfy criterion 2 regarding Rawlsian social justice. They appear to expand equality of opportunity beyond the highly stratified alternative of school choice by mortgage, but they may not extend it completely and evenly. There are likely to be winners and losers.

[5] Available at http://www.baeo.org/programs?program_id=7 accessed on March 2, 2009.

Would the least advantaged social group in society have a reasonable expectation of experiencing an absolute improvement in their condition under universal vouchers as compared with school choice by mortgage? If so, then the third criterion of Rawlsian justice, based on the difference principle, would be satisfied. Again, this point is highly contested in the academic literature. Friedman himself (1955) and John Merrifield after him (2001) make the theoretical argument that the effects of competition induced by a universal voucher program will ensure that even those low-income students left behind in neighborhood public schools – the group commonly viewed as least advantaged in discussions of school vouchers – would benefit due to the competitive effects of vouchers. Fearing the loss of students and the resources associated with them, all schools – public or private, high quality or low quality – will strive to improve their educational offerings in ways that redound to the benefit of all students. As Caroline Hoxby has characterized it, the competitive effects of vouchers create "a rising tide that lifts all boats." (Hoxby 2003) Voucher critics contend that public schools are too institutionalized into existing patterns of behavior, both functional and dysfunctional, to change much in response to vouchers and would be insulated in many ways from the pressure of competition (Hess 2002). Since there exists no universal voucher program in the U.S., and no conclusive study of the competitive effects of the Chilean voucher scheme have yet been published, it is difficult to resolve this question. The issue of whether or not universal vouchers would fulfill the third criterion of social justice – generating a reasonable expectation of benefiting the least advantaged in society – remains uncertain at this point.

In theory, the performance of *targeted* vouchers in satisfying the three criteria for justice is largely asymmetrical to that of universal vouchers. Clearly targeted vouchers do not satisfy the first principle of justice, as they do not expand the set of universal rights held by all citizens. Targeted vouchers could be viewed as satisfying the requirements of criterion 2, advancing equality of opportunity, especially if they are means-tested. Since wealthy people have educational choices through their mortgages or the opportunity to self-finance private schooling for their children, voucher programs that are targeted to families of limited means, as are five of the 13 programs in the U.S., can be justified as rendering more equal the opportunity to send one's child to a quality public or private school.

Targeted vouchers would seem to rate as especially just on criterion 3 drawn from Rawls' difference principle. Their targeting features – low-income, disability, foster children, trapped in a perpetually failing public school – connote the kinds of student groups that we might consider to be the "least advantaged" in society. However, targeted vouchers would only satisfy criterion 3 if they created the conditions for reasonable expectations that outcomes for

these disadvantaged groups would be improved by the existence of the voucher program. That requires an expectation that disadvantaged students who avail themselves of the voucher are likely to be helped, educationally, by doing so. It also requires an expectation that disadvantaged students who do not avail themselves of a targeted voucher still benefit from the program's existence or at least suffer no harm from its implementation. Determining if these conditions hold in the U.S. context requires consideration of the effects of an actual voucher program. The federally-funded school voucher program in Washington, DC, provides an informative example.

II. The DC Opportunity Scholarship Program

The *District of Columbia School Choice Incentive Act of 2003*,[6] passed by the Congress in January 2004, established the first federally funded, private school voucher program in the United States. It was passed by a single vote in the U.S. House of Representatives and cleared the U.S. Senate only after being attached to a "must pass" emergency appropriations bill. The *School Choice Incentive Act* was packaged as part of a three-sector strategy to improve education in the nation's capital, as the $40 million annual appropriation attached to the bill included an extra $13 million for educational improvements in the District of Columbia Public Schools (DCPS), $13 million to increase the availability of facilities appropriate for public charter schools in the District, $13 million for a school voucher scheme called the "Opportunity Scholarship Program," (OSP) and $1 million for implementation, including the conduct of a rigorous evaluation of the voucher initiative.

The purpose of the new scholarship program was to provide low-income parents, particularly those whose children attend schools identified for improvement or corrective action under the *Elementary and Secondary Education Act*, with "expanded opportunities to attend higher performing schools in the District of Columbia (Sec. 303). According to the statute, the key components of the Program include that, to be eligible, students entering grades K-12 must reside in the District and have a family income at or below 185 percent of the federal poverty line (about $36,000 for a family of four in 2006). Participating students receive scholarships of up to $7,500 to cover the costs of tuition, school fees, and transportation to a participating private school in the District. Scholarships are renewable for up to 5 years (as funds are appropriated), so long as students remain eligible for the program and remain in good academic standing at the private school they are attending. In a given year, if there are more eligible

[6] Title III of Division C of the *Consolidated Appropriations Act*, 2004, P.L. 108-199.

applicants than available scholarships or open slots in private schools, applicants are to be awarded scholarships by random selection (e.g., by lottery). In making scholarship awards, priority is given to students attending public schools designated as in need of improvement (SINI) under the *No Child Left Behind (NCLB) Act* and to families that lack the resources to take advantage of school choice options. Private schools participating in the program must be located in the District of Columbia and must agree to requirements regarding nondiscrimination in admissions, fiscal accountability, and cooperation with the evaluation of the program.

Most of the private schools in the District of Columbia participate in the voucher program. In 2005 there were 104 private schools operating in DC. Eighty-eight of them served a general population of students and therefore were possible participating schools.[7] Of the 88 general service private schools, 68 of them (77 percent) participated in the program in 2005-06, the OSP's second year of operation (Wolf et al., 2007, p. 17). Participating schools were diverse regarding their religious status, as 34 percent were Catholic, 22 percent were non-Catholic faith-based, 24 percent were independent private schools (many of which have a loose religious affiliation or tradition), and 21 percent were secular private schools (Wolf et al., 2007, p. 15). The independent private schools participating in the voucher program include many of DC's elite preparatory academies, including Sidwell Friends School, where President and Mrs. Obama's two daughters are now enrolled (without the assistance of a voucher).

Student participation in the OSP began with a modest initial enrollment that eventually grew to fill the program (table 2). The $13 million appropriation was sufficient to fund up to 1,733 vouchers at the maximum value of $7,500. The program was launched late in the spring of 2004, after many families had already made their educational plans for the coming year. As a result of this late start, the OSP was only partially filled by 1,027 scholarship users the first year (i.e. Cohort 1). After a second year of recruitment (i.e. Cohort 2), the program filled to near capacity with 1,716 scholarship users in the fall of 2005. The program had carry-over funds from its initial years of operation, both because it was under-enrolled during that period and because the average payment to participating students was somewhat below the $7,500 maximum, allowing the program to enroll 1,930 students in the fall of 2007. About 10 percent of the eligible population in DC applied for vouchers in the first two years of implementation (Wolf et al. 2007, p. 8).

[7] A handful of private schools in DC exclusively serve students with severe disabilities, usually under contract with the DCPS. The overall set of private schools in DC also includes some highly specialized schools such as a ballet school.

Table 2. OSP Applicants by Program Status, Cohorts 1 Through 4, Years 2004-2007

	Cohort 1 (Spring 2004)	Cohort 2 (Spring 2005)	Total Cohort 1 and Cohort 2	Cohort 3 (Spring 2006) and Cohort 4 (Spring 2007)	Total, All Cohorts
Applicants	2,692	3,126	5,818	1,308	7,126
Eligible applicants	1,848	2,199	4,047	846	4,893
Scholarship awardees	1,366	1,088	2,454	846	3,300
Scholarship users in initial year of receipt	1,027	797	1,824	712	2,536
Scholarship users fall 2005	919	797	1,716	NA	1,716
Scholarship users fall 2006	788	684	1,472	333	1,805
Scholarship users fall 2007	678	581	1,259	671	1,930

NOTES: Because most participating private schools closed their enrollments by mid-spring, applicants generally had their eligibility determined based on income and residency, and the lotteries were held prior to the administration of baseline tests. Therefore, baseline testing was not a condition of eligibility for most applicants. The exception was applicants entering the highly oversubscribed grades 6-12 in cohort 2. Those who did not participate in baseline testing were deemed ineligible for the lottery and were not included in the eligible applicant figure presented above, though they were counted in the applicant total. In other words, the cohort 2 applicants in grades 6-12 had to satisfy income, residency, and baseline testing requirements before they were designated eligible applicants and entered in the lottery.

The initial year of scholarship receipt was fall 2004 for cohort 1, fall 2005 for cohort 2, fall 2006 for cohort 3, and fall 2007 for cohort 4.

SOURCES: OSP applications and WSF's enrollment and payment files.

The data indicate that the OSP largely reached its targeted audience of disadvantaged students in failing public schools. The first cohort of eligible applicants, in the spring of 2004, scored around the 41st national percentile in reading and the 47th national percentile in math – levels approximately equal to the performance of the average student in DC Public Schools (DCPS). Initial applicants were equally likely to have a disability and more likely to be African American or to be participating in the federal lunch program for low-income students than the average student in the DCPS (Wolf et al. 2005, p. 35). For the first two cohorts combined, about 43 percent of eligible applicants to the OSP had been attending regularly failing public schools, though only 11 percent were enrolled the public schools in the bottom performance quartile across the District (Wolf et al. 2006, p. 11).

Because the OSP was over-enrolled at least in grades 6-12 the initial year, and in all grades the second year, a total of 921 eligible public school applicants "lost" the scholarship lottery and were consigned to the randomized control group (Wolf et al. 2006, p. 15). These students represent the ideal counterfactual to compare with the experiences and outcomes of 1,387 students awarded vouchers by lottery. Both groups have been tracked for two years since their respective lotteries, and outcomes such as student test scores, parent and student views of school safety, and parent and student views of school satisfaction have been analyzed.

The results of these experimental analyses after one and two years have been reported to the U.S. Congress (Wolf et al. 2007; Wolf et al. 2008). The results two years after random assignment are presented below.

III. Experimental Impacts of the DC Voucher Program after Two Years

Two years after being randomly-assigned to either receive a school voucher or serve in the control group overall the voucher students were performing at levels statistically similar to the control group students in both reading and math. Surveys indicated that the parents of voucher students viewed their child's school as safer than did the parents of students in the control group, though student surveys indicated no significant difference between the voucher and control students on their perceptions of school safety. Similarly, parents were much more satisfied with their child's school if the child had been offered a voucher, though students themselves were about equal in their rating of school satisfaction whether they were in the voucher or the control group (Wolf et al. 2008, p. xiii). Positive and statistically significant voucher impacts on reading scores were observed for several subgroups of students participating in the study (Wolf et al. 2008, pp. xiii-xiv). These subgroup impacts bear on our consideration of whether or not the program can be justified from a Rawlsian perspective.

The program impacts presented and discussed below are based on the "intent-to-treat" (ITT) or purely experimental outcomes of the analysis. The treatment group is comprised of all the students offered a scholarship by virtue of winning the lottery, regardless of whether or not they actually used the voucher to attend a private school. About 25 percent of the treatment group students never used their voucher but their outcomes are averaged in with those of the treatment users so as to avoid generating a self-selection bias. Similarly, the control group consists of all eligible applicants to the program who were subject to a scholarship lottery but did not win a scholarship award. About 15 percent of these control group students subsequently attended private schools without the assistance of a scholarship. The outcomes for these control group students in private schools are averaged in with the other control group students for purposes of the experimental analysis because, presumably, they would have attended private school even if the voucher program had never existed. This use of the intent-to-treat ITT organization of the experimental is inherently conservative, since it does not exclude cases of students whose behavior is inconsistent with their original treatment assignment. Still, ITT analysis has the benefit of being absolutely free of any selection bias and very straightforward to compute, present, and understand. The reader should be aware that the "treatment" or

"voucher" group described below is the entire set of students offered vouchers, not just the subset that used them to attend a private school.

Overall, the students in the voucher treatment group performed at levels statistically similar to the students in the control group in reading and math (table 3). The average test scores of the voucher students were higher than those of the control group, by 3.2 scale score points in reading and .2 scale score points in math, but both of those increases were within the statistical margin of error for 95 percent confidence (i.e. $p < .05$).

Table 3. Year 2 Impact Estimates of the Offer of a Scholarship on the Full Sample: Academic Achievement (Intent to Treat or ITT)

Student Achievement	Treatment Group Mean	Control Group Mean	Difference (Estimated Impact)	Effect Size	*p*-value
Reading	621.30	618.12	3.17	.09	.09
Math	614.09	613.85	.23	.01	.89

NOTES: Means are regression-adjusted using a consistent set of baseline covariates. Impacts are displayed in terms of scale scores. Effect sizes are displayed in terms of standard deviations of the study control group distribution. Valid *N* for reading = 1,580; math = 1,585. Separate reading and math sample weights were used.

The parents of voucher students did, however, rate their child's school as less dangerous (i.e. safer) than did the parents of students in the control group (table 4). On an index of 10 "dangerous conditions" at school, such as drugs, weapons, and fighting, voucher parents reported an average of 2.1 threatening school conditions compared to control group parents that reported an average of 3.0 threatening school conditions. The impact of the voucher program on reducing reports of dangerous conditions at a child's school by an average of nearly 1 full condition was statistically significant beyond the 99 percent confidence level ($p < .01$). Students, when surveyed, reported an average of 1.9 dangerous conditions at their schools regardless of whether they were in the voucher or the control group.

Table 4. Year 2 Impact Estimates of the Offer of a Scholarship on the Full Sample: Parent and Student Reports of School Danger (ITT)

School Danger	Treatment Group Mean	Control Group Mean	Difference (Estimated Impact)	Effect Size	*p*-value
Parents	2.06	3.00	-.94**	-.27	.00
Students	1.90	1.93	-.02	-.01	.87

**Statistically significant at the 99 percent confidence level.

NOTES: Means are regression-adjusted using a consistent set of baseline covariates. Effect sizes are displayed in terms of standard deviations of the study control group distribution. Valid *N* for parent survey = 1,555. Valid *N* for student survey = 1,025. Parent and student survey weights were used. Survey given to students in grades 4-12.

As with the survey results regarding safety, a different picture of school satisfaction emerges if one examines parent responses or student responses (table 5). For all three measures of school satisfaction – percent grading a school "A" or "B," grade point average, and a 12-item satisfaction scale – parents were significantly more likely to express high levels of satisfaction with their child's school if they had been offered a voucher. For example, the parents of voucher students were 13 percent more likely to assign their child's school a grade of A or B than were the parents of students in the control group, a difference that is statistically significant beyond the 99 percent confidence level ($p < .01$). Students, when surveyed, reported higher levels of satisfaction with their schools if they were in the voucher group; however, the satisfaction differences based on student reports were not outside of the margin of error for the evaluation.

Table 5. Year 2 Impact Estimates of the Offer of a Scholarship on the Full Sample: Parent and Student Reports of Satisfaction with Their School (ITT)

Outcome	Treatment Group Mean	Control Group Mean	Difference (Estimated Impact)	Effect Size	*p*-value
Parents who gave school a grade of A or B	.76	.63	.13**	.26	.00
Average grade parent gave school (5.0 scale)	4.02	3.73	.29**	.29	.00
School satisfaction scale	26.12	23.44	2.67**	.33	.00
Students who gave school a grade of A or B	.71	.68	.03	.05	.49
Average grade student gave school (5.0 scale)	3.97	3.84	.13	.12	.14
School satisfaction scale	34.12	33.24	.88	.13	.10

**Statistically significant at the 99 percent confidence level.

NOTES: Means are regression-adjusted using a consistent set of baseline covariates. Effect sizes are displayed in terms of standard deviations of the study control group distribution. Valid *N* for parent measure of school grade = 1,549; parent satisfaction = 1,571. Parent survey weights were used. Parent school satisfaction scale was IRT scored and had a range of .96 to 35.43. Valid *N* for student measure of school grade = 974; student satisfaction = 1,042. Student survey weights were used. School satisfaction scale was IRT scored and had a range of 9.67 to 46.89. Impact estimates reported for the dichotomous variable "parents who gave school a grade of A or B" are reported as marginal effects.

From the perspective of Rawlsian principles of social justice, the effects of institutions and programs on specific affected subgroups are especially important. Over the first two years of its operation, the DC Opportunity Scholarship Program did not produce noticeable achievement gains for participating students overall, but did it boost the learning of particularly disadvantaged groups? The government evaluation analyzed the impact of the voucher program on each of 5 paired subgroups of students for a total of 10 subgroupings:

- Previously attended a failing public school (SINI-ever) or not (SINI-never)
- Scored in the lower one-third of the test-score distribution at baseline or not
- Boys or girls
- Elementary and middle school or high school
- Application Cohort 1 or Cohort 2

For all student subgroups in math and most of them in reading the voucher program demonstrated no statistically significant impacts after two years (table 6). The exceptions were in reading, where SINI-never, higher baseline performing, and Cohort 1 student subgroups showed statistically significant impact gains due to the offer of the voucher. The size of the

reading gains were a little more than one-seventh of a standard deviation for SINI never and higher performance students and a little more than one-fourth of a standard deviation for the first cohort of applicants. Based on the performance-gain patterns in the data, these experimental impacts equate to reading gains of about 2.3 months of learning for SINI never students, 2.1 months of learning for higher baseline performance students, and 3.5 months of learning for cohort 1 students.

Table 3-3. Year 2 Impact Estimates of the Offer of a Scholarship on Subgroups: Academic Achievement (ITT)

Student Achievement Subgroups	Reading				
	Treatment Group Mean	Control Group Mean	Difference (Estimated Impact)	Effect Size	*p*-value
SINI ever	640.47	640.48	-.01	-.00	1.00
SINI never	606.39	600.68	5.71*	.15	.04
Difference	34.09	39.80	-5.72	-.15	.12
Lower performance	597.68	599.27	-1.59	-.05	.65
Higher performance	631.66	626.43	5.23*	.15	.02
Difference	-33.98	-27.16	-6.81	-.18	.09
Male	616.89	613.00	3.90	.11	.17
Female	625.29	622.80	2.50	.07	.31
Difference	-8.40	-9.80	1.40	.04	.71
K-8	609.12	605.34	3.79	.10	.08
9-12	678.59	678.40	.19	.01	.96
Difference	-69.47	-73.06	3.59	.06	.38
Cohort 2	608.88	607.22	1.66	.04	.42
Cohort 1	664.96	656.23	8.74*	.27	.04
Difference	-56.08	-49.01	-7.07	-.19	.13

Student Achievement Subgroups	Math				
	Treatment Group Mean	Control Group Mean	Difference (Estimated Impact)	Effect Size	*p*-value
SINI ever	636.79	635.52	1.28	.05	.58
SINI never	596.46	597.05	-.59	-.02	.81
Difference	40.34	38.47	1.87	.06	.58
Lower performance	595.85	598.43	-2.58	-.09	.43
Higher performance	622.00	620.50	1.50	.05	.43
Difference	-26.15	-22.07	-4.08	-.12	.27
Male	612.30	611.78	.52	.02	.85
Female	615.69	615.72	-.03	-.00	.99
Difference	-3.39	-3.94	.55	.02	.88
K-8	601.35	600.44	.91	.03	.63
9-12	673.94	677.02	-3.08	-.14	.29
Difference	-72.59	-76.58	3.99	.12	.25
Cohort 2	600.33	600.25	.08	.00	.97
Cohort 1	662.37	661.58	.80	.03	.80
Difference	-62.05	-61.33	-.72	-.02	.84

*Statistically significant at the 95 percent confidence level.

NOTES: Means are regression-adjusted using a consistent set of baseline covariates. Impacts are displayed in terms of scale scores. Effect sizes are displayed in terms of standard deviations of the study control group distribution. Valid *N* for reading = 1,580, including: SINI ever *N* = 687, SINI never *N* = 893, Lower performance *N* = 493, Higher performance *N* = 1,087, Male *N* = 782, Female *N* = 798, K-8 *N* = 1,354, 9-12 *N* = 226, Cohort 2 *N* = 1,262, Cohort 1 *N* = 318. Valid *N* for math = 1,585, including SINI ever *N* = 690, SINI never *N* = 895, Lower performance *N* = 492, Higher performance *N* = 1,093, Male *N* = 782, Female *N* = 803, K-8 *N* = 1,359, 9-12 *N* = 226, Cohort 2 *N* = 1,267, Cohort 1 *N* = 318. Separate reading and math sample weights were used.

IV. Discussion: What do Rawlsian Principles of Justice Require?

As discussed in section II above, the two different types of school voucher programs – universal and targeted – match up closely with the distinction between the first and second principles of justice of political philosopher John Rawls. Parental school choice through universal vouchers most clearly satisfies Rawls' first principle of justice, that citizens should have an extensive set of universal rights and liberties. School voucher programs that are targeted to disadvantaged families and students, on the other hand, must satisfy one of the two criteria drawn from Rawls second principle of justice, expanding equal opportunity or improving outcome expectations for the least advantaged in society, in order to be judged "just" from a Rawlsian perspective. Since all the school voucher programs in the U.S. are targeted, we focus here on one of them -- the District of Columbia Opportunity Scholarship Program -- both because it is relatively new and because it is being subjected to a rigorous program evaluation. The main questions we seek to answer are whether or not the OSP is expanding equal opportunity for highly disadvantaged students or providing the foundation for reasonable expectations that the least advantaged members of society benefit from its operation.

First, who are the least advantaged members of society affected by this school voucher program? The absolute least advantaged students in the District of Columbia would seem to be low-income students trapped in perpetually failing public schools – the highest service priority for the program. These least advantaged of DC schoolchildren split between those who applied for the program and received a scholarship award – 606 of the 1387 members of the treatment group – and those who either were assigned to the control group or who never applied, choosing to remain in their failing neighborhood public school.

We might think of the non-choosers among low-income DC students in failing public schools as the very least advantaged social group affected by the voucher program. Were they benefited or harmed by the program? First, did the voucher program siphon money away from the public schools these students attend, as political opponents of the OSP predicted it would? That would seem to be unlikely, since the voucher program is funded by a separate federal government appropriation, on top of the annual appropriation for DCPS, and includes an extra $13 million annually for DCPS improvement initiatives. In fact, in the five years since the DC Opportunity Scholarship Program was passed, average per-pupil expenditures in DCPS have increased by 39 percent, from $11,500 to nearly $16,000. So the least advantaged members of society appear to be benefiting from the program in the sense that the students who remain in public schools have more resources available to them. Is there evidence that those extra resources and competitive pressure from the voucher program are actually generating

educational improvements in DC public schools? A study by Greene and Winters (2007) indicates that student achievement in public schools has been unaffected by the voucher program, primarily because any competitive pressure from the program was diffused by the fact that the district did not, in fact, lose money when students exited DCPS for private schools via vouchers. So, the very least advantaged members of society – the low-income students remaining in failing public schools – were neither harmed nor benefited educationally from the OSP, though they now have substantially more resources spent on them.

A second candidate group for least advantaged were the subgroup of low-income students who were attending perennially failing public schools at the time of program application and received a scholarship award. Based on the results of the subgroup analysis of achievement impacts, these highly disadvantaged students were neither significantly helped nor harmed educationally by the program. The reading and math test scores of program applicants from failing public schools were similar after two years whether they were in the treatment or control group. The parents of the SINI ever students in the evaluation did report the largest voucher-induced decrease in school danger (i.e. increase in school safety) among the subgroups studied, a change of .35 standard deviations (Wolf et al. 2008, Table 3-5, p. 41). Parents of SINI ever students also were more satisfied with their child's school if they were offered a voucher (Wolf et al. 2008, Table 3-10, pp. 46-47). Responses from the SINI ever students themselves did not echo their parent's enthusiasm for the safety benefits of the program (Wolf et al. 2008, Table 3-8, p. 43), but they did confirm the parental reports about higher school satisfaction if offered a scholarship (Wolf et al. 2008, Table 3-14, p. 51-52). The most disadvantaged subgroup of participants in the program evaluation are significantly more satisfied with their schools as a result of a voucher award, a finding confirmed by both parent and student survey responses.

One might reason that students attending a poor-performing school are not necessarily the least-advantaged subgroup of students unless they, themselves, are performing poorly. A final candidate group for least advantaged were the subgroup of low-income students who were performing in the lower one-third of the applicant performance distribution, around the 20th national percentile at the time of program application, and who received a scholarship award. Based on the results of the subgroup analysis of achievement impacts, these highly disadvantaged students again were neither significantly helped nor harmed educationally by the program. The reading and math test scores of program applicants from the lower third of the baseline distribution were similar after two years whether they were in the treatment or control group.

The “least advantaged” subgroups of participants in the DC Opportunity Scholarship Program were not significantly affected by the voucher treatment in terms of achievement within two years of voucher award. They also were not educationally harmed by the voucher offer. Is a tie a win in this case? The parents of these highly disadvantaged students are more satisfied with their children's schools and are optimistic that their children will benefit from private schooling eventually (Stewart et al. 2009). Moreover, government programs of all types have difficult reaching and effectively serving the most needy of clients (e.g. homeless people). The poorest of the poor and the most marginalized in society often have challenges of addiction and mental illness that make them especially difficult to reach and serve even through programs targeted to them. Obviously, society needs to continue to try to help its most desperately disadvantaged citizens; however, programs that do not necessarily bring about large improvements in outcomes for such groups should not automatically be condemned as failures.

Three subgroups of participants did appear to benefit academically from the voucher opportunity within two years of the voucher award. The subgroups that demonstrated statistically significant achievement gains in reading were the applicants who had not attended "needs improvement" public schools, those in the upper two-thirds of the performance distribution at baseline, and the "first movers" (i.e. initial applicants during a quick program launch). These subgroups of participants were all somewhat advantaged relative to the highly disadvantaged population eligible for the program. From a Rawlsian perspective, should we care about the "almost least advantaged" members of society? Moreover, did the targeting of the program to low-income inner-city families automatically take care of Rawlsian distributional justice concerns, so that if any eligible subgroups benefited then the difference principle has been satisfied? I think that one could plausibly answer "yes" to those two rhetorical questions, though that would be a subjective opinion. Clearly it would be easier to judge the DC voucher program to be thoroughly and obviously just if the most disadvantaged subgroups of the disadvantaged eligible population significantly benefited academically from the initiative.

Finally, let us return to the original position. Although the main purpose of the original position in Rawls’ conception of justice is to demonstrate that a disinterested jurist would choose the two principles of justice to govern society, Rawls also states that the conditions of the original position are useful for making more specific judgments, such as whether or not a specific policy is just, because they embody certain conditions that we reasonably accept as conducive to rational decision-making (Rawls 1971, p. 21). What sort of rule for assigning

students to schools would the jurist in the original position select?[8] Certainly the jurist would not endorse forced residential assignment to neighborhood public schools as public policy, since the jurist could end up being a low-income child in an inner-city family forced to live in a neighborhood with bad public schools. Behind the veil of ignorance, the jurist would strongly prefer a policy of parental school choice to one of residential assignment to schools, so as to minimize the chance of being stuck in a horrible educational situation with no way out. The person in the original position also would likely prefer full parental school choice, including private schools, as opposed to limited public school choice, as the jurist might anticipate having certain traits such as behavior problems or giftedness in a particular subject that would be best addressed in the environment of a particular private school. Not knowing what educational challenges he or she might face, the jurist in the original position would want his or her parents to have options. Even with little evidence that private school voucher programs improve educational outcomes specifically for the least advantaged members of society, from the standpoint of Rawlsian political theory, vouchers would appear to be both a low-risk and socially just public policy.

V. Conclusion

School vouchers will continue to be hotly debated in the U.S. As Terry Moe argues, Americans have developed a "public schooling ideology" that leads them inherently to question the wisdom of educational interventions such as school vouchers that deviate from the tradition of residential assignment to neighborhood public schools (Moe 2002). Yes, based on the liberal theory of justice formulated by America's foremost political philosopher, John Rawls, private school vouchers would seem to be socially just. If universally available to all, then school vouchers clearly satisfy Rawls' first principle of a full plate of common rights and privileges for all citizens. If targeted to low-income students, as many private school voucher programs in the U.S. are, vouchers fulfill a second criterion derived from Rawls' second principle of justice: they advance equality of opportunity because they make school choice available to more than just wealthy citizens who can afford to move to nice neighborhoods or self-finance private schooling. The justness of school vouchers is probably the least clear, from a Rawlsian perspective, based on the third criterion of justice derived from Rawls' difference principle. Voucher programs have some difficulty reaching the most desperately disadvantaged students in society. The most disadvantaged subgroups of students that participate in such programs, may not benefit

[8] This point is explored in interesting ways by Matthew Ladner in a guess blog about "Rawls Meets Friedman" at http://jaypgreene.com/

academically from the school choice opportunity. The most disadvantaged students do not appear to be harmed in any way by school voucher programs, and their parents are more satisfied with their schools, so they may be benefiting from vouchers in less concrete ways than test score gains.

I my view, the pattern of results from the DC OSP is sufficiently positive for disadvantaged students to justify its continuation. Still, that decision is above my pay-grade. Ultimately, serious considerations of the extent to which parental school programs satisfy liberal theories of social justice should continue to inform our thinking and decision-making regarding this important type of market-based educational intervention.

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