

A Research Perspective on Private School Choice

Anna J. Egalite, Ph.D.

North Carolina State University

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Test Score Impacts

- In all, there have been **16** experimental analyses of achievement effects of school voucher programs in the U.S. (the gold standard research design)
- **The majority** find small, positive results for all students or for important subgroups
- **Three** studies find negative impacts: Louisiana and D.C.

Test Score Impacts

Lottery-Based Studies of the Achievement Impacts of School Vouchers

Citation	Program Name	Program Funding	Program Scope	Impact
Greene (2001)	Charlotte Scholarship Fund	Private	Citywide	Positive Overall
Cowen (2008)	Charlotte Scholarship Fund	Private	Citywide	Positive Overall
Howell, Wolf, Campbell, & Peterson (2002)	The D.C. Opportunity Scholarship Program.	Public	Citywide	Positive Overall
Rouse (1998)	Milwaukee Parental Choice Program	Public	Citywide	Positive Overall
Greene, Peterson, & Du (1999)	Milwaukee Parental Choice Program	Public	Citywide	Positive Overall
Howell, Wolf, Campbell, & Peterson (2002)	The Dayton, Ohio Parents Advancing Choice in Education Program	Private	Citywide	Positive for Subgroups
Howell, Wolf, Campbell, & Peterson (2002)	New York City School Choice Scholarships Foundation Program	Private	Citywide	Positive for Subgroups
Barnard, Frangakis, Jin, & Rubin (2003)	New York City School Choice Scholarships Foundation Program	Private	Citywide	Positive for Subgroups
Jin, Barnard, & Rubin (2010)	New York City School Choice Scholarships Foundation Program	Private	Citywide	Positive for Subgroups
Bettinger & Slonim (2006)	The Children's Scholarship Fund of Toledo, Ohio	Private	Citywide	Null
Krueger & Zhu (2004)	New York City School Choice Scholarships Foundation Program	Private	Citywide	Null
Bitler, Domina, Penner, & Hoynes (2014)	New York City School Choice Scholarships Foundation Program	Private	Citywide	Null
Wolf, Kisida, Gutmann, Puma, Eissa, & Rizzo (2013)	The D.C. Opportunity Scholarship Program	Public	Citywide	Null
Mills & Wolf (2017)	Louisiana Scholarship Program	Public	Statewide	Negative Overall and for Subgroups
Abdulkadiroglu, Pathak, & Walters (2018)	Louisiana Scholarship Program	Public	Statewide	Negative Overall and for Subgroups
Dynarski, Rui, Webber	The D.C. Opportunity Scholarship Program	Public	Citywide	Negative Overall
Gutmann & Bachman (2018)				

Why Examine Educational Attainment?

- Adults with high school diplomas:
 - make more money and pay more taxes (Rouse, 2005)
 - live longer, healthier lives (Muennig, 2005)
 - are less likely to commit crimes (Lochner and Moretti, 2004)

Dollars and Sense: Young adults with a Bachelors degree earn twice as much as those who haven't graduated from high school (\$47,000 per year, compared to \$23,000)



Choice & Attainment



Choice policies can significantly boost **high school graduation rates**

- DC OSP: Use of voucher increased likelihood of graduating from high school by 21 percentage points (70 → 91 %)
 - \$2.62 in future benefits to society for every \$1.00 it cost
- Milwaukee: Use of voucher increased likelihood of graduating from high school by 7 percentage points (79 → 86 %)

Choice & Attainment



Choice policies can significantly boost **college enrolment** rates

- MPCP: The MPCP advantage in the probability of ever enrolling in a four-year institution is **6 percentage points**
- NYC: Use of a voucher boosted the college-going rates of African American students and the children of immigrant parents by **9 percentage points**
- FTC: increased college enrollment rates by **6 percentage points**
- DC: **no impact**
- LA: **no impact**

Choice & Attainment



Choice policies can significantly boost college degree attainment

- FTC: participants **1 to 2 percentage points** more likely to earn a bachelor's degree than non-participants (Chingos, Monarrez, and Kuehn, 2019)

What Do We Know About North Carolina's Opportunity Scholarship Program?

- Private School Leaders:
 - Top reason for participation is to serve more disadvantaged students
 - Top concerns: future regs (86%); value of voucher will not increase (73%)
- Participating Students:
 - Who are they?
 - **Low income**; primarily in the **elementary** grades; dispersed across the entire state (recipients in **97 of 100 counties** in 2016-17); Greatest representation of **African-American** students
 - Reasons for participation:
 - Dissatisfaction with public school quality (35%)
 - Concerns about school safety (26%)
 - Test score impacts?
 - In our sample: **Large, positive**, and statistically significant effects
 - 6 pt increase in math achievement, 8 pts in language skills
 - But this is not conclusive evidence about the program's impact

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Barriers to an Academic Impact Analysis

No common metric by which to compare performance

- Private schools can administer any nationally normed standardized test of their choosing
- Comparable public school students take the criterion-referenced state test (EOGs, EOCs)

Table 2.

Standardized Assessments Taken by Opportunity Scholarship Students, 2014-15

Test Name	Publisher	Number of Students
Basic Achievement Skills Inventory (BASI)	Brewer Testing Services	3
BJU Press Assessments	BJU Press	2
California Achievement Test (CAT)	Seton Testing Services	33
Comprehensive Testing Program (CTP)	Educational Records Bureau	19
Iowa Assessments	Houghton Mifflin Harcourt	204
Otis-Lennon School Ability Test (OLSAT)	Pearson	3
Stanford Achievement Test	Pearson	272
TerraNova	Data Recognition Corporation	303
Woodcock Johnson	Houghton Mifflin Harcourt	9
TOTAL		848

Source: The North Carolina State Education Assistance Authority

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Barriers to an Academic Impact Analysis

No requirement for private schools or OS students to participate in an evaluation

- Researchers must recruit school leaders
- Researchers must recruit student volunteers
- Rules out any chance of achieving a large and representative sample that would permit inference about the “average” OS user or about important subgroups

	Private	Public
Tested Students Per School		
Median	7	23
Mean	12	35
Min	1	4
Max	43	166
School Has a Library or Media Center	0.95	n/a
Religious Affiliation		
Catholic	0.53	n/a
Baptist	0.16	n/a
Christian (no specific denomination)	0.26	n/a
Other Religion (e.g., Methodist, Episcopal)	0.05	n/a
School Type		
Private	1.00	0.00
Traditional Public School	0.00	0.93
Charter	0.00	0.00
Magnet	0.00	0.07
School Wide Title 1	n/a	1.00
Enrollment		
Median	225	649
Mean	399	640
Min	107	342
Max	1402	933
School Community Type		
City	0.74	0.36
Suburb or Town	0.16	0.14
Rural	0.11	0.50
Racial Composition		
Average of School Percent White	0.64	0.14
Average of School Percent Black	0.15	0.49
Average of School Percent Hispanic	0.13	0.31

Source: U.S. Department of
Education

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Barriers to an Academic Impact Analysis

Availability of Descriptive Data on NC Private Schools

- It is the Division of NPE's practice to publish *only data for the current school year*. Data from previous years scrubbed from website; only available in paper form thereafter
- When converting paper records to digital format, our team identified multiple inconsistencies and missing values in data provided by the Division of NPE

Steps Towards a Causal Evaluation

1. **Cap participation** so the program is oversubscribed, thus generating treatment and control groups that are similar in both observable and unobservable ways.
2. To ensure a representative sample, request schools and students to **agree to participate** in a program evaluation at the point of application.
3. Compare public and private school performance on the **same assessment**.

Thank You

Anna J. Egalite, Ph.D.

North Carolina State University

E: Anna_Egalite@ncsu.edu

T: @annaegalite



go.ncsu.edu/osp

Appendix

Program Applicants

Mean Household Income by Household Size, 2016-17

Family Size	Percentiles of Family Income			<i>n</i>
	<i>5th</i>	<i>50th (Median)</i>	<i>95th</i>	
2	\$5,000	\$20,404	\$36,000	544
3	\$4,000	\$24,000	\$45,316	1013
4	\$8,600	\$32,000	\$55,000	1525
5	\$8,400	\$36,000	\$64,149	1350
6	\$14,071	\$40,000	\$72,000	806
7	\$10,500	\$41,141	\$77,602	282
8 or More	\$19,000	\$50,000	\$90,831	219
All Families	\$7,144	\$31,485	\$64,355	5739

For reference: NC Median household income (in 2017 dollars), 2013-2017: \$50,320

Findings

Table 7.
Achievement Impact Associated with Participation in the North Carolina Opportunity Scholarship Program

Treatment group	Covariates	OLS results			Effect sizes			<i>n</i>		
		Math	Reading	Language	Math	Reading	Language	T	C	Total
New OS recipients	No	6.890* (2.789)	3.863 (3.041)	7.852* (2.914)	0.38	0.21	0.44	89	156	245
	Yes	6.487** (2.221)	3.902+ (2.136)	7.891** (2.483)	0.36	0.22	0.44	89	156	245
	Yes & change in EOG	6.709* (2.553)	4.482 (2.403)	8.807 (2.498)	0.37	0.25	0.49	72	98	170

Notes: Coefficients are for private school status from regressions with ITBS composite scores in math, reading, and language as the dependent variable, using inverse propensity weighting. Standard errors in parentheses; clustered at the 2017 school level. + $p < .10$, * $p < .05$, ** $p < .01$.