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NEPC Review:

The Tax-Credit Scholarship Audit: Do Publicly Funded Private School Choice Programs Save Money? (EdChoice, October 2016)

Reviewers:

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Teachers College-Columbia University

August 2017

Summary of Review

This report asserts that tax credit scholarship programs, that distribute scholarships to students via Scholarship Tuition Organizations (STOs), have saved state treasuries between $1.7 and $3.4 billion dollars since 1998. The report argues that these programs are able to realize fiscal savings as a result of students leaving public schools and entering private schools (defined as "switchers"). The report claims that the percentage of students leaving public schools, coupled with the offset of variable per-student costs that districts no longer need to expend, have resulted in the sizable financial savings for state governments. This review questions the method used to estimate the percentage of switcher students across these various programs, and examines how the report determines variable cost fluctuations for each student that leaves public schooling. Since no STO programs require officials to track data on which students transfer out of public schooling into private, these lax accountability standards have led the report author to estimate fiscal savings using conjecture. Instead of following students, they interpreted broad population changes to STOs. Consequently, the results of this report do not provide an acceptable causal conclusion for policymakers. Suggestions for more extensive accounting procedures along with more nuanced methodologies for calculating true variable student costs are discussed.

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This review is one of a series made possible in part by funding from the Great Lakes Center for Education Research and Practice.

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I. Introduction

Beginning with the *Arizona Original Individual Tax Credit Scholarship Program* in 1997, tax credit scholarship programs (TCSPs) that distribute scholarships to students via a Scholarship Tuition Organization (STO) mechanism, have grown to include 21 programs in 17 states.[1] STO tax credit programs often labeled "neovouchers" accomplish the main goals of conventional vouchers but do so in a way that may have political and legal advantages.[2] [3] They provide a non-refundable tax credits to individuals or corporations contributing to nonprofit STO organizations. The STOs in turn distribute the money in the form of scholarships to eligible families.

This review describes and analyzes the methods and findings of Martin Lueken's EdChoice-sponsored report with particular attention focused on the claims advanced by the author concerning the fiscal impact of tax credit programs, with a focus on public school variable cost estimates and student participation rates, which purportedly yield cost savings to taxpayers.[4]

The report repeats many of the claims made by voucher, tuition tax credit and other market-based school reform policy advocates and calculates estimated cost savings on unfounded assumptions. The report claims significant net fiscal savings to taxpayers, reaching a cumulative $1.7 to 3.4 billion during the nineteen years of operation for the ten STO tuition tax credit programs analyzed. The calculated net savings are implausible based on two factors. First, due to an over-estimate of "switchers" (students who leave public schools when offered a private school tuition scholarship), the calculated savings are inflated. Second, a non-transparent calculation of public school variable costs per student, may underestimate real per-pupil expenditures resulting in an overestimation of net savings. Overall, policymakers must compel STOs and districts to collect better data so researchers and policymak-

\ers can understand the true costs and effects of TCSPs.

II. Findings and Conclusions of the Report

The report examined ten of the largest TCSPs in operation across seven states, including Arizona, Florida, Georgia, Indiana, Iowa, Pennsylvania, and Rhode Island. The programs analyzed collectively account for roughly 90% of the national tax credit value provided to families and corporations through STO arrangements. The report contends that these ten programs cumulatively saved state governments between $1.7 billion and $3.4 billion since the time of their inception up to and including the year 2014. The largest three STO programs in the United States (*Arizona Original Individual Tax Credit Scholarship Program, Florida Tax Credit Scholarship Program*, and *Pennsylvania Education Improvement Tax Credit Program*) resulted in roughly three fourths of all cumulative fiscal savings. At the student-level, the report estimates that these programs save state treasuries between $1,650 and $3,000 per scholarship receiving student, across all programs. The net-savings are calculated on the assumption that three fifths of participants across all STO programs would have enrolled in public schools if not for the presence of these tax subsidies. The report highlights how fiscal dynamics of STO programs vary considerably, and thus the percentage of students in each program that would have to switch from public schools in order to achieve cost neutrality (described as the "breakeven switcher rate") varies from state to state and program to program. The report estimates that switcher rates for these specific programs range from 13% in Iowa and Indiana, to 95% in Georgia.

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

The audit aims to determine the cost impacts of STO programs by estimating the percentage of students that transferred from public schools into private institutions after receiving scholarship support from a STO. The cost offset generated by these students, referred to in the report as "switchers," is the central consideration used to calculate the fiscal impact of these programs. STO program arrangements only realize financial savings for state governments when the cost of providing tax credits to families and corporations is offset by corresponding reductions in school expenditures for students opting out of the public education system. If these programs only included students who would otherwise have attended private institutions, the STO programs would yield a net cost to state governments for each tax credit awarded to an organization or individual.

The report explains how data on switchers is not tracked by any of the state governments[5] yet claims tax savings to taxpayers can still be calculated by estimating a "break-even switcher rate" defined as the minimum percentage of students in STO programs that have to transfer from public schools (or that would have otherwise attended public schools) in order for the programs to attain cost neutrality for state governments. The report also attempts to ac-

count for students receiving multiple scholarships via STOs by estimating upper and lower bound percentages of students who might obtain more than one award.[6]

The calculation of switcher rates varies widely across the ten case study programs included in the report. For the *Arizona Original Individual Income Tax Credit Scholarship Program* a blanket switcher rate estimate of 66.8% is used (for years 1998-2014). When calculating switcher rates in other states, the report relies on annual changes to private school enrollment (drawn from the U.S. Census Bureau data) to calculate the percentage of students switching from public school to private, without accounting for other factors that may influence private school enrollment growth. The rationale for the methodology that calculates net fiscal impact draws explicitly from previous reports sponsored by the Friedman Foundation[7], an organization recognized for its commitment to support and lobby for privatization in education. These previous reports have typically used similar methods where speculation of estimated switchers and a non-transparent calculation of public school variable costs have repeatedly concluded that similar school choice programs yield a net savings to taxpayers.

IV. The Report's Use of Research Literature

The use of reliable research literature in the report is limited and the validity of that literature is suspect. Similar reports, most from authors linked to the Friedman Foundation (EdChoice.org) and similar advocacy organizations (e.g. Fiscal Research Center, Pacific Research Institute), are used to justify the methods and findings. This insular approach further calls into question the validity of the conclusions in the new report.

The report overlooks other important research that has provided valid counter-narratives to the methodological shortcomings that have been repeated in the Friedman Foundation series of reports. For example, Welner[8] provides a clear rebuttal and alternative methodological approach to calculating fiscal effects that challenges the use of hypothetical variables, including the calculation of switchers. More importantly Welner calls for an accounting of supply side behavior of public schools over the long term, where overcrowding may yield an increase in switchers and increase taxpayer savings, while under-enrollment may yield additional costs for public schools in maintaining efficiencies of scale, yielding a net loss. Huerta & d'Entremont[9] also examine supply side factors, but focus instead on private school supply variables (e.g. private school capacity, tuition rates). They describe how behavior of scholarship recipients may increase demand for private schooling and outpace the existing supply of empty seats, thus affecting tuition elasticity by increasing the cost of private schools and discouraging switchers from leaving public schools. These behaviors must be measured beyond the short term in order to develop a full accounting of net fiscal impact in the long term.

Additional research in Georgia has challenged the hypotheticals that the Friedman Foundation reports adopted in their methodology. This research surveys all operating STOs[10] and yields a more robust accounting of switchers. Specifically, not one of the STOs in Georgia could identify the name of one public school that a scholarship recipient had attended.[11]

These data call into question the hypothetical switcher rates for the *Georgia Qualified Education Expense Tax Credit Program* (estimated at 98% in the current Friedman Foundation audit), and further challenges the validity of both the methodology and findings of the report.

V. Review of the Report's Methods

The method for calculating net fiscal impact of the ten TCSPs highlighted in this report is grounded on a straightforward formula, where the "cost reduction from switchers" minus the "total tax credits claimed" equals the "net fiscal impact." However, the assumptions in the formula are complicated (explained in detail below) by methods that estimate the sub-variable of "cost reduction from switchers" resulting in wide speculation on the number of potential switchers and a non-transparent method in calculating variable costs that effectively decrease the "break-even switcher rate" and thus increase the potential for a net savings.

None of the policies that define the statutory requirements for the ten programs examined in the report require STOs to engage in data collection efforts that identify which type of school a scholarship recipient attended prior to receiving a scholarship. Without this important data, the process of calculating switchers is unverifiable and opaque. The authors attempted to ascertain this data by surveying STO officials in each of the ten states; however, the data collected was incomplete and deemed unreliable. Instead, the switcher rates were calculated using a haphazard method that calls for further scrutiny from researchers.

Specifically, for programs with no prior public school enrollment requirement, switcher rates were calculated by comparing the difference between private school enrollment fluctuations (based on U.S. Census Bureau data) with the number of tax credit program participants. Relying on changes in private school enrollment to extrapolate the rate of switchers is inaccurate and should not be substituted for actually tracking individual students who exit public schools and enroll in private schools. In addition, other confounding factors must be accounted for, including demographic changes in communities, overcrowding or under-enrollment in schools, real estate development trends, etc., that can influence shifts in both public and private school enrollment.

For programs with prior public school enrollment requirements the report generates a poorly explained formula:

> I first determine the percentage of private school students who are enrolled in grades not covered by this requirement, usually kindergarten and first grade. Next, to generate an overall rate for students not leaving public schools, I apply the private school enrollment share to the share of students not covered by the pre-enrollment requirement. Then, I apply this overall rate to the number of scholarship participants to estimate the number of students not leaving public schools (p.14).

The report thus uses a small amount of data on private school enrollment percentages for two early grades and extrapolates those proportions to estimate the percentage of scholarship recipients who were previously attending private school for all grades, 2 through 12. Without accounting for the number of Kindergarten and first grade students not subject to the attendance requirements who would have otherwise attended private schools without a scholarship, is unverifiable speculation.

The Office of Program Policy Analysis & Government Accountability (OPPAGA) in Florida advanced similar assumptions in their 2008 fiscal impact evaluation of the *Florida Tax Credit Scholarship Program* (FTCSP). Using data from 2007-2008 they estimate a $1.49 savings to the state for every dollar lost in corporate income tax revenues (equal to $38.9 million). OPPAGA estimated savings are based on an assumption that 90% of students who participated in the FTCSP would have attended public schools in the previous year. Student eligibility is dependent on whether they quality for free or reduced lunch and have either attended public school the previous year, received a scholarship the previous year, or are entering Kindergarten and first grade. If the proportion of Kindergarten and first grade students who were already planning to attend a private school is larger than the estimated 10%, then the calculated fiscal savings to the state would be significantly decreased. The OPPAGA does not disaggregate participation by grade level, however the FDOE quarterly reports for the FTCSP indicate that in 2013-14, Kindergarten and first grade students comprised 30.4% of participating students.[12] These figures indicate there is an increased possibility that as a tax credit program evolves the proportion of students who would have attended private schools regardless of the scholarship availability, is much higher, thus increasing the public subsidy for non-switchers.

The report does not provide sufficient information to decipher which variable costs categories are associated with individual students.

The calculation of the "break-even switcher rate" (defined as the "the proportion of scholarship recipients who would need to be switchers in order for a program to be fiscally neutral") is dependent on the calculation of variable costs (defined as "costs that are directly associated with a given student that would not be spent if that student were not enrolled"). The report thus relies on assumptions used in the methodology of previous Friedman Foundation reports[13] that attempt to calculate the net fiscal impact of school choice programs. Variable costs (e.g. textbooks, supplies, salaries and benefits) as calculated in this report are significantly less than total per-pupil student expenditures. Fixed costs (e.g. capital expenditures, administration, operations and maintenance, transportation) are excluded in the calculation of fiscal impact in this report. The Friedman Foundation posits that 36% of per-pupil expenditures are fixed costs (derived from a United States average expenditure per student of $12,450 in 2008-09) and the remaining 64% ($7,967) are variable costs that are sensitive to student enrollment.[14] Thus, when calculating the fiscal impact of school choice programs, if a scholarship or subsidy is less than the variable cost estimate of $7,967 (as compared to the higher expenditure amount of $12,450), a cost savings results.

It is important to recognize that the report does attempt to address how efficiencies of scale in a district most often associated with fixed costs, are distinct from variable costs when calculated on a per pupil basis. These can be dramatically (and negatively) affected when

student enrollment decreases. However, the report does not provide sufficient information to decipher which variable costs categories are associated with individual students, and how diverse student characteristics may influence variable costs. Instead, the report relies on three aggregated variable costs variables (instruction expenditures, instruction support service expenditures, and student support services expenditures) making it impossible to accurately calculate net fiscal impact based on which students are actually switchers. [15]

VI. Review of the Validity of the Findings and Conclusions

The main conclusion of the report is that the ten TCSPs that were analyzed (which collectively account for roughly 90% of the tax credit value provided to families and corporations through STO arrangements in the nation) yield a net savings to taxpayers ranging from $1.7 to 3.4 billion during their last nineteen years of operation.

The calculation of an accurate net fiscal impact, however, depends on a full accounting of the number of switchers, in addition to a full accounting of public school per-pupil costs. The methodological approach used to estimate number and cost variables is woefully inaccurate due to questionable student counts and incomplete and/or unexplained financial analysis.

Calculating switcher rates demands complete student-level information, which explicitly tracks whether a student exited a public school as a result of being offered a scholarship, or whether the student would have otherwise enrolled in a private school, despite the availability of a scholarship. Relying on private school enrollment fluctuations compared to the number of scholarship recipients as a method for calculating switchers is haphazard, and assumes a causal link between a TCSP and changes in private school enrollment. Switchers must be tracked individually.

Calculating variable costs requires full and more fine grain data, including accounting for variability of per-pupil expenditures across districts, as well as tracking funding that is linked to individual students based on services they receive (e.g. special education, ELL). Most importantly, the report does not provide a transparent explanation of how variable costs are calculated for each state (i.e. which expenditures were included) making it impossible to replicate the calculations or compare costs. Coupled with the inaccurate estimation of switchers, the calculated net fiscal savings for each program are thus highly untrustworthy.

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

The most important contribution of this report is the emphasis on how STOs are not compelled by state statutes to collect or publish data on scholarship recipients. Thus no formal accounting exists on the number of students who have exited public schooling and entered private institutions as a result of these programs. Policymakers must provide the regulatory

guidance and funding necessary to collect this much needed data, including full accounting of STO awards, other revenues, tracking which schools students choose, and determining the attrition rate of choosers. Without a complete accounting of these data, it is impossible to calculate the true fiscal impact. It behooves policymakers to develop statutory language that will allow researchers to develop better and more accurate answers to thorny policy questions.

Policymakers must also not be seduced by claims that TCSPs are more cost efficient in guaranteeing students a K-12 educational opportunity, without considering other important issues that are raised by market-based school reform policies which were not accounted for in this report, including: tuition elasticity over time, supply side behavior of private schools, accountability of publically funded TCSP and democratic education goals.

Tuition elasticity is dependent on which private schools participate, the subsidy amount given, and the types of students that private schools admit. In addition to diverting public money to private schools, a TCSP may not provide scholarship amounts sufficient to cover full tuition at private schools. Evidence describing the effects of tax subsidies on the elasticity of tuition prices is limited.[16] However, it is important to understand how scholarship amounts may stimulate increased participation that may impact a supply-side response that influences tuition prices. Because states do not regulate tuition prices, families that use the benefit to enter private schools today, may not have sufficient residual income to pay a tuition increase in the future. Without an accurate account of actual tuition costs, parents are not informed of additional costs they must bear, thus scholarship amounts may result in only a partial payment for what is guaranteed by most state constitutions as a free public education. These are all important factors that may impact tuition elasticity, but for which we have insufficient data, as a result of limited or non-existent data collection effort by states.

Without an accurate account of actual tuition costs, parents are not informed of additional costs they must bear.

Another relevant issue is whether private schools have the capacity to respond to increased demand if tuition tax credits or vouchers are scaled-up (supply-side response) and whether a pent-up demand for private school options exists from parents (demand–side response). These supply and demand issues raise the question of how large a benefit is needed to elicit a response from both private schools and the parents who may want to enroll their children. In addition, policymakers must be cognizant of an important supply-side behavior that school choice advocates often choose to overlook: expansion of private school choice is more dependent on the criteria schools use in choosing students, and less dependent on giving parents the ability to choose schools. In recent research measuring the effects of voucher and tuition tax credit subsidies on private school tuition, Hungerman and Rinz describe how subsidies may yield cream skimming of students who are either unwilling/unable to pay a higher tuition or screened-out on the basis of academic ability or performance.[17]

Lastly, even if research might indicate that tuition tax credit programs may save taxpayers money, the cost effectiveness of a program must be weighed against the need for wider public accountability measures that will hold private schools who enroll students that use publically subsidized scholarships to account. Thus, current STO arrangements allow public dollars to flow to private institutions without even basic compliance and reporting mechanisms in

place. The majority of voucher and tuition tax credit programs across states expressly prohibit or limit the ability of the government to administer standard oversight and accountability measures on private schools, and less than half of all voucher, tuition tax credit, and education savings accounts require private schools to administer student achievement tests to subsidy recipients. [18] The governance, practice and accountability standards of private schools are not uniform with public schools, including teacher accreditation requirements, accountability systems, curriculum and assessments, admissions criteria, and services to students with unique needs, including special education and English language learners.

The lack of parallel accountability and adequate funding systems threaten the ability of states to guarantee both an effective and efficient education for all students. In addition, without increased efforts to collect and disseminate information on private schools (including tuition prices, student achievement data, graduation rates) families who choose to participate in voucher and tuition tax credit programs are not informed on the effectiveness/quality of private schools or of additional costs they must bear.

By prohibiting state education departments from engaging in due diligence and oversight of private schools, TCSPs threaten public authority and the ability of states to ensure a uniform education system that advances equity, social cohesion and democratic citizenship.[19]

When weighing the implementation of TCSPs, policymakers must look beyond measures of cost efficiency and seek more balanced and empirically robust assessments that would allow them to make informed decisions about how to proceed with effective and equitable school reform polices.

Notes and Resources

1 These programs currently exist in Alabama, Arizona, Florida, Georgia, Iowa, Indiana, Kansas, Montana, New Hampshire, Nevada, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, and Virginia

2 Welner, K.G. (2008). *NeoVouchers: The emergence of tuition tax credits for private schooling*. New York, NY: Rowman & Littlefield.

3 Tax credit scholarship programs allow individuals or corporations to receive full or partial tax credits after making donations to nonprofit entities (called School Tuition Organizations, or STOs) that in turn award "scholarships" to individual students attending private school. This contrasts with individual tax credits and deductions, which allow parents to directly receive state income tax relief for itemized educational expenses (which can include private school tuition, books, supplies, computers, ancillary educational services, and transportation). The programs examined in this analysis are exclusively of the former type;

Aud, Susan L. (2007). *School Choice by the Numbers: The Fiscal Effect of School Choice Programs, 1990-2006*, School Choice Issues in Depth. Indianapolis, IN: Milton & Rose D. Friedman Foundation.,Retrieved July 29, 2017, from http://www.edchoice.org/wp-content/uploads/2015/09/Education-by-theNumbers-Fiscal-Effect-of-School-Choice-Programs.pdf;

Spalding, J. (2005). *The School Voucher Audit: Do Publicly Funded Private School Choice Programs Save Money?* Indianapolis, IN: Friedman Foundation for Educational Choice. Retrieved July 29, 2017, from http://www.edchoice. org/wp-content/uploads/2015/07/The-School-Voucher-Audit-DoPublicly-Funded-Private-School-Choice-Programs-Save-Money.pdf

4 Lueken, M.F. (2016). The Tax-Credit Scholarship Audit: Do Publicly Funded Private School Choice Programs Save Money? *EdChoice*. Retrieved July 27, 2017, from http://files.eric.ed.gov/fulltext/ED570441.pdf

5 Presently, no TCSP that includes STOs are compelled by statute to collect or publish data on scholarship recipients, and thus no formal accounting exists on the number of students who have exited public schooling and entered private institutions as a result of these programs.

6 The report examined private school associations with particular STOs (looking for repeated associations) to determine estimates for multi-scholarship students.

7 Aud, Susan L. (2007). *School Choice by the Numbers: The Fiscal Effect of School Choice Programs, 1990-2006*, School Choice Issues in Depth. Indianapolis, IN: Milton & Rose D. Friedman Foundation., Retrieved July 29, 2017, from http:// www.edchoice.org/wp-content/uploads/2015/09/Education-by-theNumbers-Fiscal-Effect-of-School-Choice-Programs.pdf;

Spalding, J. (2005). *The School Voucher Audit: Do Publicly Funded Private School Choice Programs Save Money?* Indianapolis, IN: Friedman Foundation for Educational Choice. Retrieved July 29, 2017, from http://www.edchoice. org/wp-content/uploads/2015/07/The-School-Voucher-Audit-DoPublicly-Funded-Private-School-Choice-Programs-Save-Money.pdf

8 Welner, K.G. (2008). *NeoVouchers: The emergence of tuition tax credits for private schooling*. New York, NY: Rowman & Littlefield.

9 Huerta, L.A. & d'Entremont, C. (2007). Education tax credits in a post-Zelman era: Legal, political and policy alternative to vouchers? *Educational Policy, January/March 21*(1), 73-109.

10 Georgia state statutes define a scholarship tuition organization (STO) as a "student scholarship organization" (SSO).

11 Suitts, S. & Dunn, K. (2011). *A Failed Experiment: Georgia's Tax Credit Scholarships for Private Schools*.

Atlanta, GA: Southern Education Foundation. Retrieved August 3, 2017, from: http://www.southerneducation.org/getattachment/12d045ec-6960-4715-82fb26a2b94de61c/Test-Publication-2.aspx

12 FDOE (2014). Florida Tax Credit Scholarship Program: June 2014 Quarterly Report

13 Aud, Susan L. (2007). *School Choice by the Numbers: The Fiscal Effect of School Choice Programs, 1990-2006*, School Choice Issues in Depth. Indianapolis, IN: Milton & Rose D. Friedman Foundation. Retrieved July 29, 2017, from http://www.edchoice.org/wp-content/uploads/2015/09/Education-by-theNumbers-Fiscal-Effect-of-School-Choice-Programs.pdf;

Spalding, J. (2005). *The School Voucher Audit: Do Publicly Funded Private School Choice Programs Save Money?* Indianapolis, IN: Friedman Foundation for Educational Choice. Retrieved July 29, 2017, from http://www.edchoice. org/wp-content/uploads/2015/07/The-School-Voucher-Audit-DoPublicly-Funded-Private-School-Choice-Programs-Save-Money.pdf

14 Scafidi, B. (2015, September 2). *Will School Choice Lead to Fewer Resources for Students Who Remain in Public Schools?* EdChoice/Friedman Foundation/EdChoice.org, Retrieved August 5, 2017, from https://www.edchoice.org/blog/will-school-choice-lead-to-fewer-resources-for-students-who-remain-in-public-schools/

15 The report also asserts that "when state funds are reduced after a student leaves a school district, the originating district retains federal and local funds." This claim is categorically false. Both local and federal funds are based on individual or a proportion of per-pupil enrollment. At the local-level, when a student leaves a district, his or her local per-pupil funding allocation is redirected to the local tax revenue fund. When accounting for federal programs, not all funding is linked to individual students, and instead is allocated as block grants based on a proportion of students within a district of a specific characteristic (e.g. low SES, special education). A loss of student enrollment will still negatively impact federal funding allocations.

16 See Huerta, L.A. & d'Entremont, C. (2007). Education tuition tax credits in a post-*Zelman* era: Legal, political and policy alternative to vouchers? *Educational Policy*, *January/March 21*(1), 73-109;

d'Entremont, C. & Huerta, L.A. (2007). Irreconcilable differences? Education vouchers and the suburban response;

Jacobs, M.J. (1980). Tuition tax credits for elementary and secondary education: Some new evidence on who would benefit. *Journal of Education Finance, 5*, 233-245;

Jain, P. (2002). *The approval barrier to suburban charter schools*. Washington, DC: Thomas B. Fordham Institute;

Augenblick, J. & McGuire, K. (1982). *Tuition tax credits: Their impact on the states*. Denver, CO: Education Commission of the States;

Longanecker, D.A. (1983.) The public costs of tuition tax credits. in T. James & H.M. Levin (Eds.), *Public dollars for private schools: The case of tuition tax credits* (pp. 115-129). Philadelphia, PA: Temple University Press;

Gemello, J.M. & J.W. Osman. (1982). *Analysis of the choice for public and private education*. Washington, DC: Institute for Research on Educational Finance and Governance;

Catterall, J.S., & Levin, H.M. (1982). *Public and private schools: Evidence on tuition tax credits*. Stanford, CA: Stanford University, Institute for Educational Research on Educational Finance and Governance.

17 Hungerman, D. & Rinz, K. (2016). Where does voucher funding go? How large-scale subsidy programs affect private-school revenue, enrollment, and prices, *Journal of Public Economics, 136*, 62-85.

18 In 2015, only 14 of the 26 voucher programs in operation require private schools that accept voucher students to administer statewide or other assessments (five programs require nationally norm referenced tests). In

addition, only 19 of the 30 tuition tax credit programs in operation require private schools that accept tuition tax credit scholarships or deductions to administer statewide or other assessments. And lastly, 4 out of 5 education savings account voucher programs (Arizona, Florida, Mississippi, Nevada, and Tennessee) require private schools that accept education savings account voucher students to administer statewide or other assessments.

See Workman, E. (2012). *Vouchers, scholarship tax credits, and individual tax credits and deductions*, Education Commission of the States. Retrieved September 4, 2013, from http://www.ecs.org/html/Document.asp?chouseid=10528;

National Conference of State Legislatures, 2014. *School Vouchers*, Retrieved August 2, 2014, from http://www.ncsl.org/research/education/school-choice-vouchers.aspx;

Friedman Foundation, *School choice in America*. Retrieved January 26, 2016, from http://www.edchoice.org/school-choice/school-choice-in-america/from:http://www.edchoice.org/school-choice/school-choice-in-america/

19 Levin, H.M. (2002). A comprehensive framework for evaluating educational vouchers. *Educational Evaluation and Policy Analysis*, *24*, 159-174.

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Author:	Martin Lueken
Publisher/Think Tank:	EdChoice
Document Release Date:	August 24, 2017
Review Date:	October 31, 2016
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Suggested Citation:

Huerta, L.A. & Koutsavlis, S. (2017). *Review of "The Tax-Credit Scholarship Audit: Do Publicly Funded Private School Choice Programs Save Money?"* Boulder, CO: National Education Policy Center. Retrieved [date] from http://nepc.colorado.edu/thinktank/review-tax-credits