
THE FISCAL CALCULATOR

How to Improve Fiscal Impact Assessments
of Private School Choice Legislation

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and Michael **Ford**, Ph.D.

SEPTEMBER **2015**

Friedman
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*For
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Executive Summary

Legislators considering private school choice proposals typically want more than just school outcome projections. Because budgetary considerations are key drivers of the legislative process, legislators trying to make an objective assessment look to their fiscal bureaus and economic studies to provide fiscal impact assessments. Indeed, such assessments (“fiscal notes”) must accompany all proposals with non-trivial revenue or expenditure implications. Often, those fiscal impact assessments must be produced on short notice. To improve fiscal impact assessments of private school choice legislation, one must first examine past fiscal notes that have accompanied the following major U.S. school voucher proposals:

- Tennessee – 2013: SB 196
- North Carolina – 2013: HB 944
- Wisconsin – 2013: State Budget Bill
- Indiana – 2011: HB 1003
- Texas – 2011: HB 33
- California – 2000: Prop 38
- Wisconsin – 1995: State Budget Bill

Doing so uncovers five common deficiencies in the fiscal impact assessment practice for private school choice legislation:

- the use of jargon,
- the lack of specificity and arbitrary assumptions,
- hedging,
- insularity, and
- the misuse or non-use of enrollment estimates and other relevant experience and data.

Those deficiencies—and the importance of fiscal impact information to the political fate of private school choice proposals—justify the urgent need to produce better fiscal impact assessments on short notice.

To highlight key issues and research needs, this report assesses the fiscal and economic impact of the proposed Texas (2011 – HB 33) school voucher program. The report also describes trends in how researchers predict school choice program fiscal impacts. Finally, it describes a solution to the challenge of meeting legislators’ need for timely fiscal impact estimates for private school choice legislation: a fiscal notes calculator. The tool is now available in a fast “Cursory” version and a detailed, more data-intensive “Premium” version online at www.school-choice-fiscal-notes-calculator.net. The “Cursory” version takes user-supplied data for:

- the number of K–12 school-age children eligible to participate in the proposed program,
- the share of those eligible now enrolled in public school,
- the average annual state-provided K–12 per-pupil funding,
- the average per-pupil expenditure per proposed program participant, and
- the percent of current self-pay private users eligible to participate.

From there, the calculator produces a rough estimate of the net change in private school enrollment and the fiscal impact on state government.

Using extra user-supplied data, the “Premium” version yields the same information plus the change in per-pupil funding at the district level. Optionally, the fiscal impact assessment can be adjusted to include the fiscal effects of likely school choice effects on graduation rates. The calculator also allows sensitivity analysis, so users can adjust fiscal impact using different assumptions and different proposed program features.

Overview

The fate of proposed school choice legislation often hinges on the officially predicted fiscal impacts of the proposed program. If a program is seen as likely to have a negative impact on the finances of the state government, it is much less likely to be enacted. Yet, the process by which fiscal impact predictions are made is rarely the focus of academics or policy advocates. This report seeks to draw attention to the importance of improving fiscal notes for private school choice legislation by:

- 1) describing a selection of fiscal notes for both enacted and rejected school choice legislation,
- 2) providing an in-depth review of current fiscal note practices based on the review of enacted and rejected school choice legislation,
- 3) describing an improved process for estimating the fiscal impact of school choice bills through a sample analysis of a Texas school choice bill, and
- 4) describing a new online tool created to enable advocates, policymakers, and policy analysts to easily estimate the likely fiscal impact of proposed school choice legislation.

A better understanding of the report's findings should lead to better school choice program design, more informed policy debates, and school choice legislation that better reflects the goals and values of the states that enact it.

Countless organizations develop and debate various forms of school choice legislation, including, but not limited to: public school choice, school vouchers, public charter schools, and tax-credit scholarships. Although substantial research has been conducted to document the actual fiscal impact of school choice programs, predictions of fiscal effects—a key element of the legislative process—has yet to garner the systematic attention of those interested in understanding the fiscal consequences of specific school choice programs.¹ Busy legislators willing to consider school choice expansion

may rely heavily on the information contained in the fiscal notes that legislative budget bureaus attach to all legislative bills with fiscal effects. Need for a fiscal note often arises on short notice with little analysis or precedent on which legislative analysts may rely. Studies asserting academic consequences for school choice proposals must depend on the same slim body of evidence (much of it still largely unprocessed), especially regarding how many students will opt out of their assigned neighborhood public school if the proposed policy is enacted.²

Our research builds on a body of existing research on the fiscal impacts of school choice.

Jeff Spalding, Benjamin Scafidi, Robert Costrell, and Susan Aud have examined the fiscal impacts of school choice programs on local and state government finances broadly.³ Several other reports published by the Friedman Foundation for Educational Choice look in depth at the fiscal impacts of specific school choice programs.⁴ There is also a body of economics literature modeling the various factors predicting private school demand.⁵ Among those, the Chiswick and Koutramanes article is a key basis of the online fiscal notes calculator described later in this paper that predicts shifts from public schools to private school choice programs, a key component of any fiscal analysis. Finally, there also have been several major simulation studies of school choice, but they either focused on choice among traditional public schools or projected the behavior of abstract household types and stopped short of forecasting real-world, school choice program-induced enrollment changes.⁶

Because the choice strategies that go beyond district-run schools have the greatest potential for controversy and debate, this report focuses on fiscal note practices and potential for improving fiscal notes attached to legislation that would create or expand charter schools and school voucher programs.⁷ To further narrow scope to a manageable level, this report targets proposals likely to have the largest educational and fiscal impacts. That includes programs likely to produce the largest shift from traditional neighborhood public schools to other schooling options: large

school voucher proposals. However, the tool we have developed to address the need for improving fiscal notes addresses all policy vehicles for private school choice expansion: school vouchers, education savings accounts, tax-credit scholarships, and individual tax credits and deductions—large and small.

Fiscal Note Practices Germane to School Choice Expansion

The American Federation for Children Growth Fund lists in its *Virtual School Choice Yearbook* nineteen school voucher and tax credit programs currently in operation in the United States.⁸ Using different definitions, the Friedman Foundation for Educational Choice currently delineates 59 programs spanning school vouchers, education savings accounts, tax-credit scholarships, and individual tax credits and deductions.⁹ The sheer number of choice laws and rejected proposals makes an exhaustive analysis of the fiscal notes that preceded their enactment or rejection impractical for the purposes of this paper. Instead, a content analysis on a series of fiscal notes for diverse school choice legislation was conducted to:

- 1) obtain meaningful information through a dissimilar case study approach and

- 2) demonstrate the need for a wider, more exhaustive study on school choice fiscal notes.

Table 1 lists the notes analyzed in this paper. The notes were chosen for their size, scope, controversial nature, the geographic diversity of the states where they were proposed, and the years in which they were proposed. The downside of winnowing to achieve a manageable number of fiscal notes to discuss is that readers may question the ability to generalize from such a small sample size. Certainly, there is some basis for caution. However, this report did not ignore the remaining notes. It merely excludes the least insightful discussions, mostly on the basis of program size where fiscal note inaccuracy would not be that important.

Wisconsin 1995 State Budget Bill

The 1995–1997 Wisconsin budget provided for a large increase in the size and scope of the Milwaukee private school voucher program, officially called the Milwaukee Parental Choice Program (MPCP). Enacted in 1990, the program was limited in its first five years to non-sectarian schools, and enrollment was capped at 1.5 percent of Milwaukee Public Schools (MPS) enrollment (about 1,450 students).¹⁰ The bill proposed expanding the program to religious schools in the City of Milwaukee, eliminating the enrollment cap over the

TABLE 1 Choice Legislation and Fiscal Note Authors

State	Year	Bill	Program Type	Did the Legislation Pass?	Author
Tennessee	2013	Senate Bill 196	Voucher	No	Tennessee General Assembly Fiscal Review Committee
North Carolina	2013	House Bill 944	Voucher	Yes	General Assembly of North Carolina Fiscal Research Division
Wisconsin	2013	State Budget Bill	Voucher	Yes	Wisconsin Legislative Fiscal Bureau
Indiana	2011	House Bill 1003	Voucher	Yes	Indiana Office of Fiscal and Management Analysis
Texas	2011	House Bill 33	Voucher	No	Texas Legislative Budget Board
California	2000	Proposition 38	Voucher	No	California Legislative Analyst's Office
Wisconsin	1995	State Budget Bill	Voucher	Yes	Wisconsin Legislative Fiscal Bureau

Sources: Tenn. General Assembly Fiscal Review Committee, *Fiscal Note SB196-HB190* (Nashville: Tenn. General Assembly Fiscal Review Committee, 2013); General Assembly of N.C. Fiscal Research Division, *Legislative Fiscal Note: House Bill 944 (Second Edition)* (Raleigh: General Assembly of N.C. Fiscal Research Division, 2013); Jim Landers, *HB 1003 Fiscal Impact Statement* (Indianapolis: Ind. Office of Fiscal and Management Analysis, 2011); John O'Brien, *House Bill 33 Fiscal Note* (Austin: Tex. Legislative Budget Board, 2011), p. 1; *Proposition 38: School Vouchers, State-Funded Private and Religious Education, Public School Funding: Analysis by the Legislative Analyst*, accessed Mar. 30, 2015, <http://vote2000.sos.ca.gov/VoterGuide/pdf/38.pdf>; Charlie Toulmin, *The Milwaukee Parental Choice Program* (Madison: Wisc. Legislative Fiscal Bureau, 1995).

course of three years, indexing per-pupil payments to inflation, and removing a requirement that a certain percentage of students in participating schools pay tuition.

Because the proposed expansion was in a budget bill, the fiscal analysis is in the form of an issue paper authored by the state's Legislative Fiscal Bureau. It includes an analysis of current law, a summary of the proposed changes to the program, an analysis of fiscal impact, a list of 33 discussion points giving context to the proposal, and a list of possible alternatives to the proposed legislative change.¹¹

The information paper estimates that the program expansion would cost \$2.3 million in year one and \$11.5 million in year two. The numbers are estimated using the proposed per-pupil payment \$3,209 and a projection that 2,700 pupils would use the program. The enrollment estimate was based on a privately-conducted survey of private schools and the economic demographics of public school pupils. The Legislative Fiscal Bureau notes that state costs for the program would be 100 percent offset by funding the expansion of school choice through a reduction of state aid to public schools. The paper also concludes that the MPS district would experience a state aid loss of \$9 million and a cost savings of \$6.8 million from reduced overall instructional costs because of the departed pupils.¹²

The existing five-year track record of the program allowed a level of specificity in the Wisconsin fiscal analysis impossible, until now, for fiscal impact assessment of new programs. This allowed accurate assumptions to be made using verifiable factors such as per-pupil cost and available schools seats. A court injunction delayed the inclusion of religious schools in the program.¹³ The injunction prevented any conclusion as to whether the pre-existence of the program led to more-informed enrollment and cost estimates. However, similar to the Colorado note, the Wisconsin note used specific estimates based on projected enrollment and also considered the fiscal impact on both state and local governments.

California 2000 Proposition 38

Proposition 38 is unique in this analysis because it was a statewide referendum rejected by voters in 2000. The initiative proposed a universal school voucher funding any California pupil enrolled in a qualifying private school. Qualifying private schools would have been required to meet all private school regulations and administer the state's standardized test. The voucher would have been worth, according to the California Legislative Analyst's Office (LAO), "the greater of \$4,000 per pupil; or one half of national average spending per pupil in public schools (as defined by the proposition); or one half of California's spending per public school pupil (as defined by the proposition)."¹⁴ The LAO estimated a per-pupil payment of \$4,000 in year one, and something higher in future years.

Prior to its official fiscal estimates, the LAO noted that the total fiscal impact would hinge substantially on the number of pupils choosing to participate in the program, the response of school districts to increased competition, and the response of the legislature to the passage of this proposition. Like the other described notes, the LAO analysis examined both state and local impacts, working under the following assumptions:

- The scholarship is worth \$4,000 in year one.
- Many of the users of the vouchers would have been from the pool of 650,000 students already attending private schools.
- The state would save \$3,000 for every child that leaves a public school to attend a private school under the program. This is because the average per-pupil public school cost in California was \$7,000.

The LAO presents an analysis of long-term impact on state finances under the above assumptions. They list a range of possible costs and savings depending on how many pupils who would have otherwise attended private schools use the program. The range presented is from \$2 billion in annual state costs if only 5 percent of traditional public school and charter school students switch to private schools, to \$3.4

billion in annual savings if 25 percent of California traditional public school and charter school pupils switch to private schools.

The potential long-term impact on local governments is less specific. The LAO simply notes that it “would depend primarily on the extent to which the loss of state funding resulting from fewer pupils is matched by offsetting cost reductions.”¹⁵ As mentioned, the proposition did not pass, so it is impossible to measure the accuracy of the LAO’s assumptions and estimates.

Indiana 2011 House Bill 1003

Indiana HB 1003 modified the statewide tax-credit scholarship program created in 2009 by adding a tax deduction and creating a new school voucher program. The voucher program provided up to \$4,500 for low- and middle-income students (those from families with incomes up to 150 percent of federal free and reduced-price lunch eligibility) to attend participating schools. Student funding was increased in 2015, and a voucher for low-income students is now worth up to 90 percent of the state per-student spending amount for the sending school district. A voucher for middle-income students is worth up to 50 percent of the same amount. Program enrollment was limited until 2013, and participating schools must meet a variety of regulatory requirements.

The fiscal note for HB 1003 was drafted by the Indiana Office of Fiscal and Management Analysis (OFMA). The agency took a unique approach to estimating potential impact by selecting a group of 1,000 pupils from households with incomes at or below 250 percent of federal free and reduced-price lunch eligibility. They determined 714 of the students in that cohort would be eligible for the voucher program. The OFMA concludes those 714 students would cost the state \$2.9 million dollars, but ultimately result in a net savings to the state of \$1.0 million due to reduced traditional public school expenditures.

The approach of the OFMA is unique in that it looks at the fiscal impact of the voucher program separate from

the fiscal impact of the tax-credit scholarship program despite the fact that they are both included in the same bill. It is also unique for not making any overall enrollment estimates. Instead, the OFMA assesses the impact based on an arbitrary cohort of students at or near program eligibility. Finally, the OFMA analysis does include a section for local impact, but does not make any specific estimates, instead noting that there could be administrative costs. The Indiana voucher program was signed into law in 2011, so the accuracy of the note can be tested in the near future.

Texas 2011 House Bill 33

Texas 2011 HB 33 would have created a state-wide school voucher program for Texas children worth the lesser of a private school’s tuition or 60 percent of the state’s average per-pupil maintenance and operation expenditure. The original fiscal note for HB 33, drafted by the Texas Legislative Budget Board (LBB), estimated a net cost for the program to the Texas General Revenue Fund of \$195,530,669 over two years. However, a critical review of the original note by Joseph Bast identified numerous errors.¹⁶ A subsequent LBB memo released on June 20 that analyzed a substitute bill to the original HB 33 estimated the net cost of the program to be only \$4.8 million for the administrative expense of running the program out of the Texas Comptroller’s office.

The program would have limited participants to students who previously attended public schools, guaranteeing a savings for every pupil who used the lower-cost voucher program. The LBB estimated the students using the voucher program would save the state \$56 million in year one, and \$113 million in year two. However, the saving would be distributed back into the public school system, leaving the program to have a neutral fiscal impact aside from administrative costs.

Fiscal estimates were generated using the projected voucher amount, \$5,281, and the estimated number of students who would use the program. The LBB assumed 0.5 percent of eligible students (22,545) would

use a voucher in year one, and 1 percent of eligible students (45,753) would use a voucher in year two. Though the basis of those estimates is not clear, they reflect the initial take-up rates of restricted voucher programs elsewhere.¹⁷ The Texas note also assumed the program would eventually grow to serve 6 percent of the eligible population, a number supported by growth patterns in existing voucher programs.¹⁸

The LBB was less specific on how the voucher program would impact local governments. As mentioned, public school districts would receive a portion of the savings from the program; however, the net impact on a district would be dependent upon how many pupils left to use the voucher program. The note merely states that local districts “may experience difficulties in realizing sufficient cost reductions due to the reduced enrollment and could suffer some financial hardship as their net entitlements were reduced.”¹⁹

Wisconsin 2013 State Budget Bill

The 2013 Wisconsin state budget included the expansion of Wisconsin’s Parental Choice Program for Eligible Districts, which previously allowed up to 1,000 pupils in the city of Racine, Wisconsin to receive a voucher worth up to \$6,442 per-pupil to attend participating private schools of their choice. The original proposed expansion would have allowed students in public school districts meeting a set of criteria (including size and performance) to access vouchers. A substantially different proposal, capped at 500 pupils in year one and 1,000 pupils in year two, but not limited to districts meeting any criteria, was signed into law in 2013.²⁰

The fiscal note accompanying the original proposal was drafted by the Wisconsin Legislative Fiscal Bureau as part of the agency’s overall analysis of Wisconsin’s biennial budget. The note estimated the fiscal impact of the proposal—\$3.2 million in year one and \$7.2 million in year two—by multiplying the maximum-capped enrollment by the annual per-pupil payment amount. The proposal also detailed the likely fiscal impact on school districts that, under

the original proposal, were to fund 38.4 percent of the proposal via an aid reduction. Not surprisingly given the history of vouchers in Wisconsin, the fiscal note included discussion of the fiscal impact of the existing Milwaukee voucher program and a variety of alternative scenarios dependent on changes to the program’s eligibility standards and enrollment caps.

North Carolina 2013 House Bill 944

The fiscal note for North Carolina House Bill 944, which was signed into law and allowed certain low-income students to access a voucher worth \$4,200 beginning in the 2014–15 school year, was by far the most detailed note analyzed in this paper. The note included a summary of the proposed legislation, as well as a detailed analysis of the likely fiscal impact of the legislation.

The fiscal analysis took into account research on the likely demand for private education in North Carolina and made informed estimates of the scholarship size, projected private school enrollment, potential cost savings to the public school system, and factors such as turnover in participating schools. The authors of the note considered the experience of other school choice programs and presented two sets of fiscal estimates based on different levels of demand. Overall, the authors estimated a net savings to the state in year one, a net cost in years two and beyond, and an ongoing net savings to local school districts.

Tennessee 2013 Senate Bill 196

The Tennessee Choice and Opportunity Scholarship Act, which it was not enacted into law, would have allowed low-income students attending low-performing schools to receive a tuition voucher at qualifying private schools. The number of scholarships would have been capped at 5,000 in year one, 7,500 in year two, 10,000 in year three, and 20,000 in all subsequent years. The fiscal note accompanying Senate Bill 196 was brief, but detailed.

TABLE 2 Characteristics of School Choice Legislation and Fiscal Notes

State	Year	Stand Alone	Enact	Expand	Voucher	Enroll Est.	Specific Fiscal Est.	Specific State Est.	Specific Local Est.
Tennessee	2013	X			X				
North Carolina	2013	X	X		X				
Wisconsin	2013		X	X	X				
Texas	2011	X	X		X	X	X	X	
Indiana	2011				X		X	X	
California	2000	X			X	X	X	X	
Wisconsin	1995		X	X	X	X	X	X	X

Sources: Tenn. General Assembly Fiscal Review Committee, Fiscal Note SB196-HB190 (Nashville: Tenn. General Assembly Fiscal Review Committee, 2013); General Assembly of N.C. Fiscal Research Division, *Legislative Fiscal Note: House Bill 944 (Second Edition)* (Raleigh: General Assembly of N.C. Fiscal Research Division, 2013); Russ Kava, *Expansion of Parental Choice Program for Eligible School Districts* (Madison: Wisc. Legislative Fiscal Bureau, 2013); *Proposition 38: School Vouchers, State-Funded Private and Religious Education, Public School Funding: Analysis by the Legislative Analyst*, accessed Mar. 30, 2015, <http://vote2000.sos.ca.gov/VoterGuide/pdf/38.pdf>; John S. O'Brien, House Bill 33 Fiscal Note (Austin: Tex. Legislative Budget Board, 2011); Charlie Toulmin, *The Milwaukee Parental Choice Program* (Madison: Wisc. Legislative Fiscal Bureau, 1995); Jim Landers, *HB 1003 Fiscal Impact Statement* (Indianapolis: Indiana Office of Fiscal and Management Analysis, 2011).

Overall, the note estimates an increased annual state expenditure of \$173,000 due to the creation of two state positions to administrate the program. Also included in the note are broad program usage estimates based on the experience of existing voucher programs; however, ultimately a relatively arbitrary enrollment number, 50 percent of maximum enrollment, was offered. The program was designed to mostly target switchers from public schools, so the note does estimate the likely savings due to the lower per-pupil cost of private school tuition compared to per-pupil public school expenditures. Ultimately, the note concludes local school districts would save more than \$13 million when the program is fully implemented.

Impact Assessment of Private School Choice Expansion

As mentioned, the specific fiscal notes examined were chosen for their substantive importance related to the size, scope, and controversial nature of the proposed school choice program, the geographic and program diversity, and the years in which the programs were proposed. The notes did have several common attributes, meaningful commonalties, and meaningful differences (see Table 2). A brief review of

those commonalities and differences gives context to a proposed framework for evaluating and creating fiscal notes for school choice programs.

Meaningful Commonalities

Use of jargon

The examined fiscal notes all contained language that people unfamiliar with the legislative process are unlikely to understand. While probably a reflection of their audience, this lack of accessible language limits the ability of the public to use primary sources to evaluate the fiscal impact of proposed programs. The state of California did create an informational packet for public consumption prior to the Proposition 38 referendum. It included a fiscal analysis with a simple, easy-to-understand summary.²¹

Lack of specificity and arbitrary assumptions

While every note examined included a fiscal impact statement, only the Texas note provided a straightforward estimate of how many students were expected to use a program and how much the program

was likely to cost or save taxpayers. Except in the Texas note, when the note contained specific fiscal impact estimates, they were produced in an unexplained, arbitrary manner. The Wisconsin Legislative Fiscal Bureau note on the Milwaukee voucher program expansion was a partial exception to that general description.

The lack of specificity makes evaluating the accuracy of fiscal notes impossible in most situations. For example, the note on California's Prop 38 referendum presented a range of potential effects that was so broad it could not have been proven wrong or right. Similarly, the use of a theoretical cohort of students for the Indiana program allowed for assumptions to be made, but gave no meaningful predictor of what total program costs might be expected.

Hedging

The California and Indiana examples of presenting a range of possible effects can be described as hedging, or presenting every possible scenario to ensure the agency producing the note will not be found wrong. However it also gives legislators little hard information from which to draw conclusions. Such an approach may have been understandable for early notes where little information on the nature of school choice programs existed, but now there is enough information on the outcomes of choice programs to make more specific estimates going forward.

Insularity

With the exception of the fiscal note on the Milwaukee voucher expansion, state agencies did not cite outside sources when estimating choice program enrollment. Given that choice programs have existed since the early 1990s, not utilizing the experience of programs in other states is inexplicable except that the deadline for the fiscal note may not have allowed much investigative effort. The fact that school choice programs are often products of policy replication makes that failure to cite past experience especially bizarre.²² Likewise, there

appears to be no attempt to exploit the findings of the academic literature on the sensitivity of private school enrollment decisions to tuition cost.

Meaningful differences

The use (or non-use) of enrollment estimates

The most intuitive method of determining the future cost of a choice program begins with an estimate of the number of students expected to enroll in the program. However, only half of the fiscal notes in Table 2 contain hard estimates of the number of pupils that will enroll in the program. There is no way to create a useful fiscal note for a choice program without estimating the number of pupils likely to use it.

Impact on different levels of government

Only the fiscal note produced for the proposed Milwaukee voucher expansion gave specific estimates of the fiscal impact on local school districts. Such information is crucial given that state legislators voting on such bills represent local constituencies that care about the potential fiscal impact of state legislation on local coffers. For example, the MPCP has long been known to produce savings for school districts outside of Milwaukee and costs for the City of Milwaukee.²³ The uneven distribution of costs savings is often the rationale given by Milwaukee's state legislative delegation for their opposition to the voucher program.²⁴ Fiscal notes that do not contain information on the impact of choice laws on state and local finances are leaving out a key piece of information that may influence legislative decision-making.²⁵

Comparing Notes of Rejected Proposals and Enacted Legislation

Our review of four school choice fiscal notes also provides some evidence that differences exist between the notes for enacted and rejected legislation. The fiscal

notes for the rejected proposals contained no specific local fiscal estimates. Although not definitive or causal, it does suggest that the local fiscal impact of the school choice program, either by being described negatively or vaguely, can hurt a bill's chance of passage. Milwaukee's experience with this school choice funding flaw provides further reason to suspect this phenomenon. Milwaukee's school voucher program has been shown to save state taxpayers money on the whole, but causes slightly higher property taxes in the City of Milwaukee.

Among the rejected proposals, only the 2000 California voucher referendum's fiscal note contained specific enrollment estimates. Notably, no statewide voucher referendum has ever passed, so that the approach to passing the legislation was more likely the reason behind its failure. Among the enacted proposals, in contrast, the fiscal notes of half did include specific enrollment estimates. Again, the sample size is too small to show causality or to reach a definitive conclusion, but it does suggest legislators are more likely to support school choice legislation if given an idea of exactly how many students are expected to use the program.

Future inquiries into school choice fiscal note practices should take into account the structural characteristics of notes for rejected and enacted private school choice legislation. The presence of local cost estimates and enrollment estimates, in particular, should be included in any attempted quantitative model for predicting the passage of school choice legislation.

Preliminary Recommendations

A review of the commonalities and differences in selected fiscal notes yields information relevant to developing best practices for drafting those notes. On balance, the information contained in previous fiscal impact estimates for private school choice expansion proposals cannot be considered terribly useful to the policymaking process. In fact, fiscal notes may introduce vagueness with the potential to paralyze the policy process, or contrived numbers to provide

political cover for legislators who want to vote contrary to many constituents' wishes.

Most important, few notes actually make detailed projections on potential enrollment and potential state and local costs of choice programs. Those that do make detailed projections do not incorporate existing research on the behavior of choice programs, instead relying on arbitrary assumption. Last, the notes are too often filled with vague jargon of limited utility to average citizens. However, the example of the simple, easy-to-understand information packet released ahead of the 2000 California referendum on Prop 38 shows that it is possible to produce digestible information on school choice bills.

The preliminary conclusion from the review of these strategically selected diverse fiscal notes is that all school choice program fiscal notes should have three common attributes:

1. School choice enrollment estimates based on the behavior of similar programs elsewhere,
2. A consideration of program costs and savings at the state and local level, and
3. A summary cover sheet that is jargon-free and targeted for citizen consumption.

An Illustration of Proper Impact Assessment of School Choice Expansion

The best way to illustrate the challenges, current capabilities, and barriers to high-quality fiscal notes on short notice is with an example: an assessment of enrollment and fiscal impacts, including graduation rate effects of a proposed significant school choice expansion. Because HB 33 (not enacted) of the 2011 Texas Legislature is familiar, recent, and may re-surface in the future, we employ it for our attempt at a significant initial improvement in fiscal note practice.

HB 33 designated 60 percent of the state's per-pupil maintenance and operations (M&O) expenditure as

the maximum voucher amount, which parents could then supplement with private funds, if necessary, to enroll a child in a school with a tuition level above the maximum voucher amount. The combination of Texas' complicated school funding formula and recent settlements of school funding equity litigation made the average M&O expenditure the state's average marginal cost per pupil. The most current published figure for the average statewide per-pupil M&O at the time HB 33 was being considered was \$8,572 in 2009–10, growing at an average nominal rate of 4.35 percent over the preceding four years. Since 2012–13 is the first school year that the school choice expansion could have taken effect, the fiscal impact assessment effort used that growth rate to project the 2012–13 M&O rate, \$9,741, and thus a maximum voucher amount of \$5,844 for 2012–13, \$6,099 for 2013–14, and \$6,364 for 2014–15.

The next issue to address is the effect of the \$5,844–\$6,364 universal vouchers on the probability of attending a private school. Based on the academic literature review and experience with the two largest U.S. tuition voucher programs, the fiscal impact assessment effort used the following evidence to estimate the voucher-induced probability of attending a private school:

- 1) the econometric model of Chiswick and Koutroumanes,
- 2) the Edgewood universal voucher experience, 1998–2008, in the San Antonio, Texas metropolitan area; and
- 3) the major 1998 expansion of the Milwaukee Parental Choice Program (school vouchers for low-income families).²⁶

Chiswick and Koutroumanes determined that a \$1.00 change in the cost of private schooling increased the probability of attending a private school by 0.0021 percent. Data from 1990 were the basis of that regression coefficient, so the fiscal impact assessment effort made an inflation adjustment. With that, the estimated effect for the 2012–13 school year of a \$1.00 change in the

current cost of private schooling was a 0.00114 percent higher probability of attending a private school. Based on the short notice with which such programs are likely to become law, and non-instantaneous awareness of school choice expansion, the fiscal impact assessment effort assumed a full phase-in of the Chiswick and Koutroumanes coefficient-based projection to occur in two years.²⁷ The first year share of the full effect was set at the average for Edgewood and Milwaukee, nearly 80 percent.

From the Edgewood and Milwaukee data, the fiscal impact assessment effort computed an enrollment counterfactual, and divided by actual enrollment, to get the increased probability of private school attendance. The Edgewood counterfactual comes from extrapolating the pre-voucher trend, which we thought was better than assuming 100 percent of the voucher users would have otherwise attended Edgewood public schools. There was considerable evidence of in-migration to become voucher eligible.²⁸ The Milwaukee expansion in 1998 came eight years after the initiation of the MPCP program, so we thought the 1998 situation would be poorly represented by a pre-MPCP (pre-1990) trend. The fiscal impact assessment effort lacked data capable of delineating Milwaukee's voucher-related in-migration, and with the larger (than Edgewood) Milwaukee area and MPCP's limitation to low-income families, we determined there would be little, if any, voucher-related in-migration. So, the Milwaukee counterfactual basis was the assumption that 100 percent of the voucher users would have otherwise attended Milwaukee public schools.

The number of those exiting traditional public schools depends on the net decrease in cost to new private school users, which is the voucher amount minus the tuition increase (above the voucher amount) resulting from the increased demand for private school slots. Since private school capacity typically responds quickly to increased demand, and to produce conservative (“at least”) estimates, the fiscal impact assessment effort assumed a modest 10 percent average price increase. But for the 60 percent that will attend parochial elementary schools, a 10 percent price increase will not nearly push the tuition level

above the voucher amount, so for that segment of demand, the tuition increase does not curtail demand growth.²⁹ Sensitivity analysis was used to explore the implications of substituting speculation for specific knowledge about the effect of increased demand on private school tuition. Since pre-voucher private school users were not eligible for an HB 33 voucher, the fiscal impact assessment effort applied the assumed price increase to non-voucher private school users to estimate their exodus from private schools, and thus a net increase in the probability of private school use.

Projected total K–12 enrollment, public plus private, times the increased probability of private school use was the estimate of the net public-private enrollment shift, which then formed the primary basis of our estimate of gross fiscal savings. Because pre-HB33 self-pay private school users were not eligible for voucher funding, the analysis did not have to include the cost of providing vouchers to those already enrolled in private schools, but it did account for some private to public shifts to become eligible. The enrollment shift times the average difference between state marginal fiscal cost per child enrolled in Texas Public Schools and the average voucher amount is the estimated gross fiscal savings. It is a gross savings because the Edgewood assessment indicated that voucher programs increased graduation rates, probably through competitive effects and through the improved matching of learning needs and educator skills and interests.³⁰ Higher graduation rates have a short-run fiscal cost.

The high school graduation rate of the almost 100 percent low-income, Hispanic Edgewood public high school students rose from 59 to 80 percent (the current statewide average), which was much faster than the average rise for Edgewood’s benchmark set of public school districts. From that comparison, Merrifield and Gray estimated that seventeen percentage points of the 59 to 80 increase was due to Edgewood-related effects.³¹ But an HB 33 voucher cannot increase the average statewide graduation rate by 17 percentage points, especially in a three-year time horizon. The starting point is 80 percent. A 97 percent rate is not plausible. So, pending better data from which to predict a graduation rate improvement, the fiscal

impact assessment effort hypothesized an increase from the current, fairly stable 80 percent to 90 percent. An overly optimistic projection of graduation rate effects reduces the net fiscal savings estimate. Again, because of the speculative nature of the graduation rate effects’ estimate, sensitivity analysis illustrated the significance of that gap in our knowledge.

The fiscal impact assessment effort used the difference between the current, stable 80 percent graduation rate and the projected 90 percent rate to ‘survive’ the grade level cohorts at different rates and attribute the difference in the number of students for each grade level to the HB 33 voucher. Even though the dropout rate will not be steady over the four high school years, for simplicity, the fiscal impact assessment effort assumed it would be. So, for example, with an 80 percent graduation rate, the “Class of Year X” shrinks by 5.43 percent each of four years ($1 - 0.0543 = 0.9457$; $0.94574 = 0.80$), and with a 90 percent graduation rate it shrinks by 2.60 percent each of four years ($0.97404 = 0.90$). The HB voucher would only impact the seniors in the class of 2013. It would impact juniors and seniors in the class of 2014, and sophomores to seniors in the class of 2015. Improved student retention in the earlier years of the classes of 2016, 2017, and 2018 also impacts the fiscal savings estimates for 2012–13 to 2014–15.

The primary remaining shortcoming of the impact assessment algorithm is an inability to specify a relationship between the probability of private school use and co-payment policy. Other less consequential opportunities for refinement also beckon, especially just a general improvement in the generalization of the functions to make them readily available for a wide variety of school choice policies. Projection rates used to estimate current and near future values of key data can be based on more than trend extrapolation, and grade level cohort ‘survival’ rates can be computed to vary by grade level. The algorithm can also be expanded to include additional categories of impact, such as immigration and investment in new schooling facilities.

TABLE 3 HB 33 Voucher Impact – Critical Factors

	Increased Probability Private			Enroll Est.		
	2012–13	2013–14	2014–15	2012–13	2013–14	2014–15
Theorized	6.4%	6.7%	7.0%	267,709	359,780	382,322
Edgewood	4.5%	5.6%	4.0%	248,496	306,521	221,411
Milwaukee	5.8%	7.6%	9.2%	308,824	413,932	508,821

Sources: Author’s calculations; John Merrifield and Nathan L. Gray, *An Evaluation of the CEO Horizon, 1998–2008, Edgewood Tuition Voucher Program* (San Antonio, TX: UTSA College of Business, 2009), <http://faculty.business.utsa.edu/jmerrifi/evp.pdf>; Merrifield, Kerry King-Adzima, Todd Nesbit, and Hiran Gunasekara, “The Property Value Effects of Universal Tuition Vouchers Tuition Vouchers,” *Journal of Housing Research* 20, no. 2 (2011), pp. 225–38, <http://ares.metapress.com/content/v4v28v527480085p>; George A. Clowes, “With the Right Design, Vouchers Can Reform Public Schools: Lessons from the Milwaukee Parental Choice Program,” *Journal of School Choice* 2, no. 4 (2009), pp. 367–91, doi:10.1080/15582150802618634; “Theorized” is based on Barry R. Chiswick and Stella Koutramanes, “An Econometric Analysis of the Demand for Private Schooling,” in *An Economic Analysis with Applications*, ed. Solomon W. Polacheck, Research in Labor Economics: An Annual Compilation of Research, vol. 15 (Greenwich, CT: JAI Press, 1996), pp. 209–37.

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The increased probabilities of private school use are in Table 3, alongside the number of net traditional public school exits. Changing the projected average private tuition increase from 10 percent to 20 percent changes the Chiswick and Koutramanes numbers in Table 3 approximately 5.5 percent. Because the Edgewood- and Milwaukee-based estimates are based on actual net effects, they are not impacted by the price change parameter projection.

Given the diversity in the three bases for the estimates, the Chiswick and Koutramanes econometric study of 1990 private school data, the Edgewood voucher program, and the Milwaukee MPCP yield surprisingly similar impact estimates. The Edgewood-based impact estimates are somewhat smaller than the MPCP-based estimates even though only Milwaukee’s low-income families are voucher eligible, and Edgewood families were free to co-pay, while Milwaukee private schools could accept vouchers only as full payment, a price control provision that prevents the MPCP from increasing the affordability of private schools with tuition above the voucher level.³² Those impact-decreasing factors must be more than offset by MPCP’s permanence and by the slow rate of discovery of the Edgewood program that was available only to the residents of a small district west of downtown San

Antonio, Texas. (Edgewood was a privately-funded, temporary program.) The 2014–15 dropoff in the Edgewood-based impact estimate was not the result of reduced voucher use in year three of the Edgewood program. Instead, the year three drop in the probability of private school use in Edgewood was the result of significant immigration into the district, coincident with noteworthy improvements in Edgewood traditional public school academic outcomes. Like graduation rate improvements, attracting immigrants would reduce fiscal savings, yet it would likely still be seen as another positive outcome of school choice expansion.

The projected graduation rate effects are substantial, roughly mimicking the Edgewood effect of getting halfway to 100 percent (see Table 4). The numbers for the three different years differ because the retention gains compound. The 36,767 additional students (not additional graduates that year) in 2012–13 are additional seniors in the class of 2013, additional juniors in the class of 2014, additional sophomores in the class of 2015, and additional freshman in the class of 2016. The compounding, for example, is more seniors in the class of 2014, in part because of reduced losses in the number of juniors in 2012–13.

Adjusting the projected average statewide graduation rate only to 88 percent, instead of the 90 percent reflected in Table 4, changes the numbers in Table 4

nearly 20 percent. The 90 percent to 88 percent change in the graduation rate adjusts the state government’s fiscal savings (columns 4–6 of Table 5) by 3 percent to 4 percent. As in Table 3, changing the maximum average rise in private tuition from 10 percent to 20 percent changes the first three Chiswick and Koutramanes-based numbers in Table 5 about 5.5 percent, and the graduation rate-adjusted Chiswick and Koutramanes numbers by nearly 7 percent.

The projected district-level funding losses are shown in Table 6. Because the voucher amount is less than the per-pupil funding level, per-pupil funding would rise (also in Table 6). However, marginal savings may differ significantly from the average per-pupil expenditure—an important issue that has received very little attention. Our estimated average marginal cost is 85 percent of average cost, but the variance around the average is likely to be large—varying from zero when reduced traditional public

school enrollment reductions are spread too widely to cut personnel to much greater than the per-pupil average when enrollment reductions avoid costly new construction.

The Online Fiscal Calculator

The Texas HB 33 example demonstrates an improved method, informed by economic research, current fiscal note practice, and the experiences of existing school choice programs for estimating the impact of proposed private school choice legislation. The method described was used to build a user-friendly online fiscal calculator, available at <http://www.school-choice-fiscal-notes-calculator.net>, from which legislative analysts can quickly derive insightful results. Throughout the development of the online calculator, the authors of this paper consulted with fiscal analysts, think tanks, and policy advocates in

TABLE 4 Graduation Rate Effects

	2012–13	2013–14	2014–15
Total Additional Students	36,767	57,071	86,176
Share of Graduating Class	10.8%	16.4%	24.2%

TABLE 5 Fiscal Savings to the State

	(Millions of \$)					
	Gross State Savings			Graduation Rate-Adj State		
	2012–13	2013–14	2014–15	2012–13	2013–14	2014–15
Theorized	1,043.1	1,462.8	1,622.1	899.8	1,230.8	1,256.5
Edgewood	968.2	1,246.3	939.4	824.9	1,014.2	573.8
Milwaukee	1,203.2	1,683.0	2,158.8	1,060.0	1,450.9	1,793.2

Sources: Author’s calculations; John Merrifield and Nathan L. Gray, *An Evaluation of the CEO Horizon, 1998–2008, Edgewood Tuition Voucher Program* (San Antonio, TX: UTSA College of Business, 2009), <http://faculty.business.utsa.edu/jmerrifi/evp.pdf>; Merrifield, Kerry King-Adzima, Todd Nesbit, and Hiran Gunasekara, “The Property Value Effects of Universal Tuition Vouchers,” *Journal of Housing Research* 20, no. 2 (2011), pp. 225–38, <http://ares.metapress.com/content/v4v28v527480085p>; George A. Clowes, “With the Right Design, Vouchers Can Reform Public Schools: Lessons from the Milwaukee Parental Choice Program,” *Journal of School Choice* 2, no. 4 (2009), pp. 367–91, doi:10.1080/15582150802618634; “Theorized” is based on Barry R. Chiswick and Stella Koutroumanes, “An Econometric Analysis of the Demand for Private Schooling,” in *An Economic Analysis with Applications*, ed. Solomon W. Polacheck, Research in Labor Economics: An Annual Compilation of Research, vol. 15 (Greenwich, CT: JAI Press, 1996), pp. 209–37.

TABLE 6 Average Fiscal Impact on School Districts (Grad Rate Adjusted)

	(Millions of \$)					
	Reduced District Funding			Change in Per Pupil Funding		
	2012–13	2013–14	2014–15	2012–13	2013–14	2014–15
Theorized	2,249.5	3,076.9	3,141.9	+\$93	+\$132	+\$146
Edgewood	2,028.0	2,496.5	1,390.0	+\$85	+\$110	+\$80
Milwaukee	2,615.7	3,588.3	4,438.5	+\$107	+\$152	+\$197

Sources: Author's calculations; John Merrifield and Nathan L. Gray, *An Evaluation of the CEO Horizon, 1998–2008, Edgewood Tuition Voucher Program* (San Antonio, TX: UTSA College of Business, 2009), <http://faculty.business.utsa.edu/jmerrifi/evp.pdf>; Merrifield, Kerry King-Adzima, Todd Nesbit, and Hiran Gunasekara, "The Property Value Effects of Universal Tuition Vouchers," *Journal of Housing Research* 20, no. 2 (2011), pp. 225–38, <http://ares.metapress.com/content/v4v28v527480085p>; George A. Clowes, "With the Right Design, Vouchers Can Reform Public Schools: Lessons from the Milwaukee Parental Choice Program," *Journal of School Choice* 2, no. 4 (2009), pp. 367–91, doi:10.1080/15582150802618634; "Theorized" is based on Barry R. Chiswick and Stella Koutroumanes, "An Econometric Analysis of the Demand for Private Schooling," in *An Economic Analysis with Applications*, ed. Solomon W. Polacheck, Research in Labor Economics: An Annual Compilation of Research, vol. 15 (Greenwich, CT: JAI Press, 1996), pp. 209–37.

Arizona, California, Colorado, Georgia, Indiana, North Carolina, South Carolina, Texas, and Wisconsin who deal directly with fiscal impact assessment for school choice legislation. The feedback from those actors enabled us to improve the current iteration of the calculator and make plans to improve future iterations. Several themes developed from our meetings.

First, advocates in particular have a demand for simplicity. One reviewer told us: "I think if advocates are going to use it there should be fewer questions or data points in order to simplify this." The reviewer asked specifically, "Is there a way to link this calculator to data sets?" Another reviewer lamented the complicated nature of school finance in general, and the likely short attention span of advocates lacking the time and expertise to track down some of the information needed to make the online tool useful. Accordingly, we created a "Premium" version, and a very simple "Cursory" version of the calculator; all available at this website: <http://www.school-choice-fiscal-notes-calculator.net>.

Advocates also emphasized the need for users to manipulate assumptions so as to accurately represent the unique nature of their state and situation. Hence, the current and future iterations of the tools allow users to personalize some key assumptions to make the tool both universal and applicable to the diversity of school

choice legislation under consideration in the United States. As a result, the website directly provides three sensitivity analysis windows, and beyond that, users can test the fiscal impact effects of changing the key provisions of the proposed legislation. Testing effects – sensitivity analysis – means changing the value used by the calculator and seeing how much it changes the predicted fiscal impact of the proposal.

Analysts from state fiscal, political, and education offices all emphasized the need to not only be able to make estimates, but be able to explain exactly how those estimates are made. In other words, the professional audience for this tool has very different transparency needs than the novice users. Given that, a technical paper is posted at the calculator website. Interestingly, meetings with analysts also revealed that most agreed that existing estimates used in legislative fiscal notes are purposively vague and heavily influenced by the goals of elected officials on both sides of the aisle. The known availability of an online fiscal impacts calculator for private school choice legislation would make it harder to do that—a chief aim of our effort to produce the online calculator. The various early users also expressed enthusiasm for using the experience of other school choice programs to explain the likely impact of proposed school choice legislation in their states, despite the obvious limitations.

Overall, our visits with fiscal analysts and school choice advocates showed that a successful school choice fiscal impact calculator should be:

- accessible to the novice,
- transparent in methodology,
- informed by the experience of existing school choice programs, and
- able to have its underlying assumptions manipulated by the user.

Those lessons were all taken into account during the development of the current fiscal calculator, and should continue to be considered in future iterations.

Conclusion

An insightful fiscal note can greatly influence the legislative outcome of school choice proposals. Without them, key policy decisions are more frequently influenced by speculation or a desire for the political cover made possible with contrived official numbers. At best, current private school choice fiscal note practices do little more than highlight issues to consider, and often not all of them do even that.

Because school choice policy debates can have huge fiscal and academic achievement consequences, that is unacceptable. Our effort shows the way to some significant and immediate improvement in the usefulness of fiscal notes for school choice programs, and it identifies key improvement opportunities. As both this paper and the fiscal notes calculator show informed estimates of the likely fiscal effect of school choice programs can be calculated, made easily accessible to specific audiences and the public-at-large, and used in informed policy debates. As existing school choice programs expand and interest in new programs continues to grow, fiscal notes can become even more evidence-based, further increasing their credibility and usefulness.

Notes

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23. The local costs for the Milwaukee voucher program stem from a funding flaw that forces Milwaukee taxpayers to pay some of the costs of the program through the Milwaukee Public School (MPS) levy but doesn't allow the MPS to count voucher pupils for state-aid purposes. Wisconsin has an equalization aid formula that distributes education aid by dividing a district's total property wealth by the number of public school pupils. Not including publicly funded voucher pupils in this formula makes Milwaukee appear wealthier than it is, thereby decreasing state aid by an amount that is offset by an increase in the local property tax levy.
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The authors welcome any and all questions related to methods and findings.

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