THE FUTURE OF K-12 FUNDING

How States Can Equalize Opportunity and Make K–12 Funding More Equitable

Martin F. Lueken James V. Shuls



ABOUT EDCHOICE

EdChoice is a nonprofit, nonpartisan organization dedicated to advancing full and unencumbered educational choice as the best pathway to successful lives and a stronger society. EdChoice believes that families, not bureaucrats, are best equipped to make K-12 schooling decisions for their children. The organization works at the state level to educate diverse audiences, train advocates and engage policymakers on the benefits of high-quality school choice programs. EdChoice is the intellectual legacy of Milton and Rose D. Friedman, who founded the organization in 1996 as the Friedman Foundation for Educational Choice.

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TABLE OF CONTENTS

Executive Summary	1
Introduction	5
Principles Guiding School Funding	7
Examining Existing K–12 Funding Systems	9
Indiana Funding System	9
Mississippi Funding System	12
Texas Funding System	15
Discussion	16
Challenging Today's Assumptions	16
The Right Funding System	17
Operational Considerations When Opportunity is the North Star	18
Conclusion	20
About the Authors	28
Acknowledgements	29
LIST OF FIGURES AND TABLES	
Figure 1: Average Per-Pupil Cost for Indiana District Schools vs.	
Average Voucher Amount, FY 2016	6
Figure 2: Fiscal Alignment of Education Costs in Indiana	11
Figure 3: Fiscal Alignment of Education Costs in Mississippi	14

EXECUTIVE SUMMARY

For the past 30 years, America's K–12 education system has experienced an era of expanding educational choice. Although students who participate in private school choice programs and are enrolled in charter schools comprise a small portion of the K–12 population relative to students in district schools, choice is becoming a larger part of the K–12 public education landscape. It will be important for policymakers to begin thinking about how their states can foster a robust public education system where school choice is a feature, not an afterthought. To do this, they should give thought to designing funding systems that fund students directly.

Educational choice can advance without changing funding systems, as this has been the case in just about every state that has enacted a private school choice program. But if states pursue funding reform, whether by orders from courts or otherwise, policymakers should consider a unified funding system that reflects their constituents' values.

In this paper, we offer a different lens for policymakers to examine how states fund public K–12 education and propose general guidelines for fostering a robust system of public education. We use the term "public education" here as Nobel prizewinning economist Milton Friedman described it, not as synonymous with "public schools." That is, we consider public education as an idea that all kids should have access to a high-quality education at taxpayer expense.

Our goal is to explain how states might better organize their funding systems to create a coherent system that allows students to choose among

conventional district public schools, public charter schools, private schools, and educational services outside of school walls—universal educational choice. Such a system of universal choice would maximize the benefits of education funding to students, educators, and taxpayers.

Too often people think about education finance as purely an accounting issue. In truth, education finance is largely shaped by our values. Ideal systems of funding K-12 education for children will indicate that we, as a society, desire to serve all students, that we are concerned with being responsible stewards of taxpayer dollars, and that we want to provide the best educational opportunity for every child. Equity, efficiency, and educational opportunity are three guiding principles that state lawmakers should consider as they develop or change state funding systems in order to pursue ideal education finance systems:

- Equity: Though the term equity can have many connotations, we focus on vertical equity— the principle that students with different characteristics should generate different levels of funding commensurate with their educational needs. This equity principle recognizes that some students, for instance from socioeconomically disadvantaged families or students with special needs, have greater educational needs and therefore should receive more funding than students who do not have those characteristics.
- Efficiency: An efficient K–12 funding system is one that achieves desired outcomes while minimizing costs. Taxpayers have a constant desire for student outcomes to improve, yet lack a constant desire to pay more taxes. As such, efficiency in education spending will

ⁱ National Center for Education Statistics, Table 236.55. Total and current expenditures per pupil in public elementary and secondary schools: selected year, 1919-20 through 2014-15 [web page], last modified October 2017, retrieved from https://nces.ed.gov/programs/digest/d17/tables/dt17_236.55. asp; Andrew J. Coulson (2014), State Education Trends: *Academic Performance and Spending over the Past 40 Years* (Cato Policy Analysis No. 746), retrieved from Cato Institute website: https://www.cato.org/publications/policy-analysis/state-education-trends

ⁱⁱ EdChoice (2018), Empirical Research Literature on the Effects of School Choice [SlideShare], last modified July 5, 2018, accessed July 31, 2018, retrieved from https://www.edchoice.org/school-choice/empirical-research-literature-on-the-effects-of-school-choice.

always be of paramount importance, regardless of how much is spent. It is important, therefore, that state funding systems be designed in a way to promote efficiency.

• Opportunity: Educational opportunity is defined as providing students and their families the ability to direct their educational dollars to the schools and educational settings that they deem best for their children. Various programs, such as intra- and inter-district choice, charter schooling, vouchers, tax-credit scholarships, and education savings accounts have attempted to provide families with additional choices, to a varying extent. Yet, many of these programs are funded outside of the traditional mechanisms for funding the conventional public education system.

When it comes to issues of equity, efficiency, and opportunity, there is not a single state school funding system that has achieved all these goals at once.

They have not achieved equity, where despite court-driven and elected-branch driven efforts to equalize funding, about half of states in the U.S. allocate relatively more local and state funding to students not in poverty.

They have not achieved efficiency, where real costs per student in the public education system have gone up by more than 130 percent since 1970 with seemingly little impact on student outcomes.ⁱ

They have not achieved opportunity, where only 6 percent of students were able to access a charter school or private school via taxpayer funds in FY 2016.

Although legislators have introduced school choice programs to promote opportunity for students with socioeconomically disadvantaged backgrounds, the irony is that students participating in these programs are funded inequitably with taxpayer money relative to their neighborhood public schools. To help policymakers identify ways state funding systems might be modified to facilitate a robust ecosystem of educational choice that aligns with parents' and taxpayers' values, we examined funding systems in Indiana, Mississippi, and Texas.

Some of our collective findings from those three states include:

- Lawmakers could promote greater educational opportunity, equity, and efficiency by closing the public funding gaps by directly funding students and their needs. This enhanced funding equity could be achieved by shifting fully to a student weight-based system.
- While property taxes are typically blamed for producing funding inequities among school districts, it is really the "local" in local property taxes that generates the different levels of income for districts. States could circumvent this issue by collecting property taxes at the state level and distributing them through their funding formula.
- Education savings accounts (ESAs) can be an effective policy tool for achieving a robust system of public education based on universal choice. Rigorous research on school choice suggests that students tend to benefit from these programs by experiencing improvements in student outcomes, such as academic learning, educational attainment, and civics outcomes. ESAs can also provide opportunities for students to access education delivered both within and outside of schools.

By including schools from all sectors in an ESA program, including district schools, a state can achieve a universal system of public education that is equitable, efficient, and maximizes educational opportunity for all students.

- A universal system of ESAs that directly funds students can increase equity of opportunity by incentivizing schools and educational providers to serve all students. A system that focuses on educational opportunity would put pressure on promoting financial equity as a means to incentivizing educational providers to serve all students.
- A universal system of ESAs that directly funds students can increase efficiency by improving matches between students and the education they receive. It can also promote efficiency through increased competition among providers.
- A universal system of ESAs that directly funds students instead of schools can increase opportunity by expanding educational options to satisfy the needs of a diverse set of families and allowing parents to choose the kind of education that they think best meets their children's needs.

It is critical for policymakers to make sure any proposed program conforms to constitutional directives on funding, if any. Nevada provides a cautionary tale. It launched a nearly universal ESA program in 2016, but the program is currently not operational because the Nevada Supreme Court ruled that the legislature did not adopt an "independent basis" to fund ESAs in addition to funding schools.

Because a funding system does not operate in a vacuum, as it directly affects how schools operate, how they hire teachers, whether they build new buildings, etc., policymakers should consider how shifting from a funding model that funds school districts to one that funds students may affect school operations.

To get a better understanding of what changes schools might face with such funding reforms, we interviewed 13 public and private school officials directly in charge of finance. Their personal testimonies were very similar. Generally, we found:

- Administrators in public and private schools recognize that most operating costs in education are neither completely fixed nor completely variable.
- They also recognize that students have different educational needs. As such, a student-based funding system should give consideration to supporting public schools in times of declining enrollment and also in providing funds commensurate with the varying needs of students.

INTRODUCTION

In this paper, we examine how states fund public education. We use the term "public education" here as Nobel prize-winning economist Milton Friedman described it, not as synonymous with "public schools." That is, we consider public education as an idea that all kids should have access to a high-quality education at taxpayer expense. In this sense, taxpayer funding of private school choice programs constitutes a public education system just as funding government schools through a public school district also constitutes a public education system.

Our goal is to explain how states can better organize their funding systems to create a coherent system that allows students to choose among district public schools, public charter schools, private schools, and education services that are outside of school walls—universal educational choice.

This paper starts from the premise that school choice, after 30 years of growth with respect to public and private school choice, is a reality in K-12 education. Students who participate in these programs tend to benefit by experiencing improvements in academic learning, educational attainment, and civic outcomes.²

By universal educational choice, we mean a system that allows parents to choose from all school types (district public schools, public charter schools, private schools and other non-public school environments like homeschools) as well as educational services provided outside of school walls such as tutoring, online curricula, and educational therapies. A universal public education choice system is one that ignores residential assignment and includes ways of delivering education across sectors.

We think that a system of universal education savings accounts (ESAs) is the ideal funding mechanism for enabling a system of public education envisioned by Friedman because they empower parents and families by allowing them to access educational services outside of school buildings and customize the education that their children receive.

Background

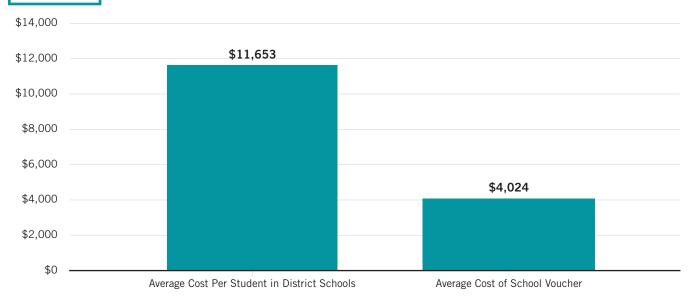
We are in an era of expanding educational choice. Since Milwaukee passed the first modern day voucher program in 1990 and Minnesota enacted the first public charter school law in 1991, millions of children nationwide now have access to more educational options than only their residentially assigned district school. Today, an estimated 3.5 million students are enrolled in charter schools or participate in private school choice programs. That is, about 6 percent of all students enrolled in public and private elementary and secondary schools.³ In school year 2005–06, this share was 2 percent.

One of the arguments for school choice has been that of educational equity. Too many students are attending schools that fail to meet their needs. As a result, many school choice programs have been targeted at disadvantaged populations. The objective, in these cases, was to provide options to students whose free public school option was a school that was failing to achieve at the appropriate levels. The irony here is that as state legislators created school choice programs to address issues of educational equity by providing students and families with more options, they have created choice programs that are themselves inequitable in an important respect.4 Specifically, policymakers sought to rectify the achievement gap between more affluent and less affluent students by offering choice programs to disadvantaged students, where in these choice programs they spend less on those students than they would have spent on them in the conventional public school.

In an analysis of 15 metropolitan areas, it is estimated that charter schools receive an average of \$5,828 less per student than the district schools.⁵ This funding disparity is minor when compared to the funding disparities between district schools and private schools under choice programs. Families

FIGURE 1

Average Per-Pupil Cost for Indiana District Schools vs. Average Voucher Amount, FY 2016



Sources: Author's estimates based on data from Indiana Office of Management and Budget, School Corporation Expenditures by Account: Biannual Financial Report Data, Statewide, accessed November 30, 2018, retrieved from https://www.in.gov/omb/files/5.%20Statewide%20Expenditure%20Report, Indiana Department of Education (2016), Choice Scholarship Program Annual Report: Participation and Payment Data.pdf; revised July 2016, retrieved from https://www.doe.in.gov/sites/default/files/choice/2015-2016-choice-scholarship-program-report-final-july-update.pdf; Indiana Department of Education (2017), Indiana K-12 State Tuition: Support Annual Report, retrieved from https://www.doe.in.gov/sites/default/files/finance/indiana-k-12-state-tuition-support-annual-report-final.pdf

participating in private choice programs typically receive subsidies worth 50 percent less than the per-student subsidies given to district schools. For example, the average voucher amount for students participating in Indiana's Choice Scholarship Program is 35 percent of the average per-student total cost in traditional public school districts.

States can and have created school choice programs without significant changes to their funding systems. Indeed, most, if not all, of the existing school choice programs passed without a significant change to the state's funding system. Some choice programs are tied directly to the states' K–12 funding systems, while other programs are funded either through appropriations outside of the K–12 funding formula or funded through tax credits.

Though expanding choice programs with appropriated funds outside of their K-12 funding systems can expand opportunity and promote efficiency, we believe that policymakers can do

better. If states are revamping their funding systems for K–12 education, they can promote even more opportunity, efficiency, and equity if they incorporate choice programs in their K–12 funding systems where it is constitutional to do so.

What we offer in this paper are some suggestions for state policymakers seeking simultaneously to change their K–12 funding systems and increase educational opportunity.

After we lay out three guiding principles, we highlight key issues that should be addressed by policymakers who are working to implement new K–12 funding systems. Next, we highlight three state funding systems and explain how they could be modified to better support a robust system of educational choice that would promote greater equity, efficiency, and opportunity. We close with specific recommendations for policymakers looking to create a fair and equitable school funding system that will promote a high-quality education system for all students.

PRINCIPLES GUIDING SCHOOL FUNDING

Too often people think about school finance as purely an accounting issue. After all, it deals with money and numbers. In truth, school finance is largely shaped by our values. Therefore, we believe it is important to start our discussion about school funding by discussing the overarching values that guide school funding.

In their paper discussing the history of education finance in the United States, James Guthrie, Eric Houck, and Matthew Springer claim there are "three public values shaping the direction of contemporary educational finance and policy: equity, efficiency, and liberty." Each of these public values is nuanced and can be understood to mean different things.

In the sections that follow, we attempt to clarify each of these three values. While we maintain the use of the words "equity" and "efficiency," we modify the use of the term "liberty." With "liberty" the question may be asked, for whom? Some advocate for greater liberty on behalf of local school districts to set tax rates or to have greater control over their educational funds. We are more interested in providing students with educational opportunity. Strictly speaking, we believe funding systems for public education should enable students to find the schooling or educational options that are the best fit for them.

Equity

The term "equity" can have many connotations. Here, we are focused on financial equity, which may refer to either horizontal equity or vertical equity.

Horizontal equity suggests the level of funding for students should be the same. This concept is best applied to subgroups of students, where horizontal equity would be achieved if schools with students with similar mixes of backgrounds receive the same

amount per pupil. Horizontal equity can be thought of as "equal treatment of equals."

Vertical equity suggests that students with different needs should be funded at different levels commensurate with the cost of educating them. This equity recognizes that some students, for instance students with special needs or students from socioeconomically disadvantaged families, need more resources to educate and therefore should receive more funding for their education than students who do not have those characteristics.

State funding systems should be concerned with issues related to equity. If a state relies heavily on local property taxes, large disparities will arise among school districts. Holding tax rates constant, property-rich districts can simply raise more revenue than property-poor districts. For this reason, state (and federal) funding is typically distributed to public school districts in a progressive fashion.

However, despite court-driven and elected-branch driven efforts to equalize funding, about half of states in the U.S. allocate relatively more local and state funding to students not in poverty, and progressivity has hardly changed since 1995, according to the Urban Institute's Matthew Chingos and Kristin Blagg.⁸ After accounting for federal funds, which tend to target high-needs student populations, Chingos and Blagg found low-income students in most states attend districts that are about as well-funded as districts where non-low-income students attend. One who values vertical equity might find this situation concerning if they believe that high-needs students should receive more funding than students without similar needs.

Although supporting fiscal equity, especially vertical equity, is a noble aim, we do offer a word of caution.

There are two ways in which a state can achieve funding equity: It can bring the less affluent districts up to the level of the more affluent districts, or it can keep the more affluent districts from raising their own taxes. In effect, it can bring the bottom up or hold the top down. Both of these situations may become problematic.

If a state allows districts to set their local tax rates, wealthy school districts may decide they want to tax themselves more. As a result, their per-pupil revenue may be much higher than other districts. Lawmakers should ask whether the state has an obligation to keep every district on pace with the highest spending district, even as the districts set different local taxing policies. This may become fiscally impossible to do. As such, it is possible that some level of funding disparity will exist among school districts. The question then becomes: What level of funding disparity among school districts is acceptable? Here again, we see that school finance is directly related to values.

Adequacy and Equity

The difficulty in achieving equity is one reason states and courts have shifted the focus to adequacy. Here, we can think of equity as being equity of access to an adequate education. It is the notion that all schools or students should have access to the level of funding that will give them the opportunity to receive an adequate education. Often a distinction is made between equity and adequacy. While these differences are important, the impetus for nearly all court decisions or legislation is to remedy perceived deficiencies in spending; especially spending in schools that serve high-need students. In short, adequacy as a public value suggests that all students, even those who live in the poorest ZIP Codes, should receive enough funding to cover the cost of an "adequate" education. Of course, the definition of "adequate" is amorphous.

Efficiency

There has been a long running debate on the extent of the relationship between spending and student achievement.⁹ Clearly, funding is important. You couldn't hire teachers without funding, after all. However, the relationship is not linear. An increase in spending does not necessarily lead to a corresponding increase in student outcomes.¹⁰

How states spend money also matters a great deal. Indeed, many believe the most pressing issue in school finance is not how much money we spend on schools but how schools are spending that money. There are debates about who best controls resources, usually framed as state control vs. local control, and which type of control is more efficient and more equitable.11 Some recent research on school funding suggests that school funding reforms, which tend to target socioeconomically disadvantaged student populations, accrue some benefits for disadvantaged students, such as improving academic achievement and later life outcomes.¹² On the other hand, some research suggests that some funding reforms benefit student populations that were not the intended beneficiaries of the policy changes.13

An efficient system is one that achieves desired outcomes while minimizing costs. We can think of schools as becoming more efficient if they are able to increase outputs—student achievement, graduation rates, non-cognitive outcomes, etc.—while holding the level of funding constant. Alternatively, we can think of schools as becoming more efficient if they are able to hold outputs constant while decreasing funding. Finally, a school might become more efficient by improving outcomes at a faster rate than expenditure growth.

With respect to taxpayers, there is a constant desire for schools to improve, yet not a constant desire to pay more taxes. As such, efficiency in education spending will always be of paramount importance—regardless of how much is spent. It is important, therefore, that state funding systems be designed in a way to promote the greatest efficiency.

Opportunity

In recent years, educational opportunity has increasingly taken a larger role in school finance discussions. This opportunity is defined as providing students and their families the ability to direct their educational dollars to the school of their choice. Various programs, such as intra- and inter-district choice, charter schooling, vouchers, tax-credit scholarships, and education savings accounts have attempted to address this issue to a varying extent. Yet, many of these programs are funded outside of the traditional system for funding public education. Funding these programs outside of traditional funding systems has led these programs to be poorly funded on a perstudent basis and to exclude most students from opportunities outside of the conventional public education system.

Providing students with educational opportunity means making funding portable, so that students can direct funding to the schools and educational settings they wish to attend. To provide the most educational opportunity, all options should be on the table in a single funding system, meaning that students should be able to access funding to attend traditional public, magnet, charter, or even private schools. Maximizing educational opportunity requires a shift in educational funding from providing resources to schools or school districts to directly subsidizing students.

EXAMINING EXISTING K-12 FUNDING SYSTEMS

Now that we have outlined the key values in designing a school funding system—equity, efficiency, and opportunity—we turn to an analysis of existing K–12 funding systems in three states: Indiana, Texas, and Mississippi.

In 2008, Indiana passed significant school funding reform, which led to a more centralized system of funding. In 2011, the state also created the Indiana Choice Scholarship Program, a voucher that has benefited from the reform that centralized funding more.

Texas recently introduced legislation to enact a nearly universal ESA program that would have allowed students to use public funds for private school tuition. The state's funding system is similar in structure to many other states, and closer examination of how the ESA program would have interacted with the state's funding system offers lessons for other states considering school choice programs.

Mississippi introduced legislation during the 2017 and 2018 legislative sessions to overhaul its school funding system. Mississippi also has three private school choice programs. We can observe how these programs are funded in the context of these states' public K–12 funding systems.

The purpose of these three analyses is to help readers understand how funding systems are currently designed and to identify potential ways systems might be modified to better facilitate a broad school choice ecosystem that would, in turn, promote equity, efficiency, and opportunity for all K–12 students.

Indiana Funding System

Indiana's state funding system is mostly student-based, consisting of a foundation amount with categorical add-ons for certain students with disabilities and students from low-income families. The funding system used in Indiana since 1949 to estimate General Fund revenue for each school district is known as the Foundation Program.¹⁴

A "foundation formula" ensures that every school district in the state receives at least some base level of funding per pupil. The calculation of how much is allocated to districts via the Foundation Program originally consists of three elements: average daily membership (ADM), a minimum

foundation amount (called the Foundation Level), and adjustments to the foundation amount based on demographics, such as the share of students eligible for free or reduced-price lunches (a.k.a. the Complexity Index).

In addition, a number of grants supplement this funding in any given year, such as: an honors diploma grant, a career and technical grant, a special education grant, and many others.¹⁵ To determine how much funding a school will receive, average daily membership counts are taken twice a year.¹⁶

There are seven state and local revenue sources available to school districts:

- · General Fund
- · Debt Service Fund
- Capital Projects Fund
- School Transportation Fund
- · School Bus Replacement Fund
- Special Education Preschool Fund
- · Referendum Fund

The General Fund is the main source of funding for districts and comprises revenue generated at the state level, such as through the state sales tax. The funding formulas of the Foundation Program, including categorical grants, determine how much money flows into the General Fund. Resources in the General Fund are used to pay for costs such as those related to instruction and administration (e.g., personnel wages or classroom supplies).

Indiana Public Law 146-2008

In 2008, the state's legislature enacted Public Law (P.L.) 146, which fundamentally changed school funding in Indiana by offsetting property tax levies as a General Fund Revenue source for school districts by increasing the state sales tax to replace lost revenues. Revenues from property taxes weren't completely eliminated in Indiana. Some property tax revenue flows to funds other than

the General Fund, such as funds for debt service, capital projects, school transportation, and special education.

Average state support for K–12 public schools in Indiana in FY 2008 was \$3,919 per ADM. This amount increased 65 percent to \$6,454 per ADM in FY 2009, following passage of P.L. 146-2008. This shift to more centralized funding moved K–12 funding closer to a model where dollars follow the child.

Indiana chose to change its funding system by essentially replacing a portion of local property taxes with sales taxes, but other states could do this by instituting a state property tax instead of a local property tax. The property tax tends to be a more stable revenue source throughout business cycles than either sales or income taxes. Although property taxes are typically blamed for producing inequities among school districts, it is really the "local" in local property taxes that generates the different levels of income for districts.

By collecting property taxes at the state level and distributing them through the funding formula, states could capitalize on the stability of property tax revenues and overcome the issue of funding inequities.

Indiana's Voucher and Tax-Credit Scholarship Programs

In 2010—two years after it changed its K–12 funding system, Indiana launched a tax-credit scholarship program to assist low- and middle-income families access private schools. Under this program, individuals and corporations can receive 50 percent tax credits for donations to scholarship organizations. Scholarship organizations then award scholarships to eligible students (from families with household income below 200 percent of the free and reduced-price lunch (FRL) income threshold). The amount of tax credits that can be given to donors is capped. The limit for SY 2018–19 is \$14 million. While this program increases

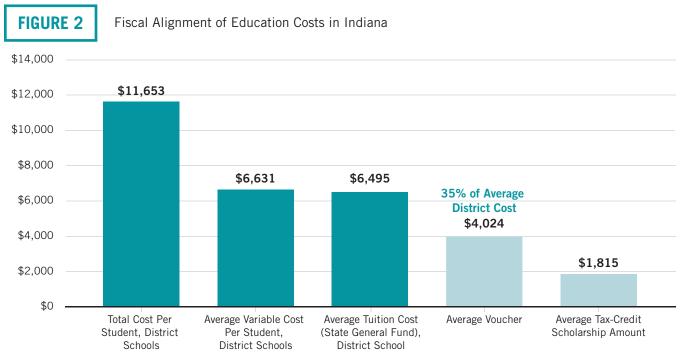
educational opportunity for some students, the funding cap leads to low levels of funding for these students and does not increase opportunities for many students.

In 2011, the Indiana legislature enacted the Indiana Choice Scholarship Program to provide vouchers for low-income students to attend private schools. Since then, the program has expanded to allow more low- and middle-income families to participate. The amount of the voucher equals the lesser of the private school's tuition/fees or an amount based on the student's residential district's state funding per student. Students from families who qualify for FRL are eligible to receive a voucher worth 90 percent of the state funding. Students from families with income of 150 percent of the FRL threshold

may receive vouchers worth 50 percent of the state funding for that student's district.

When students participating in private school choice programs switch from public schools to attend private schools, school districts experience a cost reduction in the form of the variable costs associated with those students. The state incurs a net fiscal benefit if the cost of the voucher is less than the cost the state would incur if the student enrolls in a district school. Figure 2 displays the education costs for the state and districts along with costs associated with Indiana's voucher and tax-credit scholarship programs.

The average voucher in Indiana was \$4,024 in FY 2016 while the average tax-credit scholarship



Sources: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey (State Fiscal)", 2013-14 (FY 2014) v.1a, "2014-15 (FY 2015) v.1a; "School District Finance Survey (F-33)", 2013-14 (FY 2014) v.1a; "State Nonfiscal Public Elementary/Sec ondary Education Survey Directory Data", 2015-16 v.1a.; Indiana Office of Management and Budget, School Corporation Expenditures by Account: Biannual Financial Report Data, Statewide, retrieved from https://www.in.gov/omb/files/5.%20Statewide%20Expenditure%20Report.pdf; Indiana Department of Education (2017), Indiana K-12 State Tuition: Support Annual Report, retrieved from https://www.doe.in.gov/sites/default/files/finance/indiana-k-12-state-tuition-support-annual-report-final.pdf; EdChoice, School Choice in America Dashboard, accessed June 27, 2018, retrieved from https://www.edchoice.org/school-choice/school-choice-in-america Notes: To estimate variable costs, the analysis employs school finance data from NCES. Estimates were based on categorical expenditures for Instruction, Instructional Support Services, and Student Support Services. We assume that all other categorical expenditures are fixed, such as capital outlay, maintenance, debt service, school and district administration, transportation, food service, enterprise operations, and numerous other categorical expenditures. This approach is more cautious than methods used by some economists. For example, Benjamin Scafidi estimated statewide average short run fixed and variable costs of public schools in each state. Variable cost estimates in the present analysis are lower than Scafidi's, who also includes costs for enterprise operations and food service in addition to the costs that comprise our variable cost estimates. Estimates are also within the range of what Bifulco and Rebeck estimate as variable costs for public schools in Albany and Buffalo. Benjamin Scafidi (2012), The Fiscal Effects of School Choice Programs on Public School Dis

amount was \$1,815. Total spending in the K-12 public school system was about \$11,700 per student. An estimate of average variable costs per student was more than \$6,600 per student.¹⁹

The state's per-student cost (i.e., education costs paid by the state from the General Fund) was about \$6,500. For students who left district schools to participate in the voucher program, the state saved, on average, about \$2,500 for students who switched from public schools, and districts experienced a net fiscal benefit worth \$2,600 from variable cost savings. For students who left district schools to participate in the tax-credit scholarship program, the state saved on average about \$4,700 for students who switched from public schools, and districts experienced a net benefit worth about \$4,800 from variable cost savings.

While these savings benefit taxpayers, the fact that there are fiscal savings is indicative of disparities in public funding for the choice programs. Taxpayer subsidies for students exercising choice is well below the subsidies they would have received if they had attended a public school.

To maximize the value of educational opportunity and facilitate a broad choice ecosystem, Indiana should continue advancing down the path of making a greater portion of school funding student-based and determined by need. Closing the funding gaps between choice students and district students would promote more opportunity for Indiana children. This change would also promote efficiency by increasing incentives for education providers to enter the state's education market and provide services that Hoosier families demand for education, which could lead to better matches between students and the kinds of education they receive.

Mississippi Funding System

Mississippi's current funding system is known as the Mississippi Adequate Education Program (MAEP). Public school districts in Mississippi are funded based on student enrollment and perceived resource needs. The funding system consists of a foundation (base) amount; an additional 5 percent over the base cost for students eligible for the FRL program; categorical add-on programs for students with certain characteristics; and funding for special education, vocational, alternative, and gifted programs. The MAEP has been fully funded only twice in the last 20 years.²⁰ In FY 2017, the appropriated base student cost was \$5,382 per student, but actual funding was \$4,980.²¹

MAEP funding is based on average daily attendance taken on a given day instead of the number of students enrolled in a district. Program funding is a function of the number of students enrolled in a given program, an estimate of the number of "teacher units" needed to serve students enrolled in those programs, and each district's average teacher salary.²² This method of funding programs and accounting for them in the funding formula means that teachers (and districts), not students, are funded.

Consequently, because average teacher salary varies, a single student may generate different funding amounts depending on which district he/she enrolls in.²³ For example, if the average teacher salary in one district is higher than the average teacher salary in another district (perhaps because it has more veteran teachers with more advanced degrees than teachers in the other district), then a student would generate greater funding if she enrolls in the district with the higher average teacher salary than if she enrolls in the district with a lower average teacher salary.

The state and local effort for a district's funding is determined by first estimating how much each district will raise locally from property taxes. This amount is based on a uniform local tax rate of 28 mills, which requires each district to contribute \$28 for every \$1,000 of assessed property value in the district.²⁴ The state then fills in the gap between the difference between total funding required and the amount of local funding.

A requirement known as the "27 percent rule," however, limits the amount of funds raised locally for education to 27 percent of a district's total funding calculated under MAEP, even when that funding is less than what would be raised based on the 28 mills requirement. The rule is applied as follows:

Total funding for district = funding from state + min(0.27*total funding, expected local effort)

The "27 percent rule" means that property-wealthy districts are required to pay less than their expected effort. As a result, the state ends up subsidizing K–12 funding for districts that are more likely to have an easier time supporting their own schools. Districts may raise additional revenue locally, though there is a limit of 55 mills on local revenue raised in excess of the 27 percent rule. Local funding may also exceed the cap under certain conditions such as raising funds for debt service. According to a report by EdBuild, out of 151 school districts, 17 districts had reached the 55 mills cap on local funding; 13 districts had exceeded the cap; and only 1 district was still taxing at the 28 mills minimum.²⁵

Mississippi's Efforts to Reform its School Funding System

In 2016, the state legislature hired EdBuild, a nonprofit that advocates for student-based funding in public schools, to study Mississippi's school funding system and submit recommendations for reforming it.26 The firm recommended that the state move to a weight-based student funding model. The central premise of this funding model is to fund students' needs rather than funding a system. Under this model, the total amount of targeted funding would be based on a base amount with weights applied for students with certain characteristics (e.g., for students enrolled in FRL, ELL, special needs, gifted, different grade levels, and students in sparse districts). This model of funding would be an improvement over Mississippi's current funding system by increasing transparency, predictability, and equity.

EdBuild also recommended that the state eliminate the "27 percent rule," noting that Mississippi's schools are more reliant on state funding than most states in the country. Greater reliance on state sources means that school funding will depend on the state providing what it can afford. State revenue—which is drawn primarily from sales tax and individual income tax-is tied more closely to economic conditions and more susceptible to economic shocks than local sources, whereas local revenue is usually more stable during economic downturns because it is based on property taxes. Funding, therefore, will "always be suppressed to levels that the state can afford when such a guarantee is in place."27 The "27 percent rule" also enables property wealthy districts to receive funding that exceeds the funding formula's requirements. Thus, more dollars flow to property wealthy districts than less affluent districts.

Centralized funding can provide a better platform for school choice programs, but Mississippi has centralized funding without equalizing or providing for vertical equity. Nor have they built their funding system around students.

After two years of work by legislative leaders to overhaul the funding system, the bill (HB 957) passed the Mississippi House, but failed on a close vote in the Senate in the spring of 2018. ²⁸ The reasons for the bill not passing the Senate are varied and include the desire of interest groups to continue to use the existing formula and a reluctance of members to do away with the 27 percent rule. ²⁹

Although Mississippi's experience indicates that revising a state's school funding system will require considerable effort to overcome large obstacles, the Magnolia State took a much needed and positive step toward changing its school funding system—one that is more student-oriented and one that would better facilitate a universal system of education than its current school funding system.

Mississippi's Voucher and ESA Programs

Mississippi has three private school choice programs that serve students with special needs. One program, the Nate Rogers Scholarship for Students with Disabilities Program, currently has only one student enrolled.³⁰ We examine the other two programs in this section.

The Dyslexia Therapy Scholarship for Students with Dyslexia Program, enacted and launched in 2012, provides vouchers to families of children with dyslexia. The maximum voucher amount may be worth up to the MAEP base student cost. In FY 2017, the average voucher amount was \$4,980.

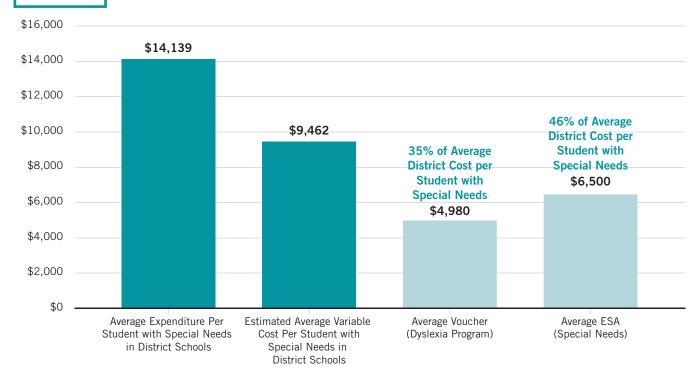
The Equal Opportunity for Students with Special Needs Program is an education savings account program that allows students with special needs to receive a portion of their public funding in an authorized savings account to access products and services. The ESA amount is fixed at \$6,500 (Figure 3).

The average expenditure per student with special needs in Mississippi public schools for FY 2017 was \$14,139.31 The estimated average variable cost for students with special needs is about \$9,400.32 The voucher and ESA amount as a percent of the total expenditure for students with special needs is 35 percent and 46 percent, respectively. Thus, when a student leaves a district school via either of these private school choice programs, the state and district experience a net fiscal benefit.33 On average, the state will experience an estimated \$7,600 to \$9,200 in savings per student, while districts would experience about \$3,000 to \$4,500 per student in savings.

Mississippi's two voucher programs were designed in ways to generate fiscal savings for state and local taxpayers, but these new programs added funding disparities on top of the current system. The fact that there are fiscal savings for taxpayers is indicative of disparities in public funding for the choice programs.

FIGURE 3

Fiscal Alignment of Education Costs in Mississippi



Sources: Author's estimates; Mississippi Department of Education, 2016-2017 Superintendent's Annual Report, retrieved from http://www.mdek12.org/MBE/R2018; EdChoice, School Choice in America Dashboard, accessed June 27, 2018, retrieved from https://www.edchoice.org/school-choice/school-choice-in-america Notes: Variable costs estimates are based on data from the MDE's 2016-2017 Superintendent's Annual Report. We first estimated the share of costs that are variable by taking the total current operations expenditures for instruction (excluding capital outlay) as a share of total current operational expenses. We then applied this estimated share, 66.93 percent, to the estimated expenditures per student with special needs. This estimated share of costs that are variable is very similar to what Benjamin Scafidi (2012) estimated for Mississippi public schools using data from the National Center for Education Statistics, U.S. Department of Education.

The voucher and ESA programs are targeted at students with special needs, and participation is very low relative to participation rates in other states with school choice programs for students with special needs. Just more than 600 students are currently enrolled in these programs combined,34 while there are more than 66,000 students with individualized education plans (IEPs) throughout the state.³⁵ Reasons for such low participation in these programs are not known for certain, though one likely reason is the disparity in funding between what public schools receive for students with special needs and public funding that parents receive in the choice programs for attending nonpublic schools. Public schools, on average, receive twice the per-pupil ESA funding and almost three times the per-pupil voucher amount for students in the dyslexia program.

Even with the addition of two school choice programs and charter schools, the current school funding system in Mississippi remains inequitable and severely restricts educational opportunities for Mississippi families because the programs are targeted only to families with children that have special needs.

Moving to a student-weighted system would be a good step toward a system of education that funds students more equitably and improves educational opportunities for Mississippi families. For example, the state should provide more direct funding to all students with special needs, instead of providing special education funding through block grants.

Texas Funding System

In this section, we provide a general overview about the sources for funding schools in Texas, how they are allocated, and how a school choice program could thrive within the state's school funding system. Generally, under the Texas school finance system called the Foundation School Program (FSP), each year, Texas determines how much each traditional school district is entitled to in aggregate based on district characteristics, student

characteristics, and local tax rates. Once the aggregate amount a district is entitled to has been determined (called the district's "entitlement") in accordance with Texas law, the Texas Education Agency then determines how much of the aggregate entitlement will be raised through local property tax collections. Any amount that cannot be raised locally, will be filled in with state funds.

Local revenue for the FSP is generated by local property taxes and flows directly to school districts. If a district can generate more funding than its annual entitlement amount through local property taxes, then the state will collect and redistribute the money to property poor districts through a process known as Recapture (also commonly known as "Robin Hood") aimed at equalizing funding for school districts of similar size, similar tax rates and student characteristics.

State funding for the Foundation School Program comes primarily from sales taxes, lottery proceeds, recapture funds collected from school districts, and contributions from the Permanent School Fund.³⁷

The Foundation School Program entitlement amount consists of three tiers. Tier I provides for a basic education program and each school district's entitlement is calculated based on school district size, cost of education index, and student characteristics. Generally, local school districts tax \$1.00 per \$100 of property value to contribute to Tier I. Once the entitlement is determined, any amount that is not raised locally will be filled in by the state using state funds. If local funding exceeds the school district's entitlement, amounts will be recaptured.

The purpose of the Tier II entitlement is to support an enrichment program that supplements the basic funding provided by Tier I funds. Under this enrichment program, school districts are entitled to an amount of funding per penny of tax effort for each student in weighted average daily attendance. School districts have the option to tax between \$1.01 to \$1.17 per \$100 of local property value. Once the entitlement is determined, any amount that is not raised locally will be filled in by the state using

state funds. While there is no recapture on taxation between \$1.01 and \$1.04, on pennies \$1.05-\$1.07, if local funding exceeds local funding exceeds the school district's entitlement, amounts will be recaptured.³⁸

Tier III, generated from property tax revenue, guarantees an amount of state funding to help property poor school districts pay for bond debt incurred to build school facilities.

Generally, when a student leaves a traditional district school, the district's entitlement to funding for the year for that student will decrease by the child's FSP entitlement amount. While the district will continue to collect its local tax revenue in each of the funding Tiers, it will be entitled to less aggregate funding when its entitlement amount for the year is calculated. This means, in non-recapture school districts, state funding will be decreased, while in recapture districts, the amount of recapture being collected will likely be increased.

To help you understand, visualize a glass representing a district's total entitlement funding for the year. It is filled to a certain point by revenue from local property taxes. The state fills in the remainder. When a student leaves, the amount filled in from local revenue remains the same. But the amount put in by the state will decrease or the district will pay recapture.

The average FSP amount per student in membership in FY 2016 was \$9,751.³⁹ On average, local property taxes pay for \$5,560, while the state contributes \$4,191.

Implications for Educational Choice in Texas

Texas could join Indiana and Mississippi by taking a step toward increasing educational opportunities for its families. With its current funding system, Texas could create an ESA program that would allow Texas families increased access to educational options. If the program were limited to students who are enrolled in public schools prior to entering

the program, then an ESA worth the average perstudent FSP entitlement cost to the state of \$4,191 would be revenue neutral for the state. This way of funding a choice program, however, is similar to how many existing choice programs are funded. There is a significant disparity between how students who participate in these programs are funded compared to how much funding would be generated if they chose to enroll in a district school. In Texas, a robust universal choice program could be designed to achieve a high measure of funding equity by providing ESAs to students worth each student's FSP entitlement, which would be worth about \$9,700 on average.

DISCUSSION

Challenging Today's Assumptions

There is a perceived dilemma that centralizing school funding systems means reducing local funding and, therefore, weakening "local control." That is, local funding is better. But this argument relies on the notion that local control belongs to public officials in charge of our public education systems and schools. By local control, one can also mean decentralizing power by empowering parents to make decisions about their children's education. Shifting funding up to the state would allow local decision making to go to families.

In trying to increase educational opportunity, some choice programs have been created separate from the overall K-12 funding system for public schools. But to ensure equity, efficiency, and opportunity, there should be one funding system. While there are significant challenges to reforming school funding systems, states need not revamp their school funding systems in order to introduce or expand choice programs. But if states are going to travel down the road to school funding reform (whether by orders from courts or otherwise), policymakers should support a unified funding system that promotes equity, efficiency, and opportunity. While preferable, a caveat to pursuing a unified funding system is that it may not meet constitutional duties in some states.

The Right Funding System

When it comes to issues of equity, efficiency, and educational opportunity, there is not a single state school funding system that has achieved all these goals at once.

Part of the problem is that these principles are not in perfect harmony, at least when liberty is defined in the traditional sense of school finance—as local control involving control of levying taxes. For instance, when we allow local school districts to freely increase their taxes to support schools, this will lead to inequities among school districts because of inherent differences in property tax bases across school districts. However, when we shift the definition of liberty to empowering parents—another type of local control—then the principles of equity, efficiency, and educational opportunity can be in harmony, and greater measures of each can be achieved with a universal ESA program.

Another challenge is that modifications to a system already in place will inevitably produce fiscal winners and fiscal losers. This may be the largest barrier to school finance reform, especially if the "losers" are the ones with more political influence than the "winners," such as taxpayers in districts that may have higher voter turnout, as may be the case in wealthier districts.

To increase equity, state policymakers either have to take from wealthier school districts, from taxpayers, or from other state programs. When this new money is distributed through a formula, there will be winners and losers. It is immensely difficult to pass legislation that changes current school funding systems because legislatures are composed of individuals representing people from all parts of a state, equity is difficult to define and achieve, and reforming school funding systems inherently creates winners and losers. Despite this challenge, policymakers can still take steps to put their states on the path to formulating a system of school funding that promotes equity, efficiency, and opportunity. ESAs are a recent innovation that are becoming increasingly popular.

ESAs as a Desirable Policy Tool

A system of universal education savings accounts (ESAs) can improve equity, efficiency, and opportunity in the current public system. ESAs are the best policy tool for creating and nurturing a universal system of choice.

ESAs allow parents to withdraw their children from public district or charter schools and receive a deposit of public funds into government-authorized savings accounts with restricted, but multiple, uses. Those funds—often distributed to families via debit card—can cover private school tuition and fees, online learning programs, private tutoring, community college costs, higher education expenses and other approved customized learning services and materials.

There are currently six ESA programs on the books in six states. Some ESA programs, but not all, even allow students to use their funds to pay for a combination of public school courses and private services. We believe ESAs should be more expansive than current law and implementation.

By including schools from all sectors in an ESA program, including district schools, a state can achieve a universal system of education that is equitable, efficient, and maximizes educational opportunity for all students.

A system of universal ESAs can improve funding equity by providing the same funding to students based on need. Different districts that receive students with similar backgrounds would receive the same funds attached to those students. Funding would be based solely on a student's needs rather than on his/her residence.

Universal ESAs can increase efficiency over the current system by virtue of improving matches between students and their education. Because ESAs can allow families to access educational services outside of school buildings, they could allow greater customization. For those who favor and emphasize personalization of learning, ESAs might be desirable.

Universal ESAs could increase educational opportunities for all families, but especially for socioeconomically disadvantaged families by creating a system of funding schools that is not based on residential assignment. And in today's age of technology, ESAs can benefit families in settings like rural areas, where educational options are limited, by increasing access to coursework, online tutoring, and other educational services.

Operational Considerations When Opportunity is the North Star

In the previous section, we outlined some overarching values that should guide the structure of a K–12 funding system. Here, we shift to issues of practical importance in regard to the day-to-day operations of schools. That is, a funding system does not operate in a vacuum, as it directly affects how schools operate, how they hire teachers, whether they build new buildings, etc. Therefore, policymakers should consider how shifting from a funding model that funds school districts to one that funds students may affect school operations.

To better understand the recurring issues in operating schools, we interviewed 13 chief financial officers or other personnel directly in charge of finance of a school or school district. Five individuals we interviewed worked or were formerly employed in public education, while eight worked for a private school organization. We sought to understand how they made financial decisions and how funding affected their schools. Below we identify two foundational issues that should be considered when developing a student-based school funding system. We also identified one critical issue for those who might be considering introducing educational choice programs in their states.

Stability and Predictability of Enrollment and Funding — Variable and Fixed Costs

Like most businesses, schools face different challenges in times of enrollment increases or declines. For obvious reasons, administrators we interviewed mentioned they have an easier time planning and allocating resources during years when enrollment is more stable and predictable. When enrollment fluctuates, school leaders usually need to make decisions regarding what areas in their budget they add or cut.

In education, most expenses are not completely fixed nor completely variable. They are what some refer to as step costs. One private school CFO noted, "Fixed and variable costs are hard in a school model ... unless enrollment drops enough that we eliminate a departmental teacher position, there's just not a lot of variable costs." This sentiment was echoed by a public school CFO, who suggested "it's step variable." Schools can cut very little for one or two students. They must still pay the teacher and school staff, but when the number of students leaving reaches a tipping point the school can make significant cuts. Nearly every CFO to which we talked agreed with this basic idea.

Under an enrollment-based funding system, larger changes to enrollment would be easier because there would be more opportunities to find cost savings. However, determining what or who should be cut can be challenging. Small enrollment changes can be challenging for budget planners because of step costs. When enrollment changes by a large number, then leaders may need to make personnel decisions which they perceive as difficult. Such decisions may include what one financial officer referred to as "FTE (full-time equivalent) right-sizing." Of course, all kinds of organizations make personnel decisions as workload changes, including universities.⁴⁰

There are, of course, some variable costs. If the school is on a cycle to buy textbooks, they might be able to reduce the number. But, that is minimal. More often, cuts come at the expense of the "extras."

As one private school CFO stated, "The costs that are variable really are driven by quality." When the school loses \$6,000 because a student isn't paying tuition, that money might come out of the budget for field trips or the band. This need not be the case if a school loses or gains a lot of students as leaders could right-size their personnel.

This all has important implications for school funding systems, especially student-based systems.

On the one hand, some advocate that all of the funding should follow the student. Economic theory suggests that making things harder for providers can make things better for customers. Economist Rajashri Chakrabarti found that only when funding followed students switching from public schools to private schools did public school performance improve.⁴¹

Others may argue that student-based funding does not take into account that education may be different from other types of markets. Based on this point of view, policymakers may want to consider a system that safeguards schools during times of declining enrollment. For example, districts that lose students might receive funding to help cope with a decrease in revenue and cover their short-run fixed costs. Escape states already provide "hold harmless" funding for some districts that experience enrollment fluctuations. For example, Iowa provides that certain districts with declining enrollment are guaranteed 1 percent funding growth for one year.

Getting the Weights Right

Another important issue to consider is the varying costs associated with educating students with different needs. Students from low-income families typically have more learning challenges and should receive more supports than their more affluent peers. Similarly, English Language Learners may benefit from additional services and schools may need to hire translators as they work with parents. Likewise, students with special needs may need

minimal to highly costly interventions, depending on their specific diagnoses. Given that students come to school with varying needs, it is imperative that policymakers give serious consideration to setting appropriate funding weights.

If a student-based funding system does not have appropriate weights for disadvantaged students, schools may be disinclined to enroll students from challenging backgrounds or with disabilities. The state could require school districts, charter schools, or private schools to accept these students regardless of the level of funding provided for the student by instituting a lottery or some similar admission system. This is less than ideal for numerous reasons. First, it forces schools to accept students they may not be equipped to serve. Second, it ensures that some students will be a net fiscal drain on a school. Moreover, it creates the possibility of a school reaching a negative tipping point. For example, a school may gain a reputation for serving students with an autism spectrum disorder. As word gets around, the school will attract more students on the spectrum. If these students do not bring in the proper level of funding, the school will eventually suffer from having too many students they cannot properly serve—and/or drain resources from other students at the school. This system is not sustainable in the long run and may even result in the closure of some schools.

Critics of school choice worry that these students would not be adequately served if schools could choose who they accept. Under a universal choice system with correct weights, there could be dramatically more equity than current public education models based on residentially assigned attendance. An appropriately designed funding system can help ensure that all students are adequately served by the education system. And it can give all schools the incentive to accept all students.

Constitutional Issues

In 2015, Nevada enacted the nation's first nearly universal ESA program.⁴⁴ Nevada's experience offers a tale of caution for other states to ensure that funding for educational choice programs that are introduced are properly drafted within their state's constitutional framework.

After passing its ESA program, two lawsuits were subsequently filed in Nevada. Both cases made their way to the state's Supreme Court. The first case, filed by the American Civil Liberties Union (ACLU) of Nevada, alleged that the program was unconstitutional due to the state's Blaine Amendment, and that it violated the state constitution's uniformity clause. The second case, filed by Educate Nevada Now and the Education Law Center of New Jersey, alleged that the program will divert to religious schools funds that were appropriated to support public schools, reduce funds deemed sufficient to operate Nevada public schools, and create a non-uniform system of schools that is not free and open to all students. Each case proceeded independently, in different trial courts. The State Supreme Court heard oral argument in each case independently, then consolidated the cases for the purpose of issuing one ruling. The court ruled that the ESA program is constitutional, but it also ruled that the legislature did not adopt an "independent basis" to fund ESAs in addition to funding schools; the appropriations bill may have included an appropriate level of funding, but there was no appropriations language for ESAs in that bill. The ESA bill could not have, and did not, include an appropriation. Therefore, the Court ruled that the program "is without an appropriation to support its operation."45

To be sure, many states have successfully enacted school choice programs that are built into their public school funding systems. It may be that Nevada is an exception, but policymakers introducing new programs in their states should take care to make sure the bill is drafted with language that conforms to constitutional directives on funding, if any.

CONCLUSION

We have examined issues relating to the development of school funding systems. Our goal has been to offer suggestions as to how state policymakers can make their funding systems more conducive for increasing educatioal opportunity, equity, and efficiency.

A system of universal ESAs can improve funding equity by providing the same funding to students based on need rather than on residence. Universal ESAs can increase efficiency over the current system by improving matches between students and the types of education they receive, and by allowing greater customization. Universal ESAs could increase educational opportunities for all families, but especially for socioeconomically disadvantaged families who usually face fewer options than better-off families, by creating a system of funding schools that is not based on residential assignment. ESAs can also accrue benefits for families in rural areas, where educational options are limited, by increasing access to educational services not constrained by geography.

We recognize that changing state school funding systems may be one of the most politically difficult challenges in education. Mississippi is an example of where reform efforts were unsuccessful. While reform is difficult, it is not impossible. Indiana, for example, demonstrates change is possible.

We also recognize that school choice can advance without changing funding systems. This has been the case in just about every state that has enacted a private school choice program. Still, we think it is important to begin thinking about how states can foster a robust public education system where school choice is a feature, not an afterthought. To do this, policymakers need to consider designing funding systems that fund students directly and not schools themselves—especially when courts mandate a new funding system.

Ultimately, we believe school choice programs should be tied directly to a state's funding system

where it is constitutional. In most state school funding systems, at least some portion of funding is based on enrollment. They at least have a foundation amount and may also apply a weight-based system for providing districts with additional funding for educating students from disadvantaged backgrounds.⁴⁶

School choice programs that link the ESA or voucher subsidy to the student-based portion of the funding system have at least one major advantage. That strategy provides a measure of certainty for families participating in these programs. For instance, they can be more confident that funding will be available in future years. Programs that rely on capped legislative appropriations limit the number of families that can participate, as we see demonstrated in Nevada and Washington, D.C. The sameholdstruefortax-creditscholarshipprograms, where the number of scholarships depend on the level of donations made to the program. Such programs carry risk for participating families that funding (or the same level of funds they currently receive) may not be available in future years. Whether they can continue to participate in the following few years will depend on decisions made by lawmakers about how much to appropriate or decisions by donors about how much to give.

The approach of guaranteeing a per-student funding amount is also more stable and equitable. It is more stable because, once implemented, it avoids many of the political issues associated with appropriations-based programs. In addition, funding for tax-credit scholarship programs may be more affected by economic conditions.

Whether through sweeping reforms or small changes to state funding systems, state policymakers can better promote educational opportunity by paying attention to the issues we have outlined here.

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variable costs of public schools in each state. Variable cost estimates in the present analysis are lower than Scafidi's, who also includes costs for enterprise operations and food service in addition to the costs that comprise our variable cost estimates. Estimates are also within the range of what Bifulco and Rebeck estimate as variable costs for public schools in Albany and Buffalo. Benjamin Scafidi (2012), *The Fiscal Effects of School Choice Programs on Public School Districts*, Friedman Foundation for Educational Choice, retrieved from EdChoice website: https://www.edchoice.org/wp-content/uploads/2015/07/The-Fiscal-Effects-of-School-Choice-Programs.pdf; Robert Bifulco and Randall Reback (2014), Fiscal Impacts of Charter Schools: Lessons from New York, *Education Finance and Policy* 9(1), pp. 86–107, http://dx.doi. org/10.1162/EDFP_a_00121

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- 38. A school districts total Tier II entitlement is calculated based on its tax rate, number of students in average daily attendance, and the guaranteed yield for that penny of tax effort. The calculations first looks to how much of the total entitlement amount can be financed

with local property taxes. Any portion of the total entitlement amount that cannot be raised locally will be filled in – or guaranteed - by the state using state funds. On pennies \$1.07 - \$1.17, if local revenue exceeds the school district's total entitlement, amounts will be recaptured. For further details, please see: Texas Education Agency (January 2018), Texas Public School Finance Overview [slide presentation], accessed December 4, 2018, retrieved from https://tea.texas.gov/Finance_and_Grants/State_Funding/Additional_Finance_Resources/Texas_Commission_on_Public_School_Finance/

- 39. Based on data provided by the Texas Education Agency on September 12, 2018.
- 40. Personnel decisions may also present opportunities for school officials to shape their workforce in ways that benefit their students. For instance, economist Eric Hanushek estimated that replacing the least effective teachers with teachers of average quality would generate significant economic benefits both for individual students (in terms of projected increased earnings) and society (in terms of increased economic output). For example, Hanushek estimated that replacing the least effective 8 to 12 percent of teachers with average teachers would generate \$112 trillion (in present value) for the U.S. economy, accumulated over a lifetime. Eric A. Hanushek (2011), Valuing Teachers, *Education Next*, Summer 2011, retrieved from https://www.educationnext.org/files/ednext_20113_feature_hanushek.pdf
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- 46. According to EdBuild, 37 states have student-based funding formulas. EdBuild, FundEd: State Education Funding Policies for All 50 States [web site database], accessed February 2, 2018, retrieved from http://funded.edbuild.org/

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