REPORT

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EQUALIZING OPPORTUNITY FOR MISSOURI'S CHILDREN

CREATING A TARGETED AND TIMELY APPROACH TO FUNDING PUBLIC EDUCATION

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ADVANCING LIBERTY WITH RESPONSIBILITY
BY PROMOTING MARKET SOLUTIONS
FOR MISSOURI PUBLIC POLICY

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KEY TAKEAWAYS

- Missouri's Foundation Formula is approaching 20 years old, and it has become disconnected from its original priorities and mechanisms.
- Almost one third of Missouri school districts are "off-formula" and are essentially unaffected by how the formula is calculated or funded.
- Missouri's approach to funding students with additional educational needs, such as low-income students or students with disabilities, could be vastly improved to match the needs of each student.
- Nationwide, public education in the United States is moving from a system of school assignment to one of school choice. Funding systems should be updated to accommodate this trend.

The public education system in the United States has been tasked with much. It was built to teach our children to be literate and numerate, and to impart knowledge of science, history, and the arts. It is responsible for creating the public good of a knowledgeable and engaged civil society that benefits all. It is also supposed to level the playing field so that all children, regardless of the circumstances into which they are born, can maximize their potential and pursue their dreams.[1] We are currently spending about $1 trillion dollars each year on K–12 public education in the United States and turning our children over for six to eight hours of 180 days a year for 12 years of their lives to fulfill these promises.[2]

It could be argued that we are not achieving any of the primary goals of public education. The public good of an educated society hasn't gained much traction in the last 50 years. The U.S. Department of Education has been testing 9-year-olds, 13-year-olds, and 17-year-olds in reading and math since the early 1970s.[3] Although reading scores had been steadily improving through 2012, the 2023 results for 13-year-olds were no different than the scores of 13-year-olds in 1971.[4] Math scores have declined precipitously in the last decade, putting current 13-year-olds just ahead of their 1973 peers. Similarly, achievement gaps, which measure the outcomes of education between children of different races or socio-economic statuses, have widened.[5]

This paper examines funding for public education, particularly at the state level in Missouri. The paper also evaluates efforts to mitigate inequity in circumstances and resources between poor and wealthy communities, as well as efforts to provide an adequate amount of funding, often referred to as "opportunity," for each child. Significant government effort has been expended in creating highly complex funding formulas with the goals of achieving both equity and adequacy in public education spending. Given the lack of demonstrable results from the current method of distributing education dollars, could we restructure the system in a way that would reverse the academic slide and growing achievement gaps? And is there a system that would better match the institution of public education as it exists today, rather than the one that existed in the last century?

EdChoice conducted a thorough analysis of the structure of public education funding several years ago and offered suggestions for how states might not only improve equity and opportunity but also use tax dollars more efficiently.[6] EdChoice's student-centered, state-funded, and universal choice of schools approach provides a roadmap for how Missouri could proceed in replacing its current system with one that actually achieves desired results. But first we need to look at where we are and how we got here.

THE FUNDING SYSTEM WE HAVE

In the early 1900s, public school was largely paid for at the local level through property taxation.[7] At that time there were about 100,000 public school districts that were locally managed and locally funded. Today, the number of public school districts has declined dramatically to just 13,300. And there has been a steady shift away from local funding, with about 10 percent of public education now funded by the federal government and around half funded with state dollars.[8] Not surprisingly, this has created tension between the idea of local control of public schools and the reality of public school districts receiving most of their revenue from non-local sources.*

The shift from local to state and federal funding occurred largely because differences in property wealth between

* Although Missouri ranks second highest in local funding as a source of public school dollars and exceeds the national average of 36 percent, local funding was still less than half (47 percent) of all funding in 2021. (Source: https://nces.ed.gov/programs/digest/d23/tables/dt23_235.20.asp?current=yes.)

districts, as well as shifts in wealth over time, led to a strong push in the last century to use public education financing to address inequity and to mitigate the impact of growing up poor.[9] This was a dominant theme in the middle of the 20th century—highlighted by the *Brown v Board of Education* decision—when equity became the primary federal and state concern in the financing of public education in the United States.[10]

The federal role in public education financing began in 1965 with the passage of the Elementary and Secondary Education Act (ESEA). The bill, signed into law by President Lyndon Johnson as part of his War on Poverty, was intended to reduce the resource gap between "educationally deprived" children and their wealthier peers via a compensatory aid program. "Educationally deprived" was a new term to describe a particular category of student who was to receive federal funding under Title I of the act. From the beginning of the program, research has been conducted on its impact. The general consensus is that it has been only marginally effective and has not significantly reduced achievement gaps.[11]

Like the federal government, the Missouri Legislature began to actively address education inequality nearly 70 years ago.[12] The Foundation Formula, still the primary mechanism of state funding for public school districts, was first introduced by the Missouri Legislature in 1955. The purpose of the formula was to distribute education dollars more equitably in order to mitigate differences in property wealth (and the resulting property tax revenue generated) among public school districts. The reasoning behind the formula comes from two sections of the Missouri Constitution. The first states that "all persons are created equal and entitled to equal rights and opportunities under the law," and the second states that "the General Assembly shall establish and maintain free public schools for the gratuitous instruction of all persons." Thus, the state must provide free schooling and it must provide equality of educational opportunity for each child.[13]

The original formula provided a Base Entitlement (BE) to districts based on a district's need, as determined by the number of students, the number of poor students, a district's operating tax levy (less its capacity as determined by assessed property valuation), a district income factor, and other local revenue sources. Once the original Foundation Formula went into effect, the share of public education funding in Missouri that came from the state began to increase. In 1960 it was 31.6 percent, and by 1970 it had increased to 40.5 percent.[14]

A significant revision to the Foundation Formula, as part of the Outstanding Schools Act, occurred in 1993 as a result of a series of legal challenges that ultimately required the state to adjust the funding formula.[15] The challenges were based on the inadequacy of the formula to address either horizontal spending equity (equal amounts per student per district) or vertical equity (equal amounts for similar types of students). Also, the original formula included a "State Expenditure Factor" (SEF) that reflected the difference between the state funding calculated by the formula and the amount appropriated by the legislature the prior year. In some years the SEF was quite small (2 percent) and in two years it was negative. As a result, the formula's ability to equalize funding was very limited and the formula was declared unconstitutional by the Circuit Court of Cole County on January 15, 1993.[16]

The replacement 1994 formula was considerably more complex than the original and was designed in such a way that state funding for education could only increase each year. It still used the basic element of local needs, offset by local effort, as measured by tax capacity. However, it added a count—actually a double count—of students in summer school to the number of eligible students. So a student who attended summer school was counted three times, which greatly increased state funding through the formula. It also used an income factor that was a ratio of each district's adjusted gross income per tax return to the statewide average. However, the income factor was always treated as at least one even when the actual calculated ratio was less than one—again guaranteeing that state funding could only increase.[†] These modifications were just the beginning of the Missouri Legislature baking increases in state funding into the formula in ways that are not connected with either equity or adequacy.

In 2005, the Foundation Formula underwent another major revision, this time focused on adequacy.[17] The new formula replaced the SEF with a State Adequacy Target

[†]Technically, districts with higher-than-average incomes should have an income factor of less than one.

(SAT) for base spending per pupil.[18] The SAT is the average of the total spent per student for all expenditures for instruction and support services from local and state funds in districts that perform in the top 25 percent of districts in Missouri on state assessments.[19] The idea seemed to be that if these districts were able to score in the top 25 percent of districts, then the amount they spent per student should be considered adequate.

The SAT is multiplied by the weighted average daily attendance (WADA) in each district. This is the average daily attendance adjusted for high concentrations of low-income students, students with disabilities, and students learning English as a second language. Finally, the formula considers differences in cost of living between communities, known as the Dollar Value Multiplier (DVM), before deducting the effort of local communities to tax themselves.[20]

The current formula has withstood a legal challenge.[21] Rather than being challenged on equity, this version was challenged on adequacy. Do all students have access to an adequate amount of funding for them to achieve on grade level? Because the SAT is based on the average amount of funding that students in the highest-performing districts receive, the formula passed the adequacy test. Defenders of the formula said it was a "needs-based formula . . . what it actually costs to educate a child." It should be noted that the school districts that brought the suit, calling themselves the Committee for Educational Quality, also wanted to raise the amount of funding for public education, claiming that the constitutional requirement of spending not less than 25 percent of the state's budget on public education was too little. However, the justices stated that there is no requirement that adequate funding be more than the 25 percent minimum.

A partner to the foundation formula is the transportation formula. State law requires that school districts provide free transportation to students who live at least 3.5 miles from their school. State law also dictates that the state will reimburse districts for a portion of the cost, up to a maximum of 75 percent of eligible expenses.[22]

In addition to the foundation and transportation formulas, Missouri distributes state aid that is generated by a one-cent statewide sales tax. Passed in 1982, this sales tax, also known as Prop C, is distributed back to districts as part of the Foundation Formula to offset property taxes and to reduce the need to raise rates.[23] Oddly, this state-collected sales tax is considered to be local funding in district financial reporting.

Shortcomings in the Funding System We Have

From their inception, public education funding formulas have focused on directing more or fewer resources to districts or buildings based on the types of students they serve, and Missouri's formula is no exception. One possible justification for the system is that manipulating (increasing) the amount of resources distributed will cause employees working in those districts and buildings to change their behavior and improve student outcomes. Alternatively, more resources could allow poor districts to hire more staff, which might improve student outcomes. Perhaps more money will allow poor districts to build better facilities, improving student outcomes.

Trends in achievement gaps between advantaged and disadvantaged students suggest a different story. The U.S. Department of Education administers an assessment every two years to a representative sample of students in each state. This assessment, the National Assessment of Educational Progress (NAEP), also known as the Nation's Report Card, allows comparison over time and between groups of students. As seen in Figure 1, in 2003, there was a 17 percentage point gap between low-income and non–low-income Missouri 8th graders in the rate of proficiency in reading (22 percent vs. 39 percent). By 2022, not only had the rates of proficiency declined, but the gap was 23 percentage points (18 percent vs. 41 percent). Results were similar in math. Twenty years of the Missouri Foundation Formula had little impact. Its failing is unsurprising given its three major shortcomings.

1. The funding formula fails to close the gap between wealthy and poor communities.

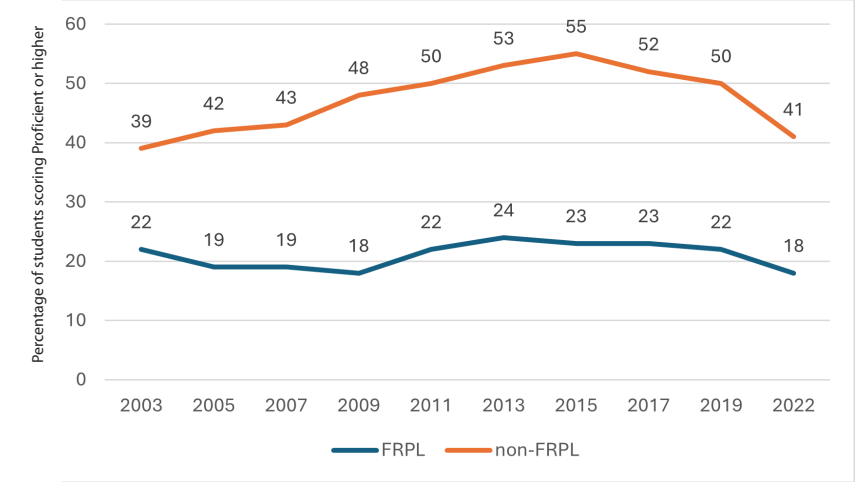
The Foundation Formula crafted in 2004 was meant to reduce disparities between students by breaking the strong connection between property wealth and school spending. However, according to the Annual School Board Reports (ASBRs), which are required to be filed with Missouri's Department of Elementary and Secondary Education (DESE) by August 1 of each year, in 2023 the correlation between total expenditures per student and assessed

property values per student was 0.6. A positive correlation this high indicates that a strong relationship remains between the two. In other words, districts with higher assessed property values are also likely to have higher than average spending. So, not only has the Foundation Formula not reduced achievement gaps, it also hasn't changed the relationship between property wealth and spending.

Figure 1

Missouri Performance on the NAEP 8th-Grade Reading by Free or Reduced-Price Lunch Eligibility (FRPL): 2003 through 2022

The gap between low-income (as measured by eligibility for FRPL) and non–low-income 8th graders was wider in 2022 than it was in 2003.



Source: U.S. Department of Education, National Center for Education Statistics (NCES), National Assessment of Educational Progress, 2003–2022, nces.ed.gov/naep.

An analysis of funding progressivity, defined as "how much more is spent on educating students from families with low incomes relative to students from families with higher incomes," done by the Urban Institute, found that Missouri actually declined in progressivity between 1995 and 2019.[24] While low-income students received 30 percent more in state funding in 1995 than non–low-income students (compared to the U.S. average of 10 percent), that had dropped to 9 percent by 2019 (the same as the U.S. average). Further, when considering total funding per student (local, state, and federal), Missouri went from being one of the most progressive to being slightly regressive between 1995 and 2014.[25] Why isn't the formula working as intended?

2. The funding formula relies on outdated property values.

When the current formula was passed, it was decided that districts would use 2005 property values in the calculation of local effort in perpetuity.[26] Technically, districts use the lower of 2005 values or the value in the second year prior to the current year. According to DESE assessed valuation data, however, all districts had lower property values in 2005 than they currently have. Thus, all districts use 2005 property values.[27] While this might have been justifiable in 2006, it makes less and less sense with each passing year.

In calculating local effort, the Foundation Formula assumes the same property tax rate, also known as the "performance levy," of $3.43 per $100 of assessed value. Of course, school districts are free to have rates below or above that amount, and they do. The point is that the local effort portion of the formula for each district never changes and, therefore, is not responsive to current property wealth differences across the state.

This can lead to more inequity in the formula, not less. A recent analysis of this problem by Dr. James Shuls for the Prime Center at St. Louis University included this example:

> Take for example two hypothetical school districts. Both school districts have a WADA of 1,000 and are in an area with a DVM of 1.0. In 2005, these two hypothetical school districts even had the

same assessed valuation, $50,000,000. As a result, they receive an equal allotment of funds from the state through the funding formula, $4.593 million. Over time, however, the assessed valuation (AV) of property grows at a slower rate in one district. By 2018, the low growth district's assessed valuation is $75 million, while the high growth district's AV is $100 million. Yet, since the formula is based on 2005 property values, the two districts will continue to receive the same amount of state funding, $4.593 million. As a result, the high growth school district will now have $858,000 more funding available than the low growth district, a difference of $858 per pupil.[28]

If it is the case that higher property wealth in a school district is due to faster growth in property values, then the disparity will only increase over time.

3. The funding formula provides too many funding protections.

There are two additional major flaws in the current Missouri Foundation Formula that may be causing the formula to not work as intended. These are revenue protections for districts built into the formula at the time of its passage. Revenue protections (also known as funding protections or hold-harmless provisions) are meant to protect districts from revenue losses for a period of time so that they can adjust their expenditures.[29] But, of course, they come with tradeoffs, particularly if they are permanent.

The first revenue protection in the Missouri Foundation Formula is a guarantee of formula funding that will never fall below the amount received in 2004–05 or 2005–06 (whichever is larger), regardless of changes (declines) in the number of students served. This guarantee operates in different ways in larger and smaller districts. Larger districts (over 350 students) cannot receive less formula funding per student, as measured by average daily attendance (ADA). Smaller districts cannot receive a smaller total amount of formula funding than they did in 2005.

Here is an example of how the guarantee works in a large district. In the City of St. Louis school district in 2023–24, the WADA was 22,831. This included an ADA of 17,398 for the regular term and 398 for summer school. The 16,747 low-income students resulted in an add-on (25 percent) of 2,810; the 2,910 students with disabilities resulted in an add-on (75 percent) of 433; and the 2,048 limited English proficient (LEP) students resulted in an add-on (60 percent) of 974; and there were 681 pre-K students. Multiplying the total WADA by the SAT and the St. Louis DVM of 1.092 results in a potential $158,941,775 in formula funding. The St. Louis local effort, as determined in 2005, is $135,448,097, meaning that the state's formula payment is estimated to be $23,493,677, which is $1,029 per ADA. However, in 2005, St. Louis Public Schools (SLPS) received $3,713 per ADA and it cannot receive less than that amount in the future. So, the actual formula payment to SLPS is nearly $85 million rather than just under $24 million.

The hold-harmless provision is used much more often in small districts. In 2023, there were 138 (out of 184) districts with fewer than 350 students who received their 2005–06 Foundation Formula amount, rather than what the formula result was for 2023. For example, the Adair County R-1 School District had a WADA of 230 students in 2023. Multiplying that by $6,375 results in a total needed of $1,464,560. Adair's local effort in 2005 was $587,593, so it should receive $876,967 in formula funding. But it received $1,275,928 in 2005, so that is the amount it will receive this year—essentially 50 percent more than its formula calculation.

Overall, 75 percent of the small districts were held harmless, and they received a total of over $41 million more than the amounts calculated by the formula. Just 15 percent of the 331 large districts (47) received a total of $99.4 million more than they would have by virtue of using their 2005–06 per WADA amount rather than their 2023 per WADA amount. There were 16 districts in 2023 that the formula indicated should have received nothing in state aid in 2023, yet they received over $28 million.

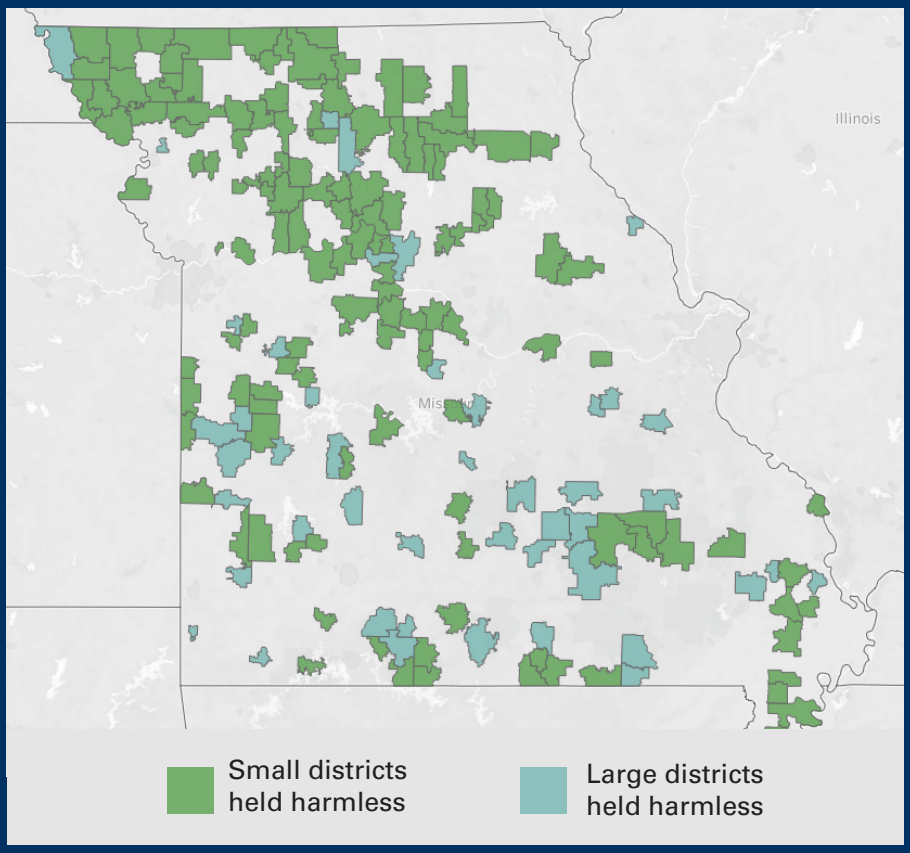
A second substantial revenue protection built into the formula involves the basic act of counting students. Because districts need to plan their staffing well before the start of the school year, most state funding formulas use student counts—either membership or attendance—taken on one or several dates in the prior year. Thirteen states, however, have state formulas that are adjusted for counts

taken in the fall of the current year.[30] Another twelve states use student counts from the prior year. The remaining states use various forms of averages from prior years and the current year to smooth enrollment numbers. One state, Kansas, allows districts to use the highest of the prior year or the year before that. And just one state, Missouri, uses the highest of the three previous years. It allows for the most generous counting of students of any state. Because Missouri districts can use the highest of the prior three years, a single student could, theoretically, be counted three times if they moved each year.

Figure 2

Missouri School Districts that Are Off-Formula Due to Being Held Harmless

Three out of four small districts in Missouri are not using the Foundation Formula to determine their state funding because the amount calculated by the formula is less than what they received in 2005. They are held harmless and will receive the funding amount received in 2005.



Source: Missouri Department of Elementary and Secondary Education (DESE), Basic Formula Calculation Tool, https://dese.mo.gov/media/file/dese-basic-formula-projection-tool-sb727-changes-12-20-2024xlsx.

Of course, these student counts only make a difference in districts that are "on formula" and not using the hold-harmless formula amounts described above. To put the provision in real terms, in 2023, there were 332 on-formula districts with a total WADA of 674,165. Using the maximum WADA of the prior three years (often 2019–20), these districts were allowed to use a WADA of 706,915. Multiplying the difference between their prior year WADA and the WADA that was used by the SAT of $6,375 results in an excess of over $216 million in formula funding being distributed to school districts for students who did not attend school in that district in the prior year. Incredibly, only 49 districts out of 520 were truly "on formula," meaning not held harmless and using student attendance numbers from the prior year. The remainder were either hold harmless (189 districts) or using student attendance from two or more years ago (182).

To summarize, Missouri has a Foundation Formula that is intended to distribute nearly $4 billion in state general revenue in a way that improves equity between poor and wealthy districts and ensures that an adequate amount is allocated to each student. However, the formula has overly generous—and permanent—revenue protections that sent an extra $150 million in 2023 to districts based on their formula calculations from 20 years ago and almost $215 million extra for pre-pandemic student attendance. The funding protections have resulted in greater and greater numbers of districts being "off formula," further

diminishing the formula's usefulness. Further, the law is actually losing ground on equity, most likely due to permanently pretending it is 2005 when determining each district's local effort. Finally, despite the goal of spending an adequate amount on each student based on their needs, the application of the formula has not narrowed any achievement gaps in 20 years. For all of these reasons, it is time to consider a new approach.

DESIGNING THE SYSTEM WE NEED

In designing a system of state public education funding, a few principles should be considered. The first is to have a clear set of priorities for what is to be accomplished. The most obvious examples are equity, efficiency, and adequacy.[31] Another priority might be to create a system that maximizes opportunity for all students by closely tying funding to the needs of individual students and allowing funding to easily follow students to their school of choice. Finally, priorities such as early literacy, postsecondary readiness, or school accountability could be woven into the formula. Regardless, the legislature should adopt goals and commit to making a formula that serves them.

The second principle is that incentives matter. While revenue protections for districts may be politically necessary, they also lead to responses by districts. If the protections are permanent, districts will have no need to work to adjust to the new formula. Also, revenue protections can easily work against the priorities set for the system. For example, allowing districts to go back three years for their attendance and enrollment, which may be defended as declining enrollment protections, can work against school choice priorities. On the positive side, incentives can be built in that encourage desired outputs, such as meeting college readiness indicators or having all students be proficient readers by 3rd grade. To the extent possible, designers of the new formula should try to anticipate the responses to incentives created by its structure to better manage them.

Of course, any revision of how public education is funded in any state will create districts that are financial winners and those that are financial losers, and any potential losers will be strongly resistant to the change. This tension often makes funding formula reform an expensive proposition. The existing size of the pie will be insufficient once any districts that will see decreases in state funding are made whole. That doesn't mean Missouri legislators couldn't resist this push to ensure that no districts lose money. Minimally, the legislature could make sure that any efforts to soften the blow for districts that lose money under the new formula are temporary—no more than a couple of years of revenue protections. Regardless, strong political support will be needed to make the case that the new system will do a better job of meeting the state's priorities, despite the challenges of implementation.

Setting Priorities

In 2022, the Tennessee Legislature created the Tennessee Investment in Student Achievement (TISA) state funding program.[32] The bill clearly laid out the following priorities: (1) empower each student to read by 3rd grade; (2) prepare each high school graduate to succeed in the postsecondary program or career of the graduate's choice; and (3) provide each student with the resources needed to succeed, regardless of the student's individual circumstances.[33] Identifying these priorities created a roadmap for the legislature to follow. In considering school finance reform, Missouri could adopt similar priorities to Tennessee's. In addition, Missouri may want to prioritize school choice, district accountability, and, perhaps, teacher quality.

Maximizing the School–Family Connection through Student-Based Funding

According to the Education Commission of the States (ECS), 36 of the 50 states fund their public schools with student-based systems.[34] This means that funds are distributed based on the number of students in the district and some measure of the needs of those students. Missouri is one of those states, and the 2005 Foundation Formula was intended to be student centered. However, as stated above, only about 10 percent of districts actually use the formula with recent student counts.

It is entirely feasible for Missouri to replace its existing student-based formula with a new one that actually works. It would likely still take the same approach—determine a base amount per student, count the students, weight them

for more expensive educational needs, and then multiply that weighted student count by the base to determine the total that the state believes a district needs to spend to adequately fund public education. Then, determine how that total obligation should be split between the state and the local school district. While the approach is the same, there are key decision points at each step.

Step One: The Base

The main component of a student-based state funding formula is the base amount per student. Some states, such as Georgia and Oklahoma, allocate very low amounts per student ($3,022 and $2,122, respectively, in 2023–24).[35] Conversely, five states use over $10,000 as a base amount, with the District of Columbia using closer to $15,000, depending on a student's grade level.

Missouri's base amount, known as the SAT, is based on the "successful schools" model.[36] The successful schools model uses the average current expenditure per student for "performance districts," or those that have met an identified standard for full accreditation in the Missouri School Improvement Program (MSIP). Current expenditure here is defined as "all expenditures for instruction and support services except capital outlay and debt service expenditures minus the revenue from federal categorical sources; food service; student activities; categorical payments for transportation costs; state reimbursements for early childhood special education; the career ladder entitlement for the district; the education entitlement for the district; and payments from other districts."[37] This definition could clearly be simplified to expenditures for instruction.

By statute, the number of performance districts is limited to no more than 25 percent of all districts. Regulations further define them as those districts that received 90 percent or more of their possible points in the Annual Performance Report (APR). The APR is meant to identify high performance, but, unfortunately, less than 50 percent of the points awarded under APR relate to academics. Further, on a scale of 48 points to 192 points (depending on the characteristics of the district), 52 points can be earned for simply having a Continuous Improvement Plan.[38]

For the 2024–25 SAT determination, the 29 districts that received 90 percent or more of their APR points actually included several low-performing districts and several with no reportable test scores. For example, the Altenburg 48 School District was a performance district. It serves 98 students in grade K–8, making it one of the eight performance districts with no high school. In 2023, just under 30 percent of its students scored on grade level in English/language arts (ELA) and the same percentage did in math. However, there are not enough students to report on below basic or advanced, so we can't know how it compares to the state average. Hudson R-IX students scored well below the state averages in both ELA (24.9 percent proficient or higher) and math (31.2 percent proficient or higher). Of the 21 performance districts with high schools, Richland R-1 had an average ACT score of just 17.2, well below the state average of 20.0. It should be noted that in the performance districts, just 20 percent of students qualified for the free or reduced-price lunch (FRPL) program, compared to 49 percent statewide.

The current average per-student expenditure for instruction (assuming that is what the legislation's definition is targeting) in the 29 performance districts, as determined by data from the U.S. Department of Education's mandatory fiscal survey, was $6,976 in 2020–21 (the latest year with available data). DESE's budget request for 2024–25, based on these districts, assumed an SAT of $7,185. The actual SAT for FY 2025 is $6,760 and $7,145 for FY 2026. While that may be a reasonable increase from two years prior, it's difficult to say if that is how the number was arrived at as there is no publicly available documentation. The foundation of the Foundation Formula seems to be unclear at best, and misleading or incorrect at worst.

From a policy perspective, it would be wise to simplify the determination of the base, make it more transparent, and connect it more closely to actual performance. The Show-Me Institute has created a 10-grade scale for all districts in the state that is based on overall proficiency in ELA and math, proficiency for low-income students only in ELA and math, growth in ELA and math, ACT scores, and graduation rates. Using the highest-scoring 100 districts on the Show-Me Institute scale and current expenditures for instruction only would have resulted in a base amount of $6,637 in 2021 (the latest year with available finance

data). While the total is not dramatically different than the current SAT, it can be easily calculated and recalibrated every year.

Step Two: Counting Students

One important component of student-based funding is counting students. Missouri is currently one of just six states that bases its formula funding on attendance rather than enrollment.[39] It should be noted, however, that recent legislation will slowly change the Missouri count from being based exclusively on attendance to eventually being based on an equal split of enrollment and attendance.[40] The difference between the two is a matter of incentives. Using attendance incentivizes districts to make sure that students show up to school, which is important.

Because most resource decisions, such as staffing and the purchase of desks and textbooks, are based on the number of registered students, this student count may make more sense and create more equity for funding formulas. Districts with the lowest attendance rates also tend to have the most low-income students.[41] Perhaps the transition to a hybrid system of enrollment and attendance will provide the best course.

Of course, memberships, used here interchangeably with registered students or enrollment, can change throughout a school year. Of the 45 states that use enrollment, just 11 do only a single count.[42] Tennessee, for example, counts students 9 times during the year, using those counts to also generate average student counts for weighting categories.[43] This allows a district to better pinpoint when a student enters or leaves it. Counting students at least four times per year would account for student mobility and provide a more accurate representation of the number of students that each district is serving.

Regardless of which student count is used, a new funding formula should use counts that are no more than two years old. By allowing districts to go back three years for attendance counts, Missouri has created a situation in which the same child can be counted in multiple districts. This system is costly and easily avoided. Most states use prior year counts, some use prior year or second prior year, and some use an average of the two.[44] Particularly in a time of declining enrollment, Missouri should make every effort to make sure that public dollars are going where students are being educated.

The enrollment in 2023 in grades K–12 for non–charter schools was 833,000 students in Missouri. Assuming a base amount of $7,200 (the current SAT is $7,185) and basing the calculation on enrollment (as opposed to attendance) would result in a total of $6 billion. (The number would be slightly lower if the hybrid attendance/enrollment number were used.) By comparison, using the highest ADA for the years 2020 through 2023 for each district and multiplying that amount by the SAT of $7,200 results in a base funding of $6.1 billion (The assumed ADA is 843,000.) Both of these amounts represent the base funding formula before weights and without regard to hold harmless or local effort.

Step Three: Identifying Student Needs Beyond Basic Funding

There are many characteristics that students bring to school that may require additional educational resources. Among these are coming from a low-income household, having a disability, being identified as gifted, or learning English as a second language. Characteristics such as these can be included as weights to the base student funding in a formula to better target funds based on student needs rather than district needs.

The current Missouri Foundation Formula includes weights for low-income students, students with disabilities, and LEP students. However, districts only receive additional funding for students above a threshold percentage that is the statewide average. In 2023, these thresholds were 30.95 percent for low-income students, 13.1 percent for students with disabilities, and 2.29 percent for LEP students. The idea is that districts only need additional funding if they serve higher than the average percentages of these students. If a formula is designed to serve students and not districts, then the weights should be applied to all students who meet the criteria.

Low-income students: While there is no question that children living in poverty have greater educational needs, it is also true that using data from the U.S. Department of Agriculture's school lunch program has made it harder to determine how many children are actually living in poverty. The U.S. Department of Agriculture also requires states to identify students who can be directly certified as

eligible for government entitlement programs by virtue of qualifying for other assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP) or Temporary Assistance for Needy Families (TANF), or by being identified as a foster or homeless child.[45] Directly certified (DC) students have already been determined to be living in low-income households and in 2023, there were just over 190,000 DC students in Missouri.[46] By comparison, in that same year, over 420,000 Missouri public school students qualified for the FRPL program, or 48 percent of all students.[47]

The Foundation Formula uses FRPL, but only gives additional weight to FRPL students in excess of 30.95 percent of enrollment in a district. In 2023, just over 39,000 students could have resulted in additional weights (assuming that most districts used their 2020 demographic data). Each of those students is weighted as an additional 0.25 students in the formula, so the additional funding would have been approximately $62.2 million (39,000 × 0.25 × $6,375) before local effort or hold-harmless consideration, which is less than $200 for each of the 350,000 students eligible for the lunch program.

By contrast, if each of the estimated 190,000 (enrollment of 840,000 × 0.15) public school students who are actually living in households below the poverty line were to receive additional funding in the formula, low-income students could get a weight of 0.25 (or $1,800) added to their base amount of $7,200. That would cost approximately $342 million, or roughly $280 million more than the amount generated by the current formula. While the amount is higher, it is substantially more targeted.

Students with disabilities: Similar to the low-income consideration in the current Missouri Foundation Formula, students with disabilities only receive additional weighting if a district enrolls more than the state average of 13.1 percent. In 2023, there were about 112,000 students with disabilities in Missouri and 15,000 of them were weighted (above the threshold in districts with higher than the state average enrollment). Each of these students is weighted as 0.75 students. These weighted students generate an additional $71 million in Foundation Formula monies.

Spreading that formula amount across the total number of students with disabilities could result in an additional $800 added to their base funding, if the goal was to keep spending on students with disabilities level. However, many states distinguish among students with disabilities based on the severity of their diagnosis. For example, Missouri could have one weighting for students with mild diagnoses, such as a developmental delay or a speech impairment. Students in this category could receive a small amount of additional funding. For example, in the hypothetical scenario above of a base amount of $7,200, a student with a mild disability could receive an additional weight of 4 percent, or $288. Statewide in 2023, there were about 89,000 Missouri students who had mild disabilities and this could represent an additional $25.6 million in formula money.[48]

Students with more serious disabilities, such as autism, a visual or hearing impairment, or an intellectual disability have educational needs that may be more expensive. These students could receive a 100 percent weighting, or an additional funding of $7,200. In 2023, there were 27,000 in Missouri with more serious disabilities.[49] Under this scenario, these students would receive an additional $194.4 million in state funding. While the total funding for students with disabilities is larger than what is generated in the current formula, it would be applied to all qualifying students and would be more targeted.

Limited English proficiency students: The last weighted category in the current formula applies to students who don't speak English as a first language, or who have limited English proficiency (LEP). In 2023, there were just over 33,000 Missouri students identified as LEP. Of those, 12,700 were in high-concentration districts (those that served more students than the threshold amount) and above the threshold. At a weight of 0.6, these students generated an additional $48.5 million in formula funding.

Many states apply a weight in their formula for all LEP students, and a common amount is 0.2.[50] If Missouri were to add an additional weight for each student in this category, rather than only for those in districts with high concentrations, a 0.2 weight would be $1,400 in additional funding. The total cost for this scenario would be $46.3 million, roughly equivalent to what is generated by the current formula.

Gifted students: Ten states currently include a weight for gifted students in their funding formulas.[51] These weights range from 0.07 to 0.7 , which of course is dependent on the amount of the base. If Missouri were to apply a weight of 0.1 ($720) to its 37,500 gifted students, this would add approximately $27 million to the foundation amount.

Step Four: Determining Local Effort

Once the needed funding for a district's students has been calculated, how the funding responsibility will be split between the state and the local district taxpayers must be determined. As was described above, Missouri school districts have a local effort that was set in stone 20 years ago at approximately $2.9 billion. This is the sum of the 2004–05 assessed valuation of all district property multiplied by the performance tax rate of $3.43 per $100. Minimally, any new funding formula should be based on current (or recent) property values.

In addition to using more recent property values, the state could use a combination of property wealth and other factors to determine a district's fiscal capacity. For example, Tennessee's TISA formula relies on fiscal capacity models that take into account the sales tax base per pupil, the property tax base per pupil, per-capita income, and a ratio of residential and farm assessed values to total property values.[52] The result is a measure of each county's fiscal capacity relative to that of the rest of the counties in the state. Once the legislature determines the percentage of total TISA funding to be paid by the state (70 percent in 2023), the remaining percentage is split between districts using the fiscal capacity percentages. Wealthier districts will pick up larger shares of the 30 percent and poorer districts will pick up smaller shares. Of course, Missouri school districts do not correspond to county lines, which would add complexity to this approach.

As a percentage, Missouri school districts have been paying about 45 percent of the total Foundation Formula amount of roughly $6.5 billion. Missouri is behind only five states—New Hampshire, Connecticut, Massachusetts, Nebraska, and New Jersey—in the percentage of school funding that comes from local property tax.[53] A heavy reliance on local property taxes makes it more challenging for state funding formulas to have an impact. In fact, there are three districts in Missouri—Clayton, Brentwood, and Ladue—that generate approximately 94 percent of their total spending on education locally.[54] One can imagine the difficulty a state education agency would have in exerting any control over these districts.

It should be noted that local funding is not a prerequisite for local control. For example, California passed a student-based funding system known as the Local Control Funding Formula (LCFF) in 2013.[55] The LCFF determines how much each district needs (base × student counts × weights) in a typical fashion.[‡] The state then tops up whatever amount is in excess of local tax collections, which are fairly regulated in California. Although California made local control of funds a priority in its funding formula, local property taxes accounted for only 27 percent of spending in California in 2021.[56] There are a few research studies that suggest the LCFF is having a positive impact on graduation rates and academic achievement among poor and minority students.[57]

An advantage of shifting funding from local sources to state sources is the ability to better target funds to students who need them. In addition, a larger dollar amount could be "backpacked" with each student under a state school choice program that may or may not have local support.[58] Regardless, Missouri needs a formula with a more accurate and timely determination of local spending capacity.

Funding Considerations Outside of the Base Formula

In addition to student needs, state funding formulas often account for unique circumstances of districts, such as funding for small, sparsely populated, or very rural districts that face unique challenges. In addition, many states have provisions in their funding formulas, not just for individual students living in poverty, but also for students in schools or districts with a concentration of poverty. These incentives apply to districts and, thus, are not as explicitly student based.

There may be other provisions outside of the base formula that depend on counts of students and what they do or do not accomplish. Let's take a closer look at two additional priorities—early literacy and college and career readiness—and how they might be included in a funding formula. While these incentives are directed at districts, and not to

[‡]There are few additional steps in the LCFF, namely concentration funding for high-need districts and a cost-of-living adjustment.

student backpack funding, they are just two examples of how funding formulas can be used to promote quality.

Empowering Each Student to Read by Third Grade

Many states, including Missouri, have recognized the importance of children being able to read proficiently by third grade so that they can go on to read to learn. Most states have kept the funding for early reading initiatives out of the student formula by distributing funds to districts for the program, making it categorical spending rather than distributing funds to districts based on the number of students served. In Missouri's case, the state has created the Missouri Read, Lead, and Exceed program, which provides training for at least 15,000 teachers in the science of reading.[59] However, there is no accountability or requirement that teachers use this training—only that they take it. Other states require the science of reading training and application in the classroom.

Tennessee decided to bake direct funding for early literacy into its TISA formula in two ways. Districts receive $500 for all students in kindergarten through third grade.[60] Districts receive an additional $500 for each student who scores below grade level (known in Tennessee as "below" or "approaching") on the third-grade ELA portion of the state assessment. If Missouri were to take a similar approach, districts would receive $128 million for the 255,850 students in grades K–3 last year and another $20 million for the 102,000 third-grade students who scored at the Basic and Below Basic level on the Missouri Assessment Program (MAP) ELA test in 2023.

Preparing Each High School Student to Be College or Career Ready

In its current system of accountability, the MSIP 6, districts and schools are scored on whether high school graduates are "Success-Ready." Success-Readiness is measured by counting students who receive passing scores on nationally normed assessments such as the ACT, the SAT, or the military Armed Services Vocational Aptitude Battery (ASVAB). In addition, districts receive points for students who complete advanced coursework, such as AP or IB exams, who attain industry recognized credentials (IRCs), or who get a qualifying grade in a college dual enrollment course. However, the MSIP 6 is not connected to the Foundation Formula in any way, and all but 6 of the 532 school districts in the state received a status of Fully Accredited under MSIP 6. Therefore, there is essentially no incentive or disincentive for districts to ensure that high school graduates leave school college or career ready.

Several states have included measures of college or career readiness in their funding formulas by offering incentive dollars for each student who meets a readiness indicator. For example, Colorado's Career Development and Industry Credentials Program offers districts up to $1,000 for each student who receives a high-demand and low-supply IRC.[61] In the first year of the program, 2016–17, funding was approved for 1,807 IRCs. In the 2022–23 school year, that number had increased to 10,430 IRCs, 246 pre-apprenticeships, and 115 apprenticeships, with an average award of approximately $400.

North Carolina took a slightly different approach. It pays teachers bonuses of $25 to $50 for each student they teach who successfully attains an IRC. The total amount of bonuses is limited to $3,500 per teacher.[62] In 2022–23, North Carolina high school students earned over 325,000 IRCs.[63] For context, Missouri high school students earned 6,336 IRCs in 2023. If Missouri were to award a total of $1,000 per IRC to students, districts, teachers, or some combination of the three, it would have cost $6.3 million last year.

In addition to direct incentives for career readiness, some states offer financial incentives for college readiness, as measured by passage of a College Board Advanced Placement (AP) exam. The Florida funding formula, for example, adds a weight of 0.16 to its base funding of $5,139 for each high school student who takes an AP exam and scores a "3" or higher. In addition, teachers receive $50 for each of their students who receives a score of "3" or higher on an AP exam, and they can receive an additional $500 if at least one of their students accomplishes this and they are in a school that the state has designated as a "D" or "F" school.[64] Last year, 28.4 percent of Florida high school graduates scored a "3" or higher on an AP exam, compared to just 12.1 percent of Missouri high school graduates.[65] The national average was 21.7 percent.

SUMMARY

If the Missouri Legislature were to agree that the 2005 Foundation Formula had outworn its use, either because of the high percentage of districts that are "off formula," because 2005 property values are incredibly outdated, or for any other reason, it could follow the lead of other states and create a student-based, targeted, and incentive-based funding formula as described in the previous pages. Let's look at what might be the result, compared to what Missouri is doing now.

Table 1 contains a summary of the 2023 Foundation Formula. Using an SAT of $6,375, the highest WADA of each district for the past four years, and the DVM, which adjusts for cost of living, results in a total of $6.3 billion. The local effort has been and will continue to be $2.9 billion. The large districts that are "on formula" received state payments of $2.66 billion. The large districts that were held harmless (using the 2005 per WADA amount) received just over $600 million. The small on formula districts received $40 million, and the small districts held harmless (using 2005 total state funding) received $122 million.

Now let's look at what a targeted, student-centered formula might cost (Table 2). Using a base funding amount of $7,200 and a total 2023 enrollment of 833,000 students, the base formula would be $6 billion. (This amount is for K-12 students in non-charter public schools only. The enrollment figure does not include the 35,000 pre-K students attending Missouri public schools or the 25,000 charter school students.) Applying a weight of 0.25 for low-income students enrolled would result in an additional $342 million, or $1,800 per student living below the poverty line. If students with disabilities were divided into just two categories—mild and severe—another $220 million would be added to the base. Similarly, a weight of 0.20 for students who are LEP would add almost $49 million, and a weight 0.10 for gifted students would add another $27 million.

The total formula calculation ($6.6 billion) would be similar to the current funding formula. Local effort could either be set at the current percentage (45 percent), with a similar total of $3 billion, or the state could choose to set the percentage higher or lower, or use a different metric. Regardless, such a system would be updated, simpler, more student centered, and more targeted.

Table 1: **Breakdown of the 2023 Missouri Foundation Formula**

	Total
State formula payments	
Large district - on formula	$2,657,970,000
Large district - hold harmless	$601,073,000
Small district - on formula	$40,116,000
Small district - hold harmless	$122,938,000
Total Foundation Formula state payments	$3,422,098,000
Local effort (45%)	$2,914,301,000
Total Foundation Formula	**$6,336,399,000**

Source: Author's calculations based on Department of Elementary and Secondary Education (DESE), sf-EstimatedADACalculation 5-31-2024.

One thing that should be mentioned in regard to dividing the costs of public education between the state and local districts is that Missouri collects a one-cent sales tax, known as Prop C and enacted in 1982, that is intended to offset local costs for public education. The total revenue collected through Prop C has been about $1.2 billion in recent years. That amount is distributed back to districts based on their WADA and the predetermined "Prop C per WADA" that the state calculates once the revenue is known. The Missouri Legislature could use the Prop C funds to offset the local effort portion of the formula, thereby having more state funds that could follow a student to the school of their choice. Looking at Table 3, Missouri could publicly fund scholarships or universal school choice of anywhere from $5,400 to

$9,300, depending on the type of student, and have a completely revenue-neutral program.

CONCLUSION

In most states, public education is the biggest line item in the budget aside from Medicaid and Medicare. Billions of dollars are in play, and determining how to distribute those dollars is a complicated and politically fraught issue. Most funding formulas stay in place for decades because state legislatures are reluctant to wade into the morass. New formulas upend the established regime and create new winners and losers. Districts plan their budgets based on their knowledge of the old formula, and fear of the unknown may make them hesitant to change anything.

Table 2: **Hypothetical Student-Centered, Targeted Funding Formula with a Per-Student Base of $7,000**

	Enrollment	Weight	Funding per Student	Total
Total	833,000	1.00	$7,200.00	$5,997,600,000
Living in poverty	190,000	0.25	$1,800.00	$342,000,000
With mild disabilities	89,000	0.04	$288.00	$25,632,000
With serious disabilities	27,000	1.00	$7,200.00	$194,400,000
Limited English proficient	34,000	0.20	$1,440.00	$48,960,000
Gifted	37,500	0.10	$720.00	$27,000,000
Total Foundation Formula				$6,635,592,000
Less:				
Local effort	45%			$2,986,016,400
Total Foundation Formula state payments				**$3,649,575,600**

Source: Department of Elementary and Secondary Education (DESE), District Demographic Information, https://apps.dese.mo.gov/MCDS/FileDownloadWebHandler.ashx?filename=0c9fea60-5278District%20Demographic%20Data.xlsx, State Gifted Education Report, https://apps.dese.mo.gov/MCDS/Reports/SSRS_Print.aspx?Reportid=d2cc6c82-7a51-423f-bf8d-e7c7b7997f59, Special Education State Profile, https://dese.mo.gov/media/pdf/mo-state-profile.

Nonetheless, we are a quarter of the way into the 21st century and public education is characterized by several new trends that call for new ways of funding our schools. The first is declining enrollment in general. Birth rates peaked before the Great Recession of 2008 and have not recovered. Birth rates in the United States are firmly below replacement rate and declining. Public school enrollment hit a high-water mark of 50.8 million students in 2019 and has since declined to 48.7 million in 2024.[66] It is projected to be 46.9 million by 2031. The notion of needing more money every year to build more schools and hire more teachers no longer makes sense. Issuing 30-year bonds for school buildings and having teachers need to work 25 years to break even on their pensions no longer makes sense. We need a more strategic and targeted way to make sure that each student receives the best education possible.

The second is a clear movement toward parents choosing their children's schools, rather than children being assigned to schools based on their address. Twelve states now have universal choice programs. Charter schools and open enrollment programs, which are available in 90 percent of states, have been around for nearly 25 years. That means we have a whole generation of young parents who may have attended a chosen school themselves rather than an assigned one. State legislatures can resist this trend if they choose, but it's just a matter of time before its ubiquitous. It is highly unlikely that subsequent generations will want less choice than their parents had when it comes to educating their children.

Table 3: **Hypothetical Student-Centered, Targeted Funding Formula with a Per-Student Base of $7,000 Including Prop C Funds**

	Per student funding	State portion	Prop C	Total
All students	$7,200	$3,960	$1,402	$5,362
Living in poverty	$9,000	$4,950	$1,402	$6,352
With mild disabilities	$7,488	$4,118	$1,402	$5,520
With serious disabilities	$14,400	$7,920	$1,402	$9,322
Limited English proficient	$8,640	$4,752	$1,402	$6,154
Gifted	$7,920	$4,356	$1,402	$5,758

Source: Department of Elementary and Secondary Education (DESE), District Demographic Information, https://apps.dese.mo.gov/MCDS/FileDownloadWebHandler.ashx?filename=0c9fea60-5278District%20Demographic%20Data.xlsx, State Gifted Education Report, https://apps.dese.mo.gov/MCDS/Reports/SSRS_Print.aspx?Reportid=d2cc6c82-7a51-423f-bf8d-e7c7b7997f59, Special Education State Profile, https://dese.mo.gov/media/pdf/mo-state-profile.

Finally, we have decades of standardized test scores that indicate attempts to equalize opportunities by manipulating how states send their one-half contribution to school districts has not worked. Achievement gaps have grown.

In a time of unavoidable budget decreases and increased choice and mobility, Missouri should consider revising its 20-year-old funding formula so that it applies to all districts, is more student centered, and is better targeted. In addition, the local contribution to each student's funding should be made more mobile. Students with greater needs could have significant buying power in the education marketplace. Schools could be free to target their efforts on a subset of learners, rather than try to be everything to everyone. Parents could be empowered to use the state, local, and, ideally, federal funds that are associated with their children in the funding formula to maximize opportunity for their children. And state legislators could take control by simplifying the system and making it more responsive and accountable.

A Final Note about Transparency and Accountability in Public Policy

Public education funding formulas exist within the realm of public policy. Accordingly, they should be accountable to taxpayers and fully transparent in their execution. There are numerous examples of state education agencies that publish detailed accountings of their funding formulas. Florida is one. Each year, the Florida Department of Education publishes "Funding for Florida School Districts."[67] This document has a detailed explanation of how the Florida Education Finance Program (FEFP) works, details on each of the variables, and a table with the full calculation for each district.

DESE does not publish the full formula calculation for each district, including which year's WADA is used. DESE also does not publish the list of performance districts used to determine the SAT. Nor does it publish the current expenditure data for the performance districts, or the calculation thereof. While it may be possible to obtain these data through data requests to DESE, that does not meet the test for transparency. Whether or not the Missouri Legislature decides to take on the challenging task of creating a new student funding formula, reporting improvements should be made as soon as possible.

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