NEPC Review: The Basic Education Program: How the Volunteer State's Education Funding Formula Doesn't Make the Grade (Beacon Center, November 2021)

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February 2022

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Summary

A new policy brief from the Beacon Center of Tennessee describes the state's K-12 finance formula and makes recommendations for reform. The report asserts that Tennessee should replace its "resource-based" formula with a "student-based" formula more closely resembling the approach used in some other states. Key empirical claims in the report include the following: (a) resource-based funding models privilege resource allocation over students' needs; (b) student-based funding models are inherently more equitable, efficient, and transparent; and (c) imposing spending regulations to control the percent of funds allocated to instruction, student support, and administration would improve student outcomes. However, there is little if any peer-reviewed research to support these claims. In fact, little empirical work explores these issues, suggesting a need for more research in this area prior to advancing strong policy recommendations. While the report is commendable in its call to action and emphasis on equity and transparency, it provides limited actionable information. Policymakers should thus read this report with caution and pair their reading with materials that provide more nuanced perspectives.

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I. Introduction

A growing number of state policymakers and education leaders are leveraging school finance reforms to support systemwide improvement.[1] Historically, scholars and legal analysts debated the merits of increasing funding or reforming state and district funding policies, with many arguing that "money doesn't matter." In recent years, however, researchers have largely reached consensus that additional targeted educational spending improves long-term student outcomes, particularly for low-income youth.[2]

Now, several states are reexamining their school finance policies and considering reforms. A new policy brief from the Beacon Center of Tennessee, *The Basic Education Program: How the Volunteer State's Education Funding Formula Doesn't Make the Grade*, authored by Ron Shultis and Jason Edmonds, makes recommendations directed to Tennessee lawmakers.[3] This review provides additional context for the report's recommendations, outlines supporting evidence for those recommendations, and offers critiques and suggestions for further reading.

II. Findings and Conclusions of the Report

The report includes a number of key findings and conclusions. First and foremost, the report argues that Tennessee's K-12 school finance formula is overly complex because it uses a "resource-based" approach, focusing lawmakers' attention on resources and systems rather than on students. It further argues that a "student-based" funding model is inherently

more equitable, efficient, and transparent. As described in the report, both types of funding formulas generate a "base allocation"—or a set amount of funding per student. Under a resource-based funding formula, the base allocation is calculated as the cost to provide a set of resources per student. The state legislature determines a necessary set of resources that might include, for example, one teacher for every 20 students, one counselor for every 250 students, a per-student cost for supplies and materials, and so on. These resources are then converted to a dollar amount per student. In contrast, under a student-based funding formula legislators determine allocations by simply choosing a dollar amount per student. Both models typically include adjustments based on a geographic cost index and district factors, and both models typically provide additional resources for students with greater identified need.

As noted, the report concludes that compared to a resource-based formula, student-based funding: (a) more accurately reflects the needs of students; (b) allows school leaders to budget more strategically; and (c) is more transparent. Under resource-based formulas, the report argues, students with different classifications, such as those classified as low-income, English language learners, foster youth, or those who attend urban, rural, large, or small schools, are all treated similarly, while student-based funding differentiates among student categories.[4] The report further argues that under student-based funding, school leaders can make more efficient spending decisions because they have more autonomy. It also asserts that student-based funding increases transparency because parents, policymakers, and the public can "more easily see" how districts allocate funds.

A second key finding from the report is that imposing spending regulations on the percent of funds allocated to instruction, student support, and administration would improve student outcomes. Specifically, the report calls on state legislators to add spending regulations requiring local school districts to allocate a certain percentage of their budget to instruction, preventing districts from spending too high a percentage on student support or administration. The claim is that funds spent "in the classroom" are more cost-effective than those allocated to the other categories. While not suggesting a specific percentage to be spent on instruction, the report argues that Tennessee districts should be restricted in spending for student and teacher supports outside the classroom and encouraged to allocate more funds to instruction, which includes teacher salaries, instructional staff, and classroom supplies.

Finally, the report describes Tennessee's method for calculating fiscal capacity, or a school district's ability to raise local revenues to support its schools. Typically, wealthier districts have more fiscal capacity because they have higher local property values within their residential boundaries and thus can generate greater local funds at any given tax rate. The report charges that Tennessee's method for calculating fiscal capacity is overly complex and creates inequities. The method involves two separate indices, each using different methodologies. The claim is that inequities arise because the state calculates fiscal capacity at the county level, not the district level.

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

The underlying arguments for transitioning to a student-based funding formula include: (a) most other states use a form of student-based funding; (b) this type of funding model is more transparent and equitable; and (c) Tennessee would be a leader in education funding if it implemented student-based funding at both the state and district level.

The report's call for adding spending regulations for school districts is based on the assumption that funds spent "in the classroom" are more cost-effective than funds spent on other purposes, such as out-of-classroom supports for students and teachers and general administration.

Last, the rationale for reforming the state's measure of school district fiscal capacity is that the current method is convoluted and inequitable, and that a simplified version applied at the district level would be more transparent and equitable.

IV. The Report's Use of Research Literature

To support the above claims, the report primarily references newspaper articles, legislative reports of summary statistics, and policy commentaries. The authors do not cite any research articles published in peer-reviewed journals. This omission is unfortunate because researchers have studied student-based funding (or "weighted-student funding") models in states and school districts around the country, finding that major school finance reforms are complex and nuanced. Research studies of California's statewide weighted-student funding formula show, for example, that the reform increased funding equity, but led to a greater share of novice teachers assigned to lower-income students, was not adequately funded, and did not distribute funds evenly among rural districts.[5]

Other studies of student-based funding models highlight challenges with implementation, particularly at the district level.[6] While many districts around the country are switching to student-based funding, a recent study concluded there is no standard model and, in most districts, large sums of money flow to schools outside the formula.[7] In another case study of a school district's use of weighted-student funding, the author highlights a racialized struggle for fiscal authority, where greater principal autonomy over the school budget led to disagreements among parents about school priorities.[8]

Among studies of funding models in general, few examine the effects of different funding formulas on spending patterns or student outcomes. In perhaps the only rigorous study of the impact of different state funding formulas, the authors conclude that other state factors, such as political ideology, teacher union strength, and income inequality, predict differences in spending patterns about as well as the state's specific K-12 funding formula.[9]

With regard to district spending regulations, which the Beacon Center report argues would improve the efficiency of educational spending, the research base is thin. Few if any studies examine the impact of specific spending regulations, such as a requirement to spend a

particular percentage of all funding on instruction. The report points to Kansas, where lawmakers have encouraged district leaders to spend at least 65% of funds on instruction. Some research studies identify positive effects associated with certain spending categories, such as teacher salaries, class size reduction, mental health counselors, or instructional coaches.[10] However, there is no empirical research to suggest spending a pre-specified amount of the educational budget on instruction is a good or bad idea. Nor are there any empirical studies suggesting schools currently spend an exorbitant amount of funds on administration or student supports, rather than instruction.

V. Review of the Report's Methods

The Beacon Center report argues in favor of a student-based funding formula as well as a simplified fiscal capacity measure, and increased finance regulations to support greater spending on instruction. The report does not leverage specific research methods and instead presents an overview of various policy alternatives, referencing legislative reports and selected policy briefs.

The report is critical of several features of Tennessee's school finance policy structure, especially resource-based funding. However, the authors do not specifically outline the differences between their proposed student-based funding and Tennessee's current resource-based funding. A side-by-side comparison of the two funding models reveals surprisingly few differences in how these two models work.

Table 1 highlights the similarities and differences between resource-based and student-funding models. In many ways, the two approaches are identical. As shown in the first four rows: (a) both funding models distribute a "base allocation" to each school district, defined as a set amount of dollars per student that all districts receive; (b) both models can include extra funds for districts serving more higher-need students; (c) neither model places specific restrictions on how base allocation funds can be spent; and (d) neither model determines the fiscal capacity—a measure of school districts' ability to raise revenue and pay for a share of the base allocation. Fiscal capacity is determined separately, outside a state's main funding formula, based on separate calculations. In sum, resource-based formulas do not necessarily treat all students similarly and are not necessarily more or less efficient or transparent than student-based funding.

The bottom two rows of Table 1 show the key difference between resource-based and student-based funding. Under a student-based model, the base allocation is a per-student dollar figure (for example, $6,000 per student). Under a resource-based model, the base allocation is calculated as the cost to purchase a set of full-time equivalent staff members and materials for each student (for example, the dollars needed to purchase one teacher for every 20 students, one counselor for every 250 students, and so on). Once calculations are made, the end result for the two funding models is essentially the same: Districts receive a set amount of funding per student and have relative spending flexibility. Both models distribute funding to districts based on their enrollment. A more fitting term for student-based funding might

be "dollar-based funding," since both models distribute a base allocation on a per-student basis but differ in how the amount is calculated.[11]

TABLE 1

Similarities and Differences Between Two Categories of State School Funding Formulas: Resource-Based Funding Models and Student-Based Funding Models

	State Funding Formula	
	Resource-Based	**Student-Based**
Similarities		
Distributes a "base allocation" (or formula-based amount of funding) to each school district, based primarily on the number of students in each district	Yes	Yes
Can include additional funding weights for students with specified enrollment classifications	Yes	Yes
Places restrictions on how school districts spend money or how many of each staff type districts can hire (teachers, counselors, assistant principals, librarians, and so on)	No	No
Determines each school district's required local share of funding, or their fiscal capacity to fund schools	No	No
Key Difference		
The base allocation for each district is a dollar value selected by state legislators	No	Yes
The base allocation for each district is a dollar value that reflects the cost of hiring a specified number of various staff members, as determined by state legislators	Yes	No

Note. State funding formulas can be categorized along several different dimensions. This table shows one way of categorizing them, based on how they calculate base allocation per pupil. As shown in row 2, both funding formulas allow states or districts to target extra resources based on the number of students in each enrollment classification (for example, low-income or English language learner).

A final note about the study's research methods is warranted. The Beacon Center report argues that Tennessee's method for calculating fiscal capacity is overly complicated and inequitable. While the report does not define "inequitable," this likely refers to more state aid being allocated to school districts serving higher-income students. In Tennessee's formula, as in most state school finance models, districts with greater fiscal capacity are expected to pay a greater share of their base allocation, while districts with less fiscal capacity receive a greater share of state aid and have a smaller local share. As noted earlier, the state calculates fiscal capacity at the county level rather than district level, so that all districts in the same county receive the same fiscal capacity measure. This approach benefits districts with higher average property values (that is, greater fiscal capacity). These districts are assigned lower fiscal capacity than their actual value and so receive a greater share of state aid than they

would if capacity were more accurately determined at the district level.

On its surface, this practice appears to disadvantage lower-income students. But local property values and student poverty rates are not perfectly correlated.[12] Many urban districts include both high-value commercial property and lower-income neighborhoods. And more rural regions can include both higher-poverty areas and industrial property or fossil fuels that increase the local school district's property tax base. Meanwhile, some suburban districts serving middle and higher-income students sometimes have relatively low property wealth per student compared to urban or rural districts.

Whether Tennessee's use of a county-level fiscal capacity measure really does drive more state aid to higher-income students is an empirical question. Answering that question would require analysis of property tax bases and student demographic data. The report sounds the alarm around equity, but does not offer any analysis of data, or reference any relevant report or research study. In short, the report does not use sound research methods to support its claims.

VI. Review of the Validity of the Findings and Conclusions

The Beacon Center's report recognizes that Tennessee's school finance model is need of reform. Indeed, several recent reports have highlighted serious flaws in the way the state funds public education.[13] However, the report's policy recommendations are not supported by the research, and thus have limited validity, especially in light of conflicting findings in the empirical research base. The report's findings and conclusions stem largely from ideological basis, rather than an evidence- or research-based perspective.

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

In summary, tenuous empirical claims, strong policy recommendations, and limited evidence base combine to limit the usefulness of this report for guiding policy and practice. The Beacon Center's report highlights an important topic, school finance and resource allocation equity, which deserves Tennessee state lawmakers' attention. However, the key arguments are not supported by research, and a wide array of recent studies presents contradicting findings. If Tennessee legislators read this report, they would benefit from pairing it with empirical research and reports that analyze real data from the state's school finance system.

Notes and References

1 For example, Illinois, Maryland, Texas, and Washington all recently overhauled their finance system, including placing special regulations on how school districts allocate funds (Burnette, 2019). School district leaders are similarly recognizing the importance of district finance and budget models. Chicago Public Schools (CPS) recently created an "Equity Index" to determine which schools are most in need of additional funds (CPS, 2021). The Los Angeles Unified School District and New York City Schools have both recently experimented with providing principals with more budgetary autonomy.

2 See, for example: Baker, B.D. (2016). *Does money matter in education?* Albert Shanker Institute. Retrieved October 10, 2021, from https://eric.ed.gov/?id=ED563793

Candelaria, C.A. & Shores, K.A. (2019). Court-ordered finance reforms in the adequacy era: Heterogeneous causal effects and sensitivity. *Education Finance and Policy, 14*(1), 31-60.

Jackson, C.K., Johnson, R.C., & Persico, C. (2016). The effects of school spending on educational and economic outcomes: Evidence from school finance reforms. *Quarterly Journal of Economics, 131*(1), 157-218.

Lafortune, J., Rothstein, J., & Schanzenbach, D.W. (2018). School finance reform and the distribution of student achievement. *American Economic Journal: Applied Economics, 10*(2), 1-26.

3 Shultis, R. & Edmonds, J. (2021, November 15). *The basic education program: How the volunteer state's education funding formula doesn't make the grade* (p. 2). Beacon Center of Tennessee. Retrieved November 29, 2021, from https://www.beacontn.org/wp-content/uploads/2021/11/BCN_StudentFunding_Proof2.pdf

4 For example, stating, "Differences ranging from ELLs, those with special needs, and economically disadvantaged students to rural versus urban schools and school sizes are practically all viewed through the same lens" (p. 7).

5 Knight, D.S. & Mendoza, J. (2019). Does the measurement matter? Assessing alternate approaches to measuring state school finance equity for California's Local Control Funding Formula. *AERA Open, 5*(3). Retrieved February 1, 2022, from https://doi.org/10.1177/2332858419877424

Lafortune, J. (2019). *School resources and the Local Control Funding Formula: Is increased spending reaching high-needs students?* Public Policy Institute of California. Retrieved December 23, 2020, from https://www.ppic.org/wp-content/uploads/school-resources-and-the-local-control-funding-formula-is-increased-spending-reaching-high-need-students.pdf

Dhaliwal, T.K. & Bruno, P. (2021). The rural/nonrural divide? K-12 district spending and implications of equity-based school funding. *AERA Open, 7*(1). Retrieved February 1, 2022, from https://doi.org/10.1177/2332858420982549

Imazeki, J., Bruno, P., Levin, J., de los Reyes, I.B., & Atchison, D. (2018). Working toward K-12 funding adequacy: California's current policies and funding levels. Getting down to facts II. Retrieved February 1, 2022, from https://gettingdowntofacts.com/sites/default/files/GDTFII_Brief_Adequacy.pdf

Lee, J.H. & Fuller, B. (2020). Does progressive finance alter school organizations and raise achievement? The case of Los Angeles. *Educational Policy*. Advance Online Edition. Retrieved February 1, 2022, from https://doi.org/10.1177/0895904820901472

6 Ladd, H.F. & Fiske, E.B. (2011). Weighted student funding in the Netherlands: A model for the US?. *Journal of Policy Analysis and Management, 30*(3), 470-498.

7 Roza, M., Hagan, K., & Anderson, L. (2021). Variation is the norm: A landscape analysis of weighted student funding implementation. *Public Budgeting & Finance, 41*(1), 3-25.

8 Vaught, S.E. (2009). The color of money: School funding and the commodification of black children. *Urban*

Education, 44(5), 545-570.

9 Shores, K., Candelaria, C., & Kabourek, S.E. (2020). *Spending more on the poor? A comprehensive summary of state-specific responses to school finance reforms from 1990-2014*. EdWorkingPapers. Annenberg Institute at Brown University. Retrieved December 23, 2020, from https://www.edworkingpapers.com/ai19-52

10 Hendricks, M.D. (2014). Does it pay to pay teachers more? Evidence from Texas. *Journal of Public Economics, 109*, 50-63.

Reback, R. (2010). Schools' mental health services and young children's emotions, behavior, and learning. *Journal of Policy Analysis and Management, 29*(4), 698-725.

Schanzenbach, D.W. (2020). The economics of class size. In S. Bradley & C. Green (Eds.), *The Economics of Education, 2nd Ed.* (pp. 321-331). Cambridge, MA: Academic Press.

11 There exist additional cases where student-based and resource-based funding models might differ in practice. First, states using resource-based funding models sometimes have staffing ratios based on the number of *schools* in a district, rather than students, regardless of school size. This approach can disproportionately advantage districts with small schools. For example, if a state that uses a resource-based model includes in its base allocation funding to support one principal per school, then districts with small schools may receive a higher base allocation compared to a strictly student-based funding model. Second, the two models might differ in *perceived* spending flexibility. While both models provide local fiscal autonomy, under a resource-based funding model, district leaders sometimes default to their state's own pre-specified staffing ratios, even when those districts are not beholden to them. The following resources provide further discussion of the differences in these funding models:

Odden, A. & Picus, L.O. (2020). *School finance: A policy perspective* (6th ed.). New York, NY: McGraw-Hill Education.

Baker, B.D. (2018). *Educational inequality and school finance: Why money matters for America's schools*. Harvard University Press.

Roza, M. (2019). *Funding for students' sake: How to stop financing tomorrow's schools based on yesterday's priorities*. Edunomics Lab at Georgetown University. Retrieved October 10, 2020, from https://edunomicslab.org/wp-content/uploads/2019/09/Funding-for-students_R9_2019.pdf

12 Chingos, M. & Blagg, K. (2017). *Making sense of state school funding policy*. Washington, D.C.: Urban Institute.

13 Baker, B.D., DiCarlo, M., Reist, K., & Weber, M. (2021). *State school finance profiles: 2018-19 school year*. Albert Shanker Institute. Retrieved December 23, 2020, from https://www.schoolfinancedata.org/state-school-finance-profiles-2019/

Rolle, A. & Liu, K. (2007). An empirical analysis of horizontal and vertical equity in the public schools of Tennessee, 1994-2003. *Journal of Education Finance, 32*(3), 328-351.