



NEPC REVIEW: EQUAL IS NOT GOOD ENOUGH: AN ANALYSIS OF SCHOOL FUNDING EQUITY ACROSS THE U.S. AND WITHIN EACH STATE (EDUCATION TRUST, DECEMBER 2022) AND BALANCING ACT: HOW STATES CAN ADDRESS LOCAL WEALTH INEQUITY IN EDUCATION FINANCE (BELLWETHER, DECEMBER 2022)



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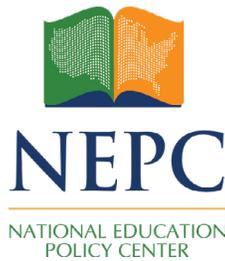
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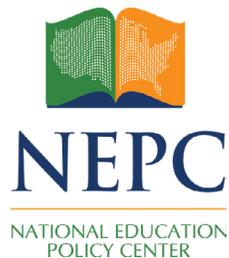
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February 2023

Summary

The fair and adequate funding of schools is at the center of two new reports. The first report, *Equal is Not Good Enough* and an accompanying piece, *Access Granted: School Funding Between Schools in Districts*, were released by the Education Trust. They evaluate district revenue and school spending per pupil with respect to poverty, race, and language. The second report, *Balancing Act: How States Can Address Local Wealth Inequity in Education Finance*, was released by Bellwether. It addresses how design features of more equitable local property policies should be included in state school finance systems. The Education Trust reports focus on the extent to which states and local districts target sufficient resources fairly to students by race, language status and poverty. The author clearly lays out consistent evaluation criteria and conceptual framing, applies appropriate empirical methods with that framing, and provides data visualizations for understanding whether and to what extent states and local districts provide equitable school funding. The value of this report and its supporting materials is their focus on racial disparities. As a result, policymakers can use the Education Trust publications to understand which states (and which districts within those states) have the most work to do to improve racial inequality in education funding. These reports also provide literature-based guidance for establishing funding policy that directs resources where they are most needed in order to provide equal educational opportunities for all students. In contrast, the Bellwether report focuses on how state finance systems rely on and regulate local property taxes. It contains a collection of state school funding profiles

from six states; however, it lacks empirical analyses that link its recommended property tax policies to improved school funding equity or revenue stability. Lacking such analyses, the Bellwether report can provide no useful, validated guidance for policymakers.



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I. Introduction

This review addresses recent reports on public school financing. *Equal is Not Good Enough*¹ and the accompanying *Access Granted: School Funding Between Schools in Districts*² released by the Education Trust, evaluate district revenue and school spending per pupil with respect to poverty, race, and language status of children in schools. That is, which children receive more and which children receive less funding. The report is accompanied by data visualizations³ presenting differences in state and local revenue per pupil by race, poverty, and language status. *Balancing Act: How States Can Address Local Wealth Inequity in Education Finance*,⁴ released by Bellwether, addresses design features of local property tax policies used in the context of state school finance systems.

A starting point for evaluating both reports is to consider the broadly accepted conceptual goals and design principles of state school finance formulas.⁵ These are to provide the funding needed to support the programs and services so that all children, regardless of where they live and attend school, have equal opportunities to achieve common, adequate outcome goals. Those outcomes are often expressed in terms of college and career readiness.

To accomplish these goals, state school finance formulas must do two things:

Account for differences in the costs of achieving equal educational opportunity across schools, districts, and the attributes of the children

they serve. *Cost* refers to the amount of money a school district needs to meet a certain educational goal, such as a particular average score on a standardized test. Costs vary because student populations vary (e.g., some districts serve larger shares of disadvantaged students than others), and because the economic and social characteristics of school districts vary (e.g., some districts are located in labor markets with higher costs of living than others). School funding formulas attempt to account for these differences by driving additional funding to districts with higher costs.

Account for differences in fiscal capacity, or the ability of local public school districts to pay for the cost of educating their students. In most states, school districts rely heavily on local property taxes. This advantages wealthier communities: Because their property values are higher, they can tax themselves at lower rates. School funding formulas attempt to account for this difference by driving more funding to districts with less capacity to raise local revenues and meet their students' needs.

The Education Trust reports focus on the first of these goals, whether state school finance systems and district allocation formulas are directing resources where needed, or by contrast doing the opposite. That is, are those systems *progressive* (targeting money where needed) or *regressive* (further depriving those with greater need)? The Bellwether report purports to address the second of these issues—fair local taxation—but does not address the actual measurement of fiscal capacity or effects on funding equity and adequacy.

II. Findings and Conclusions of the Reports

Education Trust *Equal is Not Good Enough and Access Granted*

The Education Trust report summarizes its major findings as follows:

- Across the country, districts with the most students of color on average receive substantially less (16%) state and local revenue than districts with the fewest students of color, and high-poverty districts receive 5% less state and local revenue than low-poverty districts. The districts with the most English learners receive 14% less state and local revenue, compared with districts with the fewest English learners.
- While national summary data shows clear regressive funding patterns, state-by-state data tells a more nuanced story, in which state and local revenue is allocated progressively for some groups of students, but not others.
- The policies that states set up to fund their districts and schools can address or exacerbate inequities. In many states, state revenue is not allocated in a way that fully counteracts inequities in local funding.⁶

While the first conclusion is damning, the second tells the real story: There are large differ-

ences across states and across local districts in whether they allocate funding progressively or not. Thus, the need for a supporting data visualization website to explore specific states and local districts within them. Such tools readily convey patterns of funding “progressiveness” with respect to students of color,⁷ English language learners (ELL), and children from families in poverty.

Education Trust’s analyses tell us only whether certain populations receive more or less funding than others, but not how much more would actually be needed to provide equal opportunity. *Equal Is Not Good Enough* summarizes literature on this topic, pointing out that it would take two to three times as much funding for children from families in poverty, similar margins for ELLs, and significant additional funding for children with disabilities.⁸ These guideposts, drawn from the literature, serve as useful context for the much smaller differences in state and local revenue observed for even the most progressive state and local settings in the report.

Bellwether Balancing Act

The Bellwether report provides three policy approaches that states can use to allocate state and local revenue more equitably:

1. Accurately calculating and incorporating measures of local wealth into funding formulas: Better estimating how much a local district can raise toward their total formula amount, which enables state funds to be allocated more efficiently and equitably. Strategy: Local fiscal capacity measure
2. Allocating additional funding to less wealthy districts: Guaranteeing similar revenue-generating powers for less wealthy districts or requiring districts to share money raised in excess of formula expectations with the state. Strategies: Equalization funds or compensatory funds; Sharing excess local revenue with less wealthy districts
3. Exerting state control over property tax policy: Replacing a local property tax with a statewide uniform property tax, distributed by the state, or placing a cap on local property taxes. Strategies: Statewide property tax; Cap on local property taxes.⁹

III. The Reports’ Rationales for their Findings and Conclusions

Education Trust Equal is Not Good Enough and Access Granted

The Education Trust reports are built on the well-accepted conceptual framing¹⁰ that the goal of a state school finance system is to ensure that “institutions at all levels distribute resources such that all children have equal opportunity to reach high standards and thrive.”¹¹ The analyses that follow this framing are based on the fact that it costs more for some chil-

dren in some settings to achieve high standards than for others, thus justifying the need for progressive funding as a standard. They use data from commonly accepted data sources to conduct an analyses,¹² and make appropriate adjustments to data on state and local revenues per pupil in order to characterize precisely what districts have available for use in any given year to provide students with the programs and services they need.¹³ They categorize districts' spending as equitable, progressive, or regressive based on cutoffs determined from their review of the relevant literature.¹⁴

Bellwether *Balancing Act*

The Bellwether report argues that the local property tax policies on which state school finance systems are partially based should be evaluated using as a framework the following five dimensions:

- **EQUITY:** *How well does the policy level the playing field between districts and taxpayers in wealthy and less wealthy communities?*
- **TRANSPARENCY:** *Does the policy make it clear which government entities are responsible for education revenue?*
- **FEASIBILITY:** *Is there local buy-in and a policy environment enabling effective implementation of the policy?*
- **EFFICIENCY:** *Does the policy enable efficient use of state resources to fund all public schools?*
- **STABILITY:** *Does the policy rely on a predictable funding source that is less susceptible to economic events such as recessions and that enables predictable planning over time?*¹⁵

The report provides a series of profiles drawn from six states, focusing primarily on how those states use property taxation within their state school finance systems. It claims to have drawn from these states its lessons about appropriately calculating local capacity, allocating aid to lower wealth districts, and exerting state control (limits) over local property taxation.

IV. The Reports' Use of Research Literature

Education Trust *Equal is Not Good Enough and Access Granted*

The Education Trust reports adopt a relevant and well-established conceptual framework on the provision of equal educational opportunity and apply their methods with consideration of the available literature on measuring progressiveness in school finance. *Equal Is Not Good Enough* also offers a solid review of the current literature addressing the additional costs associated with providing equal educational opportunity across student populations of

varied needs.¹⁶

Bellwether *Balancing Act*

By contrast, the Bellwether report, while providing a reasonable and typical evaluative framework (i.e., the five elements of equity, transparency, feasibility, efficiency, and stability) for the tax and revenue side of the school funding equation, does not draw that framework from cited literature. Neither does it cite literature on tax policy generally,¹⁷ or property taxation specifically,¹⁸ from which the framework might be drawn. The five elements identified are not applied to the state profiles in any apparent way, although the authors do cite some relevant sources (e.g., Lincoln Land Institute) regarding the stability of property taxes.

The report anchors most of its assumptions about school funding equity, adequacy, and tax policy to prior Bellwether reports (in footnotes 4, 5, and 7).¹⁹ Notably absent in the report's conceptual framing is any mention of the primary goal of state school finance systems—that the system must provide sufficient funding so that all children have an equal opportunity. Rather, the report focuses only on the second goal, identifying how much local districts should contribute. Without some grounded and accepted rationale of how much funding is needed (or at least adopting a common conceptual framing), it is impossible to evaluate the state and local responsibilities for raising that funding. The two goals of state school funding systems laid out at the beginning of this review are inextricably linked.²⁰

V. Review of the Reports' Methods

Education Trust *Equal is Not Good Enough and Access Granted*

Equal is Not Enough is an extension of several years of the Education Trust's reporting on Funding Gaps by race and poverty. This report presents significant conceptual and methodological improvements over prior years:

- In the district-level analyses, the report takes particular care in calculating a state and local revenue-per-pupil measure which appropriately represents revenues for current operations to be spent on pupils educated within the district.²¹
- The report provides a comparison basis—benchmarks—drawn from scholarly literature for understanding whether and to what extent the observed progressiveness of spending is sufficient to provide equal educational opportunity. That is, how the actual differences in spending compare with what's really needed.
- The companion report on school-level spending variation (*Access Granted*) takes care to apply consistent methods under a consistent conceptual framing.

Commonly cited national data sources were used to calculate the average per-pupil state and local revenues across student groups in order to characterize the progressiveness (or lack

thereof) of state and local school funding systems.²² The report also uses the available data for evaluating disparities in spending across schools within districts which are more tenuous (in *Access Granted*). The report applies consistent methods and conceptual framing for its evaluation of spending across schools within districts.²³

Equal Is Not Good Enough includes methodological (and data precision/adjustment) improvements over prior reports, changing the results for some states more than others.²⁴ The data site and report summarize findings of progressiveness (with respect to each population) in a series of color coded/graded bar graphs wherein:

Districts with equitable school funding have spending for the group of interest that is at least 40% more than the reference group; progressive spending means spending for the group of interest is between 10% and 40% more than the reference group; regressive funding means spending for the group of interest is 10% less than spending for the reference group. Spending for the group of interest that is equal or up to 10% higher than the reference group is “flat.”²⁵

While the cut points for the rating system are somewhat arbitrary, the report provides a review of relevant literature for just how progressive would be progressive enough to provide for equal educational opportunity. An alternative color-coding scheme might be based on the closeness to required progressiveness for equal opportunity, rather than simply scaled around being neither progressive nor regressive. Nonetheless, if the authors wish to color code their data for visual effect, some arbitrary cut points will have to be chosen.

The Education Trust reports calculate resources for each group by taking averages of district revenue or school spending weighted by the groups of interest, and compared against a reference group. This approach is reasonable, and is similar to that used by the Urban Institute when reporting on school funding progressiveness.²⁶ It does not, however, allow for the precision provided by regression methods with additional controls. Regression models allow researchers to, for example, address variations in revenue or spending for one group while simultaneously controlling for the others.²⁷ Regression methods also allow for accounting for differences in district size which may substantially affect cost and change results for states where larger shares of students attend small districts. Importantly, the school-level analyses compare by grade span, which has been shown to be necessary in several studies.²⁸

It is also important to understand that a growing body of research illustrates that disparities faced by majority Latinx school districts are different from and often larger than those faced by Black districts.²⁹ The underlying causes are different too.³⁰ Future reports, while addressing the groups together, should also address these group disparities separately.³¹

Bellwether *Balancing Act*

In contrast to the Ed Trust reports’ solid methodological choices, the Bellwether report provides a hodgepodge of state profiles (Virginia, Georgia, Texas, Vermont, Kansas, and Michigan) lacking any defined or apparent systematic or thematic organization in connection with the report’s own evaluative framework. It then leaps to unsubstantiated policy recommenda-

tions. The report claims to use, but does not engage in, analyses to inform the measurement of local fiscal capacity, as might be used to determine how much revenue local communities must raise to reach their adequate levels of spending. It also fails to provide actual analyses of data on taxation, revenues, and spending of school districts.

State school finance formulas generally take one of two approaches for determining the local contribution toward need- and cost-adjusted foundation funding (i.e., how much money should be put into the pot by local school district residents, to be topped off by the state so that the total amount is adequate to achieve the desired goals).

- The first approach is simply to set a specific local property tax rate to be applied to some measure of taxable property wealth (with exemptions, etc.). That tax rate generates a specific amount of local revenue and state aid is used to top off that revenue to reach the calculated formula (adequate) funding level.
- The second approach uses some combination of taxable property wealth and income of district residents to construct a fiscal capacity index. The ability of local residents to pay a certain tax bill is not only associated with the value of their homes but also the income from which those tax bills get paid. The combined index is then used to determine the percentage of calculated formula (adequate) funding that should be contributed by local districts' taxpayers. That is, it determines the local fair share of adequate funding. Those taxes are still raised primarily via property taxes, but this approach does not lead to a uniform adopted local property tax rate.

Either of these approaches can be implemented with required, hard minimum local contributions or tax rates, or soft (used for calculating state aid, but not mandated) minimums. The report summarizes property tax policy primarily in states that use the first approach, with Virginia as an exception. But, the report does not significantly explore the second issue in Virginia, where it is at least mentioned. On this point, it would have been far more useful to discuss a handful of states that have used fiscal capacity measures that go beyond taxable property wealth alone, including New Jersey,³² Pennsylvania,³³ New York,³⁴ and Tennessee,³⁵ or to at least have a selection framework for identifying states that fall into different categories. For example, Michigan would have been useful for discussing the perils of attempting to shift too quickly away from property taxation, because of differences in revenue stability and predictability.³⁶ Georgia is unique (among a few states) in its use of Local Option Sales Taxes (LOST).³⁷ These are missed opportunities among the oddly selected states profiled.

While the report correctly points out that property taxes have the value of providing stability, it doubles down on the need for state limitations on property taxation without thoroughly considering the downsides of tax and expenditure limits if imposed poorly and rigidly.³⁸

Finally, the report mentions the fact that Vermont has recently modified its aid formula to take into account student costs and needs, which is true. But, the problem with the Vermont approach to school funding is that rather than setting a need- and cost-based spending target and requiring districts to put up their fair share to hit that target, the state uses those need and cost weights to provide district taxpayers the choice to raise that funding with a specific tax rate—OR NOT. The choice to set a local tax rate that would raise adequate fund-

ing (per the weights) is left to local taxpayers.³⁹ Vermont, as such, is hardly a model policy per the guidance provided at the outset of this review, and provides little transferable advice for other states.

Most glaringly, the report provides no empirical examples, either on its own or indirectly by way of citation, of the extent to which property taxation drives interdistrict inequity in school funding or the extent to which its preferred policy remedies mentioned in state profiles mitigate those disparities.⁴⁰

VI. Review of the Validity of the Findings and Conclusions

The Education Trust reports provide data visualizations, guided by appropriate conceptual framing and built on solid empirical bases, allowing the users to explore and draw their own conclusions regarding the progressiveness of funding for different student groups across states, with implications for school finance reform. The report's own major conclusions are largely high-level summaries of the empirical findings.

By contrast, the connections between the proposed evaluative framework, arbitrarily selected and oddly summarized state profiles, and reported conclusions and policy recommendations in the Bellwether report are weak to nonexistent. While the evaluative framework is reasonable, some of the recommendations (like strict limitations on state and local taxes) may be problematic in ways the report fails to address. Further, even the more reasonable recommendations lack empirical support within the brief itself, or by way of external citation to rigorous research.

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

The reports from Education Trust—*Equal is Not Enough*, *Access Granted* and accompanying data site (<https://stateofeducationfunding.org/>)—provide significant advancements over prior years' reports from Education Trust and provide useful information for evaluating disparities in education funding within states and school districts, especially when taken alongside other high-quality national reports. The unique value of the Education Trust reports is the focus on racial disparities which are not regularly covered in other reports. These reports can help highlight which states (and districts within them) have the most work to do to improve racial inequality in education funding. Another useful aspect of the current Education Trust report is that it now more clearly adopts common conceptual framing with other reports and provides guidance, based on literature, regarding just how progressive is progressive enough in order to provide equal educational opportunities.

By contrast, the Bellwether report provides little useful, validated guidance for policymakers as it provides no analyses of whether the policies mentioned in profiled states actually

accomplish greater equity or stability of school revenues and spending. A far more thorough evaluation of local property taxation, including rich case analyses describing both policies, policy changes, and evaluating data, were recently released by the Lincoln Land Institute.⁴¹

Notes and References

- 1 Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state*. Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>
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- 3 The Education Trust (2023). *The state of funding equity data tool*. Retrieved January 17, 2023, from <https://stateofeducationfunding.org/>
- 4 Dammu, I., O’Keefe, B., & Schiess, J.O. (2022, December). *Balancing act: How states can address local wealth inequity in education finance*. Bellwether. Retrieved December 8, 2022, from https://bellwether.org/wp-content/uploads/2022/12/BalancingAct_Bellwether_December2022.pdf
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- 10 Baker, B.D. & Green, P.C. (2014). Conceptions of equity and adequacy in school finance. In *Handbook of research in education finance and policy* (pp. 231-243). Routledge.
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- 12 As noted: “To analyze the state of funding equity across the U.S. and within each state, we used data on state,

local, and/ or federal revenues and overall student enrollment from the 2020, 2019, and 2018 U.S. Census Bureau's Public Elementary-Secondary Education Finance Data files; estimates of the total number of 5- to 17-year-olds and 5- to 17-year-olds in poverty from the 2020 U.S. Census Bureau's Small Area Income and Poverty Estimates; and 2019-20 enrollment data by student race/ethnicity and English learner s tatus from the National Center Educational Statistics' (NCES) Common Core of Data. We also used the Comparable Wage Index for Teachers to adjust revenue data for regional differences in labor costs, and the Consumer Price Index to adjust for inflation between 2018 and 2020."

Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state* (p. 3). Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>

13 As noted in *Equal is Not Enough*:

"Adjusted revenue values to exclude capital outlay expenditures, reallocated charter school payments that would otherwise inflate district revenues, accounted for inflation and regional differences in labor costs, and averaged over the three years."

Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state* (p. 3). Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>

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21 This has become problematic in other reports in recent years as the federal school finance data collections include revenue flowing to school districts for all students for whom the district is responsible to fund, including students sent on tuition arrangements to other districts, charter schools or private schools. The

expansion of charter schooling in major cities and higher poverty settings has been particularly problematic for this type of analysis. The goal, reasonably pursued by the Education Trust methods, is to first remove the revenues to districts that support charter school (and other tuitioned students) from the numerator and to also remove those students from the denominator when characterizing district revenues per pupil.

- 22 Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state*. Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>

- 23 As noted in *Access Granted*:

To help paint a clearer picture of patterns in spending between schools, we created equity ratings for school districts by first calculating the average spending in each district, overall, for five groups of students: Students from low-income backgrounds; English learners; and Black, Latino, and Native students, and for three comparison groups of students: Students who are not from low-income backgrounds; students who are not English learners; and students who are not Black, Latino or Native. These average spending numbers are calculated separately by source of funding (federal, state and local, or total) and by school grade span (elementary, middle, high). Next, we compared average spending for each student group to its comparison group, by source of funds and grade span.

The Education Trust (2022, December). *Access granted: School funding between schools in districts* (p. 3). Retrieved January 17, 2023, from <https://edtrust.org/wp-content/uploads/2014/09/Access-Granted-School-Funding-Between-Schools-in-Districts-December-2022.pdf>

- 24 Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state*. Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>

- 25 Morgan, I. (2022, November). *Equal is not good enough: An analysis of school funding equity across the U.S. and within each state* (p. 3). Education Trust. Retrieved December 8, 2022, from <https://edtrust.org/wp-content/uploads/2014/09/Equal-Is-Not-Good-Enough-December-2022.pdf>

- 26 Chingos, M., Blagg, K., & Tilsley, A. (2017). *School funding: Do poor kids get their fair share?* Washington, DC: Urban Institute. Retrieved December 8, 2022, from <https://apps.urban.org/features/school-funding-do-poor-kids-get-fair-share/>

- 27 Using regression methods instead of group averages to characterize the slope of the relationship between each student population and district revenue or school spending allows for more precision. It allows for, for example, addressing variations in revenue or spending for one group while simultaneously controlling for the others. That is, one can see, first separately, how revenue or spending is distributed with respect to race or poverty and then how, controlling for poverty, revenue or spending is distributed with respect to race.

See also:

(below) Retrieved December 8, 2022, from <https://www.schoolfinancedata.org/>

Baker, B.D., DiCarlo, M., & Weber, M. (2021). *The adequacy of school district spending in the U.S.* Research Brief. Albert Shanker Institute. Retrieved January 17, 2023, from <https://www.shankerinstitute.org/resource/adequacy-school-district-spending-us>

Baker, B.D., Srikanth, A., Cotto Jr., R., & Green III, P.C. (2020). School funding disparities and the plight of Latinx children. *Education Policy Analysis Archives*, 28(135). Retrieved January 17, 2023, from <https://epaa.asu.edu/index.php/epaa/article/view/5282>

- 28 Levin, J., Baker, B., Atchison, D., Brodziak, I., Boyle, A., Hall, A., & Becker, J. (2016). *Study of funding provided to public schools and public charter schools in Maryland*. American Institutes for Research.

Baker, B.D., Libby, K., & Wiley, K. (2015). Charter school expansion and within-district equity: Confluence or conflict? *Education Finance and Policy*, 10(3), 423-465.

See also: <https://schoolfinance101.wordpress.com/2021/08/26/school-finance-101-methods-for-comparing-school-site-spending-and-correctly-making-charter-school-comparisons/>

- 29 Baker, B.D., Srikanth, A., Cotto Jr., R., & Green III, P.C. (2020). School funding disparities and the plight of Latinx children. *Education Policy Analysis Archives*, 28(135). Retrieved January 17, 2023, from <https://epaa.asu.edu/index.php/epaa/article/view/5282>

Baker, B. & Cotto Jr, R. (2020). The under-funding of Latinx-serving school districts. *Phi Delta Kappan*, 101(6), 40-46.

- 30 Baker, B.D., DiCarlo, M., & Green III, P.C. (2022). *Segregation and school funding: How housing discrimination reproduces unequal opportunity*. Albert Shanker Institute.
- 31 The data visualizations of school level spending do include breakouts of Black and Latino disparities. But the Education Trust reports do not carry this through in all of their higher level analyses and summaries.
- 32 New Jersey School Boards Association (n.d.). School Finance 101. NJ's "local fair share." Retrieved December 8, 2022, from <https://www.njsba.org/news-information/parent-connections/school-finance-101/> weighted combination of income (API per pupil) and taxable wealth.
- 33 Pennsylvania State Department of Education (2018, August). MV/PI (Market Value/Personal Income) ratio. Retrieved December 8, 2022, from <https://www.education.pa.gov/Documents/Teachers-Administrators/School-Finances/Finances/Financial-Data-Elements/Aid-Ratios/Finances-Aid-Ratio-Calc-Methodology.pdf>
- 34 New York State Education Department NY's State sharing ratio & combined wealth ratio (CWR) Retrieved December 8, 2022, from https://stateaid.nysed.gov/budget/pdf_docs/SA2122_Sidebars.pdf
- 35 TN's TACIR (Tennessee Advisory Commission on Intergovernmental Relations) (n.d.). *Fiscal Capacity for Education* [webpage]. Retrieved January 18, 2023, from <https://www.tn.gov/tacir/fiscal-capacity-for-education.html>

See also:

Baker, B.D., DiCarlo, M., Weber, M. (2022) *Ensuring adequate education funding for all: A new federal foundation aid formula* (pp. 1-5, 21-22). Washington, DC. Albert Shanker Institute. Retrieved December 8, 2022, from <https://www.shankerinstitute.org/sites/default/files/2022-08/FEDfinalreport.pdf>

- 36 Baker, B.D. (2022). *NEPC review: From school aid to student aid: Modernizing K-12 funding in Michigan*. Boulder, CO: National Education Policy Center. Retrieved January 19, 2023, from <https://nepc.colorado.edu/thinktank/mi-funding>

Addonizio, M.F., Kearney, C.P., & Prince, H.J. (1995). Michigan's high wire act. *Journal of Education Finance*, 20(3), 235-269.

- 37 Zhao, Z.J. & Hou, Y. (2008). Local option sales taxes and fiscal disparity: The case of Georgia counties. *Public Budgeting & Finance*, 28(1), 39-57.

- 38 See:

Downes, T.A. & Figlio, D.N. (2008). Tax and expenditure limits, school finance and school quality. In H.F. Ladd & M.E. Goertz (Eds.), *Handbook of research in education finance and policy* (pp. 373-388). Routledge.

- 39 Baker, B.D. (2022) *Fixing the Vermont school finance mess*. School Finance 101. Retrieved December 8, 2022, from <https://schoolfinance101.wordpress.com/2022/04/12/fixing-the-vermont-school-finance-mess/>

- 40 See, for example, section 2.0:

Baker, B.D., Atchison, D., Levin, J., & Kearns, C. (2020) *New Hampshire Commission to study school funding, final report*. Durham, NH. Carsey School of Public Policy, University of New Hampshire. Retrieved December 8, 2022, from https://carsey.unh.edu/sites/default/files/media/2020/09/20-12685_nh_final_report_version_v5_draft_1.pdf

- 41 Kenyon, D.A., Paquin, B., & Reschovsky, A. (2022) *Rethinking the property tax, school funding dilemma*. Lincoln Institute of Land Policy. Retrieved December 8, 2022, from <https://www.lincolninst.edu/publications/policy-focus-reports/rethinking-property-tax-school-funding-dilemma>