

NEPC Review: Qualified Education Expense Tax Credit: Economic Analysis (Georgia Department of Audits and Accounts, June 2023)



Reviewed by:

David S. Knight University of Washington

September 2023

National Education Policy Center

School of Education University of Colorado Boulder nepc.colorado.edu

Acknowledgements

NEPC Staff

Faith Boninger **Publications Manager**

Mark Paige Academic Editor

Elaine Duggan **Production Design**

Alex Molnar NEPC Director

Kevin Welner **NEPC** Director

Suggested Citation: Knight, D.S. (2023). NEPC review: Qualified education expense tax credit: Economic analysis. Boulder, CO: National Education Policy Center. Retrieved [date] from http:// nepc.colorado.edu/review/tax-credit

Funding: This review was made possible in part by funding from the Great Lakes Center for Educational Research and Practice.





This work is licensed under a Creative Commons Attribution-NonCommercial-

This publication is provided free of cost to NEPC's readers, who may make non-commercial use of it as long as NEPC and its author(s) are credited as the source. For inquiries about commercial use, please contact NEPC at nepc@colorado.edu.

The National Education Policy Center (NEPC), a university research center housed at the University of Colorado Boulder School of Education, sponsors research, produces policy briefs, and publishes expert third-party reviews of think tank reports. NEPC publications are written in accessible language and are intended for a broad audience that includes academic experts, policymakers, the media, and the general public. Our mission is to provide high-quality information in support of democratic deliberation about education policy. We are guided by the belief that the democratic governance of public education is strengthened when policies are based on sound evidence and support a multiracial society that is inclusive, kind, and just. Visit us at: http://nepc.colorado.edu



NEPC Review: Qualified Education Expense Tax Credit: Economic Analysis (Georgia Department of Audits and Accounts, June 2023)

Reviewed by:

David S. Knight University of Washington

September 2023

Summary

A recent report from the Georgia Department of Audits and Accounts examines the monetary costs and benefits of the state's Qualified Education Expense Tax Credit (QEEC). The QEEC is a type of voucher policy that provides a public subsidy for families to pay for private school tuition. Data show the tax credit results in \$81 million of forgone state tax revenue per year. The report argues the OEEC provides a net fiscal benefit for Georgia's state budget based on an estimate that the vouchers cause almost 20,000 students per year to choose private schools instead of public, thus removing the cost of educating those students from state and local budgets. However, several methodological challenges limit the report's usefulness—most notably, a lack of data about how many students per year actually switch from public to private schools because of the vouchers. If most of the vouchers are provided to students already planning to attend a private school, then the policy only subsidizes private school students with funding that could otherwise be returned to taxpayers or invested in the state's public education system, which is open to all students. The most likely result of tax-credit scholarship voucher programs like QEEC is that the state and school districts incur more costs than savings, placing financial strain on state budgets that could require future cuts. Because the report relies on unrealistic assumptions, its suggestion that program benefits outweigh costs is tenuous and risks misleading state education leaders. Instead, state leaders should invest educational dollars in policies that have a positive return on investment and therefore help, rather than harm, state and local budgets.



NEPC Review: Qualified Education Expense Tax Credit: Economic Analysis (Georgia Department of Audits and Accounts, June 2023)

Reviewed by:

David S. Knight University of Washington

September 2023

I. Introduction

As state policymakers look for mechanisms to improve educational systems, understanding the effects of a policy on student learning, the cost, and implementation challenges is critical to ensuring long-term success and sustainability.¹ Cost analyses are particularly useful because they assess all societal costs and benefits of a policy, to determine the best use of limited resources. A recent legislatively mandated report by the Georgia Department of Audits and Accounts estimates the costs and benefits of the state's Qualified Education Expense tax credit (QEEC), a program that provides families with scholarships to attend private schools. Such programs can be controversial because they send taxpayer funding to private schools, some of which serve primarily religious missions or explicitly exclude students based on sexual orientation or disability. The report, *Qualified Education Expense Tax Credit: Economic Analysis*,² by Greg S. Griffin and Lisa Keiffer, analyzes the fiscal impact of Georgia's QEEC, focusing specifically on costs and benefits borne on state and local governments.

II. Findings and Conclusions of the Report

The report's primary finding is that the tax credit embedded in Georgia's QEEC private school scholarship program provides the state government with positive fiscal impact if at least 67% of scholarship recipients switch from public to private school. Accurately estimating the true number of students who switch because of the program is essential to understanding the fiscal impact of the program. As with similar voucher policies, some of the private school scholarship awards will go to students who were already planning to attend private school even without the scholarship. If that proportion exceeds 33%, the report concludes, implying a "switcher rate" below 67%, the tax credit will have a negative fiscal im-

pact. Thus, 67% is the break-even point for the program.

The report's second main finding, based on similar logic, states that the policy will have a positive fiscal impact for local school districts regardless of the switcher rate. The authors contend that declining enrollment, on net, benefits school districts financially because, as students leave, the "sending" public schools no longer bear the costs associated with educating these students. In this view, a declining enrollment district is in a better financial situation than a district not facing declining enrollment. Thus, the authors claim that if the QEEC policy results in a reduction in public school enrollment, local districts will benefit financially.

The report includes a number of other empirical claims and statistics. It provides an overview of the impact of school choice policies on student outcomes, highlighting studies that find positive effects. The report also estimates the average private school tuition in Georgia and argues that the average scholarship amount of \$4,400 under QEEC covers about one-third of typical private school tuition.

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

The report uses a research methodology called fiscal impact analysis, a variation of cost analysis, where analysts compare the monetary benefits and costs of a program or policy.³ This approach allows researchers to assess economic returns of a policy, whether positive or negative, for different stakeholders. For example, the report calculates the fiscal impact of the QEEC from the perspective of the Georgia state government and local school districts.

For the state government, monetary benefits include reduced state expenditures on public education resulting from students transferring to private schools. Costs include forgone tax revenue from households and corporations claiming the tax credit. From the perspective of school districts, benefits result from reduced expenditures for each student who leaves the district for a private school, while costs include forgone state and federal revenue associated with per-student funding. To assess the impact of the policy on potential improvement in educational quality and student outcomes, the report draws on research literature to support its claims but does not quantify these impacts into costs or monetary benefits.

IV. The Report's Use of Research Literature

The report draws on educational research to support two of its key claims but omits research undermining those claims. The first instance pertains to the "switcher rate," the percentage of scholarship recipients who are initially in public school before switching to private school, or who would otherwise attend public school if not for the scholarship. The report's estimated rate –borrowed from a single research source – conflicts with estimates from other studies examining school choice policies. For instance, an analysis of Arizona's Education Savings Account policy found that the vast majority of recipients were already attending private school, implying a far lower switcher rate.^{4,5} While any switcher rate represents an

estimate, studies of school choice programs in other states have also found lower rates than used in this study.⁶

The report also draws on research literature to summarize the effects of school choice policies on academic outcomes and parent satisfaction. School choice research is relevant to tax credit scholarship programs because school choice policies, including educational savings accounts and school vouchers, all accomplish the same goal of providing state taxpayer money to families that can be used to pay for private school tuition.

However, the report's assessment of this research does not reflect recent consensus in the field. Despite the highly contentious debates about the merits of school choice and privatization, the field has essentially reached consensus in recent years that school vouchers, the most widely studied form of private school choice, have negative effects on academic achievement in the first year of use, and continue to harm achievement for multiple subsequent years. The report's characterization of the overall evidence base on school choice as "mixed" is consistent with the state of the literature several decades ago, but stands in stark contrast to experts from a range of political perspectives.

Lastly, the report also omits research on unintended consequences of choice policies, including increased segregation and civil rights violations. The Atlanta Metropolitan Area ranks in the highest decile nationally in terms of Black-White segregation, and compared to other metro areas, a relatively greater proportion of racial segregation is between the public and private school sectors. Many private schools in Georgia were opened as "segregation academies" and the state passed a law in 1961, later invalidated by federal courts, providing taxpayer-funded scholarships for tuition to attend these schools. Moreover, private schools accepting scholarship in Georgia are still permitted to reject students based on disability or sexual orientation, and many have explicit policies on their websites as of this writing. By failing to acknowledge research documenting unintended consequences of choice policies, the report promotes a misguided argument that the QEEC program encourages equal educational opportunity.

V. Review of the Report's Methods

The research methods have four primary limitations, related to estimation of (1) the switcher rate, or the percentage of scholarship recipients that switch from public to private schools because of the scholarship; (2) variable costs; (3) private school tuition costs; and (4) the cost of declining enrollment.

First, the report overestimates the switcher rate, a critical determinant of whether a tax-credit private scholarship program, or other voucher-like policies, has a positive or negative fiscal impact on state budgets. The authors claim that the assumed rate, 90%, comports with prior research, but that number is out of sync with data the authors collected for the study. Specifically, to estimate the switcher rate, the report's authors contacted five of the 13 scholarship granting organizations, which together accounted for 75% of total scholarship funds awarded. Within this group of five, three reported switcher rates between 58% and 64%, while the other two reported switcher rates of 29% and 3%. In other words, the average switcher rate

for three-fourths of funds awarded was less than 64%, and perhaps in the range of 40% to 52%, averaging across the five. With three-fourths of the sample reporting a switcher rate of no more than 52%, the report's assumed switcher rate of 90% is not mathematically possible. The highest the overall rate could be is 64%, a rate that would result in negative financial impact to the state, but that assumes the other one-fourth of scholarship awards have a switcher rate of 100%. A more reasonable assumption might be that the other one-fourth of scholarship awards have a switcher rate closer to those reported by the five scholarship granting organizations, around 52%. This lower switcher rate moves the estimated net fiscal impact from a positive \$28 million per year, to a negative \$18 million.

Second, the report inaccurately estimates costs of private school tuition. To support the argument that a higher percent of scholarship award recipients would otherwise attend public schools, the report presents data on the average scholarship amount, which was \$4,400 for 2022-23, and average private school tuition in Georgia, which was \$11,550 the same year, according to a source cited in the report. However, data from that same source, summarized in Table 1 below, show that the scholarships would only pay the tuition for the least expensive private schools in Georgia, those falling in the bottom deciles, and only eight of those schools (4%) are nonsectarian.

TABLE 1. Average Tuition Rates in Georgia Private Schools, 2022-23

Private School Type	Num. of Sch. (% of Total)		Average Tuition	Average Tuition by Percentile					
				10th	25th	50th	75th	90th	
Baptist	20	9%	\$5,996	\$3,445	\$4,275	\$5,345	\$7,699	\$9,250	
Catholic	22	9%	\$10,743	\$6,000	\$8,985	\$9,083	\$12,500	\$18,400	
Other Christian	59	25%	\$9,694	\$4,000	\$5,950	\$8,318	\$11,940	\$18,700	
Other Religious	28	12%	\$12,030	\$5,000	\$6,150	\$8,740	\$12,250	\$27,000	
Pentecostal	4	2%	\$2,888	\$1,900	\$2,100	\$2,425	\$3,675	\$4,800	
Seventh Day Adv.	9	4%	\$6,860	\$2,000	\$4,650	\$5,864	\$7,095	\$14,873	
Nonsectarian	86	37%	\$15,020	\$5,980	\$8,600	\$12,500	\$20,600	\$27,000	
Total	232		\$11,550	\$4,250	\$6,000	\$9,000	\$14,300	\$22,575	

Note. Tuition data are from Private School Review (2023), as cited in *Qualified Education Expense Tax Credit: Economic Analysis*, and do not include all private schools in the state. Data from the National Center for Educational Statistics (NCES) Private School Universe Survey show a total of 565 private schools for 2019-2020, the most recent year of data, and approximately a similar number over the past decade. The proportion of schools in each religious affiliation is similar for the NCES data, which lessens concerns about non-report bias. The table shows the mean scholarship amount of \$4,440 would only pay for schools in the bottom decile of tuition rates.

Third, the report miscalculates the "marginal costs" of K-12 education because it relies on expenditure data, a poor proxy for cost. While spending data can provide some insights

about the cost of an education, expenditures and costs are not the same.¹³ For example, a school can increase or decrease spending even if the cost to educate a student does not change. Expenditures measure resource flows, regardless of the outcomes produced, while costs represent the minimum required resource to produce an outcome. Assessments of cost must therefore consider outcomes.¹⁴ Unfortunately, the report assumes that reductions in spending, estimated from another study, reflect reductions in cost. Specifically, the report attempts to estimate the additional cost associated with serving an additional student, and cost savings associated with serving one fewer student, by drawing on a prior study. That study estimates the correlation between enrollment change over a seven-year period and total expenditure change over the same period, for each school district in Georgia.¹⁵ Crucially, that study's findings—that when a district loses a student, its spending declines by \$6,299—recognized that districts reduce spending when their enrollment declines, but may also reduce services and cut programs.

Finally, the report incorrectly estimates the short-term cost to school districts of declining enrollment. The report argues that districts experience short-term benefits from declining enrollment. However, school finance research indicates that declining enrollment harms school district budgets in the short term. ¹⁶ For example, in an article titled, *Which Districts Get Into Financial Trouble and Why*, authors find that declining enrollment is among the strongest predictors of declines in district fund balances. As the authors explain, the reduction in cost associated with losing one student is small compared to the reduction in state and federal per-pupil funding. ¹⁷ The report's assertion that declining enrollment is financially beneficial for school districts contrasts with a vast amount of research and is based on an inappropriate estimate of cost savings.

VI. Review of the Validity of the Findings and Conclusions

Taken together, little evidence or data supports the report's main findings and conclusions. If more accurate parameters are used to generate cost estimates, particularly for the switcher rate and for the cost savings of declining enrollment, a different picture emerges. While the report concludes that the tax-credit scholarship program will have a positive fiscal impact, a far more likely scenario, and one that has already played out in other states, is that the tax credit will cost Georgia taxpayers millions of dollars, potentially requiring future cuts to public services, while providing a cash bonus to many wealthy families.

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

As state legislators consider adopting or expanding tax-credit scholarship programs, educational savings accounts, or school voucher programs, understanding their fiscal impacts is critical. While these policies are often billed as friendly to taxpayers' bottom line, the opposite is true—the public ends up paying the private school tuition for families with means to do so themselves. In other words, these policies are subsidies for wealthy families. Meanwhile, the state budget is negatively impacted, and lawmakers are forced to increase taxes or

cut services to cover the costs. Georgia lawmakers may consider investing in other aspects of their education system that have demonstrated need, including better funding the state's inadequate finance system and addressing teacher shortages linked to poor working conditions and insufficient salaries. Extensive, peer-reviewed research shows these policies create long-term monetary benefits for society that exceed costs. Maintaining or expanding the QEEC program will make it difficult to implement these changes, and Georgia legislators should therefore carefully scrutinize their use.

Notes and References

- Many research studies focus on impacts but fail to study costs or implementation. About two decades ago, Levin (2001) argued for greater application of cost analysis in educational research. Since then, a significant number of cost analysis have been published and many are synthesized in Levin, H.M., McEwan, P.J., Belfield, C., Bowden, A.B., & Shand, R. (2018). *Economic evaluation in education: Cost-effectiveness and benefit-cost analysis*. SAGE Publications, Inc. However, as the authors of that volume note, the lack of rigorous programs offerings training in educational cost analysis has limited greater use of the method.
 - Levin, H.M. (2001). Waiting for Godot: Cost-effectiveness analysis in education. *New Directions for Evaluation*, *12*(90), 55-68. Retrieved September 6, 2023, from https://doi.org/10.1002/ev.12
 - Levin, H.M., McEwan, P.J., Belfield, C., Bowden, A.B., & Shand, R. (2018). *Economic evaluation in education: Cost-effectiveness and benefit-cost analysis*. SAGE Publications, Inc..
- Griffin, G.S. & Kieffer, L. (2023, June). *Qualified education expense tax credit*. Georgia Department of Audits and Accounts. Retrieved August 22, 2023, from https://www.audits.ga.gov/ReportSearch/download/29827
- Costrell, R.M. (2010). The fiscal impact of the. Milwaukee Parental Choice Program: 2010-2011 update and policy options. SCDP Milwaukee Evaluation Report #22. Fayetteville, AR: School Choice Demonstration Project, Department of Education Reform, University of Arkansas. Retrieved October 14, 2022, from https://files.eric.ed.gov/fulltext/ED518596.pdf
 - Levin, H.M., McEwan, P.J., Belfield, C., Bowden, A.B., & Shand, R. (2018). *Economic evaluation in education: Cost-effectiveness and benefit-cost analysis*. SAGE Publications, Inc.
 - Harrison, T. & French, C. (2019). An introduction to fiscal impact analysis. University of New Hampshire.
 - Burchell, R.W. (1978). The fiscal impact handbook. The Center for Urban Policy Research, Rutgers University.
 - Kotval, Z. & Mullin, J. (2006). *Fiscal impact analysis: Methods, cases, and intellectual debate*. Lincoln Institute of Land Policy (wpo6zk2). Retrieved September 6, 2023, from http://www.jstor.com/stable/resrep18582
 - Edwards, M. (2001). Fiscal impact analysis: Does method matter? Community Development, 32(1), 106-129. Retrieved October 29, 2022, from https://doi.org/10.1080/15575330109489695
 - Edwards, M.M. & Huddleston, J.R. (2009). Prospects and perils of fiscal impact analysis. *Journal of the American Planning Association*, 76(1), 25-41. Retrieved September 5, 2023, from https://doi.org/10.1080/01944360903310477
 - Ladd, H. F. (1992). Population growth, density and the costs of providing public services. *Urban Studies*, 29(2), 273-295. Retrieved June 25, 2023, from https://doi.org/10.1080/00420989220080321
 - Erickson, H.H. & Scafidi, B. (2020). An analysis of the fiscal and economic impact of Georgia's qualified education expense (QEE) tax credit scholarship program. Education Economics Center, Kennesaw State. Retrieved September 6, 2023, from https://www.georgiapolicy.org/wp-content/uploads/2020/11/QEE-full-report.pdf
- 4 Fischer, H. (2022). Arizona school voucher program cost balloons to \$900M. *Daily Independent*. Retrieved October 29, 2022, from https://www.yourvalley.net/stories/school-voucher-program-costs-balloons-to-900m,399201
 - Arizona Center for Economic Progress. ESA costs outpace K-12 funding increases [web page]. Retrieved October 29, 2022, from https://azeconcenter.org/school-voucher-costs-have-risen-much-faster-than-k-12-funding-increases/

- Welner, K., Orfield, G., & Huerta, L.A. (2023). Can vouchers be reshaped to accomplish their initial rhetorical goals? In E. Welner, G. Orfield, & L.A. Huerta (Eds.), *The school voucher illusion: Exposing the pretense of equity.* (pp. 273-293). Teachers College Press.
- As the report's authors point out, a unique aspect of Georgia's QEEC private school scholarship program is a lack of income threshold requirements to ensure lower-income families have access to benefits and to prevent benefits from disproportionately accruing to wealthier families, noting "many evaluated school choice programs require that recipients come from a low-income family" (p. 11).
 - Griffin, G.S. & Kieffer, L. (2023, June). *Qualified education expense tax credit* (p. 11). Georgia Department of Audits and Accounts. Retrieved August 22, 2023, from https://www.audits.ga.gov/ReportSearch/download/29827
- Indiana Department of Education. (2014). *Choice scholarship program annual report: Participation and payment data 2011-2012, 2012-2013 & 2013-2014*. Prepared by the Indiana Department of Education Office of School Finance. Retrieved October 29, 2022, from https://indianapublicmedia.org/stateimpact/files/2014/01/Choice-Scholarship-Program-Annual-Report-012714.pdf
 - Brown, E. & McLaren, M. (2016, December). *How Indiana's school voucher program soared, and what it says about education in the Trump era*. Retrieved October 14, 2022, from https://www.washingtonpost.com/local/education/how-indianas-school-voucher-program-soared-and-what-it-says-about-education-in-the-trump-era/2016/12/26/13d1d3ec-bc97-11e6-91ee-1adddfe36cbe story.html
 - An earlier report uses a lower-bound estimate of switcher rates of 60 percent, but even this number exceeds estimates based on survey data collected by EdChoice between 2011 and 2015 (see Lueken, 2016, footnote 48). In those prior studies, parents were asked, "If it were your decision and you could select any type of school, what type of school would you select in order to obtain the best education for your child?" Given the choices of regular public school, public charter school, private school, and home school, an average of 39 percent of respondents reported private school. Assuming a portion of those respondents are already attending private school, the survey results suggest that fewer than 39 percent of *public* school parents would prefer their child attend a private school, casting doubt that any voucher program would have a switcher rate as high as 90 percent, as argued in the report.
 - Lueken, M.F. (2016). *The tax-credit scholarship audit: Do publicly funded private school choice programs save money?* EdChoice. Retrieved June 13, 2022, from https://files.eric.ed.gov/fulltext/ED570441.pdf
- Abdulkadiroğlu, A., Pathak, P.A., & Walters, C.R. (2018). Free to choose: Can school choice reduce student achievement? *American Economic Journal: Applied Economics*, 10(1), 175-206. Retrieved June 13, 2022, from https://doi.org/10.1257/app.20160634
 - Dynarski, M. & Nichols (2017). *More findings about school vouchers and test scores, and they are still negative*. Retrieved June 25, 2023, from https://www.brookings.edu/wp-content/uploads/2017/07/ccf_20170713_mdynarski_evidence_speaks1.pdf
 - Wolf, P.J., Mills, J.N., Sude, Y., Erickson, H.H., & Lee, M.L. (2019). How has the Louisiana Scholarship Program affected students? A comprehensive summary of effects after four years. Updated. School Choice Demonstration Project. Retrieved October 29, 2022, from https://files.eric.ed.gov/fulltext/ED604737.pdf
 - Mills, J.N. & Wolf, P.J. (2017). How has the Louisiana Scholarship Program affected students? A comprehensive summary of effects after three years. New Orleans: Education Research Alliance for New Orleans, 2017. Retrieved June 27, 2023, from http://educationresearchalliancenola.org/files/publications/ERA1706-Policy-Brief-Louisiana-Scholarship-Program-170626.pdf
 - Mills, J.N., Egalite, A.J., & Wolf, P.J. (2016). *How has the Louisiana Scholarship Program affected students?* A comprehensive summary of effects after two years. New Orleans, LA: Education Research Alliance for

New Orleans. Retrieved October 29, 2022, from http://educationresearchalliancenola.org/files/publications/Report-1-LSP-Y2-Achievement.pdf

Waddington, R.J. & Berends, M. (2018). Impact of the Indiana Choice Scholarship Program: Achievement effects for students in upper elementary and middle school. *Journal of Policy Analysis and Management*, 37(4), 783-808. Retrieved June 29, 2023, from https://doi.org/10.1002/pam.22086

Figlio, D., & Karbownik, K. (2016). Evaluation of Ohio's EdChoice Scholarship Program: Selection, competition, and performance effects. Thomas B. Fordham Institute. Retrieved June 25, 2023, from https://edexcellence.net/publications/evaluation-of-ohio%E2%80%99s-edchoice-scholarship-program-selection-competition-and-performance

Dynarski, M., Rui, N., Webber, A., & Gutmann, B. (2017). Evaluation of the DC Opportunity Scholarship Program: Impacts after one year. NCEE 2017-4022. National Center for Education Evaluation and Regional Assistance. U.S. Department of Education Institute of Education Sciences. Retrieved June 25, 2023, from https://ies.ed.gov/ncee/pubs/20174022/pdf/20174022.pdf

8 Carl. J. (2011). Freedom of choice: Vouchers in American education. Santa Barbara, CA: Praeger Publishing. Rich, P., Candipan, J., & Owens, A. (2021). Segregated neighborhoods, segregated schools: Do charters break a stubborn link? Demography, 58(2), 471-498. Retrieved June 29, 2023, from https://doi.org/10.1215/00703370-9000820

Fiddiman, B. & Yin, J. (2019). *The danger private school voucher programs pose to civil rights*. Center for American Progress. Retrieved June 29, 2023, from https://www.americanprogress.org/article/danger-private-school-voucher-programs-pose-civil-rights/

Fitch, E.F., Hulgin, K.M., & Coomer, M.N. (2021). How "special needs" vouchers deceive the public and silence the right to inclusive education. *International Journal of Qualitative Studies in Education*, 1-21. Retrieved June 25, 2023, from https://doi.org/10.1080/09518398.2021.1957174

Knight, D.S., Shin, J., & McMorris, C. (2022). Student mobility between charter and traditional public school sectors: Assessing enrollment patterns among major charter management organizations in Texas. *Education Sciences*, *12*(12), 915. Retrieved June 27, 2023, from https://doi.org/10.3390/educsci12120915

Monarrez, T., Kisida, B., & Chingos, M. (2022). The effect of charter schools on school segregation. *American Economic Journal: Economic Policy*, 14(1), 301-340. Retrieved June 13, 2023, from https://doi.org/10.1257/pol.20190682

Shaffer, M.B., & Dincher, B. (2020). In Indiana, school choice means segregation. *Phi Delta Kappan*, 101(5), 40-43. Retrieved June 29, 2023, from https://kappanonline.org/indiana-school-choice-means-segregation-shaffer-dincher/

Suitts, S. (2020). Overturning Brown: The segregationist legacy of the modern school choice movement. NewSouth Books.

Potter (2019) used National Center for Education Statistics (NCES) Common Core of Data to calculate the amount of racial segregation in the largest 403 metropolitan areas in the country. The Atlanta-Sandy Springs-Alpharetta metropolitan area, which enrolls 72% of Georgia students, ranked 35th in terms of Black-White student segregation (the 91st percentile nationally). That study disaggregates the source of racial segregation and finds that about 10% of racial segregation in Atlanta schools stems from the sorting of students between private and public schools and across different private schools. The area ranks 31st out of 403 metropolitan areas nationally in terms of the proportion of segregation caused by sorting between the public and private sectors.

Potter, H. (2022). School segregation in U.S. metro areas. The Century Foundation. Retrieved March 24,

- 2023, from https://tcf.org/content/report/school-segregation-in-u-s-metro-areas/
- 10 O'Brien, T.V. (1999). The politics of race and schooling: Public education in Georgia, 1900-1961. Lanham, Maryland, 99-198.
 - Southern Education Foundation. (2022). A history of private schools and race in the American South. Retrieved October 29, 2022, from https://southerneducation.org/publications/history-of-private-schools-and-race-in-the-american-south/
- Burkholder, K. (2022, June 2). Former private school teacher says GSA faced censorship from school administration. The Georgia Voice. Retrieved August 6, 2023, from https://thegavoice.com/news/georgia/former-private-school-teacher-says-gsa-faced-censorship-from-school-administration/
 - Severson, K. (2013, January 21). Backed by state money, Georgia scholarships go to schools barring gays. *New York Times*. Retrieved August 6, 2023, from https://www.nytimes.com/2013/01/21/education/georgia-backed-scholarships-benefit-schools-barring-gays.html
 - Quick, K. (2017, January 11). Second-class students: When vouchers exclude. The Century Foundation. Retrieved August 6, 2023, from https://tcf.org/content/commentary/second-class-students-vouchers-exclude/?session=1&agreed=1
 - Klein, R. (2017, December 15). *These schools get millions of tax dollars to discriminate against LGBTQ students*. Huffington Post. Retrieved August 6, 2023, from https://www.huffpost.com/entry/discrimination-lgbt-private-religious-schools_n_5a32a45de4boodbbcb5baobe
 - Education Foundation. (2011). *A failed experiment: Georgia's tax credit scholarships for private schools*. Retrieved August 6, 2023, from https://files.eric.ed.gov/fulltext/ED535566.pdf
- 12 This number would be higher if, among the five scholarship granting organizations contacted, the three with larger reported switcher rates distributed a greater number of scholarship funds than the two with lower switcher rates. The number would be lower if those with larger reported switcher rates distributed fewer scholarship funds than the two with lower switcher rates.
- 13 School district expenditures are poor proxy for costs in part because schools do not operate in a profit-maximizing competitive market. A school district's expenditure level is heavily influenced by the resources it receives through local, state, and federal tax revenues. Because state and local governments, including school districts, are not permitted to run general fund deficits, revenues and expenditures must equate in the long run. Neoclassical economic theory holds that in a "perfectly competitive" market, firms produce goods and services at their minimum cost, while inefficient firms that do not produce at minimum cost exit the market in the long run. Within this metaphorical world, changes in expenditure levels of firms (or school districts) would more accurately reflect true changes in costs.
- 14 For a more extended discussion of costs and expenditures, see:
 - Picus, L.O., Monk, D., & Knight, D.S. (2012). Measuring the cost effectiveness of rich clinical practice in teacher preparation: Part one, understanding the problem. Paper prepared for the National Council for Accreditation of Teacher Education. Retrieved October 14, 2022, from http://secure.caepnet.org/~/media/Files/caep/accreditation-resources/measuring-cost-effectiveness.pdf
- 15 Gottlob, B. (2008). *The fiscal impact of tax-credit scholarships in Georgia*. School Choice Issues in the State. Retrieved June 13, 2023, from https://files.eric.ed.gov/fulltext/ED508488.pdf
- Arsen, D. & DeLuca, T. (2016). Which districts get into financial trouble and why: Michigan's story. *Journal of Education Finance*, 42(2), 100-126. Retrieved March 24, 2023, from https://www.jstor.org/stable/44162578
 - Warren, P. & Lafortune, J. (2020). *Declining enrollment in California schools: Fiscal challenges and opportunities in the coming decade*. Sacramento, CA: Public Policy Institute of California. Retrieved

December 23, 2022, from https://www.ppic.org/publication/declining-enrollment-in-california-schools-fiscal-challenges-and-opportunities-in-the-coming-decade/

Knight, D.S. & Toenjes, L. (2020). Do charter schools receive their fair share of funding? School finance equity for charter and traditional public schools. *Educational Policy Analysis Archives*, 28(51), 1-40. Retrieved June 29, 2023, from http://doi.org/10.14507/epaa.28.4438

17 The relationship between school district spending and cost is further complicated by state policies that influence revenues levels. For example, knowing that declining enrollment creates fiscal challenges to school districts, some states have "hold harmless" laws that base total funding rates on prior year enrollments. These policies are criticized for funding students that are not enrolled, but the funds provide school districts with extra time to adjust to enrollment declines, potentially covering some transition costs. Gigliotti and Sorensen (2018) observed that hold harmless provisions in New York State allowed districts to stabilize budgets during a period of declining enrollment, which increased per-pupil spending. The authors found that each \$1,000 of increased spending per pupil increased math and reading achievement by 0.047 and 0.042 standard deviations, respectively. Georgia does not have the same hold harmless provision, so as districts lose students, they will lose state and federal funding. Less funding will require districts to reduce overall spending and some studies link declining enrollment to reductions in per-pupil spending (e.g., Arsen & DeLuca, 2016). If perpupil spending reductions harm student achievement, the dollar value in spending reduction will not reflect a reduction in "cost" because the district is not producing the same outcomes.

Arsen, D. & DeLuca, T. (2016). Which districts get into financial trouble and why: Michigan's story. *Journal of Education Finance*, 42(2), 100-126. Retrieved March 24, 2023, from https://www.jstor.org/stable/44162578

Gigliotti, P. & Sorensen, L.C. (2018). Educational resources and student achievement: Evidence from the Save Harmless provision in New York State. *Economics of Education Review*, 66(10), 167-182. Retrieved September 6, 2023, from https://doi.org/10.1016/j.econedurev.2018.08.004

Jackson, C.K., Wigger, C., & Xiong, H. (2021). Do school spending cuts matter? Evidence from the Great Recession. *American Economic Journal: Economic Policy*, 13(2), 304-335.

18 For example, a report from the Albert Shanker Institute evaluating state education systems estimates that almost 80% of traditional public school students in Georgia attend an inadequately funded school, compared to 71% for the region and 52% nationally (Baker et al., 2022). Another recent report found that Georgia fell in the bottom quintile in terms of policies supporting the attractiveness of the teaching profession (Learning Policy Institute, 2023). That report identified specific investments Georgia could implement to make teaching more attractive in the state, including increasing the starting salary for new teachers and increasing student support staff, two areas the state ranks lowest.

Baker, B.D., DiCarlo, M., Reist, K., & Weber, M. (2022). *State school finance profiles: Georgia*. Retrieved September 23, 2023, from https://www.schoolfinancedata.org/wp-content/uploads/2022/12/profiles20_GA.pdf

Learning Policy Institute. (2023). The state of the teacher workforce: A state-by-state analysis of the factors influencing teacher shortages, supply, demand, and equity. Retrieved September 6, 2023, from https://learningpolicyinstitute.org/product/state-of-teacher-workforce-interactive

Brown, C. & Knight, D.S. (2023). Staffing schools to support the classroom: Examining the relationship between student-school counselor ratios and academic student outcomes in Texas. *Professional School Counseling*, 27(1), Retrieved September 6, 2023, from https://doi.org/10.1177/2156759X231165497

19 Belfield, C.R. & Levin, H.M. (Eds.). (2007). *The price we pay: Economic and social consequences of inadequate education*. Brookings Institution Press.

Hendricks, M.D. (2015). Towards an optimal teacher salary schedule: Designing base salary to attract and

retain effective teachers. *Economics of Education Review*, 47, 143-167. Retrieved September 5, 2023, from https://doi.org/10.1016/j.econedurev.2015.05.008

Hendricks, M.D. (2014). Does it pay to pay teachers more? Evidence from Texas. *Journal of Public Economics*, 109, 50-63. Retrieved March 24, 2023, from https://doi.org/10.1016/j.jpubeco.2013.11.001

Jackson, C.K., Johnson, R.C., & Persico, C. (2015). The effects of school spending on educational and economic outcomes: Evidence from school finance reforms. *The Quarterly Journal of Economics*, *131*(1), 157-218. Retrieved September 5, 2023, from https://doi.org/10.1093/qje/qjv036