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Georgia's Equalization Grant

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Georgia's Equalization Grant

Nicholas Warner

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Georgia's Equalization Grant

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Introduction

Georgia's equalization grant was introduced as part of the Quality Basic Education Act, which passed in 1985 and was first funded in fiscal year 1987. The equalization grant is intended to reduce the funding gap between high and low property wealth districts.¹ The Georgia General Assembly has reformed the equalization grant twice since its inception: first by increasing grant amounts but reducing the number of qualifying districts, and then by limiting the number of districts that receive a grant.² Equalization accounts for a significant portion of Georgia's appropriation for K-12 education for many low property wealth school systems, representing as much as 15 percent of their operating revenues. In general, the equalization grant has been successful in reducing wealth disparities, but in the wake of the Great Recession its efficacy has diminished.

The first section of this report describes the basics of the grant calculation and summarizes policy changes that have affected it. The next section discusses the grant's ability to close the funding gap between low and high property wealth districts. The third section analyzes how reliant districts have been on the equalization grant, measured as a share of total revenue. Next, legislative changes to the equalization grant calculation and their effect on funding levels are outlined, and the final section concludes the report.

Grant Structure, Calculation and Legislative History

GENERAL FORMULA

Implemented by the Quality Basic Education (QBE) Act, Georgia's equalization grant is intended to close the gap between high and low property wealth school systems. The structure of the equalization grant has remained stable over time, but some of the specific components of the calculation have changed. The equalization grants are calculated based on three pieces of information:

1. Assessed valuations
2. Weighted full-time equivalent students
3. The amount of recognized mills

1. Assessed valuations

The starting point for a district's assessed valuation is its maintenance and operating property tax digest, which represents the property tax base for each district's operating budget. The Georgia Department of Audits and Accounts then performs a sales ratio study based on recent local property sales.³ The district's

¹ The Quality Basic Education Act. Senate Bill 179 (1987). The Georgia General Assembly recognized the need for an "equitable public education finance structure which ensures that every student has an opportunity for a quality basic education, regardless of where the student lives."

² O.C.G.A. § 20-2-165 changed with HB 1187 in 2000 and HB 824 in 2012.

³ These sales ratio studies track the sales of real estate in comparison to their assessed valuations. If assessed valuations are typically lower or higher than their sales values, then the sales ratio studies would correct for this.

tax digest amount is then adjusted to its “equalized 100 percent valuation” based on the results of the sales ratio study. The “equalized 100 percent valuation” is intended to represent the full value of the tax base after accounting for the sales ratio study findings. Amounts of valuations are subtracted based on the district’s taxable timber property, exempt agricultural property and the number of residents over age 65. The resulting amount after the subtractions is the district’s adjusted property tax digest, and 40 percent of that is its assessed valuation for the equalization grant.

2. Weighted full-time equivalent students

A weighted full-time equivalent (WFTE) student count differs from a simple full-time student count because of differing costs to educate different types of students. To determine the number of WFTE students in a district, one high school student represents a base student and is counted as one. All other student types cost more to educate than a base student and are “weighted” by an amount greater than one. WFTE counts are increased by the number of younger students, the number of special education students, the number of English as a second language students and the number of early intervention students, among others.

3. The amount of recognized mills

Recognized mills are effective mills minus five and are capped by a maximum number, which is defined by the current version of the equalization grant legislation. Effective mills are local operating revenues, divided by assessed valuation. Effective mills represent the amount of local revenue that a district generates relative to its property tax base.

The ratio of the district’s assessed valuation over its WFTE count is a district’s property wealth per WFTE student per mill (PW). Districts are then ranked by PW, and the benchmark district is established. The benchmark district represents a “cut point”: Systems with lower PWs are “equalized to” the benchmark, and those ranked above it do not qualify for an equalization grant. For qualifying districts, the grant is then equal to the product of the difference between their PW and the benchmark district, the number of recognized mills, and the district’s WFTE count. The general formula for calculating equalization grants is

$$E1^4 : \text{if } PW_{bm} > PW_d \text{ then } EG_d = (PW_{bm} - PW_d) * WFTE_d * RM_d$$

$$\text{if } PW_{bm} < PW_d \text{ then } EG_d = 0$$

Under this formula and holding all other factors constant,

- districts with PWs further below the benchmark district’s PW earn a larger grant per student;
- districts with greater numbers of WFTEs receive a larger grant; and
- districts with a higher number of recognized mills earn larger grants.

⁴ EG_d is the equalization grant received by district D. PW_{bm} and PW_d are, respectively, the per weighted full-time equivalent student assessed valuation per mill (divided by 1,000) for the district in question and the benchmark district. $WFTE_d$ is the weighted full-time equivalent student count for the district, and RM_d is the district’s number of recognized mills.

POLICY CHANGES

The equalization grant is calculated based on assessed valuations, WFTE counts and recognized mills to allocate funding to low property wealth systems in Georgia. Districts with lower property values per student and those that are raising more local revenues relative to their property tax base earn larger grants, all else being equal. While the details of the grant calculation have changed over time, these aspects have remained constant.

Version 1: 1987-2000

When first implemented, the grant equalized to the 90th percentile district, and recognized mills were capped at 3. Thus, only the top 10 percent of districts in PW did not qualify for an equalization grant. In fiscal year (FY) 1990, the recognized mill cap was increased to 3.25. The funding amounts for each system were smaller than with future versions of the grant because of the lower level of recognized mills, but almost all districts received a grant.

Version 2: 2001-12

House Bill 1187, also known as the A+ Education Reform Act, passed during the 1999-2000 Georgia legislative session and made significant changes to the number and amount of equalization grants. The benchmark district changed from the 90th to the 75th percentile, phased in over five years. The act also increased the number of recognized effective mills from 3.25 to 15. Together, these changes decreased the number of districts qualifying for grants but increased the amount earned by most districts that continued to qualify.

The change in the benchmark district from the 90th percentile to the 75th percentile decreased the amount of the grant for qualifying systems because the grant amount is based on the dollar difference between a district and the benchmark district, and that difference was reduced. However, the increase in the number of recognized eligible mills from 3.25 to 15 mills dramatically increased the amount of equalization funds received by most qualifying districts. As a result, aggregate statewide equalization funds also grew markedly.

For example, imagine a hypothetical district with 1,000 WFTEs that was \$10 below the 75th percentile district in PW and was \$25 below the 90th percentile district. If this district had 15 recognized mills, it would see its grant allotment increase from \$81,250 to \$100,000, an increase of more than 23 percent.⁵ This hypothetical district saw its difference from the benchmark system decline by 15 PW and its recognized mills increase by 6.25.

Version 3: 2012-Current

During the FY 2012 legislative session, the State Education Finance Study Commission suggested changes to the equalization grant that were eventually passed into law. Over the two previous years, state

⁵ This is calculated by multiplying the district's WFTEs by the difference in its per WFTE property wealth per mill and that of the benchmark district, multiplied by the number of eligible mills: $1,000 * 25 * 3.25 = \$81,250$ versus $1,000 * 10 * 10 = \$100,000$.

revenues and tax digests had been declining due to the Great Recession. Some large school systems that qualified for equalization grants were earning larger grants than ever before. As a result, aggregate earnings increased to levels not seen in the history of the grant. The state did not appropriate the full amount of equalization earned, and the shortfall was prorated across districts based on earnings.

The study commission recommended that the equalization grant calculation no longer use a benchmark district “cut point” but instead use a modified statewide average. This modified average ignores the top and bottom 5 percent of districts in PW and calculates a weighted average based on the other 90 percent of districts. This change had the effect of decreasing the number of qualifying districts and decreasing the amount earned for those that still qualified, compared to Version 2. Minimum effective millage rates required to qualify were also recommended, starting at 12 and increasing to 14. These rates were set to phase in between FY 2015 and 2019. These changes subsequently became law in HB 824 during the 2012 legislative session.

Closing the Funding Gap

The purpose of Georgia’s equalization grant is to help narrow the funding gap between high and low property wealth districts. Higher property wealth school districts start out with a funding advantage. Because they have a larger property tax base relative to their student population, such districts produce more tax revenue per student. This section assesses the equalization grant’s ability to reduce funding inequality among school districts.

Funding disparities among districts in Georgia arise because different districts can raise different amounts through their taxing authority. For the most part, this is the amount of property tax revenue that districts can collect from 1 mill.⁶ Districts’ millage rate choices can reduce disparities, if lower wealth systems have higher millage rates.

Along with millage rate decisions, the state’s foundation funding formula (the Quality Basic Education Act, or QBE) also equalizes funding through the local 5 mill share. The QBE calculates a minimum (foundation) level of funding that districts would require to education their students. This foundation level is based on the number and type of students enrolled. The “five mill share” roughly represents what five millage rate points would raise if taxed on the property tax digest. The state funding received by districts is based on the foundation amount minus the five mill share. Therefore, the greater the property wealth of a district, the greater its 5 mill share responsibility is. This helps to reduce funding disparities after districts receive their QBE funding because higher property value areas receive lower state funding relative to their number of students. The equalization grant then increases state funding for eligible districts and continues to narrow the wealth gap.

⁶ Ten districts in Georgia also have access to a 1¢ sales tax that supports operations, making their available local revenue mix unique in the state.

To measure wealth inequality, we start by analyzing the amount of property tax revenue that districts could raise from a 40 percent assessment and a 15-mill rate. This calculation allows us to directly compare wealth disparity without being influenced by other forms of funding that complicate the comparison. For all districts in Georgia, these amounts serve as the basis for the measurement of wealth inequality. Lorenz curves are one common method used to measure inequality. They compare actual funding differences across districts to what equal funding would be. To calculate a Lorenz curve, each district's share of the total per FTE revenues are calculated. After sorting districts from smallest to largest, each district's share is added to the running total of revenue shares. Each point on the curve represents the share of per FTE revenues for the districts with that ranking and those ranked below it.⁷

Figures 1 and 2 show the effectiveness of the equalization grant in 2008 and 2015, respectively. The solid lines represent perfect funding equity: If each district had the exact same share of per student revenue, the Lorenz curve would be a perfectly straight line from zero to one. The dashed lines show property taxes from 15 mills per student, and the dotted lines represent after-equalization relative wealth without any other complicating factors. Both wealth measures are kept in per student terms to avoid overstating wealth disparities between large and small districts. The dotted lines are closer to the solid equity lines than the dashed lines, indicating that the equalization grant is helping to reduce disparities in funding across districts.

The Gini coefficient is an often used statistic when discussing income or revenue inequality. The Gini coefficient is the area between the Lorenz curve and the perfect equity line divided by the area under the perfect equity line. It is constructed to be bound between zero and one, with one being perfect inequality and zero being perfect equality. In per student terms, property taxes raised from 15 mills produced a Gini coefficient of .293 in 2008. After incorporating equalization funding, the Gini coefficient decreased by .086 to .207. In FY 2015, under the current version of the grant, the Gini coefficient was .278, dropping by .084 to .194 after equalization. The Gini coefficient based on property values alone decreased between 2008 and 2015, indicating that underlying inequality declined slightly.⁸ These reductions in inequality are relatively small. The district with the lowest amount of per FTE property tax revenues from 15 mills increased from \$410 to \$951 after equalization. The districts with the wealthiest property tax bases raised more than \$9,000 per FTE.

⁷ Cowell, F. (2011). *Measuring Inequality*. Oxford University Press.

⁸ Warner, Nicholas (2014). The Great Recession and School District Property Tax Revenues in Georgia. The Great Recession led to reduced inequality in property wealth because high wealth suburban areas experienced steeper declines in property values. We find evidence of this effect of the recession: The wealth disparity based on property values alone declined between 2008 and 2015. cslf.gsu.edu/files/2015/02/Georgia-School-District-Property-Tax-Revenues.pdf?wpdmdl=5233

The previous and current versions of the grant have been able to reduce inequality between low and high wealth districts by similar amounts. Under the current version, the equalization grant's ability to narrow the funding disparity has been slightly reduced because many school systems receive less grant revenues per student. Equalization is one of the revenue sources included in state funding that works to narrow the wealth gap between low and high wealth districts. In isolation, it has succeeded in that goal since its implementation.

Figure 1. Before and After Equalization Lorenz Curves for 2008

Gini Coefficients: Before .293 and After .207

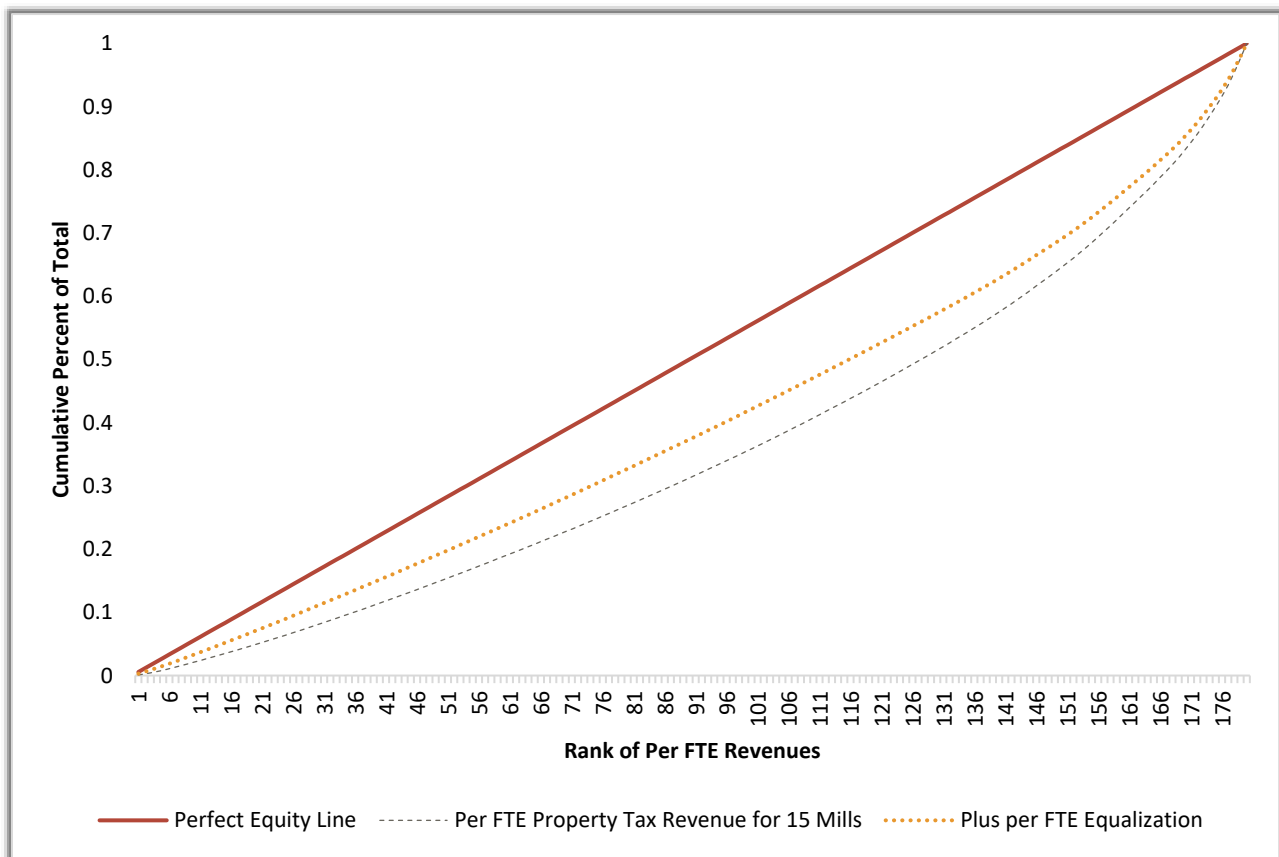
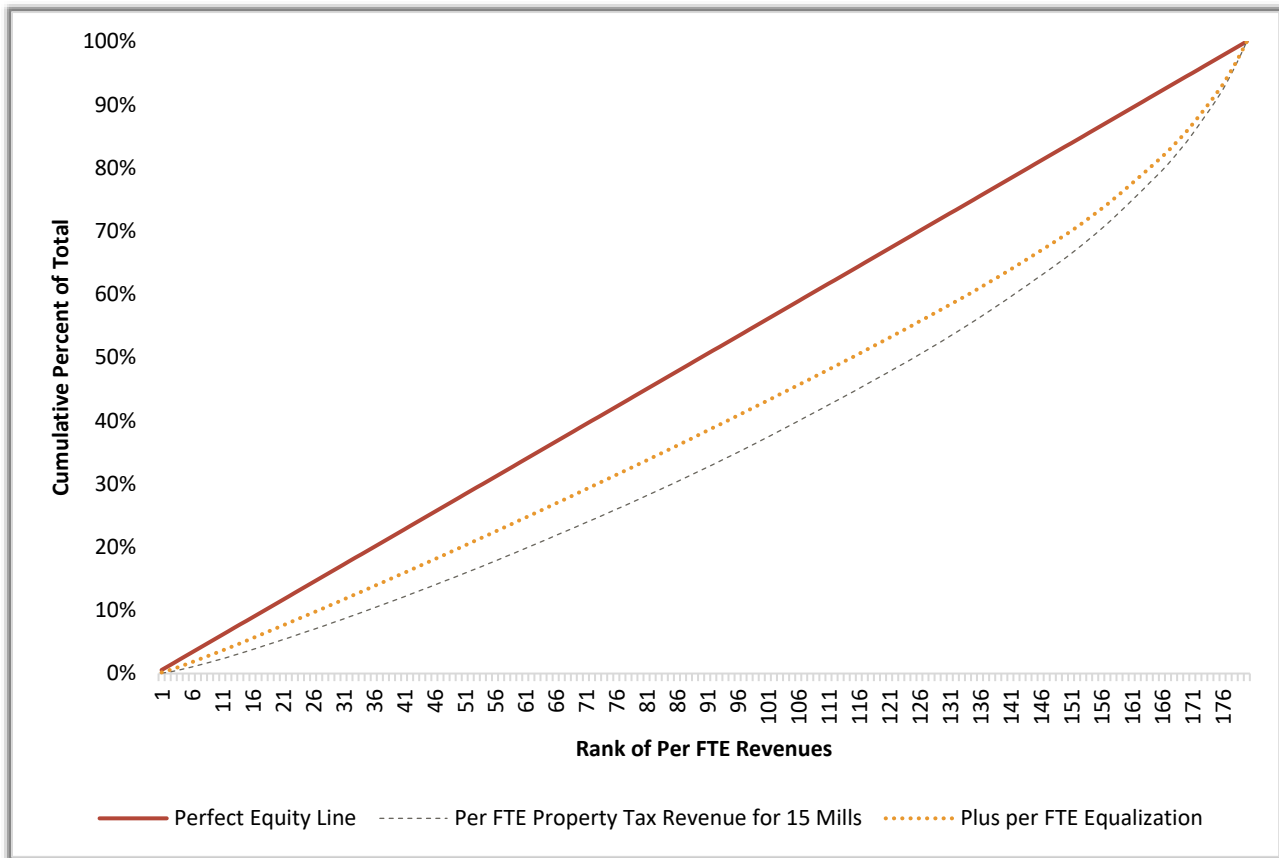


Figure 2. Before and After Equalization Lorenz Curves for 2015

Gini Coefficients: Before .278 and After .194



Equalization as a Share of Funding

At its height prior to the Great Recession, the equalization grant represented more than 4.5 percent of the operating revenues for 100 of Georgia’s 180 county and city school districts. In 2015, the number of districts receiving more than 4.5 percent of their operating revenue from equalization declined to 74. The number of districts receiving equalization grants and the amount received has varied as the law has changed over time. Subsequently, the state’s ability to equalize funding with this grant and districts’ shares of operating revenue from these funds have changed.

As discussed previously, there have been three versions of the calculation of the grant.

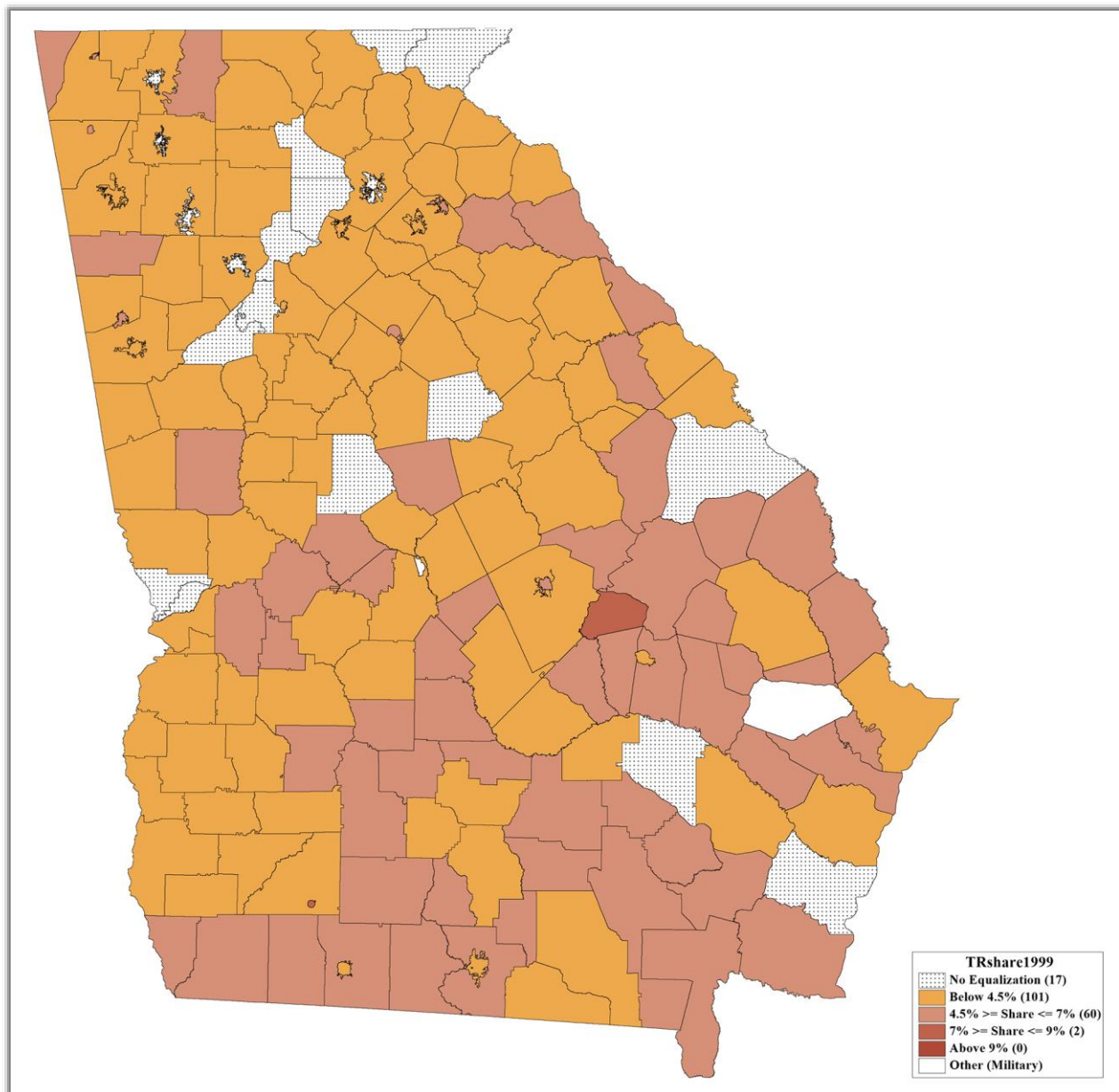
- Version 1: 1987-2000. Equalizing to the 90th percentile district and recognizing up to 3.25 effective mills. The cap was increased from 3 to 3.25 mills in 1990.
- Version 2: 2001-12. Equalizing to the 75th percentile district and recognizing up to 15 effective mills.
- Version 3: 2013 to present. Equalizing to a weighted and trimmed average of districts, recognizing up to 15 mills, and requiring effective millage rate minimums.

In 1999, during the first version of the grant, more districts qualified for a grant but the fund represented lower shares of operating revenues: 118 districts either received no grant or had a total revenue share of less than 4.5 percent. The 62 districts whose grants represented more than 4.5 percent of their operating revenues were concentrated in the southeastern part of the state (Figure 3). Metro Atlanta and other urbanized areas of the state had lower shares of operating revenue from the equalization grant or did not qualify for the grant, with a few exceptions.

In 2008, during the second iteration of the grant and before the Great Recession, fewer districts qualified but the grant represented larger shares of total revenue. Forty-five districts did not qualify for the grant. However, for 65 districts, equalization represented more than 7 percent of their total revenue (Figure 4). For 10 districts, the equalization grant represented more than 15 percent of their total revenues. Nonqualifying districts were concentrated in the northeastern portions of the state. Some larger metro systems did qualify, but the grant only made up a small share of their total revenue. Districts that had higher shares of total revenue from equalization were concentrated in South Georgia.

In 2015, under the current version, even fewer districts qualified, and the qualifying districts continued to have similar shares of operating revenues from equalization. A total of 106 districts either received no equalization grant or their equalization grant represented less than 4.5 percent of their total revenue (Figure 5), up from 80 in 2008. These districts were concentrated in the northeastern portion of the state and other urban areas. Equalization represented more than 7 percent of total revenues for 54 districts.

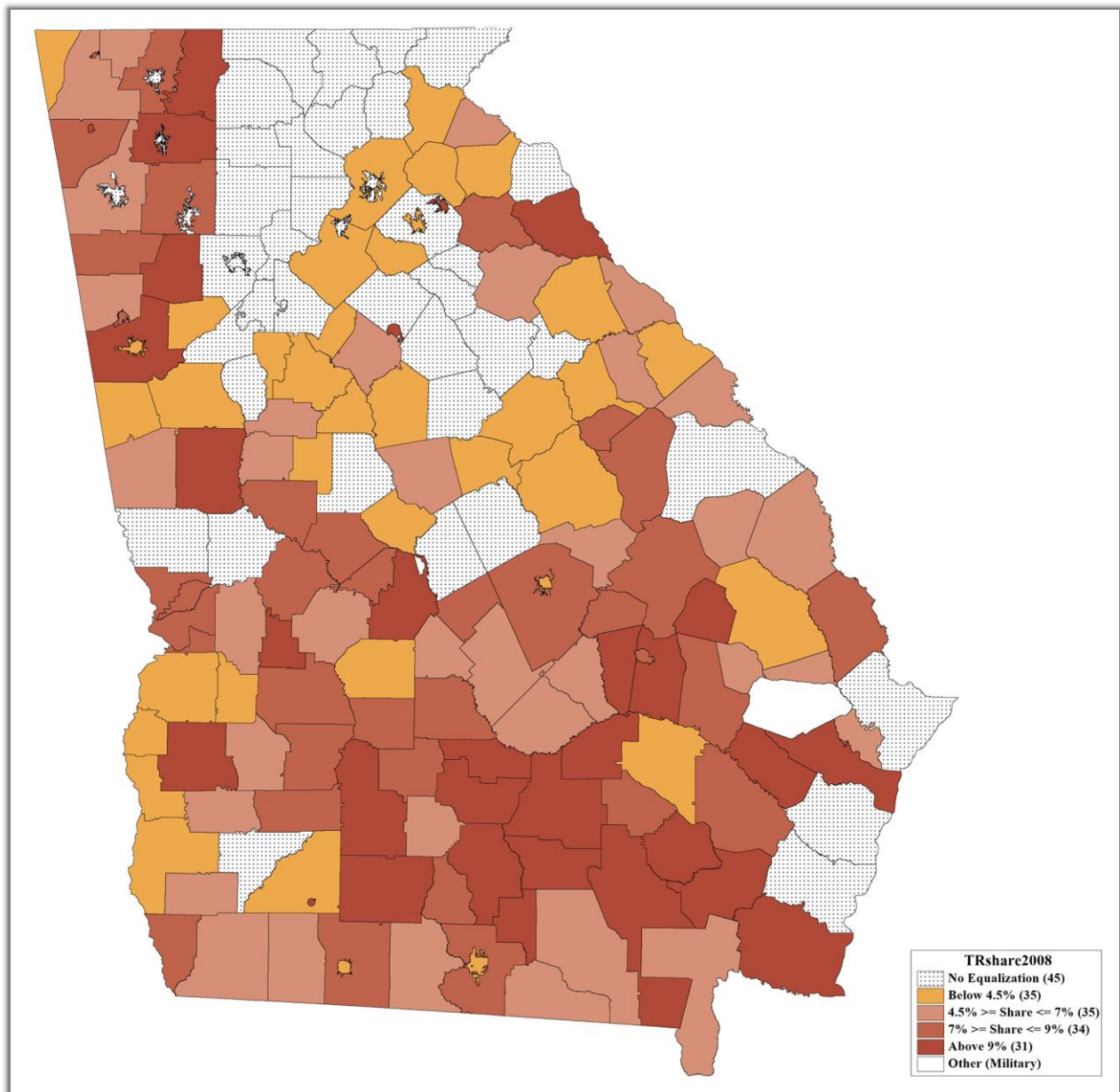
Figure 3. Equalization's Share of Total Revenues in 1999 (Version 1)



Source: DOE DE-46 Detailed Revenue Data

Note: Calculated as equalization grant received divided by total operating revenues.

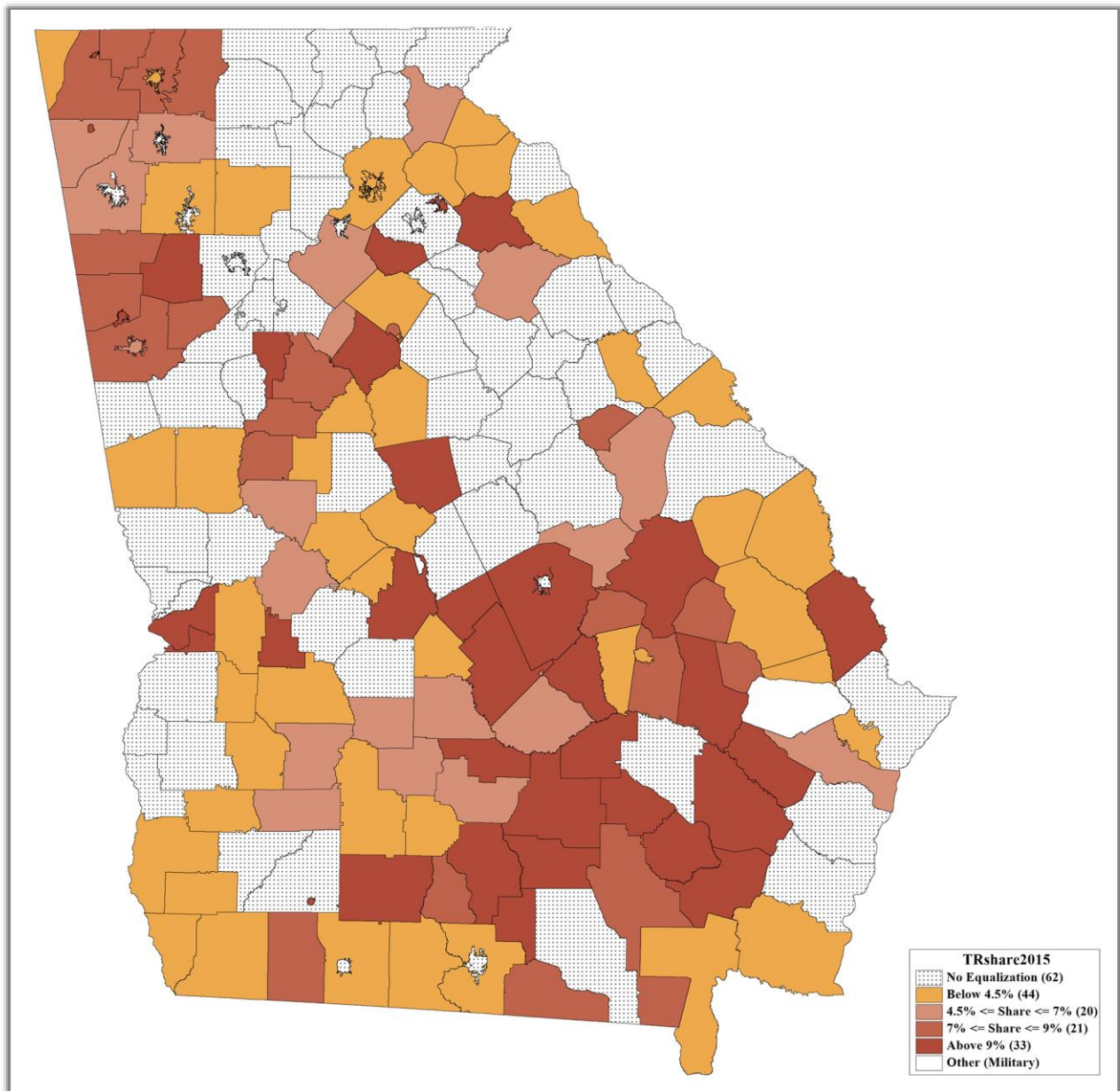
Figure 4. Equalization's Share of Total Revenues in 2008 (Version 2)



Source: DOE DE-46 Detailed Revenue Data

Note: Calculated as equalization grant received divided by total operating revenues.

Figure 5. Equalization's Share of Total Revenues in 2015 (Version 3)



Source: DOE DE-46 Detailed Revenue Data

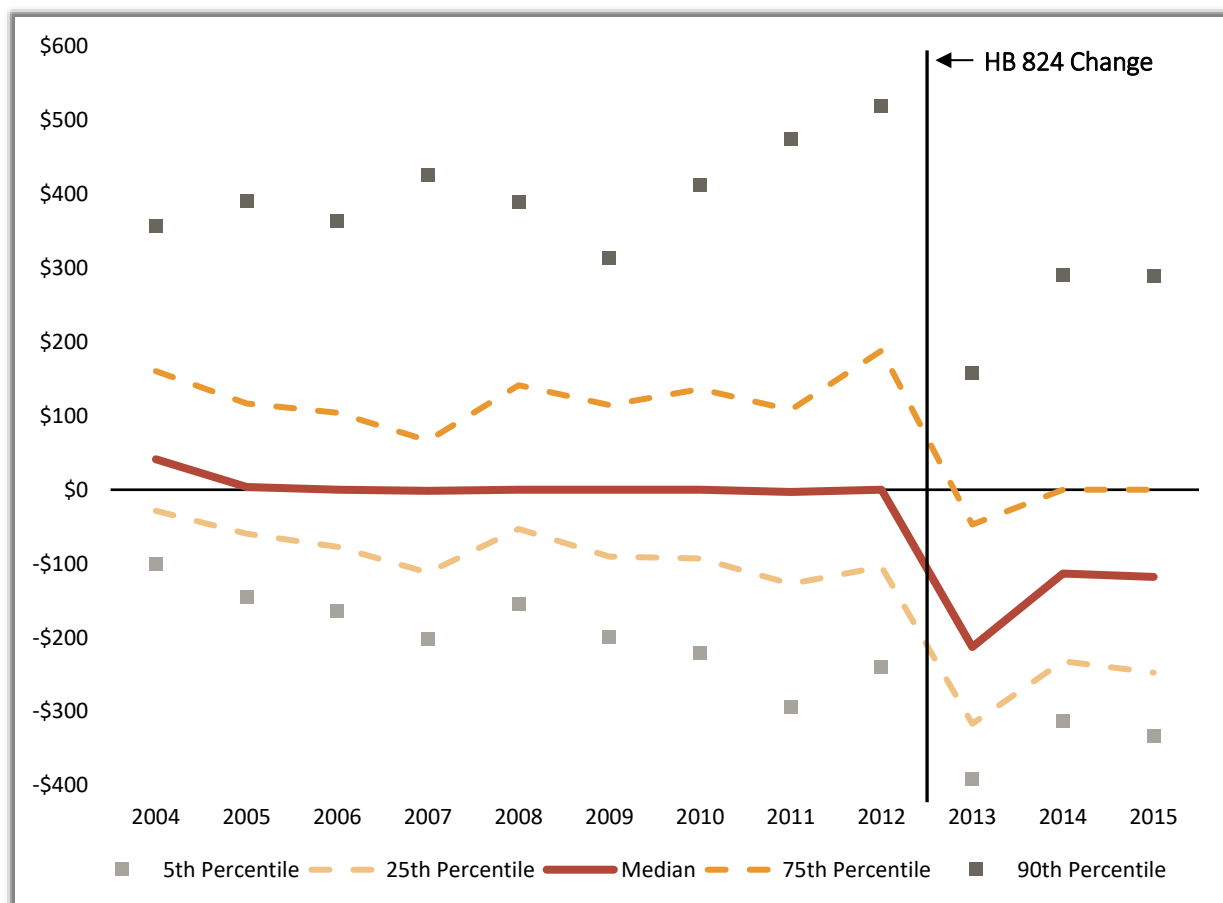
Note: Calculated as equalization grant received divided by total operating revenues.

The Effect of the Grant's Legislative Changes

Tracking how districts' equalization has fared in the wake of these policy changes is more complicated than simply looking at equalization grant amounts over time. The amounts received from one year to the next reflect much more than the state's policy changes to the grant's calculation. Changing property values, student counts and millage rates, among other things, also contribute. The following analysis simulates grant earnings for each of the three versions between 2002 and 2015 and is intended to isolate the effect of the state's policy changes on districts' grants.

Figure 6 illustrates the simulated difference in grant earnings between the first version of the grant, which serves as a baseline grant amount to compare against, and other versions of the grant over time. These simulations do not exactly reflect actual grant earnings due to data limitations. However, they do make it possible to isolate and describe the distribution of changes in earnings that were due to changes in the formula.

Figure 6. Summary of Per WFTE Equalization Grant Simulated Earning Differences Between the Original and Version of the Grant Calculation in Place in That Year



Note: Because many districts will not qualify under any of the grant calculations, zero is a common difference observed. Due to this, the median and 75th percentile have taken this value in multiple years.

By 2005, all changes made by the A+ Education Reform Act (Version 2) were fully implemented. The simulated median difference between the second and first version of the grant was a gain of \$4 per WFTFTE. Thus, half of the districts were better off under the second version, and half would have been better off under the first version in that year. The districts that benefited from the second version did so by more than the districts that were worse off. For a quarter of the districts, grant earnings were \$59 per WFTFTE or more below what they would have been under the original version, and 10 percent were more than \$144 per WFTFTE worse off. In the same year, a quarter of the districts received at least \$116 per WFTFTE more under the second version, and 10 percent of districts were more than \$390 per WFTFTE better off.

Between 2005 and 2012, the structure of the grant calculation remained constant. In many districts, property values increased during this time period leading up to the recession. As a result, the difference between the benchmark PW and the PWs of the districts above and below the benchmark expanded. The growth in property values, particularly in systems with large student populations, increased the gains for districts compared to the first version as well as increasing the aggregate statewide equalization funds granted during this period.

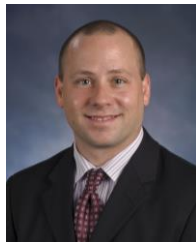
In 2013, the first year under the current structure of the grant (Version 3), the majority of districts began receiving less in per WFTFTE funding compared to the first version. Depending on the year, approximately three-quarters of districts earned less per WFTFTE from this version of the grant, and about half of the districts earned more than \$100 less than they would have under the first version.

Over its history, the equalization grant has provided funding support for school districts with lower property wealth. In some extreme instances, it has provided almost one-quarter of a district's total operating revenues. The calculation of the grant has changed since its inception. The second version of the grant calculation resulted in many districts losing funding, but those that continued to qualify benefited more. The most recent change to the grant calculation, enacted in the wake of the Great Recession, reduced the amount of grant funding for most districts in Georgia.

Conclusion

Equalization has been an important funding source for many Georgia school districts with low property wealth. Since its inception, the equalization grant has reduced the funding disparity between high and low wealth school districts in Georgia. Over the years, there have been three versions of the grant, serving different numbers of districts and providing different amounts of funding for those who qualified. Between 1987 and 2001, the grant provided lower levels of funding than future versions of the grant, but 90 percent of districts received funding. A major reform occurred in 2001, after which only 75 percent of districts earned grants, but those that did generally received more funding. Perhaps under the pressure of the Great Recession, the third and current version was implemented in 2012 and became effective in 2013. This reform further reduced the number of districts that earned grants, lowered the aggregate amounts of the grants earned statewide, and slightly lessened the grant's ability to narrow the property wealth gap.

About the Author



Nicholas Warner, a data scientist at the Center for State and Local Finance at Georgia State University, specializes in education finance. His recent research has focused on school district expenditure and revenue portfolio analysis, tax expenditure estimation, examination of Georgia's special option sales tax for school facility funding, and school districts' responses to the Great Recession. His work has been published in the *Journal of Education Finance* as well as by the Georgia Department of Early Care and Learning. Warner received his master's degree in economics from the Andrew Young School of Policy Studies.
