



OFFICE OF RESEARCH AND EDUCATION ACCOUNTABILITY

EVALUATION OF THE FISCAL CAPACITY FORMULA APPLIED TO
SCHOOL DISTRICT FUNDING ALLOCATIONS



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Introduction

Why fiscal capacity is part of Tennessee's K-12 funding formula

The fiscal capacity calculation – part of the state's Basic Education Program (BEP) formula since its creation in 1992 – is the method to estimate each county's ability to raise local taxes for education. Pushed by a lawsuit filed against the state in 1988 by 77 rural school districts seeking to overturn the state's school funding system, the state developed the BEP with the fiscal capacity provision to address the Tennessee Supreme Court's ultimate ruling on the lawsuit – that the state must maintain and support a system of free public schools that affords substantially equal educational opportunities to all students, whether they attend schools in small, rural counties or large, urban counties.^A Because public education funding in Tennessee is shared by the state and by local jurisdictions, fiscal capacity adjusts how the state share is divided among the counties, allocating a larger share to counties with fewer resources, all else being equal. This is the “equalizing” approach used to ensure that the state affords equal educational opportunity to all students.

History of fiscal capacity

Tennessee's education funding formula prior to the BEP formula, the Tennessee Foundation Program (TFP), was established in 1977 and remained in effect throughout the 1980s. The TFP increased state funding, relying primarily on average daily attendance to determine the allocation of state dollars. The TFP attempted to equalize funding by requiring a minimal local match based on the value of each county's local property tax base but did not include the funding available from local sales tax collections and discretionary funding by local governments. A court ruling in the Small Schools lawsuit found the TFP included only a “token amount” of state funds for the equalization of school district funding and was unrelated to districts' costs of providing services.^B

Adopted in 1992 and phased in over five years, the BEP was initially based on 42 components designated as necessary for Tennessee schools to succeed; it included items such as textbooks, transportation, capital expenditures for facilities, and costs of nurses, librarians, and principals. A county-level fiscal capacity formula developed by the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) was adopted to determine each county's fiscal capacity for the distribution of BEP funds, with the state allocating a higher proportion of state funds to districts with less ability to raise local revenue.

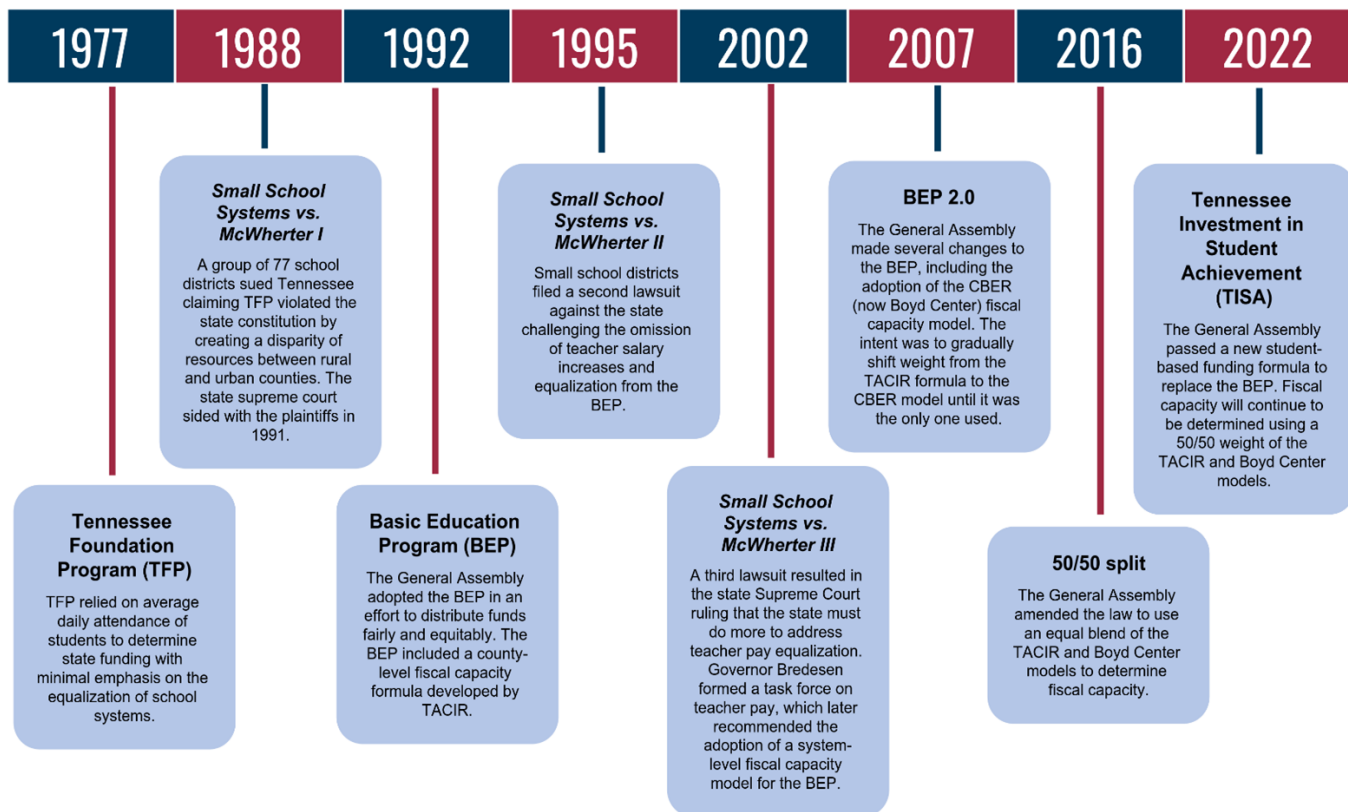
The General Assembly passed BEP 2.0 in 2007, making several changes to the original funding plan. Among other updates, the legislation adopted a new fiscal capacity model developed by the University of Tennessee's Center for Business and Economic Research (CBER, later becoming the Boyd Center for Business and Economic Research). The Boyd Center model, which uses a less complex method to calculate fiscal capacity, was intended to fully replace the TACIR model over several years. The transition from one model to the other began in the 2007-08 school year when a 50/50 blend of the two models was first used. State revenue shortfalls, triggered by the Great Recession, stalled the BEP 2.0 changes, including any further shift toward the Boyd Center model, leaving the 50/50 blend in place for a number of years.^C In 2016, when making further changes to the BEP formula, the General Assembly formalized into law the existing practice of equally weighting the two fiscal capacity models.

^A Tennessee Small School Systems v. McWherter was filed in 1988 in chancery court. It was appealed to the Tennessee Court of Appeals and ultimately to the Tennessee Supreme Court. The General Assembly passed the Education Improvement Act adopting the BEP funding formula in 1992 while the suit was pending before the Tennessee Supreme Court.

^B Additional lawsuits, known as Small Schools II and III, were filed to address the issue of teachers' salaries in the BEP. The Tennessee Supreme Court found in Small Schools II that the BEP's omission of provisions to increase teachers' salaries or equalize them across the state (such as using a standard salary cost figure) was a significant defect. In Small Schools III, the court found that the state's salary equity plan to provide additional funds for districts with below average salaries was not adequate because it did not contain a mechanism for cost determination or annual cost review of teachers' salaries.

^C Implementation of other BEP 2.0 changes were similarly stalled, including the planned state funding shift from 65 percent to 75 percent for instructional salary components, increased state funding for at-risk and English learner students, increased funding for student enrollment growth, and the elimination of the cost differential factor.

Exhibit 1: Timeline of fiscal capacity in education funding



Changes under TISA

Under the state’s new funding formula, TISA, the process to equalize local funding requirements based on counties’ ability to raise revenues (their fiscal capacity) remains the same as it did under the BEP formula. The fiscal capacity results calculated by TACIR and the Boyd Center are to be averaged together by the Tennessee Department of Education (TDOE) to produce the final fiscal capacity index for each county. That index is then used to allocate the total required local matching funds among the districts. Districts with less ability to generate local tax revenue will be assigned a lower local match requirement and thus receive more state funds based on their TISA allocation than they would if they had greater ability to generate local tax revenue. The reverse is true for districts with greater ability to generate local tax revenues.

The method for calculating fiscal capacity did not change with the passage of TISA. However, some elements funded in TISA are not subject to a state/local funding split and will no longer be impacted by fiscal capacity as they were under the BEP formula. For example, TISA allocations for career and technical education (CTE) students and those taking college ready exams (like the ACT) will be wholly funded by the state.

One change that did occur under TISA is the creation of a direct allocation category; elements that will be wholly funded by the state, including funding for career and technical education (CTE) students and students taking college ready exams (like the ACT). Because these elements will not require local funding, they are not subject to fiscal capacity equalization as they were under the BEP formula.

Other TISA changes affecting fiscal capacity involve the approval process of the models used. TISA requires the fiscal capacity formula to be evaluated by the Comptroller of the Treasury and to be approved by the State Board of Education. In contrast, state law required the Commissioner of Education and the Commissioner of Finance and Administration to approve the BEP formula and for the State Board to adopt the formula. The second change under TISA is that the annual fiscal capacity calculation, “including the underlying data and the determination for each county,” must be publicly reported.

Key points about fiscal capacity

County-based

The fiscal capacity formula is, and always has been, constructed on a county basis – not on a school district basis. This is not an issue for the majority of local districts; 67 districts are the sole school district within their county. The remaining 28 counties, however, are multi-district counties, encompassing 47 special and municipal school districts (plus Carroll County).^D In these counties, the same county-level fiscal capacity index is used for all school districts (county, municipal, or special) in the county.

Because of the overlap in taxing jurisdictions and the differences in legal requirements for various tax revenues to be shared, or not, among districts, disparities can result when a county-level fiscal capacity measure is applied to different types of districts within a single county. A method to revise the models to reflect fiscal capacity at the school district level, rather than at the county level, has been considered several times (e.g., 2004, 2014) and a district-based prototype was even developed.^E Ultimately, though, the conclusion has been to keep the formula as is: that in trying to correct issues caused by using a county-level formula to equalize fiscal capacity of local jurisdictions, the change to a district-level formula would create a different set of challenges.

Relative to other counties

Each county's fiscal capacity depends not only on changes in its own characteristics (e.g., sales and property tax bases, school-aged populations, etc.) but also on changes in those of all other counties. Any changes that lower one county's capacity result in increases in other counties' capacities, even if the other counties did not experience any changes themselves.

Each county's fiscal capacity is calculated as a percentage share of all 95 counties' fiscal capacity across the state. Then each county's fiscal capacity percentage is used to allocate among school districts their dollar share of the statewide required local match, that is, the total dollar amount required from local sources by the state funding formula. Changes to one county's fiscal capacity percentage will automatically change other counties' percentages, because the statewide required local match does not change under a relative fiscal capacity approach.

Under the BEP, and now TISA, the total dollars allocated by the funding formula are split between the state's contribution to the school districts and the required local match. Districts with a lower fiscal capacity contribute less to the required local share and receive proportionally more state dollars for their formula allocation.

Although to date Tennessee's fiscal capacity has always been structured as a relative approach among counties, it does not have to be. For example, in its 2022 report *Modernizing Education Funding*, Tennessee State Collaborative on Reforming Education (SCORE) recommended adopting an absolute fiscal capacity approach. One way to accomplish this would be to set a benchmark, such as a set percentage of counties' dollar value of calculated fiscal capacity. The resulting local match dollars would fluctuate as an individual county's fiscal capacity fluctuated but would not change in response to other counties' fluctuations in fiscal capacity. The state funding amounts for each district, however, would show more fluctuation and thus be harder to budget for.

Independent variables – variables that cause an outcome. Independent variables are not caused by the other variables in a model. In TACIR's model, the following are independent variables:

- Sales tax base (i.e., taxable sales) per pupil
- Property tax base (i.e., assessed taxable property values) per pupil
- Per capita income
- Ratio of residential and farm assessed values to total property assessment
- Percent of average daily membership (ADM)

Dependent variable – a variable that is the effect of independent variables. Its value depends on the changes experienced in the independent variable. In TACIR's model, the following is the dependent variable:

- Local revenue per pupil

^D Carroll County School District does not operate a typical full-service district; it provides transportation, vocational education, and special education services to the five special school districts within Carroll County.

^E Public Chapter 670, 2004, section 9 requested the BEP review Committee to give special consideration to the development and implementation of a system-level fiscal capacity model. Gov. Haslam's BEP Task Force, established in 2014, considered but did not recommend switching to a system-level fiscal capacity model.

The models

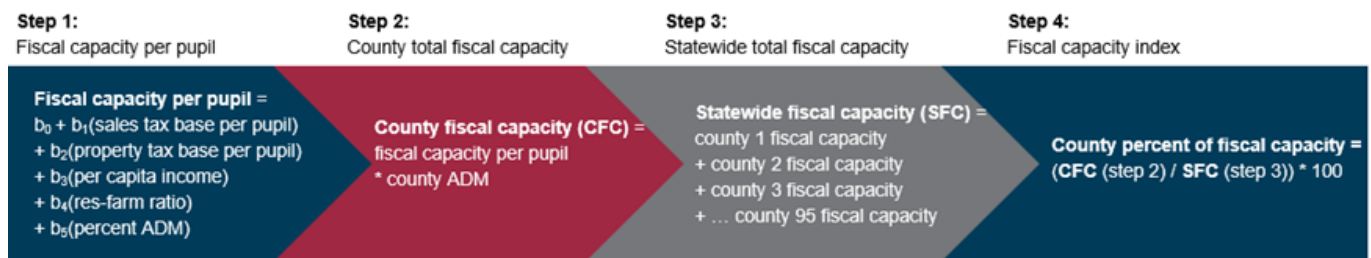
Both the TACIR and the Boyd Center models are described in the sections below. The description of each model includes the calculations and data sources used, each agency’s process for preparing the results, trends, past changes to the model, and any potential changes. TDOE’s role in the process once the two agencies have completed their fiscal capacity calculations is also described.

TACIR fiscal capacity model

Model description and data sources

TACIR’s fiscal capacity model uses linear regression to estimate the fiscal capacity per pupil for the 95 counties in Tennessee. The model uses a three-year moving average, which means it is based on the most current data available and mitigates both errors and volatility in the data.

Exhibit 2: TACIR’s model creates a fiscal capacity index for each county with four steps



TACIR’s regression model consists of six variables, as seen in the chart below. In the model, local revenue per pupil is the dependent variable and the other factors are independent variables (see box for definitions of dependent and independent variables). TACIR’s fiscal capacity model uses a multiple regression analysis to describe the relationship between a county’s revenue per pupil and each of the independent variables. The regression calculates weights (called coefficients) that are multiplied by the independent variables in the model. This creates the fiscal capacity per pupil (step 1 in the chart above).

Exhibit 3: Variables used in the TACIR fiscal capacity model

| Variable used in model | Data source | Type of variable in model |
|--|--|---------------------------|
| Local revenue per pupil = average revenue / ADM | Revenue codes and data from TDOE | Dependent |
| Sales tax base (i.e., taxable sales) per pupil = county sales / ADM | Department of Revenue | Independent |
| Property tax base (i.e., assessed taxable property values) per pupil = property tax base / ADM | Tax Aggregate Report of Tennessee | Independent |
| Per capita income (PCI) | Bureau of Economic Analysis | Independent |
| Residential and farm ratio = (residential assessment + farm assessment) / total property assessment | Tax Aggregate Report of Tennessee | Independent |
| Percent ADM = county ADM / total population | Annual Statistical Report and U.S. Census Bureau | Independent |

A linear regression is used to calculate the coefficients for each variable. Once the coefficients are calculated, they are multiplied by their corresponding variables and added together. This creates the fiscal capacity dollar value per pupil. To determine the total fiscal capacity of a county, the fiscal capacity dollar value per pupil is multiplied by the county ADM. These figures are then summed to produce a statewide fiscal capacity. This sets the statewide fiscal capacity to 100 percent. Each county's fiscal capacity is then divided by the statewide fiscal capacity to create the county percent of total fiscal capacity, which is often referred to as a fiscal capacity index by county in Tennessee. For an example of how a county fiscal capacity is calculated, see Appendix B.

A correlation coefficient is a statistical measure of strength between two variables. The value of the coefficient shows the type of relationship (positive or negative) and how strongly the variables are correlated.

Calculation and review process

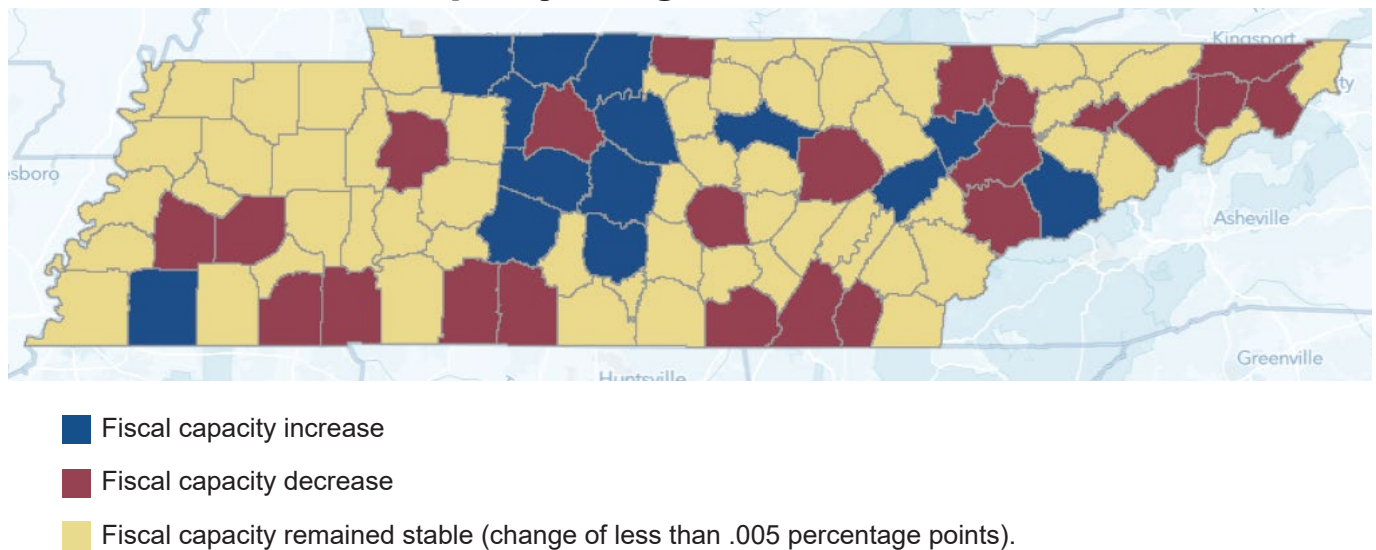
Each year, the model is reviewed by multiple employees at TACIR to ensure accuracy in the fiscal capacity calculations. The model is run separately by two individuals at TACIR who then compare their results and resolve any differences. After the resolution of any differences, a third individual at TACIR reviews the model, verifying the overall accuracy of the model and the calculated fiscal capacity of the districts.

TACIR maintains fiscal capacity data from previous years and uses this historical data to identify trends and data fluctuations. If the results for the latest year differ significantly from previous years, TACIR examines the reasons for the significant change. Significant differences in the past have resulted from a policy change that affected the overall calculation. For example, when the U.S. Bureau of Economic Analysis revised its methodology for determining personal income figures, TACIR's fiscal capacity estimates were affected since the Bureau's personal income figures are used in TACIR's model.

Changes from 2022 to 2023

Between 2022 and 2023, 23 counties saw a relative decrease in their TACIR fiscal capacity, 14 saw an increase, and 58 counties remained the same.

Exhibit 4: TACIR fiscal capacity changes from 2022 to 2023



In fiscal year 2023 the top 10 counties with the highest fiscal capacity accounted for 68 percent of the state's total fiscal capacity. Counties with a high fiscal capacity receive a smaller portion of K-12 funding from the state and are responsible for contributing a higher share of K-12 funding from local sources.

Exhibit 5: Top 10 districts for fiscal capacity based on the TACIR model, fiscal year 2022-23

| County | Rank | Percent of state fiscal capacity |
|------------|------|----------------------------------|
| Davidson | 1 | 17% |
| Shelby | 2 | 14% |
| Knox | 3 | 8% |
| Williamson | 4 | 7% |
| Hamilton | 5 | 6% |
| Rutherford | 6 | 5% |
| Sevier | 7 | 3% |
| Montgomery | 8 | 3% |
| Sumner | 9 | 3% |
| Wilson | 10 | 2% |

Past changes

TACIR's model has not changed since it was adopted in 1992.

TACIR has recommended updating the data used to calculate one variable of its model on multiple occasions: to Governor Haslam's 2014 Task Force on Education, to legislators in a 2018 report, and in a 2018 memo to the Commissioner of Education and the Executive Director of the State Board of Education. Because of a lack of clarity in state law as to which agency had authority to approve changes to fiscal capacity models, TACIR requested an Attorney General opinion on the matter. The Attorney General, in January 2020, found that while state law did not directly address the process for revising or updating fiscal capacity models, the law's specifications for the BEP formula would apply, and, as such, the change TACIR was seeking to make must be adopted by the State Board of Education and approved by the commissioners of the Departments of Education and of Finance and Administration. The potential financial impact on districts, projected as of June 2020 under the BEP formula, ranged from \$0 to more than \$1 million. No further action was taken to adopt or approve the proposed change to TACIR's model.

Potential changes

The change in data source sought by TACIR is for the Equalized Property Assessment per Student variable.^F This variable is based on the estimated value of property subject to payment in lieu of tax (PILOT) agreements, also called Tax Equivalency Payments (TEPs).^G The TEPs data used in the current TACIR model was produced by the Comptroller's office as part of its County and Municipal Finances report, which was discontinued in 1995.

Since at least 2011, the Comptroller's Office has been collecting industrial development boards' (IDB) property data. The data includes the estimated values of tax-exempt properties under IDB agreements, which can be used to determine potential tax revenues once these properties are transferred back to private entities that are required to pay property taxes. Estimates of IDB assessment values provided by the Comptroller's Office are used in the Boyd Center fiscal capacity model.

As the TEP data is nearly 30 years old, TACIR has recommended that its fiscal capacity calculation be updated to include current IDB assessment amounts rather than the 1993-1995 PILOT payments data currently used. (See Policy Considerations.)

^F This variable is created by dividing a county's Tax Equivalency Payments (TEPs) by its average daily membership (ADM).

^G TEPs is calculated by dividing the reported tax equivalency payments by the equalized property tax rate.

Boyd Center fiscal capacity model

Model description and data sources

The Boyd Center’s fiscal capacity model is based on two sets of county-level data: local option sales tax and equalized property tax. These taxes accounted for 97 percent of all local revenues directed to local school districts in fiscal year 2020-21.^H The Boyd Center’s approach is to calculate a statewide average property tax rate and statewide average sales tax rate for education and apply these to each county’s property tax base and sales tax base. Each county’s fiscal capacity in dollars is the sum of these two hypothetical levels of revenue: the dollars a county jurisdiction could produce for education if the statewide average effective tax rates were applied to its tax bases. A county’s fiscal capacity dollar value divided by the statewide total fiscal capacity for all counties results in an index value that can be expressed as a percentage. This final percentage is the fiscal capacity figure used by TDOE.

The Boyd Center’s model uses basic arithmetic to calculate counties’ potential ability to fund education from their own taxable sources. Its model calculates fiscal capacity at the county level and does not use student enrollment data.

Statewide average property tax rate for education

Local property tax revenues and payments in lieu of property taxes that are received by local school districts are reported annually by the districts to the TDOE. TDOE publishes these figures as part of its *Annual Statistical Report* (ASR).^I Although the financial data reported in the ASR are unaudited figures, they are publicly available and the best source to capture the revenues that are directed to education.

The sum of these revenues received by the districts are the result of property taxes (or payment in lieu of tax agreements) – at the county, city, or special school district level – earmarked or budgeted by local jurisdictions for education. When the sum of these revenues is divided into the total statewide local property tax base (described in the next section), the result is a statewide average local property tax rate – the effective rate of what all local jurisdictions, in aggregate, allocate for education.

Property tax base

A statewide local property tax base is calculated as the sum of all the counties’ property tax bases. Each county’s property tax base is built from equalized, assessed values of real property, personal property, and public utilities, reported annually in the Tennessee Comptroller’s *Tax Aggregate Report*.^J The total property assessments include properties in unincorporated rural areas and all the incorporated municipalities throughout the county’s geographic borders. Appraisal ratios, also reported in the *Tax Aggregate Report*, are applied to the assessment values to equalize assessments among counties since counties follow different reappraisal cycles. The same local property tax base calculations are part of TACIR’s model.

A final piece used to calculate the total local property tax base is the addition of the hypothetical assessment value for property covered by industrial development board (IDB) agreements.^K Such agreements allow private businesses to transfer their property to tax-exempt public agencies (IDBs) for a period of time. Typically, businesses make a “payment in lieu of taxes” (or PILOT) in exchange for their favorable tax treatment. At the end of the agreement, property is transferred back to the business and placed on local tax rolls at full value. Because the local jurisdiction chooses to make these tax arrangements and forgo tax revenues on the IDB properties, the estimated assessed value of these properties is added back into counties’ property tax base. The Comptroller’s Office compiles the data on the hypothetical assessed value of IDB properties annually for the Boyd Center.

^H The remainder of local revenues come from other taxes and fees, such as wheel tax, marriage license fee, etc., and vary county to county.

^I The 2020-21 *Annual Statistical Report* can be found at <https://www.tn.gov/education/data/departments-reports/2021-annual-statistical-report.html>. The 2021-22 report is expected to be posted later this spring.

^J The 2021 report is available at <https://comptroller.tn.gov/content/dam/cot/pa/documents/tax-aggregate-reports/2021TaxAggregateReport.pdf>. See Table I.

^K While industrial development boards are the most common types of development boards, other kinds of boards in Tennessee also make similar types of local tax agreements.

Once the statewide local property tax base is determined and the statewide average property tax rate for education is calculated (described above), that average rate is multiplied by each county's individual property tax base, identifying the amount of funds a county could hypothetically raise from its property tax base if it used the statewide, average effective property tax rate.

Statewide average sales tax rate for education

Just as with local property taxes, local option sales tax revenues that are received by local school districts are reported annually by districts to TDOE in the districts' financial reports. TDOE publishes these figures as part of its *Annual Statistical Report* (ASR). Although the financial data reported in the ASR are unaudited figures, they are publicly available and the best source to capture the revenues that are directed to education.

The sum of these revenues received by the districts are the result of local sales tax – levied by the county and/or city – and earmarked or budgeted by the local funding bodies, such as county commissions, for education. State law requires that at least 50 percent of any county sales tax revenues be allocated to school districts. Counties with multiple school districts must share the sales tax revenues collected. By considering the total sales tax revenues received by the districts, all county and city sales tax revenues directed to education are captured, including:

- the statutorily required 50 percent of county-levied sales tax,
- any of the remaining 50 percent of county-levied sales tax (which is returned to the local communities where it was collected) that communities with municipal districts may choose to direct toward schools,
- any of the remaining 50 percent of county-levied sales tax that was collected in unincorporated areas that counties may choose to direct toward schools, and
- any portion of city-levied sales tax (which can only be levied by cities located in counties that have not imposed the maximum local option sales tax) that flows to the city's general fund and can be appropriated for municipal schools.

When the sum of districts' revenues from local sales taxes are divided into the total statewide local sales tax base (described in the next section), the result is a statewide average local sales tax rate – the effective rate of what all local jurisdictions, in aggregate, allocate to education.

Sales tax base

A proxy measure for a statewide local sales tax base is calculated by dividing each county's sales tax collections by its sales tax rate. Once each county's sales tax base is calculated, they are added together to provide an estimate for the statewide local sales tax base. Sales tax collections by county are reported monthly and at the end of each fiscal year by the Tennessee Department of Revenue.^L The year-end report reflects the total local sales tax collections within a county, both county- and city-levied sales tax.

Because sales tax collections are used to calculate the value of the sales tax base, an adjustment is made for the model to remove additional sales taxes collected on items already included in the sales tax base for a county. Thus, any city tax collections that are set on top of the county rate (which cities can do if a county has not set its own tax at the maximum allowed rate) are deducted from the total.^M The Department of Revenue compiles a list for the Boyd Center detailing the sales tax collections from cities with higher tax rates than their counties, as well as for tourism development zones. The department's list of local option allocations also reports the state's administrative fee, retained from all local option sales tax revenues. The department's data is used to back out the additional sales taxes collected on items already included in the county's sales tax base.

^L The monthly and yearly reports are publicly available for download at the Department of Revenue's website <https://www.tn.gov/revenue/tax-resources/tax-collections-information/monthly-fiscal-year-collections.html>.

^M All counties have set a local option sales tax. As of 2022, 54 were at the maximum rate allowed and 41 were below the maximum.

Once the estimated statewide local sales tax base is determined and the statewide average sales tax rate for education is calculated (described above), that average rate is multiplied by each county's individual sales tax base estimate, resulting in the amount of funds a county could hypothetically raise from its sales tax base for education if it used the statewide average effective sales tax rate.

Final steps

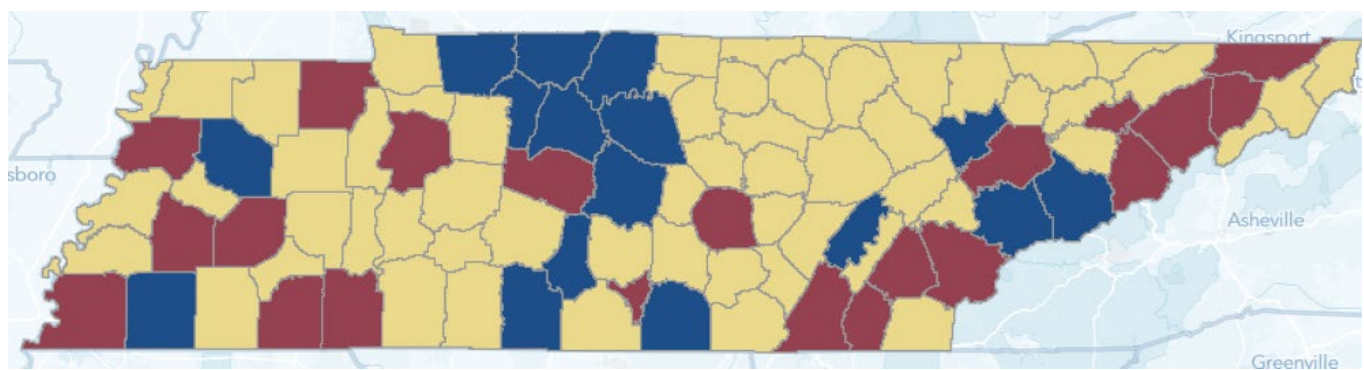
Each county's calculated property tax and sales tax totals from applying the statewide average tax rates for education are added together, resulting in the dollar value of its fiscal capacity. A county's total fiscal capacity is divided into the statewide total (the sum of the statewide local property and sales tax base) to produce a county's percentage of the statewide fiscal capacity. (See Appendix C for an example of the Boyd Center calculation.)

Calculation and review process

For each of the four data categories described above – statewide average property tax rate and statewide local property tax base, statewide average sales tax rate and statewide local sales tax base – the data for the most recent three years is collected and averaged. Each year, the oldest year rolls off and the most recent year's data is added to the three-year average calculation. For example, the local sales tax rate is calculated using a three-year average of education sales tax revenues reported by the districts divided by a three-year average of the statewide local sales tax base. Typically, several years of data averaged together helps to reduce year-to-year fluctuations and smooths out changes.

The Boyd Center staff collect data over several months. Its lead staff person for fiscal capacity reviews each new data set for any changes in format and checks any internal calculations, and then compares it to previous years' data for unexpected increases or decreases. The rolling average calculations are confirmed a minimum of three times, and the final calculations are reviewed by the director. If missing data or anomalies in the data are found, staff first check back with the data's source (TDOE, Department of Revenue, or the Comptroller's Office). In cases where a district's sales tax revenues were not reported in the annual statistical report (missing data), for example, Boyd Center staff code in data to match the 50 percent county sales tax revenues required by law to go to school districts. In other cases, the state agency source may see an error and correct it or check with the local sources from which they collected the data. Boyd Center staff sometimes communicate directly with a county about a data point that appears incorrect.

Changes from 2022 to 2023



- Fiscal capacity increase
- Fiscal capacity decrease
- Fiscal capacity remained stable (change of less than .005 percentage points).

In fiscal year 2023, the top 10 counties with the highest fiscal capacity accounted for 66 percent of the state’s total fiscal capacity. Counties with a high fiscal capacity receive a smaller portion of K-12 funding from the state and are responsible for contributing a higher share of K-12 funding from local sources.

Exhibit 7: Top 10 districts for fiscal capacity based on the Boyd Center model, fiscal year 2022-23

| County | Rank | Percent of state fiscal capacity |
|------------|------|----------------------------------|
| Davidson | 1 | 18% |
| Shelby | 2 | 12% |
| Knox | 3 | 8% |
| Williamson | 4 | 6% |
| Hamilton | 5 | 6% |
| Rutherford | 6 | 5% |
| Sevier | 7 | 3% |
| Montgomery | 8 | 3% |
| Sumner | 9 | 3% |
| Wilson | 10 | 2% |

Past changes

The Boyd Center’s model has not changed since it was implemented in the 2007-08 school year.

Potential changes

Boyd Center has no plans to change its fiscal capacity model in the future. If there were any proposal to change the model, staff believe it would come from outside parties.

Tennessee Department of Education’s role

Once TACIR and the Boyd Center have submitted their fiscal capacity calculations to TDOE in the spring of each year, TDOE averages the two fiscal capacity percentages for each county and produces a final fiscal capacity percentage, which the law requires no later than May 1. The final fiscal capacity cannot be changed once it has been set for the upcoming school year. TDOE then multiplies the final fiscal capacity percentage of each county with the total statewide local share of TISA (30 percent of all districts’ base funding and weighted funding allocations) to produce the required local match funding expected from each districts’ local funding body.

Process to change the formula

TISA does not specify a process for adopting changes to the fiscal capacity formula, beyond the general requirement for the Comptroller’s evaluation and the State Board’s approval of the formula. (Under the previous BEP statutes, as interpreted by the 2020 Attorney General opinion, changes were required to be approved by the commissioners of the Departments of Education and Finance and Administration and adopted by the State Board of Education.)

The TISA rules add that the “Comptroller of the Treasury may make recommendations on any changes to the fiscal capacity formulas to the State Board of Education, and the State Board shall establish a process and timeline for approval of the formulas.”^N As of January 31, 2023, the State Board had not established a process to consider formula changes in the future.

^N TISA Rules, filed with the Secretary of State after a rulemaking hearing and reviewed by a joint Government Operations Committee on January 30, 2023, are effective on February 15, 2023, but still subject to final approval of the full General Assembly in its 2023 rule omnibus bill.

Although the law (TCA 49-3-104(13)) does not specifically require the fiscal capacity formula to be evaluated and approved annually, the statute and rules, read together, indicate that such an evaluation and approval must reoccur prior to the use of an updated or revised formula, in order for the formula to remain in compliance with the law. Further, the rules, as currently written, do not preclude other parties, besides the Comptroller, from proposing changes to the fiscal capacity formula directly to the State Board.

Conclusion

Based on the Comptroller's review of the TACIR and Boyd Center models and each agency's process for compiling data and running the calculations, both models appear to be reasonable methods for estimating counties' fiscal capacity.

The intent of the 2007 statutory changes made to the BEP was to switch from the TACIR model to the Boyd Center model, mainly for reasons of clarity and simplicity. State budget restrictions, and possibly concerns among a majority of districts that they would be required to contribute a relatively larger portion of local funds under the Boyd Center model than under TACIR, stalled the transition.^o Since 2016, the combination of the two models has been fixed in law. The Sycamore Institute's fiscal capacity analysis of fiscal year 2019 data found that, compared to the combined fiscal capacity percentages, TACIR's model alone results in lower fiscal capacity for many rural counties (which would direct more state dollars to districts in those counties), while the Boyd Center's model alone results in lower fiscal capacity for several urban counties (directing more state dollars to districts in those counties).

Reviewing fiscal year 2022-23 fiscal capacity percentages under both models, the 10 counties with the highest fiscal capacity were the same under both models (and had the same rank order), representing 68 percent under TACIR's model and 66 percent under the Boyd Center model of the statewide fiscal capacity. (See Exhibits 5 and 7.) Similarly, nine of the 10 counties with the lowest fiscal capacity were the same under both models, although not in the same rank order. From fiscal years 2022 to 2023, 13 counties experienced an increase in the combined fiscal capacity of at least 0.01 percentage points or more; the largest increases were for Williamson and Sevier counties, which both experienced 0.09 percentage points increases. For the same years, 19 counties experienced a decrease in fiscal capacity of 0.01 percentage points or more; the largest decrease was for Davidson County, which experienced a decline in fiscal capacity of 0.14 percentage points. The other 63 counties were stable, with increases or decreases of less than 0.005 percentage points. (See Appendix A for the past three years of fiscal capacity calculations.)

The combined fiscal capacity model of 50 percent TACIR and 50 percent Boyd Center has remained unchanged primarily because any change would impact counties' fiscal capacities – some would see increases and some would see decreases. Those seeing fiscal capacity increases would receive a smaller portion of K-12 funding from the state and be responsible for a larger local share of funding. While the change from BEP to TISA generated uncertainty among a number of districts, the additional state dollars appropriated in conjunction with the switch to TISA was projected to cushion the financial impact for most, but not all, districts.

^o In 2007-08, the first year that the Boyd Center model of fiscal capacity figures were part of the fiscal capacity calculation, 106 mostly small and medium sized districts would have experienced a negative financial impact (i.e., they would have been required to contribute a larger share of local funds and receive a smaller share of state funds) compared to a fiscal capacity calculation based wholly on TACIR model figures. However, districts did not actually experience those impacts because they were covered under hold harmless provisions.

Policy considerations

The State Board of Education may wish to consider requiring, as part of a process for any future proposals to change the fiscal capacity formula, the inclusion of a rationale for the proposed change, the expected impact of the proposed change on districts and local governments, and methods for implementing the proposed change, among other factors.

Once the State Board of Education has adopted a process for implementing changes in the fiscal capacity calculation, TACIR may wish to again propose that the most current data available for the assessment value of tax-exempt property under Industrial Development Board (IDB) agreements be used in its model. TACIR has projected the expected impact on counties' fiscal capacities from this change.

The State Board of Education and the Department of Education should consider coordinating to determine on which of their websites the fiscal capacity determination, calculation, and underlying data will be publicly reported each year, as required by law.

Appendix A: Three-year fiscal capacity trends

| County | TACIR 2021 | Boyd Center 2021 | Average 2021 | Change in average 2021 | TACIR 2022 | Boyd Center 2022 | Average 2022 | Change in average 2022 | TACIR 2023 | Boyd Center 2023 | Average 2023 | Change in average 2023 |
|------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|
| Anderson | 1.04% | 1.00% | 1.02% | 0.00% | 1.07% | 1.02% | 1.04% | 0.02% | 1.09% | 1.03% | 1.06% | 0.02% |
| Bedford | 0.51% | 0.51% | 0.51% | 0.00% | 0.52% | 0.53% | 0.53% | 0.02% | 0.53% | 0.53% | 0.53% | 0.01% |
| Benton | 0.13% | 0.15% | 0.14% | 0.00% | 0.13% | 0.15% | 0.14% | 0.00% | 0.13% | 0.14% | 0.14% | 0.00% |
| Bledsoe | 0.04% | 0.09% | 0.06% | 0.00% | 0.04% | 0.08% | 0.06% | 0.00% | 0.04% | 0.09% | 0.06% | 0.00% |
| Blount | 1.81% | 1.95% | 1.88% | -0.03% | 1.79% | 1.89% | 1.84% | -0.03% | 1.78% | 1.91% | 1.85% | 0.00% |
| Bradley | 1.31% | 1.45% | 1.38% | -0.03% | 1.31% | 1.41% | 1.36% | -0.02% | 1.30% | 1.37% | 1.33% | -0.03% |
| Campbell | 0.34% | 0.39% | 0.37% | -0.01% | 0.33% | 0.39% | 0.36% | -0.01% | 0.33% | 0.38% | 0.36% | 0.00% |
| Cannon | 0.08% | 0.11% | 0.09% | 0.00% | 0.08% | 0.11% | 0.10% | 0.00% | 0.08% | 0.11% | 0.10% | 0.00% |
| Carroll | 0.19% | 0.21% | 0.20% | -0.01% | 0.19% | 0.21% | 0.20% | 0.00% | 0.19% | 0.21% | 0.20% | 0.00% |
| Carter | 0.40% | 0.45% | 0.42% | -0.01% | 0.39% | 0.45% | 0.42% | 0.00% | 0.38% | 0.45% | 0.42% | 0.00% |
| Cheatham | 0.35% | 0.41% | 0.38% | 0.01% | 0.37% | 0.43% | 0.40% | 0.01% | 0.38% | 0.44% | 0.41% | 0.01% |
| Chester | 0.10% | 0.11% | 0.11% | 0.00% | 0.10% | 0.11% | 0.11% | 0.00% | 0.10% | 0.11% | 0.11% | 0.00% |
| Claiborne | 0.22% | 0.25% | 0.24% | -0.01% | 0.22% | 0.25% | 0.23% | 0.00% | 0.21% | 0.25% | 0.23% | 0.00% |
| Clay | 0.04% | 0.05% | 0.05% | 0.00% | 0.04% | 0.05% | 0.05% | 0.00% | 0.04% | 0.05% | 0.05% | 0.00% |
| Cocke | 0.30% | 0.34% | 0.32% | -0.01% | 0.30% | 0.33% | 0.31% | -0.01% | 0.30% | 0.32% | 0.31% | -0.01% |
| Coffee | 0.77% | 0.71% | 0.74% | -0.02% | 0.75% | 0.71% | 0.73% | 0.00% | 0.76% | 0.71% | 0.73% | 0.00% |
| Crockett | 0.10% | 0.10% | 0.10% | 0.00% | 0.11% | 0.10% | 0.11% | 0.00% | 0.11% | 0.10% | 0.11% | 0.00% |
| Cumberland | 0.65% | 0.77% | 0.71% | -0.02% | 0.64% | 0.76% | 0.70% | -0.01% | 0.63% | 0.76% | 0.69% | -0.01% |
| Davidson | 17.09% | 17.77% | 17.43% | 0.68% | 17.39% | 17.99% | 17.69% | 0.26% | 17.00% | 18.10% | 17.55% | -0.14% |
| Decatur | 0.10% | 0.11% | 0.11% | -0.01% | 0.10% | 0.11% | 0.10% | 0.00% | 0.10% | 0.11% | 0.10% | 0.00% |
| DeKalb | 0.19% | 0.22% | 0.20% | 0.00% | 0.19% | 0.22% | 0.20% | 0.00% | 0.19% | 0.21% | 0.20% | 0.00% |
| Dickson | 0.67% | 0.70% | 0.69% | 0.00% | 0.67% | 0.71% | 0.69% | 0.00% | 0.67% | 0.72% | 0.70% | 0.00% |
| Dyer | 0.47% | 0.43% | 0.45% | -0.01% | 0.47% | 0.42% | 0.44% | 0.00% | 0.47% | 0.41% | 0.44% | 0.00% |
| Fayette | 0.38% | 0.47% | 0.43% | -0.01% | 0.37% | 0.47% | 0.42% | 0.00% | 0.38% | 0.49% | 0.43% | 0.01% |
| Fentress | 0.12% | 0.16% | 0.14% | 0.00% | 0.12% | 0.15% | 0.14% | 0.00% | 0.12% | 0.15% | 0.14% | 0.00% |
| Franklin | 0.40% | 0.49% | 0.44% | -0.01% | 0.39% | 0.48% | 0.44% | 0.00% | 0.39% | 0.49% | 0.44% | 0.00% |

| County | TACIR 2021 | Boyd Center 2021 | Average 2021 | Change in average 2021 | TACIR 2022 | Boyd Center 2022 | Average 2022 | Change in average 2022 | TACIR 2023 | Boyd Center 2023 | Average 2023 | Change in average 2023 |
|------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|
| Gibson | 0.47% | 0.43% | 0.45% | -0.01% | 0.47% | 0.42% | 0.45% | 0.00% | 0.47% | 0.43% | 0.45% | 0.00% |
| Giles | 0.30% | 0.32% | 0.31% | -0.01% | 0.29% | 0.32% | 0.31% | -0.01% | 0.29% | 0.33% | 0.31% | 0.00% |
| Grainger | 0.10% | 0.15% | 0.13% | 0.00% | 0.10% | 0.15% | 0.13% | 0.00% | 0.10% | 0.15% | 0.13% | 0.00% |
| Greene | 0.67% | 0.72% | 0.70% | -0.02% | 0.63% | 0.71% | 0.67% | -0.03% | 0.63% | 0.70% | 0.66% | -0.01% |
| Grundy | 0.07% | 0.09% | 0.08% | 0.00% | 0.07% | 0.09% | 0.08% | 0.00% | 0.07% | 0.09% | 0.08% | 0.00% |
| Hamblen | 0.93% | 0.87% | 0.90% | -0.03% | 0.93% | 0.84% | 0.89% | -0.01% | 0.92% | 0.82% | 0.87% | -0.02% |
| Hamilton | 6.03% | 6.02% | 6.03% | -0.01% | 6.00% | 5.99% | 5.99% | -0.04% | 5.95% | 5.96% | 5.96% | -0.04% |
| Hancock | 0.02% | 0.04% | 0.03% | 0.00% | 0.02% | 0.04% | 0.03% | 0.00% | 0.02% | 0.04% | 0.03% | 0.00% |
| Hardeman | 0.16% | 0.18% | 0.17% | -0.01% | 0.15% | 0.18% | 0.16% | -0.01% | 0.15% | 0.17% | 0.16% | 0.00% |
| Hardin | 0.32% | 0.36% | 0.34% | -0.02% | 0.32% | 0.35% | 0.33% | -0.01% | 0.31% | 0.34% | 0.32% | -0.01% |
| Hawkins | 0.41% | 0.48% | 0.45% | -0.01% | 0.41% | 0.48% | 0.44% | 0.00% | 0.40% | 0.48% | 0.44% | 0.00% |
| Haywood | 0.16% | 0.18% | 0.17% | -0.01% | 0.16% | 0.17% | 0.17% | 0.00% | 0.15% | 0.16% | 0.16% | -0.01% |
| Henderson | 0.25% | 0.25% | 0.25% | -0.01% | 0.25% | 0.24% | 0.25% | 0.00% | 0.25% | 0.24% | 0.25% | 0.00% |
| Henry | 0.36% | 0.36% | 0.36% | -0.01% | 0.35% | 0.35% | 0.35% | -0.01% | 0.35% | 0.34% | 0.35% | -0.01% |
| Hickman | 0.13% | 0.16% | 0.14% | 0.00% | 0.13% | 0.16% | 0.14% | 0.00% | 0.13% | 0.16% | 0.15% | 0.00% |
| Houston | 0.05% | 0.06% | 0.05% | 0.00% | 0.04% | 0.06% | 0.05% | 0.00% | 0.04% | 0.06% | 0.05% | 0.00% |
| Humphreys | 0.23% | 0.25% | 0.24% | -0.01% | 0.22% | 0.23% | 0.22% | -0.01% | 0.21% | 0.22% | 0.22% | -0.01% |
| Jackson | 0.05% | 0.07% | 0.06% | 0.00% | 0.05% | 0.07% | 0.06% | 0.00% | 0.05% | 0.07% | 0.06% | 0.00% |
| Jefferson | 0.48% | 0.57% | 0.52% | -0.02% | 0.47% | 0.56% | 0.51% | -0.01% | 0.47% | 0.56% | 0.51% | 0.00% |
| Johnson | 0.10% | 0.14% | 0.12% | -0.01% | 0.09% | 0.14% | 0.12% | 0.00% | 0.09% | 0.13% | 0.11% | 0.00% |
| Knox | 7.93% | 7.76% | 7.84% | -0.09% | 7.87% | 7.69% | 7.78% | -0.06% | 7.86% | 7.66% | 7.76% | -0.02% |
| Lake | 0.03% | 0.04% | 0.04% | 0.00% | 0.03% | 0.04% | 0.03% | 0.00% | 0.03% | 0.04% | 0.03% | 0.00% |
| Lauderdale | 0.18% | 0.17% | 0.17% | -0.01% | 0.17% | 0.17% | 0.17% | 0.00% | 0.17% | 0.16% | 0.17% | 0.00% |
| Lawrence | 0.38% | 0.37% | 0.37% | -0.01% | 0.37% | 0.37% | 0.37% | 0.00% | 0.37% | 0.37% | 0.37% | 0.00% |
| Lewis | 0.10% | 0.11% | 0.10% | 0.00% | 0.10% | 0.11% | 0.11% | 0.00% | 0.11% | 0.12% | 0.11% | 0.00% |
| Lincoln | 0.31% | 0.33% | 0.32% | 0.00% | 0.30% | 0.33% | 0.31% | -0.01% | 0.30% | 0.33% | 0.32% | 0.00% |
| Loudon | 0.67% | 0.82% | 0.75% | -0.02% | 0.66% | 0.81% | 0.74% | -0.01% | 0.67% | 0.81% | 0.74% | 0.00% |

| County | TACIR 2021 | Boyd Center 2021 | Average 2021 | Change in average 2021 | TACIR 2022 | Boyd Center 2022 | Average 2022 | Change in average 2022 | TACIR 2023 | Boyd Center 2023 | Average 2023 | Change in average 2023 |
|------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|
| McMinn | 0.62% | 0.64% | 0.63% | -0.02% | 0.61% | 0.64% | 0.62% | -0.01% | 0.60% | 0.62% | 0.61% | -0.01% |
| McNairy | 0.20% | 0.21% | 0.20% | -0.01% | 0.19% | 0.20% | 0.19% | -0.01% | 0.18% | 0.19% | 0.19% | -0.01% |
| Macon | 0.19% | 0.20% | 0.19% | 0.00% | 0.18% | 0.20% | 0.19% | 0.00% | 0.18% | 0.20% | 0.19% | 0.00% |
| Madison | 1.65% | 1.52% | 1.59% | -0.04% | 1.62% | 1.51% | 1.56% | -0.03% | 1.60% | 1.46% | 1.53% | -0.03% |
| Marion | 0.33% | 0.36% | 0.34% | -0.01% | 0.33% | 0.35% | 0.34% | 0.00% | 0.32% | 0.35% | 0.34% | 0.00% |
| Marshall | 0.36% | 0.37% | 0.36% | 0.00% | 0.36% | 0.37% | 0.36% | 0.00% | 0.36% | 0.39% | 0.38% | 0.01% |
| Maury | 1.24% | 1.36% | 1.30% | 0.01% | 1.23% | 1.39% | 1.31% | 0.01% | 1.25% | 1.39% | 1.32% | 0.01% |
| Meigs | 0.07% | 0.10% | 0.08% | 0.00% | 0.07% | 0.10% | 0.08% | 0.00% | 0.06% | 0.10% | 0.08% | 0.00% |
| Monroe | 0.46% | 0.51% | 0.49% | -0.01% | 0.46% | 0.50% | 0.48% | 0.00% | 0.46% | 0.50% | 0.48% | 0.00% |
| Montgomery | 2.55% | 2.41% | 2.48% | 0.02% | 2.60% | 2.48% | 2.54% | 0.06% | 2.66% | 2.57% | 2.61% | 0.08% |
| Moore | 0.09% | 0.11% | 0.10% | 0.00% | 0.09% | 0.12% | 0.10% | 0.00% | 0.09% | 0.11% | 0.10% | 0.00% |
| Morgan | 0.08% | 0.11% | 0.10% | 0.00% | 0.08% | 0.11% | 0.10% | 0.00% | 0.08% | 0.11% | 0.10% | 0.00% |
| Obion | 0.36% | 0.33% | 0.35% | -0.01% | 0.36% | 0.33% | 0.34% | 0.00% | 0.36% | 0.32% | 0.34% | 0.00% |
| Overton | 0.16% | 0.18% | 0.17% | 0.00% | 0.16% | 0.18% | 0.17% | 0.00% | 0.16% | 0.18% | 0.17% | 0.00% |
| Perry | 0.06% | 0.08% | 0.07% | 0.00% | 0.06% | 0.08% | 0.07% | 0.00% | 0.06% | 0.07% | 0.07% | 0.00% |
| Pickett | 0.04% | 0.06% | 0.05% | 0.00% | 0.04% | 0.06% | 0.05% | 0.00% | 0.04% | 0.05% | 0.05% | 0.00% |
| Polk | 0.10% | 0.13% | 0.11% | -0.01% | 0.09% | 0.13% | 0.11% | 0.00% | 0.09% | 0.12% | 0.11% | 0.00% |
| Putnam | 1.17% | 1.11% | 1.14% | -0.01% | 1.15% | 1.12% | 1.13% | -0.01% | 1.16% | 1.11% | 1.14% | 0.00% |
| Rhea | 0.31% | 0.34% | 0.32% | -0.01% | 0.31% | 0.34% | 0.32% | 0.00% | 0.31% | 0.35% | 0.33% | 0.00% |
| Roane | 0.58% | 0.65% | 0.62% | -0.01% | 0.58% | 0.64% | 0.61% | 0.00% | 0.59% | 0.64% | 0.62% | 0.00% |
| Robertson | 0.80% | 0.87% | 0.83% | 0.00% | 0.81% | 0.88% | 0.85% | 0.01% | 0.84% | 0.90% | 0.87% | 0.02% |
| Rutherford | 4.89% | 4.88% | 4.89% | 0.05% | 4.94% | 5.02% | 4.98% | 0.09% | 5.03% | 5.04% | 5.03% | 0.05% |
| Scott | 0.17% | 0.17% | 0.17% | -0.01% | 0.17% | 0.17% | 0.17% | 0.00% | 0.16% | 0.16% | 0.16% | 0.00% |
| Sequatchie | 0.12% | 0.14% | 0.13% | 0.00% | 0.12% | 0.14% | 0.13% | 0.00% | 0.12% | 0.14% | 0.13% | 0.00% |
| Sevier | 2.78% | 2.87% | 2.83% | -0.01% | 2.75% | 2.92% | 2.83% | 0.01% | 2.87% | 2.98% | 2.92% | 0.09% |
| Shelby | 14.36% | 12.23% | 13.29% | -0.10% | 14.29% | 12.06% | 13.17% | -0.12% | 14.29% | 12.02% | 13.15% | -0.02% |
| Smith | 0.18% | 0.19% | 0.19% | 0.00% | 0.19% | 0.19% | 0.19% | 0.00% | 0.19% | 0.20% | 0.19% | 0.00% |

| County | TACIR 2021 | Boyd Center 2021 | Average 2021 | Change in average 2021 | TACIR 2022 | Boyd Center 2022 | Average 2022 | Change in average 2022 | TACIR 2023 | Boyd Center 2023 | Average 2023 | Change in average 2023 |
|-------------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|------------|------------------|--------------|------------------------|
| Stewart | 0.11% | 0.12% | 0.11% | 0.00% | 0.11% | 0.12% | 0.11% | 0.00% | 0.11% | 0.12% | 0.11% | 0.00% |
| Sullivan | 2.27% | 2.25% | 2.26% | -0.07% | 2.20% | 2.20% | 2.20% | -0.06% | 2.14% | 2.12% | 2.13% | -0.07% |
| Sumner | 2.44% | 2.56% | 2.50% | 0.04% | 2.46% | 2.59% | 2.53% | 0.03% | 2.51% | 2.61% | 2.56% | 0.03% |
| Tipton | 0.48% | 0.52% | 0.50% | -0.01% | 0.49% | 0.51% | 0.50% | 0.00% | 0.49% | 0.51% | 0.50% | 0.00% |
| Trousdale | 0.08% | 0.09% | 0.08% | 0.00% | 0.08% | 0.09% | 0.08% | 0.00% | 0.07% | 0.09% | 0.08% | 0.00% |
| Unicoi | 0.15% | 0.16% | 0.15% | -0.01% | 0.14% | 0.16% | 0.15% | 0.00% | 0.15% | 0.16% | 0.15% | 0.00% |
| Union | 0.09% | 0.14% | 0.11% | 0.00% | 0.09% | 0.14% | 0.12% | 0.00% | 0.09% | 0.14% | 0.11% | 0.00% |
| Van Buren | 0.03% | 0.05% | 0.04% | 0.00% | 0.03% | 0.05% | 0.04% | 0.00% | 0.03% | 0.05% | 0.04% | 0.00% |
| Warren | 0.39% | 0.42% | 0.41% | -0.01% | 0.39% | 0.41% | 0.40% | -0.01% | 0.38% | 0.40% | 0.39% | -0.01% |
| Washington | 1.82% | 1.81% | 1.82% | -0.06% | 1.78% | 1.76% | 1.77% | -0.05% | 1.76% | 1.73% | 1.74% | -0.02% |
| Wayne | 0.09% | 0.12% | 0.10% | 0.00% | 0.08% | 0.12% | 0.10% | 0.00% | 0.08% | 0.12% | 0.10% | 0.00% |
| Weakley | 0.27% | 0.27% | 0.27% | -0.01% | 0.27% | 0.27% | 0.27% | 0.00% | 0.27% | 0.27% | 0.27% | 0.00% |
| White | 0.20% | 0.23% | 0.22% | -0.01% | 0.20% | 0.23% | 0.21% | 0.00% | 0.19% | 0.23% | 0.21% | 0.00% |
| Williamson | 6.82% | 6.10% | 6.46% | 0.12% | 6.88% | 6.21% | 6.54% | 0.08% | 7.07% | 6.19% | 6.63% | 0.09% |
| Wilson | 2.16% | 2.31% | 2.24% | 0.04% | 2.20% | 2.38% | 2.29% | 0.05% | 2.26% | 2.40% | 2.33% | 0.04% |

Appendix B: TACIR fiscal capacity example

County initial values for each variable

| Property tax per pupil | Sales tax per pupil | Per capita income | Ratio of res. & farm to total assessment | ADM per population |
|------------------------|---------------------|-------------------|--|--------------------|
| \$ 300,000 | \$ 150,000 | \$ 70,000 | 45.00% | 11.00% |

Regression coefficients

| | Coefficients |
|--------------------|--------------|
| Intercept | 877.426 |
| Property/ADM | 0.004 |
| Sales/ADM | 0.018 |
| Per capital income | 0.040 |
| Res farm ratio | -2328.375 |
| ADM/Pop | -718.919 |

Fiscal capacity per pupil calculation

Fiscal capacity per pupil = (intercept) + 0.004 * (property per pupil) + 0.018 * (sales per pupil) + 0.040 * (per capital income) + (-2,328.375) * (res farm ratio) + (-718.919) * (ADM per population)

\$6,450.58 = 877.42 (intercept) + 0.04 * 300,000 (property per pupil) + 0.018 * 150,000 (sales per pupil) + 0.040 * 70,000 (per capital income) + (-2,328.375) * 0.45 (res farm ratio) + (-718.919) * 0.11 (ADM per population)

County total fiscal capacity

Total fiscal capacity = fiscal capacity per pupil * county ADM

\$322,528,808 = \$6,450.58 * 50,000 (ADM)

Statewide fiscal capacity

Statewide fiscal capacity = total fiscal capacity (Anderson County) + total fiscal capacity (Bedford County) + total fiscal capacity (Benton County) + ...

County's percent of statewide fiscal capacity

County's percent of fiscal capacity = total county fiscal capacity / statewide fiscal capacity

8.22% = \$322,528,808 / \$3,922,193,529

The calculation shows that the county accounts for 8.22% of the fiscal capacity of Tennessee.

Appendix C: Boyd Center fiscal capacity example

Calculation of statewide tax rates for education

| | |
|--|-------------------|
| 1. Sum of local property tax revenues spent on education reported by each Tennessee school district averaged with two previous years | \$2,203,572,715 |
| 2. Statewide equalized assessed property plus IDB property assessment estimates, averaged with two previous years | \$229,596,819,756 |
| 3. Statewide, 3-year average property tax rate for education ($1 \div 2$) | 0.9598% |
| 4. Sum of local sales tax revenues spent on education reported by each Tennessee school district, averaged with two previous years | \$1,744,775,079 |
| 5. Statewide estimated sales tax base, averaged with two previous years | \$114,802,960,645 |
| 6. Statewide, 3-year average sales tax rate for education ($4 \div 5$) | 1.5198% |

Calculation of a sample county's fiscal capacity

| | |
|--|------------------|
| 7. Equalized assessed property plus IDB property assessment estimates (3-year average) | \$19,130,924,199 |
| 8. Statewide, 3-year average property tax rate for education (0.9598%) | 0.009598 |
| 9. Estimated sales tax base (3-year average) | \$10,702,878,267 |
| 10. Statewide, 3-year average sales tax rate for education (1.5198%) | 0.015198 |
| 11. This county's fiscal capacity is calculated as $(7 \times 8) + (9 \times 10)$ | \$346,280,954 |

This county's **fiscal capacity index** is calculated as its fiscal capacity (*line 11*) divided by the statewide total fiscal capacity of \$3,948,347,794, (*lines 1 + 4*) for an index value of 0.0877 or 8.77%.

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