PROTOTYPE SYSTEM-LEVEL FISCAL CAPACITY MODEL

Background and Introduction

TACIR staff began evaluating the challenges and the potential for a system-level fiscal capacity model nearly fifteen years ago, and preliminary work on a prototype model has been presented to the Commission on several occasions. Past system-level prototypes, unlike the current county-level model, have been based solely on tax base data because, until recently, data for measuring the ability of residents to pay taxes were not routinely available for school systems. That is no longer the case. As a result, a system-level prototype based on the same principles as the current county model is finally possible.

Interest in a system-level model heightened as the Teacher Pay Task Force appointed by the Governor in April 2003 began its work. This broad group of stakeholders was formed in response to the October 2002 decision by the Tennessee Supreme Court holding the current method of equalizing teachers' salaries unconstitutional. The Task Force's final report, delivered to the Governor in November 2003, recommended resolution of the salary equity issue within the Basic Education Program (BEP) formula and laid out ten principles to guide development of the Governor's teacher pay plan (see attached). Principle number four characterized a system-level model as "a fairer method of determining local contribution."

Final legislative action in April 2004 directed the BEP Review Committee "to give special consideration to . . . the development and implementation of a system-level fiscal capacity model." The prototype model described here reflects the best efforts of TACIR staff with assistance from the Comptroller's Office of Education Accountability to meet the requirements of that principle. The prototype produces results that when summed for counties and evaluated by number of school systems per county better match actual revenue as shown in Table 1 on page 2.

More than two-thirds of Tennessee counties have only one school system. Those sixty-seven counties account for just under fifty percent of local education revenue. Based on the current county-level fiscal capacity model, those counties are responsible for more than fifty-two percent of the BEP local matching requirement. Based on the system-level prototype, they remain responsible for around fifty-two percent of the local match. The ratio between their share of the match and their share of actual revenue would change very little, from 1.05 to 1.03, which indicates that both models treat them collectively about the same.

Table 1. Comparison of county-area Shares of Fiscal Capacity to Actual Shares of Local Education Revenue
—Current 95-County Model versus Prototype 136-System Model—
by Number of Systems in County

			Percent of Statewide Fiscal Capacity			
		Percent of Statewide Local Revenue	Current 95–County Model	Ratio of Capacity to Revenue	Prototype 136-System Model	Ratio of Capacity to Revenue
Counties with One School System	67	49.7%	52.3%	1.05	51.4%	1.03
Counties with Two School Systems	20	40.3%	39.4%	0.98	39.5%	0.98
Counties with Three School Systems	6	9.0%	7.4%	0.82	8.1%	0.91
Counties with Five or Six School Systems	2	1.0%	0.9%	0.97	1.0%	1.07
Total	95	100.0%	100.0%	1.00	100.0%	1.00

The twenty counties that have two school systems account for slightly more than forty percent of actual local revenue, are currently responsible for around thirty-nine percent of the local match, and remain under the prototype model responsible for around thirty-nine percent of the local match. These twenty two-system counties have nearly a one-to-one ratio between their share of actual revenue and their share of the BEP match under both the current model and the prototype, which indicates that both models treat them collectively almost exactly the same.

In contrast, the six counties with three school systems now account for nine percent of actual local education revenue, but only seven percent of the current local matching requirement, giving them a ratio of far less than one-to-one (0.82). Their share of the match moves up to eight percent under the prototype model. Their match/revenue ratio remains below one at 0.91, but moves much closer, which means that the prototype is better at predicting their collective revenue, but still treats them very favorably in comparison to the one- and two-system counties.

The two counties with five and six systems account for about one percent of revenue, less than one percent of the current match and one percent of the prototype match. Their match/revenue ratio moves from about 1.0 to about 1.1.

Current County Model—Starting Point for Sub-county Prototype

Tennessee's fiscal capacity model was developed by TACIR in the late 1980s and adopted by the State Board of Education in 1992 to fulfill the requirement of the Education Improvement Act for fiscal equalization in the Basic Education Program (BEP). Fiscal capacity is the potential ability of local governments to fund education from their own taxable sources, relative to their cost of providing services. TACIR's model is used to allocate responsibility for the local portion of the BEP among the state's public school systems.

The TACIR formula estimates the dollar amount per pupil that each county area can afford to raise to fund its public schools. The dollar amount per pupil is multiplied by the number of students in each county to produce the total fiscal capacity for each county area. The total fiscal capacity for all ninety-five counties is summed, and the amount for each county is divided by the statewide total. This amount is called the fiscal capacity index. Converted to a percentage of the statewide total, this number constitutes the share that each county has of total statewide capacity to fund education from local sources.

A Modified Representative Tax System Approach

TACIR uses a modified version of the representative tax system (RTS) approach to determining fiscal capacity developed by the U.S. Advisory Commission on Intergovernmental Relations (ACIR). Three decades ago the original ACIR model estimated the fiscal capacity of states by applying uniform average tax rates to a standard set of tax bases. The TACIR model enhances the basic RTS approach by using a common statistical method to expand the formula to include more measures of taxpayer equity and a measure of the local service burden.

The statistical method TACIR uses to compute each county's fiscal capacity is called multiple regression analysis. This method starts with the actual revenue raised by all ninety-five counties for education. It then takes each factor (variable) and compares it across all counties to produce a weight (called a coefficient) that represents the average contribution that factor makes to the amount raised by each county. A single weight is calculated for each factor included in the model. Each weight is multiplied by the value of the factor for each county and

summed for that county to produce a dollar amount per pupil. That amount represents the fiscal capacity for the county. These amounts vary county-by-county because the values of the factors are different for each county.

Figure 1. TACIR Fiscal Capacity Model: What is it?

- **A Modified Representative Tax System Approach** (Regression Weighted)
- **A Pupil Equity Model**—measured by the tax base per student
- **A Taxpayer Equity Model**—measured by
  - Ability to Pay
  - Resident Tax Burden/Tax Exportability
- **A Fiscal "Behavioral" Model**
  - Does not set normative standards for local revenue.
  - Accepts actual levels of local revenue as basis for measuring fiscal capacity.
- **Three-year Moving Average**—mitigates both errors and volatility in the data

Basic Structure of the Current County Model

The current county model was the starting point for development of the new system-level model. The current model is based on five key components, all measured by using three-year moving averages of the most recent data available:

- Local Revenue, measured by own-source revenue per pupil
- Tax Base, a measure of pupil equity based on two revenue sources:
  - local taxable sales per pupil
  - equalized assessed property valuation per pupil

- Ability to Pay, a measure of taxpayer equity based on per capita income
- Resident Tax Burden, a measure of taxpayer equity based on the ratio of residential and farm assessments to total assessments
- Service Responsibility, a measure of pupil equity based on the ratio between the number of public school students (average daily membership) and the county population

Figure 2. OVERVIEW—Prototype Model Compared to Current Model

- Provides system-level fiscal capacity for use in equalizing system-level funding formula
- Retains regression-based modified representative tax system approach
- Retains and enhances pupil and taxpayer equity measures
  - Tax base variables include state-shared tax revenue available to fund school systems
  - Per Capita Income replaced by
    - ✓ *Median Household Income for county area—eliminates problem of group quarters and outliers in smaller counties*
    - ✓ *Child Poverty Rate for school systems—only income-related data available at that level*
- Remains a fiscal behavioral model—does not set normative standards for local revenue
- Own-source revenue includes state-shared tax revenue used to fund school systems
    - ✓ *More comprehensive—state-shared tax revenue substitutes for local revenues*
    - ✓ *Improves data integrity— state-shared tax revenue cannot be separated out of city general fund transfers*
- Service Burden (public school students divided by population) dropped—*no longer needed to extent covered by more comprehensive BEP Formula (separately funds academic, vocational and special education plus additional funds for English language learners and at-risk students)*

Figure 3. Summary of Differences Between Current and Prototype Models

Variables	Current Model	New Model
Local Revenue	Does not include state-shared tax revenue except in City General Fund Transfers	Includes state-shared tax revenues used to fund all school systems
Property per Pupil	County area	County area & school systems
Sales per Pupil	County area	County area & school systems
State-shared Tax Revenue per Pupil	Does not include	Includes state-shared tax revenues available to fund school systems
Ability to Pay	County-area Per Capita Income	▪ County-area Median Household Income ▪ System Child Poverty Rate
Resident Tax Burden/Tax Exportability	County-area residential & farm assessment divided by total assessment	Business-related[1] assessment divided by total assessment for ▪ County-area ▪ School systems
Service Burden	Public School Students (ADM) divided by Population	Not included because BEP has become more comprehensive

Best Features of the County Model Retained

Like the current county model, the new system-level model uses a modified representative tax system approach that includes measures to ensure both pupil equity and taxpayer equity. The approach uses a common statistical method (ordinary least squares multiple linear regression) to develop weighting factors for the data used in the model. The new system-level model retains all of the components in the county model except the service burden. If all of the principles adopted by the Governor's Task Force are incorporated in the BEP, then the BEP formula itself will become a much more comprehensive measure of service burden, and it will no longer be necessary to include a component for service burden in the fiscal capacity model. If not, then the need for a service burden variable in the system-level model should be reevaluated.

If the BEP does not adequately meet the need, for example, of disadvantaged students, then the fiscal capacity model should include a factor that captures the effort of local governments to meet that need on their own. The current BEP formula has a component that measures the cost of reducing class sizes **by five** for one-third of kindergarten-through-

[1]Commercial, industrial, utility and business-related personal property.

grade-three students in the federally funded Free or Reduced-price Lunch Program. **No provision is made to enhance funding for any other disadvantaged students.** Therefore, the cost of programs for those students is paid entirely out of local funds with limited supplemental support through the federal Title 1 program. Such local funds are less an indicator of fiscal capacity and more an indicator of need. In the absence of direct provision in the BEP for that need, the fiscal capacity model would need a factor to measure it so that it could be factored out. Such a measure could be derived from the measure currently used in the BEP formula to calculate the cost of reducing class sizes for kindergarten through third grade.

Three Current Components Enhanced

In preparation for developing the prototype, staff reviewed the factors used to measure the remaining components of the current county model and found three opportunities to improve the factors used to measure them. These enhancements established the foundation on which the new system-level model was constructed.

Local Revenue Component—inclusion of state-shared tax revenue used to fund schools. Based on a recent TACIR analysis of state tax sharing, staff determined that some local governments use revenues from state-shared taxes in place of higher local tax rates. To the extent that these revenues are unrestricted, this funding stream is interchangeable with local revenue, and in fact, it appears to be treated that way with respect to funding schools. **From TACIR's current work on fiscal capacity, staff determined that revenue from state-shared taxes is often used to fund schools.** Many school systems report these revenues explicitly, often from sources other than the portion of the mixed drink tax that is earmarked for schools. And city school systems and some county systems (e.g., Hamilton) may be receiving additional amounts from state-shared tax revenues through the general fund transfers that are often used by cities to fund schools.

General fund transfers have always been included in the local revenue component of the county model in order to ensure consistency across counties and avoid understating local revenues for counties with city systems. It is impossible to determine the actual source of revenue for general fund transfers; therefore, we must assume that they must include the portion of the mixed drink tax revenue that is earmarked for education and that they may include revenue from unrestricted state-shared tax revenue. Given that general fund transfers include state-shared tax

revenue, in order to ensure consistency across school systems in the prototype model, TACIR staff concluded that explicitly reported state-shared tax revenues in the local revenue component must be included.

Tax Base Component—inclusion of state-shared tax revenue available to fund schools. Having concluded that state-shared tax revenues explicitly reported by school systems must be included in the local revenue component, it became equally clear that the revenue streams themselves were the functional equivalent of a local tax base. In order to ensure consistency between the local revenue and the tax base components of the model—as well as consistency across counties and school systems—revenue from state-shared taxes must be included along with taxable sales and property values as a tax base factor. However, funds earmarked for other purposes, such as local roads, must be excluded.

Ability to Pay Component—minimizing bias in the county-area income measure by substituting median household income. The final component of the current model that has been substantially improved is the county-level measure of the ability to pay taxes, one of two taxpayer equity components in the current county model. The county model has historically used per capita personal income (PCI) to measure ability to pay. Personal income is a broad measure based mainly on administrative data sources, which means that they are related to place of work and must be adjusted to produce place of residence estimates. Estimates are produced annually and lag about two years (e.g., estimates for 2002 were not published until May 2004). PCI is a long-standing, highly regarded and widely used measure of individual wealth and ability to pay taxes; however, it presents two problems that led staff to substitute median household income as the county-area measure of ability to pay taxes in the system-level model.

First, the U.S. Bureau of Economic Analysis (BEA) uses population figures from the U.S. Census Bureau that include residents in group-quarters, such as college students and prison inmates, in the population numbers used to compute per capita income; therefore, the measure tends to underestimate what we would consider true per capita income for some counties. BEA notes that this lower per capita income is not indicative of the economic well-being of most residents of the area or even the institutional populations themselves because some of them, such as college students, typically receive support from their families who may live in other areas. Work was already under way to estimate and control for that problem, but staff had

not yet found a satisfactory and timely source of data for residents in group quarters.

Second, we know that per capita income can be heavily influenced by outliers, small numbers of residents with extraordinarily high income, especially in small counties. Similarly, the BEA warns that their income figures may be overstated for a particular area from time to time because of temporary conditions, such as major construction projects. The smaller the county, the larger the effect. Such an effect was evident in sales tax receipts for Pickett County during the mid-1990s when a particularly large road project was under construction. It is not known whether or how that project affected per capita income for Pickett County, and it would not have been possible to determine how to adjust for it.

For these reasons, TACIR staff looked again for alternatives that might be more consistent across counties, and two were found: poverty rates and median household income. The Census Bureau produces both measures, which like PCI, are estimates. These measures became available for counties on an annual basis in 1995 and have a three-year time lag (e.g., estimates for 2001 will be published in November 2004). Unlike PCI, poverty rates and median household income are not derived from administrative data based on place of work, but rather come mainly from Census and IRS data that are based on residence. All are highly correlated (see Table 2). Neither of these measures is affected by group quarters or by extreme values in the population. Median household income was chosen because it represents the mid-point for all households and does not depend on poverty levels, which change from time to time and vary with household size. Moreover, it is more closely correlated to PCI than are poverty rates as shown in Table 2, which means its substitution for PCI will cause less of a change in the distribution of fiscal capacity estimates across counties than would poverty.

Table 2. Correlation Coefficients for Alternative County-level Measures of Income and Poverty in Tennessee

Based on Most Current Three-year Averages

	Per Capita Personal Income *1999-2001*	Median Household Income *1998-2000*	Poverty Rate for All Ages *1998-2000*	Poverty Rate for Ages 5-17 *1998-2000*
Per Capita Personal Income	1.0000			
Median Household Income	0.8188	1.0000		
Poverty Rate for All Ages	(0.7104)	(0.8662)	1.0000	
Poverty Rate for Ages 5-17	(0.7039)	(0.8797)	0.9770	1.0000

Meeting the Challenges of Producing a System-level Fiscal Capacity Model

Past sub-county prototypes have taken an algebraic approach to creating a representative tax system model based on revenue and tax base data. The algebraic approach requires matching particular revenues to specific tax bases in order to compute average tax rates. The only readily available tax base data that can be matched to specific local education revenues in Tennessee are property and sales. This approach seems straightforward because those two tax bases generate most of the local revenue for public schools, but calculating average rates for school systems is challenging because the majority of cities use general fund transfers to fund their schools and do not identify whether the revenues come from the property tax base, the sales tax base or some other source such as state-shared tax revenue. The algebraic approach was never considered entirely satisfactory for this reason and because it has no mechanism of accounting for taxpayer equity. Until recently, the inability to account for taxpayer equity was less of an issue because it was impossible to produce a three-year average of data to measure one of the primary components of the county model, ability to pay at the system level. That is no longer the case.

Figure 4. Tennessee's Unique Challenge
How to Handle Disparate Fiscal Entities in a Single Model

- **Measuring fiscal capacity for Tennessee's 136 school systems presents**

  Two Significant Challenges

  different authority to tax and raise revenue

  different fiscal relationships among systems

- **County Governments**[2]
  - Must levy county-wide tax for schools
    - May tax property
    - May tax sales
    - May tax other activities (e.g., wheel tax)
  - Must share school taxes with other systems in county
  - May use revenue from state-shared taxes for schools without sharing

- **City Governments**
  - May make general fund transfers for schools (some do; some don't)
    - May tax property
    - May tax sales
    - May tax other activities
  - Need not share school funds with any other system
  - May use revenue from state-shared taxes for schools without sharing
  - Receive share of county governments' school revenue

- **Special School Districts**
  - May only tax property
  - Need not share school funds with any other system
  - Receive share of county governments' school revenue

Measuring Ability to Pay at the System Level—Child Poverty Rates for Title 1

The primary impediment to using the modified representative tax system approach at the school system level has been the lack of a suitable system-level measure of ability to pay. **Neither per capita income nor median**

[2]County governments are not required to operate schools, but if they do so, must establish education taxes for them.

household income has ever been available for all school districts, and it is not likely that they will become available. Searching for a substitute, TACIR staff worked with the Comptroller's staff to develop a process for creating an income data set for school systems using geographic information system (GIS) technology and income data made available by the IRS to the Department of Revenue. However, because of the lack of staff resources, confidentiality concerns, and the difficulty of matching taxpayer addresses to school district boundaries, staff eventually determined that such a process was neither practical on an annual basis nor sufficiently reliable.

Interest in a system-level model intensified as state policy makers began seeking a solution to the October 2002 ruling by the Tennessee Supreme Court in the Small Systems Lawsuit. As a result, TACIR staff renewed the search for a system-level measure of ability to pay. In the interim, the U.S. Census Bureau had produced a third year of school district poverty data for use by the U.S. Department of Education in allocating funds under Title 1 of the Elementary and Secondary Education Act (recently reauthorized and called No Child Left Behind). This data is developed by the same office that produces county-level median household income and poverty data—the Census Bureau's Housing and Household Economics Statistics Division, Small Area Estimates Branch—and is a comparable measure of household wealth in that it is based on a broad definition of income and a similar estimation process. Child poverty is highly correlated with median household income at the county level (see Table 2), which indicates that it is a reasonable measure of ability to pay. For more information about the child poverty estimates, see Appendix A.

When system-level child poverty rates are included in a modified representative tax system model along with county median household income, the poverty rates function as a measure of ability to pay at the system level. Inclusion of district poverty rates works in this manner because poverty rates are based on income levels. Higher poverty rates indicate lower income for families living within a district's boundaries; lower rates indicate higher incomes. This is demonstrated at the county level by the relatively high inverse correlation coefficient (-0.8622) for child poverty and median household income. Estimates are available on an annual basis beginning with 1999 and have a three-year time lag (estimates for 2001 will be published in November 2004). The availability of three-year averages has finally made it possible to adequately account for taxpayer equity in a system level model.

Matching Data in the Model to School Systems' Tax Structures– Understanding Shared and Unshared Revenue

Tennessee has three distinct types of school systems–cities, counties, and special school districts–each type with its own unique tax structure. All school systems receive revenue from county tax bases because of a provision in the law that requires counties to share all school funds collected by the county with all other systems within the county based on the number of students attending each system (see Tennessee Code Annotated §49-3-315).[3] City school systems receive those county funds plus revenue or appropriations from city taxes, which are not subject to that sharing requirement. The third type of system, special school districts, also receive shared funds from the county plus revenue from their own property taxes as authorized by the state legislature, which are not subject to sharing requirements. In addition, cities and counties receive revenue from state-shared taxes, which are not subject to sharing. These primary revenue sources are summarized in Figure 5.

Figure 5. Sources of Shared and Unshared Revenue by Type of School System

Revenue Source	County School Systems	City School Systems	Special School Districts
Taxable Property			
Shared	Yes—retain portion of county taxes based on share of WFTEADA	Yes—receive from county based on share of WFTEADA	Yes—receive from county based on share of WFTEADA
Unshared	No—county revenue for education must be shared[2]	Yes—at individual city's discretion or through general fund transfer	Yes—based on rate established by legislature
Taxable Sales			
Shared	Yes—retain portion of county taxes based on share of WFTEADA	Yes—receive from county based on share of WFTEADA	Yes—receive from county based on share of WFTEADA
Unshared	No—county revenue for education must be shared	Yes—at individual city's discretion or through general fund transfer	No—not authorized by legislature
State-shared Tax Revenue	Yes—no sharing requirement	Yes—no sharing requirement	No—not eligible to receive

[3]Except in very limited circumstances (i.e., to support countywide transportation fund or to repay rural education debt).

Each school system relies more or less heavily on each source of revenue. In order to reflect those differences and account for the disparate tax structures of the three types of systems, the system-level model must include a separate factor for each of these five separate funding sources. All systems receive funding from the shared county education taxes, and all systems in the same county receive exactly the same amount of funding per student from each of those taxes; therefore, the model includes county tax base values for every system, and those values are the same for all systems in the same county.[4] In contrast, each system will have a unique value for the unshared funding sources based on its own unique revenue base, and systems that do not have access to any particular unshared source will have a zero for that factor.

Constructing the Prototype System-level Fiscal Capacity Model

With these issues resolved and appropriate data sources identified, it is possible to construct a system-level model that applies the same basic modified representative-tax-system approach to account for student and taxpayer equity. This model includes the following components and factors:

- Local Revenue, measured by own-source revenue per pupil
- Tax Base, a measure of pupil equity based on three revenue sources:
  - local taxable sales per pupil
  - equalized assessed property valuation per pupil
  - state-shared tax revenues
- Ability to Pay, a measure of taxpayer equity based on two income measures:
  - median household income
  - child poverty rates, which are based on income levels

[4]County values are adjusted for systems that cross county lines and for which the Department of Education collects county-based student counts (weighted full-time equivalent average daily attendance, which is the measure used to allocate county education revenue among systems in multi-system counties). Other systems may cross county lines, but if they do not report these figures to the Department of Education, they cannot be used to weight those systems' county variables.

- Tax Exportability, a measure of taxpayer equity based on the ratio of business-related property[5] assessments to total assessments for cities and special school districts. This is based on the theory that by selling products and services to non-residents, businesses can export the cost of the taxes they pay local governments
    - for all systems, county-area ratios representing the shared tax base
    - for all cities and special school districts, system-level ratios representing their unshared tax bases (county systems have no unshared tax base and, therefore, have zeros for this factor)

The prototype model uses tax exportability ratios in place of the tax burden ratio used in the county model. These concepts are opposite sides of the same coin: the resident tax burden ratio is the percentage of the property tax base that is residential or agricultural; the exportability ratio is the percentage attributable to businesses, including commercial and industrial property and business's taxable personal property. Together these ratios equal one hundred percent of the property tax base.

- All school systems have ratios greater than zero for the exportability ratio that is based on the shared tax base; each one is based on the county area property tax base for the county in which the system is located.

- All city systems and special school districts have ratios greater than zero for the exportability ratio that is based on their unshared tax bases. County systems have zeros for this variable because they have no unshared tax base.

Structure of the Prototype Model

Based on these components and factors, the system-level model uses nine independent variables to predict fiscal capacity based on their relationship to the dependent variable, local revenue, as indicated in Figure 6.

- Each system has its own unique, own-source revenue per student. This factor includes all local sources of current revenue, including the general fund transfers commonly used by cities to fund their systems and the state-shared taxes explicitly reported as used to fund schools.

[5]Commercial, industrial, utility and business-related personal property.

- Systems in the same county have exactly the same values for the four independent variables related to shared revenue sources, including county property and sales tax bases and the ability to pay and tax exportability variables related to those tax bases.
- Every system has unique values for the other five independent variables, those related to unshared revenue sources, including city and special school district property tax bases, city sales tax bases, state-shared tax revenues, school district child poverty rates, and tax exportability ratios for cities and special school districts.

Figure 6. Prototype System Fiscal Capacity Model Components and Factors

Components		Factors	County Area	School System
Local Revenue	☞	Own-source Revenue per Pupil		☑
Tax Base (Pupil Equity)	☞	▪ Taxable Sales per Pupil	☑	☑
		▪ Property per Pupil	☑	☑
		▪ State-shared Taxes per Pupil		☑
Ability to Pay (Taxpayer Equity)	☞	▪ Median Household Income	☑	
		▪ Child Poverty Rate		☑
Tax Burden/Exportability (Taxpayer Equity)	☞	Ratio of Business-related[6] Assessment to Total Assessment	☑	☑

Values for the Factors in the Prototype Model

All systems have values greater than zero for the county property and sales tax bases, the revenues from which must be shared among all school systems in the county. Whether they have values greater than zero for the system-level data elements depends on whether their funding body can tax that base (or in the case of state-shared taxes, is eligible to receive those revenues) and whether it can retain the revenue for its own system (i.e., state law does not require that the funding body share the revenue with any other school system) as indicated in Figures 5 and 6 and as shown in Table 3.

[6]Commercial, industrial, utility and business-related personal property.

Table 3. Volunteer County Example

	School Systems in Volunteer County		
Fiscal Capacity Factor	Volunteer County	Polk City	Best SSD
Revenue per Pupil	$2,254	$3,140	$2,612
Shared Property per Pupil	$100,823	$100,823	$100,823
Unshared Property per Pupil	$0	$131,912	$74,638
Shared Taxable Sales per Pupil	$64,001	$64,001	$64,001
Unshared Taxable Sales per Pupil	$0	$134,287	$0
Shared Tax Exportability Ratio	44.17%	44.17%	44.17%
Unshared Tax Exportability Ratio	0.00%	58.97%	40.96%
State-shared Tax Revenue per Pupil	$177	$612	$0
County Median Household Income	$33,953	$33,953	$33,953
System Child Poverty Rate	15.73%	19.89%	17.03%
System-level Fiscal Capacity per Pupil	$2,229	$3,089	$2,690

The model includes county-area median household income for all systems as a measure of the ability to pay shared county education taxes and the system-level child poverty rate as a separate measure of ability to pay the system's unshared taxes.[7] Finally, every school system has a value greater than zero for the tax exportability ratio based on the county area shared tax base, and cities and special school districts have values greater than zero for the tax exportability variable based on their unshared tax bases. As with the tax base factors, whether a system has a value greater than zero for the system-level measure of tax exportability depends on whether the system has a tax base that generates unshared revenues. Therefore, county school systems have zeros for this system-level factor.

Combining the Factors to Estimate Fiscal Capacity—Multiple Linear Regression

The TACIR fiscal capacity model uses multiple linear regression to produce a set of weights that can be multiplied by the factors to estimate the amount of revenue per pupil each school system should be able to raise

[7]The Census Bureau does not produce poverty data for the Carroll County school system because it provides limited services, primarily transportation and vocation classes for students enrolled in the other five systems in the county; therefore, the Carroll County system will have a zero for this variable.

based on the system's value for each of those factors. These weights represent the amount by which each factor increases or decreases on average as actual revenue per pupil increases. The process also produces a set amount, called a constant because it is the same for every observation (school system in this case), that is included in each estimate. Table 4 shows the state average for each factor and its weight based on the prototype model. Actual values for each school system, including its estimated fiscal capacity, are included in Appendix B.

Table 4. Prototype System-level Fiscal Capacity Factors and Weights

Average Actual Revenue per Pupil: $1,803		
Factors used to estimate Revenue per Pupil	**Average System Value**	**Weights Produced by Model**
Constant Value to be Included in Each System's Estimate	n/a	-$236
Taxable Property per Pupil		
▪ Shared	$81,845	+0.0041
▪ Unshared	$32,116	+0.0032
Taxable Sales per Pupil		
▪ Shared	$40,997	+0.0202
▪ Unshared	$25,982	+0.0022
State-shared Tax Revenue per Pupil (Unshared)	$235	+0.0471
Tax Exportability Ratios		
▪ Shared	35.80%	+$296
▪ Unshared	16.57%	+$327
County Median Household Income	$32,815	+0.0209
System Child Poverty Rate	18.34%	-$795
Average Estimated Revenue per Pupil: $1,803		

The weights produced by the regression model are unique to a particular set of data. Each year as the data is updated and the values for each factor included in the model change, the weights, as well as the constant, will change. This happens because all of the three-year-average values for each county change each year and they do not all change at the same rate for all counties. The expected effects of changes in the factors on estimates of fiscal capacity are shown in Figure 7.

The direction of change depicted for each factor in Figure 7 is based on the assumption that all values for all other factors remain unchanged for all systems. In reality, values change throughout the model from one year to

Figure 7. Effect of Changes in Fiscal Capacity Factors

The relationship between fiscal capacity and specific factors (other things being equal) is illustrated as follows:

Property Assessment Increases	↑	Fiscal Capacity Increases	↑
Taxable Sales Increase	↑	Fiscal Capacity Increases	↑
State-shared Tax Revenue Increases	↑	Fiscal Capacity Increases	↑
Tax Exportability Ratio Increases	↑	Fiscal Capacity Increases	↑
Median Household Income Increases	↑	Fiscal Capacity Increases	↑
Child Poverty Rate Increases	↑	Fiscal Capacity Decreases	↓

the next as they are updated for all systems. Whether fiscal capacity actually increases or decreases depends on the changes and interaction of all values for all systems. Moreover, the effect for an individual system depends on the interaction of changes in its own values. For example, if both the property assessment and the child poverty rate increase, the effect could be mixed.

Changes from year to year are moderated by the use of three-year averages. In order to have the most current data possible for each factor in the fiscal capacity model, the model does not become available until about six months prior to the beginning of the fiscal year to which it applies. More information about data sources and availability is included in the Appendix.

TABLE OF APPENDICES

Appendix A

Source of Data for Child Poverty Rates

School System Child Poverty Rates

The U.S. Census Bureau, with support from other Federal agencies, created the Small Area Income and Poverty Estimates (SAIPE) program to provide more current estimates of selected income and poverty statistics than the most recent decennial census.

Estimates are created for states, counties, and school districts. The main objective of this program is to provide updated estimates of income and poverty statistics for the administration of federal programs and the allocation of federal funds to local jurisdictions.

Highlights—*School District estimates, income year 2000*

- Total population
- Children ages 5 - 17
- Related children ages 5 - 17 in families in poverty

The estimates are not direct counts from enumerations or administrative records, nor direct estimates from sample surveys. Data from those sources are not adequate to provide intercensal estimates for all counties. Instead, they model the relation between income or poverty and tax and program data for the states and a subset of counties using estimates of income or poverty from the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC). They then use the modeled relations to obtain estimates for all states and counties. For school districts, they use the model-based county estimates and the decennial census distribution of the population of poor of each county over its constituent school districts.

The school system estimates are derived from the Bureau's school district mapping project. This project's survey asks each state's department of education for a list of all schools districts and their boundaries. The school district boundary survey is conducted biennially.

The population and poverty estimates for each estimate-year are produced for all school districts identified in the most recent boundary update. The boundary year does not always match the year to which the estimates refer. For example, the 2000 poverty estimates were produced for school districts in existence for the 2001-2002 school year. The Bureau uses the most current list of school districts and associated geography because it allows for more efficient allocation of funds under the No Child Left Behind Act of 2001, for which the estimates are produced. These estimates are the only system-level data available to measure the ability of residents to pay taxes. School system information is available at http://www.census.gov/hhes/www/saipe/district.html.

Appendix B

Prototype System-level Model Variables and Results

Appendix B-1

Prototype System-level Fiscal Capacity

	LEA Revenue Per Pupil	Property per Pupil Shared (County)	Property per Pupil Unshared (City/SSD)	Sales per Pupil Shared (County)	Sales per Pupil Unshared (City)	LEA State-shared Taxes	Tax Exportability* Shared (County)	Tax Exportability* Unshared (City/SSD)	County Median HH Inc	LEA % Child Poverty	Fiscal Capacity Per Pupil	ADMs	Total Fiscal Capacity	Percent of Total Fiscal Capacity
Anderson County	$2,478	$84,696	$0	$52,700	$0	$124.09	42.97%	0.00%	$36,670	16.89%	$1,946	6,956	$ 13,537,866	0.6312%
Clinton City	$2,556	$84,696	$206,917	$52,700	$129,154	$794.93	42.97%	64.02%	$36,670	18.91%	$3,116	928	2,890,524	0.1348%
Oak Ridge City	$4,508	$85,556	$126,286	$52,303	$115,992	$574.93	41.47%	48.26%	$36,321	14.37%	$2,788	4,408	12,286,618	0.5728%
Bedford County	$1,370	$81,717	$0	$37,954	$0	$92.42	40.84%	0.00%	$35,072	15.59%	$1,605	6,343	10,177,554	0.4745%
Benton County	$1,911	$61,564	$0	$38,349	$0	$427.75	28.70%	0.00%	$28,308	22.14%	$1,316	2,502	3,291,631	0.1535%
Bledsoe County	$899	$81,489	$0	$17,794	$0	$190.98	25.19%	0.00%	$28,786	21.83%	$973	1,779	1,731,240	0.0807%
Blount County	$2,006	$109,084	$0	$61,220	$0	$128.34	37.87%	0.00%	$37,878	12.55%	$2,265	10,812	24,484,023	1.1415%
Alcoa City	$4,330	$109,084	$231,585	$61,220	$340,401	$465.76	37.87%	76.57%	$37,878	16.59%	$3,988	1,301	5,188,058	0.2419%
Maryville City	$3,399	$109,084	$113,937	$61,220	$90,101	$487.35	37.87%	53.24%	$37,878	12.84%	$3,015	4,341	13,088,164	0.6102%
Bradley County	$1,724	$92,495	$0	$54,687	$0	$108.83	41.80%	0.00%	$35,626	12.07%	$2,031	9,012	18,303,556	0.8534%
Cleveland City	$2,664	$92,495	$153,081	$54,687	$141,383	$742.61	41.80%	60.51%	$35,626	18.83%	$3,005	4,376	13,149,102	0.6131%
Campbell County	$1,156	$70,471	$0	$38,286	$0	$149.37	33.26%	0.00%	$25,110	26.54%	$1,250	6,210	7,760,884	0.3618%
Cannon County	$973	$68,290	$0	$17,863	$0	$122.50	17.97%	0.00%	$32,395	16.38%	$1,014	2,103	2,132,809	0.0994%
Carroll County	$1,579	$53,971	$53,930	$26,225	$0	$129.82	28.86%	28.86%	$30,755	0.00%	$1,519	4,940	709,310	0.0331%
Hollow Rock-Bruceto	$1,235	$53,971	$42,282	$26,225	$0	$0.00	28.86%	30.57%	$30,755	13.12%	$1,377	784	1,079,169	0.0503%
Huntingdon SSD	$1,566	$53,971	$59,397	$26,225	$0	$0.00	28.86%	33.55%	$30,755	19.38%	$1,391	1,327	1,846,334	0.0861%
McKenzie SSD	$1,372	$53,971	$58,632	$26,225	$0	$0.00	28.86%	40.40%	$30,755	15.06%	$1,446	1,306	1,888,610	0.0881%
South Carroll Co SSD	$1,206	$53,971	$51,915	$26,225	$0	$0.00	28.86%	10.56%	$30,755	12.95%	$1,343	396	532,569	0.0248%
West Carroll Co SSD	$1,349	$53,971	$51,081	$26,225	$0	$0.00	28.86%	12.31%	$30,755	20.02%	$1,290	1,121	1,446,492	0.0674%
Carter County	$1,225	$60,194	$0	$30,652	$0	$114.25	29.62%	0.00%	$27,967	20.02%	$1,152	5,993	6,904,001	0.3219%
Elizabethton City	$2,229	$60,194	$69,739	$30,652	$87,784	$529.97	29.62%	52.69%	$27,967	22.88%	$1,737	2,199	3,819,327	0.1781%
Cheatham County	$1,131	$67,807	$0	$19,819	$0	$59.46	21.01%	0.00%	$44,615	9.84%	$1,365	6,869	9,376,912	0.4372%
Chester County	$875	$58,035	$0	$27,596	$0	$114.87	29.13%	0.00%	$33,041	17.50%	$1,206	2,450	2,954,112	0.1377%
Claiborne County	$1,478	$69,169	$0	$25,077	$0	$150.66	32.81%	0.00%	$26,027	24.75%	$1,009	4,624	4,667,347	0.2176%
Clay County	$1,260	$63,829	$0	$25,324	$0	$169.75	27.18%	0.00%	$23,524	25.01%	$922	1,200	1,106,421	0.0516%
Cocke County	$1,227	$63,602	$0	$39,124	$0	$120.51	38.33%	0.00%	$25,550	26.65%	$1,260	4,666	5,880,551	0.2742%
Newport City	$1,898	$63,602	$145,783	$39,124	$249,997	$872.83	38.33%	69.48%	$25,550	27.11%	$2,535	683	1,730,552	0.0807%
Coffee County	$1,823	$69,784	$0	$58,137	$0	$169.54	42.84%	0.00%	$34,738	12.19%	$1,993	4,169	8,309,977	0.3874%
Manchester City	$2,631	$69,784	$106,288	$58,137	$136,453	$588.33	42.84%	63.15%	$34,738	19.71%	$2,799	1,194	3,343,646	0.1559%
Tullahoma City	$2,969	$70,383	$76,075	$57,491	$80,465	$433.45	42.32%	50.42%	$34,734	20.11%	$2,515	3,604	9,064,419	0.4226%
Crockett County	$969	$65,617	$0	$15,508	$0	$172.98	32.26%	0.00%	$29,951	17.11%	$943	1,715	1,617,792	0.0754%
Alamo City	$802	$65,617	$54,133	$15,508	$30,520	$362.82	32.26%	60.08%	$29,951	25.62%	$1,321	539	711,922	0.0332%
Bells City	$884	$65,617	$77,241	$15,508	$23,686	$453.72	32.26%	68.48%	$29,951	22.71%	$1,434	391	561,193	0.0262%
Cumberland County	$1,453	$117,382	$0	$64,518	$0	$130.90	28.37%	0.00%	$30,050	20.22%	$2,113	6,735	14,232,122	0.6635%
Davidson County	$4,307	$191,472	$0	$139,037	$0	$665.01	57.27%	0.00%	$40,359	16.29%	$4,285	68,203	292,264,354	13.6263%
Decatur County	$1,488	$76,758	$0	$44,494	$0	$263.51	30.68%	0.00%	$28,442	18.86%	$1,530	1,601	2,449,207	0.1142%
DeKalb County	$1,029	$106,278	$0	$34,497	$0	$130.16	32.17%	0.00%	$30,218	20.32%	$1,474	2,600	3,831,134	0.1786%
Dickson County	$1,890	$85,820	$0	$49,948	$0	$77.40	38.89%	0.00%	$37,654	14.03%	$1,924	7,965	15,326,508	0.7146%
Dyer County	$2,283	$73,031	$0	$45,376	$0	$174.39	42.69%	0.00%	$32,924	11.61%	$1,715	3,236	5,549,706	0.2587%
Dyersburg City	$2,215	$73,031	$70,998	$45,376	$78,434	$434.26	42.69%	60.04%	$32,924	26.40%	$2,205	3,487	7,688,676	0.3585%
Fayette County	$1,416	$137,517	$0	$29,949	$0	$190.90	24.73%	0.00%	$37,669	16.03%	$1,682	3,473	5,841,040	0.2723%

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Prototype System-level Fiscal Capacity

	LEA Revenue Per Pupil	Property per Pupil Shared (County)	Property per Pupil Unshared (City/SSD)	Sales per Pupil Shared (County)	Sales per Pupil Unshared (City)	LEA State-shared Taxes	Tax Exportability* Shared (County)	Tax Exportability* Unshared (City/SSD)	County Median HH Inc	LEA % Child Poverty	Fiscal Capacity Per Pupil	ADMs	Total Fiscal Capacity	Percent of Total Fiscal Capacity
Fentress County	$1,181	$66,786	$0	$36,052	$0	$194.17	28.91%	0.00%	$22,947	28.01%	$1,122	2,326	2,608,696	0.1216%
Franklin County	$1,676	$87,369	$0	$39,184	$0	$161.58	27.62%	0.00%	$34,629	15.66%	$1,607	5,788	9,303,341	0.4338%
Humboldt City	$1,612	$67,755	$71,814	$30,820	$51,851	$469.33	39.18%	60.06%	$31,122	21.34%	$1,827	1,657	3,026,303	0.1411%
Milan SSD	$2,016	$67,755	$72,158	$30,820	$0	$0.00	39.18%	52.44%	$31,122	17.43%	$1,697	2,002	3,398,043	0.1584%
Trenton SSD	$1,507	$67,755	$64,284	$30,820	$0	$0.00	39.18%	33.64%	$31,122	16.92%	$1,615	1,441	2,327,325	0.1085%
Bradford SSD	$1,280	$67,755	$53,782	$30,820	$0	$0.00	39.18%	16.70%	$31,122	18.03%	$1,517	642	973,759	0.0454%
Gibson County SSD	$1,346	$67,755	$67,675	$30,820	$0	$0.00	39.18%	21.37%	$31,122	12.30%	$1,623	2,607	4,229,845	0.1972%
Giles County	$1,744	$80,937	$0	$40,101	$0	$145.25	41.21%	0.00%	$34,646	15.23%	$1,642	4,516	7,417,896	0.3458%
Grainger County	$823	$54,431	$0	$14,968	$0	$210.44	19.26%	0.00%	$28,537	21.84%	$782	3,272	2,559,007	0.1193%
Greene County	$1,282	$92,751	$0	$44,557	$0	$126.68	36.72%	0.00%	$29,834	16.61%	$1,656	6,918	11,455,031	0.5341%
Greeneville City	$4,216	$92,751	$127,883	$44,557	$129,918	$570.13	36.72%	64.59%	$29,834	21.43%	$2,544	2,635	6,704,206	0.3126%
Grundy County	$832	$49,492	$0	$19,279	$0	$139.92	25.64%	0.00%	$23,943	28.35%	$717	2,284	1,636,544	0.0763%
Hamblen County	$2,313	$106,368	$0	$66,909	$0	$86.79	51.55%	0.00%	$33,113	17.06%	$2,271	8,985	20,410,037	0.9516%
Hamilton County	$3,275	$130,342	$0	$90,437	$0	$79.32	50.86%	0.00%	$37,396	14.87%	$2,951	40,747	120,258,114	5.6068%
Hancock County	$701	$59,270	$0	$12,657	$0	$166.69	27.96%	0.00%	$20,618	33.87%	$518	1,102	570,687	0.0266%
Hardeman County	$1,291	$57,769	$0	$25,746	$0	$129.76	33.55%	0.00%	$27,442	21.64%	$1,031	4,540	4,681,058	0.2182%
Hardin County	$1,697	$102,899	$0	$45,787	$0	$194.29	36.25%	0.00%	$27,899	23.36%	$1,631	3,835	6,253,161	0.2915%
Hawkins County	$1,573	$83,903	$0	$28,332	$0	$127.92	38.96%	0.00%	$32,187	18.34%	$1,333	7,154	9,536,909	0.4446%
Rogersville City	$1,790	$83,903	$108,980	$28,332	$156,853	$607.42	38.96%	64.70%	$32,187	20.73%	$2,241	633	1,418,704	0.0661%
Haywood County	$1,459	$79,639	$0	$25,381	$0	$198.14	39.46%	0.00%	$27,483	21.64%	$1,136	3,574	4,060,208	0.1893%
Henderson County	$1,177	$63,720	$0	$38,244	$0	$182.03	37.69%	0.00%	$32,423	14.85%	$1,481	3,442	5,099,504	0.2378%
Lexington City	$1,587	$63,720	$148,000	$38,244	$142,685	$630.96	37.69%	63.22%	$32,423	19.61%	$2,458	933	2,294,183	0.1070%
Henry County	$2,316	$86,947	$0	$55,419	$0	$383.58	35.68%	0.00%	$29,694	17.92%	$1,847	3,150	5,819,095	0.2713%
Paris SSD	$2,458	$86,947	$97,289	$55,419	$0	$0.00	35.68%	68.71%	$29,694	22.82%	$2,325	1,458	3,389,398	0.1580%
Hickman County	$963	$62,430	$0	$19,077	$0	$147.67	24.11%	0.00%	$31,688	17.34%	$1,011	3,798	3,840,817	0.1791%
Houston County	$992	$53,031	$0	$19,612	$0	$181.43	28.15%	0.00%	$29,016	20.23%	$918	1,419	1,302,665	0.0607%
Humphreys County	$1,305	$95,095	$0	$34,088	$0	$324.54	48.55%	0.00%	$33,631	15.05%	$1,590	3,003	4,774,301	0.2226%
Jackson County	$1,068	$65,943	$0	$15,725	$0	$159.37	27.56%	0.00%	$26,657	19.35%	$848	1,659	1,406,444	0.0656%
Jefferson County	$1,220	$91,148	$0	$36,380	$0	$112.57	30.01%	0.00%	$32,029	17.42%	$1,503	6,849	10,292,643	0.4799%
Johnson County	$1,411	$73,962	$0	$27,847	$0	$181.66	25.55%	0.00%	$23,734	25.66%	$1,010	2,286	2,309,038	0.1077%
Knox County	$3,414	$119,402	$0	$105,309	$0	$82.22	44.34%	0.00%	$38,126	13.44%	$3,214	51,850	166,667,069	7.7706%
Lake County	$1,274	$67,369	$0	$26,143	$0	$170.94	33.34%	0.00%	$22,031	29.51%	$905	883	798,656	0.0372%
Lauderdale County	$1,105	$55,193	$0	$25,703	$0	$97.11	39.59%	0.00%	$28,428	20.55%	$1,065	4,568	4,865,786	0.2269%
Lawrence County	$1,224	$65,917	$0	$38,186	$0	$94.51	38.46%	0.00%	$30,647	17.26%	$1,431	6,782	9,706,514	0.4525%
Lewis County	$761	$60,907	$0	$27,868	$0	$122.61	30.31%	0.00%	$28,689	19.19%	$1,123	1,947	2,185,229	0.1019%
Lincoln County	$1,334	$69,169	$0	$37,295	$0	$143.86	28.41%	0.00%	$33,353	13.36%	$1,487	4,025	5,985,196	0.2790%
Fayetteville City	$1,956	$69,169	$105,832	$37,295	$156,321	$605.21	28.41%	65.71%	$33,353	29.13%	$2,280	1,046	2,384,044	0.1112%
Loudon County	$1,756	$116,458	$0	$40,503	$0	$202.59	33.50%	0.00%	$39,104	12.63%	$1,892	4,877	9,224,577	0.4301%
Lenoir City	$2,643	$116,458	$51,690	$40,503	$90,302	$295.45	33.50%	64.78%	$39,104	21.98%	$2,397	1,990	4,770,238	0.2224%
McMinn County	$1,601	$103,333	$0	$45,688	$0	$126.84	55.00%	0.00%	$32,330	13.97%	$1,850	5,794	10,717,482	0.4997%
Athens City	$2,313	$103,333	$169,807	$45,688	$159,719	$644.44	55.00%	72.07%	$32,330	24.42%	$2,920	1,741	5,085,724	0.2371%

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Prototype System-level Fiscal Capacity

	LEA Revenue Per Pupil	Property per Pupil Shared (County)	Property per Pupil Unshared (City/SSD)	Sales per Pupil Shared (County)	Sales per Pupil Unshared (City)	LEA State-shared Taxes	Tax Exportability* Shared (County)	Tax Exportability* Unshared (City/SSD)	County Median HH Inc	LEA % Child Poverty	Fiscal Capacity Per Pupil	ADMs	Total Fiscal Capacity	Percent of Total Fiscal Capacity
Etowah City	$1,622	$103,333	$90,029	$45,688	$92,468	$742.17	55.00%	46.32%	$32,330	27.05%	$2,417	381	921,223	0.0430%
McNairy County	$1,187	$65,383	$0	$28,448	$0	$122.58	39.14%	0.00%	$29,780	19.96%	$1,196	4,111	4,915,076	0.2292%
Macon County	$1,029	$55,387	$0	$29,984	$0	$105.00	33.78%	0.00%	$29,930	18.40%	$1,184	3,566	4,223,462	0.1969%
Madison County	$2,971	$106,807	$0	$92,104	$0	$71.34	51.42%	0.00%	$35,847	16.45%	$2,844	13,668	38,871,952	1.8123%
Marion County	$1,404	$82,957	$0	$45,415	$0	$195.68	33.79%	0.00%	$31,460	18.31%	$1,648	4,119	6,787,438	0.3165%
Richard City SSD	$1,533	$82,957	$24,006	$45,415	$0	$0.00	33.79%	43.49%	$31,460	25.75%	$1,798	319	573,758	0.0268%
Marshall County	$2,050	$86,053	$0	$36,943	$0	$94.63	46.64%	0.00%	$37,469	12.50%	$1,694	4,793	8,119,489	0.3786%
Maury County	$1,960	$88,909	$0	$54,123	$0	$88.52	37.07%	0.00%	$40,074	13.23%	$2,074	11,219	23,263,069	1.0846%
Meigs County	$915	$70,215	$0	$17,426	$0	$263.63	21.57%	0.00%	$29,322	22.59%	$917	1,821	1,670,250	0.0779%
Monroe County	$1,471	$82,524	$0	$39,604	$0	$219.00	40.67%	0.00%	$30,019	19.03%	$1,514	5,035	7,622,329	0.3554%
Sweetwater City	$1,473	$82,524	$55,876	$39,604	$62,346	$294.92	40.67%	58.27%	$30,019	27.71%	$1,955	1,448	2,830,892	0.1320%
Montgomery County	$1,761	$65,511	$0	$48,050	$0	$43.57	42.47%	0.00%	$38,335	13.70%	$1,828	24,286	44,384,490	2.0693%
Moore County	$1,795	$114,978	$0	$13,774	$0	$238.77	41.54%	0.00%	$36,972	13.96%	$1,315	950	1,248,878	0.0582%
Morgan County	$805	$48,564	$0	$11,401	$0	$129.53	25.93%	0.00%	$27,724	20.05%	$699	3,242	2,265,398	0.1056%
Obion County	$1,958	$75,120	$0	$47,821	$0	$138.36	39.67%	0.00%	$33,670	14.62%	$1,754	4,035	7,077,724	0.3300%
Union City	$3,593	$75,120	$107,176	$47,821	$148,777	$671.82	39.67%	56.67%	$33,670	22.34%	$2,573	1,392	3,580,730	0.1669%
Overton County	$1,050	$64,956	$0	$27,801	$0	$126.17	29.91%	0.00%	$27,469	20.31%	$1,103	3,152	3,476,118	0.1621%
Perry County	$1,184	$85,175	$0	$22,938	$0	$398.17	38.77%	0.00%	$28,347	19.53%	$1,152	1,155	1,329,804	0.0620%
Pickett County	$1,219	$85,796	$0	$30,738	$0	$216.47	21.11%	0.00%	$24,781	25.28%	$1,131	714	807,860	0.0377%
Polk County	$1,274	$80,107	$0	$21,395	$0	$254.36	29.32%	0.00%	$29,716	17.74%	$1,108	2,406	2,664,555	0.1242%
Putnam County	$1,937	$96,158	$0	$76,881	$0	$73.50	43.55%	0.00%	$31,899	15.94%	$2,390	9,528	22,772,996	1.0617%
Rhea County	$1,278	$75,933	$0	$33,377	$0	$206.27	36.18%	0.00%	$30,334	18.71%	$1,356	3,770	5,111,687	0.2383%
Dayton City	$1,248	$75,933	$136,814	$33,377	$129,755	$631.79	36.18%	67.40%	$30,334	23.25%	$2,283	745	1,700,478	0.0793%
Roane County	$1,871	$92,922	$0	$48,903	$0	$148.63	28.64%	0.00%	$33,331	17.84%	$1,785	7,250	12,941,961	0.6034%
Robertson County	$1,601	$80,876	$0	$34,168	$0	$60.41	29.92%	0.00%	$42,126	11.74%	$1,669	9,704	16,194,189	0.7550%
Rutherford County	$2,243	$91,214	$0	$55,584	$0	$58.59	42.92%	0.00%	$46,085	7.51%	$2,300	26,876	61,807,262	2.8817%
Murfreesboro City	$2,727	$91,214	$222,060	$55,584	$219,667	$978.50	42.92%	54.08%	$46,085	14.44%	$3,657	5,760	21,067,713	0.9822%
Scott County	$1,120	$51,994	$0	$32,333	$0	$188.60	41.68%	0.00%	$24,053	26.40%	$1,059	2,619	2,772,472	0.1293%
Oneida SSD	$1,442	$51,994	$37,103	$32,333	$0	$0.00	41.68%	70.13%	$24,053	23.90%	$1,417	1,240	1,756,722	0.0819%
Sequatchie County	$1,692	$75,149	$0	$28,775	$0	$142.30	27.38%	0.00%	$30,185	21.23%	$1,207	1,867	2,254,001	0.1051%
Sevier County	$3,101	$165,620	$0	$148,391	$0	$99.98	45.25%	0.00%	$33,011	16.47%	$4,150	12,512	51,927,616	2.4210%
Shelby County	$2,600	$91,166	$0	$60,856	$0	$216.44	49.57%	0.00%	$38,596	4.43%	$2,301	44,976	103,497,455	4.8254%
Memphis SSD City	$3,190	$91,166	$82,013	$60,856	$63,566	$510.90	49.57%	60.91%	$38,596	23.14%	$2,767	116,651	322,781,651	15.0491%
Smith County	$1,046	$74,981	$0	$29,319	$0	$151.73	36.40%	0.00%	$34,702	15.50%	$1,385	3,148	4,359,396	0.2032%
Stewart County	$1,239	$67,356	$0	$20,461	$0	$727.39	22.73%	0.00%	$31,858	15.62%	$1,100	2,073	2,280,819	0.1063%
Sullivan County	$2,840	$106,366	$0	$67,661	$0	$129.04	48.07%	0.00%	$34,227	12.46%	$2,338	12,850	30,046,722	1.4009%
Bristol City	$3,692	$106,366	$110,701	$67,661	$90,758	$611.73	48.07%	56.21%	$34,227	15.00%	$3,078	3,584	11,030,273	0.5143%
Kingsport City	$4,589	$104,616	$167,592	$64,597	$162,724	$645.98	47.36%	64.64%	$34,068	23.40%	$3,306	6,353	20,999,996	0.9791%
Sumner County	$1,764	$95,039	$0	$34,651	$0	$52.27	31.51%	0.00%	$44,982	10.18%	$1,814	22,887	41,509,262	1.9353%
Tipton County	$898	$50,843	$0	$18,972	$0	$53.95	27.24%	0.00%	$38,190	15.33%	$1,118	10,938	12,228,234	0.5701%
Trousdale County	$943	$62,043	$0	$20,399	$0	$293.95	31.52%	0.00%	$30,902	16.28%	$1,057	1,277	1,350,182	0.0629%

Appendix B-1

Prototype System-level Fiscal Capacity

	LEA Revenue Per Pupil	Property per Pupil Shared (County)	Property per Pupil Unshared (City/SSD)	Sales per Pupil Shared (County)	Sales per Pupil Unshared (City)	LEA State-shared Taxes	Tax Exportability* Shared (County)	Tax Exportability* Unshared (City/SSD)	County Median HH Inc	LEA % Child Poverty	Fiscal Capacity Per Pupil	ADMs	Total Fiscal Capacity	Percent of Total Fiscal Capacity
Unicoi County	$1,223	$79,810	$0	$26,149	$0	$99.31	33.82%	0.00%	$30,346	17.69%	$1,222	2,487	3,039,982	0.1417%
Union County	$826	$54,683	$0	$14,268	$0	$221.90	21.11%	0.00%	$28,132	22.84%	$759	3,057	2,318,969	0.1081%
Van Buren County	$1,262	$78,176	$0	$18,134	$0	$270.44	13.26%	0.00%	$29,110	19.69%	$959	777	744,807	0.0347%
Warren County	$1,724	$78,624	$0	$45,472	$0	$113.71	39.75%	0.00%	$31,349	18.49%	$1,641	6,184	10,146,728	0.4731%
Washington County	$2,145	$108,732	$0	$82,305	$0	$115.38	41.21%	0.00%	$33,657	15.45%	$2,588	8,562	22,155,108	1.0329%
Johnson City	$3,752	$108,732	$157,187	$82,305	$171,500	$713.18	41.21%	54.91%	$33,657	15.86%	$3,672	6,731	24,714,463	1.1523%
Wayne County	$889	$55,813	$0	$20,071	$0	$224.88	29.21%	0.00%	$26,265	21.08%	$880	2,633	2,316,399	0.1080%
Weakley County	$1,240	$73,993	$0	$35,504	$0	$120.78	38.16%	0.00%	$30,992	15.85%	$1,429	4,900	7,003,213	0.3265%
White County	$1,016	$67,916	$0	$30,124	$0	$117.08	31.94%	0.00%	$29,122	18.58%	$1,216	3,850	4,680,826	0.2182%
Williamson County	$3,136	$159,336	$0	$80,416	$0	$88.33	36.16%	0.00%	$69,352	4.21%	$3,578	20,277	72,557,784	3.3829%
Franklin SSD	$5,234	$159,336	$109,162	$80,416	$0	$0.00	36.16%	32.80%	$69,352	9.71%	$3,986	3,797	15,134,469	0.7056%
Wilson County	$1,807	$109,159	$0	$46,517	$0	$93.71	31.98%	0.00%	$48,596	6.89%	$2,217	11,820	26,209,226	1.2220%
Lebanon SSD	$2,446	$109,159	$179,601	$46,517	$0	$0.00	31.98%	56.71%	$48,596	19.20%	$2,873	2,891	8,304,900	0.3872%
Statewide	$2,454	$100,673	$98,404	$62,547	$88,911	$247.00	43.79%	41.59%	$35,191	16.06%	$2,383	900,152	$2,144,855,363	100.0000%

Revised January 2005

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Comparison of County Fiscal Capacity Model Results with Prototype System-level Model Results

	FY05 County Model			Prototype System-level Model			
	Capacity Per Pupil	Allocated[1] Capacity	Percent of Total	Capacity Per Pupil	Total Capacity	Percent of Total	Difference
Anderson County	$2,240	$ 15,829,910	0.7407%	$1,946	$ 13,537,866	0.6312%	$ (2,292,044)
Clinton City	$2,240	2,034,083	0.0952%	$3,116	2,890,524	0.1348%	856,441
Oak Ridge City	$2,240	9,666,063	0.4523%	$2,788	12,286,618	0.5728%	2,620,555
Bedford County	$1,656	10,503,684	0.4915%	$1,605	10,177,554	0.4745%	(326,130)
Benton County	$1,448	3,621,752	0.1695%	$1,316	3,291,631	0.1535%	(330,121)
Bledsoe County	$885	1,574,741	0.0737%	$973	1,731,240	0.0807%	156,499
Blount County	$2,218	24,164,533	1.1307%	$2,265	24,484,023	1.1415%	319,489
Alcoa City	$2,218	2,701,489	0.1264%	$3,988	5,188,058	0.2419%	2,486,568
Maryville City	$2,218	9,620,125	0.4502%	$3,015	13,088,164	0.6102%	3,468,038
Bradley County	$2,180	19,875,522	0.9300%	$2,031	18,303,556	0.8534%	(1,571,965)
Cleveland City	$2,180	9,314,686	0.4359%	$3,005	13,149,102	0.6131%	3,834,416
Campbell County	$1,263	7,841,983	0.3670%	$1,250	7,760,884	0.3618%	(81,099)
Cannon County	$1,069	2,247,960	0.1052%	$1,014	2,132,809	0.0994%	(115,151)
Carroll County[2]	$1,304	1,207,680	0.0565%	$1,519	709,310	0.0331%	(498,370)
Hollow Rock-Bruceton SSD	$1,304	1,807,674	0.0846%	$1,377	1,079,169	0.0503%	(728,505)
Huntingdon SSD	$1,304	3,082,019	0.1442%	$1,391	1,846,334	0.0861%	(1,235,685)
McKenzie SSD	$1,304	3,105,096	0.1453%	$1,446	1,888,610	0.0881%	(1,216,486)
South Carroll Co SSD	$1,304	1,048,707	0.0491%	$1,343	532,569	0.0248%	(516,138)
West Carroll Co SSD	$1,304	2,623,050	0.1227%	$1,290	1,446,492	0.0674%	(1,176,557)
Carter County	$1,248	7,712,971	0.3609%	$1,152	6,904,001	0.3219%	(808,970)
Elizabethton City	$1,248	2,511,528	0.1175%	$1,737	3,819,327	0.1781%	1,307,799
Cheatham County	$1,223	8,397,471	0.3929%	$1,365	9,376,912	0.4372%	979,441
Chester County	$1,211	2,967,152	0.1388%	$1,206	2,954,112	0.1377%	(13,040)
Claiborne County	$1,243	5,749,427	0.2690%	$1,009	4,667,347	0.2176%	(1,082,080)
Clay County	$1,045	1,254,227	0.0587%	$922	1,106,421	0.0516%	(147,806)
Cocke County	$1,420	6,677,741	0.3125%	$1,260	5,880,551	0.2742%	(797,190)
Newport City	$1,420	919,120	0.0430%	$2,535	1,730,552	0.0807%	811,432
Coffee County	$2,031	8,624,223	0.4036%	$1,993	8,309,977	0.3874%	(314,246)
Manchester City	$2,031	2,511,548	0.1175%	$2,799	3,343,646	0.1559%	832,098
Tullahoma City	$2,031	7,077,766	0.3312%	$2,515	9,064,419	0.4226%	1,986,653
Crockett County	$1,185	2,105,887	0.0985%	$943	1,617,792	0.0754%	(488,095)
Alamo City	$1,185	559,517	0.0262%	$1,321	711,922	0.0332%	152,406
Bells City	$1,185	469,686	0.0220%	$1,434	561,193	0.0262%	91,507
Cumberland County	$1,859	12,521,849	0.5859%	$2,113	14,232,122	0.6635%	1,710,272
Davidson County	$4,415	301,108,013	14.0899%	$4,285	292,264,354	13.6263%	(8,843,660)
Decatur County	$1,617	2,589,093	0.1212%	$1,530	2,449,207	0.1142%	(139,886)

Appendix B-2

Comparison of County Fiscal Capacity Model Results with Prototype System-level Model Results

	FY05 County Model			Prototype System-level Model			
	Capacity Per Pupil	Allocated[1] Capacity	Percent of Total	Capacity Per Pupil	Total Capacity	Percent of Total	Difference
DeKalb County	$1,427	3,710,641	0.1736%	$1,474	3,831,134	0.1786%	120,493
Dickson County	$1,888	15,040,845	0.7038%	$1,924	15,326,508	0.7146%	285,663
Dyer County	$1,805	6,202,482	0.2902%	$1,715	5,549,706	0.2587%	(652,775)
Dyersburg City	$1,805	5,932,976	0.2776%	$2,205	7,688,676	0.3585%	1,755,700
Fayette County	$1,621	5,631,542	0.2635%	$1,682	5,841,040	0.2723%	209,498
Fentress County	$1,380	3,209,975	0.1502%	$1,122	2,608,696	0.1216%	(601,278)
Franklin County	$1,531	8,862,721	0.4147%	$1,607	9,303,341	0.4338%	440,620
Humboldt City	$1,583	2,483,352	0.1162%	$1,827	3,026,303	0.1411%	542,951
Milan SSD	$1,583	3,166,113	0.1482%	$1,697	3,398,043	0.1584%	231,930
Trenton SSD	$1,583	2,286,994	0.1070%	$1,615	2,327,325	0.1085%	40,331
Bradford SSD	$1,583	1,042,109	0.0488%	$1,517	973,759	0.0454%	(68,350)
Gibson County SSD	$1,583	4,240,307	0.1984%	$1,623	4,229,845	0.1972%	(10,462)
Giles County	$1,900	8,581,124	0.4015%	$1,642	7,417,896	0.3458%	(1,163,228)
Grainger County	$753	2,463,893	0.1153%	$782	2,559,007	0.1193%	95,114
Greene County	$1,863	12,853,080	0.6014%	$1,656	11,455,031	0.5341%	(1,398,049)
Greeneville City	$1,863	4,944,874	0.2314%	$2,544	6,704,206	0.3126%	1,759,332
Grundy County	$1,015	2,318,006	0.1085%	$717	1,636,544	0.0763%	(681,462)
Hamblen County	$2,434	21,869,840	1.0234%	$2,271	20,410,037	0.9516%	(1,459,803)
Hamilton County	$3,258	132,745,590	6.2117%	$2,951	120,258,114	5.6068%	(12,487,475)
Hancock County	$530	583,556	0.0273%	$518	570,687	0.0266%	(12,869)
Hardeman County	$1,001	4,546,529	0.2127%	$1,031	4,681,058	0.2182%	134,528
Hardin County	$1,701	6,522,133	0.3052%	$1,631	6,253,161	0.2915%	(268,972)
Hawkins County	$1,410	10,143,036	0.4746%	$1,333	9,536,909	0.4446%	(606,126)
Rogersville City	$1,410	837,981	0.0392%	$2,241	1,418,704	0.0661%	580,723
Haywood County	$1,247	4,455,609	0.2085%	$1,136	4,060,208	0.1893%	(395,401)
Henderson County	$1,570	5,315,090	0.2487%	$1,481	5,099,504	0.2378%	(215,586)
Lexington City	$1,570	1,553,069	0.0727%	$2,458	2,294,183	0.1070%	741,114
Henry County	$1,938	6,119,781	0.2864%	$1,847	5,819,095	0.2713%	(300,686)
Paris SSD	$1,938	2,808,322	0.1314%	$2,325	3,389,398	0.1580%	581,075
Hickman County	$884	3,355,922	0.1570%	$1,011	3,840,817	0.1791%	484,895
Houston County	$863	1,224,240	0.0573%	$918	1,302,665	0.0607%	78,425
Humphreys County	$1,552	4,660,409	0.2181%	$1,590	4,774,301	0.2226%	113,892
Jackson County	$1,055	1,750,762	0.0819%	$848	1,406,444	0.0656%	(344,318)
Jefferson County	$1,412	9,672,927	0.4526%	$1,503	10,292,643	0.4799%	619,716
Johnson County	$885	2,023,748	0.0947%	$1,010	2,309,038	0.1077%	285,290
Knox County	$3,251	168,558,918	7.8875%	$3,214	166,667,069	7.7706%	(1,891,849)

Appendix B-2

Comparison of County Fiscal Capacity Model Results with Prototype System-level Model Results

	FY05 County Model			Prototype System-level Model			
	Capacity Per Pupil	Allocated[1] Capacity	Percent of Total	Capacity Per Pupil	Total Capacity	Percent of Total	Difference
Lake County	$945	834,135	0.0390%	$905	798,656	0.0372%	(35,479)
Lauderdale County	$1,084	4,951,600	0.2317%	$1,065	4,865,786	0.2269%	(85,815)
Lawrence County	$1,534	10,404,958	0.4869%	$1,431	9,706,514	0.4525%	(698,443)
Lewis County	$983	1,912,879	0.0895%	$1,123	2,185,229	0.1019%	272,351
Lincoln County	$1,436	5,835,623	0.2731%	$1,487	5,985,196	0.2790%	149,573
Fayetteville City	$1,436	1,443,826	0.0676%	$2,280	2,384,044	0.1112%	940,218
Loudon County	$1,832	8,896,631	0.4163%	$1,892	9,224,577	0.4301%	327,946
Lenoir City	$1,832	3,683,400	0.1724%	$2,397	4,770,238	0.2224%	1,086,838
McMinn County	$1,856	10,789,838	0.5049%	$1,850	10,717,482	0.4997%	(72,356)
Athens City	$1,856	3,127,359	0.1463%	$2,920	5,085,724	0.2371%	1,958,365
Etowah City	$1,856	772,536	0.0361%	$2,417	921,223	0.0430%	148,687
McNairy County	$1,407	5,784,702	0.2707%	$1,196	4,915,076	0.2292%	(869,626)
Macon County	$1,132	4,037,345	0.1889%	$1,184	4,223,462	0.1969%	186,117
Madison County	$2,923	39,954,819	1.8696%	$2,844	38,871,952	1.8123%	(1,082,867)
Marion County	$1,656	6,778,685	0.3172%	$1,648	6,787,438	0.3165%	8,753
Richard City SSD	$1,656	569,702	0.0267%	$1,798	573,758	0.0268%	4,056
Marshall County	$1,866	8,944,365	0.4185%	$1,694	8,119,489	0.3786%	(824,876)
Maury County	$1,949	21,860,077	1.0229%	$2,074	23,263,069	1.0846%	1,402,992
Meigs County	$684	1,246,528	0.0583%	$917	1,670,250	0.0779%	423,722
Monroe County	$1,393	7,123,200	0.3333%	$1,514	7,622,329	0.3554%	499,128
Sweetwater City	$1,393	1,905,594	0.0892%	$1,955	2,830,892	0.1320%	925,298
Montgomery County	$1,965	47,727,035	2.2333%	$1,828	44,384,490	2.0693%	(3,342,545)
Moore County	$1,145	1,087,605	0.0509%	$1,315	1,248,878	0.0582%	161,273
Morgan County	$640	2,074,684	0.0971%	$699	2,265,398	0.1056%	190,714
Obion County	$1,966	7,936,369	0.3714%	$1,754	7,077,724	0.3300%	(858,644)
Union City	$1,966	2,732,298	0.1279%	$2,573	3,580,730	0.1669%	848,432
Overton County	$1,135	3,577,234	0.1674%	$1,103	3,476,118	0.1621%	(101,115)
Perry County	$1,375	1,588,178	0.0743%	$1,152	1,329,804	0.0620%	(258,374)
Pickett County	$1,076	768,237	0.0359%	$1,131	807,860	0.0377%	39,623
Polk County	$1,087	2,615,619	0.1224%	$1,108	2,664,555	0.1242%	48,936
Putnam County	$2,444	23,288,271	1.0897%	$2,390	22,772,996	1.0617%	(515,275)
Rhea County	$1,305	5,008,103	0.2343%	$1,356	5,111,687	0.2383%	103,584
Dayton City	$1,305	883,028	0.0413%	$2,283	1,700,478	0.0793%	817,450
Roane County	$1,730	12,540,935	0.5868%	$1,785	12,941,961	0.6034%	401,026
Robertson County	$1,596	15,488,691	0.7248%	$1,669	16,194,189	0.7550%	705,498
Rutherford County	$2,238	60,736,773	2.8421%	$2,300	61,807,262	2.8817%	1,070,489

Appendix B-2

Comparison of County Fiscal Capacity Model Results with Prototype System-level Model Results

	FY05 County Model			Prototype System-level Model			
	Capacity Per Pupil	Allocated[1] Capacity	Percent of Total	Capacity Per Pupil	Total Capacity	Percent of Total	Difference
Murfreesboro City	$2,238	12,308,039	0.5759%	$3,657	21,067,713	0.9822%	8,759,673
Scott County	$1,177	3,086,674	0.1444%	$1,059	2,772,472	0.1293%	(314,202)
Oneida SSD	$1,177	1,456,099	0.0681%	$1,417	1,756,722	0.0819%	300,623
Sequatchie County	$1,103	2,059,912	0.0964%	$1,207	2,254,001	0.1051%	194,088
Sevier County	$3,211	40,182,137	1.8803%	$4,150	51,927,616	2.4210%	11,745,479
Shelby County	$2,808	124,161,072	5.8100%	$2,301	103,497,455	4.8254%	(20,663,618)
Memphis SSD City	$2,808	329,621,569	15.4242%	$2,767	322,781,651	15.0491%	(6,839,917)
Smith County	$1,392	4,381,302	0.2050%	$1,385	4,359,396	0.2032%	(21,906)
Stewart County	$850	1,761,660	0.0824%	$1,100	2,280,819	0.1063%	519,159
Sullivan County	$2,484	32,050,404	1.4998%	$2,338	30,046,722	1.4009%	(2,003,682)
Bristol City	$2,484	8,989,873	0.4207%	$3,078	11,030,273	0.5143%	2,040,400
Kingsport City	$2,484	15,568,329	0.7285%	$3,306	20,999,996	0.9791%	5,431,667
Sumner County	$1,781	40,768,748	1.9077%	$1,814	41,509,262	1.9353%	740,514
Tipton County	$877	9,593,867	0.4489%	$1,118	12,228,234	0.5701%	2,634,367
Trousdale County	$939	1,199,692	0.0561%	$1,057	1,350,182	0.0629%	150,490
Unicoi County	$1,511	3,759,105	0.1759%	$1,222	3,039,982	0.1417%	(719,123)
Union County	$543	1,660,173	0.0777%	$759	2,318,969	0.1081%	658,796
Van Buren County	$703	546,023	0.0256%	$959	744,807	0.0347%	198,785
Warren County	$1,808	11,180,207	0.5232%	$1,641	10,146,728	0.4731%	(1,033,479)
Washington County	$2,552	22,073,290	1.0329%	$2,588	22,155,108	1.0329%	81,818
Johnson City	$2,552	16,958,919	0.7936%	$3,672	24,714,463	1.1523%	7,755,544
Wayne County	$834	2,197,275	0.1028%	$880	2,316,399	0.1080%	119,124
Weakley County	$1,573	7,706,003	0.3606%	$1,429	7,003,213	0.3265%	(702,790)
White County	$1,203	4,632,894	0.2168%	$1,216	4,680,826	0.2182%	47,931
Williamson County	$3,446	70,368,373	3.2928%	$3,578	72,557,784	3.3829%	2,189,411
Franklin SSD	$3,446	12,592,870	0.5893%	$3,986	15,134,469	0.7056%	2,541,599
Wilson County	$2,034	24,021,892	1.1241%	$2,217	26,209,226	1.2220%	2,187,334
Lebanon SSD	$2,034	5,897,344	0.2760%	$2,873	8,304,900	0.3872%	2,407,555
Statewide	$2,367	$ 2,137,041,077	100.0000%	$2,852	$ 2,144,855,363	100.0000%	$ 7,814,286

[1] Allocated based on share of county-area BEP match as per actual BEP method.

[2] Carroll County system's total capacity per system-level model is based on county-area capacity minus capacities of SSDs.

Appendix B-3

Comparison of State Funding with Actual and Prototype Models
2004-2005 School Year

System Name	State Funding		
	County Model	Prototype	Difference
Anderson County	$ 22,233,000	$ 24,089,000	$ 1,856,000
Clinton City	3,024,000	2,372,000	(652,000)
Oak Ridge City	13,781,000	11,803,000	(1,978,000)
Bedford County	23,181,000	23,487,000	306,000
Benton County	8,699,000	8,975,000	276,000
Bledsoe County	8,227,000	8,113,000	(114,000)
Blount County	33,372,000	33,251,000	(121,000)
Alcoa City	3,794,000	1,883,000	(1,911,000)
Maryville City	13,353,000	10,718,000	(2,635,000)
Bradley County	26,795,000	28,115,000	1,320,000
Cleveland City	12,707,000	9,787,000	(2,920,000)
Campbell County	22,436,000	22,540,000	104,000
Cannon County	8,512,000	8,614,000	102,000
Carroll County	1,492,000	1,415,000	(77,000)
H Rock-Bruceton SSD	2,658,000	2,528,000	(130,000)
Huntingdon SSD	4,528,000	4,301,000	(227,000)
McKenzie SSD	4,575,000	4,324,000	(251,000)
South Carroll Co SSD	1,551,000	1,547,000	(4,000)
West Carroll Co SSD	3,861,000	3,765,000	(96,000)
Carter County	22,335,000	23,001,000	666,000
Elizabethton City	7,307,000	6,308,000	(999,000)
Cheatham County	24,900,000	24,186,000	(714,000)
Chester County	9,299,000	9,325,000	26,000
Claiborne County	18,239,000	19,105,000	866,000
Clay County	4,994,000	5,115,000	121,000
Cocke County	16,909,000	17,560,000	651,000
Newport City	2,395,000	1,772,000	(623,000)
Coffee County	12,554,000	12,842,000	288,000
Manchester City	3,827,000	3,196,000	(631,000)
Tullahoma City	10,509,000	9,007,000	(1,502,000)
Crockett County	6,775,000	7,164,000	389,000
Alamo City	1,898,000	1,783,000	(115,000)
Bells City	1,586,000	1,518,000	(68,000)
Cumberland County	22,420,000	21,161,000	(1,259,000)
Davidson County	140,628,000	149,031,000	8,403,000
Decatur County	5,628,000	5,750,000	122,000
DeKalb County	9,352,000	9,278,000	(74,000)
Dickson County	25,905,000	25,761,000	(144,000)
Dyer County	10,741,000	11,279,000	538,000
Dyersburg City	10,707,000	9,378,000	(1,329,000)
Fayette County	12,432,000	12,299,000	(133,000)
Fentress County	8,809,000	9,291,000	482,000
Franklin County	20,748,000	20,453,000	(295,000)
Humboldt City	5,354,000	4,947,000	(407,000)
Milan SSD	6,828,000	6,665,000	(163,000)
Trenton SSD	4,887,000	4,868,000	(19,000)

Appendix B-3

Comparison of State Funding with Actual and Prototype Models
2004-2005 School Year

System Name	State Funding		
	County Model	Prototype	Difference
Bradford SSD	2,206,000	2,264,000	58,000
Gibson County SSD	9,078,000	9,108,000	30,000
Giles County	13,755,000	14,701,000	946,000
Grainger County	13,734,000	13,674,000	(60,000)
Greene County	23,037,000	24,185,000	1,148,000
Greeneville City	9,081,000	7,745,000	(1,336,000)
Grundy County	9,353,000	9,893,000	540,000
Hamblen County	25,229,000	26,472,000	1,243,000
Hamilton County	83,241,000	93,594,000	10,353,000
Hancock County	4,819,000	4,832,000	13,000
Hardeman County	18,342,000	18,262,000	(80,000)
Hardin County	12,299,000	12,541,000	242,000
Hawkins County	26,354,000	26,876,000	522,000
Rogersville City	2,236,000	1,791,000	(445,000)
Haywood County	13,247,000	13,577,000	330,000
Henderson County	11,717,000	11,911,000	194,000
Lexington City	3,576,000	3,009,000	(567,000)
Henry County	10,054,000	10,318,000	264,000
Paris SSD	4,731,000	4,295,000	(436,000)
Hickman County	15,623,000	15,265,000	(358,000)
Houston County	6,059,000	6,005,000	(54,000)
Humphreys County	10,503,000	10,439,000	(64,000)
Jackson County	6,759,000	7,035,000	276,000
Jefferson County	24,995,000	24,565,000	(430,000)
Johnson County	9,758,000	9,548,000	(210,000)
Knox County	109,940,000	112,277,000	2,337,000
Lake County	3,830,000	3,862,000	32,000
Lauderdale County	17,809,000	17,902,000	93,000
Lawrence County	22,832,000	23,428,000	596,000
Lewis County	7,584,000	7,382,000	(202,000)
Lincoln County	13,806,000	13,720,000	(86,000)
Fayetteville City	3,463,000	2,742,000	(721,000)
Loudon County	15,458,000	15,251,000	(207,000)
Lenoir City	6,380,000	5,558,000	(822,000)
McMinn County	18,199,000	18,311,000	112,000
Athens City	5,369,000	3,870,000	(1,499,000)
Etowah City	1,341,000	1,229,000	(112,000)
McNairy County	14,766,000	15,469,000	703,000
Macon County	13,642,000	13,518,000	(124,000)
Madison County	33,478,000	34,522,000	1,044,000
Marion County	14,117,000	14,146,000	29,000
Richard City SSD	1,200,000	1,200,000	-
Marshall County	15,089,000	15,774,000	685,000
Maury County	35,688,000	34,715,000	(973,000)
Meigs County	7,890,000	7,569,000	(321,000)
Monroe County	18,666,000	18,318,000	(348,000)

Appendix B-3

Comparison of State Funding with Actual and Prototype Models
2004-2005 School Year

System Name	State Funding		
	County Model	Prototype	Difference
Sweetwater City	5,182,000	4,475,000	(707,000)
Montgomery County	76,527,000	79,361,000	2,834,000
Moore County	3,847,000	3,728,000	(119,000)
Morgan County	13,858,000	13,722,000	(136,000)
Obion County	12,498,000	13,204,000	706,000
Union City	4,354,000	3,712,000	(642,000)
Overton County	13,057,000	13,154,000	97,000
Perry County	4,570,000	4,777,000	207,000
Pickett County	2,923,000	2,896,000	(27,000)
Polk County	9,743,000	9,718,000	(25,000)
Putnam County	27,547,000	28,066,000	519,000
Rhea County	13,935,000	13,880,000	(55,000)
Dayton City	2,533,000	1,905,000	(628,000)
Roane County	25,766,000	25,521,000	(245,000)
Robertson County	33,048,000	32,583,000	(465,000)
Rutherford County	84,520,000	84,005,000	(515,000)
Murfreesboro City	17,745,000	11,028,000	(6,717,000)
Scott County	9,931,000	10,192,000	261,000
Oneida SSD	4,715,000	4,490,000	(225,000)
Sequatchie County	7,874,000	7,734,000	(140,000)
Sevier County	29,317,000	20,434,000	(8,883,000)
Shelby County	122,229,000	138,866,000	16,637,000
Memphis City SSD	330,341,000	337,342,000	7,001,000
Smith County	11,079,000	11,119,000	40,000
Stewart County	8,681,000	8,288,000	(393,000)
Sullivan County	33,728,000	35,446,000	1,718,000
Bristol City	9,592,000	8,060,000	(1,532,000)
Kingsport City	16,621,000	12,498,000	(4,123,000)
Sumner County	78,163,000	77,801,000	(362,000)
Tipton County	43,576,000	41,588,000	(1,988,000)
Trousdale County	5,656,000	5,545,000	(111,000)
Unicoi County	9,255,000	9,831,000	576,000
Union County	13,569,000	13,068,000	(501,000)
Van Buren County	3,676,000	3,526,000	(150,000)
Warren County	19,736,000	20,594,000	858,000
Washington County	23,141,000	23,191,000	50,000
Johnson City	18,061,000	12,145,000	(5,916,000)
Wayne County	10,827,000	10,746,000	(81,000)
Weakley County	16,485,000	17,068,000	583,000
White County	14,431,000	14,417,000	(14,000)
Williamson County	54,739,000	53,408,000	(1,331,000)
Franklin SSD	10,083,000	8,181,000	(1,902,000)
Wilson County	37,514,000	35,945,000	(1,569,000)
Lebanon SSD	9,421,000	7,588,000	(1,833,000)
Statewide	$ 2,701,172,000	$ 2,701,184,000	$ 12,000

Appendix B-4

Comparison of One-year Change in State Funding with Actual and Prototype Models 2003-04 and 2004-05 School Years

System Name	2003-04 State Funding	2004-05 State Funding			
		County Model	1-yr Change	Prototype	1-yr Change
Anderson County	$ 21,822,000	$ 22,233,000	$ 411,000	$ 24,089,000	$ 2,267,000
Clinton City	3,076,000	3,024,000	(52,000)	2,372,000	(704,000)
Oak Ridge City	13,490,000	13,781,000	291,000	11,803,000	(1,687,000)
Bedford County	20,366,000	23,181,000	2,815,000	23,487,000	3,121,000
Benton County	8,191,000	8,699,000	508,000	8,975,000	784,000
Bledsoe County	6,884,000	8,227,000	1,343,000	8,113,000	1,229,000
Blount County	31,503,000	33,372,000	1,869,000	33,251,000	1,748,000
Alcoa City	3,672,000	3,794,000	122,000	1,883,000	(1,789,000)
Maryville City	12,426,000	13,353,000	927,000	10,718,000	(1,708,000)
Bradley County	25,051,000	26,795,000	1,744,000	28,115,000	3,064,000
Cleveland City	11,989,000	12,707,000	718,000	9,787,000	(2,202,000)
Campbell County	20,442,000	22,436,000	1,994,000	22,540,000	2,098,000
Cannon County	7,449,000	8,512,000	1,063,000	8,614,000	1,165,000
Carroll County	1,407,000	1,492,000	85,000	1,415,000	8,000
H Rock-Bruceton SSD	2,528,000	2,658,000	130,000	2,528,000	-
Huntingdon SSD	4,254,000	4,528,000	274,000	4,301,000	47,000
McKenzie SSD	4,210,000	4,575,000	365,000	4,324,000	114,000
South Carroll Co SSD	1,307,000	1,551,000	244,000	1,547,000	240,000
West Carroll Co SSD	3,560,000	3,861,000	301,000	3,765,000	205,000
Carter County	20,131,000	22,335,000	2,204,000	23,001,000	2,870,000
Elizabethton City	6,824,000	7,307,000	483,000	6,308,000	(516,000)
Cheatham County	22,382,000	24,900,000	2,518,000	24,186,000	1,804,000
Chester County	8,197,000	9,299,000	1,102,000	9,325,000	1,128,000
Claiborne County	16,759,000	18,239,000	1,480,000	19,105,000	2,346,000
Clay County	4,564,000	4,994,000	430,000	5,115,000	551,000
Cocke County	15,358,000	16,909,000	1,551,000	17,560,000	2,202,000
Newport City	2,228,000	2,395,000	167,000	1,772,000	(456,000)
Coffee County	12,035,000	12,554,000	519,000	12,842,000	807,000
Manchester City	3,616,000	3,827,000	211,000	3,196,000	(420,000)
Tullahoma City	10,002,000	10,509,000	507,000	9,007,000	(995,000)
Crockett County	5,881,000	6,775,000	894,000	7,164,000	1,283,000
Alamo City	1,811,000	1,898,000	87,000	1,783,000	(28,000)
Bells City	1,370,000	1,586,000	216,000	1,518,000	148,000
Cumberland County	20,446,000	22,420,000	1,974,000	21,161,000	715,000
Davidson County	151,400,000	140,628,000	(10,772,000)	149,031,000	(2,369,000)
Decatur County	5,216,000	5,628,000	412,000	5,750,000	534,000
DeKalb County	8,537,000	9,352,000	815,000	9,278,000	741,000
Dickson County	23,728,000	25,905,000	2,177,000	25,761,000	2,033,000
Dyer County	9,872,000	10,741,000	869,000	11,279,000	1,407,000
Dyersburg City	9,660,000	10,707,000	1,047,000	9,378,000	(282,000)
Fayette County	10,950,000	12,432,000	1,482,000	12,299,000	1,349,000
Fentress County	8,234,000	8,809,000	575,000	9,291,000	1,057,000
Franklin County	19,725,000	20,748,000	1,023,000	20,453,000	728,000
Humboldt City	4,986,000	5,354,000	368,000	4,947,000	(39,000)
Milan SSD	6,139,000	6,828,000	689,000	6,665,000	526,000
Trenton SSD	4,597,000	4,887,000	290,000	4,868,000	271,000

Appendix B-4

Comparison of One-year Change in State Funding with Actual and Prototype Models 2003-04 and 2004-05 School Years

System Name	2003-04 State Funding	2004-05 State Funding			
		County Model	1-yr Change	Prototype	1-yr Change
Bradford SSD	2,008,000	2,206,000	198,000	2,264,000	256,000
Gibson County SSD	8,129,000	9,078,000	949,000	9,108,000	979,000
Giles County	13,392,000	13,755,000	363,000	14,701,000	1,309,000
Grainger County	12,128,000	13,734,000	1,606,000	13,674,000	1,546,000
Greene County	21,126,000	23,037,000	1,911,000	24,185,000	3,059,000
Greeneville City	8,457,000	9,081,000	624,000	7,745,000	(712,000)
Grundy County	8,527,000	9,353,000	826,000	9,893,000	1,366,000
Hamblen County	23,880,000	25,229,000	1,349,000	26,472,000	2,592,000
Hamilton County	87,690,000	83,241,000	(4,449,000)	93,594,000	5,904,000
Hancock County	4,482,000	4,819,000	337,000	4,832,000	350,000
Hardeman County	16,189,000	18,342,000	2,153,000	18,262,000	2,073,000
Hardin County	11,641,000	12,299,000	658,000	12,541,000	900,000
Hawkins County	23,991,000	26,354,000	2,363,000	26,876,000	2,885,000
Rogersville City	2,034,000	2,236,000	202,000	1,791,000	(243,000)
Haywood County	11,909,000	13,247,000	1,338,000	13,577,000	1,668,000
Henderson County	11,011,000	11,717,000	706,000	11,911,000	900,000
Lexington City	3,072,000	3,576,000	504,000	3,009,000	(63,000)
Henry County	9,383,000	10,054,000	671,000	10,318,000	935,000
Paris SSD	4,320,000	4,731,000	411,000	4,295,000	(25,000)
Hickman County	13,807,000	15,623,000	1,816,000	15,265,000	1,458,000
Houston County	5,281,000	6,059,000	778,000	6,005,000	724,000
Humphreys County	9,694,000	10,503,000	809,000	10,439,000	745,000
Jackson County	6,223,000	6,759,000	536,000	7,035,000	812,000
Jefferson County	22,421,000	24,995,000	2,574,000	24,565,000	2,144,000
Johnson County	8,679,000	9,758,000	1,079,000	9,548,000	869,000
Knox County	111,187,000	109,940,000	(1,247,000)	112,277,000	1,090,000
Lake County	3,361,000	3,830,000	469,000	3,862,000	501,000
Lauderdale County	16,294,000	17,809,000	1,515,000	17,902,000	1,608,000
Lawrence County	21,261,000	22,832,000	1,571,000	23,428,000	2,167,000
Lewis County	6,817,000	7,584,000	767,000	7,382,000	565,000
Lincoln County	12,719,000	13,806,000	1,087,000	13,720,000	1,001,000
Fayetteville City	3,284,000	3,463,000	179,000	2,742,000	(542,000)
Loudon County	14,402,000	15,458,000	1,056,000	15,251,000	849,000
Lenoir City	5,919,000	6,380,000	461,000	5,558,000	(361,000)
McMinn County	17,498,000	18,199,000	701,000	18,311,000	813,000
Athens City	5,146,000	5,369,000	223,000	3,870,000	(1,276,000)
Etowah City	1,212,000	1,341,000	129,000	1,229,000	17,000
McNairy County	13,334,000	14,766,000	1,432,000	15,469,000	2,135,000
Macon County	12,487,000	13,642,000	1,155,000	13,518,000	1,031,000
Madison County	33,256,000	33,478,000	222,000	34,522,000	1,266,000
Marion County	12,967,000	14,117,000	1,150,000	14,146,000	1,179,000
Richard City SSD	1,036,000	1,200,000	164,000	1,200,000	164,000
Marshall County	14,068,000	15,089,000	1,021,000	15,774,000	1,706,000
Maury County	34,404,000	35,688,000	1,284,000	34,715,000	311,000
Meigs County	6,927,000	7,890,000	963,000	7,569,000	642,000
Monroe County	16,653,000	18,666,000	2,013,000	18,318,000	1,665,000

Appendix B-4

Comparison of One-year Change in State Funding with Actual and Prototype Models 2003-04 and 2004-05 School Years

System Name	2003-04 State Funding	2004-05 State Funding			
		County Model	1-yr Change	Prototype	1-yr Change
Sweetwater City	4,652,000	5,182,000	530,000	4,475,000	(177,000)
Montgomery County	70,915,000	76,527,000	5,612,000	79,361,000	8,446,000
Moore County	3,455,000	3,847,000	392,000	3,728,000	273,000
Morgan County	12,142,000	13,858,000	1,716,000	13,722,000	1,580,000
Obion County	11,775,000	12,498,000	723,000	13,204,000	1,429,000
Union City	4,137,000	4,354,000	217,000	3,712,000	(425,000)
Overton County	11,423,000	13,057,000	1,634,000	13,154,000	1,731,000
Perry County	4,160,000	4,570,000	410,000	4,777,000	617,000
Pickett County	2,746,000	2,923,000	177,000	2,896,000	150,000
Polk County	8,748,000	9,743,000	995,000	9,718,000	970,000
Putnam County	25,848,000	27,547,000	1,699,000	28,066,000	2,218,000
Rhea County	12,512,000	13,935,000	1,423,000	13,880,000	1,368,000
Dayton City	2,315,000	2,533,000	218,000	1,905,000	(410,000)
Roane County	23,526,000	25,766,000	2,240,000	25,521,000	1,995,000
Robertson County	29,231,000	33,048,000	3,817,000	32,583,000	3,352,000
Rutherford County	75,856,000	84,520,000	8,664,000	84,005,000	8,149,000
Murfreesboro City	16,513,000	17,745,000	1,232,000	11,028,000	(5,485,000)
Scott County	9,157,000	9,931,000	774,000	10,192,000	1,035,000
Oneida SSD	4,357,000	4,715,000	358,000	4,490,000	133,000
Sequatchie County	6,739,000	7,874,000	1,135,000	7,734,000	995,000
Sevier County	28,953,000	29,317,000	364,000	20,434,000	(8,519,000)
Shelby County	121,656,000	122,229,000	573,000	138,866,000	17,210,000
Memphis City SSD	312,017,000	330,341,000	18,324,000	337,342,000	25,325,000
Smith County	10,181,000	11,079,000	898,000	11,119,000	938,000
Stewart County	7,847,000	8,681,000	834,000	8,288,000	441,000
Sullivan County	32,652,000	33,728,000	1,076,000	35,446,000	2,794,000
Bristol City	9,253,000	9,592,000	339,000	8,060,000	(1,193,000)
Kingsport City	16,359,000	16,621,000	262,000	12,498,000	(3,861,000)
Sumner County	71,182,000	78,163,000	6,981,000	77,801,000	6,619,000
Tipton County	38,290,000	43,576,000	5,286,000	41,588,000	3,298,000
Trousdale County	5,044,000	5,656,000	612,000	5,545,000	501,000
Unicoi County	8,419,000	9,255,000	836,000	9,831,000	1,412,000
Union County	11,804,000	13,569,000	1,765,000	13,068,000	1,264,000
Van Buren County	3,188,000	3,676,000	488,000	3,526,000	338,000
Warren County	18,793,000	19,736,000	943,000	20,594,000	1,801,000
Washington County	22,426,000	23,141,000	715,000	23,191,000	765,000
Johnson City	17,674,000	18,061,000	387,000	12,145,000	(5,529,000)
Wayne County	9,727,000	10,827,000	1,100,000	10,746,000	1,019,000
Weakley County	15,267,000	16,485,000	1,218,000	17,068,000	1,801,000
White County	12,896,000	14,431,000	1,535,000	14,417,000	1,521,000
Williamson County	53,761,000	54,739,000	978,000	53,408,000	(353,000)
Franklin SSD	10,589,000	10,083,000	(506,000)	8,181,000	(2,408,000)
Wilson County	34,077,000	37,514,000	3,437,000	35,945,000	1,868,000
Lebanon SSD	8,658,000	9,421,000	763,000	7,588,000	(1,070,000)
Statewide	$ 2,552,901,000	$ 2,701,172,000	$ 148,271,000	$ 2,701,184,000	$ 148,283,000

Appendix C

Prototype System-level Fiscal Capacity Model–How We Got Here

- August 1990: TACIR staff's initial exposition of the difficulties of determining fiscal capacity for school systems in Tennessee published in a staff report titled *Fiscal Capacity of Public School Systems in Tennessee*.
- February 16, 1995: Supreme Court of Tennessee finds for the smalls schools plaintiffs that

  > *exclusion of teachers' salary increases from the equalization formula is of such magnitude that it would substantially impair the objectives of the plan; consequently, the plan must include equalization of teachers' salaries according to the BEP formula.*

- February 27, 1995: Brent Poulton, Executive Director of the State Board of Education, writes expressing concern about the use of a county fiscal capacity model and suggesting that the overall BEP funding formula would be improved "if we could establish an index for each of the 139 school systems."
- March 8, 1995: Jane Walters, Commission of Education, writes in relation to the department's review of teachers' salary equalization, asking that Dr. Green to "review the issue [of fiscal capacity] and make a proposal on how [it] can be done at the school system level."
- June 1995: Requests to revise the TACIR fiscal capacity formula are brought before the Commission. Commissioner Walters notes that

  > *if the department could distribute BEP funds on a fiscal capacity index that more accurately reflected the situation in each district, it would aid in the quest for equalization, be as fair as possible, and help the department in its continual battle over salaries and other issues where there is such great disparity.*

  Dr. Poulton notes that

  > *The original premise of the BEP was that the responsibility for funding schools was split between the state and local governments. Given that local governments had different abilities to pay, local responsibility would be divided according to ability to pay. Conceptually at least, the notion was that there were 139 school systems and there would be 139 splits of that local responsibility.*

  Chairman Bragg asked TACIR staff to meet with department and board staff to discuss the issue further and report back at the next meeting.

- June 1997: With full funding of the BEP formula set for the upcoming year, at the Commission's request, Asst. Commissioner Roehrich-Patrick, Department of Education, presents information to the Commission as evidence of real differences in ability to pay between counties and other systems within counties. With few exceptions, city systems and special school districts have higher salaries and expenditures per student. Chairman Rochelle notes that TACIR will review the fiscal capacity model, but notes that the lack of data for income at the city and special school district level limits the effort.
- June 1998: Intent to develop sub-county model included in TACIR work program.
- Summer/Fall 1998: Initial development of one-tier and two-tier sub-county models. Staff proceeds with development of two-tier model.
- Summer/Fall 2000 through Fall 2002: Discussion of municipal overburden as it relates to sub-county model; significant cross-research with Comptroller's Office of Education Accountability (OREA).
- September 2001: Prototype two-tier model presented to Commission.
- Fall 2001: favorable review of draft model by outside experts in school finance and statistics, including OREA staff.
- October 2002: Supreme Court of Tennessee strikes down current funding scheme for funding/establishing teachers' salaries; work on sub-county fiscal capacity model begins again in earnest.
- Fall 2002: First one-tier algebraic prototype developed by TACIR staff.
- Winter 2003: TACIR staff explore alternatives to sub-county model at request of Comptroller of the Treasury.
- June 2003: Commission updated on development of prototype model; concern about developing income measure at the sub-county level highlighted.
- June 2003: OREA staff experimenting with two-tier, regression based, sub-county model; request feedback.
- September 2003: OREA and TACIR staff begin in working in concert on sub-county prototype; develop four basic alternatives, including two two-tier models, both w/regression county tier, and two one-tier models.
- October 2003: Four basic alternatives submitted to external reviewers for comments; one-tier regression version most favored; submitted to Governor's office.
- October 7, 2003: Governor's salary equity task force drafts framework for recommendation of ten principles including this one: "The proposal will include a new district-level fiscal capacity model in order to provide a fairer method of determining local contribution."

- October 30, 2003: TACIR submits consensus prototype system-level model to Governor's office.
- Winter 2004: Governor's office submits salary equity proposal to legislature that does not include prototype model.
- Spring 2004: General Assembly enacts and Governor signs salary equity bill that includes request that BEP Review Committee give special consideration to, among other things, a system-level fiscal capacity model; requires annual report each November 1.
- Summer 2004: BEP Review Committee establishes subcommittees to prepare proposal for, among other things, a system-level fiscal capacity model in order to comply with legislation.

Appendix D

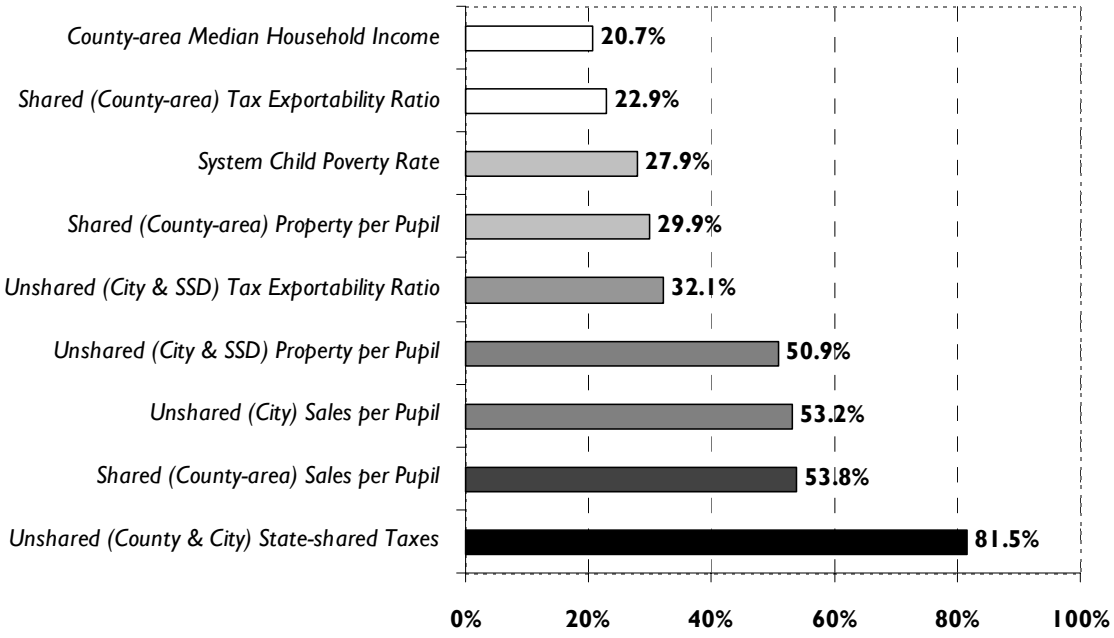
Recommendations of the Governor's Task Force on Teacher Pay

Ten Principles

1. **Select a Cost-Driven Salary Component**—Select a cost-driven component in the BEP formula for salaries that reflects a real-world average salary cost.
2. **Spend the New Funds on Salaries**—Systems below a specified instructional salary level should provide a minimum level of expenditures earmarked for instructional salaries in order to reduce disparity.
3. **Ensure a Hold Harmless Provision**—Funds should be provided to ensure that no system receives less state money than it currently does.
4. **Introduce a New District-Level Fiscal Capacity Model**—Introduce a new district/system-level fiscal capacity model in order to provide a fairer method of determining local contribution. Currently, the model measures the fiscal capacity of 95 counties. A new district/system level will measure the capacity of 136 systems.
5. **Adjust State/Local Split**—State and local shares for salaries should be adjusted to reflect fiscal realities of infusing additional state dollars and to ensure a greater degree of equalization.
6. **Require Local Responsibility**—Local systems should be required to fund their matching share of the BEP formula cost-driven salary component.
7. **Adjust the Cost Differential Factor (CDF)/At-Risk/English Language Learners (ELL) Components**—The CDF for instructional salaries should be replaced or readjusted provided that additional funds will be available to address the issue of equality of educational opportunity, including funds for students in families with low incomes (e.g., students eligible for free and reduced price lunch) and English language learners. This will have the effect of targeting funds to both rural and urban systems based on educational needs.
8. **Maintain a State Salary Schedule**—A revised state salary schedule should remain in place to ensure that there is a floor below which salaries may not fall. The schedule should be recommended by the Commissioner of Education and approved by the State Board of Education annually.
9. **Institute an Annual Watchdog/Review Component**—Charge the BEP Review Committee with annually reviewing two aspects of the teacher pay equity solution:
    - Identify any warning signs of increased disparity levels
    - Review and recommend adjustments to the BEP salary component based on recognized inflationary indices
10. **Provide a Phased-in, Multi-Year Approach**—The solution should incorporate a phased multi-year approach based upon fiscal realities and should provide local systems and local governments the opportunity to adjust to the impact.

Appendix E-1

Dispersion of Variables–Coefficient of Variation*



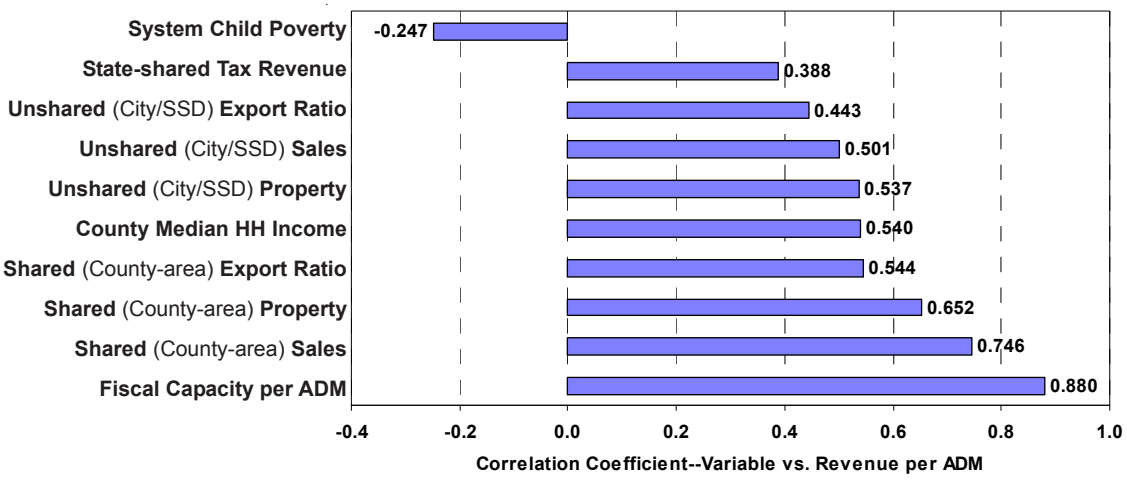
A note about shared versus unshared tax bases: Counties must share their local tax bases among all of the school systems within their borders. Cities may, but are not required to. Special school districts are not required to and typically do not. The fiscal capacity model considers only the statutory tax structure and sharing requirements. Because each variable in the model must have a value for every school system, county systems have zeros for the unshared local tax base variables. Likewise, special school districts have zeros for the unshared/city sales tax base variable and the state-shared taxes variable. Those zeros are not factored into the coefficients of variation for the unshared-tax-base variables. In other words, the coefficients of variation for the unshared-tax-base variables are based solely on the non-zero values.

*The coefficient of variation is a measure of the variation from the average value. Technically, it is the standard deviation expressed as a percent of the mean. The large COV for unshared (city) taxable sales indicates significant differences in unshared taxable sales per pupil across the 136 school systems. The small COV for county-area median household income indicates relatively small differences among the 95 counties. This indicates that the differences in the unshared sales tax base are of greater significance than the difference in median household income.

Appendix E-2

Correlation Analysis

Relationship between Local Revenue per Pupil and System-level Prototype Fiscal Capacity Variables



Revised January 2005

Correlation Analysis

Correlation analysis is a descriptive technique used to measure the strength of the relationship between two variables. The statistic produced is called the coefficient of correlation. Values for the coefficient of correlation range from -1 for a perfect negative correlation up to +1 for a perfect positive correlation. Perfect means that if all the points of intersection between a pair of variables were plotted in a scatter diagram, all the points could be connected with a straight line. The closer the coefficient to either +1 or -1, the stronger the relationship. When the coefficient is near zero, little or no relationship exits. In the chart above, the longer the bars, the stronger the relationship. The factors are in order, top to bottom, from weakest to strongest. The factor with the strongest relationship to revenue per pupil, other than the fiscal capacity estimate itself, is shared (county-area) sales per ADM. The correlation coefficient for those two variables is 0.746. Shared (county-area) sales and property per ADM also have fairly strong relationships to revenue per pupil (0.746 and 0.652 respectively). The existence of a strong correlation does not imply a causation effect; it only indicates the tendencies present in the data.

Appendix F

Special Cases

Carroll County–When a School System Isn't a School System

The Carroll County school system is not a full-service school system. It is the only system in the state that does not provide regular educational services except to a tiny handful of students (less than a half dozen in the 2003 school year). It does, however, provide transportation services for the other five systems in the county and vocational classes for nearly one hundred students. Consequently, when its figures are computed for the prototype model by dividing its local revenue, its tax bases, and so on by its tiny handful of students, the results are so dissimilar to any other system that they do not function properly in the model. Resolving this problem in order to derive a reasonable estimate of fiscal capacity for this unique school system requires a simple modification: Rather than enter figures for the Carroll County school system into the model, figures are entered for the entire county area. That is the figures for all six systems in the county are combined so that their overall fiscal capacity can be estimated. At the same time, the five regular school systems in Carroll County are treated like any other school system so that individual estimates of fiscal capacity are produced for each of them. The estimates for those five are then summed and subtracted from the overall estimate, and the difference then becomes the estimated fiscal capacity for the Carroll County school system.

Carroll County Factors Based on County-area Values

- Revenue per Pupil
- Shared and Unshared Property per Pupil
- Shared and Unshared Taxable Sales per Pupil
- State-shared Tax Revenue per Pupil
- Tax Exportability Ratio

Carroll County system fiscal capacity equals county area total based on these factors minus fiscal capacity for other five systems

Memphis–When a Special School District is Really a City

The Memphis school system, by charter, law and Attorney General's opinion is a special school district. However, it is fiscally unlike any other special school district in Tennessee because has no taxing authority. No special school district can tax sales, but all of them except Memphis can and do tax the property within their borders to supplement funding they receive from the county's tax structure. This is the hallmark of special school districts in Tennessee. Because the Memphis Special School District has no independent taxing authority, it lacks the essential character of a special school district with respect to funding education. Consequently, the Memphis city council sets a tax rate for the school system to supplement the funding they receive from Shelby County's own education revenue. Memphis is unique in this respect. No other special school district is dependent on a city for its funding.

Glossary

Ability to Pay—the ability of individuals in a certain jurisdiction to pay taxes relative to those in other jurisdictions, generally based on a measure of income. The TACIR school system fiscal capacity model uses county median household income and school district poverty rates, which are based on income, to measure ability to pay.

Child Poverty Rate—the percentage of related children living in families below the federal poverty line—as used here, it refers to school-aged children, those between the ages of five and seventeen inclusive. This is strongly correlated with income.

Fiscal Capacity—the potential ability of the school systems' to raise revenues from their own sources to pay for public education.

Fiscal Effort—the degree to which a school system utilizes the revenue bases available to it, typically measured as the ratio of between the actual amount of revenues collected or used for a particular purpose to a related measure of fiscal capacity.

Local Revenue—the amount of money provided at the discretion of local officials to support school systems, such as property taxes, and state-shared tax revenues that substitute for local revenue.

Median Household Income—the middle value among households (i.e., the value above and below which lie an equal number of households) for money income received in the previous calendar year by all household members 15 years old and over, including household members not related to the householder, people living alone, and others in non-family households.

Ordinary Least Squares Multiple Linear Regression—a statistical process used to predict the values of a dependent variable, such as local revenue for education, based on the values of a set of explanatory variables, called independent variables.

Property per Pupil—the equalized assessed valuation of property subject to taxation by local officials divided by the number of students in average daily membership.

Representative Tax System—as a measure of fiscal capacity, a method of calculating the amount of revenue that a region or government would

collect if it were to exert average fiscal effort; hypothetical tax system that is representative or typical of all the taxes actually levied by the state and local governments of a federation intended to be descriptive of the state-local tax system.

Resident Tax Burden—the portion of property tax payments for which owners of homes and farms are responsible; the equalized assessed valuation of residential and farm property divided by the total taxable value of all property.

Sales per Pupil—the value of all sales subject to taxation by cities and counties divided by the number of students in average daily membership.

Service Burden—the cost of providing for public education.

Shared Property—the value of property subject to county education taxes, all of which must be shared among all school systems in the county based on the proportion of students in each system. ***Note:*** *all county education revenue must be shared with any and all other school systems in the county.*

Shared Taxable Sales— the value of sales subject to countywide taxes, all of which must be shared among all school systems in the county based on the proportion of students in each system. ***Note:*** *all county education revenue must be shared with any and all other school systems in the county.*

State-shared Tax Revenue per Pupil—funds provided by the State from state revenues to cities and counties to supplement funds from local sources used to provide city and county services divided by the number of students in average daily membership. Revenue sources include state sales, excise, income, beer, mixed drink, and alcoholic beverage taxes, as well as TVA payments in lieu of taxes. ***Note:*** *Special school districts are not eligible to receive this revenue.*

Tax Exportability—the portion of property tax payments for which owners of homes and farms are not responsible; the equalized assessed valuation of business-related property (commercial, industrial, utility and personal property) divided by the total taxable value of all property.

Unshared Property—the value of property subject to taxes that generate revenue that is not required to be shared with other school systems. ***Note:*** *County school systems' revenue from this source is restricted to retirement*

of rural education debt and support of pupil transportation under certain specific circumstances. Such revenue cannot be used for general support of the county school system; therefore, the value of unshared property for county school systems is zero.

Unshared Taxable Sales—the value of sales subject to taxes that generate revenue that is not required to be shared with other school systems. ***Note:*** *County school systems' revenue from this source is restricted to retirement of rural education debt and support of pupil transportation under certain specific circumstances. Such revenue cannot be used for general support of the county school system; therefore, the value of unshared taxable sales for county school systems is zero. Special school districts do not have authority to tax sales; therefore, the value of unshared taxable sales for special school districts is zero.*

Data Sources

Local Revenue

Tennessee Department of Education, Annual Financial Reports from public school systems, fiscal years 2000-01 through 2002-03. The most recent available data will be for the fiscal year immediately preceding the year during which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available data on local revenue for use in that process is for 2002-03.

Student Counts—Average Daily Membership

Tennessee Department of Education, Annual Statistical Reports for school years 2000-01 through 2002-03. http://www.state.tn.us/education/mreport.htm The most recent available data will be for the fiscal year immediately preceding the year during which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available student counts for use in that process are for 2002-03.

Sales Tax Base & State-shared Tax Revenues

Tennessee Department of Revenue, fiscal years 2000-01 through 2002-03. The most recent available data will be for the fiscal year immediately preceding the year during which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available data on the sales tax base and state-shared taxes for use in the funding process is for 2002-03.

Property Tax Base & Ratio of Business-related Property Assessment to Total Assessment Tennessee Board of Equalization, Tax Aggregate Report of Tennessee, calendar years 2000 through 2002. http://www.comptroller.state.tn.us/pa/taxaggr.htm The most recent available data will be for the calendar year ended prior to the fiscal year during which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available data for use in that process is for 2002.

Median Household Income

U.S. Census Bureau, Housing and Household Economic Statistics Division, Small Area Estimates Branch, Small Area Income and Poverty Estimates—Tables for States and Counties by Income Year and Statistic, 1998 through 2000. http://www.census.gov/hhes/www/saipe/stcty/estimate.html The most recent available data will be for the calendar year ended three years prior to the beginning of the fiscal year in which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available data for use in that process is for 2000, released October 2003.

Child Poverty Rates

U.S. Census Bureau, Housing and Household Economic Statistics Division, Small Area Estimates Branch, Small Area Income and Poverty Estimates—School District Estimates, 1997, 1999 and 2000. http://www.census.gov/hhes/www/saipe/district.html. The most recent available data will be for the calendar year ended three years prior to the beginning of the fiscal year in which the Department of Education establishes funding for schools. For example, the Department establishes funding for 2004-05 during 2003-04; therefore, the most current available data for use in that process is for 2000, released November 2003.

Schedule of Data Availability

	1999	2000	2001	2002	2003	2004	2005	2006
BEP Funding Year								X
Student Counts (ADM)				X	X	X		
Local Revenue				X	X	X		
Taxable Sales				X	X	X		
Taxable Property			X	X	X			
State-shared Tax Revenue				X	X	X		
Median Household Income	X	X	X					
Child Poverty Rates	X	X	X					

- **Calculations of funding through the Basic Education Program (BEP) formula are made during the fiscal year prior to the year in which funding is to be provided.** Because the calculations are made before the end of the prior fiscal year, no figures for the year during which those calculations are made are available for that purpose; therefore, the latest available data is always from two years prior to the year being funded. Moreover, data reported on a calendar year basis, which includes property, median household income and child poverty, will always be another six months behind. And figures from the federal government, which include median household income and child poverty, will lag further behind because they are based on a wide array of data and complex estimation processes.

- **Three-year averages are used for each factor by agreement with the BEP Review Committee appointed by the State Board of Education in order to mitigate any volatility that might be inherent in the data.** The most volatile data is typically the property tax base because of periodic and unpredictable challenges to the assessed valuations established by county appraisers.