

# TACIR



# FAST FACTS

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## The Education Improvement Act, the BEP, & Fiscal Capacity

The Education Improvement Act (EIA) of 1992 established the Basic Education Program (BEP), which is the funding formula that determines the full amount of funding required to be provided for Tennessee's K-12 schools.

BEP funds are allocated between classroom and non-classroom components. Local education agencies (LEAs) are collectively responsible for funding 25% of the BEP classroom components, and 50% of the BEP non-classroom components. Section 49-3-356 of the EIA requires that the local shares be equalized to reflect local ability to raise revenue.

The TACIR Fiscal Capacity model is used to equalize local funding. It calculates each county's share of the locals' collective total funding.

## TACIR's Fiscal Capacity Model Helps Determine Funding for Education

– Harry A. Green

### Fiscal Year 2004

Tennessee's fiscal capacity model was developed by TACIR and adopted by the State Board of Education to fulfill the requirement of the Education Improvement Act for fiscal equalization in the Basic Education Program (BEP). It is used to help determine the local funding shares for each school system. Fiscal capacity is the potential ability of local governments to fund education from their own taxable sources, relative to their cost of providing services. The TACIR formula estimates the **per pupil dollar** amount that each county area can afford to pay to fund education.

### Methodology

The fiscal capacity model is based on a set of averages. The method, which is called multiple regression analysis, takes one factor (variable) at a time and compares it with all counties. From this process, an average (called a coefficient) is calculated for each factor. These averages are multiplied by the value of each factor for each county and summed. This produces a per pupil fiscal capacity amount. These per pupil amounts will vary county-by-county because the factor values are different for each county. Multiple regression analysis is a very commonly used statistical method.

Because of a time lag in the collection and publication of official statistics, the data is frequently 18 to 24 months old. Moreover, the formula is based on a 3-year "moving" average of the data used. This averaging helps "smooth out" major changes in the model's results, and reduces volatility from year to year.

Once TACIR determines per pupil capacity for each county, this value is multiplied by average daily membership. This produces a countywide measure of total fiscal capacity. The values of the 95 counties are summed, and each county is expressed as a proportion

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## Year to Year Changes in a County's Fiscal Capacity

It is likely that there will be some change in a county's fiscal capacity each year. However, experience shows that for most counties the changes are small. The influence of a change in the tax base in a specific county will be related to similar tax changes in other counties. A change in any specific fiscal capacity factor will not necessarily mean a change in fiscal capacity. The per pupil capacity of a specific county can move up or down without necessarily causing a major change in the index. However, this depends on what changes occur in all 95 counties.



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## Tennessee's Fiscal Capacity Model Helps Determine Funding for Schools (continued)

of the total. The fiscal capacity index for each county is this proportion. Because of data limitations, TACIR has not been able to compute an index for all 138 school districts. Consequently, the county index is also used for non-county school systems in multi-system counties.

The index for each county represents that county's share of the total local capacity to fund education. If county A has an index of 3.45% in FY 2002, then county A is responsible for 3.45% of the total local share of the Basic Education Program. If the index goes up or down that share changes.

### Variables Used in the Model

Fiscal capacity is determined using **three year averages** of the following factors for each of the 95 counties:

**Per Pupil Own-Source Revenue:** This is the amount of local money that the school systems in the county report that they spend on education, divided by enrollment (average daily membership (ADM)).

**Per Pupil Equalized Property Assessment:** The total property assessment for the county area, equalized by the appropriate county appraisal-to-sales ratio, and then divided by ADM. This is a measure of the local ability to raise revenue.

**Per Pupil Taxable Sales:** The local sales tax base divided by ADM. This is a measure of the local ability to raise revenue.

**Per Capita Income:** Per capita income is included in the fiscal capacity model as a proxy measurement for ability to pay for education; and for all other local revenue not accounted for by property or sales taxes.

**Service Burden:** This measure is included as a reflection of spending needs. It equals average daily membership divided by county population. The greater the number of pupils per 100 residents, the greater the fiscal burden for each taxpayer.

**Tax Burden:** The ratio of total equalized residential and farm assessment in each county divided by the total equalized property assessment. This variable is intended as a proxy for a county's potential ability to export taxes. A high residential/farm ratio indicates a low ability to pass taxes on to non-residents.

## Fiscal Year 2004 Fiscal Capacity Results by County Area

County Area	Total Fiscal Capacity	Percent of Total Fiscal Capacity	County Area	Total Fiscal Capacity	Percent of Total Fiscal Capacity
Anderson	\$25,794,312	1.28025383%	Lauderdale	\$4,956,497	0.24600673%
Bedford	\$9,843,921	0.48858515%	Lawrence	\$10,059,812	0.49930049%
Benton	\$3,599,396	0.17864948%	Lewis	\$1,894,505	0.09403034%
Bledsoe	\$1,560,237	0.07743952%	Lincoln	\$6,905,180	0.34272608%
Blount	\$33,877,507	1.68144855%	Loudon	\$11,940,071	0.59262374%
Bradley	\$27,978,049	1.38863967%	McMinn	\$14,108,630	0.70025623%
Campbell	\$7,621,723	0.37829039%	McNairy	\$5,590,835	0.27749094%
Cannon	\$2,095,591	0.10401084%	Macon	\$3,728,395	0.18505212%
Carroll	\$6,203,222	0.30788568%	Madison	\$38,608,089	1.91624239%
Carter	\$9,767,442	0.48478927%	Marion	\$7,008,388	0.34784860%
Cheatham	\$7,843,510	0.38929839%	Marshall	\$8,426,661	0.41824204%
Chester	\$2,799,931	0.13896948%	Maury	\$21,264,182	1.05540905%
Claiborne	\$5,515,307	0.27374224%	Meigs	\$1,261,797	0.06262702%
Clay	\$1,185,614	0.05884582%	Monroe	\$8,584,573	0.42607968%
Cocke	\$7,421,249	0.36834022%	Montgomery	\$44,079,206	2.18779137%
Coffee	\$17,056,191	0.84655308%	Moore	\$1,035,847	0.05141236%
Crockett	\$2,975,765	0.14769669%	Morgan	\$2,005,055	0.09951726%
Cumberland	\$12,020,232	0.59660238%	Obion	\$10,293,431	0.51089578%
Davidson	\$285,671,562	14.17878936%	Overton	\$3,422,852	0.16988703%
Decatur	\$2,518,730	0.12501260%	Perry	\$1,526,252	0.07575274%
DeKalb	\$3,510,042	0.17421455%	Pickett	\$774,468	0.03843933%
Dickson	\$14,421,252	0.71577268%	Polk	\$2,532,089	0.12567566%
Dyer	\$11,840,545	0.58768394%	Putnam	\$21,839,874	1.08398250%
Fayette	\$5,606,135	0.27825033%	Rhea	\$5,762,776	0.28602493%
Fentress	\$3,045,146	0.15114029%	Roane	\$12,376,719	0.61429600%
Franklin	\$8,525,906	0.42316788%	Robertson	\$15,006,267	0.74480880%
Gibson	\$12,778,075	0.63421657%	Rutherford	\$66,811,072	3.31604628%
Giles	\$8,280,176	0.41097148%	Scott	\$4,429,326	0.21984157%
Grainger	\$2,417,679	0.11999713%	Sequatchie	\$1,974,885	0.09801982%
Greene	\$16,676,528	0.82770921%	Sevier	\$37,694,173	1.87088187%
Grundy	\$2,148,521	0.10663792%	Shelby	\$428,857,843	21.28558051%
Hamblen	\$20,703,509	1.02758106%	Smith	\$4,163,296	0.20663764%
Hamilton	\$126,038,511	6.25569270%	Stewart	\$1,657,959	0.08228980%
Hancock	\$620,544	0.03079957%	Sullivan	\$53,774,057	2.66897771%
Hardeman	\$4,277,894	0.21232552%	Sumner	\$37,672,404	1.86980137%
Hardin	\$6,452,424	0.32025436%	Tipton	\$8,941,151	0.44377778%
Hawkins	\$10,472,980	0.51980735%	Trousdale	\$1,192,428	0.05918397%
Haywood	\$4,530,054	0.22484101%	Unicoi	\$3,533,408	0.17537427%
Henderson	\$6,613,838	0.32826583%	Union	\$1,648,488	0.08181969%
Henry	\$8,663,365	0.42999042%	Van Buren	\$505,025	0.02506600%
Hickman	\$3,246,981	0.16115801%	Warren	\$10,805,608	0.53631676%
Houston	\$1,191,303	0.05912816%	Washington	\$36,698,651	1.82147091%
Humphreys	\$4,472,898	0.22200417%	Wayne	\$2,122,375	0.10534024%
Jackson	\$1,590,141	0.07892374%	Weakley	\$7,529,068	0.37369162%
Jefferson	\$9,322,818	0.46272113%	White	\$4,499,022	0.22330080%
Johnson	\$2,038,856	0.10119494%	Williamson	\$75,082,683	3.72659265%
Knox	\$159,297,101	7.90642241%	Wilson	\$27,221,901	1.35110966%
Lake	\$841,068	0.04174489%	<b>Statewide</b>	<b>\$2,014,781,052</b>	<b>100.00000000%</b>

### TACIR's Prototype Sub-County Fiscal Capacity Model (138 School System)

Conceptually, TACIR has been working on the Sub-County Model for several years. The prototype TACIR Sub-County Fiscal Capacity Model is an adaptation of the current county area model. This adaptation essentially adds a second major step to the current methodology. (1)The first major step is to run the county area model. This step provides a fiscal capacity index for each county area in Tennessee. (2)The second step then takes each county with more than one LEA and determines the relative fiscal capacity of the LEAs within those counties.

By measuring variations in capacity within multi-system counties, the Sub-County Model more accurately estimates the fiscal capacity of the LEAs in those counties.

TACIR presented the draft prototype at its September 2001 meeting. TACIR is continuing to evaluate and refine the Sub-County Model with input from various education finance experts. A revised draft is expected to be released during Fiscal Year 2004.

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*Tennessee's Fiscal Capacity Model, FY 2004*