

Building Tennessee's Tomorrow:

Anticipating the State's Infrastructure Needs

July 2008 through June 2013

APPENDIX F: TACIR METHODOLOGY FOR ESTIMATED COSTS OF NEW SCHOOLS ATTRIBUTABLE TO THE EDUCATION IMPROVEMENT ACT

Because the descriptions for reported projects were insufficiently clear to allow staff to allocate costs any other way that could be considered accurate, TACIR staff developed a formula to estimate the proportion of the reported costs that could be attributed to the EIA's class-size mandates. Staff did this based on student counts provided by the Department of Education for 1991-92 and 2000-01. They applied the old and the new class-size standards to determine the number of new teachers required then and now under the old and the new standards (see the table below) and used that information to allocate costs between the EIA and growth.

**Class-size Requirements Before and After Passage
of the Education Improvement Act**

Class	Old Requirements*		New Requirements**	
	Without Waivers	With Waivers	School-wide Averages	Individual Class Maximums
Kindergarten through Grade Three	25	28	20	25
Grade Four	28	31	25	30
Grades Five and Six	30	33	25	30
Grades Seven through Twelve	35	39	30	35
Vocational	23	25	20	25

*Rules and Regulations, State of Tennessee, Chapter 0520, Rule 0520-1-3-.03(3). Ten percent waiver granted upon request. [<http://www.state.tn.us/sos/rules/0520/0520.htm>]

**Public Chapter 535, Section 37, Acts of 1992; codified at *Tennessee Code Annotated*, §49-1-104(a).

- Four figures were calculated for each school system, grade-level unit by grade-level unit, but not school by school:
 1. the minimum number of teachers necessary to meet the old class-size standard without waivers in school year 1991-92

2. the minimum number of teachers necessary to meet the new class-size averages in school year 1991-92
 3. the minimum number of teachers necessary to meet the old class-size standard without waivers in school year 2000-01
 4. the minimum number of teachers necessary to meet the new class-size averages in school year 2000-01
- Once those figures were calculated, the school systems were screened as follows:
 1. If the number of teachers needed to meet the EIA standard in 2000-01 was the same or less than the number necessary to meet the old standard in 1991-92, then none of the reported cost was attributed to the EIA. This was the case for 31 of the 138 school systems.
 2. Otherwise, if the number of teachers needed to meet the old standard in 2000-01 was less than the number necessary to meet the old standard in 1991-92, then all of the reported cost was attributed to the EIA. This was the case for five of the 138 school systems.
 3. Otherwise, the reported cost of new construction was allocated between growth and the EIA based on the proportion of additional teachers needed to meet the new standard in 2000-01 versus the number that would have been needed under the old standard.

Because staff did not have consistent information from all school systems to determine which, if any, new schools were replacing old schools and had no aspect of growth or EIA mandates, they did not attempt to exclude any reported costs from this formula. Less than ten percent of the reported costs were for new schools that had the word replace somewhere in their descriptions, and in many of those cases, growth and the EIA were specifically mentioned in relation to the size of the project.

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Glossary of Terms

Basic Education Program (BEP): The programs funded by the formula adopted as part of the Education Improvement Act of 1992 including, among other things, decreasing the number of students in each teacher's classroom. See also Education Improvement Act (EIA).

Business District Development: See Type of Project.

Canceled Stage: See Status/Stage of Project.

Community Development: See Type of Project.

Completed: See Status/Stage of Project.

Conceptual: See Status/Stage of Project.

Construction: See Status/Stage of Project.

Education Improvement Act (EIA): A law enacted by the General Assembly in 1992 that had the effect of, among other things, requiring additional teachers and therefore classroom space to be in place at the beginning of the 2001-2002 school year.

Estimated Cost: An approximate amount of money reasonably judged necessary to complete a project recorded in the Public Infrastructure Needs Inventory. Estimates must be in current dollars, not adjusted for future inflation. Cost estimates recorded in the inventory should not be limited by the ability of the reporting entity to pay them.

Existing K-12 Schools Inventory Form: The blank document to be completed for existing K-12 schools recorded in the Public Infrastructure Needs Inventory. The construction of new schools is to be reported on the General Survey Form.

Federal Mandate: Any rule, regulation, or law originating from the federal government that affects the cost of a project recorded in the Public Infrastructure Needs Inventory. See also Mandate.

Fire Protection: See Type of Project.

General Survey Form: The blank document to be completed for each project to be recorded in the Public Infrastructure Needs Inventory except existing K-12 schools [see Existing K-12 Schools Survey Form]. Types of projects for which these survey forms should be completed are listed and defined under Type of Project.

Housing: See Type of Project.

Industrial Sites & Parks: See Type of Project.

Infrastructure; Public Infrastructure: Capital facilities and land assets under public ownership, or operated or maintained for public benefit, including transportation, water and wastewater, industrial sites, municipal solid waste, recreation, low and moderate income housing, telecommunications, and other facilities or capital assets such as public buildings (e.g., courthouses; education facilities). Other examples include the basic network of public utilities and access facilities that support and promote land development; storm drainage systems; roads, streets and highways; railroads; gas and electric transmission lines; solid waste disposal sites and similar public facilities.

Infrastructure Need: An infrastructure project with a minimum capital cost of \$50,000 deemed necessary to enhance and encourage economic development, improve the quality of life of the citizens, and support livable communities. Infrastructure projects included in the inventory, including each component project in the survey of existing schools, must involve a capital cost of not less than fifty thousand dollars (\$50,000), with the exception of technology infrastructure projects in the survey of existing schools, which may be included regardless of cost. Projects considered normal or routine maintenance shall not be included in the inventory.

K-12 New School Construction: See Type of Project.

LEA System-wide Need: See Type of Project.

Law Enforcement: See Type of Project.

Libraries, Museums, & Historic Sites: See Type of Project.

Mandate; Federal/State Mandate: Any rule, regulation, or law originating from the federal or state government that affects the cost of a project recorded in the Public Infrastructure Needs Inventory. See also Mandate—cost of compliance.

Mandate—cost of compliance: The marginal cost attributable to the additional requirements imposed by a federal or state mandate. The expense that would not be incurred in the absence of the federal or state mandate.

Navigation: See Type of Project.

Non K-12 Education: See Type of Project.

Ownership: The entity [e.g., agency, organization or level of government] that will hold legal title to the capital facility or land asset upon completion of the project.

Other Facilities: See Type of Project.

Other Utilities: See Type of Project.

Planning and Design: See Status/Stage of Project.

Property Acquisition: See Type of Project.

Public Buildings: See Type of Project.

Public Health Facilities: See Type of Project.

Recreation: See Type of Project.

Routine Maintenance: Regular activities, including ordinary repairs or replacement unrelated to new construction, designed to preserve the condition or functionality of a capital facility or appurtenance to a capital facility, typically costing less than \$5,000 for each individual instance. Examples of routine maintenance include, but are not limited to, the replacement of air filters, light bulbs, moving parts subject to natural wear-and-tear, the replenishing of lubricating or combustible fluids, or the application of paints or other preservatives.

Solid Waste: See Type of Project.

State Mandate: Any rule, regulation, or law originating from state government that affects the cost of a project recorded in the Public Infrastructure Needs Inventory. See also Mandate.

Status/Stage of Project: The current phase of development for a project recorded in the Public Infrastructure Needs Inventory may be any one of the following:

- **Canceled:** terminated at any stage from conceptual through design or construction; eliminated from consideration for any reason other than completion; to be removed from the Public Infrastructure Needs Inventory.
- **Completed:** construction or acquisition is concluded and the capital facility or land asset is available to provide the intended public benefit.
- **Conceptual:** identified as an infrastructure need with an estimated cost, but not yet in the process of being planned or designed. See Infrastructure Need and Status/Stage of Project—Planning & Design.

- **Construction:** actual execution of a plan or design developed to complete or acquire a project identified as an infrastructure need. See Infrastructure Need and Status/Stage of Project—Planning & Design.
- **Planning and Design:** development of a set of specific drawings or activities necessary to complete a project identified as an infrastructure need. See Infrastructure Need and Status/Stage of Project—Construction.

Storm Water: See Type of Project.

Technology: See Type of Project.

Telecommunications: See Type of Project.

Transportation: See Type of Project.

Type of Project: Classifications that may be used for projects recorded on the General Survey Form of the Public Infrastructure Needs Inventory [subject to the definitions of Infrastructure and Infrastructure Need] include the following:

- **Business District Development:** Creation, acquisition, expansion, or enhancement of a local or regional area or facility designated for commercial enterprise or activity. [Distinguish “community” development.] Examples include, but are not limited to, parking facility improvements, business park development, and speculative building to attract businesses.
- **Community Development:** Creation, acquisition, expansion, renovation, or improvement of a local area or facility designated for the benefit of the residents of a specific locality bound together by a shared government or a common cultural or historical heritage. [Distinguish “business district” development.] Examples include, but are not limited to, establishing a community center, improvements to a tourist attraction, and building a welcome center. Residential sidewalks are no longer included in this category.
- **Fire Protection:** Capital facilities or assets developed or acquired to support publicly funded efforts to prevent, contain, extinguish or limit loss from the destructive burning of buildings, towns, forests, etc. Examples include, but are not limited to, fire hydrants, fire stations, and emergency alert systems. Tornado Sirens/Early Warning Systems/Storm Alarms etc. are included here.
- **Housing:** Capital or land assets developed or acquired to support publicly funded low- or moderate-income residential facilities or shelters. Examples include, but are not limited to, housing for the elderly, public housing redevelopment/ rehabilitation, modular public housing, public assisted living facilities, and low-income senior housing.
- **Industrial Sites & Parks:** Capital or land assets developed or acquired to support publicly funded areas for the location of trade or manufacturing enterprises. Examples include, but are not limited to, speculative industrial building and land acquisition for industrial development.

- **K-12 New School Construction:** The development or acquisition of a facility to house instructional programs for kindergarten through twelfth grade students and that has been or will be assigned a unique school identification number by the Tennessee Department of Education.
- **LEA System-wide Need:** Projects that are related to K-12 education, but do not meet the definition of K-12 School. Examples include, but are not limited to, the central office, maintenance and transportation facilities, buses and other vehicles provided the vehicle need meets the \$50,000 minimum.
- **Law Enforcement:** Capital facilities or land assets developed or acquired to support publicly funded efforts to compel obedience to prevent violation of statutes, ordinances, regulations or rules prescribed by governmental authority. Examples include, but are not limited to, jails and police stations, and 911 Systems and related projects.
- **Libraries, Museums, & Historic Sites:** Capital facilities or land assets developed or acquired to house publicly funded and accessible, catalogued collections of books, recordings; other reading, viewing or listening materials; works of art, scientific specimens, or other objects of permanent value. Restoring an historic site is included in this category.
- **Navigation:** Capital facilities or land assets developed or acquired to support publicly funded efforts to provide for or improve transportation by water. Examples include, but are not limited to, public boat docks, channel dredging, river bank reinforcement, and public ferryboats.
- **Non K-12 Education:** Capital facilities or land assets developed or acquired to support publicly funded instructional programs for post-secondary students. Examples include junior colleges, public colleges, public universities, or public adult continuing education.
- **Other Facilities:** Capital assets developed or acquired to support publicly funded programs or initiatives that do not meet the definition of any other type of project.
- **Other Utilities:** Capital facilities or land assets developed or acquired to support the provision of public services such as electricity or gas, but not including water or telecommunications [q.v.]. Examples include, but are not limited to, the installation of gas lines and electrical cables.
- **Property Acquisition:** The purchase of land assets to support publicly funded programs or initiatives that do not meet the definition of any other type of project.
- **Public Buildings:** Capital facilities developed or acquired to support publicly funded programs or initiatives that do not meet the definition of any other type of project. Examples include, but are not limited to, building or renovating a courthouse, city hall, post office, and public restrooms.
- **Public Health Facilities:** Capital facilities or land assets developed or acquired to support publicly funded health care services. Examples include, but are not limited to, public health offices, public clinics, public hospitals, and public ambulance stations when such stations are not housed in the same building as a fire department.
- **Recreation:** Capital facilities or land assets developed or acquired to support publicly funded efforts to provide for physical activity, exercise, pass-times, or amusements. Examples

include, but are not limited to, greenways, hiking trails, public swimming pools, parks, public marinas, ballparks, soccer fields, tennis courts, basketball courts, playgrounds, and a municipal auditorium.

- **Solid Waste:** Capital facilities or land assets developed or acquired to support publicly funded efforts to provide for the disposal or processing of any garbage, refuse, including, recyclable materials when they become discarded; sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility; and any other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and agricultural operations, and from community activities. Examples include, but are not limited to, recycling centers, transfer station, public landfills, public dumps, and green boxes.
- **Storm Water:** Capital facilities or land assets developed or acquired to support publicly funded efforts to collect, transport, pump, treat or dispose of runoff from rain, snow melt, surface runoff, wash waters related to street cleaning or maintenance, infiltration (other than infiltration contaminated by seepage from sanitary sewers or by other discharges) and drainage. Examples include, but are not limited to, drainage structures, conduits, sewers other than sanitary sewers, berms, catch basins and culverts, gutters and downspouts.
- **Technology:** Capital assets, including advanced or sophisticated devices such as electronics and computers, but not including telecommunications assets, developed or acquired for general public benefit.
- **Telecommunications:** Capital facilities or land assets developed or acquired to support the transmission, emission, or reception of impulses, including signs, signals, writing, images or sounds of any nature, by wire, radio, optical or other electric, electromagnetic or electronic system for public benefit.
- **Transportation:** Capital facilities or land assets developed or acquired to support the conveyance of people, goods, etc. for general public benefit. Examples include, but are not limited to, the construction and rebuilding of highways, roads, sidewalks, railroad tracks, rail spurs for industry, airports, and mass transit systems.
- **Water & Wastewater:** Capital facilities or land assets developed or acquired to support the treatment or distribution of potable water or the collection, treatment, or disposal of commercial and residential sewage or other liquid waste for general public benefit. Examples include, but are not limited to, constructing a water tower, pumping station, or water treatment plant.

Upgrade: A significant improvement or enhancement of the condition of existing infrastructure. For example a building might be in poor condition, but the addition of a new roof and the replacement of damaged drywall could bring the condition up to good. [Contrast Routine Maintenance.]