Reported Public School Facility Conditions and Needs[36]

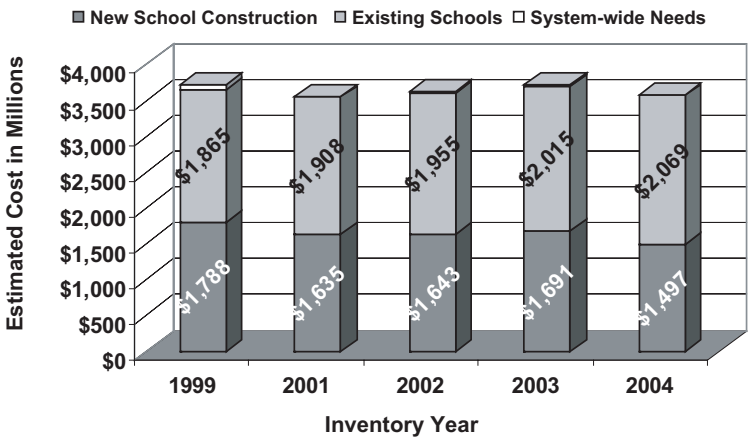
The overall condition of Tennessee's public school buildings continues to improve, and despite increased enrollment growth, the cost of school facility needs reported by local officials statewide is declining. Both the General Assembly, which substantially improved state funding for schools' capital needs with adoption of the Basic Education Program in 1992, and local officials are to be commended for this progress. However, the general improvement masks concerns in individual school systems, including rapid enrollment growth and continued reliance on portable classrooms.

School infrastructure improvements—including new schools and improvements or additions to existing schools—that need to be started or completed sometime during the five-year period of July 2004 through June 2009 are estimated to cost nearly $3.6 billion (see Table 18). This total is some $149 million less than the estimate in last year's report, a 4% decline, and $144 million less than the estimate reported in the 1999 inventory (see Figure 6). Although total new school construction costs appeared to decline $193 million, nearly two-thirds of the decrease resulted from correcting the double-reporting error by Shelby County of nearly $115 million of needs at existing schools.

Table 18. Reported Cost of Public School Infrastructure Needs by Type of Need
Five-year Period July 2004 through June 2009

Type of Need	Estimated Cost (in millions)	Percent of Total
New School Construction	**$ 1,497.2**	**41.8%**
EIA-related Needs	22.3	0.6%
Enrollment Growth & Other New School Needs	1,474.9	41.2%
Existing Schools	**$ 2,069.2**	**57.7%**
Facility Component Upgrades	1,266.4	35.3%
Technology	688.0	19.2%
EIA Mandate	46.9	1.3%
Federal Mandates	33.4	0.9%
Other State Mandates	34.4	1.0%
System-wide Needs	**$ 16.6**	**0.5%**
Statewide Total	**$ 3,583.0**	**100.0%**

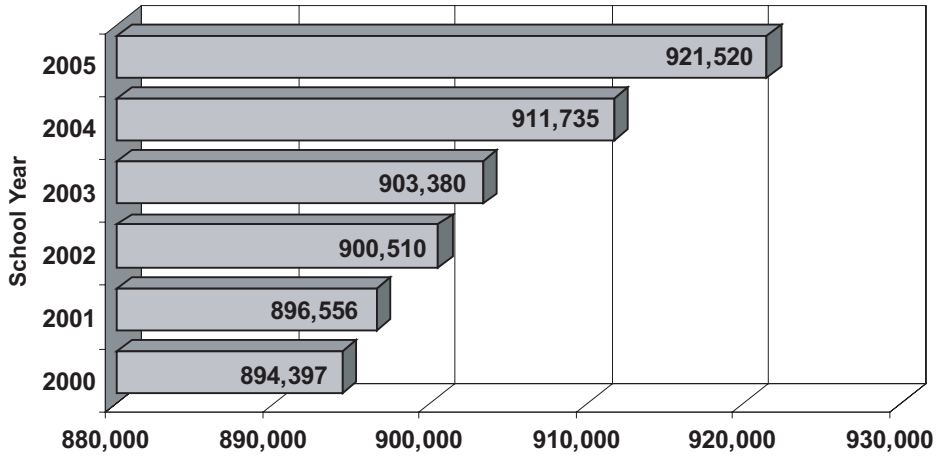
Figure 6. Reported Costs of School Infrastructure Needs by General Type of Need
1999 through 2004



[36] This section of the report covers only local public school systems. It does not include the state's special schools, and therefore, totals presented here will not match totals elsewhere in the report.

Enrollment Growth Now Appears to be the Biggest Factor Driving School Infrastructure Needs.

Figure 7. Number of Students in Public Schools
2000 through 2005



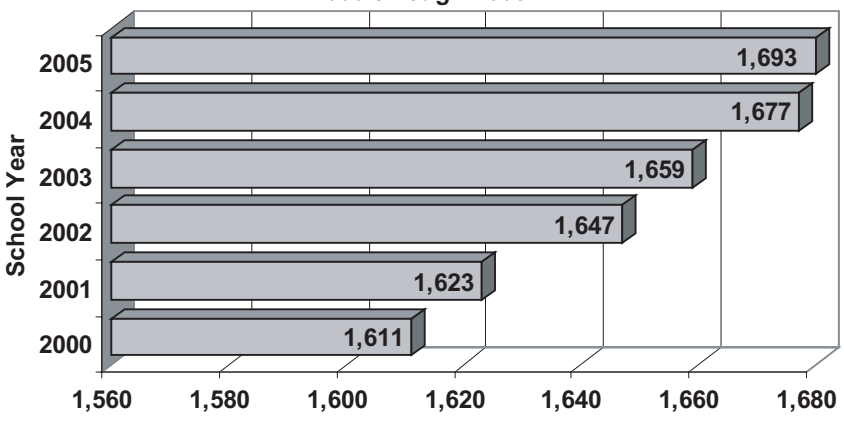
A major concern for some local officials is the cost of keeping up with rapid enrollment growth. Statewide enrollment growth has accelerated in the last few years. It was about one quarter of one percent five years ago, but reached nearly a full percentage point in 2004 (see Figure 7) and topped one percent in 2005. More than half of the increase over the last five years occurred in four school systems in Middle Tennessee:

- *Rutherford County (24%)*
- *Williamson County (17%)*
- *Montgomery County (9%)*
- *Sumner County (8%)*

These four school systems account for 38% of new school construction needs and 19% of total infrastructure needs reported for Tennessee's public schools. They also account for 24 of the 82 new schools built between 2000 and 2005. (Figure 8 shows the total number of schools statewide for each year of that period.)

The net increase of 82 schools does not reflect the number of replacement schools that were built during this period. With an average school size of roughly 550 students, the growth from 2000 to 2005 would require approximately 49 new schools. The actual increase is more than double that number, however, most likely because of the number of new classrooms needed to meet the lower EIA class-size mandate. The largest increase in the number of new schools occurred between 2001 and 2002, which was the year the class-size mandate of the Education Improvement Act went into effect.

Figure 8. Number of Public Schools
2000 through 2005



New School Building Needs Decline; Primary Reason for Need Shifts From EIA to Other Factors.

Despite the high needs reported for a few high-growth school systems, new school construction needs reported by local officials have been in an overall decline since TACIR's second infrastructure report. The primary reason for new school needs has shifted away from the EIA toward enrollment growth and other factors (see Figure 9).

Infrastructure needs driven by the EIA, including those at existing schools, were 36% of the total in 1997 when the Basic Education Program (BEP) formula established by the EIA was first fully funded. They peaked in 1999 at $1.6 billion (44% of the total for all public school infrastructure needs) and have since fallen to $69 million (1.9% of the total).[37] This seems reasonable given that the deadline for meeting the EIA's class-size reduction mandate was fall 2001.

Based on these figures, ***most of the current EIA-driven need has been met, and the estimated cost of meeting the continuing mandate is declining,*** both in total cost and as a percent of the grand total needed for all facility improvements. More than 80% of Tennessee's public school systems have no EIA-related needs, and all but two systems can meet their needs for less than $1,000 per student (see Table 19).[38]

Other needs for new schools are continuing to increase, but have been more than offset by the decline in EIA-driven needs so that the total need for new schools has declined.

Figure 9. Estimated Cost of Needed New Schools
1997 through 2004

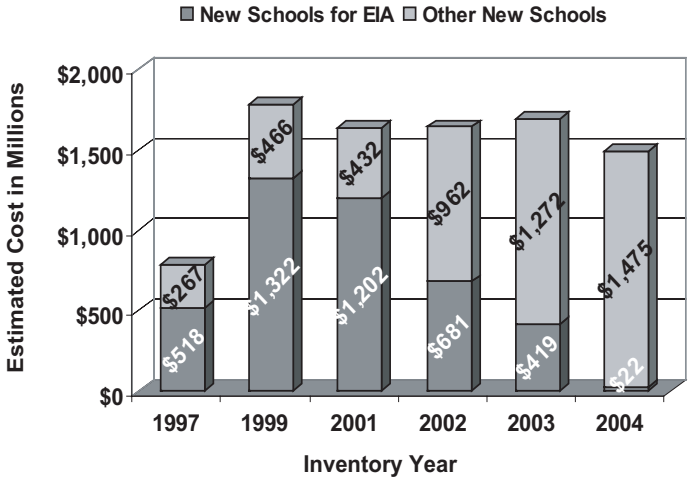


Table 19. Number of School Systems by Range of EIA-Related Infrastructure Costs per Student
Five-year Period July 2004 through June 2009

Reported EIA Cost per Student	Number of School Systems	Percent of School Systems
None	110	81.5%
Less than $1000	23	17.0%
$1000 to $2000	1	0.7%
$2000 to $3000	0	0.0%
$3000 to $4000	1	0.7%
More than $4000	0	0.0%
Total	**135***	**100.0%**

** There are 136 public school systems in Tennessee. The Carroll County system was removed from all statistical analyses because it does not serve elementary school students and therefore is not comparable to the other 135 systems.*

[37] TACIR staff analyzed patterns of growth in student counts to develop estimates of the percentage of new school construction attributable to the lower class sizes required by the Education Improvement Act of 1992 rather than to enrollment growth. For a description of the TACIR methodology, see Appendix F.
[38] Appendix E includes the cost per student for each school system.

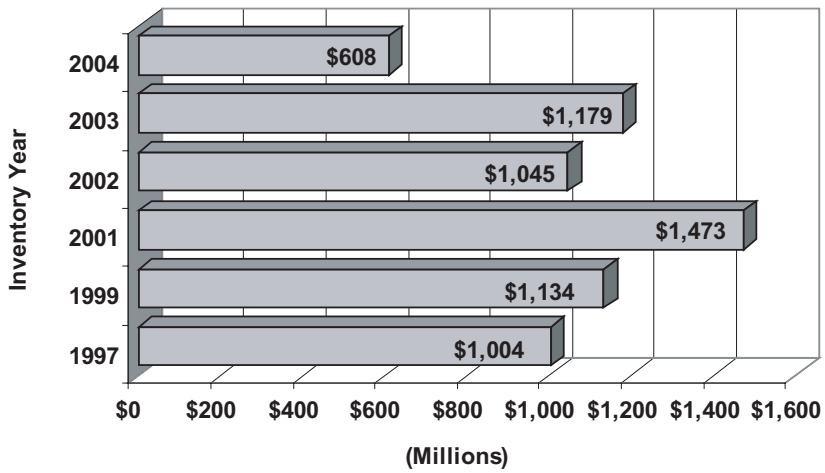
Most of Tennessee's Public Schools Are in Good or Excellent Condition, but Substantial Upgrade Needs Remain.

Figure 10. Overall Condition of Public School Buildings
1997 through 2004

According to local officials, around 91% of their schools are in good or better condition—a slight improvement over the past two inventories, but considerably better than the 59% reported in 1999. Estimated costs to upgrade all facilities at existing schools to good or better condition peaked in the 2001 inventory at almost $1.5 billion (41% of the total) and now stand at $608 million (17% of the total) in the current inventory (see Figures 10 and 11).

Defining what constitutes a high-quality learning environment is both subjective and difficult. The rating scale used in this inventory is carefully defined, but rating individual schools and school components is left to the judgment of local officials.[39] While the ideal standard is a qualitative rating of "excellent," as a practical matter, the inventory captures the cost of getting schools into "good" condition—both overall and for each facility component. Schools in good or even excellent condition overall can have individual classrooms, libraries or other components that are in need of upgrading or replacement. Upgrade needs reported in the inventory include estimated costs to put individual components as well as entire schools in good condition.

Figure 11. Estimated Cost to Upgrade all Facilities Mandates at Existing Schools to Good or Better Condition
1997 through 2004



As shown in Table 20, the vast majority of Tennessee's public school systems rate the condition of three-fourths or more of their buildings good or excellent. Six more systems than last year fall into this category. Even schools in overall excellent condition may have individual components in less than good condition. The cost per student to upgrade all components to good condition at all schools is slightly higher than the previous inventory is. Last year this figure was $1,305 per student, compared with $1,374 per student, a 5.3% increase.

[39] See the Existing School Facility Needs Inventory Form, Section B-9, in Appendix C for more specific information about the facility rating scale.

One system, Richard City Special School District, rated its only school building less than good overall. The system estimates that it will need more than $12.2 million to put its school in good condition, an amount equivalent to nearly $37 thousand per student, which is a surprisingly large figure compared to the statewide average of $1,374 per student. The cost per student may be high because, at least in part, of its relatively small student body. The school building is not slated for complete replacement. The other two systems that consider less than half of their schools to be in good or excellent condition are Grundy County and Knox County.

Table 20. Cost per Student to Put All School Building Components in Good Condition by Percent of Schools Currently in Good or Excellent Condition
Five-year Period July 2004 through June 2009

Percent of Schools In Good or Excellent Condition	Number of School Systems	Percent of School Systems	Cost Per Student to Put All School Components in Good Condition
None	1	0.7%	$36,758
Less than 25%	0	0.0%	$0
25% to 50%	2	1.5%	$2,161
50% to 75%	7	5.1%	$4,230
75% to 100%	32	23.5%	$1,351
100%	94	69.1%	$1,366
Total	**136**	**100.0%**	**$1,374**

Two-thirds of Tennessee's public school systems and about one-third of its 1,693 schools have portable or temporary classrooms. Nine school systems have more than 10% of their classes in portables (see Table 21). Three of those systems have more than 15% of their classes in portable classrooms: Fayette County (23%), Bradford Special School District (17%), and Clay County (15%). Of the nine school systems with more than 10% of classrooms in portables, only Jefferson County (9% enrollment growth) grew faster than the four high-growth systems discussed on page 30. Of those four systems, Rutherford County has the highest percentage of classes in portables (7%). Portable classrooms are not necessarily inferior to permanent classrooms; in fact, the opposite is sometimes true. One reason portables are sometimes used is to replace substandard permanent classrooms.

Table 21. Number of School Systems by Range of Percent of Portable Classrooms
Five-year Period July 2004 through June 2009

Percentage of Portable Classrooms	Number of Schools Systems	Percent of School Systems
None	45	33.3%
Less than 5%	64	47.4%
5% to 10%	17	12.6%
10% to 15%	6	4.4%
More than 15%	3	2.2%
Total	**135***	**100.0%**

** There are 136 public school systems in Tennessee. The Carroll County system was removed from all statistical analyses because it does not serve elementary school students and therefore is not comparable to the other 135 systems.*

Mandate Costs Continue to Decline; EIA Still Dominates What Has Become a Very Small Category of Need.

The estimated cost of meeting all facilities mandates at existing schools has declined in each inventory since 1999 and now totals $137 million–less than a tenth of the cost reported for 1999 (Figure 12 and Table 22). The reported cost of mandates, including the cost of classrooms to meet the EIA requirement for smaller classes, comprised 49% of total infrastructure needs for public schools in the 1999 inventory, but accounts for only 3.8% of the current inventory of school building needs (see Table 18). The only type of mandate cost that has increased is fire safety codes.

The bulk of the decline has been in EIA-driven needs; however, other mandate needs have declined as well. Most notably, federal mandates for asbestos containment or removal and the Americans with Disabilities Act had a combined total of $191 million in the 1999 inventory; the cost reported in the current inventory is $33 million. Despite this large decline, these two mandates alone now make up nearly the entire federal mandate total.

Table 22. Total Reported Cost of Facilities Mandates at Public Schools
Five-year Period July 2004 through June 2009

Mandates	Mandate Cost [in millions]	Percent of Total Mandate Cost
State-Mandate Total	**$ 103.6**	**75.6%**
State-EIA (New & Existing Schools)	69.2	50.5%
State-Fire Codes	34.4	25.1%
Federal Mandate Total	**$ 33.4**	**24.4%**
Asbestos	14.0	10.2%
Americans with Disabilities Act	19.4	14.1%
Underground Storage Tanks	0.1	0.0%
Lead	0.0	0.0%
Mandate Total	**$ 137.1**	**100.0%**

* There are 136 public school systems in Tennessee. The Carroll County system was removed from all statistical analyses because it does not serve elementary school students and therefore is not comparable to the other 135 systems.

Figure 12. Estimated Costs of EIA Needs for New and Existing Public Schools
1999 through 2004

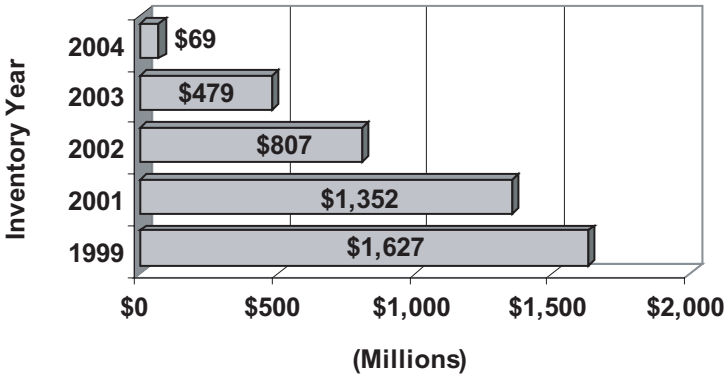
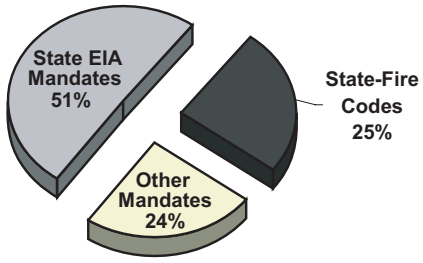


Figure 13. Reported Cost of EIA Mandate as a Percent of All Facilities Mandates at Public Schools
Five-year Period July 2004 through June 2009



The estimated cost of improvements needed to meet state fire codes has continually increased since the 1999 inventory. These needs do not include the cost of meeting fire codes for new schools, which are not separated out of the total cost of these schools. The estimated cost to meet codes at existing schools rose substantially from $9.3 million in 1999 (0.5% of total mandate costs reported that year) to $34.4 million (25% of the total for mandates) in the current inventory (see Figure 13). Some of this increase is attributable to improved reporting, but it is also a substantial increase over the cost reported in the last inventory ($20.5 million).

Far More School Systems Report no Technology Needs, but Total Technology Infrastructure Needs Remain More Than Triple Earlier Inventories.

The total need for new technology infrastructure more than doubled between the 2001 and the 2002 inventories, yet it changed little in prior inventory years and has changed little since (see Figure 14). All of that dramatic increase is attributable to a new technology initiative in the Memphis school system, an initiative estimated to cost $590 million. In fact, aside from Memphis, technology needs are declining. The decline may indicate that technology has gone from being a new type of need with initial, large investments in the mid-1990s to being a less costly, but recurring need.

Figure 14. Estimated Cost of Technology Infrastructure Needs at Existing Public Schools
1997 through 2004

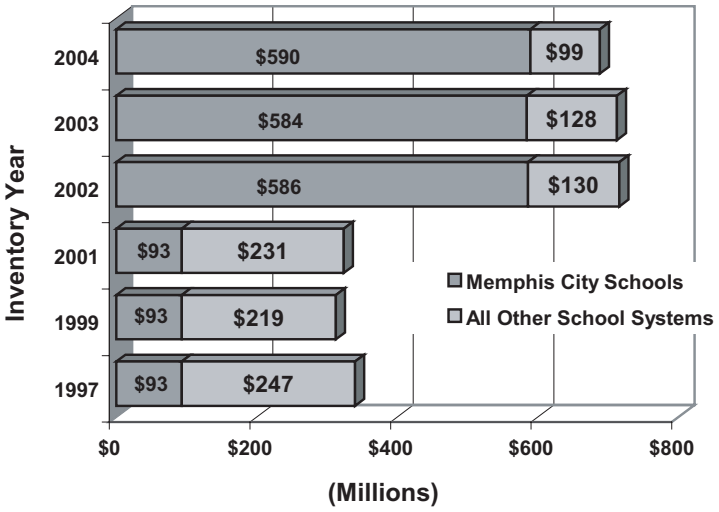


Table 23. Number of School Systems by Range of Technology Infrastructure Costs per Student
Five-year Period July 2004 through June 2009

Technology Cost per Student	Number of School Systems	Percent of School Systems
None	45	33.3%
Less than $100	52	38.5%
$100 to $200	20	14.8%
$200 to $300	6	4.4%
$300 to $400	4	3.0%
More than $400	8	5.9%
Total	**135***	**100.0%**

*There are 136 public school systems in Tennessee. The Carroll County system was removed from all statistical analyses because it does not serve elementary school students and therefore is not comparable to the other 135 systems.

Forty-five systems now report no need to upgrade technology in their schools, which is ten more than in the previous inventory. Only 38 systems now need more than $100 per student to meet their technology infrastructure needs, which is eleven less than in the previous inventory. (See Table 23.) The number of school systems declined in all cost brackets from the previous inventory. But four systems, Memphis, Oak Ridge, Richard City, and Scott County all have technology infrastructure needs that exceed $1,000 per student.

Total Capital Outlays by Public School Systems Have Declined for the Third Year in a Row.

Based on reports filed with the Department of Education, capital outlays by public school systems in Tennessee exceeded $740 million in fiscal year 2001, but began to decline the following year (see Figure 15). Again, this reflects construction necessary to build the classrooms for the smaller classes required by the EIA. These reports understate total capital outlays for schools to the extent that they do not include spending by cities and counties accounted for outside of their school funds.

But challenges remain. Some high-growth school systems continue to struggle with escalating enrollments, and several continue to house a considerable number of their classrooms in portable buildings. As shown in Table 18, total school infrastructure needs top $3 billion. Some of this need will be met, and some will not, but the effort continues.

"School buildings are perhaps the most visible expression of society's investment in K-12 education."

School Capital Funding: Tennessee in a National Context, John G. Morgan, Comptroller of the Treasury

Figure 15. Capital Outlays by Public School Systems
2000 through 2005