

Building Tennessee's Tomorrow: Anticipating the State's Infrastructure Needs

July 2013 through June 2018

EXECUTIVE SUMMARY

This report is the thirteenth in a series on infrastructure that began in the late 1990s. These reports to the General Assembly present Tennessee's public infrastructure needs as reported by local officials, those compiled by the Tennessee Department of Transportation, and those submitted by other state departments and agencies as part of their budget requests to the Governor. This report provides two types of information collected during fiscal year 2013-14 and covering the five-year period of July 2013 through June 2018: (1) needed infrastructure improvements and (2) the condition of existing public schools. Needs fall into six broad categories. See table 1.

Table 1. Summary of Reported Infrastructure Improvement Needs
Five-year Period July 2013 through June 2018

Category	Five-year Reported Estimated Cost	
Transportation and Utilities	\$ 25,900,438,008	61.2%
Education	8,494,829,132	20.1%
Health, Safety, and Welfare	4,993,531,862	11.8%
Recreation and Culture	1,690,538,664	4.0%
General Government	720,592,385	1.7%
Economic Development	508,443,614	1.2%
Grand Total	\$ 42,308,373,665	100.0%

A number of conclusions may be drawn from the information compiled in the inventory:

- The total estimated cost of public infrastructure improvements that need to be started or completed in fiscal years 2013 through 2018 is estimated at \$42.3 billion. This total is \$4.2 billion more than the estimate in last year's inventory, an increase of 10.9%. See table 2.
- Estimated costs increased \$4.2 billion (10.9%) in the 2013 inventory mainly because a change in the inventory process added 4,598 bridge projects (\$3.7 billion). In the past, some Tennessee Department of Transportation

The Tennessee General Assembly charged the Tennessee Advisory Commission on Intergovernmental Relations (TACIR) with developing and maintaining an inventory of infrastructure needs "in order for the state, municipal, and county governments of Tennessee to develop goals, strategies, and programs that would

- improve the quality of life of its citizens,
- support livable communities, and
- enhance and encourage the overall economic development of the state."

[Public Chapter 817 Acts of 1996]

(TDOT) bridge projects were not included in the inventory as immediate needs if surveyors believed they were not likely to be repaired or replaced during the five years covered by the inventory. Beginning with this inventory, all bridges rated insufficient by a state inspector and have an identified remedy and associated cost estimate are reported as a need, no matter how long it is expected to take to obtain funding for the work. Without those additional bridge projects, the total cost would have only increased \$438 million (1.2%).

Table 2. Comparison of Estimated Cost of Infrastructure Improvement Needs
July 2012 Inventory vs. July 2013 Inventory

Category	Reported Cost		Difference	Percent Change
	July 2012 through June 2017	July 2013 through June 2018		
Transportation and Utilities	\$21,689,943,786	\$ 25,900,438,008	\$4,210,494,222	19.4%
Education	7,526,218,947	8,494,829,132	968,610,185	12.9%
Health, Safety, and Welfare	5,549,929,028	4,993,531,862	(556,397,166)	-10.0%
Recreation and Culture	1,586,741,784	1,690,538,664	103,796,880	6.5%
General Government	551,764,689	720,592,385	168,827,696	30.6%
Economic Development	1,235,555,051	508,443,614	(727,111,437)	-58.8%
Grand Total	\$38,140,153,285	\$42,308,373,665	\$4,168,220,380	10.9%

- The Transportation and Utilities category is and always has been the single largest category in the inventory. Transportation and Utilities increased over \$4.2 billion (19.4%) from last year to \$25.9 billion. Comprising 61% of estimated costs for all infrastructure improvements, transportation alone dwarfs all other types of infrastructure needs and continues an upward trend with an increase of \$4.2 billion (19.6%), the largest cost increase of any type of infrastructure, mainly because of the addition of \$3.7 billion in bridge replacement and remediation projects.
- Education is the second largest category and increased \$969 million (12.9%) to \$8.5 billion, mainly because of a \$654 million (16.7%) increase in the cost of improvements needed at the state’s public college and university campuses, which now stands at \$4.6 billion. The estimated cost for improving the state’s public school buildings has remained flat overall since 2007 but increased \$290 million (8.1%) to \$3.8 billion this year, mainly because new needs for schools and additions as well as for renovations to existing space increased this year. Asked about the overall condition of their school buildings, public school officials reported that 96% are in good or better condition.
- Health, Safety, and Welfare, the third largest category in the inventory, decreased by \$556 million (10%) to \$5 billion. This decline resulted primarily from decreases in the need for

improved law enforcement and water and wastewater infrastructure. Water and wastewater accounts for the largest portion of the Health, Safety, and Welfare category at \$3.4 billion; it decreased by \$217 million (6%) from last year. The estimated cost for law enforcement needs decreased \$374 million (29.3%) to \$901 million. Three other types of infrastructure in this category also had a net decrease in total cost: housing, storm water, and solid waste. The estimated cost of infrastructure improvements needed for public health and fire protection facilities increased \$43 million (13.7%) to \$353 million and \$5 million (2.9%) to \$175 million respectively.

- The Recreation and Culture category increased overall by \$104 million (6.5%) to \$1.7 billion, because increases in recreation and libraries, museums, and historic sites balance a decrease in community development. The estimated cost of improvements for libraries, museums, and historic sites increased \$66 million (21.6%) to \$370 million mainly because the estimated cost of the state library and archives building in Davidson County increased from \$2 million to \$89 million.
- General Government infrastructure improvements increased \$169 million (30.6%) to \$721 million. This category includes only two types of infrastructure: public buildings and other facilities. The estimated cost of public building improvements increased \$143 million (32.6%) and the need for other facilities such as storage and maintenance facilities was up \$25 million (22.7%) to \$138 million.
- The combined estimated cost of both types of infrastructure in the Economic Development category—the smallest inventory category this year—decreased \$727 million (58.8%) since the last inventory and now totals \$508 million. The cost of business district development decreased \$706 million (71.9%) to \$276 million mainly because Nashville completed its Music City Convention Center at a cost of \$624 million. The cost of industrial sites and parks decreased \$21 million (8.3%) to \$233 million largely because of two canceled projects.
- Local officials are confident in obtaining funding for only \$12.0 billion of the \$34.0 billion identified as local needs. Most of that amount, \$11.1 billion, is fully funded; \$852 million is for needs that are partially funded. That leaves another \$22.0 billion of needs for which funding is not yet available. These figures do not include improvements for which funding information is not collected, which includes existing schools or those in state agencies' capital budget requests.
- The government that owns infrastructure typically funds the bulk of its cost and with a variety of revenue sources. For example, utility districts have user fees and so do a few cities and counties. Cities and counties raise the lion's share of their funds by collecting property and sales tax. The state collects taxes as well and appropriates those funds to their own projects and provides grants to the local level via programs at various agencies. The federal government owns very few infrastructure needs in the inventory, but they do provide a significant level of funding. Of the infrastructure that was needed in 2008 and completed by

2013, 46% is owned by the state, 31% by counties, and 18% by cities. Special districts own 4%, and the remaining 2% is jointly owned.

- Public infrastructure needs and the ability to meet them vary across the state. To understand the variation in county-level infrastructure needs and local governments' ability to meet them, TACIR staff looked at infrastructure needs relative to total population, population gain, and financial resources, including local revenue sources and personal income as a measure of residents' ability to pay taxes. In general, the more people a county has or adds the more infrastructure it will need and the more wealth it will likely have to pay for those needs. The relationships among these factors are strong and well demonstrated by the variation reported for each Tennessee county, but they are not perfectly aligned in any county. Some counties are able to meet their infrastructure needs more easily than others, while others continue to report the same needs year after year. And even fast growing counties can find it difficult to meet their needs.

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