



**TDOT**

Department of  
Transportation

# TDOT Statewide Customer Survey Executive Summary

*...helping organizations make better decisions since 1982*

**Submitted by:**

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# Tennessee Department of Transportation Customer Survey 2016

## Overview and Methodology

During the summer and fall of 2016, The Tennessee Department of Transportation (TDOT) conducted four surveys: (1) a survey of elected officials, (2) a survey of partners, (3) a survey of residents, and (4) a benchmarking survey of residents who live in the eight states that border Tennessee and in the six high-performing states selected by TDOT for additional comparative data. This was TDOT's third comprehensive customer survey; the previous surveys were conducted in 2013 and 2006. The purpose of the surveys was to help TDOT identify and prioritize the transportation services and improvements that are most important to Tennesseans and to assess overall performance. Survey results will be used to identify ways the agency can improve transportation services across the state, provide input into transportation system investments for the future, and assess changes in customer expectations and priorities from 2013.

**Interpretation of Charts and Graphs.** The percentage of "don't know" responses has been excluded from many of the graphs in this report to assess satisfaction with residents who had used TDOT services and to facilitate valid comparisons with other communities in benchmarking analysis. Since the number of "don't know" responses often reflect the utilization and awareness of TDOT services, the percentage of "don't know" responses has been included in the tabular data in Section 4 of this report. When the "don't know" responses have been excluded, the text of this report will indicate that the responses have been excluded with the phrase *"who had an opinion."* Percentage totals in the charts and graphs in this report may not add up to 100% due to rounding.

### This report contains the following:

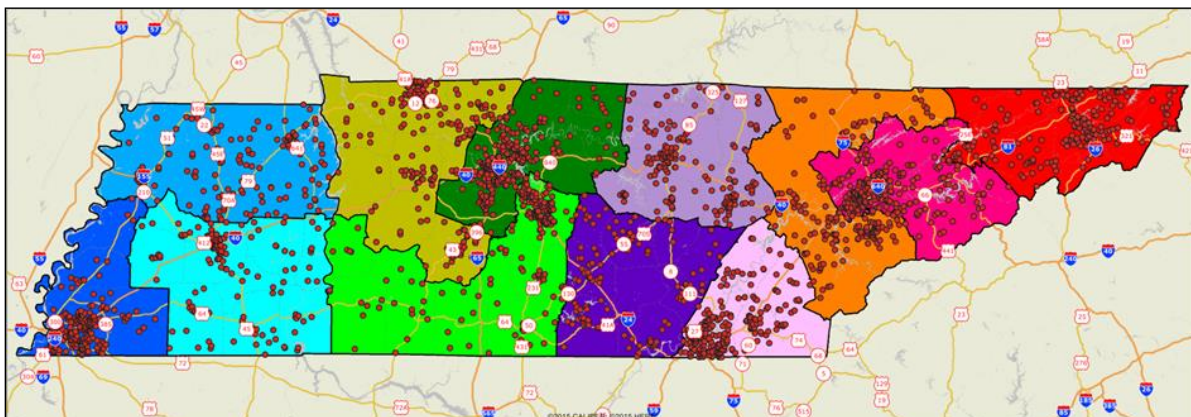
- a summary of the methodology for administering the survey and major findings
- charts showing the overall results of the survey (Section 1)
- Importance-Satisfaction analysis that identifies priorities for investment (Section 2)
- benchmarking analysis comparing TDOT results to the results of the eight states that border Tennessee and high-performing states from around the country (Section 3)
- tabular data showing the overall results for all questions on the survey (Section 4)
- a copy of the cover letter and survey instrument (Section 5)
- seven appendices were also created to supplement this main report
  - Appendix A: GIS Maps
  - Appendix B: Cross-tabular data by geography
  - Appendix C: Cross-tabular data by region
  - Appendix D: Cross-tabular data by gender and employment status
  - Appendix E: Cross-tabular data by number of years lived in Tennessee and household income
  - Appendix F: Cross-tabular data by race/ethnicity and primary language spoken

- Appendix G: Cross-tabular data by number of vehicles in the household and number of miles driven per week

**Survey of Elected Officials:** The survey of elected officials was designed to obtain input from elected officials including city and county mayors and state legislators. The survey was administered by a combination of mail, phone, and the Internet. The goal was to obtain a total of 300 completed surveys. The actual number of completed surveys was 309 with a response rate of 57% (309 of 542 responded). The overall results of the statewide sample have a precision of at least  $\pm 3.7\%$  at the 95% level of confidence.

**Survey of Partners:** The survey of partners was designed to obtain input from non-elected representatives of organizations that “partner” with TDOT, including: city government staff, county government staff, Rural Planning Organization (RPO) staff, Metropolitan Planning Organization (MPO) staff, chamber officials, transit agency representatives and rail, freight, and airport officials. The survey was administered by a combination of mail, phone, and the Internet. The goal was to obtain a total of 300 completed surveys. The actual number of completed surveys was 309 with a response rate of 35% (309 of 882 responded). The overall results of the partner sample have a precision of at least  $\pm 5.6\%$  at the 95% level of confidence.

**Survey of Residents:** A seven-page survey was mailed to a random sample of households throughout the state of Tennessee. The mailed survey included a postage-paid return envelope and a cover letter. The cover letter explained the purpose of the survey, encouraged residents to return their surveys in the mail, and provided a link to an online survey for those that preferred to fill out the survey online. Approximately 10 days after the surveys were mailed, residents who received the survey were contacted by phone. Those who indicated that they had not returned the survey by mail or completed it online were given the option of completing it by phone. The survey was administered throughout the summer of 2016 to a random sample of 2,436 residents. The results for the random sample of 2,436 households have a 95% level of confidence with a precision of at least  $\pm 2\%$ . To better understand how well TDOT services are being delivered in specific areas of the state, ETC Institute geocoded the home address of respondents to the survey. The map below shows the location of respondents per TDOT Construction/Maintenance Super Districts.



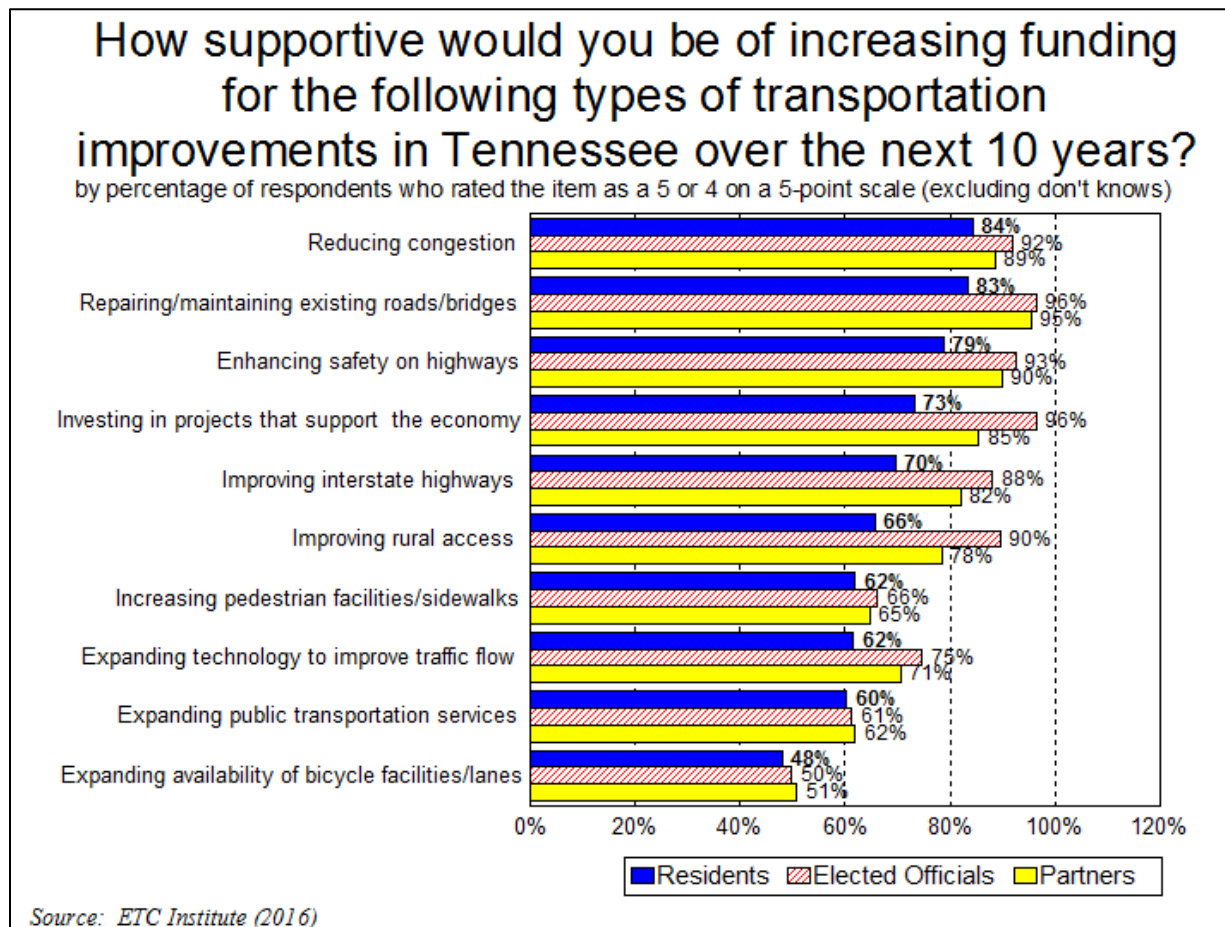
**Benchmarking Survey:** In addition to the surveys that were administered to residents, partners and elected officials, ETC Institute administered two benchmarking surveys to a random sample of residents in the eight states that border Tennessee and six high-performing states throughout the country. Surveys were administered to residents in each of the following states: Alabama, Mississippi, Georgia, North Carolina, Missouri, Arkansas, Kentucky, Virginia, Florida, Indiana, Iowa, Minnesota, Texas, and Washington. The purpose of the survey was to have residents in other states rate the quality of transportation services in *the state where they live* to assess whether the quality of service provided by TDOT was better, worse, or about the same as other Departments of Transportation. ETC Institute collected a total of 255 completed surveys from residents of the eight states that border Tennessee. The overall results of the benchmarking survey of bordering states have a precision of at least +/- 6.1% at the 95% level of confidence. A total of 294 completed surveys were collected from residents of six high-performing states. The overall results of the benchmarking survey of high-performing states have a precision of at least +/- 5.7% at the 95% level of confidence.

## Major Findings

**Perceptions of Travel on Highways in Tennessee:** All 10 statements related to the perceptions of travel on highways in Tennessee that were comparable to the 2013 survey saw decreases in overall agreement in 2016. The overall feeling of safety while traveling on Tennessee highways decreased 7% among residents, from 83% in 2013 to 76% in 2016. The feeling of safety while driving through work zones on Tennessee highways during the day saw a 5% decrease, from 76% in 2013 to 71% in 2016. The most dramatic decrease (18%) in overall agreement was with the statement regarding the overall level of traffic congestion on Interstate highways, 61% in 2013 to 43% in 2016. Overall, residents indicated they do not feel as safe on Tennessee highways as they did three years ago. Residents also appear to be less satisfied with the way construction and maintenance on Tennessee highways is being handled. This is evident in the decrease in agreement with statements regarding the visibility of pavement markings, the ease of following lane shifts in work zones, the job TDOT does in communicating construction activities, and the ability of TDOT to minimize delays due to construction and maintenance.

Although TDOT saw an overall decrease in agreement among statements regarding perceptions of travel on highways, responses were very similar to those from the benchmarking surveys. When comparing TDOT's results to high-performing states, Tennesseans indicated higher levels of agreement with nine of the 14 statements related to perceptions of travel on highways. Because of the similarity among surrounding and high-performing states, TDOT leaders should be assured the overall decreases in agreement are not an immediate indication of poor performance by the organization. TDOT saw a spike in agreement with statements regarding perceptions of travel on highways between the 2006 and 2013 surveys, which is a good sign; this is an indication that Tennesseans have high standards for TDOT. The overall decreases in agreement are likely a symptom of the high performance residents expect in Tennessee. TDOT officials should continue to emphasize safety and traffic management on state highways.

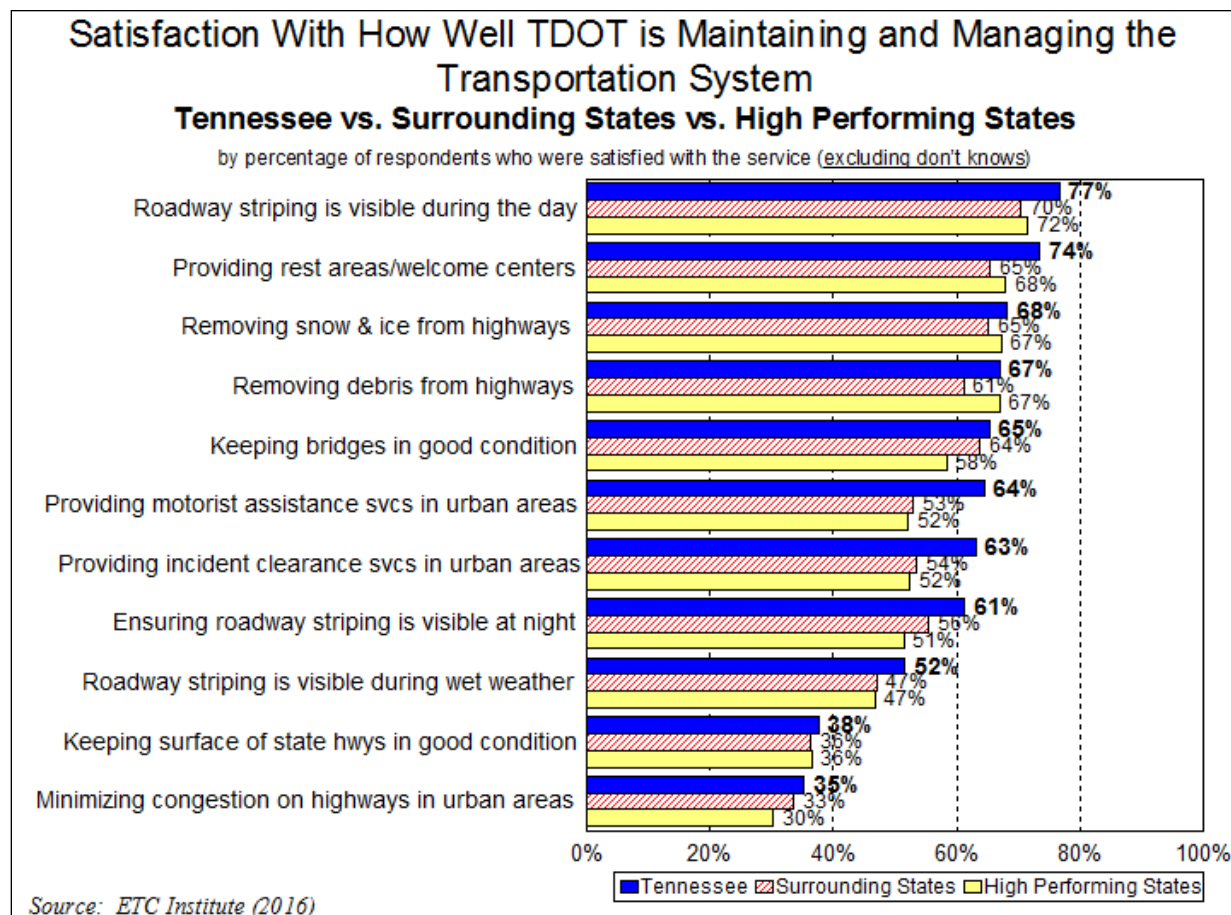
**Support for Transportation Investments in Tennessee.** More than 70% of the residents, elected officials, and partners surveyed supported the following types of transportation investments: (1) projects that reduce congestion on highways, (2) repairs/maintenance of existing roads/bridges, (3) safety enhancements on highways, and (4) projects that support the economy. The chart below shows the level of support among residents, partners, and elected officials for each of the types of transportation improvements that were assessed.



**Satisfaction with the Maintenance and Management of the Transportation System:** TDOT is performing significantly better than surrounding states and states with high-performing DOTs despite the decrease in overall satisfaction since 2013. Based on the results of the 2016 survey, residents in Tennessee were generally satisfied with how well TDOT is maintaining and managing the transportation system in the state. The services that had the highest levels of satisfaction, based upon the combined percentage of “very satisfied” and “satisfied” responses among residents *who had an opinion*, were: ensuring that informational and warning signs along highways are easy to understand (83%), ensuring that information and warning signs are easy to see (79%), and ensuring roadway striping on highways is visible during the day (77%). The services that had the lowest levels of satisfaction, based upon the combined percentage of “very satisfied” and “satisfied” responses among residents *who had an opinion*, were: minimizing congestion on highways in urban areas (35%), providing options



for alternative modes of transportation along highways, such as bicycle lanes, pedestrian facilities, and public transportation services (37%), and keeping the surface of other state highways in good condition (smooth and free of potholes) (37%). Residents in surrounding and high-performing states were less satisfied with the minimization of congestion on highways in urban areas than those who live in Tennessee. Traffic and congestion on highways is a major contributor to overall satisfaction rates. TDOT scored the same as or above surrounding DOTs in 15 of the 22 maintenance and management services that were rated, and scored the same as or above high-performing DOTs in 14 of the 22 services rated. The table below highlights the 11 maintenance and management services where Tennessee received higher satisfaction ratings than both surrounding and high-performing states.



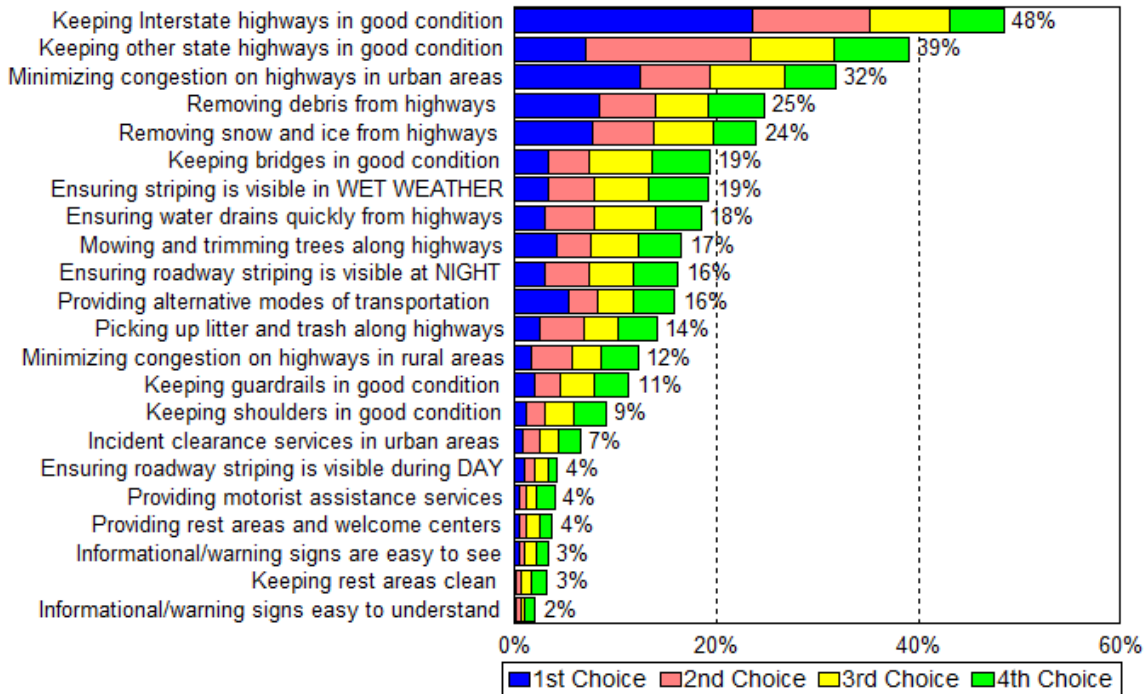
#### Areas of Emphasis Regarding Managing and Maintaining the State's Transportation System:

The four management and maintenance services that showed the most significant decreases in satisfaction ratings from 2013 to 2016 were also among the top five services that residents think should receive the most emphasis from TDOT over the next two years (see chart on the following page). The four items that saw the most significant decreases in satisfaction, based upon the combined percentage of "very satisfied" and "satisfied responses" among residents *who had an opinion*, were: keeping the surface of Interstate highways in good condition

(smooth and free of potholes) (-16%), keeping the surface of other state highways in good condition (smooth and free of potholes) (-16%), removing snow and ice from highways (-11%), and minimizing congestion on highways in urban areas (-11%).

## Q2. Transportation Maintenance/Management Services That Should Receive the Most Emphasis Over the Next Two Years

by percentage of respondents who selected the item as one of their top four choices



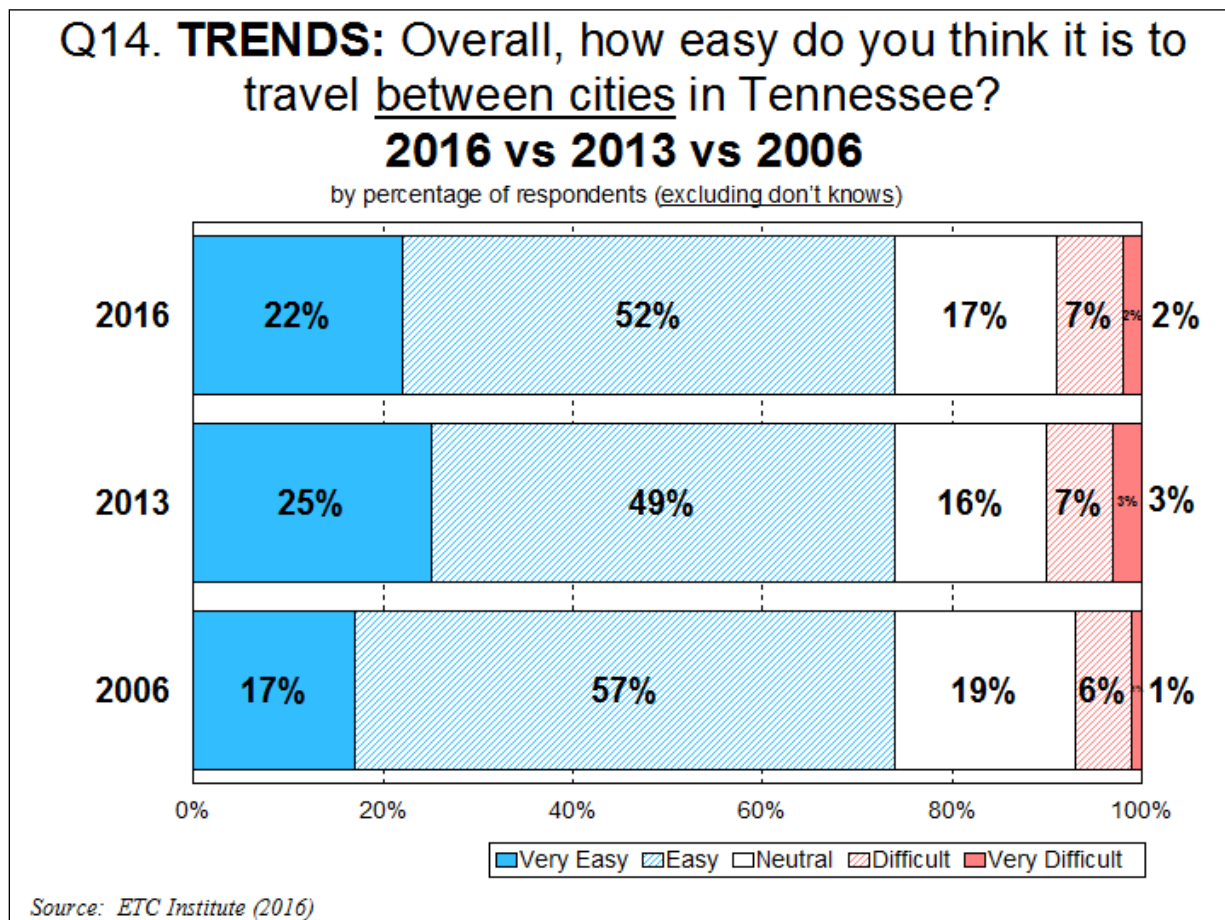
Source: ETC Institute (2016) - TDOT RESIDENT SURVEY

Tennessee is setting the standard for the maintenance of Interstate and other state highways compared to surrounding and high-performing states. Based upon the combined percentage of “very satisfied” and “satisfied” responses, 67% of respondents were satisfied with TDOT’s efforts to maintain Interstate highways and 56% of respondents were satisfied with TDOT’s efforts to maintain state highways other than interstates during the past two years. Both of these numbers are notably higher than the results from the two benchmarking surveys. The table below shows the results for surrounding and high-performing states that were surveyed as a part of the benchmarking section of this report.

Overall satisfaction with the job that TDOT has done maintaining highways over the past two years (Excluding “Don’t Know”)	TDOT	Surrounding DOTs	High-performing DOTs
Interstate Highways	67%	61%	62%
State Highways (Not Interstates)	56%	43%	52%

**Ease of Travel.** Respondents were asked to indicate how easy it is to travel between cities and within urban areas in Tennessee. The percentage of respondents who indicated it was either “very easy” or “easy” has remained consistent since 2006. Based on the sum of “very easy” and “easy” responses, 74% of respondents *who had an opinion* indicated it was easy to travel between cities in Tennessee in 2016, 2013, and 2006.

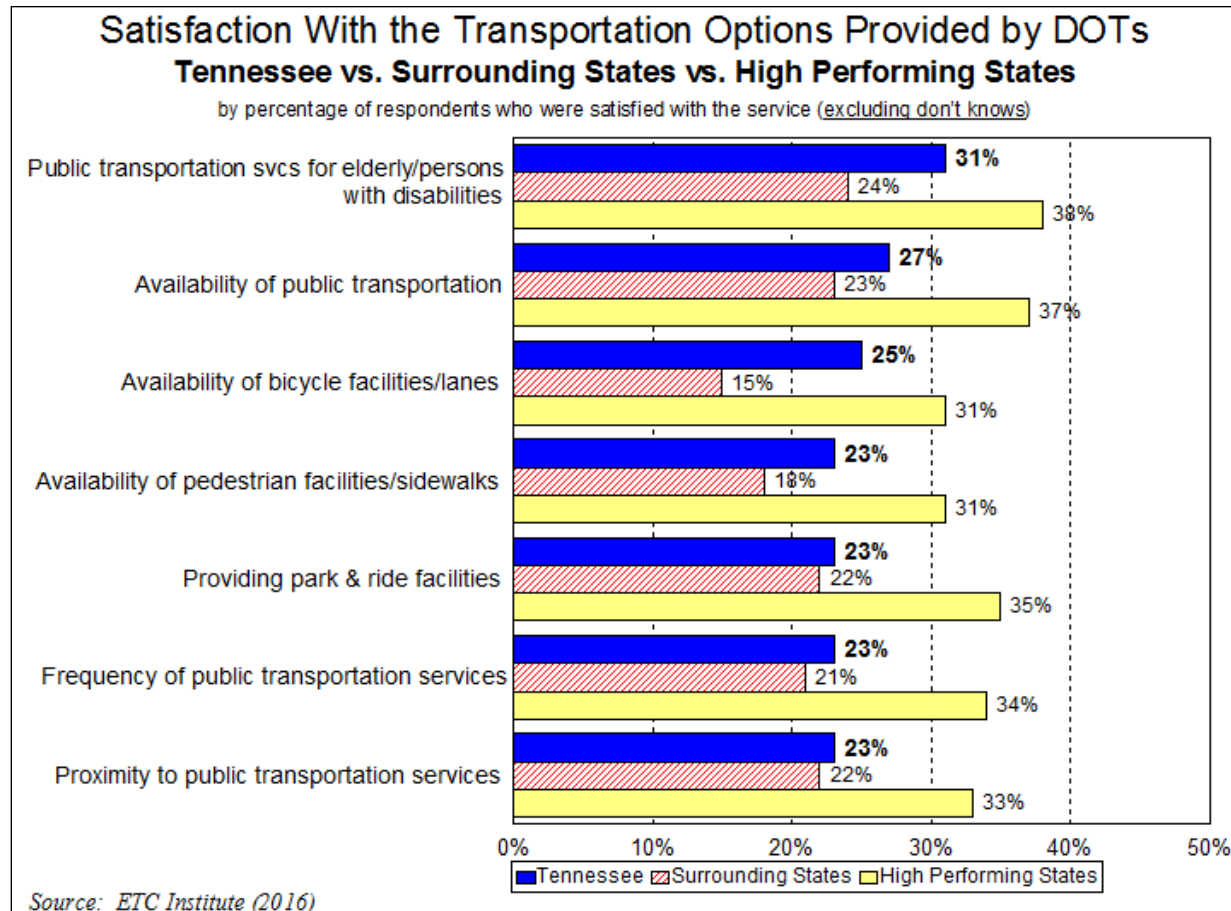
Compared to 2013, nearly the same number of resident respondents indicated it was easy to travel within urban areas in Tennessee. The number of “very easy” and “easy” responses has significantly increased since 2006. In 2006, 49% of respondents *who had an opinion* indicated it was easy to travel within urban areas in Tennessee; in 2013, 53% of respondents *who had an opinion* indicated it was easy to travel within urban areas; and in 2016, 52% of respondents *who had an opinion* indicated it was easy to travel within urban areas.



**TDOT's Brand Image.** Residents were asked to rate their level of agreement with a series of seven statements related to TDOT's overall performance in providing transportation services. The ratings for all seven statements have decreased since the 2013 and 2006 surveys. Although the long-term trend shows a decrease in agreement with the statements, the overall results are still positive. Over half (57%) of respondents indicated they either “strongly agree” or “agree” with the statement “I trust TDOT to make sound, professional transportation decisions”.



**Transportation Options.** TDOT rated above the average of surrounding DOTs in all of the transportation options and alternatives that were rated. However, TDOT rated significantly below (5% or more below) the average of the high-performing DOTs in all of the transportation options and alternatives that were presented. The chart below shows how TDOT residents rated all of the transportation options and alternatives compared to surrounding DOTs and high-performing DOTs.



**Importance of Roads, Bridges, and Public Transportation.** Residents, elected officials, and partners were all asked to think of their own daily life and indicate the importance of roads, bridges, and public transportation to the safety and quality of life in the state. Based on the sum of “very important,” “important,” and “somewhat important” responses, 97% of resident respondents believe that roads, bridges, and public transportation are important to the safety and quality of life in the state. Eighty-five percent (85%) of elected officials and 85% of partners thought that roads, bridges, and public transportation are important to the safety and quality of life in the state.

All three groups were also asked to rate the importance of roads, bridges, and public transportation in regards to economic development and job growth. Again, based on the sum of “very important,” “important,” and “somewhat important” responses, 97% of resident respondents believe that roads, bridges, and public transportation are important to economic

development and job growth in the state. Eighty-six percent (86%) of elected officials and 94% of partners thought that roads, bridges, and public transportation are important to economic development and job growth in the state.

**Overall Value TDOT Provides.** Respondents were asked various questions pertaining to the value provided by TDOT for the transportation taxes paid by Tennessee residents. First, residents were asked to indicate approximately how much they think the average Tennessee resident pays annually per vehicle to support transportation projects and services. Forty-one percent (41%) of respondents indicated they think they pay less than \$500 annually per vehicle, 9% think they pay between \$500-\$749, 3% think they pay between \$750-\$999, 5% think they pay \$1000 or more, and 41% indicated they don't know. When asked where they think Tennessee ranks compared to other states regarding Tennessee's transportation spending per person, 11% of residents think they spend more, 26% think they spend the same, 22% think they spend less, and 42% indicated they don't know.

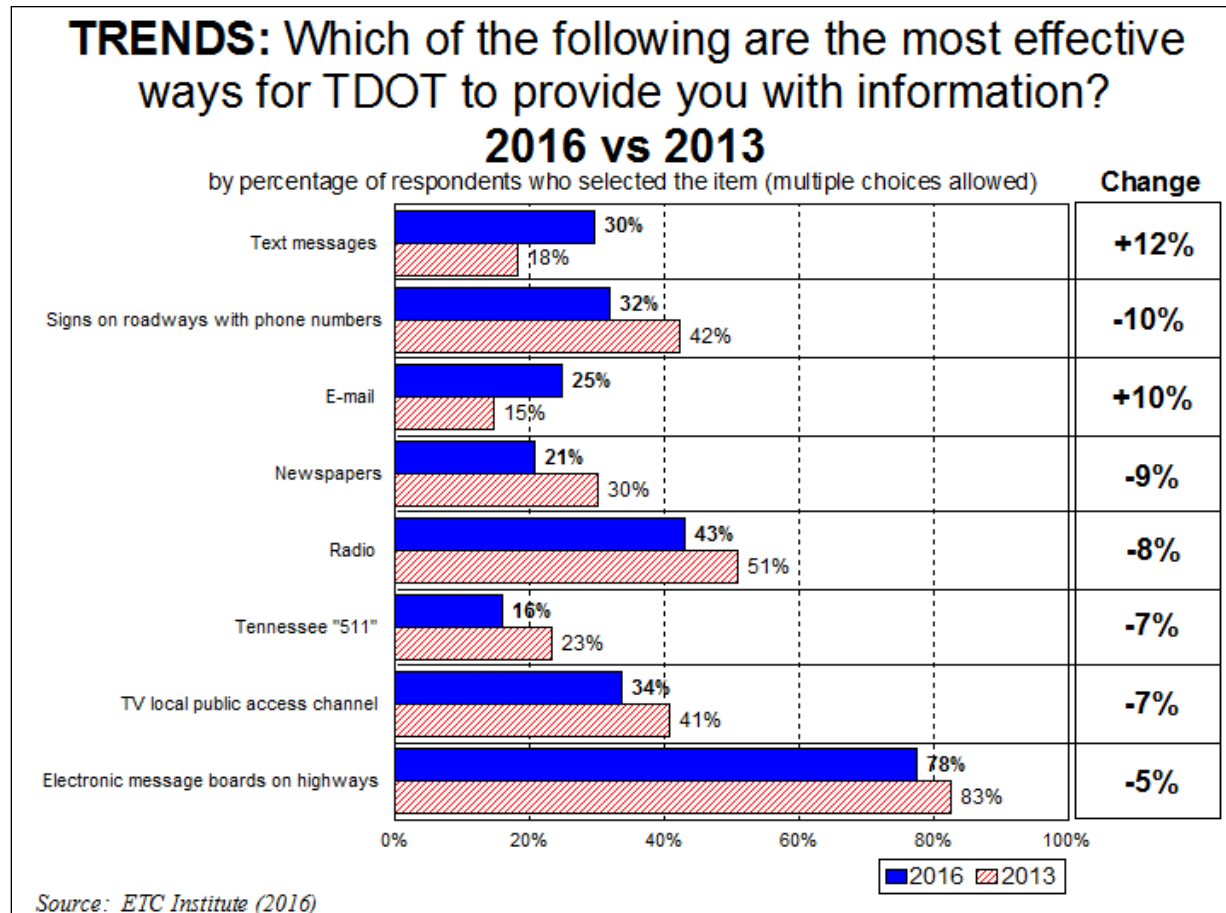
A majority (59%) of respondents indicated the value provided by TDOT for the transportation taxes paid is either a "good value" (23%) or an "ok value" (36%). This is a 16% decrease in the number of "good value" and "ok value" responses from 2013 and a 9% decrease from 2006. Although many respondents still think the value that is provided by TDOT for the transportation taxes paid by residents is a "good value" or "ok value," the number of positive responses has significantly declined since 2013 and 2006. Ensuring residents are informed of the various infrastructure projects and transportation investments taking place throughout the state can add a sense of value to the taxes paid. Residents of Tennessee are using new methods to gather information about TDOT; keeping pace with these trends can be a valuable tool in disseminating information on major infrastructure projects throughout the state.

### **Impact of the Construction of a New Highway or the Reconstruction of an Existing Highway.**

Nearly half (49%) of the residents surveyed indicated that TDOT has completed the construction of a new highway or the reconstruction of an existing highway that they regularly use during the past two years. Of those residents who experienced the construction or reconstruction of highways they regularly use, more than three-quarters (76%) indicated the overall quality of transportation in the area where they live has improved since the completion of the projects. Only 38% of residents indicated that they felt TDOT adequately involved their community during the planning and implementation of highway improvements in their area. Residents are satisfied with the end result of the projects TDOT implement in their areas. TDOT does a good job ensuring residents are provided with information in advance to assist in travel plans, but more could be done to ensure communities are involved in the planning process.

The low number of residents who indicated their community was adequately involved during the planning and implementation of highway improvements could be due to the changing ways residents seek and receive TDOT information. Although a majority (56%) of residents feel that TDOT adequately provided information in advance during construction project activities to assist in travel plans, they did not feel included in the planning process. Ensuring the organization follows these trends and adapts to the changing ways technology influences the dissemination of information to the general public can help TDOT ensure residents feel

informed and involved during the planning and implementation stages of major transportation projects. The chart below shows some of the major trends in the most effective ways TDOT can provide residents with information. (Note: Facebook was not an option on the 2013 and 2006 surveys, but 26% of residents indicated it is one of the most effective ways for TDOT to provide them with information.)



Elected officials and partners who experienced the construction or reconstruction of highways in their areas had a significantly different perspective than residents. Eighty-nine percent (89%) of elected officials and 83% of partners who experienced the construction or reconstruction of highways in their area indicated their area has improved since the project's completion, compared to 76% of residents. There was also a significant change in responses regarding the feeling of whether or not TDOT involved the community during the planning and implementation phase of highway improvements; 76% of elected officials and 74% of partners feel there was adequate community involvement, compared to 38% of residents feeling there was adequate involvement.

## Recommendations and Investment Priorities

The results of the resident, elected official, partner, and benchmarking surveys provide TDOT with a comprehensive data set to help manage customer-oriented improvements over the next two years. Although there are many applications for the data from the surveys that were conducted, ETC Institute has five recommendations that can be used to create a plan of action as TDOT moves forward.

### Safety

- TDOT should continue to focus resources to improve the perception of safety on state highways. Overall, residents indicated they do not feel as safe on state highways as they did three years ago. Nearly 80% of residents were in favor of increased funding for enhancing safety on state highways.

### Transportation Options

- Residents of Tennessee are less satisfied with the transportation options where they live than residents living in high-performing states. Based on the Importance-Satisfaction analysis the availability of public transportation services where you live is the number one priority for TDOT to focus on in this area.

### Traffic Congestion

- Although TDOT is performing in line with both surrounding and high-performing states, the minimization of congestion on highways in urban areas should continue to be a point of emphasis. Eighty-four percent (84%) of respondents are in favor of increased funding for this improvement.

### Managing the State's Transportation System

- TDOT saw significant decreases in overall satisfaction related to the surface of highways and removing snow and ice from highways. The condition and maintenance of highways in the state should be a top priority for improvement over the next two years.

### Communication

- Residents do not feel involved during the planning and implementation of highway improvements. TDOT should focus on the communication patterns of residents and continue to explore new ways of communicating important planning information with residents. There were significant changes in the most effective ways for TDOT to provide residents with information. Keeping in touch with these trends can help TDOT reach more residents during the planning stages of infrastructure improvements.

**Recommended Investment Priorities for the Next Two Years.** In order to help TDOT identify investment priorities for the next two years, ETC Institute conducted an Importance-Satisfaction (I-S) analysis. This analysis examined the importance respondents placed on various services and the level of satisfaction with each service. By identifying services of high importance and low satisfaction, the analysis identified which services will have the most impact on overall satisfaction with TDOT services over the next two years. If the agency wants to improve its overall satisfaction rating, they should prioritize investments in services with the highest Importance-Satisfaction (I-S) ratings. Details regarding the methodology for the analysis are provided in Section 2 of the comprehensive survey report.

**Opportunities to Increase Overall Satisfaction with TDOT.** Based on an analysis of the importance that residents place on various transportation services and their current level of satisfaction with these services, improvements in the following areas are likely to have the most impact on overall satisfaction with TDOT in the next 3-5 years:

- Keeping the surface of interstate highways in good condition (I-S Rating=0.2788)
- Keeping the surface of other state highways in good condition (I-S Rating=0.2434)
- Minimizing congestion on highways in urban areas (I-S Rating=0.2057)
- Providing options for alternative modes of transportation along highways (I-S Rating=.1005)
- Highway striping that is visible in wet weather (I-S Rating=.0929)

The table below shows the Importance-Satisfaction rating for the services involved in the maintenance and management of the transportation system that had the highest overall Importance-Satisfaction (I-S) ratings among 22 transportation facilities and services that were assessed on the survey.

## 2016 Importance-Satisfaction Rating Tennessee Department of Transportation Maintaining and Managing the Transportation System

Category of Service	Most Important %	Most Important Rank	Satisfaction %	Satisfaction Rank	Importance-Satisfaction Rating	I-S Rating Rank
<b>Very High Priority (IS &gt;.20)</b>						
Keeping surface of interstate highways in good condition	48.4%	1	42.4%	19	0.2788	1
Keeping surface of other state highways in good condition	39.0%	2	37.6%	20	0.2434	2
Minimizing congestion on highways in urban areas	31.8%	3	35.3%	22	0.2057	3
<b>High Priority (IS .10-.20)</b>						
Providing options for alternative modes of transportation along highways	15.8%	11	36.4%	21	0.1005	4
<b>Medium Priority (IS &lt;.10)</b>						
Ensuring that roadway striping on highways is visible during wet weather	19.2%	7	51.6%	18	0.0929	5



**Priorities for Non-Highway Transportation Options.** Based on an analysis of the importance that residents place on various non-highway transportation options and their current level of satisfaction with these options, improvements in the following areas are likely to have the most impact on satisfaction with non-highway related services and facilities provided by TDOT over the next 3-5 years:

- Availability of public transportation services where you live (I-S Rating=0.3219)
- Proximity (ease of access/convenience) to public transportation services where you live (I-S Rating=0.2333)
- Providing park and ride facilities where residents can park their car and access public transportation or carpool/vanpool services (I-S Rating=0.2198)
- Availability of public transportation services for elderly and persons with disabilities (I-S Rating=0.2174)
- Availability of pedestrian facilities and sidewalks for transportation purposes along highways (I-S Rating=0.2145)

The table below shows the Importance-Satisfaction rating for the transportation options that were considered a very high priority for investment.

2016 Importance-Satisfaction Rating Tennessee Department of Transportation Transportation Options						
Category of Service	Most Important %	Most Important Rank	Satisfaction %	Satisfaction Rank	Importance-Satisfaction Rating	I-S Rating Rank
<b>Very High Priority (IS &gt; .20)</b>						
Availability of public transportation services where you live	44%	1	27%	2	0.3219	1
Proximity (ease of access/convenience) to public transportation services where you live	30%	3	23%	7	0.2333	2
Providing park & ride facilities where residents can park their car & access public transportation or carpool/vanpool services	28%	4	23%	5	0.2198	3
Availability of public transportation services for elderly & persons with disabilities	32%	2	31%	1	0.2174	4
Availability of pedestrian facilities & sidewalks for transportation purposes along highways	28%	5	23%	4	0.2145	5