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FINAL REPORT

GDOT LOCAL BENEFICIARY ANALYSIS OF TIA PROJECT EXPENDITURES
Phase II: IMPACT EVALUATION

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16. Abstract

In 2012, voters in three regions of Georgia—Central Savannah River Area, Heart of Georgia Altamaha, and River Valley—approved the Transportation Investment Act (TIA) referendum, which added 1% to local sales taxes. Seventy-five percent of the additional tax revenues support transportation projects that voters in the three regions approved; the remaining 25% goes to local areas for transportation projects or related activities they choose (i.e., local discretionary funds). The purpose of this multi-phase impact evaluation of TIA is to examine longitudinally how TIA affects the stakeholders and beneficiaries in the three regions. Phase I examined the impacts that occurred between 2013 and 2014, while this Phase II effort investigated expenditures and activities between 2014 and 2016. During Phase II, the survey sample size was increased significantly from 96 stakeholders (Phase I) to 333 stakeholders and households (Phase II). Phase II added three comparison regions that voted against TIA in 2012: Middle, Northeast, and Southern Georgia. The survey responses were supplemented with 30 in-depth interviews. The research found that returning a share of revenue collected to local areas is the most highly valued attribute of the program, with 85% of survey respondents saying the local discretionary fund is “extremely important” to them. The in-depth interviews reinforced this finding. Residents of TIA and non-TIA regions were very supportive of the program; 91% of residents in TIA regions and even 73% of residents in non-TIA regions said they would vote “yes” if the referendum were held today. Overall, 88% of residents in TIA regions indicated they were “very satisfied” or “satified” with the way GDOT has implemented the program. This is a 10% increase over Phase I survey responses to the same question. GDOT’s total project expenditures within TIA through 2016 amounted to $222.1 million and expenditures through the Spring of 2018 are $317.9 million. Currently, 448 of the 871 voter-approved projects have been completed and 57 are under construction. Using those figures, the research estimated that the combined economic impact of voter-approved projects is 3686 new jobs and $419.7 million in total economic activity respectively through 2016. The participation of Small Businesses and Disadvantaged Business Enterprises between 2014 and 2016 was 4.1% and 5.1%, respectively.

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Final Report

GDOT LOCAL BENEFICIARY ANALYSIS OF TIA PROJECT EXPENDITURES
PHASE II: IMPACT EVALUATION

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EXECUTIVE SUMMARY

In 2012, voters in three regions of Georgia approved the Transportation Investment Act (TIA) referendum. TIA added an additional 1 percent to local sales taxes starting in January 2013 and lasting for 10 years. Seventy-five percent of the receipts from the special tax will be devoted to implementing 871 transportation projects that voters in the three regions approved (these are referred to as *voter-approved projects*). The remaining 25 percent will be disbursed to local areas to spend on transportation and related projects that they select (this percentage is referred to as *local discretionary funds*). The three regions that passed the referendum are Central Savannah River Area (CSRA), Heart of Georgia Altamaha (HOGA), and River Valley (RV).

When fully funded, River Valley is budgeted to receive $410.8 million (in 2011 dollars) to support 23 projects. Of that amount, $234.3 million was collected by the spring of 2018. Central Savannah River's budgeted amount is $728.3 million for 84 projects; $334.4 million of that amount was collected by the spring of 2018. Finally, the budgeted funds for Heart of Georgia Altamaha total $360.1 million to support 764 projects, $148.9 million of which was collected by the spring of 2018.[1]

Purpose

This report is Phase II of a multi-phase impact evaluation of TIA. The purpose is to examine over time how TIA affected the stakeholders and beneficiaries who resided in

[1] See: http://www.ga-tia.com

the three regions. In this report, *stakeholders* refer to individuals and organizations that are directly involved in the implementation of TIA, have some administrative or job responsibilities related to it, or have a special interest in the implementation of TIA. *Beneficiaries* are all persons in the regions who are expected to be affected positively by the program.

Phase I examined the impacts that occurred between 2013 and 2014, while Phase II examined expenditures between 2014 and 2016. Both phases included surveys and interviews of stakeholders. During Phase II, the size of the survey sample was increased significantly, from 96 stakeholders (examined in Phase I) to 333 subjects, among which were stakeholders and randomly selected households.

In Phase II, three non-TIA comparison regions were added to the analysis: Middle Georgia, Northeast Georgia, and Southern Georgia. These comparison regions were chosen based upon their geographical proximity to regions that passed TIA, and the similarity of their socioeconomic characteristics. The survey responses were supplemented by 30 in-depth interviews split equally between the three TIA regions and three non-TIA regions. The comparison regions served as a "control group" that allowed the research to better isolate the impacts attributable to TIA. Statistically, they served as the counterfactual scenario of (in lay terms) the "do nothing scenario." They allow estimation of what would have happened had TIA not been implemented. Figure ES-1 is a map of the economic regions of Georgia.

FIGURE ES-1 MAP OF THE ECONOMIC REGIONS OF GEORGIA

Research Method and Data

The research investigated the following impacts and outcomes:

- The perceptions of the TIA program and opinions about the effectiveness of its implementation
- The attitudes of residents in adjoining regions that voted against the original TIA referendum
- TIA revenue collections and expenditures on voter-approved transportation projects
- Disbursements to local areas and uses of local discretionary funds

- The estimated impact of TIA on job creation, household income, and local economic activity
- The TIA-related contracting opportunities for small businesses and Disadvantaged Business Enterprises (DBEs)

The report compares current findings with Phase I findings regarding expectations of local stakeholders about the impact of TIA, local preferences and priorities related to TIA expenditures, stakeholder satisfaction with local control over transportation resources, and changes in socioeconomic characteristics of local areas. Outcomes for 2013 and 2014 are compared to those for 2015 and 2016.

The research method and data sources used in this report were established in Phase I. Phase II expands the scope and updates the original data, methods, and metrics. The most notable difference is the inclusion of a control group consisting of three similarly situated regions that did not approve TIA.

Survey Results

There were 333 responses to the Phase II survey questionnaire: 49.2 percent were from residents of the TIA regions and 50.8 percent from those of non-TIA regions. The percent distribution of responses by region was as follows. In the TIA regions: Central Savannah River Area – 47 (14.1 percent); Heart of Georgia Altamaha – 75 (22.5 percent); and River Valley – 42 (12.6 percent). The percent distribution of survey responses from the non-TIA regions: Northeast Georgia – 60 (18.0 percent); Southern

Georgia – 49 (14.7 percent); Middle Georgia – 43 (12.9 percent); Other non-TIA region – 17 (5.1 percent). The "Other non-TIA region" category includes respondents whose listed address was in one of the three non-TIA regions but who had since moved away to other non-TIA regions that were not examined in the study.

The overall survey response rate for TIA and non-TIA regions was 11.5 percent. The TIA regions recorded a higher response rate than did the non-TIA regions, i.e., 15.5 percent versus 9.2 percent, respectively.

Respondents were asked whether it is important that local areas receive discretionary funds during referendums such as TIA. In the TIA group, 85.1 percent indicated that it is "extremely important," while 12.4 percent indicated it is "very important." The respective figures for the non-TIA regions were 74.0 and 17.8 percent.

Respondents were asked to rank the transportation-related issues that are most important to them and other residents in their region. The ranking suggested that greater local control over how transportation dollars are spent was the item that was most important to individuals in the TIA regions. Other factors that were important included more jobs and faster economic growth, and more funds for local projects.

Respondents were asked what their priorities regarding expenditures would be if their local areas had money to spend on transportation projects. Residents of both regions indicated that the highest priority is repairing and maintaining roads and bridges; 80.6 percent of respondents in TIA regions set this as a top priority, while 72.3 percent of respondents in the non-TIA regions did so.

One of the most important questions asked on the survey is the following: “Suppose the vote on TIA did not happen in 2012. Instead, suppose you had the opportunity to vote on it today. Given all that you know about TIA, how would you vote today?” For the TIA regions, those indicating they would vote yes represented 90.9 percent of all respondents. For the non-TIA regions, the respondents voting yes represented 73.4 percent. Broken down by specific areas, the results are as follows: Central Savannah River Area – 87.2 percent; Heart of Georgia Altamaha – 92.0 percent; River Valley – 92.9 percent; Northeast Georgia– 78.3 percent; Southern Georgia – 65.3 percent; and Middle Georgia – 79.1 percent.

Residents in the TIA regions were asked the following question: “Thus far, how would you rate the way that GDOT has implemented TIA?” The results indicated that, overall, 88.1 percent of respondents in the TIA regions were either very satisfied (40.6 percent) or satisfied (47.5 percent) with the way GDOT has implemented TIA. The response by specific areas is as follows: Central Savannah River Area – 37.8 percent very satisfied and 46.7 percent satisfied for a total of 84.5 percent, with 6.7 percent dissatisfied or very dissatisfied; Heart of Georgia Altamaha – 36.5 percent very satisfied and 55.4 percent satisfied for a total of 91.9 percent, with 2.7 percent dissatisfied or very dissatisfied; River Valley – 51.2 percent very satisfied and 34.1 percent satisfied for a total of 85.3 percent, with 7.3 percent dissatisfied or very dissatisfied.

Respondents were asked the following: “In your opinion, how satisfied are the residents of your local area with TIA, since it began in 2013?” The responses were as

follows: Central Savannah River Area – 45.5 percent and 40.9 percent (86.4 percent total) indicated they were very satisfied and satisfied, respectively; Heart of Georgia Altamaha – 47.2 percent and 41.7 percent (88.9 percent total) indicated they were very satisfied or satisfied, respectively; River Valley – 39.0 percent were very satisfied and 39.0 percent were satisfied (78.0 percent total). Overall, 44.6 percent and 40.8 percent (85.4 percent total) were either very satisfied or satisfied, respectively with the way GDOT implemented TIA since 2013. The differences among the regions were not statistically significant.

In the Phase I survey, the response to the same question produced the following outcome: 29.9 percent were very satisfied and 44.8 percent were satisfied, for a total of 74.7 percent. There was a statistically significant increase in the level of satisfaction between the Phase I response to this question and the Phase II response. In fact, the difference likely was even more significant because the Phase II analysis included responses from randomly selected households, in addition to stakeholders as in Phase I.

The next question asked, "Given all that you know about TIA, do you feel your region's participation was a good thing?" In Central Savannah River Area, 93.3 percent of respondents indicated yes; Heart of Georgia Altamaha – 91.7 percent; and River Valley – 92.7 percent. Overall, 92.4 percent selected yes.

The final question asked, “How likely are you to recommend TIA to another region that did not pass it originally?” The percentages responding “very likely” and “somewhat likely” were 81.0 percent and 13.1 percent, respectively, for a total of 94.1 percent.

At the end of the survey, respondents were asked an open-ended question about what changes they would make to TIA if they could. The first- and second-most frequently cited observations were: (1) provide greater funding to local areas from the TIA program; and (2) provide some flexibility in designating voter-approved projects. The rationale for the latter comment is that priorities change over a 10-year time horizon. The third-most frequently cited observation was to allow funds to be fungible between overbudgeted projects and ones that were under budget.

Personal Phone Interviews with Stakeholders

Personal interviews were conducted by phone during the period of December 1, 2017, to February 9, 2018. A total of 30 persons were interviewed, 14 from the TIA regions and 16 from the non-TIA regions. This represents more than double the number of persons interviewed in Phase I. The interviewees included city and county government officials, Georgia Department of Transportation (GDOT) board members, GDOT district engineers, citizen review panel chairs, representatives from the local chambers of commerce, area residents, businesses and special interest groups, regional directors for TIA, and business leaders.

The primary purpose of the interviews was to gather more in-depth information from regions where TIA was passed, as well as the comparison regions. These two groups

were asked questions on four main themes: (1) overall sentiment regarding TIA, (2) awareness of the TIA program, (3) transportation needs and priorities of their jurisdictions, and (4) additional information or feedback regarding the program. Interviewees in the regions where the TIA referendum passed were asked two additional questions: (1) satisfaction with the TIA program, and (2) their awareness of the types of TIA-funded projects in their local area. Key findings from the phone interviews include the following:

- The overall sentiment regarding the TIA program is overwhelmingly positive.
- Most respondents expressed familiarity with the TIA program and how it works, though respondents mention a need for improved education and marketing about TIA to garner public support.
- Respondents emphasized the importance of local control over dollars.
- The project category that was most commonly mentioned as a priority across all regions was the need to repair and maintain local roads and bridges, followed by the need to construct or improve local roads and bridges.
- Additional priorities mentioned include improving safety, regional connectivity, economic development, the facilitation of freight and cargo movement, and alternative transportation infrastructure such as sidewalks, bike paths, and transit.
- Regions that have received TIA funding discussed how funding has been allocated. Most funds have gone to resurfacing and paving roads. Other projects include building and repairing bridges and overpasses, widening roads, bike

lanes, road safety, transit improvements, drainage, freight movement, and equipment procurement.

- Improvements in local areas from TIA funding are mostly related to better road conditions. Additional improvements mentioned include reduced congestion, enhanced safety for drivers and pedestrians, economic development, improved bicycle and pedestrian facilities, and better freight movement.
- A comparison of comments from Phase I to Phase II indicates there has been an overall increase in satisfaction with the TIA program, though there were some concerns expressed about the procedures by which TIA funds are allocated, the amounts disbursed, lack of construction in some areas, and questions about engaging local contractors.

Impact of TIA on Jobs, Output, and Small Business and DBE Opportunity

GDOT's total TIA project expenditures through 2016 amounted to $222.1 million, and expenditures through the spring of 2018 are $317.9 million. Currently 448 of the 871 voter-approved projects have been completed and 57 are under construction. Using the project expenditures to date, the Phase II research estimated the combined economic impact of voter-approved projects on the TIA regions. The result is that 3686 new jobs have been created, along with $419.7 million in total economic activity (based on expenditures through 2016). Those impacts would not exist in the absence of the TIA program. The participation of small businesses and DBEs on TIA-related projects as of 2016 was 4.1 percent and 5.1 percent, respectively.

Socioeconomic Profile

In Phase I, socioeconomic data were compiled on the three TIA regions based on the 2010 Census and other data. For Phase II, the socioeconomic profile of these regions was updated with 2015 mid-term census information. Changes between the two periods were examined. Additional socioeconomic data were collected for the three non-TIA regions for both 2010 and 2015. In this way, changes that occurred in the TIA regions could be compared to changes in non-TIA regions between the periods of 2010 and 2015. Key findings include the following:

Comparison of River Valley (RV) and Middle Georgia Regions:

- River Valley experienced a 41 percent increase in paid employees between 2010 and 2015, while in Middle Georgia paid employees decreased by almost 2 percent.
- In River Valley, mean travel time to work increased by just over a minute, while in Middle Georgia it fell by an average of 15 minutes, or over 35 percent.

Comparison of Central Savannah River Area (CSRA) and Northeast Georgia Regions:

- The number of paid employees in CSRA grew by 41 percent between 2010 and 2015. In Northeast Georgia, the number of paid employees grew by almost 50,000, which represented a 25 percent increase over the same period.
- CSRA's population grew slowly, rising by just over 10,000 or 2 percent between 2010 and 2015. In contrast, Northeast Georgia grew in population by over

140,000, a 32 percent increase from 2010 to 2015. Population density in that region increased by 28 percent.

- The number of building permits in CSRA declined slightly, by just over 2 percent. In contrast, over 2400 new building permits were issued in Northeast Georgia, representing an increase of almost 400 percent since 2010.
- Mean travel time to work in CRSA remained almost constant between 2010 and 2015. In the same time, it fell significantly in Northeast Georgia, from 44 minutes to 28 minutes.

Comparison of Heart of Georgia Altamaha (HOGA) and Southern Georgia Regions:

- In HOGA, a 53 percent increase (or 35,569 persons) occurred in the number of paid employees between 2010 and 2015. In contrast, the number of paid employees in Southern Georgia declined by almost 8000, or by 5 percent over this period.
- HOGA issued over 35,500 new building permits, representing a 53 percent increase since 2010. Southern Georgia issued just under 400 new building permits. This was a 42 percent increase, as the region started from a much smaller base than did the Heart of Georgia Altamaha.
- In HOGA, there was a 4 percent increase in the obese population compared to a 1 percent increase in Southern Georgia.
- In HOGA, the mean travel time to work remained around 24 minutes between 2010 and 2015, while in Southern Georgia it decreased from 30 to 23 minutes.

Changes in socioeconomic indicators between TIA and non-TIA regions are mixed. Specifically, on some indicators, non-TIA regions are experiencing larger improvements in socioeconomic indicators than are TIA regions while on other indicators they are faring worse. Further analysis is needed to determine the degree to which TIA projects and activities are contributing to improved socioeconomic conditions.

Literature Review

A literature review was conducted to examine the latest publications and research on the TIA program in Georgia. Topics investigated included customer satisfaction with the program and its status, debates about why TIA passed in some regions and failed in others, and lessons learned. Key findings from the literature review include the following:

- Stakeholders in regions where TIA passed are largely satisfied with the program, which has raised significant funds and allowed for increased local control over dollars.
- Two additional regions of Georgia have passed legislation to hold elections on the TIA referendum in 2018. These regions are Middle Georgia and Southern Georgia.
- There are ongoing debates about why TIA passed in some regions and failed in other regions of Georgia in 2012, and what this might mean for future referendums. The failure of the referendum in the Atlanta Region has been used as a case study to explore these debates in the literature.

- Lessons learned from the case of the Atlanta Region include: (1) develop a more consistent, cohesive, and carefully designed campaign that manages competing discourses about congestion, choice, and equity in transportation planning; (2) carefully consider the design of the referendum itself to ensure it meets stakeholders' motives and expectations; and (3) understand the opposition and the possible formation of unexpected coalitions.

Conclusions and Recommendations

With decreasing funding for transportation from traditional sources, local jurisdictions are increasingly looking to ballot-box measures and referendums on sales taxes to fund transportation projects. The TIA referendum is a unique initiative that has been well received by residents who approved it.

Important findings and conclusions are as follows:

- The overall sentiment regarding the TIA program is overwhelmingly positive.
- A comparison of comments from Phase I to Phase II indicates there has been an overall increase in the level of satisfaction with the TIA program, even though the satisfaction during Phase I was very high.
- Providing local discretionary funds is extremely important to the success of referendums like TIA because greater local control over how transportation dollars are spent is the single-most important factor in TIA and non-TIA regions.

- Most recipients of local discretionary funds have spent them on repairing and maintaining roads and bridges.
- Totals of 90.9 percent of residents in the TIA and 73.4 percent in the non-TIA regions indicated they would vote yes on TIA if they were to do it all over again.
- TIA-region residents are pleased with the way GDOT has implemented the program; 88.1 percent were either very satisfied or satisfied, and 92.4 percent indicate their region's participation was a good thing.
- An important finding is that the public seems confused about the difference between the TSPLOST (transportation special-purpose local-option sales tax) and the TIA program. While most respondents were familiar with the TIA program, all regions would benefit if more marketing and education were focused on households, as opposed to stakeholders.
- Survey results indicate that Southern Georgia and Middle Georgia will vote yes on the upcoming TIA referendum. However, there is a significant percentage of undecided voters in Southern Georgia.
- It is important that the Phase III TIA research highlight the specific economic benefits of the program since jobs and economic growth are high priorities.
- Until now, most researchers have focused on why TIA failed in Atlanta. However, this research finds that if one wants to know more about TIA, it is important to focus on non-metro–Atlanta regions of the state.

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INTRODUCTION

Background on TIA and the Beneficiary Assessment

The Transportation Investment Act (TIA) referendum was passed by Georgia voters in the Central Savannah River Area (CSRA), Heart of Georgia Altamaha (HOGA), and River Valley (RV) regions. These three regions voted to approve a 1 percent regional sales tax over a 10-year period to fund transportation improvements. Seventy-five percent of the receipts from the special tax will be devoted to implementing 871 transportation projects that voters in the three regions approved (i.e., voter-approved projects). The remaining 25 percent will be disbursed to local areas to spend on transportation projects they select (i.e., local discretionary funds). GDOT is responsible for the management of the budget, schedule, execution, and delivery of all projects contained in the Approved Investment Lists.[2] GDOT coordinates and collaborates with local and state agencies to ensure TIA projects are delivered on time.

Purpose of the Beneficiary Analysis

As a primary stakeholder in TIA, GDOT wants to monitor and evaluate its impact on regions that approved it. As such, GDOT commissioned this research, which is being conducted in multiple phases, each covering a two-year time frame starting with Phase I in 2013 and 2014. During Phase I, baseline conditions and stakeholder expectations were evaluated using a variety of methods, including a stakeholder survey

[2] http://www.ga-tia.com/

and personal interviews, and analyzing the socioeconomic characteristics of the TIA regions. Phase I also involved estimating TIA's economic impact based on expenditures made through 2014. Finally, Phase I documented how TIA enhanced the ability of local areas to exercise their discretion over how transportation funds are used.

In Phase II, the size of the survey sample was increased from 96 stakeholders (examined in Phase I) to 333 stakeholders and residents (where residents are referred to simply as households). Also, three non-TIA comparison regions were added to the analysis: Northeast Georgia, Southern Georgia, and Middle Georgia. Figure 1 is a map that illustrates the location of the regions. These comparison regions were chosen based upon their geographical proximity to regions where TIA was passed, and the similarity of their socioeconomic characteristics. The survey responses were supplemented by 30 in-depth interviews split equally between the TIA and non-TIA regions. The comparison regions served as a "control group" that allowed the research team to better isolate the impacts attributable to TIA. Specifically, they serve as the "do nothing scenario." i.e., a look at what would have happened had TIA not been implemented.

Phase II also investigated the following impacts and outcomes: TIA collections and expenditures on voter-approved transportation projects; disbursements to local areas and uses of local discretionary funds; the estimated impact of TIA on new job creation and total economic activity; and, the contracting opportunities created by TIA for small businesses and Disadvantaged Business Enterprises (DBEs).

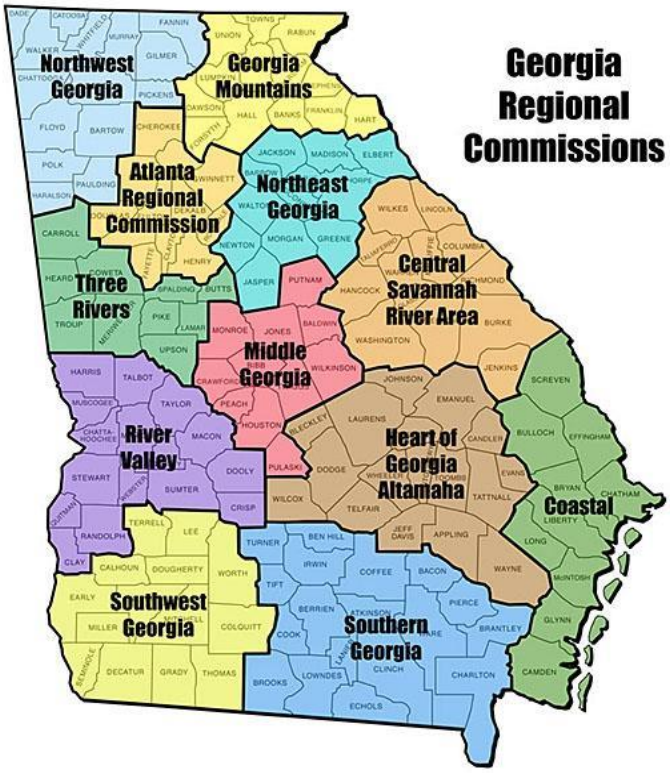


FIGURE 1 MAP OF THE ECONOMIC REGIONS OF GEORGIA

LITERATURE REVIEW

Key Findings

- In 2010, the Georgia General Assembly passed legislation called the Transportation Investment Act, allowing counties to establish 12 special tax districts throughout the state so that regional transportation SPLOSTs could form.
- Voters in three regions of Georgia approved TIA in 2012. Nine regions failed to pass the referendum. GDOT expects that a total of $1.5 billion in new revenue will be generated over the 10-year period for transportation projects in the three regions where it was approved.
- Stakeholders in regions where TIA was passed are largely satisfied with the program, which has raised significant funds and allowed for increased local control over dollars.
- Two additional regions of Georgia have passed legislation to hold elections on the TIA referendum in 2018. These regions are Middle Georgia and Southern Georgia.
- There are ongoing debates about why TIA passed in some regions and failed in other regions of Georgia in 2012, and what this might mean for future referendums. The failure of the referendum in the Atlanta Region has been used as a case study to explore these debates in the literature.

- Lessons learned from the case of the Atlanta Region include: (1) developing a more consistent, cohesive, and carefully designed campaign that manages competing discourses about congestion, choice, and equity in transportation planning; (2) carefully considering the design of the referendum itself to ensure it meets stakeholders' motives and expectations; and (3) understanding the opposition and the possible formation of unexpected coalitions.

The purpose of this literature review is to examine the historical legislative context that gave rise to the TIA in 2010, to provide research insights on investments in local transportation services, to describe the results of the 2012 referendum and ongoing trends in sales tax referendums for transportation projects, and to examine the case study of the Atlanta region. The aim is to offer readers a general background on TIA and to share knowledge and experiences that can serve as lessons learned for state transportation agencies in other locations.

Historical Legislative Context

The Transportation Investment Act is a 10-year, 1 percent sales tax that levies funds for regional and local transportation improvements. In 2012, voters in three regions of Georgia—River Valley, Central Savannah River Area, and Heart of Georgia Altamaha—approved the act at the ballot box (GDOT 2018). The Act has unique characteristics in the history of transportation financing in Georgia, given that it is both voter-approved and that it operates at a regional level. To better understand these unique

characteristics of TIA, it is necessary to review the legislative history of transportation finance that gave rise to the Act.

Transportation projects in Georgia and throughout the United States have traditionally been funded through motor-fuel taxes. However, revenue from these taxes has declined over the past decades for several reasons, such as increased fuel efficiency (Pew Charitable Trusts 2015). With the declining reliability of the motor-fuel tax as a source of revenue to support transportation projects, local governments have increasingly turned to alternative funding mechanisms, such as sales taxes, property taxes, bonds, and other financing vehicles (Crabbe et al. 2005). These funding schemes usually require voter approval and are passed via ballot measures. At the same time, these funding mechanisms face their own challenges due to increasing national sentiment that opposes marginal tax increases.

In Georgia, the history of voter-approved transportation financing extends back to the passage of the Local Options Sales Tax (LOST), which was enacted in 1975 and allows counties to issue a 1 percent general purpose sales tax to support operations. This legislation was followed by the Special-Purpose Local Option Sales Tax (SPLOST) in 1985, which is a 1 percent sales tax that can be levied by any county to fund capital outlay projects. These funds may be used by counties or qualified municipal governments to fund capital outlays for roads, streets, bridges, drainage, jails, courthouses, or other public facilities. The SPLOST is different from the LOST, which can be used for operations expenditures in addition to capital projects, as well as the

Educational Special Purpose Local Options Sales Tax (ESPLOST), which is used specifically for educational capital projects (Ross et al. 2011).

Given that the SPLOST is levied at the county level, difficulties emerged with addressing transportation needs at the regional level. To address these limitations, in 2010 the Georgia General Assembly passed legislation allowing counties to establish 12 special tax districts throughout the state so that regional transportation SPLOSTs could form. The tax district boundaries were based on existing regional commission boundaries and include all the 159 counties in the state (Ross et al. 2011). With the establishment of the regional tax districts, SPLOSTs could now be considered at the regional level. This led to the 2012 TIA referendum.

With the passage of TIA in three regions of Georgia in 2012, GDOT expects that a total of $1.5 billion in new revenue will be generated over the 10-year period. Seventy-five percent of the revenue generated will go toward funding the construction of 871 projects on approved lists, while 25 percent of the funding will be disbursed to local governments to be used at their discretion to fund transportation projects of their choosing (GDOT 2018).

Results of TIA and Ongoing Trends in Sales Tax Referendums for Transportation Projects

In 2012, three regions in Georgia passed the TIA referendum by a narrow margin. The remaining nine regions rejected the referendum. There are ongoing debates about how and why the referendum passed in some regions while it was defeated in others. Given

the largely conservative, anti-tax, and anti-government sentiment across Georgia, the fact that the referendum managed to pass in even three regions reflects the need for increased financing for transportation projects. Evidently, the public in these three regions perceived transportation issues to be urgent and significant enough to warrant regional cooperation and additional taxation. Results from the TIA Phase I Final Report, as well from this Phase II report confirm that stakeholders in regions where TIA was passed are largely satisfied with the program, which has raised significant funds and allowed for increased local control over dollars. Interviews with local stakeholders by the *Atlanta Journal Constitution* support this finding: when asked about TIA, Randy Howard, County Commission Chairman of Sumter County, responded, "We're crazy about it. Everyone's a winner" (Bowling 2016).

As the benefits of the TIA program become evident in the rural regions of Georgia where it was passed, two other regions have decided to reconsider the referendum. One of those regions is Southern Georgia, which will be holding the referendum on May 22, 2018.[3] The other region is Middle Georgia, whose Regional Transportation Roundtable met December 13, 2017, to approve the projects on the recommended Investment List as well as a resolution to call for the election.[4]

Overall, referendums of this nature appear to be gaining in popularity and seem to be supporting transit initiatives: a review of these ballot measures by the Center for Transportation Excellence (CFTE) indicates that in 2016, voters nationwide considered

[3] http://www.sgrc.us/regional-roundtable.html
[4] https://www.middlegeorgiarc.org/regional-transportation-sales-tax/

nearly $200 billion in local investment for public transportation initiatives. The average success rate for transit measures between 2000 and 2016 has been 71 percent (CFTE 2016). In 2017, the success rate for transit measures was 88 percent (CFTE 2018). As transportation dollars become increasingly scarce, local governments continue to turn to ballot-box initiatives to fund projects. While emerging trends show that transit initiatives appear to be gaining popularity nationally at the ballot box, further study is required to determine the proportion of ballot-box funding that goes to transit as compared to automobile-oriented strategies.

Case Study: The Atlanta Region

A small but growing body of literature is exploring the specific case of the Atlanta region to understand how and why the referendum was rejected by voters despite consensus about the severe transportation issues in the region. The referendum was rejected by 63 percent of voters, despite a combined $8.5 million campaign to generate support for the measure (Paget-Seekins 2013).

Opposition to the referendum in Atlanta came from groups across the political spectrum. Strong opposition came from members of the Tea Party and property rights activists who oppose increased taxes and politics of regionalism. Opposition also emerged from environmentalists such as the Sierra Club who rejected the referendum, claiming it did not provide enough funding for transit and warned that the allocations to road projects would have negative environmental consequences. In addition, the National Association for the Advancement of Colored People (NAACP) also rejected the

referendum because of equity, arguing that the proposed projects did not adequately serve the needs of low-income and minority populations (Paget- Seekins 2013).

These differing groups came together to form a strong oppositional force. The Sierra Club developed a critique of the sales tax and submitted an alternative plan called Plan B. It later worked with the Tea Party to issue a joint statement opposing the tax and supporting Plan B. The NAACP loosely joined the opposition group, resulting in an "unanticipated tactical coalition of strange bedfellows" (Frick 2013). With scant funding in comparison to the $8 million campaign, this high-profile and controversial coalition was one factor that resulted in the demise of the referendum.

Paget-Seekins argues that this coalition building, and the failure of the referendum, can be explained by competing discourses framing transportation issues in Atlanta. While everyone generally agrees that a transportation problem exists, there are competing definitions of and solutions to the problem. Paget-Seekins identified three competing discourses—congestion, choice, and equity—that were touted by different interest groups. Seekins argues that "no single discourse was dominant enough to control the process, and the result was a referendum that did not satisfy any single group entirely" (Paget-Seekins 2013). She argues that for a future campaign to be successful, the design and messaging of the campaign must be carefully considered. She proposes discourse analysis as a tool for understanding competing narratives on transportation problems and solutions and creating narratives with broader appeal (Paget-Seekins 2013).

In addition to a more consistent, cohesive, and carefully designed campaign, proponents must also consider the design of the referendum itself. One question is whether broad, all-encompassing referendums will be more successful than referendums that specify types of transportation projects (e.g., transit versus roadwork). How the referendums themselves are structured will need to be carefully considered to ensure majority support. It is possible that the structure of the referendum did not adequately reflect stakeholder interest in the Atlanta market, while it was more appealing to stakeholders in more rural regions. The need to develop political support for referendums must be balanced with ensuring that they meet a diverse set of transportation needs. Balancing these sometimes-competing agendas will continue to be a challenge for planners and decision-makers as they increasingly depend on transportation funding through ballot-box measures.

Conclusions

Different theories have emerged as to why ballot-box referendums pass or fail, and some of these theories are rooted in the case study of the Atlanta Region. The dynamics of ballot-box planning raise questions about how to manage competing discourses and the emergence of unexpected coalitions. In preparing for future referendums of a similar nature, planners and decision-makers can attempt to better understand these dynamics through discourse analysis and by recognizing the nature of the opposition. In designing successful referendums, it is also important to identify the fundamental needs and demands in the local area and fashion initiatives that have sufficient flexibility to address them. A larger aim of this report is to better understand the

motives and expectations for passing the referendum, the extent to which these expectations have been met in regions where TIA passed, and how these compare to regions where TIA did not pass. The report also examines how TIA dollars are spent locally in regions where TIA was approved.

PROCEDURE

Understanding the Use of TIA Funds

Methodology and Research Data

Multiple research steps and analyses were used to highlight the impact of TIA in 2015 and 2016 as compared to 2013 and 2014. In Phase II, the research team compared the changes in the Central Savannah River Area, Heart of Georgia Altamaha, and River Valley regions to those of a comparison group made up of three non-TIA regions: Northeast Georgia, Southern Georgia, and Middle Georgia. This expanded the scope of the original data and the metrics analyzed. The findings in each phase include the following: expenditures on voter-approved projects, disbursements of discretionary funds to local areas, expectations of local stakeholders regarding the impact of TIA, local preferences and priorities related to TIA expenditures, stakeholder satisfaction with local control over transportation resources, opportunities for small businesses and DBEs, and changes in socioeconomic characteristics of local areas. In this regard, the Phase II report compares outcomes for 2013 and 2014 to those for 2015 and 2016.

Data used in the analyses were taken from the following sources:

- Stakeholder and homeowner surveys
- Phone and in-person interviews
- TIA program administrative documents
- Program data and information available at the TIA website

- Information provided by TIA program administrators
- U.S. Census data on county socioeconomic characteristics
- Procurement and vendor data gathered from GDOT

SURVEY OF STAKEHOLDERS AND HOUSEHOLDS

The most important element of the TIA beneficiary analysis is the survey of stakeholders and households who live in the regions that approved the referendum. This is the second TIA survey that has been conducted, with the first conducted as part of the Phase I assessment. This section represents the results of the Phase II assessment. It starts by discussing the survey framework, survey population, survey sample, and survey response rate. Afterward, the section examines the survey results.

Survey Framework

The Phase II survey differs from the Phase I survey in several ways. First, the Phase II survey sample size is three times as large. Second, the survey includes stakeholders and households, where Phase I included only stakeholders. Third, the Phase I survey was restricted to residents who lived in the three TIA regions: Central Savannah River Area, Heart of Georgia Altamaha, and River Valley. In Phase II, three additional regions were surveyed that did not pass TIA during the original referendum. The three comparison regions were selected such that their attributes are like the attributes of the regions that approved TIA. Therefore, these non-TIA regions serve as a control group that allows the research team to better understand what would have happened had TIA not been approved. The control group regions are Northeast, Southern, and Middle Georgia, See Figure 1.

Survey Population Characteristics

The survey population included 2900 stakeholders and households. All the households were randomly selected, while the stakeholders included all who could be identified that lived in the regions. The survey population consisted of 1058 persons who resided in the TIA regions. They made up 36.5 percent of the survey population. Similarly, there were 1842 households and stakeholders in the non-TIA regions. They made up 61.5 percent of the total survey population.

The distribution of the survey population within the TIA regions was as follows: Central Savannah River Area, 14.8 percent; Heart of Georgia Altamaha, 10.7 percent; and River Valley, 11.1 percent. The non-TIA–region survey population was as follows: Northeast Georgia, 27.4 percent; Southern Georgia, 19.4 percent; and Middle Georgia, 16.7 percent.

The Phase I survey did not include households, whereas a specific objective of Phase II was to survey households in addition to stakeholders. All households included in the survey population were randomly selected. The number was 1161 or 40.0 percent of the survey population. The remaining 1289 subjects in the survey population consisted of stakeholders, which comprised 44.4 percent.

Survey Methods

Previous research determined that residents prefer to be surveyed by direct mail or email, not by phone calls. That finding was confirmed even more strongly in the Phase II survey results where a specific question was asked regarding the preferred service

channel. The results indicated that zero respondents wish to be surveyed by telephone. Those facts were taken into consideration and, as a result, 55.6 percent of households were surveyed electronically (via email); 21.9 percent of households were surveyed both ways, electronically and by direct mail; and 22.5 percent of the population was surveyed by direct mail only.

Survey Response Rate

Table 1 provides information on the responses and response rate for both the TIA and non-TIA regions. The Phase I evaluation was based on a sample size of 96 subjects. All the subjects resided exclusively in TIA regions. As a result, one major target for the Phase II evaluation was to double the sample size, from close to 100 to at least 200 responses. A second objective was to include subjects from both the TIA and non-TIA regions. The results indicate the objectives were not only achieved, but they were exceeded.

There were 333 responses to the Phase II survey: 49.2 percent were from the TIA regions and 50.8 percent from non-TIA regions. The breakdown of responses by region was as follows: Central Savannah River Area – 47 (14.1 percent); Heart of Georgia Altamaha – 75 (22.5 percent); River Valley – 42 (12.6 percent). The distribution of survey responses from the non-TIA regions was as follows: Northeast Georgia – 60 (18.0 percent); Southern Georgia – 49 (14.7 percent); Middle Georgia – 43 (12.9 percent); Other non-TIA region – 17 (5.1 percent). The “Other non-TIA region” category includes respondents who lived outside of the three non-TIA regions; during

the creation of the survey population, those respondents were listed at an address within the non-TIA regions and had since moved to other locations.

The overall survey response rate across the TIA and non-TIA regions was 11.5 percent. This represents the percent of persons who responded out of the total surveyed. The three TIA regions recorded a higher average response rate than the non-TIA regions, i.e., 15.5 percent versus 9.2 percent respectively. Within the two categories, the response rates were as follows: Central Savannah River Area – 11.0 percent; Heart of Georgia Altamaha – 24.3 percent; River Valley – 13.1 percent; Northeast Georgia – 7.5 percent; Southern Georgia – 8.7 percent; and Middle Georgia – 8.9 percent. Finally, 30.6 percent of persons responding did so by e-survey while the U.S. Postal Service respondents made up the remaining 69.4 percent.

TABLE 1 SURVEY RESPONSE BY REGIONAL STATUS

Geographic Region	Number of survey respondents	Percent distribution of respondents	Survey respondents as a percent of all persons surveyed (%)
CENTRAL SAVANNAH RIVER AREA	47	14.1	11.0
HEART OF GEORGIA ALTAMAHA	75	22.5	24.3
RIVER VALLEY	42	12.6	13.1
TIA Region Subtotal	164	49.2	15.5
NORTHEAST GEORGIA	60	18.0	7.5
SOUTHERN GEORGIA	49	14.7	8.7
MIDDLE GEORGIA	43	12.9	8.9
OTHERS IN NON-TIA REGION	17	5.1	N/A
Non-TIA Region Subtotal	169	50.8	9.2
Total	333	100.0	11.5

Survey Results

Questions Directed to Respondents in TIA and Non-TIA Regions

At the outset, the survey sought to determine how respondents voted during the initial TIA referendum. Tables 2 and 3 summarize the findings. The results differed for the TIA and non-TIA regions. Specifically, 83.5 percent of respondents in the TIA regions indicated they voted affirmatively for the referendum in 2012. When the same question was asked of Phase I respondents, the results indicated that 94.3 percent asserted they voted for the referendum. However, there is a difference in the

composition of the TIA respondents in Phase II. Specifically, the respondents include stakeholders and households, whereas Phase I included only stakeholders. Generally, stakeholders could be expected to be much more affirmative regarding the TIA program than households. In the non-TIA regions, a vote of yes for a TIA referendum was true for only 46.7 percent of respondents.

There were some notable variations among the regions regarding how they voted for the TIA referendum. All the results are provided in Table 3 and are as follows: Central Savannah River Area – 83.0 percent voted in favor of the referendum; Heart of Georgia Altamaha – 81.3 percent; River Valley – 88.1 percent; Northeast Georgia – 50.0 percent; Southern Georgia – 40.8 percent; Middle Georgia – 48.8 percent; Other non-TIA regions (not shown in table) – 47.1 percent.

TABLE 2 HOW DID YOU VOTE REGARDING TIA IN 2012, BY CATEGORY

In 2012, how did you vote regarding TIA?	CATEGORY		ALL RESPONSES (%)
	TIA REGIONS (%)	NON-TIA REGIONS (%)	
Yes	83.5	46.7	64.9
No	6.1	19.5	12.9
Not a Georgia resident in 2012	1.2	2.4	1.8
I do not remember how I voted	6.7	26.0	16.5
I did not vote	1.2	3.6	2.4
Refuse to answer	1.2	1.8	1.5
Total	100.0	100.0	100.0

TABLE 3 REGIONAL COMPARISON OF VOTING PATTERNS ON TIA IN 2012, BY REGION

In 2012, how did you vote regarding TIA?	REGIONS					
	CSRA (%)	HOGA (%)	RV (%)	NE (%)	SO (%)	MD (%)
Yes	83.0	81.3	88.1	50.0	40.8	48.8
No	4.3	8.0	4.8	15.0	22.4	25.6
Not a GA resident in 2012	0.0	2.7	0.0	3.3	0.0	0.0
I do not remember how I voted	10.6	5.3	4.8	25.0	30.6	25.6
I did not vote	0.0	1.3	2.4	6.7	2.0	0.0
Refuse to answer	2.1	1.3	0.0	0.0	4.1	0.0

The next question asked respondents if they were aware of the 25 percent local discretionary provision when they voted on the TIA referendum in 2012. Among the respondents residing in the TIA regions, 88.2 percent indicated they were aware, as compared to only 63.3 percent of the respondents in the non-TIA regions. During the Phase I survey, the response to this question was 96.5 percent for individuals who resided in the TIA regions. However, again, there are differences between the composition of the survey population between the two phases. Since stakeholders are more likely to be aware of the local provision, and Phase I consisted of stakeholders exclusively, it would be expected that they would have a higher awareness of this

provision. While most of the residents in both regions were aware of the provision, the percentage in the TIA regions who were aware was significantly greater than the percentage in the non-TIA regions. The results indicate that other factors must have been greater contributors to the non-TIA regions voting affirmatively on the original 2012 referendum. The difference in awareness was statistically significant based on a chi-squared test. Chi-square value was 27.8 and the level of significance was 0.001. (See Tables 4 and 5.)

TABLE 4 WERE YOU AWARE OF THE 25% LOCAL DISCRETIONARY PROVISION WHEN YOU VOTED IN 2012, BY CATEGORY

Were you aware of the discretionary provision in 2012?		CATEGORY	
		TIA REGIONS	NON-TIA REGIONS
		(%)	(%)
	Yes	88.2	63.3
	No	6.8	19.5
	Don't Know	3.7	14.2
	No Answer	1.2	3.0

TABLE 5 WERE YOU AWARE OF THE 25% LOCAL DISCRETIONARY PROVISION WHEN YOU VOTED, BY REGION

Were you aware of the discretionary provision in 2012?	REGION					
	CSRA (%)	HOGA (%)	RV (%)	NE (%)	SO (%)	MD (%)
Yes	84.8	89.2	90.2	68.3	55.1	67.4
No	6.5	6.8	7.3	13.3	26.5	20.9
Don't Know	6.5	2.7	2.4	13.3	16.3	11.6
No Answer	2.2	1.4	0.0	5.0	2.0	0.0

Respondents were asked whether it is important that local areas receive discretionary funds during referendums such as TIA, as follows: "How important is it to you that local areas receive a share of every new dollar collected to spend on transportation projects of their choice?" In the TIA group, 85.1 percent indicated that it is "extremely important," while 12.4 percent indicated it is "very important." The respective percentages for the non-TIA regions were 74.0 percent and 17.8 percent. For both regions, over 90 percent of respondents indicated receiving local discretionary funds is either extremely important or very important, and the differences in responses between the two regions were not statistically significant. (See Tables 6–8.)

TABLE 6 HOW IMPORTANT IS IT THAT LOCAL AREAS RECEIVE A SHARE OF EACH DOLLAR, BY CATEGORY

How important are the local discretionary funds?		CATEGORY	
		TIA REGIONS	NON-TIA REGIONS
		(%)	(%)
	Extremely Important	85.1	74.0
	Very Important	12.4	17.8
	Moderately Important	1.9	4.1
	Slightly Important	0.6	1.8
	Not at All Important	0.0	0.6
	No Answer	0.0	1.8

TABLE 7 HOW IMPORTANT IS IT THAT LOCAL AREAS RECEIVE A SHARE OF EACH DOLLAR, BY TIA REGION

How important are the local discretionary funds?		TIA REGIONS		
		CSRA	HOGA	RV
		(%)	(%)	(%)
	Extremely Important	89.1	81.1	87.8
	Very Important	10.9	14.9	9.8
	Moderately Important	0.0	2.7	2.4
	Slightly Important	0.0	1.4	0.0
	Not at All Important	0.0	0.0	0.0
	No Answer	0.0	0.0	0.0

TABLE 8 HOW IMPORTANT IS IT THAT LOCAL AREAS RECEIVE A SHARE OF EACH DOLLAR, BY NON-TIA REGION

How important are the local discretionary funds?		NON-TIA REGIONS		
		NE	SO	MD
		(%)	(%)	(%)
	Extremely Important	68.3	73.5	79.1
	Very Important	18.3	22.4	14.0
	Moderately Important	6.7	2.0	4.7
	Slightly Important	1.7	2.0	2.3
	Not at All Important	1.7	0.0	0.0
	No Answer	3.3	0.0	0.0

Respondents were asked to indicate whether they were aware that GDOT has established a website that tracks the progress and provides information on TIA. The TIA regions indicated that 75.8 percent of individuals were aware of the website, while within the non-TIA regions only 32.3 percent were aware. The difference in awareness was statistically significant. During the Phase I assessment, 74.7 percent of respondents indicated they were aware of the TIA website, and all those respondents were stakeholders. Hence, it appears that within the TIA regions, awareness is relatively strong even among ordinary households. Residents of River Valley have the greatest awareness of the TIA website (82.9 percent responded yes). Awareness in the non-TIA regions is least among residents in Northeast Georgia at 28.3 percent. Tables 9 and 10 summarize these findings.

TABLE 9 AWARENESS OF TIA WEBSITE SET UP BY GDOT, BY CATEGORY

Are you aware of GDOT's TIA website?		CATEGORY	
		TIA REGIONS	NON-TIA REGIONS
		(%)	(%)
	Yes	75.8	32.3
	No	23.0	67.1
	No Answer	1.2	0.6

TABLE 10 AWARENESS OF TIA WEBSITE SET UP BY GDOT, BY REGION

Are you aware of GDOT's TIA website?	REGION					
	CSRA (%)	HOGA (%)	RV (%)	NE (%)	SO (%)	MD (%)
Yes	73.9	73.0	82.9	28.3	36.2	41.9
No	26.1	24.3	17.1	70.0	63.8	58.1
No Answer	0.0	2.7	0.0	1.7	0.0	0.0

Persons who were aware of the GDOT TIA website were asked whether they had ever visited the site. The responses indicated that 63.9 percent of TIA respondents had visited the site, while 41.5 percent of residents in non-TIA regions had done so. The Phase I response to this question for residents of the TIA regions was 66.7 percent. (See Table 11.)

TABLE 11 HAVE YOU VISITED THE GDOT TIA WEBSITE, BY CATEGORY

Have you visited GDOT's TIA website?		CATEGORY			
		TIA REGIONS		NON-TIA REGIONS	
		Count	(%)	Count	(%)
	Yes	76	63.9	22	41.5
	No	42	35.3	30	56.6
	Don't Know	1	0.8	1	1.9

Respondents were also asked to provide their occupational status and indicate whether they had any special interest in or relationship to TIA. The results indicated

that 32.7 percent of the survey respondents in the TIA regions were elected officials, while 60.4 percent were non-elected government employees. Government-elected official and employee percentages for respondents in the non-TIA regions were 71.0 percent and 10.7 percent, respectively. More specific details are provided in Table 12.

TABLE 12 OCCUPATIONAL STATUS OR RELATION TO TIA, BY CATEGORY

Occupation: Select all that apply	CATEGORY		ALL REGIONS
	TIA REGIONS	NON-TIA REGIONS	
	(%)	(%)	(%)
I am an elected official (at the local, state or national level)	32.7	71.0	52.4
I am a non-elected government employee	60.4	10.7	34.8
I am the owner or manager of a business	0.6	2.4	1.5
I work for a private-sector (i.e., non-governmental) business or organization	0.0	3.0	1.5
I am an ordinary citizen	5.7	11.8	8.8
Other	0.6	1.2	0.9
Total	100.0	100.0	100.0

Respondents were asked to rank the transportation-related issues that were most important to them and others in their region. The ranking suggested that greater local control over how transportation dollars are spent was the item that was most

important to individuals in the TIA regions. Specifically, 72.2 percent of residents indicated this was the most important item to them. Within the non-TIA regions, residents were most concerned about reducing traffic accidents. This was expressed by 66.5 percent of the residents. The second-most important issue for the non-TIA residence was greater local control over transportation dollars. Other factors that were important included more jobs and faster economic growth, and more funds for local projects. (See Tables 13 and 14.)

TABLE 13 RANK THE ISSUES THAT ARE MOST IMPORTANT IN YOUR REGION, PERCENT BY CATEGORY

Rank the transportation-related issues in importance	CATEGORY	
	TIA REGIONS	NON-TIA REGIONS
	(% INDICATING THE ISSUE IS VERY IMPORTANT)	
Less traffic congestion to work	40.4	32.5
More local control over how transportation dollars are spent	72.2	61.1
Fewer traffic accidents	62.4	66.5
Easier movement of freight and cargo	40.8	44.9
Easier connection to other regions of the State	45.9	43.4
More sidewalks, bike paths, and green space	34.4	40.5
More funds to spend on local transportation projects	62.0	58.1
More jobs and faster economic growth	65.0	56.6

TABLE 14 RANK THE ISSUES THAT ARE MOST IMPORTANT IN YOUR REGION, PERCENT BY REGION

Rank the transportation-related issues in importance		REGION					
		CSRA %	HOGA %	RV %	NE %	SO %	MD %
	Less traffic congestion to work	35.6	40.5	45.9	40.0	34.7	19.5
	More local control over how transportation dollars are spent	71.7	70.3	76.3	55.9	75.5	51.2
	Fewer traffic accidents	56.5	64.9	64.9	68.3	71.4	59.5
	Easier movement of freight and cargo	34.8	37.8	54.1	16.7	14.3	21.4
	Easier connection to other regions of the State	45.7	44.6	48.6	38.3	58.3	38.1
	More sidewalks, bike paths, and green space	28.3	37.8	35.1	48.3	36.7	34.9
	More funds to spend on local transportation projects	56.5	60.8	71.1	54.2	65.3	51.2
	More jobs and faster economic growth	63.0	63.5	70.3	51.7	73.5	51.2

Next, respondents were asked what their priorities would be regarding expenditures if their local areas had money to spend on transportation projects. Residents of both regions indicated that the highest priority is repairing and maintaining roads and bridges; 80.6 percent of respondents in TIA regions set this as a top priority, while 72.3 percent of respondents in the non-TIA regions did so. The second-most important category across both regions was “easier connections to other regions.” The third-most important factor differed between the TIA and non-TIA regions (see Tables 15 and 16).

TABLE 15 IF MONEY WERE AVAILABLE TO SPEND, ON WHICH ITEMS WOULD YOU SPEND; RESPONSES STATING 'VERY IMPORTANT', BY CATEGORY

Rank the transportation-related expenditures in priority	CATEGORY	
	TIA REGIONS	NON-TIA REGIONS
	(% INDICATING THE ISSUE IS VERY IMPORTANT)	
Repairing and maintaining local roads and bridges	80.6	72.3
Constructing new local roads and bridges	35.3	36.4
Buying and maintaining transportation equipment	42.0	29.1
Improving transit service (e.g., bus service)	14.3	14.5
Easier connection to other regions of the state	45.9	43.4
Constructing more sidewalks, trails, and bike paths	30.8	35.8

TABLE 16 IF MONEY WERE AVAILABLE TO SPEND, ON WHICH ITEMS WOULD YOU SPEND; RESPONSES STATING 'VERY IMPORTANT', BY DETAILED REGION

Rank the transportation-related expenditures in priority	REGION					
	CSRA %	HOGA %	RV %	NE %	SO %	MID %
Repairing and maintaining local roads and bridges	73.3	85.1	80.5	74.6	81.6	58.1
Constructing new local roads and bridges	34.9	31.1	43.6	33.9	44.9	35.7
Buying and maintaining transportation equipment	40.9	38.7	50.0	20.3	46.9	21.4
Improving transit service (e.g., bus service)	16.3	12.2	16.2	11.9	20.4	11.9
Easier connection to other regions of the state	45.7	44.6	48.6	38.3	58.3	38.1
Constructing more sidewalks, trails, and bike paths	34.9	34.7	18.4	37.9	40.8	27.9

One of the most important and perhaps defining questions that was asked on the survey is as follows: "Suppose the vote on TIA did not happen in 2012. Instead, suppose you had the opportunity to vote on it today. Given all that you know about TIA, how would you vote today?" For the TIA regions overall, those indicating they would vote yes represented 90.9 percent of respondents. For the non-TIA regions, the overall response rate was 73.4 percent. Broken down by specific areas, the results are as follows: Central Savannah River Area – 87.2 percent; Heart of Georgia Altamaha – 92.0 percent; River Valley – 92.9 percent; Northeast Georgia – 78.3 percent; Southern

Georgia – 65.3 percent; and Middle Georgia – 79.1 percent. Note that in all cases, a very small percentage indicated that they would vote no; however, most of the respondents who did not select yes selected undecided. This is particularly true for the Southern Georgia region, as 28.6 percent indicated they were undecided. (See Tables 17–19.)

TABLE 17 WOULD YOU VOTE FOR TIA IF GIVEN THE OPPORTUNITY TODAY, BY CATEGORY

Would you vote for TIA today?		REGION		ALL REGIONS
		TIA REGIONS	NON-TIA REGIONS	
		(%)	(%)	(%)
	Yes	90.9	73.4	82.0
	No	4.3	8.3	6.3
	Undecided	3.0	17.8	10.5
	Refuse to Answer	1.8	0.6	1.2

TABLE 18 WOULD YOU VOTE FOR TIA IF GIVEN THE OPPORTUNITY TODAY, BY TIA REGION

Would you vote for TIA today?		TIA REGION		
		CSRA (%)	HOGA (%)	RV (%)
	Yes	87.2	92.0	92.9
	No	2.1	5.3	4.8
	Undecided	8.5	1.3	0.0
	Refuse to Answer	2.1	1.3	2.4

TABLE 19 WOULD YOU VOTE FOR TIA IF GIVEN THE OPPORTUNITY TODAY, BY NON-TIA REGION

Would you vote for TIA today?		NON-TIA REGION		
		NE (%)	SO (%)	MID (%)
	Yes	78.3	65.3	79.1
	No	11.7	6.1	7.0
	Undecided	10.0	28.6	14.0
	Refuse to Answer	0.0	0.0	0.0

The researchers also analyzed the likelihood of individuals voting yes broken down by age. The results indicated that 76.1 percent of respondents between 25 and 44 years of age would vote yes, while the same was true for 84.7 percent of respondents who were 45 to 64 years of age. Among individuals older than 64 years of age, 85.1 percent indicated they would vote yes.

Questions Directed to Respondents in TIA Regions Only

TIA-Specific Questions

Respondents were asked whether they were aware of TIA-funded projects or activity in the area. Most respondents indicated a high degree of awareness of TIA spending or TIA-related activities in the local areas. Table 20 presents the percentage of individuals who responded positively that they have observed a specific type of TIA-funded activity in their local area.

TABLE 20 PERCENT INDICATING 'YES' THEY HAVE OBSERVED TIA ACTIVITIES BY THEIR LOCAL GOVERNMENT, BY TIA REGION

Are you aware of TIA-funded projects in the area?	TIA REGION			TOTAL (%)
	CSRA (%)	HOGA (%)	RV (%)	
GDOT has given TIA funds to my local government	90.7	93.2	92.3	92.3
My local government has decided how it will spend TIA dollars	83.7	91.4	94.9	90.1
My local government has spent TIA funds on roads and bridges	84.1	90.3	90.0	88.5
My local government has spent TIA funds on transit services	9.1	7.1	10.5	8.6
My local government has spent TIA funds on traffic signs and signals	36.4	42.3	42.1	40.5
My local government has spent TIA funds on sidewalks, trails, and bike paths	13.6	22.5	21.6	19.7

Respondents were asked to rate their perception of the way in which GDOT has communicated with the public about the TIA program. The response categories are very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied (see Table 21). The results indicated that, overall, 76.7 percent of respondents in the TIA regions were either very satisfied or satisfied (i.e., 31.4 percent very satisfied and 45.3 percent satisfied). The responses broke down by specific areas as follows. Central Savannah River Area reflected 29.5 percent very satisfied and 40.9 percent satisfied for a total of 70.4 percent. At the same time, 11.4 percent were dissatisfied or very dissatisfied. Heart of Georgia Altamaha resulted in 27.0 percent very satisfied and 51.4 percent satisfied for a total of 78.4 percent. Correspondingly, 2.7 percent were dissatisfied, and 2.7 percent were very dissatisfied for a total of 5.4 percent. Finally, River Valley resulted in 41.5 percent very satisfied and 39.0 percent satisfied for a total of 80.5 percent, while very dissatisfied was 7.3 percent.

The differences in the level of satisfaction across the three regions were not statistically significant. Also, note that in Phase I, 30.3 percent were very satisfied, and 40.3 percent were satisfied, for a total of 70.6 percent. As such, there was little change between the percent of residents satisfied and very satisfied between the Phase I assessment and the Phase II assessment.

TABLE 21 HOW WOULD YOU RATE THE WAY GDOT HAS COMMUNICATED WITH THE PUBLIC ABOUT TIA, BY TIA REGION

Rate how you feel about GDOT's communication about TIA		TIA REGION			TOTAL
		CSRA (%)	HOGA (%)	RV (%)	(%)
	Very Satisfied	29.5	27.0	41.5	31.4
	Satisfied	40.9	51.4	39.0	45.3
	Neutral	18.2	16.2	12.2	15.7
	Dissatisfied	0.0	2.7	0.0	1.3
	Very Dissatisfied	11.4	2.7	7.3	6.3

Residents were also asked the following question: "Thus far, how would you rate the way that GDOT has implemented TIA?" Again, the response categories are: very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied. The results indicated that overall 88.1 percent of respondents in the TIA regions were either very satisfied or satisfied with the way GDOT has implemented TIA (40.6 percent very satisfied and 47.5 percent satisfied). The responses by specific areas are as follows. Central Savannah River Area found 37.8 percent very satisfied and 46.7 percent satisfied for a total of 84.5 percent. At the same time, 6.7 percent were dissatisfied or very dissatisfied. Heart of Georgia Altamaha had 36.5 percent very satisfied and 55.4 percent satisfied for a total of 91.9 percent. Correspondingly, 2.7 percent were very dissatisfied or dissatisfied. Finally, River Valley showed 51.2 percent very satisfied and 34.1 percent satisfied for a total of 85.3 percent. Those dissatisfied or very dissatisfied totaled 7.3 percent (see Table 22).

Note that in Phase I, 29.9 percent were very satisfied, and 44.8 percent were satisfied, for a total of 74.7 percent. As such, the level of satisfaction among TIA residents has increased significantly between the first phase and the second phase. During Phase I, satisfaction was very high and in Phase II it is even higher.

TABLE 22 HOW WOULD YOU RATE THE WAY GDOT HAS IMPLEMENTED TIA THUS FAR, BY TIA REGION

Rate how you feel about GDOT's implementation of TIA		TIA REGION			TOTAL
		CSRA	HOGA	RV	
		(%)	(%)	(%)	(%)
	Very Satisfied	37.8	36.5	51.2	40.6
	Satisfied	46.7	55.4	34.1	47.5
	Neutral	8.9	5.4	7.3	6.9
	Dissatisfied	0.0	0.0	2.4	0.6
	Very Dissatisfied	6.7	2.7	4.9	4.4

Respondents were asked the following question: "In your opinion, how satisfied are the residents of your local area with TIA, since it began in 2013?" The responses were as follows. Central Savannah River Area – 45.5 percent and 40.9 percent (86.4 percent) indicated they were very satisfied and satisfied, respectively; Heart of Georgia Altamaha – 47.2 percent and 41.7 percent (88.9 percent) indicated they were very satisfied and satisfied, respectively; and River Valley – 39.0 percent were very satisfied, and 39.0 percent were satisfied (78.0 percent). Overall, 44.6 percent and 40.8 percent or 85.4 percent were either very satisfied or satisfied with the way GDOT implemented

TIA since 2013. The differences among the regions were not statistically significant. In Phase I, the response to the similar questions produced the following outcome: 29.9 percent very satisfied and 44.8 percent satisfied for a total of 74.7 percent. There was a statistically significant increase in the level of satisfaction between the Phase I analysis and the Phase II analysis, and the difference potentially was even more significant because the second-phase analysis included household respondents. (See Table 23.)

TABLE 23 HOW SATISFIED ARE RESIDENTS IN YOUR AREA WITH TIA SINCE IT WAS IMPLEMENTED IN 2013, BY TIA REGION

How satisfied are residents in your area with TIA?		TIA REGION			TOTAL
		CSRA	HOGA	RV	
		(%)	(%)	(%)	(%)
	Very Satisfied	45.5	47.2	39.0	44.6
	Satisfied	40.9	41.7	39.0	40.8
	Neutral	13.6	9.7	17.1	12.7
	Dissatisfied	0.0	1.4	4.9	1.9
	Very Dissatisfied	0.0	0.0	0.0	0.0

The next question was as follows: “Given all that you know about TIA, do you feel your region’s participation in TIA was a good thing?” In the Central Savannah River Area, 93.3 percent of respondents indicated yes; in the Heart of Georgia Altamaha, 91.7 percent; and in the River Valley, 92.7 percent. Overall, 92.4 percent indicated yes as compared to 95.5 percent in the Phase I analysis. (See Table 24.)

TABLE 24 DO YOU FEEL YOUR REGION'S PARTICIPATION IN TIA WAS A GOOD THING, BY TIA REGION

Do you feel your region's participation in TIA a good thing?	TIA REGION			TOTAL
	CSRA (%)	HOGA (%)	RV (%)	(%)
Yes	93.3	91.7	92.7	92.4
No	0.0	1.4	4.9	1.9
Undecided	4.4	4.2	2.4	3.8
Don't Know/No Answer	2.2	2.8	0.0	1.9

The next question asked, "How likely are you to recommend TIA to another region that did not pass it originally?" The percentages indicating very likely and somewhat likely, respectively, are as follows: Central Savannah River Area – 82.2 percent and 13.3 percent (95.5 percent); Heart of Georgia Altamaha – 79.4 percent and 14.7 percent (94.1 percent); and River Valley – 82.5 percent and 10.0 percent (92.5 percent). Overall the percentages were 81.0 percent and 13.1 percent or 94.1 percent total. The Phase I percentages were 77.1 percent and 18.1 percent, respectively, or 95.2 percent total. (See Table 25.)

TABLE 25 HOW LIKELY ARE YOU TO RECOMMEND TIA TO ANOTHER REGION THAT DID NOT PASS IT ORIGINALLY, BY TIA REGION

How likely are you to recommend TIA to another region?	TIA REGION			TOTAL
	CSRA (%)	HOGA (%)	RV (%)	(%)
Very Likely	82.2	79.4	82.5	81.0
Somewhat Likely	13.3	14.7	10.0	13.1
Somewhat Unlikely	0.0	1.5	0.0	0.7
Very Unlikely	0.0	1.5	5.0	2.0
Don't Know/No Answer	4.4	2.9	2.5	3.3

Respondents' Profile

One question was designed to provide a profile of the respondents. They were asked the following: "Do you work for an organization that has responsibilities related to TIA? Or, do you belong to a civic organization that has a special interest in TIA?" The question was specific to respondents in the TIA regions; 65.9 percent of respondents in Central Savannah River Area indicated yes; 73.2 percent of respondents in Heart of Georgia Altamaha indicated yes; and 65.9 percent of respondents in River Valley stated the same thing. (See Table 26.)

TABLE 26 DO YOU WORK FOR AN ORGANIZATION THAT HAS A SPECIAL INTEREST IN TIA, BY TIA REGION

Do you work for an organization with a special interest in TIA?		TIA REGION			TOTAL
		CSRA (%)	HOGA (%)	RV (%)	(%)
	Yes	65.9	73.2	65.9	69.2
	No	25.0	21.1	29.3	24.4
	Don't Know/No Answer	9.1	5.6	4.9	6.4

Open-ended Question

Finally, respondents were asked an open-ended question: "What would you change about TIA if you could?" The first- and second-most frequently cited observations were to provide greater funding to local areas and to provide some flexibility in designating voter-approved projects because priorities change over a 10-year time horizon. The third-most frequently cited observation was to allow project funds to be fungible from those that were overbudget to ones that were under budget. Specific comments were as follows:

- Add an additional 1 cent for strictly local projects.
- Return all money to local projects.
- Allow approved projects to be dropped and others added if needed.
- Approve projects on a yearly basis like the LMIG [Local Maintenance and Improvement Grant] program. It is difficult to predict future needs years ahead of time.

- Be able to apply cost underruns on one project to overruns on another if the total amount does not exceed those approved for a community or county.
- Be able to make changes in priority lists by adding or deleting. A lot of things can change in a road's integrity in 10 years.
- Better coordination of regional projects in current local planning and local projects.
- Change the formula for computing local government share so that small rural areas could receive more funding.
- Have the State legislature and State officials pass laws and implement procedures that promote expansion of the TIA concept versus take actions to deter its future passage.
- I would highly recommend that TIA remains regional to assist rural and small areas.
- If there are excessive funds on a project because it came in underestimated cost, the excess could be used on another TIA project.
- I would love to see the regional TSPLOST continue. It has already been a blessing to Hancock County.
- Increase local share of funds. [This was the most frequently made observation.]
- It should last 20 years instead of 10.
- Larger percentage to municipal governments.
- Lessen the requirement of 'sending in projects' three years in advance for a 10-year period. Allow the local government to spend as needed on approved

items (more general) with GDOT's oversight. Only submit 'projects' for regional projects.

- Make a percentage mandatory for traffic signals (lights) in each county.
- More flexibility in the project band (i.e. scheduling timeframe of projects). Because with the current TIA, governments were having to prioritize roads 10 years in advance. Conditions change due to use, growth, and even possibly bad construction, etc.
- Make effort to convince people that all the money is not going to Metro Atlanta, even though the legislation was very plain.
- More funding and projects completed more quickly.

PERSONAL TELEPHONE INTERVIEW WITH STAKEHOLDERS

Thirty stakeholders were interviewed by telephone between December 1, 2017, and February 9, 2018. Key findings from the personal phone interviews are described below, followed by a description of the respondents' profiles, and more in-depth analysis of the phone interview responses by region and theme.

Key Findings

- The overall sentiment regarding the TIA program is overwhelmingly positive.
- Most respondents expressed familiarity with the TIA program and how it works, though respondents mention a need for improved education and marketing about TIA to foment public support.
- Respondents emphasized the importance of local control over dollars.
- The project category that was most commonly mentioned as a priority across all regions was the need to repair and maintain local roads and bridges, followed by the need to construct or improve local roads and bridges.
- Additional priorities mentioned include improving safety, regional connectivity, economic development, the facilitation of freight and cargo movement, and alternative transportation infrastructure such as sidewalks, bike paths, and transit.
- Regions that have received TIA funding discussed how funding has been allocated. Most funds have gone to resurfacing and paving roads. Other projects

include building and repairing bridges and overpasses, widening roads, bike lanes, road safety, transit improvements, drainage, freight movement, and equipment procurement.

- Improvements in local areas from TIA funding are mainly related to better road conditions. Additional improvements mentioned include reduced congestion, enhanced safety for drivers and pedestrians, economic development, improved bicycle and pedestrian facilities, and better freight movement.
- A comparison of comments from Phase I to Phase II indicates improved overall satisfaction with the TIA program, though there were some concerns expressed about the procedures by which TIA funds are allocated, the amounts disbursed, lack of construction in some areas, and questions about engaging local contractors.

Profile of Respondents

Table 27 summarizes the characteristics for the stakeholders interviewed in Phase II. Of the 30 persons interviewed, 14 stakeholders were from TIA-approved regions and 16 were from non-TIA regions. The most frequent type of respondent overall was City/County Government Officials with 13 counts.

Table 28 summarizes results regarding jurisdiction and duration of residence of the respondents, which supplements the profile information. Many of the interviewees mentioned that they had resided in their county for a long period of time.

TABLE 27 NUMBER AND TYPE OF STAKEHOLDER BY REGION

		TIA REGION			NON- TIA REGION			
Targeted Stakeholder		**RV**	**CSRA**	**HOGA**	**NE**	**MID**	**SO**	**Total**
1	City/County Government Officials	2	1		3	3	4	**13**
2	DOT Board Members		1			1		**2**
3	Other Elected Officials/Staff					1		**1**
4	Citizen Review Panels	1		1				**2**
5	Area Residents and Public				1			**1**
6	Business and Special Interest Groups (SIGs)						1	**1**
7	Regional Executive Director for TIA District	1	1	1				**3**
8	Local Chamber of Commerce		2		1	1		**4**
9	Business Leaders							**0**
10	GDOT District Engineers	1	1	1				**3**
	Total	**5**	**6**	**3**	**5**	**6**	**5**	30

TABLE 28 COUNTY OF RESIDENCE

Q1. Before we get started, tell us your Geographic location or County you are a resident of and how long have you lived there:	
TIA Regions	
Jurisdiction	**Duration**
Crisp County	19 years
Burke County	18 years
Columbia County	18 years
Candler County	75 years
Warren County	22 years
District 2 Engineer	7 years
District 4 Engineer	1 year
Sumter County	18 years
Columbus County	37 years
Dooley County	70 years
Heart of Georgia Region	43 years
Warren County	13 years
District 3 Engineer – Upson County	30+ years
Clarke County	51 years
Walton County	40 years
Non-TIA Regions	
Jurisdiction	**Duration**
Lowndes County	53 years
Monroe County	50 years
Pierce County	14 years
Twiggs County	30 years
Jackson County	25 years
Wilkinson County	48 years
Irwin County	13 years
Baldwin County	51 years
Baldwin County	25 years
Walton County	25 years
Coffee County	10 years
Walton County	“My entire life”
Pierce County	½ year
Jasper County	65 years
Coffee County	50 years
Elbert County	32 years

As shown, the results indicate that most respondents had resided for over a decade in the regions or counties that they were representing. As such, most respondents to these phone interviews have a historical perspective on transportation issues in their respective jurisdictions.

During the interviews, researchers took extensive notes. These notes were later analyzed and coded for common salient themes. The following sections summarize the results of this analysis and compare findings from TIA and non-TIA regions.

Comparison of Findings from TIA and Non-TIA Regions

This section compares findings from the TIA and non-TIA regions based on four themes: (1) evaluation of overall sentiment regarding TIA, (2) awareness of the TIA program and level of engagement, (3) the transportation needs and priorities of jurisdictions, and (4) additional information, such as recommended contacts. Due to differences in the survey instruments between TIA and non-TIA regions, data may be displayed in different formats.

Evaluation of Overall Sentiment Regarding TIA

To evaluate the overall sentiment about the TIA program, relevant comments were sorted into two categories: positive and negative. During this process, a third category emerged, which includes neutral comments or comments about how the TIA program might be improved. The positive and negative comments are divided according to whether they are derived from TIA regions or non-TIA regions in Tables 29 and 30, respectively, followed by a discussion of the overall sentiment regarding TIA.

TABLE 29 POSITIVE AND NEGATIVE COMMENTS FROM TIA REGIONS

TIA Regions			
Positive Comments			
Region	**County/City**	**Comment**	**Category**
River Valley	Sumter County	The program is run very well. They keep us updated about funding.	General
River Valley	Dooley County	They are doing a great job. Everyone is timely. Information comes rapidly. It is the best run DOT program I have been involved with in 32 years.	General
Heart of Georgia Altamaha	N/A	Yes—they do a wonderful job. I work very closely with them.	General
Middle GA	District Engineer	Nineteen counties in my District have TIA. It is a Godsend for these counties. They have been able to do stuff that they haven't done in 20 years.	General
River Valley	Sumter County	At first, I was very skeptical. But once you get into it, it makes sense. Some counties did not have the money, but now they do and they can do paving or plan for the future, and also work on connectivity.	General
Central Savannah River Area	Burke	I'm glad I [voted in favor of TIA]. I was suspicious of giving Georgia more money. I knew we needed money for county projects. The projects are done well and on time.	General
Central Savannah River Area	District Engineer	Yes—there are major projects. There has been a reduction in congestion.	General
Central Savannah River Area	District Engineer	The management of the TIA program has been very well received and implemented. I have been involved in some of this.	General
River Valley	Columbus	It has been a great thing for our region to have it. Our region worked well to get a project list together. The region as a whole has seen the benefits.	General
Heart of Georgia Altamaha	N/A	The TIA administrator and his staff are doing a great job. I would like to commend them on their work.	General
Heart of Georgia Altamaha	N/A	It has been positive for our part of the state. It has been beneficial for tax payers—they have seen results.	General

Region	County/City	Comment	Category
N/A	N/A	The people administrating TIA projects have done an outstanding job considering the economic forecast of the area.	General
Heart of Georgia Altamaha	Candler	There are two other regions planning to pull votes on this. People see the wisdom in doing this.	General
Heart of Georgia Altamaha	N/A	It has helped the economy. A lot of the contracts are local. The locals are competitive because they are right in the area.	Economy
Heart of Georgia Altamaha	N/A	There has been a positive economic wave. Businesses have invested. They see that we are doing a lot to improve transportation, and this helps with logistics. The dollars are also used to enhance economic development.	Economy
River Valley	Sumter County	Safety has improved—we have dealt with cracked roads and drainage issues. Before the roads had not been repaved in 40 to 50 years. We have also paved almost 70 miles of dirt roads for the first time, to allow for the construction of subdivisions.	Safety
Central Savannah River Area	Burke	Safer road conditions, resurfacing, and repainting lines. Elimination of road "ponding." Time will tell, maybe road congestion later.	Safety
River Valley	Dooley County	The contracts have been awarded right on time, on schedule. Projects are coming in under budget, which is great.	Project Specific
River Valley	Dooley County	This is rural GEORGIA. People are complaining less now that we got a pothole patching machine. People are thanking us for getting the potholes and lines fixed.	Project Specific
Central Savannah River Area	Warren County	They redid our intersection. This made it safer for pedestrians in the cross-walk area. This was a TIA project. It had an impact at that corner, where there was a lot of congestion. They made it look better and it is safer. This may have improved business at that intersection.	Project Specific
Heart of Georgia Altamaha	N/A	The road system is in better shape, e.g., widening the roads from two lanes to four lanes has reduced congestion.	Project Specific

Region	County/City	Comment	Category
Central Savannah River Area	N/A	Congestion on Washington Road has been reduced. It has changed peoples' commute in and out of Augusta.	Project Specific
River Valley	N/A	In some of the more rural areas, in River Valley, the small counties have been thrilled to get this additional money; they may not get a lot of money, but what they do get, they can do a lot with.	General
River Valley	N/A	The program has been an overwhelming success. The program has been as well received as it possibly could have been. The regions that passed it have certainly reaped the benefits of it, and that has not gone unnoticed in the areas where it did not pass.	General
River Valley	Dooley County	We have used TIA funds to purchase equipment…also use it for a 10% match to get state funding. We have striped 25 miles of roads a month until we had restriped all the paved roads in the county...We bought a pothole patching machine that carries rock and emulsion asphalt… We purchased a new gravel truck using TIA/SPLOST. We have passing lanes.	Project Specific
Heart of Georgia Altamaha	N/A	We had 700+ projects in our region. We had a lot of local projects: roads being repaved, dirt roads being paved. Businesses have taken off and are investing in the area. Because of TIA, local dollars can now be used for healthcare, education, emergency services, and utilities. It has freed up local funding.	Project Specific
Central Savannah River Area	Burke	Every penny goes to resurfacing (30 miles a year), also as matched funds for the 5311-rural transit program.	Project Specific
Negative Comments			
Region	**County/City**	**Comment**	**Category**
Central Savannah River Area	N/A	I'm aware of how contracts work. There are no local contractors.	General
River Valley	Sumter County	It takes a long time to do roads—we must deal with utilities.	General
Central Savannah River Area	N/A	There isn't much new construction happening.	General

TABLE 30 POSITIVE AND NEGATIVE COMMENTS FROM NON-TIA REGIONS

Non-TIA Regions			
Positive Comments			
Region	**County/City**	**Comment**	**Category**
Middle GA	Forsythe-Monroe	This is one of the most brilliant pieces of legislation that allows taxpayers to have a say. It is very clear.	General
Northeast GA	Jackson	We just launched state transportation funding of $1 billion. This will not solve everything. TIA would be useless in a recession, but now with an improving economy it is a better time to start thinking about getting ahead of the curve before the next downturn. It is good timing to have these types of conversations.	General
Southern GA	Irwin	The local maintenance and improvement grant is the same formula for cities as the House Bill 170. If we did just this, there would be an increase of 35%, but we must do more than the minimum: the other 25% from TIA would be impactful.	General
Southern GA	Coffee	The quality of the roads is average. The TIA money is a big help.	General

Negative Comments			
Region	**County/City**	**Comment**	**Category**
Middle GA	Twiggs	It [the quality of local transportation services] is not very good if the state is involved—we do a lot better on our own. The state spends a lot of money and gets very few things done. Some of the experiences with the State of GA have been horrible…We are a rural county. Most of the money goes to the bigger counties. If we get into a large group, the money doesn't come back. Anything we get from the state is half funded and then they want to come in and tell you what to do. The sales tax might not look like much to other groups, but it is a lot for us. People come in from other places and tell you how to run everything. We do our own pavement projects. What comes with 25% is a bunch of regulations.	General
Middle GA	Milledgeville	The TIA program was ill-conceived. The time horizon is too long. Over a 10-year period, things could change and evolve. A better idea for funding is through a motor fuel tax and user fee. It's the most equitable way to raise revenue and have it distributed more equitably.	General
Northeast GA	Jasper	There's too much emphasis on state routes. The state is not fulfilling local government's requests.	General

As evidenced by the summary tables above, the overall sentiment regarding the TIA program is overwhelmingly positive. While it is difficult to compare sentiment between TIA and non-TIA regions due to differences in the survey design, some important observations can be made. First, in the survey directed toward TIA regions, participants were directly asked several questions about their satisfaction with the TIA program. Twenty-seven positive comments resulted, compared to only three negative comments. The three negative comments describe a lack of construction, challenges

associated with construction, or contracts not being awarded locally. Positive comments cover a range of themes, describing overall satisfaction with the efficiency and administration of the program, positive impacts on the local economy, good road-safety improvements, reduced congestion, and descriptions of projects that were able to be carried out because of TIA funds.

The survey instrument for non-TIA regions did not specifically ask about satisfaction with the TIA program, as it has not been passed in those regions. Even so, participants voluntarily expressed sentiment about the program during some interviews, resulting in four positive comments and three negative comments. Sentiment toward the program seemed particularly negative in Middle Georgia, where two participants expressed strong opposition to the program and feelings that TIA would not adequately serve that region.

The exercise of sorting positive and negative comments yielded a third category of neutral comments that still provide interesting feedback or comments oriented toward how the TIA program might be improved. Neutral sentiments from both TIA and non-TIA respondents are summarized in Table 31.

TABLE 31 NEUTRAL COMMENTS FROM TIA AND NON-TIA RESPONDENTS

Neutral Comments That May Inform How to Improve the Program		
TIA Regions		
Region	**County/City**	**Comment**
Central Savannah River Area	Warren	I think I voted against it [TIA] because I am not in favor of higher taxes. But now I am glad it passed because we need the funds. From a personal and business perspective, I am against it, but I am torn on how to vote.
Heart of Georgia Altamaha	Candler	I had real reservations at first. The criteria in our region made me change my mind. It didn't pass in my county but in my region. I think it will pass next time.
Central Savannah River Area	Burke	One issue: DOT calls the funds TIA, but the public calls it TSPLOST.
Central Savannah River Area	N/A	If talking to the local community, ask what impact there might be if TSPLOST is NOT extended into 2022.
Central Savannah River Area	N/A	No one's keeping a list of what has been done. The local community may know. Local areas have a priority list.
Non-TIA Regions		
Region	**County/City**	**Comment**
Southern GA	Pierce County	The TSPLOST has been the most helpful program in the region. We need more help like that.
Middle GA	Milledgeville -Baldwin	We're working hard locally. There is a lack of education about TIA so people vote against it thinking that money will just go to Atlanta.
Southern GA	Coffee	Funding doesn't match projections. Are we gathering adequate funds? … Still concerned about initial values (initial projections) versus what we've received in funds.
Middle GA	Forsythe-Monroe	Most people don't investigate the details and just see it as another tax. People outside of Atlanta in rural GA don't want to be taxed to see their money spent in Atlanta. The regions that did not pass TIA had to be taxed anyways. There needs to be an education campaign.

Region	County/City	Comment
Northeast GA	Jasper	The state needs to give local areas more funds, regardless of the TIA vote.
Southern GA	Irwin	The perception in rural areas is that TSPLOT funds are all being directed to Atlanta. There needs to be improved marketing of local control to citizens to GA.

The comments from the non-TIA regions are particularly insightful, as they mention the need for improved education and marketing about TIA to garner public support. Specifically, efforts should be made to emphasize that the funds generated by the tax (whether the 25 percent discretionary or the 75 percent that go to the state) are not all being invested in the Atlanta metropolitan area. Another important finding is that the public seems confused about the difference between the TSPLOST and the TIA program.

Awareness of the TIA Program and Level of Engagement

Awareness about the TIA program and level of engagement were evaluated in the phone interview survey, albeit through slightly different formats. Participants from the TIA regions were evaluated using open-ended questions. These resulted in a series of comment tables that are displayed in the subsection below. In contrast, participants from non-TIA regions were asked a few multiple-choice questions to evaluate their awareness and involvement. Responses to these questions are displayed in graphics in the subsequent subsection.

Results from the TIA Region Phone Interview

Respondents to the survey in the TIA regions were first questioned about their knowledge of the program and whether they have any related job responsibilities. The following comments were obtained in response to this question and reveal a range of knowledge and involvement with TIA (see Table 32).

TABLE 32 OVERALL UNDERSTANDING OF TIA

Tell me a little about your overall understanding or involvement with TIA; do you have any job responsibilities directed related to TIA and do you have an interest in following TIA's progress?	
Expert / Highly Involved	We staffed a roundtable. I'm on expert on it.
	I manage the construction of TIA-funded projects. I oversee 27 counties and 300 employees.
	We deal directly with GDOT. Regional councils sit on the advisory committee which we help run.
	Twelve regional commissions had to put together priority roads while I was mayor. I was one of five people chosen for the executive committee to vote for the final roads to fund. Currently, I'm on the Citizens Review Panel as a voice for citizens.
	The program evolved through the regional commission. We helped set up the council that oversaw it. The cities got together and decided and the executive committee was chosen. The committee divided the region up into 5 sections, helped to create the project list, and whittle the list down to 23 projects.
	I've been involved with TIA from the beginning until it went on the ballot. I'm the District 3 Pre-Construction Engineer, so my office handles all the ROW acquisition, some of the design, all the surveying tasks, location, and planning in District 3.
	I am helping to sit down and identify key projects. Projects are focused on providing connectivity.
	Very familiar. I was on the round table when we put the project list together. We did not have funds to stripe roads prior to TIA—the cycle is 30 years.
	I oversee 31 counties in the Southwest GA. I give locals advice on different projects. They set up their own list. I am not directly involved with TIA, but I act indirectly as a consultant.
	As County Administrator, I administer local portions (funds) and work with counties for other larger projects.
	I am familiar with Act and do not have job responsibilities related to TIA.
	I have limited knowledge. My job is not related to transportation, but I have asked DOT to do a feasibility study to install bicycle lanes on main street (HW 278 – a state highway). They were installed last week. I am not sure if TIA funded it, but it is very possible. I cycle and drive.
Limited Knowledge and Involvement	I am not very knowledgeable about TIA. I'm the Chairman of the Citizens Review Panel formed by the Speaker of the House.

Most respondents in the TIA regions expressed familiarity with the TIA program. Some participants are experts on the subject and are fully engaged through their jobs, while others are indirectly engaged or not engaged and have more limited knowledge.

Respondents were then asked about the amount of time they typically devote to TIA-related matters during a week of work. Comments were sorted from most involved to least involved, as depicted in Table 33.

TABLE 33 ENGAGEMENT WITH TIA PROGRAM

During a typical week, about how much of your time is devoted to TIA-related matters and if so, please describe the related activities?	
More Time	I get calls every day about widening lanes or dealing with bridges.
	Five hours.
	Very little once we get projects selected/submitted because it's then handled by the city manager. However, the last citizen review panel meeting involved us putting together a letter to the lieutenant governor and senator of the house which took about three to four hours.
	I spend a couple of hours reviewing information the TIA Committee provides.
	One hour. I answer the City and County's questions about whether projects are eligible. I talk to the media and the DOT.
	One hour a week. Some weeks require more time.
	This depends—some weeks we work several hours on TIA-related matters, other weeks we do not work on TIA at all. Related tasks include scheduling meetings with the citizens review panel. We do not do much apart from that.
	Maybe two hours per week, maybe one day per month.
	Two to three percent, so not much. I help with the local share for resurfacing. I also help to find materials (procurement). We use the local share for the 5311-program for rural bus/van system for counties. I help find matching funds.
	One to two percent of my time is devoted to TIA. It varies—I might get very involved in a project, but they are few and far between. We have our own TIA program.
	A lot is done at the field level. The time commitment varies, but a couple of questions may come in once in a while.
Less Time	It is a byproduct of my job.

The results indicate that few of the respondents work more than five hours a week on TIA projects, though the numbers of hours per week may be highly variable due to the timing of projects. Some respondents have job responsibilities that are more directly related to TIA and require more time, while others are less directly related to TIA.

Next, respondents were questioned about the level of awareness about TIA among residents in their area. Table 34 lists the comments, arranged in order of highest to lowest level of perceived public awareness.

TABLE 34 AWARENESS OF TIA PROGRAM

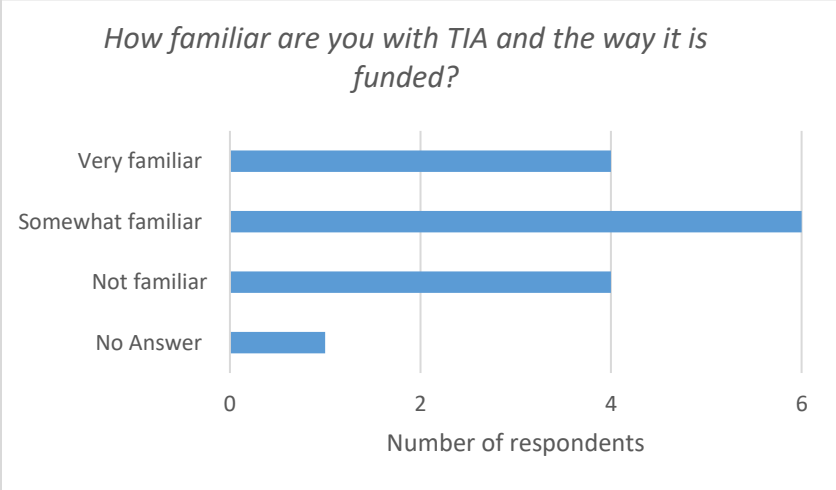
How would you describe the level of awareness about TIA among residents in your local area?	
High level of public awareness 	High. There is construction happening all over.
	Now it is very widely known. Our local governments make sure that a TIA-funded project has signs. This information is also made available in the newsletter and newspaper.
	Residents of River Valley are very aware of the program now.
	Well informed.
	We try to raise awareness. We have a public hearing, put signs out with the construction saying, "This is a TIA/SPLOST project." We also put advertisements in the paper.
	Most people are aware of TIA, but perhaps 25% are not aware. People in local government are aware.
	Twenty-five percent know what it is, 50 percent have an idea, and 25 percent don't know and don't care.
	When people see roadwork being done, it might help raise awareness. Parts of I-20 have been resurfaced (not sure if it is TIA but I assume it is). We have seen a lot more roadwork in the area and assume this is why.
	It is hard to say. There is good awareness from certain members of the public. On a scale of 1–10, I would say it is about level 4.
	Somewhat aware.
	They don't know much, but once a particular road was fixed they were thankful. It seems like after that project, some were aware of TIA.
Low level of public awareness	It was very well known at the time of vote. Now, several years later—people would not know or would not remember.
	Not much.

As the table above indicates, there is variation in the level of public awareness about the TIA program. In some areas where there is a lot of construction going on and good

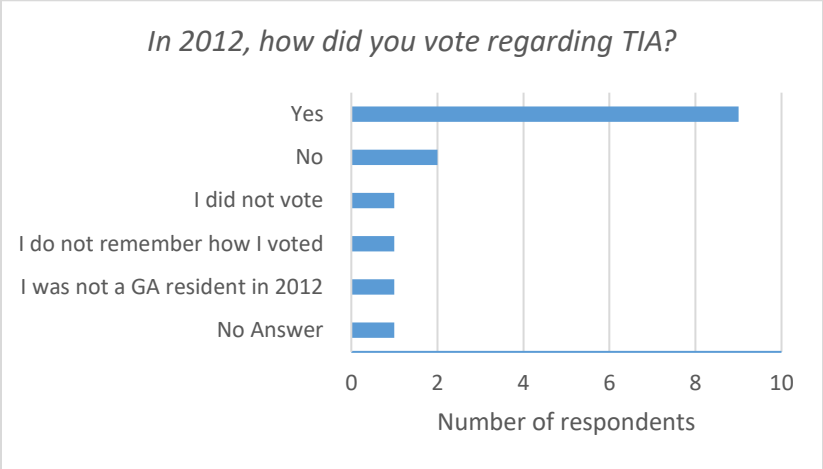
signage indicating that these are TIA projects, there are elevated levels of awareness. In other areas, respondents displayed less confidence in the level of public awareness.

Results from the Non-TIA Region Phone Interview

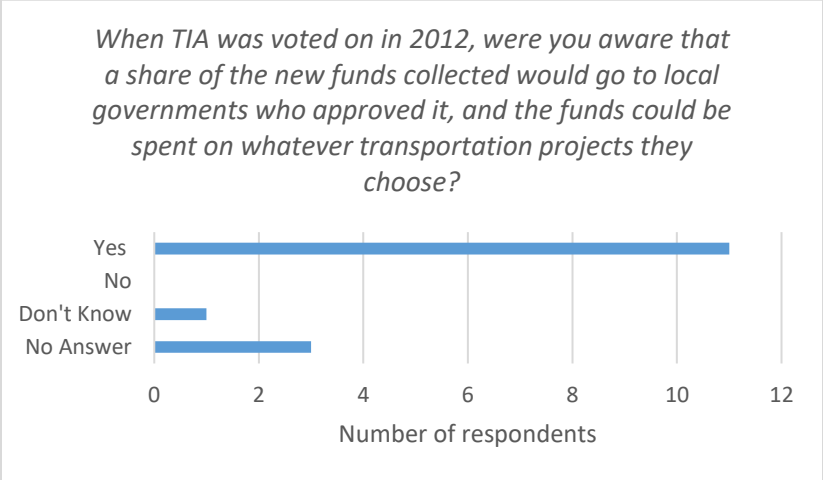
In contrast to the TIA phone interview survey, which consisted of open-ended questions to assess awareness and engagement with the TIA program, non-TIA region interviewees were asked a series of multiple-choice questions. The following charts summarize the responses to relevant questions.



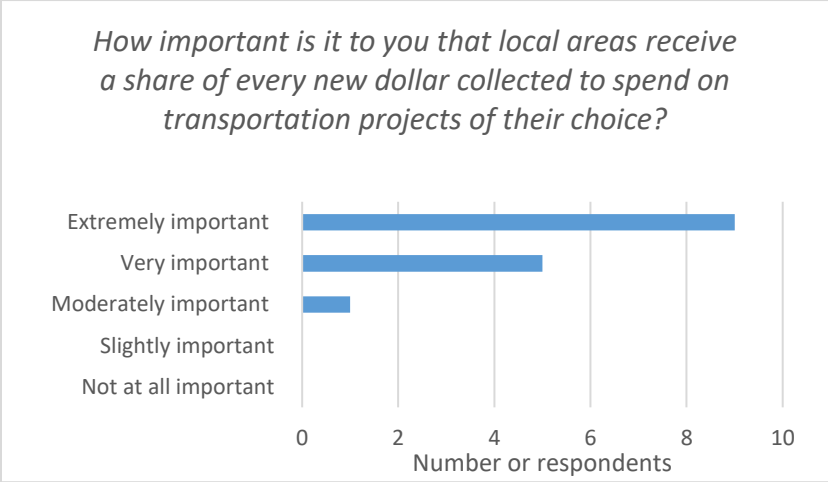
Most respondents (10) indicated that they are somewhat or very familiar with the TIA program and how it is funded. However, four respondents indicated that they are not familiar.



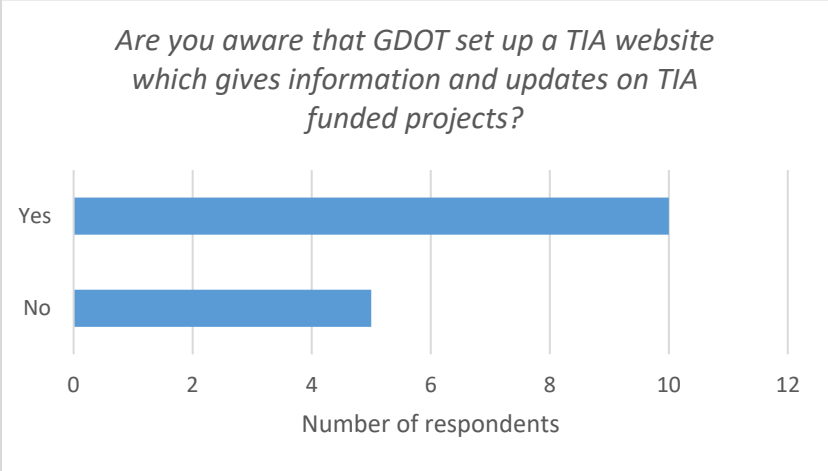
Most respondents (9) replied that they voted in favor of TIA in 2012. Only two replied that they voted against the legislation.



Most of the respondents (11) replied that they were aware that a share of the TIA funds goes to local governments at the time that they were voting on the legislation.



All respondents replied that it was moderately to extremely important that local areas receive a share of the funds generated, with most respondents (9), indicating that this is extremely important.



Most respondents (10) are aware that GDOT has a TIA website, but five were unaware.

Interviewees were asked how much their job relates to transportation services in their area and how much time they devote to these types of projects. This was an open-ended question, and the resulting comments were sorted in descending order of the time the respondent devotes to these types of job responsibilities. (See Table 35.)

TABLE 35 JOB RESPONSIBILITIES RELATED TO TRANSPORTATION

Do you have any job responsibilities directly related to local transportation services in your region? During a typical week, about how much of your time is devoted to this type of work, and what are your responsibilities?	
More Time	Yes, every day. As a commissioner, I'm responsible for taxation of the county.
	Roads and Revenues—This is my job.
	Yes—transportation is a major issue to most citizens. There are lots of potholes. There are many pedestrians—not many cyclists.
	Yes, I put together investment lists for the City of Milledgeville. About 50% of my time (20 hours per week) is devoted to these things.
	About 20% of my work week. I analyze the local maintenance improvement grant and evaluate transportation needs.
	I oversee the road department. Oversight is indirect: the supervisor of the road programs reports to me. We meet daily to discuss local road maintenance and projects. I talk daily with DOT and engineers. About 10% of my time is devoted to transportation. I am working on regional plans with the regional commission.
	Yes, about 10% of my time. I manage the county SPLOST program, roads, and administration. I work with GDOT on budgeting transportation projects and do administrative tasks.
	Yes, I'm the City Manager. I oversee road improvements. I spend about 4 to 6 hours a week working on these types of things.
	On average, 2–3 hours a week because my work is with non-motorized trails and green space.
	Only to the extent that issues interact with the chamber and economic development—not in any other capacity. I am not in government.
	The school district is in the business of schools and education. We collaborate with the County regarding our transportation-related needs like routing school buses.
	Not really. I work with the County on repainting roads. The DOT takes care of Highway 186 and 83.
	No—not jobwise. As a volunteer I am involved.
Less Time	I am a city clerk—my duties are not transportation related.
	No.

The results indicate that several of the respondents have job responsibilities that are related to local transportation and spend a significant amount of time on these duties.

Just over half of the respondents indicated that they spend about 10 percent or more of their time on transportation-related projects during their work hours. For those respondents that devote more than 10 percent of their time to local transportation services, most deal directly with roadway maintenance and improvements.

Summary of Findings Regarding Awareness and Engagement

As can be expected, respondents from the TIA survey expressed greater familiarity with the program, many of them engaged directly with the program through their job responsibilities. Only two respondents expressed limited knowledge of TIA. In contrast, in the non-TIA survey, four respondents stated that they did not know about the program at all. Nevertheless, the majority have job responsibilities requiring them to engage with local transportation issues, and many expressed being in favor of TIA. The overwhelming positive sentiments gathered from these surveys can be interpreted to mean that TIA and non-TIA regions alike understand the benefits associated with TIA and would like to see their communities partake in this funding opportunity.

Evaluation of Transportation Needs and Priorities

Both the TIA and non-TIA survey instrument had questions to gauge what stakeholders considered to be the needs and priorities of the jurisdictions they oversee. The comments related to needs and priorities are displayed in Table 36.

TABLE 36 STAKEHOLDER COMMENTS ON NEEDS AND PRIORITIES

Needs and Priorities		
TIA Regions		
Region	**County/City**	**Comment**
Central Savannah River Area	Warren	Economic development. Roads are part of that, maybe not the most important part but they are needed to increase the industrial base.
Heart of Georgia Altamaha	Candler	Metro Atlanta is different than Candler. We need roads resurfaced here. Three to four streets need resurfacing here. We need sidewalks put in.
Central Savannah River Area	N/A	Probably road safety.
Central Savannah River Area	Burke	We still need connections on Highway 56 to relieve truck traffic. Several projects are needed to move freight from two-lane roads to four-lane roads (road widening projects). Also, project for direct connection between Waynesboro and Plant Vogel. There is congestion in an 8-year-long construction area.
River Valley	N/A	Regional connectivity.
Heart of Georgia Altamaha	N/A	Maintenance is a priority (e.g., resurfacing roads). Others include capital projects and building connectivity. Priorities are different depending on the county.
Central Savannah River Area	Warren County	- We have several roads that need a lot of work. - Block Grants have been received or water and sewer improvements. However, a lot of our surface roads in town need resurfacing. - Need to get trucks to slow down in downtown business districts (an area of about 3–4 blocks). It gets dangerous when 18-wheelers are coming down the street at speeds that are too fast, especially at lunch time. -As far as the county goes, the roads are ok.
Heart of Georgia Altamaha	N/A	We have been able to replace a lot of bridges. Right now, we are working on bridges and repaving roads that need it. We are expanding lanes on major highways for the region.
River Valley	Dooley County	Safety and connectivity: - Safety: lights, signs, striping, lines on roads, potholes. We get more complaints about striping than we do about potholes. -Connectivity: we have lots of roads in Dooley County—half are dirt. We are trying to tie paved roads together. Now all residents are within a 1/2 mile of a paved road. We are doing a road parallel to I-75 to use as an alternative to congestion.

Region	County/City	Comment
River Valley	Columbus	Here in Columbus, priorities include connectivity with other counties in the region. Bike and pedestrian projects are also important.
River Valley	Sumter County	1) Safety 2) Moving cargo in and out quickly 3) Upgrading
Heart of Georgia Altamaha	N/A	Maintenance and construction and funding sources (e.g., repairing and maintaining local roads and bridges or constructing new ones). It depends on the county that you are in. Some counties like Glascock do not have enough funds. Bigger counties have more funds and therefore routine maintenance. I would rate all of the counties across the board at a 5 out of 10.
Central Savannah River Area	N/A	Local area projects that cities want. They can use federal funds for projects where right-of-way is not hard.
River Valley	N/A	Our bridges need repair. We have a lot of infrastructure that needs repair.
Non-TIA Regions		
Region	**County/City**	**Comment**
Northeast GA	Elbert County	Connecting to larger areas. Bike paths would be great to have. We need to connect downtown square to public park—there is no sidewalk.
Southern GA	Coffee	The biggest issue in the rural county is the quality of roads. Roads are economic development.
Northeast GA	Jasper	Congestion on the interstate. Truck bypass in Monticello hasn't been completed after 40 years. The right-of-way has been bought, but it had to be sold back to the landowners. "We're being left out."
Southern GA	Pierce	Dirt roads make it hard to get students to school. We need our drainage system to be improved.
Northeast GA	Walton	The biggest issue is drainage (lack of it) for Highway 83; curbs and gutters need to support drainage. There is a push for safety, signalization at intersections.
Southern GA	Coffee	Bike path, connections throughout the region, resurfacing roads.
Northeast GA	Walton	Sidewalks and bike paths. We need more funding sources for the maintenance of existing roadways.
Middle GA	N/A	Locally, all the transportation system infrastructure and paved surfaces.

Region	County/City	Comment
Middle GA	Milledgeville-Baldwin	Public transportation. Additional non-motorized areas for pedestrians.
Southern GA	Irwin	- Local control over dollars - The perception in rural areas of GA is that TSPLOT funds are all being directed to Atlanta. - There needs to be improved marketing of local control to citizens to GA - Pedestrian and green space is not receiving enough attention. We need parks and more walkable downtown, as well as amenities to make areas livable.
Middle GA	Ivey	Funding—we do not have enough money to keep everything up and running.
Northeast GA	Jackson	All the issues are important. Congestion is an issue in a couple of areas—it is related to the movement of freight and cargo. - We are in transition between being rural and urban. - Sidewalks are an issue. - Highway I-85 is coming
Middle GA	Twiggs County	- Local control of funding - Accidents - The state wants to do the same thing in Twiggs as they would in Bibb or Jones. Their method doesn't work here. -It took 1.5 years to deal with a site causing serious accidents.
Southern GA	Pierce County	In order: - Funding sources are a top priority - Logistics for moving freight—to support the economy - Connecting to other areas - Sidewalks and bicycles.
Middle GA	Forsythe-Monroe	Congestion. We are already connected to a wider region. We are a hub. But everything else you mentioned is an issue. We have already prioritized our projects: 1) Congestion—especially near schools—roundabout 2) Repairing sidewalks and bridges.
Middle GA	N/A	Trucks bypass—movement of freight. More investment desperately needed.

Some unique county-specific transportation-related needs are worth highlighting, such as Walton County's (Northeast Georgia region) lack of drainage on Highway 83, making roadways impassable. Also, Milledgeville-Baldwin in Middle Georgia has a strong need

for funds to support public transportation and pedestrian improvements, and Irwin County in Southern Georgia has similar needs. A recurring theme is that local areas do not have enough funds for routine maintenance, as a respondent from Ivey County in Middle Georgia states, “We don’t have enough money to keep everything up and running.”

In Dooley County within the River Valley Region, safety improvements like “lights, signs, striping, lines on roads, potholes” are needed. In Warren County within the Central Savannah River Area, there is a “need to get trucks to slow down in downtown business districts” because the speeds at which they are traveling is dangerous to themselves and others on the roadway. To better process and analyze overall trends in responses from both TIA and non-TIA regions, relevant responses were categorized and tallied by project type and region. The results are displayed in Table 37 below, followed by a discussion of the overall findings and a review of priorities.

TABLE 37 NEEDS AND PRIORITIES

Project Type	TIA			Non-TIA			Total
	RV	CSRA	HOGA	MID	NE	SO	
Repairing and maintaining local roads and bridges	2		1	6	4	4	**17**
Constructing/improving local roads and bridges	2	1		4	1	4	**12**
Bike/ped improvements	1		1		5	2	**9**
Buying and maintaining transportation equipment				3	1	2	**6**
Road safety (speed, dangerous intersections)	2	2		1	1		**6**
Regional connectivity	2		1				**3**
Transit				1		1	**2**
Water and sewer/drainage/curbs & gutters		1			1		**2**
Congestion relief	1	1					**2**
Movement of truck freight and cargo	1	1					**2**
Economic development		1					**1**
Local control		1					**1**
Performing routine maintenance activities			1				**1**
Road widening		1					**1**
Passing lanes		1					**1**
Regional Need Total	**11**	**10**	**4**	**15**	**13**	**13**	**66**

Overall, 15 distinct project types were identified. A total of 66 responses were classified as needs and priorities. The project category that was most commonly mentioned as a priority across all regions was the need to repair and maintain local roads and bridges (17 responses). This was followed by the need to construct or improve local roads and bridges (12 responses), and thirdly, the need to improve bicycle and pedestrian facilities (9 responses).

Non-TIA regions had more comments related to needs and priorities than TIA regions (41 comments versus 25), but this may have been a result of differences in survey design. Nevertheless, each group can be analyzed independently. Non-TIA regions especially emphasize the need to construct, improve, repair, and maintain local roads and bridges (23 responses). Improvements to bicycle and pedestrian facilities was also important in non-TIA regions (7 responses), followed by buying and maintaining transportation equipment (6 responses). Another theme among non-TIA regions is the need for improved road safety and transit options.

For TIA regions, there was a wider variation of needs and priorities compared to non-TIA regions. Road conditions and road safety appear to be among the top needs and priorities in TIA regions. Respondents also mentioned the need to improve regional connectivity, reduce congestion, and improve the movement of freight and cargo, all of which relate to enhancing economic activity (8 comments related to economic activity). Finally, respondents commented on more specific needs for road improvements, such as dealing with water, sewerage, and drainage issues, widening roads, and adding passing lanes.

While the small sample size from each region and the differing survey instrument between TIA and non-TIA regions make it difficult to draw overarching conclusions about regional needs and priorities, the data do reveal important insights. Data gathered from the phone interviews and reported in this table can supplement findings from the stakeholder survey and help identify regions with high-priority needs and the types of projects that they emphasize.

Quality of Local Transportation Services for Non-TIA Regions

On the non-TIA survey instrument, a specific question was asked regarding the quality of local transportation services. Stakeholders had the opportunity to share their opinions about the current state of local transportation services available to residents of these regions. The answers to this question might be especially useful in the future if these regions pass a TIA referendum.

Table 38 summarizes opinions about the quality of local transportation services on a continuum from positive to negative opinions. The positive comments are presented first, with comments expressing more negative sentiments toward the bottom of the table.

TABLE 38 COMMENTS ON QUALITY OF LOCAL TRANSPORTATION – NON-TIA REGIONS

How would you describe the quality of local transportation services in your region?		
Region	**County**	**Comment**
Middle GA	Forsythe - Monroe	The quality of the roads is great. I have no opinion on the buses. County roads vary by county—ours is pretty good.
Northeast GA	Jackson	The systems are operating well.
Northeast GA	Walton	Pretty good, we're taking care of the roads.
Southern GA	Coffee	Good.
Middle GA	N/A	Good in Baldwin County.
Northeast GA	Walton	Good, but limited. The roads are pretty good. We need sidewalks, trails, and more public transit.
Middle GA	Milledgeville-Baldwin	Between fair and good.
Southern GA	Pierce	Fair, there are dirt roads that are impossible to use when it rains.
Southern GA	Coffee	The quality of the roads is average. The TIA money is a big help.
Middle GA	Ivey	Not great but not bad.
Southern GA	Irwin	- The more rural areas are falling behind. - The less densely populated areas are less apt for pedestrian friendly and cycling infrastructure - Overall the infrastructure is acceptable quality but not great. - The elderly and special needs groups have some.
Northeast GA	Bowman City in Elbert County	No transit. Not even a Greyhound stop. No public transportation. The quality of the roads is O.K. to pretty good.
Middle GA	Twiggs County	It is not very good if the state is involved—we do a lot better on our own. The state spends a lot of money and gets very few things done. Some of the experiences with the State of Georgia have been horrible.
Northeast GA	Jasper	It's adequate and leaves room for improvement. There's too much emphasis on state routes. The state is not fulfilling local government's requests.

Region	County	Comment
Southern GA	Pierce County	- Very poor. - We are in rural GA. We have a lot of needs to expand opportunities for various roads. - There is a lot of poverty. - We need to improve transportation to work. - There is a lack of ability to transfer between communities. -We need right of way.

As the comments show, there is a range of sentiment regarding the current quality of local transportation services in non-TIA regions, and there are mixed feelings within regions. For example, comments in Northeast Georgia range from "the systems are operating well" to comments that point out the lack of transit and emphasize that the system needs improvement. The negative comments provide more detail and focus on the need for public transportation, bicycle and pedestrian improvements, mobility and access for vulnerable populations, regional connectivity, and funding for capital projects. A respondent from Pierce County in Southern Georgia states that there is "a lot of poverty" and a "lack of ability to transfer between communities." This suggests that underlying economic problems may also be core issues for certain counties that must be considered in tandem with transportation needs.

There are also several comments that are critical of state involvement. For example, a respondent from Twiggs County in Middle Georgia states that "experiences with the State of Georgia have been horrible" and that very few projects get completed. A comment from Jasper County in Northeast Georgia is that the state does not "fulfill local government's requests" and that too much emphasis is placed on "state routes" instead of other transportation-

related projects. If TIA programs are to be expanded in these regions, these specific concerns may need to be addressed.

Additional Information (Follow-up)

Respondents from the TIA and non-TIA regions were asked a series of follow-up questions regarding additional information they wanted to disclose, and about other community members and professionals they recommend speaking to who might be willing to share their opinions about TIA and local transportation services. The sub-sections below describe findings from the TIA and non-TIA regions.

TIA Follow-up Comments

Eleven respondents from TIA regions commented on TIA-related matters they were not specifically asked about. The comments are listed in Table 39, with the more positive comments at the top and more negative comments at the bottom, followed by a brief analysis.

TABLE 39 FOLLOW-UP COMMENTS FROM TIA REGION RESPONDENTS

Is there any topic I didn't ask questions about that you wish to comment on, or anything else you would like to share related to the TIA program?		
Target Regional Commission	**Target County**	**Comment**
Heart of Georgia Altamaha	Candler	There are two other regions planning to pull votes on this. People see the wisdom in doing this.
Heart of Georgia Altamaha	N/A	The management of the TIA program has been very well received and implemented. I have been involved in some of this.
Heart of Georgia Altamaha	N/A	The TIA administrator and his staff are doing a great job. I would like to commend them on their work.
Heart of Georgia Altamaha	N/A	It has been positive for our part of the state. It has been beneficial for tax payers—they have seen results.
River Valley	Columbus	It has been a great thing for our region to have it. Our region worked well to get a project list together. The region as a whole has seen the benefits.
River Valley (GDOT District Three)	N/A	The program has been an overwhelming success. The program has been as well received as it possibly could have been. The regions that passed it, have certainly reaped the benefits of it, and that has not gone unnoticed in the areas where it did not pass.
River Valley	N/A	The people administrating TIA projects have done an outstanding job considering the economic forecast of the area.
Central Savannah River Area	N/A	If talking to the local community, ask what impact there might be if TSPLOST is NOT extended into 2022.
Central Savannah River Area	Burke	One issue: DOT calls the funds TIA, but the public calls it TSPLOST.
Central Savannah River Area	Warren	There is a need for sidewalks on Highway 80. We have community housing there. I believe the downtown could see more business if there was connectivity to the housing. Currently it is very dangerous: there is a ditch. People need sidewalks on both sides of Highway 80. This is a major project that would make a big difference.
River Valley	Sumter	It takes a long time to do roads—we have to deal with utilities.

Of the 11 responses, the majority are overwhelmingly positive reviews of the TIA program. The Heart of Georgia Altamaha and River Valley regions were especially supportive of the program. There were a few comments (the last three in the table) that provide constructive feedback about project-specific cases, difficulties, or confusions with the TIA program. These may be considered when moving forward with TIA programming in these regions.

Non-TIA Follow-up Comments

This part of the survey yielded a greater amount of comments about the TIA program from non-TIA respondents than from TIA-region respondents. A total of 13 comments were shared about the TIA program and they provided more detailed information than those of the TIA respondents. Table 40 summarizes the comments garnered from non-TIA respondents.

TABLE 40 FOLLOW-UP COMMENTS FROM NON-TIA REGION RESPONDENTS

Is there any topic I didn't ask questions about that you wish to comment on, or anything else you would like to share related to the TIA program?		
Target Regional Commission	**Target County**	**Comments**
Southern GA	Pierce	The TSPLOST has been the most helpful program in the region. We need more help like that.
Middle GA	Forsythe-Monroe	- This is one of the most brilliant pieces of legislation that allows taxpayers to have a say. It is very clear. - Most people don't investigate the details and just see it as another tax. - People outside of Atlanta in rural GA don't want to be taxed to see their money spent in Atlanta. - The regions that did not pass TIA had to be taxed anyways. - There needs to be an education campaign. - The Savannah River Harbor could have influence.
Northeast GA	Elbert	Semi-trucks on two-lane roads are a bit of a safety issue: roads are set at 10 feet
Northeast GA	Jasper	The state needs to give local areas more funds, regardless of the TIA vote.
Southern GA	Pierce	Safety is also an important issue and should be added to the list. Especially student safety. We need to implement a traffic signal on a major highway that students need to use to access campus.
Northeast GA	Walton	There's congestion at the intersections of Highways 138, 78, and Monroe.
Southern GA	Coffee	Funding doesn't match projections. Are we gathering adequate funds?
Middle GA	Milledgeville- Baldwin	We're working hard locally. There is a lack of education about TIA so people vote against it thinking that money will just go to Atlanta.
Middle GA	N/A	They have project needs without TIA.
Southern GA	Irwin	- We need to get roads paved. - The local maintenance and improvement grant is the same formula for cities as the House Bill 170. If we did just this there would be an increase of 35%, but we must do more than the minimum: the other 25% from TIA would be impactful.

Target Regional Commission	Target County	Comments
Northeast GA	Jackson	We just launched state transportation funding of $1 billion. This will not solve everything. TIA would be useless in a recession, but now with an improving economy it is a better time to start thinking about getting ahead of the curve before the next downturn. It is good timing to have these types of conversations.
Middle GA	Twiggs	We are a rural county. Most of the money goes to the bigger counties. If we get into a large group, the money doesn't come back. Anything we get from the state is half funded and then they want to come in and tell you what to do. The sales tax might not look like much to other groups, but it is a lot for us. People come in from other places and tell you how to run everything. We do our own pavement projects. What comes with 25% is a bunch of regulations.
Middle GA	N/A	The TIA program was ill-conceived. The time horizon is too long. Over a 10-year period, things could change and evolve. A better idea for funding is through a motor fuel tax and user fee. It's the most equitable way to raise revenue and have it distributed more equitably.

Many of the comments were project-specific and offered recommendations on how to change public perception so that a vote on TIA can pass in the future. A comment from Forsythe-Monroe County in Middle Georgia emphasized the point that public outreach and educational campaigns are necessary to demystify some of the concerns residents have about TIA's effects on their communities. A similar comment from Milledgeville-Baldwin County in Middle Georgia expressed the need for public education so that residents will not vote against TIA because they think the "money will just go to Atlanta."

Other comments were project-specific, such as congestion at highway intersections, road paving, and connectivity. Two comments, both from Middle Georgia, question the amount of funds received allocated to their local areas. One respondent inquires whether their region is getting "adequate funds." Another respondent acknowledges the positive benefits associated with receiving TIA funds but also voices disagreement in having to follow state-imposed regulations to use TIA funds. These comments are useful for determining how to focus efforts to advance the TIA program in regions that are reconsidering the referendum.

Phone Interview Survey Instruments and Limitations

A limitation of this study is the differences in the phone-interview survey instruments that were directed toward the participants from TIA and non-TIA regions. This is partly because the questions directed at the participants from the TIA regions are meant to evaluate the administration of the program, something that is not possible in non-TIA regions.

Differences in the structure of the surveys make direct comparison difficult, and some data analytics possible for one region are not possible on others. Despite these differences, the results and comments were categorized into common themes, yielding insightful data that should be helpful in evaluating the TIA program and determining best strategies for moving forward. In conjunction with data from the stakeholder survey, findings from the socioeconomic study, and the literature review, these data provide a basis for the recommendations in this report.

SOCIOECONOMIC PROFILE

Overview

In the following analysis, three regions that passed the Transportation Investment Act in 2012 are compared to three control regions where TIA was not passed, based on socioeconomic characteristics between 2010 and 2015. While no two regions are exactly alike, treatment and control region pairs were selected based on certain common socioeconomic and geographic characteristics. The three regions that passed the Act were Central Savannah River Area, Heart of Georgia Altamaha, and River Valley; their comparative counterparts are, respectively, Northeast Georgia, Southern Georgia and Middle Georgia.

Key Findings

Comparing the TIA and non-TIA regions highlights key trends among these areas over time. Some distinct variations in demographic and economic variables between the regions are worth noting, as they can be used to extrapolate future socioeconomic patterns and dictate future transportation investment. The results of the analysis are mixed and provide a foundation for continued analysis. Specifically, an area of opportunity is to examine variations at the county level and to compare these with where TIA projects are taking place.

The key findings from the socioeconomic analysis are summarized below.

Comparison of River Valley and Middle Georgia Regions

- The number of paid employees in River Valley increased by 41 percent overall from 2010 to 2015, while in Middle Georgia it decreased by almost 2 percent. Harris and

Chattahoochee Counties experienced the most job growth between 2010 and 2015 with about 11,500 and 6000 new jobs added in each county, respectively.

- The mean travel time to work in River Valley increased by an average of 1.2 minutes, while in Middle Georgia, it fell by an average of 15 minutes, cutting commute times down by over 35 percent.

Comparison of Central Savannah River Area and Northeast Georgia Regions

- The number of paid employees in CSRA grew by almost 55,000 to 187,874, which represents a 41 percent increase between 2010 and 2015. In Northeast Georgia, the number of paid employees grew by almost 50,000, which represents a 25 percent increase between 2010 and 2015.
- Northeast Georgia grew in population by over 140,000, representing a 32 percent population growth from 2010 to 2015. Population density in this region increased by 28 percent. In contrast, CSRA's population grew much slower, rising by just over 10,000 or 2 percent since 2010.
- Over 2400 new building permits have been issued in Northeast Georgia, representing an increase of almost 400 percent since 2010. In contrast, the number of building permits in CSRA has declined slightly, by just over 2 percent.
- In Northeast Georgia, the percentage of the population over 25 years of age and with a bachelor's degree or higher has gone from 7 percent in 2010 to about 13 percent in 2015. In CSRA this percentage remained almost constant.

- Mean travel time to work fell significantly in Northeast Georgia between 2010 and 2015, from 44 minutes to 28 minutes. In CRSA it remained almost constant.

Comparison of Heart of Georgia Altamaha and Southern Georgia Regions

- In Heart of Georgia Altamaha, there was a 53 percent increase in the number of paid employees, totaling an increase of 35,569 paid employees in the region between 2010 and 2015. By contrast, the number of paid employees in Southern Georgia declined by almost 8000, or 5 percent over this period.
- Heart of Georgia Altamaha issued over 35,500 new building permits, representing a 53 percent increase since 2010. Southern Georgia issued just under 400 new building permits, which represents a 42 percent increase, though starting from a much smaller base than Heart of Georgia Altamaha.
- In Heart of Georgia Altamaha, there was a 4 percent increase in the obese population compared to a 1 percent increase in Southern Georgia.
- In Southern Georgia, the mean travel time to work decreased from 30 to 23 minutes from 2010 to 2015, while in Heart of Georgia Altamaha it remained around 24 minutes.

Comparison of River Valley and Middle Georgia Regions

River Valley is a region that passed the TIA. Its socioeconomic characteristics will be compared to the Middle Georgia region, which did not pass the TIA, to compare changes in these regions since 2010. Tables 41–44 provide 2010 and 2015 data for each region and are followed by a descriptive analysis.

TABLE 41 2010 RIVER VALLEY SOCIOECONOMIC DATA

2010 DATA													
Panel 1: River Valley	Population, 2010	Area (sq. miles)	Median Age, 2010	White Alone, Percent, 2010	Foreign Born Persons, Percent, 2010	Population Density (population per square mile)	Median Household Income, 2010	Number of Paid Employees, 2010	Building Permit Estimates, Units, 2010	Percentage of Housing Units Vacant, 2010	Percentage of Population 25 and Older with Bachelor's Degree, 2010	Percentage of Population Obese, 2010	Mean Travel Time to Work (Minutes), 2008-2012
Chattahoochee	11,267	248.7	24	68.8%	5.5%	45.3	$48,684	627	6	24.1%	21.4%	27.5%	14.5
Clay	3,183	195.4	45.8	37.6%	1.2%	16.3	$22,582	375	10	38.2%	6.5%	30.1%	24.3
Crisp	23,439	272.6	38.1	53.3%	1.5%	86	$32,320	6,455	75	17.2%	8.9%	28.2%	18.9
Dooly	14,918	391.9	40	45.6%	3.9%	38.1	$30,789	2,299	0	19.7%	6.4%	29.5%	18.4
Harris	32,024	463.9	42	79.3%	2.3%	69	$68,816	3,360	88	15.5%	15.9%	25.5%	28.1
Macon	14,740	400.6	38.2	35.1%	4.4%	36.8	$30,906	2,035	1	21.7%	6.2%	31.7%	22.5
Marion	8,742	366	40.8	60.1%	4.9%	23.9	$33,875	1,182	17	26.3%	6.0%	28.0%	28.6
Muscogee	189,885	216.4	33.5	46.3%	5.0%	877.5	$41,443	78,399	339	12.8%	13.8%	28.8%	19.1
Quitman	2,513	151.2	46.4	51.3%	0.2%	16.6	$32,750	243	5	48.3%	4.7%	28.2%	21.1
Randolph	7,719	428.2	42.8	36.6%	1.3%	18	$32,688	1,251	1	28.0%	6.0%	31.0%	18.5
Schley	5,010	166.9	37.1	73.0%	2.4%	30	$40,612	788	0	19.6%	8.4%	26.9%	30.4
Stewart	6,058	458.7	37.3	28.0%	9.6%	13.2	$28,222	761	1	18.4%	5.1%	30.6%	30.3
Sumter	32,819	482.7	33.8	42.2%	3.7%	68	$33,528	8,406	19	17.0%	10.8%	29.2%	18.7
Talbot	6,865	391.4	45.6	39.0%	0.8%	17.5	$26,750	570	6	20.6%	6.4%	30.1%	28.9
Taylor	8,906	376.7	39.7	58.5%	1.5%	23.6	$28,402	1,034	10	22.4%	5.8%	28.1%	26.1
Webster	2,799	209.1	40.6	54.0%	0.5%	13.4	$29,926	230	0	19.3%	5.1%	29.4%	25
Average	23,180	326.3	39.1	50.5%	3.00%	87.1	$35,143	6,750.90	36	23.10%	8.60%	28.90%	23.3
Median	8,824	-	-	-	-	-	-	-	-	-	-	-	-
Total	370,887	5,220.4	NA	NA	NA	71.0	NA	108,014.50	578	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 42 2015 RIVER VALLEY SOCIOECONOMIC DATA

2015 DATA													
Panel 2: River Valley	**Population, 2015**	**Area (sq. miles)**	**Median Age, 2015**	**White Alone, Percent, 2015**	**Foreign Born Persons, Percent, 2015**	**Population Density (population per square mile)**	**Median Household Income, 2015**	**Number of Paid Employees, 2015**	**Building Permit Estimates, Units, 2016**	**Percentage of Housing Units Vacant, 2015**	**Percentage of Population 25 and Older with Bachelor's Degree, 2015**	**Percentage of Population Obese, 2013**	**Mean Travel Time to Work (Minutes), 2008-2012**
Chattahoochee	11,914	249	23	69.9%	6.8%	48	43,378	6,555	2	22.5%	19.3%	27.3%	15
Clay	3,104	195	40	31.8%	1.7%	16	20,438	840	6	37.2%	2.7%	29.8%	30
Crisp	23,314	273	38	53.9%	2.1%	86	31,615	8,340	20	19.2%	8.9%	31.1%	19
Dooly	14,293	392	41	44.1%	4.4%	36	28,696	4,760	0	19.8%	6.7%	34.7%	21
Harris	32,776	464	43	78.5%	2.2%	71	63,824	14,813	180	15.0%	15.7%	28.4%	26
Macon	14,045	401	41	36.8%	3.1%	35	28,684	4,203	4	22.9%	5.3%	36.4%	25
Marion	8,739	366	42	58.8%	4.7%	24	36,242	3,133	13	25.8%	7.0%	32.9%	31
Muscogee	200,285	216	34	45.8%	5.4%	926	42,306	86,104	295	12.9%	15.0%	28.8%	20
Quitman	2,326	151	49	49.6%	0.7%	15	31,487	734	1	51.4%	6.3%	34.0%	21
Randolph	7,315	428	39	34.8%	2.7%	17	28,377	2,474	3	23.8%	7.1%	33.7%	19
Schley	5,074	167	38	73.6%	1.7%	30	39,375	1,916	6	13.6%	9.4%	30.4%	27
Stewart	5,868	459	38	29.8%	25.8%	13	21,118	1,488	0	26.1%	8.7%	34.2%	28
Sumter	31,429	483	35	42.6%	2.9%	65	32,758	11,035	16	17.7%	9.3%	32.7%	21
Talbot	6,490	391	48	41.4%	0.9%	17	34,078	2,449	5	21.1%	9.2%	33.3%	33
Taylor	8,401	377	43	58.7%	1.1%	22	28,143	2,799	12	24.6%	6.6%	28.8%	29
Webster	2,720	209	41	43.2%	0.2%	13	37,063	1,115	6	23.7%	4.3%	32.1%	27
Average	23,631	326	40	49.6%	4.2%	90	34,224	9,547	36	23.6%	8.8%	31.8%	25
Median	8,570	-	-	-	-	-	-	-	-	-	-	-	-
Total	378,093	5,221	NA	NA	NA	72	NA	152,758	569	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 43 2010 MIDDLE GEORGIA SOCIOECONOMIC DATA

2010 DATA													
Panel 1: Middle GA	Population, 2010	Area (sq. miles)	Median Age, 2010	White Alone, Percent, 2010	Foreign Born Persons, Percent, 2010	Population Density (population per square mile)	Median Household Income, 2010	Number of Paid Employees, 2010	Building Permit Estimates, Units, 2010	Percentage of Housing Units Vacant, 2010	Percentage of Population 25 and Older with Bachelor's Degree, 2010	Percentage of Population Obese, 2010	Mean Travel Time to Work (Minutes), 2010
Baldwin	46,905	258	34	56%	3%	182	37,237	17,945	61	19%	6%	32%	18
Bibb	154,810	250	36	44%	4%	620	38,798	62,484	192	18%	10%	30%	15
Crawford	12,821	325	39	73%	2%	39	37,062	5,589	15	12%	7%	31%	84
Houston	134,880	376	34	65%	5%	359	55,098	60,057	646	12%	10%	30%	20
Jones	28,292	394	39	74%	2%	72	50,717	12,712	25	11%	8%	31%	70
Monroe	25,864	396	40	73%	2%	65	48,297	11,816	110	11%	8%	33%	44
Peach	26,883	150	34	49%	5%	179	41,014	10,551	78	16%	7%	34%	25
Pulaski	11,632	249	41	66%	1%	47	36,262	4,514	14	17%	3%	31%	34
Putnam	20,925	345	44	69%	4%	61	41,529	8,814	35	33%	8%	32%	33
Twiggs	9,385	358	41	56%	1%	26	26,521	2,875	7	28%	4%	32%	60
Wilkinson	9,685	447	40	59%	1%	22	37,902	3,362	2	22%	6%	32%	27
Average	43,826	322	38	62%	3%	152	40,949	18,247	108	18%	7%	32%	39
Median	25,864	-	-	-	-	-	-	-	-	-	-	-	-
Total	482,082	3,547	NA	N/A	N/A	136	NA	200,719	1,185	N/A	N/A	N/A	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 44 2015 MIDDLE GEORGIA SOCIOECONOMIC DATA

2015 DATA													
Panel 2: Middle GA	Population, 2015	Area (sq. miles)	Median Age, 2015	White Alone, Percent, 2015	Foreign Born Persons, Percent, 2015	Population Density (population per square mile)	Median Household Income, 2015	Number of Paid Employees, 2015	Building Permit Estimates, Units, 2016	Percentage of Housing Units Vacant, 2015	Percentage of Population 25 and Older with Bachelor's Degree, 2015	Percentage of Population Obese, 2013	Mean Travel Time to Work (Minutes), 2008 2012
Baldwin	45,795	258	34	54.6%	2.6%	178	32,460	15,780	51	20.9%	9.2%	36.8%	21
Bibb	154,816	250	36	42.9%	3.7%	620	36,519	58,764	89	18.5%	14.5%	31.3%	21
Crawford	12,539	325	44	73.8%	1.4%	39	41,825	4,819	17	13.7%	8.4%	27.3%	28
Houston	147,570	376	35	61.5%	5.8%	393	53,270	64,693	775	10.4%	14.3%	31.0%	21
Jones	28,738	394	39	72.6%	0.9%	73	51,857	12,010	23	11.0%	12.2%	33.5%	27
Monroe	26,915	396	42	73.4%	1.7%	68	48,744	10,499	106	12.1%	12.2%	31.9%	26
Peach	27,086	150	35	47.5%	5.9%	180	41,588	11,384	56	11.4%	13.2%	34.4%	22
Pulaski	11,590	249	41	62.9%	2.3%	47	38,750	3,929	8	18.5%	6.2%	31.7%	21
Putnam	21,247	345	46	68.9%	6.9%	62	44,299	9,205	62	33.6%	12.4%	30.0%	26
Twiggs	8,509	358	46	55.9%	0.2%	24	30,468	2,526	1	28.0%	6.0%	32.8%	32
Wilkinson	9,386	447	42	59.6%	1.4%	21	38,485	3,209	9	25.5%	3.9%	34.5%	24
Average	44,926	322	40	61.2%	3.0%	155	41,660	17,893	109	18.5%	10.2%	32.3%	24
Median	26,915	-	-	-	-	-	-	-	-	-	-	-	-
Total	494,191	3,547	NA	NA	NA	139	NA	196,818	1,197	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

2010 Baseline Data for River Valley and Middle Georgia Regions

An indicator of each jurisdictions' relative similarities and differences can be broadly understood by comparing population, land area, number of counties, and population density. The River Valley region is composed of 16 counties, while Middle Georgia has 11 counties. In terms of land area, River Valley is larger, encompassing a total of 5221 square miles, which is about 1.5 times the size of Middle Georgia (3547 square miles).

While larger in land area, River Valley had a total population of 370,887 in 2010, which was about 100,000 less than the population of Middle Georgia at 482,082. As such, the population density in Middle Georgia (136 people per square mile) is higher than in River Valley (71 people per square mile). While the average area of the individual counties within these regions is similar (326 square miles and 322 square miles, respectively), the median population in Middle Georgia (25,864) was triple that of River Valley (8824).

More detailed demographic and socioeconomic information provides greater insight into each region's makeup and can highlight trends within and between the study areas. The demographic makeup of the regions in 2010 was similar overall. The median age of residents in the two regions was very similar in 2010 at 39 years for River Valley and 38 years for Middle Georgia. For both regions, 3 percent of the population was foreign-born in in 2010. Half of the population was White in River Valley, while White individuals represented over 60 percent of the population in Middle Georgia. Seven percent of the population in Middle Georgia over 25 years of age had a bachelor's degree, which is comparable to River Valley's 9 percent.

The economic characteristics of these two regions' population in 2010 were similar overall, but with some variation. The median household income in Middle Georgia was $40,949, which was about 16 percent higher than in River Valley ($35,143). The number of paid employees was over 200,000 in Middle Georgia, almost double that of River Valley where the number was 108,014. This difference is likely related to Middle Georgia's larger overall population.

With respect to the housing stock, the percent of vacant houses in River Valley (23 percent) was greater than in Middle Georgia (18 percent). There were 1185 building permits issued in Middle Georgia in 2010, compared to 578 building permits issued in River Valley for that year.

Regarding obesity, Middle Georgia had slightly higher obesity rates (32 percent of the population) compared to River Valley's 29 percent. The mean travel time to work in Middle Georgia was 39 minutes, compared to a 23-minute average commute time experienced in River Valley.

2015 Data and Changes since 2010 for River Valley and Middle Georgia Regions

Since 2010, the number of counties has remained constant in both regions, as has the land area. Regarding population, both grew between 2010 and 2015, though Middle Georgia experienced slightly more population growth (2.5 percent) than River Valley (1.9 percent). Population density remained almost constant for these two regions over those five years.

The sociodemographic characteristics in both regions remained constant, with some small variations. The median age for both regions in 2015 was 40, which is comparable to the median age in 2010. The percent of foreign-born persons in River Valley increased by 1 percent, while it remained almost constant in Middle Georgia. The White-only population decreased slightly

by about 1 percent in both River Valley and Middle Georgia. The population over 25 years of age with a bachelor's degree remained almost constant in River Valley, while in Middle Georgia it rose by just over 3 percent.

Median household income remained mostly constant in both regions, with slight fluctuations. The median household income in River Valley fell by 3 percent, from about $35,000 in 2010 to about $34,000 in 2015. Of note, when data are observed on the county level, Webster and Talbot Counties in River Valley experienced over 20 percent increases in median household income, while in Stewart County median household income decreased by the same proportion. In Middle Georgia, median household income rose by 2 percent. The number of paid employees in River Valley increased by 41 percent overall, while in Middle Georgia it decreased by almost 2 percent. In River Valley, Harris and Chattahoochee Counties experienced the most job growth between 2010 and 2015 with about 11,500 and 6000 new jobs added in each county, respectively.

Regarding housing stock, the percent of vacant housing units remained constant in both River Valley and Middle Georgia over the years, at around 23 percent and 18 percent, respectively. The number of building permits declined by 1.6% in River Valley and increased slightly (by 1 percent) in Middle Georgia.

The percent of the obese population increased by almost 3 percent in River Valley and remained about the same in Middle Georgia as the 2010 rates. Finally, the mean travel time to work in River Valley increased by an average of 1.7 minutes. In Middle Georgia, it fell by an average of 15 minutes, cutting commute times down by over 35 percent.

Comparison of Central Savannah River Area and Northeast Georgia Regions

Central Savannah River Area is a region that passed the TIA. As with the two regions described above, Central Savannah River Area's socioeconomic characteristics will be compared to the Northeast Georgia region, which did not pass the TIA Act, to compare changes since 2010. Tables 45–48 provide 2010 and 2015 data for each region, followed by a descriptive analysis.

TABLE 45 2010 CENTRAL SAVANNAH RIVER AREA SOCIOECONOMIC DATA

Panel 1: Central Savannah River Area	Population, 2010	Area (sq. miles)	Median Age, 2010	White Alone, Percent, 2010	Foreign Born Persons, Percent, 2010	Population Density (population per square mile)	Median Household Income, 2010	Number of Paid Employees, 2010	Building Permit Estimates, Units, 2010	Percentage of Housing Units Vacant, 2010	Percentage of Population 25 and Older with Bachelor's Degree, 2010	Percentage of Population Obese, 2010	Mean Travel Time to Work (Minutes), 2008-2012
Burke	23,316	827	35.9	47.50%	1.50%	28.2	$31,597	4,838	41	21.20%	6.00%	31.30%	27.6
Columbia	124,053	290.1	36.8	76.50%	7.00%	427.6	$67,295	26,284	1,285	10.40%	21.20%	23.40%	24.4
Glascock	3,082	143.7	39.3	89.80%	1.10%	21.4	$32,346	175	NA	20.90%	5.10%	25.90%	28.3
Hancock	9,429	471.8	43	24.40%	2.60%	20	$22,716	727	12	46.10%	7.40%	31.60%	24.9
Jefferson	16,930	526.5	38.8	42.60%	0.60%	32.2	$27,612	3,806	19	15.30%	6.30%	30.30%	21.9
Jenkins	8,340	347.3	38.2	54.90%	3.90%	24	$27,039	834	8	29.60%	9.40%	29.40%	25.8
Lincoln	7,996	210.4	45	65.70%	1.50%	38	$34,347	940	16	28.60%	6.80%	28.00%	32.7
McDuffie	21,875	257.5	38.4	57.20%	1.20%	85	$38,855	6,172	33	11.90%	8.30%	28.30%	25.3
Richmond	200,549	324.3	33.2	39.70%	3.40%	618.3	$38,952	80,515	378	15.20%	12.50%	28.40%	20.1
Taliaferro	1,717	194.6	45.9	37.30%	2.80%	8.8	$24,390	55	2	35.10%	5.90%	30.30%	26.5
Warren	5,834	284.3	42.9	36.90%	0.70%	20.5	$32,155	603	0	23.20%	4.20%	30.70%	23.6
Washington	21,187	678.5	38.9	45.00%	1.20%	31.2	$31,441	5,368	4	21.20%	7.70%	30.70%	23.4
Wilkes	10,593	469.5	43.4	53.00%	0.90%	22.6	$28,224	2,648	17	20.70%	8.10%	28.10%	24.8
Average	34,992	386.6	40	51.60%	2.20%	106	$33,613	10,228	NA	23.00%	8.40%	29.00%	25.3
Median	10,593	-	-	-	-	-	-	-	-	-	-	-	-
Total	454,901	5,025.40	NA	NA	NA	90.5	NA	132,964	1,815.00	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 46 2015 CENTRAL SAVANNAH RIVER AREA SOCIOECONOMIC DATA

2015 DATA													
Panel 2: Central Savannah	Population, 2015	Area (sq. miles)	Median Age, 2015	White Alone, Percent, 2015	Foreign Born Persons, Percent, 2015	Population Density (population per square mile)	Median Household Income, 2015	Number of Paid Employees, 2015	Building Permit Estimates, Units, 2016	Percentage of Housing Units Vacant, 2015	Percentage of Population 25 and Older with Bachelor's Degree, 2015	Percentage of Population Obese, 2013	Mean Travel Time to Work (Minutes), 2008-2012
Burke	23,007	827	36	47.8%	2.1%	28	33,641	8,593	50	17.6%	5.6%	32.0%	26
Columbia	136,204	290	37	75.5%	6.5%	470	71,021	62,435	1,235	13.0%	21.6%	30.3%	25
Glascock	3,087	144	40	88.4%	0.8%	21	40,759	1,327	N/A	25.6%	5.1%	28.6%	29
Hancock	8,881	472	44	24.5%	2.6%	19	24,925	2,120	19	46.8%	5.9%	31.2%	28
Jefferson	16,374	526	38	43.4%	2.1%	31	26,557	5,041	1	16.5%	7.3%	35.3%	25
Jenkins	8,922	347	41	62.6%	4.1%	26	24,604	2,985	13	26.1%	7.5%	29.9%	22
Lincoln	7,720	210	47	66.2%	1.5%	37	34,243	3,051	24	28.5%	7.4%	29.0%	31
McDuffie	21,582	257	38	56.3%	1.8%	84	36,656	8,153	23	12.3%	9.2%	33.4%	26
Richmond	201,291	324	33	39.1%	3.6%	621	37,424	80,653	335	17.5%	12.7%	34.1%	20
Taliaferro	1,721	195	48	40.0%	1.5%	9	26,306	569	N/A	34.1%	6.3%	31.4%	28
Warren	5,561	284	44	37.6%	2.0%	20	29,176	1,943	0	28.1%	8.1%	32.0%	26
Washington	20,785	678	40	45.6%	1.6%	31	37,932	7,249	71	20.0%	9.4%	32.2%	21
Wilkes	9,991	469	44	53.2%	3.2%	21	32,727	3,755	5	22.4%	8.7%	32.9%	25
Average	35,779	387	41	52.3%	2.6%	109	35,075	14,452	161	23.7%	8.8%	31.7%	26
Median	9,991	-	-	-	-	-	-	-	-	-	-	-	-
Total	465,126	5,025	NA	N/A	N/A	93	NA	187,874	1,776	N/A	N/A	N/A	N/A

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 47 2010 NORTHEAST GEORGIA SOCIOECONOMIC DATA

2010 DATA													
Panel 1: Northeast GA	**Population, 2010**	**Area (sq. miles)**	**Median Age, 2010**	**White Alone, Percent, 2010**	**Foreign Born Persons, Percent, 2010**	**Population Density (population per square mile)**	**Median Household Income, 2010**	**Number of Paid Employees, 2010**	**Building Permit Estimates, Units, 2010**	**Percentage of Housing Units Vacant, 2010**	**Percentage of Population 25 and Older with Bachelor's Degree, 2010**	**Percentage of Population Obese, 2010**	**Mean Travel Time to Work (Minutes), 2010**
Clarke	115,070	119	26	65%	11%	965	34,253	52,950	94	17%	11%	27%	13
Barrow	66,359	160	33	81%	7%	414	48,958	30,125	62	11%	6%	32%	54
Elbert	20,421	351	40	67%	3%	58	30,543	8,379	18	19%	4%	36%	22
Greene	15,844	387	45	56%	3%	41	38,513	5,823	124	28%	9%	32%	22
Jackson	58,347	340	36	88%	5%	172	51,506	26,421	82	10%	7%	26%	35
Jasper	13,695	368	38	74%	3%	37	42,081	6,036	36	18%	5%	30%	77
Madison	27,798	282	39	90%	3%	98	41,343	12,312	58	19%	5%	32%	52
Morgan	17,741	347	41	74%	2%	51	45,817	7,972	33	12%	10%	32%	23
Newton	96,833	272	34	56%	6%	356	52,361	43,033	58	11%	8%	32%	50
Oconee	31,508	184	39	89%	6%	171	74,352	15,279	74	8%	14%	27%	30
Oglethorpe	14,556	439	41	78%	2%	33	39,319	5,990	0	26%	4%	29%	96
Walton	81,491	326	37	80%	4%	250	51,721	38,661	69	9%	8%	28%	57
Average	40,418	314	37	76%	3.8%	221	45,897	18,185	56	15.4%	7%	30%	44
Median	29,653	-	-	-	-	-	-	-	-	-	-	-	-
Total	444,593	3,457	NA	NA	NA	129	NA	200,031	614	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 48 2015 NORTHEAST GEORGIA SOCIOECONOMIC DATA

2015 DATA													
Panel 2: Northeast GA	Population, 2015	Area (sq. miles)	Median Age, 2015	White Alone, Percent, 2015	Foreign Born Persons, Percent, 2015	Population Density (population per square mile)	Median Household Income, 2015	Number of Paid Employees, 2015	Building Permit Estimates, Units, 2016	Percentage of Housing Units Vacant, 2015	Percentage of Population 25 and Older with Bachelor's Degree, 2015	Percentage of Population Obese, 2013	Mean Travel Time to Work (Minutes), 2008-2012
Clarke	120,905	119	27	64.7%	10.0%	1,014	32,162	52,953	116	15.9%	20.2%	25.3%	19
Barrow	72,012	160	35	80.5%	7.1%	449	52,012	31,553	388	11.8%	11.5%	34.6%	33
Elbert	19,537	351	41	66.8%	2.6%	56	35,388	7,068	21	18.7%	5.7%	31.1%	22
Greene	16,331	387	48	59.2%	4.9%	42	42,408	5,921	188	25.0%	12.7%	29.7%	26
Jackson	61,420	340	38	88.4%	4.3%	181	53,379	26,381	873	11.4%	13.1%	27.4%	31
Jasper	13,593	368	40	73.9%	3.3%	37	42,368	5,382	62	16.9%	7.3%	29.3%	35
Madison	28,232	282	40	85.1%	3.7%	100	41,912	11,338	8	13.2%	8.8%	31.9%	27
Morgan	17,900	347	43	73.9%	2.1%	52	51,820	7,443	105	14.4%	13.9%	26.5%	27
Newton	102,645	272	36	53.9%	5.8%	377	49,179	42,612	328	9.7%	13.7%	32.9%	32
Oconee	34,400	184	40	88.9%	5.4%	187	72,182	15,970	377	7.5%	22.2%	28.8%	24
Oglethorpe	14,688	439	42	77.9%	1.7%	33	44,226	6,290	39	14.6%	10.0%	30.1%	29
Walton	86,201	326	39	79.6%	4.1%	265	54,453	36,692	513	8.7%	12.5%	34.4%	31
Average	48,989	298	39	74.4%	4.6%	233	47,624	20,800	252	14.0%	12.6%	30.2%	28
Median	31,316	-	-	-	-	-	-	-	-	-	-	-	-
Total	587,864	3,577	NA	NA	N/A	164	NA	249,603	3,018	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

2010 Baseline Data for Central Savannah River Area and Northeast Georgia Regions

The Central Savannah River Area region has 13 counties, while Northeast Georgia has 12. In terms of land area, Central Savannah River Area is larger with a total land area of 5025 square miles, compared to Northeast Georgia's land area of 3457 square miles. Note that the square mileage listed for 2015 is 3577 and no explanation was given in government data for the variation.

In 2010, both regions had comparable population sizes. Central Savannah River Area had a total population of 454,901 compared to Northeast Georgia's population of 444,593. Given its smaller overall land size, Northeast Georgia was more densely populated (129 people per square mile) than Central Savannah River Area (91 people per square mile).

The sociodemographic characteristics of the two regions were similar in 2010, with slight variations. The median age in Central Savannah River Area was 40 years, compared to 37 years in Northeast Georgia. Northeast Georgia had a larger proportion of White residents (76 percent) compared to Central Savannah River Area (52 percent). Both regions had low proportions of foreign-born persons, though Northeast Georgia had a slightly higher proportion (4 percent) than Central Savannah River Area (2 percent). The proportion of the population 25 years and older with a bachelor's degree was 8 percent in Central Savannah River Area compared to 7 percent in Northeast Georgia.

Northeast Georgia's 2010 socioeconomic characteristics show a pattern of higher values than Central Savannah River Area regarding median household income and number of paid employees. Median household income in Northeast Georgia was almost $46,000, which is

about 37 percent higher than in Central Savannah River Area in 2010 ($33,613). Similarly, the number of paid employees in Northeast Georgia was just over 200,000 and about 133,000 in Central Savannah River Area.

Regarding 2010 housing stock data, Central Savannah River Area had a higher proportion of vacant homes (23 percent) than Northeast Georgia (15 percent). Regarding construction, however, there appeared to be more activity in Central Savannah River Area where 1815 building permits were estimated to have been issued, compared to 614 permits in Northeast Georgia.

Obesity rates in both regions were comparable in 2010, representing about 30 percent of the population. The mean commute time in Northeast Georgia was almost 45 minutes, which is nearly double the mean commute time in Central Savannah River Area of just over 25 minutes.

2015 Data and Changes since 2010 for Central Savannah River Area and Northeast Georgia

Between 2010 and 2015, the number of counties remained the same in each region. Northeast Georgia grew in population by over 140,000, representing a 32 percent population growth. Population density grew by about 28 percent. In contrast, the population in Central Savannah River Area has lagged in population growth, adding just over 10,000 or 2 percent since 2010. Population density has also remained about the same.

Median age has remained almost constant for the two regions between 2010 and 2015, increasing by one and two years of age in Central Savannah River Area and Northeast Georgia, respectively. The proportion of the population that is White-only remains the same at 52 percent in Central Savannah River Area. The proportion of White people dropped slightly in

Northeast Georgia but continues to represent three-quarters of the population (74 percent). The foreign-born population rose slightly in both regions but was still less than 5 percent of the total population. In Northeast Georgia, the percentage of the population over 25 years of age and with a bachelor's degree or higher almost doubled from 7 percent in 2010 to about 13 percent in 2015. In contrast, the percentage of the population over 25 years of age and with a bachelor's degree has remained constant in Central Savannah River Area, at about 9 percent.

Economic characteristics have changed more in Northeast Georgia than Central Savannah River Area since 2010, though jobs appear to be growing at a faster rate in the latter. Median household income rose slightly in both regions by similar proportions over the years and remains higher in Northeast Georgia ($47,624) compared to Central Savannah River Area ($35,075). Over the past five years, job growth has increased at a faster rate in Central Savannah River Area than Northeast Georgia, though the latter retains more paid employees. The number of paid employees in Central Savannah River Area grew by almost 55,000 to 187,874, which represents a 41 percent increase between 2010 and 2015. During the same timeframe, Northeast Georgia added almost 50,000 jobs for a total of 249,603, representing an increase of almost 25 percent.

With respect to the housing stock, the number of vacant housing units has remained almost constant over five years in both regions with slight variations: the value increased to almost 24 percent in Central Savannah River Area, compared to a decrease of 14 percent in Northeast Georgia. The estimated number of building permits decreased by about 2 percent in Central

Savannah River Area. In contrast, over 2400 new building permits have been issued in Northeast Georgia, representing an increase of almost 400 percent since 2010. In Jackson County alone, there were almost 873 new building permits issued.

Rates of obesity remained almost constant in Northeast Georgia at 30 percent of the population. In Central Savannah River Area, the rate of obesity increased by about 9 percent from 2010, to 32 percent in 2015. Mean travel time to work remained almost constant in Central Savannah River Area, increasing by just under a minute to 26 minutes. In contrast, mean travel time to work dropped significantly in Northeast Georgia between 2010 and 2015, from 44 minutes to 28 minutes.

Comparison of Heart of Georgia Altamaha and Southern Georgia Regions

Heart of Georgia Altamaha is a region that passed the TIA. Its socioeconomic characteristics will be compared to the Southern Georgia region, which did not pass the TIA, to compare changes in these regions since 2010. Tables 49–52 show 2010 and 2015 data for each region, followed by a descriptive analysis.

TABLE 49 2010 HEART OF GEORGIA ALTAMAHA SOCIOECONOMIC DATA

2010 DATA													
Panel 1: Heart of Georgia	Population, 2010	Area (sq. miles)	Median Age, 2010	White Alone, Percent, 2010	Foreign Born Persons, Percent, 2010	Population Density (population per square mile)	Median Household Income, 2010	Number of Paid Employees, 2010	Building Permit Estimates, Units, 2010	Percentage of Housing Units Vacant, 2010	Percentage of Population 25 and Older with Bachelor's Degree, 2010	Percentage of Population Obese, 2010	Mean Travel Time to Work (Minutes), 2008-2012
Appling	18,236	507.1	38.1	73.40%	5.70%	36	$35,875	5,392	2	16.90%	6.70%	28.70%	23.6
Bleckley	13,063	215.9	35.9	70.10%	1.90%	60.5	$37,853	2,171	9	22.00%	6.40%	27.30%	24
Candler	10,998	243	37.6	65.90%	6.20%	45.3	$35,833	2,122	0	19.60%	10.40%	25.90%	22
Dodge	21,796	495.9	38.5	66.80%	2.60%	44	$36,042	3,522	12	16.10%	9.10%	29.80%	24.9
Emanuel	22,598	680.6	36.8	61.60%	1.40%	33.2	$31,675	5,261	5	18.60%	5.80%	29.40%	24.2
Evans	11,000	182.9	35.9	58.80%	7.60%	60.2	$36,602	3,746	14	11.40%	9.10%	27.80%	20.5
Jeff Davis	15,068	330.7	36	76.10%	4.70%	45.6	$35,203	3,419	0	11.30%	7.30%	30.70%	23.1
Johnson	9,980	303	40.4	63.10%	1.30%	32.9	$34,521	1,053	0	18.40%	7.50%	28.50%	28
Laurens	48,434	807.3	38	60.60%	2.00%	60	$35,912	15,514	60	17.70%	8.90%	27.80%	22.4
Montgomery	9,123	239.5	37	69.00%	4.20%	38.1	$33,569	1,121	9	16.20%	9.10%	26.40%	21.4
Tattnall	25,520	479.4	36.6	62.70%	5.90%	53.2	$36,520	2,909	21	18.90%	6.50%	30.70%	23.8
Telfair	16,500	437.3	39.2	57.00%	10.30%	37.7	$24,469	3,812	0	19.20%	6.00%	30.70%	20.7
Toombs	27,223	364	36	65.10%	5.30%	74.8	$31,757	9,324	21	14.50%	9.00%	28.10%	21.3
Treutlen	6,885	199.4	36.8	65.20%	1.00%	34.5	$35,960	728	6	14.70%	6.00%	29.90%	24.2
Wayne	30,099	641.8	37.6	75.90%	3.20%	46.9	$36,496	5,684	3	16.60%	7.50%	27.30%	24.1
Wheeler	7,421	295.5	37.9	61.30%	0.70%	25.1	$27,601	1,032	0	22.40%	4.50%	27.90%	20.3
Wilcox	9,255	377.7	39.7	61.70%	1.90%	24.5	$31,509	535	0	24.50%	6.70%	27.20%	26.2
Average	17,835	400.1	37.5	65.50%	3.90%	44.3	$33,964.53	3,961.50	NA	17.60%	7.40%	28.50%	23.2
Median	15,068	-	-	-	-	-	-	-	-	-	-	-	-
Total	303,199	6,801.0	NA	NA	NA	44.6	NA	67,345.00	162	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 50 2015 HEART OF GEORGIA ALTAMAHA SOCIOECONOMIC DATA

2015 DATA													
Panel 2: Heart of GA	Population, 2015	Area (sq. miles)	Median Age, 2015	White Alone, Percent, 2015	Foreign Born Persons, Percent, 2015	Population Density (population per square mile)	Median Household Income, 2015	Number of Paid Employees, 2015	Building Permit Estimates, Units, 2016	Percentage of Housing Units Vacant, 2015	Percentage of Population 25 and Older with Bachelor's	Percentage of Population Obese, 2013	Mean Travel Time to Work (Minutes), 2008-2012
Appling	18,417	507	39	76.7%	3.7%	36	37,135	6,986	3	19.2%	8.2%	34.8%	21
Bleckley	12,746	216	37	70.0%	1.9%	59	38,991	4,254	12	22.0%	9.7%	30.4%	25
Candler	11,031	243	37	66.8%	5.4%	45	30,185	4,085	0	17.1%	10.2%	30.3%	24
Dodge	21,180	496	40	66.5%	2.3%	43	34,271	7,771	11	17.4%	8.9%	28.5%	24
Emanuel	22,731	681	37	61.1%	1.0%	33	32,229	7,960	6	17.6%	6.1%	36.3%	26
Evans	10,814	183	35	58.4%	5.3%	59	37,865	3,841	14	14.1%	10.3%	33.5%	22
Jeff Davis	14,990	331	36	76.1%	5.8%	45	36,385	5,556	2	15.8%	5.7%	30.0%	21
Johnson	9,794	303	40	62.6%	0.9%	32	34,438	3,840	0	19.3%	5.1%	34.0%	26
Laurens	47,886	807	39	61.3%	2.4%	59	32,356	16,668	16	17.3%	7.7%	36.2%	23
Montgomery	8,968	240	38	70.9%	4.4%	37	34,672	3,300	14	19.3%	8.2%	36.2%	21
Tattnall	25,302	479	36	61.0%	4.3%	53	33,980	6,980	24	20.3%	6.9%	33.1%	26
Telfair	16,416	437	40	57.9%	12.3%	38	26,449	4,433	3	26.8%	5.4%	30.9%	21
Toombs	27,210	364	35	66.4%	5.5%	75	33,679	10,594	12	11.7%	10.5%	31.5%	21
Treutlen	6,762	199	43	70.1%	1.2%	34	38,596	2,631	0	18.7%	10.5%	32.9%	27
Wayne	30,046	642	37	74.4%	3.1%	47	38,955	10,287	31	17.0%	7.8%	31.8%	23
Wheeler	7,956	295	38	58.1%	1.6%	27	27,620	1,327	0	22.3%	4.0%	31.9%	24
Wilcox	8,972	378	39	59.5%	2.2%	24	32,043	2,401	N/A	21.7%	5.7%	31.5%	27
Average	17,719	400	38	65.7%	3.7%	44	34,109	6,054	9	18.7%	7.7%	32.6%	24
Median	14,990	-	-	-	-	-	-	-	-	-	-	-	-
Total	301,221	6,801	N/A	N/A	N/A	44	NA	102,914	148	N/A	N/A	N/A	402

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 51 2010 SOUTHERN GEORGIA SOCIOECONOMIC DATA

2010 DATA													
Panel 1: Southern GA	Population, 2010	Area (sq. miles)	Median Age, 2010	White Alone, Percent, 2010	Foreign Born Persons, Percent, 2010	Population Density (population per square mile)	Median Household Income, 2010	Number of Paid Employees, 2010	Building Permit Estimates, Units, 2010	Percentage of Housing Units Vacant, 2010	Percentage of Population 25 and Older with Bachelor's Degree, 2010	Percentage of Population Obese, 2010	Mean Travel Time to Work (Minutes), 2010
Atkinson	8,332	339	33	70%	11%	25	33,834.00	3,225	0	21%	3%	31%	29
Bacon	10,969	259	36	78%	5%	42	31,429.00	4,058	0	19%	2%	31%	24
Ben Hill	17,631	250	37	59%	4%	70	30,134.00	6,268	36	17%	5%	33%	20
Berrien	18,708	452	37	85%	3%	41	32,202.00	7,296	28	14%	5%	30%	34
Brantley	17,650	442	37	95%	1%	40	37,343.00	7,366	22	15%	2%	31%	78
Brooks	16,338	493	39	60%	4%	33	41,309.00	7,482	24	17%	7%	33%	44
Charlton	12,310	774	37	68%	0%	16	40,850.00	4,504	17	15%	3%	32%	51
Clinch	6,841	800	36	67%	1%	9	31,963.00	2,739	5	16%	7%	33%	18
Coffee	41,647	575	35	66%	6%	72	35,202.00	16,402	45	14%	4%	31%	19
Cook	16,976	227	36	67%	3%	75	31,390.00	7,189	22	11%	4%	32%	33
Echols	3,973	415	29	68%	18%	10	32,390.00	1,650	3	17%	2%	28%	0
Irwin	9,642	354	37	71%	2%	27	38,376.00	3,469	19	18%	3%	31%	29
Lanier	9,404	185	33	70%	3%	51	37,522.00	3,890	68	17%	3%	29%	54
Lowndes	104,916	496	30	59%	4%	211	39,096.00	46,044	404	10%	8%	31%	14
Pierce	18,205	316	38	86%	2%	58	37,062.00	7,709	34	13%	3%	31%	40
Tift	39,823	259	34	64%	6%	154	36,847.00	17,251	72	12%	6%	32%	13
Turner	9,025	285	37	57%	2%	32	30,763.00	3,194	80	20%	5%	33%	28
Ware	36,006	892	37	67%	3%	40	35,517.00	13,716	45	20%	4%	34%	17
Average	22,133	434	36	70%	4%	56	35,179.39	9,081	51	16%	4%	31%	30
Median	16,657	385	-	-	-	-	-	-	-	-	-	-	-
Total	398,396	7,815	NA	NA	NA	51	NA	163,452	924	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

TABLE 52 2015 SOUTHERN GEORGIA SOCIOECONOMIC DATA

2015 DATA													
Panel 2: Southern GA	Population, 2015	Area (sq. miles)	Median Age, 2015	White Alone, Percent, 2015	Foreign Born Persons, Percent, 2015	Population Density (population per square mile)	Median Household Income, 2015	Number of Paid Employees, 2015	Building Permit Estimates, Units, 2016	Percentage of Housing Units Vacant, 2015	Percentage of Population 25 and Older with Bachelor's Degree, 2015	Percentage of Population Obese, 2013	Mean Travel Time to Work (Minutes), 2008-2012
Atkinson	8,294	339	35	66.8%	13.4%	24	30,933	3,342	0	20.3%	5.2%	35.3%	22
Bacon	11,222	259	37	77.9%	6.0%	43	37,162	4,564	0	17.0%	7.9%	32.7%	20
Ben Hill	17,477	250	39	61.0%	2.4%	70	29,994	6,011	7	19.0%	7.1%	35.3%	16
Berrien	19,019	452	39	84.1%	2.5%	42	31,835	6,499	20	19.6%	7.2%	34.7%	23
Brantley	18,452	442	39	94.5%	0.7%	42	37,206	6,620	2	17.4%	4.7%	33.1%	32
Brooks	15,637	493	41	59.2%	3.2%	32	32,663	5,411	23	14.1%	9.0%	33.5%	24
Charlton	13,130	774	41	71.8%	9.5%	17	42,778	4,611	20	20.6%	5.9%	32.0%	28
Clinch	6,791	800	36	67.2%	1.9%	8	24,015	2,270	5	13.2%	7.4%	29.6%	20
Coffee	43,003	575	35	66.2%	5.4%	75	33,965	15,107	64	15.6%	8.6%	34.8%	20
Cook	17,033	227	37	69.1%	3.1%	75	35,683	6,934	27	15.0%	8.0%	31.4%	26
Echols	4,048	415	35	83.6%	13.5%	10	32,959	1,658	3	15.0%	6.5%	28.3%	25
Irwin	9,408	354	39	68.6%	0.8%	27	34,156	3,083	19	18.9%	5.0%	29.2%	21
Lanier	10,403	185	34	72.4%	2.2%	56	37,605	3,630	16	13.6%	7.7%	33.2%	25
Lowndes	113,203	496	29	57.8%	4.0%	228	36,834	47,298	899	13.4%	14.2%	31.3%	19
Pierce	18,934	316	39	86.4%	2.5%	60	40,247	7,173	34	13.5%	7.7%	28.5%	27
Tift	40,787	259	35	64.3%	6.0%	158	37,653	15,784	51	13.9%	8.7%	34.0%	21
Turner	8,338	285	38	55.6%	4.3%	29	31,806	2,830	6	21.3%	7.9%	34.6%	24
Ware	35,723	892	38	65.8%	3.5%	40	34,909	12,854	114	15.2%	7.3%	35.5%	19
Average	22,828	434	37	70.7%	4.7%	58	34,578	8,649	73	16.5%	7.6%	32.6%	23
Median	16,335	385	-	-	-	-	-	-	-	-	-	-	-
Total	410,902	5,580	NA	NA	NA	74	622,403	155,679	1,310	NA	NA	NA	NA

Note: Observation periods vary by data source; 2010 and 2015 observations are derived from decennial census and mid-term census reports while other time periods reflect the latest government data available.

2010 Baseline Data for Heart of Georgia Altamaha and Southern Georgia Regions

There are 17 counties in Heart of Georgia, and 18 in Southern Georgia. In 2010, the Heart of Georgia Altamaha region had a total population of 303,199, with Laurens having the highest population per county at 48,434. For Southern Georgia, the total population in 2010 was 398,396, with Lowndes having the highest population per county at 104,916.

Heart of Georgia Altamaha has a total area of 6801 square miles and Southern Georgia has a total area of 7815 square miles. Though having a smaller land area, Heart of Georgia Altamaha still had lower population density than Southern Georgia with a total of about 44 people per square mile in 2010. Population density was about 51 for Southern Georgia in 2010.

In 2010, the average median age was 38 years for Heart of Georgia Altamaha and 36 years for Southern Georgia. Similarly, the difference between each region's White populations was small; it was about 66 percent of the population in Heart of Georgia Altamaha, and 70 percent in Southern Georgia. The percent of foreign-born persons was just 4 percent in both regions. Atkinson and Echols Counties in Southern Georgia had 11 percent and 18 percent foreign-born persons, respectively.

In Heart of Georgia Altamaha, just over 7 percent of persons over 25 years of age had received a bachelor's degree. Four percent of Southern Georgia's population met this criterion, including Lowndes County with the highest value of 8 percent.

The average median household income in Heart of Georgia Altamaha was about $34,000 in 2010, and it was just over $35,000 in Southern Georgia. The total number of paid employees was 67,345 in Heart of Georgia Altamaha and about 163,500 in Southern Georgia. While the

difference in median household income of $1,000 is negligible, a difference of 96,000 paid workers between the two regions is worth noting.

The average percentage of vacant houses in 2010 for Heart of Georgia Altamaha was 18 percent, and it was 16 percent in Southern Georgia. In 2010, a total of 162 building permits was issued in Heart of Georgia Altamaha and 924 in Southern Georgia. Six of 17 counties in Heart of Georgia Altamaha did not issue any building permits in 2010, compared to just two counties in Southern Georgia.

As an indicator of health, Heart of Georgia Altamaha had an average of 29 percent of the population suffering from obesity in 2010. In Southern Georgia, the reported obese population was 31 percent. For each region, the variation between counties is less than 5 percent.

The average mean travel time to work was 23 minutes in Heart of Georgia Altamaha and 30 minutes in Southern Georgia. In Heart of Georgia Altamaha, the county with the highest mean travel time was Johnson at 28 minutes. For Southern Georgia, the mean travel time to work had more variation between counties. Seven out of 18 counties in Southern Georgia had a mean travel time over 30 minutes. Some outliers include Brantley County at 78 minutes of travel time, Lanier County at 54 minutes, and Charlton County at 51 minutes.

2015 Data and Changes Since 2010 for Heart of Georgia Altamaha and Southern Georgia Regions

The number of counties in Heart of Georgia Altamaha and Southern Georgia did not change from 2010 to 2015. For the entire region of Heart of Georgia Altamaha, the population decreased by 1978 persons. In Southern Georgia, however, the population increased by 12,506. The directionality and magnitude of these differences is worth noting. Lanier County

in Southern Georgia experienced the greatest change of any county in both regions with about an 11 percent increase in population. In terms of population density, Heart of Georgia Altamaha experienced less than a 1 percent decrease.

Median age changed by just over one percent for Heart of Georgia Altamaha between 2010 and 2015. During the same period, Southern Georgia experienced a change of 2.8 percent.

The percentage of White population did not change much from 2010 to 2015 in both regions overall. However, at the county level, Echols County in Southern Georgia experienced about a 16 percent increase in the White population since 2010. The greatest change in the number of White population in Heart of Georgia Altamaha was seen in Treutlen County with a 5 percent increase.

Region-wide educational attainment (25 and older with bachelor's degree) increased by less than 1 percent in Heart of Georgia Altamaha and about 3 percent in Southern Georgia since 2010. In Southern Georgia, Lowndes County has the highest percent change in educational attainment at just over 6 percent. Median household income increased by less than 1 percent since 2010 in the Heart of Georgia Altamaha region, but there was about a 16 percent decrease in Candler County. In Southern Georgia, median household income decreased by about 2 percent region-wide.

One of the most notable differences between the regions is the number of paid employees. For Southern Georgia, there was a region-wide decrease of about 5 percent since 2010. However, in Heart of Georgia Altamaha there was a 53 percent increase in the number of paid employees, totaling an increase of 35,569 paid employees in the region since 2010. Southern

Georgia experienced a loss of 7773 employees between 2010 and 2015. The counties in Heart of Georgia Altamaha that experienced the highest percentage increase in the number of paid employees since 2010 were Wilcox (349 percent), Johnson (265 percent), and Treutlen (262 percent.)

The percentage of vacant houses did not change much since 2010, with Heart of Georgia Altamaha changing by about 1 percent and Southern Georgia changing by a just over a half-percent. Heart of Georgia Altamaha decreased the number of building permits it issued in the region overall since 2010 by about 9 percent, while Southern Georgia issued 42 percent more building permits.

In Heart of Georgia Altamaha, there was a 4 percent increase in the obese population compared to a 1 percent increase in Southern Georgia. Mean travel time to work in minutes for Heart of Georgia Altamaha remained almost unchanged between 2010 and 2015, i.e. 23.2 minutes and 24.0 minutes respectively. In Southern Georgia, the mean travel time to work decreased from 30 minutes to 23 minutes during the same period.

LOCAL ECONOMIC IMPACTS

Highway project expenditures set in motion secondary expenditures because prime contractors buy goods and services from suppliers, hire subcontractors, and make payments to workers and suppliers. As suppliers, subcontractors, and workers spend on other goods and services, new rounds of spending occur. This creates a cumulative effect that is larger than the initial spending.

The local economic impact of project expenditures depends upon the extent to which the successive rounds of spending recirculate within the local area or leak out to other areas. Leakages occur when households and businesses make purchases from firms outside of the local economy. Examples include prime contractors hiring nonlocal subcontractors or buying supplies from nonlocal businesses, or when households make purchases from vendors outside of the county. Thus, local economic impacts are influenced by the pattern of consumer spending, characteristics of businesses in the local economy, nature and location of firms in the supply chain, and the kinds of products and services required by highway construction projects.

The IMPLAN model is used to capture these dynamic expenditure processes. It is a 440-sector social accounting table and input–output matrix. The model replicates industry supply-chain linkages and patterns of household expenditures occurring in each geographic location. It traces how expenditures on goods and services in one sector of the economy create demand for commodities and services in other sectors. The linkages are expressed numerically as multipliers. The model of Georgia's economy yields a total output multiplier of 1.89 for

highway construction expenditures. This means that highway projects generated a total economic impact of $1.89 for every dollar of project expenditure, and 16.6 new jobs for each $1.0 million of expenditures.[5] GDOT's TIA web site (http://www.ga-tia.com/) reported that project expenditures through December 2016 amounted to $222.1 million. Expenditures reported through the Spring of 2018 amounted to $317.9 million and they covered the completion of 448 of the 871 projects approved by voters. Fifty-seven additional projects were under construction. The economic impact model was based on project expenditures made through 2016. The research estimated the combined economic impact of voter-approved projects is 3686 new jobs and $419.7 million in total economic activity. A secondary impact results from the participation of small businesses and Disadvantaged Business Enterprises on TIA-related projects as of 2016. Those amounts, respectively, were 4.1 percent and 5.1 percent. (See Tables 53–55.)

TABLE 53 TIA FUNDS BUDGET AND REVENUE COLLECTED TO DATE

	TIA funds budgeted ($2011)	Total Number of Voter Approved TIA Projects	Revenue collected through 2016	Percent of total revenue collected through 2016	2018 revenue collected to date	Total expenditures to date
CENTRAL SAVANNAH RIVER AREA	$728,259,334	84	$261,745,875	35.9%	$334,432,573	$135,127,796
HEART OF GEORGIA ALTAMAHA	$360,100,595	764	$117,437,889	32.6%	$148,943,955	$84,874,189
RIVER VALLEY	$410,754,730	23	$185,388,158	45.1%	$234,319,138	$97,993,414
TOTAL	$1,499,114,659	871	$564,571,922		$717,695,666	$317,995,399

[5] The multiplier for Georgia highway expenditures are derived for a previous GDOT research report; see T. Boston (2014) Economic Development and Workforce Impacts of State DOT Highway Expenditures; Project Number 12-19, January 2014.

TABLE 54 TIA VOTER-APPROVED PROJECTS AND PROJECTS COMPLETED TO DATE

	Total expenditures to date	Total projects completed	Total projects under construction	Percent of total revenue collected to date	Percent of total revenue expended to date	Percent of total projects completed or under construction to date
CENTRAL SAVANNAH RIVER AREA	$135,127,796	35	18	45.9%	18.6%	63.1%
HEART OF GEORGIA ALTAMAHA	$84,874,189	409	33	41.4%	23.6%	57.9%
RIVER VALLEY	$97,993,414	4	6	57.0%	23.9%	43.5%
TOTAL	$317,995,399	448	57			

TABLE 55 UTILIZATION OF SMALL BUSINESSES AND DBES FOR TIA-FUNDED PROJECTS, THROUGH 2016

	CSRA $	PERCENT	HOGA $	PERCENT	RV $	PERCENT	PROGRAM TOTAL $	PERCENT
TOTAL INVOICES PAID	**63,714,983**	**100.0**	**49,606,003**	**100.0**	**62,585,959**	**100.0**	**175,906,946**	**100.0**
TOTAL DBE	**4,989,022**	**7.8**	**1,222,483**	**2.5**	**2,722,456**	**4.3**	**8,933,961**	**5.1**
TOTAL SBE	**3,116,214**	**4.9**	**311,964**	**0.6**	**3,777,008**	**6.0**	**7,205,186**	**4.1**

CONCLUSIONS

With decreasing funding for transportation from traditional sources, local jurisdictions are increasingly looking to ballot-box measures and referendums on sales taxes to fund transportation projects. In Georgia, the ballot-box measure emerged as an option at the county level through the Local Option Sales Taxes. These measures were voted on for the first time at the regional level with the TIA referendum in 2012. The referendum was adopted in three regions, but rejected in the remaining nine regions, including in the Atlanta region, despite its major transportation problems. At the same time, two regions in Georgia are currently reconsidering the referendum, and there appears to be growing support for transit initiatives through referendums at the national level.

Important Findings and Conclusions

- The overall sentiment regarding the TIA program is overwhelmingly positive.
- A comparison of comments from Phase I to Phase II indicates there has been an overall increase in the level of satisfaction with the TIA program even though the satisfaction during Phase I was very high.
- Responses to the surveys and personal interviews indicate that providing local discretionary funds is extremely important to the success of referendums and to the level of satisfaction with the program.
- Greater local control over how transportation dollars are spent is the single-most important factor in TIA and non-TIA regions.

- Most recipients of local discretionary funds have spent them on repairing and maintaining roads and bridges.
- More jobs and faster economic growth is the second-most important factor to local participants of the TIA program.
- Of respondents, 90.9 percent of residents in the TIA and 73.4 percent in the non-TIA regions indicated they would vote yes on TIA if they were to do it all over again. Broken down by specific areas, the results are as follows: Central Savannah River Area – 87.2 percent; Heart of Georgia Altamaha – 92.0 percent; River Valley – 92.9 percent; Northeast Georgia – 78.3 percent; Southern Georgia – 65.3 percent; and Middle Georgia – 79.1 percent. About 28 percent of respondents in the Southern Georgia region were undecided. This was the largest undecided percentage in any region.
- TIA region residents are pleased with the way GDOT has implemented the program; 88.1 percent were either very satified or satisfied.
- Of respondents in TIA regions, 92.4 percent indicate their region's participation was a good thing.

Notable Areas of Concern

- Some residents expressed concerns about the lack of construction in some areas, and they indicated that more local contractors need to be engaged.
- One concern expressed by a resident of Northeast Georgia is that the State puts too much emphasis on state routes instead of other transportation projects.

- An important finding is that the public seems confused about the difference between the TSPLOST and the TIA program.

RECOMMENDATIONS

- While most respondents were familiar with the TIA program, the regions would benefit if more marketing and education were devoted to households, as opposed to stakeholders.
- All respondents emphasized the importance of local control over dollars, and the need for more jobs and economic growth. Focusing on these benefits of the TIA program might enhance the probability of the referendum passing in Middle and Southern Georgia. This is particularly important in Southern Georgia, which has the largest percentage of undecided voters.
- It is important that the Phase III research on TIA highlight the specific economic benefits of the program.
- Until now, most researchers have focused on why TIA failed in Atlanta. However, this Phase II research finds that it is more important to investigate other non-metro–Atlanta regions of the state to truly understand the perceptions about TIA.
- Educational campaigns about TIA should emphasize that the funds generated by the special tax (whether the 25 percent discretionary or the 75 percent for voter-approved projects) are not all being invested in the Atlanta metropolitan area. Additionally, it is important to explain the difference between the TSPLOST and the TIA program.

REFERENCES

Bowling, C. (2016). "Controversial tax paying off for rural Georgia Transportation." *Atlanta Journal Constitution*. Retrieved February 13, 2018, from http://www.myajc.com/news/state--regional/controversial-tax-paying-off-for-rural-georgia-transportation/GSCwBcGX1Pd7vlk8UfcY3K/

Center for Transportation Excellence. (2016). "Voters Continue Legacy of Strong Support for Transit at the Ballot Box." Retrieved February 13, 2018, from http://www.cfte.org/campaign-profiles/2573/voters-continue-legacy-of-strong-support-for-transit-at-the-ballot-box

Center for Transportation Excellence. (2018). "Transportation Ballot Measures." Retrieved February 13, 2018, from http://www.cfte.org/elections

Crabbe, A.E., R. Hiatt, S.D. Pliwka, and M. Wachs. (2005). "Local Transportation Sales Taxes: California's Experiment in Transportation Finance." Institute of Transportation Studies, University of California at Berkeley.

Fang, K., and C. Thigpen. (2017). "Transportation Policy at the Ballot Box." *Transportation Research Record: Journal of the Transportation Research Board. No. 2605*, 92–98. Retrieved February 13, 2018, from http://trrjournalonline.trb.org/doi/abs/10.3141/2605-09

Frick, K.T. (2013). "The Actions of Discontent: Tea Party and Property Rights Activists Pushing Back Against Regional Planning." *Journal of the American Planning Association*, 79:3, 190–200, DOI: 10.1080/01944363.2013.885312

Georgia Department of Transportation. (2018). Transportation Investment Act Program Fact Sheet. Retrieved February 13, 2018, from http://www.ga-tia.com/Content/pdf/TIA%20Fact%20Sheet%20(with%20background).pdf

Paget-Seekins, L. (2013). "Campaign for the 2012 Transportation Referendum in Atlanta, Georgia." *Transportation Research Record: Journal of the Transportation Research Board, 2345*, 17–23. https://doi.org/10.3141/2345-03

Ross, C.L., M. Woo, and T. Boston. (2011). "Impact of Regional SPLOST on County Infrastructure." Georgia DOT Research Project 10-17 Final Report.

The Pew Charitable Trusts. (2015). "Funding Challenges in Highway and Transit." February 24. Retrieved February 13, 2018, from http://www.pewtrusts.org/en/research-and-analysis/analysis/2015/02/24/funding-challenges-in-highway-and-transit-a-federal-state-local-analysis