

University Transportation Center Research Project

Final Report

IMPACT OF REGIONAL SPECIAL PURPOSE LOCAL OPTION SALES TAX (SPLOST) INITIATIVES ON COUNTY
INFRASTRUCTURE

By

Catherine Ross

Contract with

Research and Innovative Technology Administration (RITA)

In cooperation with

Georgia Transportation Institute / University Transportation Center

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IMPACT OF REGIONAL SPLOST ON COUNTY INFRASTRUCTURE

**GEORGIA DOT RESEARCH PROJECT 10-17
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By

Dr. Catherine L. Ross, Harry West Professor and Director

Dr. Myungje Woo, Research Scientist I

Dr. Thomas Boston, Professor of Department of Economics

Center for Quality Growth and Regional Development (CQGRD)

City and Regional Planning, College of Architecture, Georgia Institute of Technology

760 Spring Street, Suite 213, Atlanta, Georgia 30308 -0790

Contract with

Department of Transportation

State of Georgia

In cooperation with

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ABSTRACT

In response to fiscal constraints on transportation funding, and the need to address transportation problems and create solutions that are regional in perspective, the State of Georgia is proposing a 1% regional Special-Purpose Local-Option Sales Tax (SPLOST). To accommodate this regional tax initiative the State has created 12 Special Tax Districts that will affect all 159 Georgia counties. This research provides information on the challenges and strategies that other regional initiatives have faced and utilized in gaining voter support for such tax initiatives; identifies possible implications that arise from the relationship between existing county SPLOSTs and the proposed regional SPLOSTs, and provides strategies for the successful implementation of this regional initiative by estimating the likelihood that county-specific sales tax referenda for transportation will succeed and by identifying that factors that influence voting outcomes.

The research identifies multi-jurisdictional initiatives from across the county which utilize transportation sales taxes as an alternative funding mechanism in order to derive the possible impacts a regional transportation sales tax might have on the ability of individual counties to secure county-specific sales taxes for transportation. Although there have been multi-county transportation sales tax initiatives undertaken throughout the U.S., none can compare to the scale proposed in Georgia. The case studies in the report are a review of voter approval in other states of county-specific transportation sales tax initiatives occurring while a previous regional sales tax was in place, or vice-versa.

The voting process is examined through the use of Multilevel Model (MLMs) and the Generalized Estimating Equations (GEE) models. These are employed to identify major factors associated with the success of Georgia SPLOSTs. The results are based on 1,413 election results involving SPLOSTs that occurred between 1985 and March 2011. Separate models are run based on the purpose of SPLOSTs, which include the following: transportation only, education only,

capital outlay projects only, and multi-purpose. In addition, each special tax district is examined using SPLOST data to determine which districts and counties are historically supportive of SPLOSTs when the purpose is taken into consideration.

The results show that the new regional SPLOSTs may bring a minimal or no negative effect on county level transportation projects because some portions of the proceeds from the regional SPLOSTs also will be earmarked for local transportation projects. However, the regional SPLOSTs, which propose only transportation projects, may result in negative outcomes for new initiatives of other capital outlay projects at the local level, particularly when both education SPLOSTs and the regional SPLOSTs are active in the same county. This implies that that the competitions among the purposes of SPLOSTs will be more critical than those between county-specific and regional SPLOSTs.

Key words: Special-Purpose Local-Option Sales Tax (SPLOST), regional SPLOSTs, transportation finance, infrastructure finance, special tax district

1. INTRODUCTION

1.1 Research Background

In the past few years, there have been many successful attempts at funding transportation infrastructure at both the local and regional levels throughout the United States (Transportation Research Board, 2009). Often these local and regional level approaches are taken because of the inadequacy of current infrastructure networks to meet increasing demands and the limitations of current funding approaches that are primarily based on the gasoline tax (Saginor, Dumbaugh, and Ellis, 2011).

Motor-fuel taxes have been the primary source of funding for transportation projects in many states. However, revenues from the motor-fuel taxes have not been sufficient to meet the demand for needed transportation projects. Since an increase of a state's gasoline tax is difficult to secure, many local governments seek alternative funding sources, such as sales taxes, property taxes, bonds, user fees, and others (Crabbe et al., 2005). These funding schemes are usually approved by voters through ballot measures. Between 2000 and 2005, more than \$70 billion of transportation investments were approved by voters in regions throughout 33 different states in the U.S. During this period, the success rate of ballot measures was 70% on national average (Center for Transportation Excellence (CFTE), 2006). In Georgia, a preliminary analysis conducted by the Center for Quality Growth and Regional Development (CQGRD) of Georgia Institute of Technology shows that the success rate of transportation sales tax referenda was approximately 90% during the same time period. Thus, transportation finance by voter-approved ballot measures has been an important option in transportation planning and investment. This trend has been supported by citizens and is reflected through their willingness to pay increased sales taxes, property taxes, and other user fees to develop or maintain improved transportation systems in the region (CFTE, 2006).

In Georgia, the Special Purpose Local Option Sales Tax (SPLOST) has been enacted to enable counties to levy a one percent sales tax to support a variety of local capital projects, such as roads, streets, bridges, storm water, and drainage. While the general Local Option Sales Tax (LOST), enacted in 1975, allows counties to issue a one percent general purpose sales and use tax to support operations, the SPLOSTs are used only for capital outlay projects at the county level (Rubenstein and Sjoquist, 2003; Jung 2001).

However, to address cross-border regional transportation problems and meet the increasing demand for transportation infrastructure at this scale, the Georgia General Assembly in 2010 passed legislation allowing counties to establish 12 special tax districts throughout the state based on existing regional commission boundaries to create regional transportation SPLOSTs. The Transportation Investment Act of 2010 (HB 277) comes in light of the regional challenges faced by the State of Georgia. The new legislation is expected to promote cost-sharing between local and regional entities as well as supplement dwindling federal support for transportation infrastructure. Specific benefits foreseen include financial relief for struggling regional level transportation systems and better quality of life for counties with large commuter populations where regional transportation inadequacies are felt locally.

The objectives of this research are to identify areas of the country that have recently adopted a more regional or multi-jurisdictional approach to financing and funding transportation infrastructure; to assess the impacts of these approaches on the ability of bond offering entities, such as counties or cities; to offer SPLOSTs to finance localized public services; and to create a document for Georgia Department of Transportation that details the likely financial outcomes and impacts of regional SPLOSTs between transportation and other uses as well as between county, regions and the state, in an effort to provide guidance on this and other tax referenda

1.2 Methodology Overview

The methodologies employed in this research are divided into literature review and empirical analysis. The review of transportation finance mechanisms, such as transportation sales taxes and property taxes through voters' approval, and case studies for multi-county sales tax initiatives for transportation projects in the U.S. are conducted through an analysis of the literature and current practice. In particular, four selected cases, including the San Francisco BART (California), Puget Sound Regional Transit Authority (Washington), Utah Transit Authority (Utah), and Denver Regional Transit Authority (Colorado), where multi-county regional sales tax initiatives and individual county-specific sales tax initiatives for transportation projects coexist, are analyzed in greater detail through descriptions of historical data.

To identify the expected impacts of introducing regional SPLOSTs in Georgia, the data on SPLOSTs referenda collected from the Georgia Secretary of State's Office are analyzed using both descriptive analysis and econometric modeling. The referenda reviewed included 438 sales tax referenda held between 1985 and 1996 (representing the period during which only the general purpose local options sales tax (LOST) and non-educational capital SPLOSTs were active) and 977 sales tax referenda for 159 Georgia counties introduced between 1997 and March 2011 (presenting the period during which both LOST and all SPLOSTs were active). This data was combined with other county-level variables to examine the relationship between voting results and the characteristics of counties. In addition, the data was aggregated by special tax district to examine the trend of SPLOSTs within the 12 districts.

1.3 Report Organization

The remainder of the report is organized as follows. Section 2 reviews existing literature and methods related to the transportation funding mechanisms through voter-approved ballot measures, the history and characteristics of county-specific Georgia SPLOSTs, and factors associated with the success of transportation as well as other elections related to similar initiatives,

followed by a summary of several case studies with regional or multi-county transportation sales tax initiatives in the U.S. Section 3 explicates four case studies – San Francisco BART (California), Puget Sound Regional Transit Authority (Washington), Utah Transit Authority (Utah), and Denver Regional Transit Authority (Colorado) – in an effort to provide insight into the regional transportation sales tax initiatives undertaken by these authorities. These cases were further used to illustrate the impact of regional funding approaches on county-specific transportation sales taxes. Section 4 discusses possible impacts of regional SPLOSTs on county-specific initiatives through the analysis of the trend of SPLOSTs in Georgia and the identification of major factors associated with the election results of SPLOSTs. The characteristics of the 12 special tax districts and their historical voting results of SPLOSTs referenda are examined by purpose and are discussed in Section 5. Section 6 presents conclusions and implications based on the analysis of the data and discussions.

2. VOTER-APPROVED FUNDING MECHANISMS FOR LOCAL AND REGIONAL TRANSPORTATION IN THE U.S.

The key objectives of this section are to examine the trend of transportation finance across the U.S. and in the State of Georgia, focusing on transportation referenda, to identify voter-approved regional or multi-jurisdictional initiatives to financing and funding transportation infrastructure in the U.S., and to review factors associated with success of transportation ballot measures.

2.1 Transportation Finance through Ballot Measures

One factor that draws the attention of voter-approved ballot measures in transportation finance (also referred to as “local option transportation taxes¹”) is the U.S. federal laws for transportation planning and policy. The Intermodal Surface Transportation Efficiency Act of 1991 (Public Law 102-240; ISTEA), signed into law on December 18, 1991, promoted an intermodal approach with collaborative planning requirements to transportation planning and infrastructure investment. It was followed by the Transportation Equity Act for the 21st Century (TEA-21), enacted on June 9, 1998, and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), signed into law on August 10, 2005, which strengthened the approach of collaboration between local and state transportation authorities. The availability of federal funding resulting from these laws encouraged local and state agencies to seek their own matching fund, partly through voter-approved ballot measures (CFTE, 2006). This new environment created through legislation coupled with a limited resource of state and federal governments that cannot satisfy the transportation demands of the public, has pushed local governments to seek both “politically and legally” feasible options for their tax bases (Goldman, Corbett, and Wachs, 2001).

¹ A local option transportation tax is defined as “a tax that varies within a state, with revenues controlled at the local or regional level, and earmarked for transportation-related purposes” (Goldmann, Corbett, and Wachs, 2001).

The most popular type of ballot measures in transportation investment is referenda, referred to voters by an elected entity or a state legislature. While an increase of taxes is always difficult to secure regardless of their purpose, voters have approved transportation taxes when there is a pressing need which cannot be addressed given existing resources (Goldman, Corbett, and Wachs, 2001). In the ballot measures for public investments, some states mandate a supermajority rule under which at least two-thirds of voters instead of a simple majority should approve or support ballots for projects or programs (CFTE, 2006). Because the supermajority rule is an obstacle for funding referenda, some popular projects may get more frequent chances of securing voter-approval, while it may be a hurdle for unpopular projects.

Goldman, Corbett, and Wachs (2001) describe five features regarding why the local option transportation tax is attractive to both elected officials and citizens. The first is “political cover”. Since the local transportation tax is approved by voters, state legislators can avoid blame for increasing taxes. The second is “measurable results”. Although locally elected officials usually do not favor increasing taxes, they support the local option sales tax because these taxes bring tangible results that specifically address voters’ demand. The third is “earmarking”. The earmarks for specific projects through voter-approved local option transportation taxes somewhat guarantees citizens that these taxes are used for such projects, thus minimizing possible reversion of tax revenues to other uses by politicians. The fourth is “speed and flexibility”. Since the decision making process of the local option transportation taxes is managed at the local level (although they should be operated within a framework of state tax policies), local specific transportation projects can be quickly funded. Finally, some “incentives”, such as matching fund, are available by state governments to encourage local governments to raise funds for their own infrastructure investment through the local option transportation tax.

The regional SPLOST in Georgia has a similar appeal as that of the local option transportation taxes in terms of a voter approval, these five features can be effectively used in public advertisement and campaigns for the regional SPLOSTs.

2.2 Revenue Sources of Transportation Ballot Measures

The Center for Transportation Excellence (2006) analyzed the results of transportation ballot measures taking place in 33 states in the U.S. between 2000 and 2005. According to the results, the revenue sources in ballot measures for transportation investments included sales taxes, property taxes, fuel (gas) taxes, bonds, special fees from vehicle registration, tolls, and others. Among them, the most popular source was the sales tax which accounts for approximately 40% of all transportation ballot measures between 2000 and 2005; property taxes accounted for 17 %, 16% were from bonds, and 22% were from other sources. In addition, sales taxes share the largest portion of transportation funding during the same period, while the property tax has the highest success rate.

The success rates were different based on the type of transportation ballot measures that were proposed. For example, the rate of approvals for the extension and renewal of projects were approximately 80%, while the proposals for new taxes and an increase in an existing tax were approved 65% and 54%, respectively. Although it seems that the passages of ballot measures for transportation investments are positive, the result implies that voters are less willing to support new taxes or even existing projects with a tax increase than the renewal of projects that maintain the current tax burden (CFTE, 2006).

This section includes a review of the sales taxes and explores fuel and property taxes, which are popular revenue sources other than sales taxes.

2.2.1 Fuel taxes

Fuel taxes are known as an equitable way for funding transportation projects because the revenue from automobile drivers' payments can be directly used on road systems and other transportation projects. In other words, the users of the roads who pay for the gasoline taxes are the direct beneficiaries of the transportation improvements funded by the taxes (Goldman, Corbett, and Wachs, 2001).

As of 2001, fifteen states authorized motor fuel taxes as a revenue source of local option taxes. They include Alabama, Alaska, California, Florida, Hawaii, Illinois, Mississippi, Montana, Nevada, New Mexico, Oregon, South Dakota, Tennessee, Virginia, and Washington. However, among them, the local option gasoline taxes are subject to voter approvals in only seven states: California, Illinois, Montana, New Mexico, Oregon, Tennessee, and Washington (Goldman, Corbett, and Wachs, 2001).

However, since the fuel taxes are usually levied as cents-per-gallon (The National Surface Transportation Infrastructure Financing Commission, 2009), its stability as a local transportation revenue source is vulnerable to other factors such as an improvement of fuel efficiency technology, which may reduce fuel consumption, and the effects of inflation which erodes its value over time. For example, Ernst, Corless, and McCarty (2002) stated that Georgia motor fuel tax had the largest decline (-27.7%), relative to inflation, among all U.S. states.

2.2.2 Property taxes

Transportation infrastructure that improves accessibility to a community as well as the quality of the infrastructure is important factors associated with housing values (Goldman, Corbett, and Wachs, 2001). In addition, many studies prove that improved accessibility through transit rail lines and stations is capitalized into housing values (McMillen and McDonald, 2004; Cervero and Duncan, 2002; and Transportation Research Board, 2002). These findings may justify the use of property taxes in transportation finance.

Many local governments in at least 11 states in the U.S., including Arizona, Arkansas, Colorado, Iowa, Kansas, Michigan, North Dakota, Ohio, Oregon, Texas, and Washington, require a voter approval to use property taxes for road projects other than local streets. Also, transit is partly funded by property taxes in some areas of at least 14 states, including California, Florida, Georgia, Indiana, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Minnesota, Nebraska, North Dakota, Ohio, and Oregon. Among them, four states, California, Florida, Kansas, and

Louisiana, require voter approval for the use of the property taxes in transit (Goldman, Corbett, and Wachs, 2001).

2.3 Local Transportation Sales Taxes

2.3.1 Increase of utilization of sales taxes

The property tax has been the major source of revenue for local governments in the U.S. However, the reliance on the property tax has been diminished over time as the finance with sales taxes is increasingly used to meet the rising demand for public services and infrastructure as described above. A growing resistance to the property tax increase through state legislations (e.g. Proposition 13 in California and Proposition 2-1/2 in Massachusetts) has partly contributed to the trend of transportation finance with sales taxes as an alternative to the property tax (Zhao, 2005). Jung (2001) demonstrates that the adoption of local option sales taxes leads to some degree of property tax relief in Georgia counties, but at the same time, it increases the overall spending of local governments.

At least 33 states in the U.S. authorized local option sales taxes for transportation investments (Goldman, Corbett, and Wachs, 2001; Jung, 2001). The success of transportation sales taxes is associated with the fact that citizens, particularly local residents, decide whether to adopt transportation sales taxes, which will be temporary and will expire if specific reauthorization is not made at a later time, for specific purposes that may bring benefits directly to their jurisdictions (Zhao, 2005; Crabbe, Hiatt, Poliwka, and Wachs, 2005). This means that when the transportation local option sales taxes are expanded to the regional level, including more than two counties, it is important to prepare a comprehensive package of transportation projects so that the positive effects of the investment can reach the whole community to ensure voters' support.

2.3.2 Geographical variations in the use of the transportation sales taxes

However, there exist some variations of the success rates based on geography. An analysis of California counties by Crabbe et al. (2005) found that counties with transportation sales taxes were unevenly distributed between urban, suburban, and rural counties. For example, all six urban counties, including Alameda, Los Angeles, Sacramento, San Diego, San Francisco, and Santa Clara counties, that attempted to pass local transportation sales taxes were successful, and eight suburban counties out of nine were successful², while seven rural counties out of 12 failed to pass the local transportation sales taxes³.

In California, the revenues from the local transportation sales taxes have been used in diverse projects, including state highways (34%), streets and roads (32%), rail (20%), bus (6%), paratransit (2%), and others (6%). While it looks like that the local transportation sales taxes are less supportive of transit projects compared to highways, streets, and roads, for which approximately 66% of the revenues were spent, this may be attributable to a variety of reasons and availability of other funds such as federal and state funds, and contributions to transit capital projects and operations⁴. However, uses of these revenues also vary by three types of geography: urban, suburban, and rural. There are clear variations in supporting non-automobile modes between urban and rural counties (Table 1). The range of expenditure plans for ‘non-automobile modes’ is from 32% to 100% in urban counties, while it is only 13% in rural counties. This result is different for ‘local streets and roads’ projects where the expenditures proposed are in the 9-33% range for urban counties and 23-95% for rural counties. These percentages imply that transportation priorities are different by location and region. For example, there is a higher demand for non-automobile modes, such as public transportation, in urban counties while rural counties are more likely to support streets and roads than transit.

² Those suburban counties that passed the local transportation sales taxes include Contra Costa, Orange, Riverside, San Bernardino, San Mateo, Santa Barbara, Marin, and Sonoma counties, and Ventura County failed to pass (Crabbe et al., 2005).

³ Rural counties with the local transportation sales taxes include Fresno, Imperial, Madera, San Benito, and San Joaquin counties, and those that attempted but failed to pass the sales taxes include Kern, Monterey, Nevada, Placer, Sutter, Tuolumne, and Yuba counties (Crabbe et al., 2005).

⁴ For example, 28% of sources of transit operating revenues were Federal (3%) and State (25%), and the local option sales taxes shared 15% between 1997 and 1998 (Crabbe et al., 2005).

Table 1. Proposed expenditure of local transportation sales taxes in California counties

	Urban counties	Suburban counties	Rural counties
Local streets and roads	9-33%	20-70%	23-95%
Non-automotive modes	32-100%	10-50%	0-13%

Source: Data aggregated by authors from Crabbe et al. (2005).

2.3.3 Impacts of the local sales taxes on regional transportation investment

The county-specific transportation sales taxes have had some impacts on regional level transportation projects and investments. First, while the Intermodal Surface Transportation Efficiency Act of 1991 promoted collaborations between local and state transportation agencies, an increase of decision making powers by counties due to the financial affluence from the sales taxes sometimes counteracts regional efforts and needs. For example, counties with the transportation sales taxes prioritize their own needs within their boundaries rather than congested roads for inter-county movements (Crabbe et al., 2005). Second, since counties can use the transportation sales taxes only when with voter approval, there may be an imbalance in terms of revenues for transportation investment between counties with and without the transportation sales taxes. This imbalance results in disparities of quality of transportation infrastructure and differences in project needs between those counties, making coordination of projects at the regional level more difficult (Crabbe et al., 2005). In this regard, the regional level transportation sales taxes (regional SPLOSTs) pursued in Georgia could be one of solutions that can mitigate such problems.

2.4. SPLOSTs in Georgia

2.4.1 Definition

The Georgia Special Purpose Local Option Sales Tax (SPLOST) is a one percent sales tax which can be levied by any county for the purpose of funding capital outlay projects, which may include building and land, roads, streets, bridges, drainage, jails, courthouses or other public facilities proposed by the county or qualified municipal governments involved. Authorities may not use SPLOST revenues to fund operating or maintenance expenses for SPLOST related projects or county/municipal facilities or services. SPLOST differs from the general-purpose Local Option Sales Tax (LOST) which can be used for capital and operations expenditures; and the Educational Special Purpose Local Options Sales Tax (ESPLOST) which is levied specifically for educational capital projects (Association County Commissioners of Georgia (ACCG), 2008; Georgia Municipal Association (GMA), 2004).

A SPLOST resolution must be passed by the board of county commissioners or governing body and then approved by voters of the district, through a referendum, for the tax to be enacted. Approval of SPLOST in Georgia requires a simple majority of votes. This tax is voted on by residents of the special district identified, be it the county or other jurisdiction, and levied within that designated district. The SPLOST resolution must include a list of the county and approved municipal capital improvement projects for which the levy will be used, the estimated cost of each project identified and the timeframe of the levy, i.e. a defined end date for the levy must be specified. In general SPLOST levies are imposed for a period of five years, however under certain circumstances SPLOST levies can have a maximum sunset timeframe of 6 years. If the county and qualified municipalities enter into an intergovernmental agreement the tax may be levied for a period of six years. If no intergovernmental agreement is in place and a level-one project is being undertaken, the tax may be levied for a period of five years if the estimated cost of the level one projects is less than 24 months of estimated revenue, or six years if the estimated cost of the level one projects is equal to or greater than 24 months of estimated

revenue. If the levy will be used for the issuance of general obligation debt in the form of bonds, then the resolution must state the purpose for which the debt is being issued, the principle amount of the debt, the local government issuing the debt, the maximum interest rate or rates that are applicable to the debt and the amount of principle to be paid each year over the life of the debt.

2.4.2 History

The SPLOST law was enacted by Georgia legislators in 1985 following the LOST enactment in 1978. Tax levies are passed countywide as a county tax and are neither a municipal nor a joint county-municipal tax. SPLOST is levied on items subject to state sales and use tax including sales on motor fuels as well as on the sale of food and beverages. Projects that are financed by SPLOST funds are intended to benefit the county as a whole either as a pure SPLOST funded project, or in conjunction with other county capital or municipal capital outlay projects.

2.4.3 Projects Eligible for Funding

As previously stated, the revenues collected from a levied SPLOST can only be used to fund capital outlay projects. Costs associated with the operation and maintenance of proposed SPLOST projects or any previously approved projects cannot be funded by these SPLOST proceeds. County representatives in conjunction with chief elected officials of each approved municipality discuss and agree upon capital projects that should be included in the proposed SPLOST referendum. The approved projects or SPLOST resolution included on the referendum presented to voters has to be passed in its entirety.

Capital outlay projects are projects that are permanent in nature such as land and structures that have a long usable life. This is in contrast to short term or current expenditures which include operation and maintenance expenditures. Capital projects that are owned and operated by a county, qualified municipality, or local authority are eligible for SPLOST funding.

Under general guidance, the following projects can be funded through a SPLOST (ACCG, 2008; GMA, 2004):

- Roads, streets, and bridges, which may include sidewalks and bicycle paths
- A capital outlay project consisting of a courthouse or administrative buildings; a civic center; a local or regional jail, correctional institution, or other detention facility; a library; a coliseum; local or regional solid waste handling facilities; local or regional recovered materials processing facilities; or any combination of such projects
- A capital outlay project to be operated by a joint authority or authorities of the county and one or more qualified municipalities in the special district
- A capital outlay project consisting of a cultural, recreational, or historic facility or a facility for some combination of these purposes
- A water or sewer capital outlay project, or combination of both, to be owned or operated by a county water and sewer district and one or more qualified municipalities in the special tax district
- A capital outlay project within the district consisting of public safety or airport facilities. Or both, or related equipment used to operate such facilities
- A capital outlay project consisting of any transportation facility designed for the transportation of people or goods, including but not limited to railroads, port and harbor facilities, or mass transportation facilities
- A capital outlay project consisting of a hospital or hospital facility owned by the county, a qualified municipality or a hospital authority and operated by such county, municipality, or hospital authority, or by a non-profit, tax-exempt organization through a lease or contract with the county, municipality or hospital authority

- The retirement of existing general obligation debt of the county, or one or more qualified municipalities

SPLOST law, through HB 709 which was passed in 2004, was amended to cover expenses associated with road repair and general maintenance. Prior understanding held that SPLOST revenues could only be used for capital projects and thus could not be used for street resurfacing and general maintenance. However, due to the constant need for local governments to upkeep their stock of roads and the fact that this maintenance was in fact a form of infrastructure improvement that was inherently associated with this capital stock, the restriction previously placed on road, street and bridge projects was removed. Under this amendment, authorized road, street and bridge projects include the following (GMA, 2004):

- Acquisitions of right of way for roads, streets, bridges, sidewalks and bicycle lanes
- Construction costs associated with for roads, streets, bridges, sidewalks and bicycle lanes
- Renovation and improvement costs for roads, streets, bridges, sidewalks and bicycle lanes, including resurfacing
- Utility relocation for project construction
- Improvement for surface water drainage associated with constructed roads, streets, bridges, sidewalks and bicycle lanes
- Patching, leveling, milling, widening, shoulder preparation, culvert repair, and other repairs necessary for the preservation of roads, streets, bridges, sidewalks and bicycle paths

Storm water and drainage capital outlay projects may be funded by SLPOST revenues either as general projects or as road, street and bridge projects.

2.4.4 Allocation of Revenues between the County and Qualified Municipalities

SPLOST revenues are collected on behalf of the counties by the Georgia Department of Revenue. The Department of Revenue usually retains one percent of the revenues collected for administrative purposes before distributing the remainder of the SPLOST proceeds to the county government for further disbursement. Revenues can be distributed by county governments to qualified municipalities in either of two ways:

- Intergovernmental agreement
- Population-based distribution; in the absence of an intergovernmental agreement

Where municipal projects are to be funded, designated municipal governments will receive SPLOST proceeds from county governments in accordance with the distribution schedule outlined in an intergovernmental agreement, if one was executed; or in its absence, on a monthly basis. If there are no approved municipal projects, the county will receive all SPLOST revenues (ACCG, 2008; GMA, 2004).

2.4.4.1 Intergovernmental Agreements

The SPLOST revenue distribution to finance approved capital outlay projects may be done through an intergovernmental agreement. This agreement is entered into and must be signed by the county and one or more qualified municipalities representing at least 50 percent of the municipal population of the county. The major objective of such an agreement is to clearly specify the manner and priority in which SPLOST revenues would be disbursed among the relevant parties. Intergovernmental agreements can be crafted to address the local relationships and needs of the county and municipalities. While the specific provisions of SPLOST agreements may vary from county to county, all intergovernmental agreements for use of SPLOST proceeds must include the following eight items:

- A listing of the specific capital outlay projects to be funded by the levied
SPLOST

- The estimated amount of SPLOST revenue to be allocated to each project identified
- The procedures for distributing the SPLOST proceeds to qualified municipalities
- The schedule or timeline for distributing proceeds to qualified municipalities which includes the priority or order of projects to be fully or partially funded
- A statement which provides that all listed projects will be funded from the levied SPLOST, unless otherwise agreed upon
- A provision stating that allocated SPLOST revenues will be maintained in different project-specific accounts and will only be used for the specific purpose identified
- Strict recordkeeping and audit procedures will be followed in accordance to the law
- Any additional provisions that may have been agreed upon by the county and the participating municipalities

Entering into an intergovernmental agreement can provide benefits to both the county and the participating municipalities. This process encourages communication, discussion and negotiation between county and cities to determine which projects to be funded and the priority of each to the overall development of the county. This interactive and inclusive exercise fosters a sense of cooperation and may encourage support from participating local governments and may help in producing a list of projects that is not only well balanced but also well backed and supported by local citizens. This support may prove beneficial in receiving voter approval of the proposed referendum (ACCG, 2008; GMA, 2004).

Further benefits resulting from entering into an intergovernmental agreement for the use of SPLOST proceeds include the imposition of a SPLOST levy over a maximum of six years instead of the generally imposed maximum of five years. Being able to levy SPLOST taxes for an

additional year makes more revenue available to fund capital expenditures and thus could allow more projects to be funded. This also provides additional spacing between public voting on a new or continued SPLOST initiative (ACCG, 2008; GMA, 2004). Needless to say the time period for a particular referendum is subject to the wishes of the jurisdiction. For example, Transportation Investment Act (TIA) proposes a 1% regional sales and use tax to fund all modes of transportation for a period of 10 years.

2.4.4.2 Population-based Distribution

Although the law purports to foster cooperation between county and municipalities through intergovernmental agreements, if a county and the associated municipalities are unable to reach an agreement on the distribution of SPLOST proceeds, then a default mechanism allocates SPLOST revenues by a way of a population-based formula. . This distribution ensures that all qualified municipalities are guaranteed a share of the SPLOST proceeds even without an intergovernmental agreement. Any proceeds remaining after county-wide project allocations (level-one and level-two projects) are made must be distributed to the county and municipalities based on their respective population proportions (ACCG, 2008; GMA, 2004).

The county may use all or some of the SPLOST proceeds to fund county-wide level-one projects. Level-one projects are capital outlay projects that serve state functions such as a county courthouse, a county or regional jail, detention institute, or correctional facility, a county health department, or administrative building for elected officials, etc. Any number of level-one projects can be placed on the SPLOST referendum as deemed necessary or appropriate by the county. If no level-one projects are selected to be funded then the county may select to fund level-two projects that account for up to 20 percent of the SPLOST proceeds. The remaining proceeds may be distributed to the county and qualified municipals for general use. If however the county allocates funds to one or more level-one projects it may not allocate up to 20 percent of SLPOST proceeds to level-two projects. These projects include county-wide capital projects that benefit

the citizens of the entire county and which are not listed as level one projects. These projects may also include city or municipal projects that provide a county-wide service. No project listed as a level-one project can be categorized as a level-two project (ACCG, 2008; GMA, 2004).

If no county-wide projects are included for funding or if they were and the county has allocated the appropriate SPLOST funds to level-one or level-two projects, then the unused or undistributed portion of the SPLOST proceeds may be distributed between the county and the qualified municipalities by way of an intergovernmental agreement or by population. This intergovernmental agreement should specifically address how revenues remaining after the county-wide projects are accounted for are to be distributed. Population-based distributions will appropriate the remaining SPLOST funds to the county based on the population of the unincorporated part of the county, and to the qualified municipalities based on the proportion of each municipality's population to the total population of the county. When SPLOST revenues are distributed according to the population-based split, the county must distribute the tax proceeds to the municipalities on a monthly basis. If a municipality is located in more than one county, only the part of the municipality's population that is located in the county calling for the SPLOST will be used for population calculations (ACCG, 2008; GMA, 2004).

Municipal revenue shares are not always guaranteed. If the county proposes to fund one or more level-one projects that consume all of the SPLOST revenues then there would be no unused or excess funds available to be appropriated to any qualified municipalities. Similarly, if an intergovernmental agreement is used to distribute SPLOST funds then the parties represented in the agreement would include the county and the one or more qualified municipalities that represent at least 50 percent of the county's municipal population. In this case, only the qualified municipalities included in the agreement would be entitled to a share of the SPLOST revenues. Although municipalities representing at least 50 percent of the county's municipal population need sign the agreement for it to be legal, all qualified municipalities may sign it and thus be entitled to a share of the SPLOST funds. Additionally, the municipalities that do represent at least

50 percent of the municipal population may also choose to negotiate with the county on behalf of or for the inclusion of all the municipalities, even those not represented in the agreement, to ensure all participating cities benefit from the SPLOST (ACCG, 2008; GMA, 2004).

2.4.5 Literature of Georgia SPLOSTs

2.4.5.1 Outcomes from the implementation of SPLOSTs

As described earlier, governments' local finances have shifted more toward the use of sales taxes to raise the necessary funds required to finance many transportation related projects. Goldman and Wachs (2001) found that approximately one quarter of all non-federal highway revenue in Georgia was funded by sales taxes. Of the 159 counties in Georgia, 124 counties had a special-purpose sales tax in 1998. Results show that 35 of the 94 capital projects tied to sales tax revenues proposed across Georgia from September 1998 to November 2000 appropriated some funding to transportation-related projects. Funding that has been approved for transportation has primarily been used for road and bridge construction, with most of the remainder appropriated to the maintenance of roads, bridges, and local streets. It is also noteworthy that of the 94 previously mentioned capital projects that were proposed across the state, all but eight won voter approval by very large voter margins. This high approval rating reflects the popularity and support by the local citizenry to these voter based initiatives (Goldman, Corbett, and Wachs, 2001).

The authors further suggested that Georgians are amenable to the tax as a result of a number of factors. These factors include but are not limited to the fact that the base sales tax rates are low thus raising the tax rate is more favorable than if the base rate was high; the project list is clearly defined, in keeping with the community vision and realistic in nature; the tax levy period is short allowing voters to change direction in their commitments if funds are not properly managed or promises are not delivered; and when the jurisdictional government has established a record of responsible tax management and accountability(Gwinnett and Cobb counties were cited

as examples). They further stated that local option income taxes, while authorized, had not been implemented in corresponding counties (Goldman, Corbett, and Wachs, 2001).

Although sales taxes offer great benefits as a funding option, there are drawbacks or risks associated with its use. Since this tax is a consumption tax, it is usually highly responsive to changes in the economic climate. The RAND Corporation (2007) has noted that sales taxes are more vulnerable to fluctuations in the economy, which has impacted some transportation services in Georgia. This is also apparent in other states where sales taxes were budgeted for use on transportation projects such as the Denver RTD FasTracks project. The projected revenue anticipated during the startup period of the project has been greatly reduced or is much lower than originally anticipated due to the recent economic downturn (Regional Transportation District FasTracks, 2009). Authorities should be mindful about this potential risk and budget accordingly in the form of “best-case” and “worse-case” scenario planning to ensure that a contingency is built in for long-term project projections.

In addition to the vulnerability of sales taxes to changes in the economy Schweitzer and Taylor (2007) reported that the use of sales taxes in transportation financing tends to result in a redistribution of wealth from lower-income households to wealthier taxpayers. Although these taxes are attractive since the tax burden is spread across a much wider group of individuals, including non-residents of the jurisdiction, it is regressive in nature with respect to income. Thus the proportion of household income paid in tax is higher in low-income households in comparison to high-income households. Sales taxes are also not tied to the use of the transportation facilities financed by their revenues. Thus there is a redistribution of cost burden from the users of the system to the non-users of the system.

Jung (2002) reviewed Georgia’s SPLOST initiatives from 1985 through 1997. In his review a quantitative analysis was conducted using a dataset that included 136 counties that had submitted a Report of Local Government Finances to the Georgia Department of Community Affairs every year from 1984 through 1997. Jung reported that the approval rates for SPLOST

initiatives varied from 60% to 95% over that period of time. The approval ratings were generally trending upward reflecting the increasing support for these initiatives, and transportation projects including roads, streets, and bridges received the largest amount of funding, followed by other uses such as jails and courthouses, solid waste and sewage facilities, recreational facilities, and more. However, this trend changed later after educational SPLOSTs were introduced in 1996.

2.4.5.2 Factors associated with the results of Georgia SPLOSTs referenda

The support and success of SPLOST referenda is dependent on a number of factors. Regression analysis conducted by Jung (2002) detected positive correlations between earlier SPLOST adoptions with home ownership and the opportunity to shift part of the tax burden onto nonresidents, and a negative correlation with a larger proportion of residents over age 65. Observation revealed that these voter based taxes were most likely to be adopted earlier by counties with a significant retail tax base – larger cities and sites with universities, large commercial centers or tourist attractions – since the tax burden can be passed onto nonresidents. Similarly, the author found that SPLOST referendum was more likely to be adopted in jurisdictions with a high percentage of home ownership. Supported by previous works, Jung inferred that home owners may be voting in their self-interest since they believe that funding long-term capital projects with sales tax receipts will not only reduce their future property tax burden but also shift or redistribute the tax burden to more individuals including nonresidents.

The use of SPLOST as a means of redistributing the tax burden onto nonresidents is more popular and widely used and supported in more urban areas since they have the capacity to export the tax burden onto external users of the system. However, rural counties or jurisdictions that are less retail based tend to be slower to adopt and use sales taxes because of the relatively higher poverty rates that exist in rural areas, the regressive nature of the tax, and also due to the fact that the tax base for these areas do not comprise a large percentage of nonresidents. Thus the tax burden falls mostly on the local population. In addition, according to Jung (2002), voter turnout

had an inverse relationship with SPLOST approval – lower turnout meant that the SPLOST would be more likely to be passed or approved.

2.5 Determinants of Transportation Sales Tax Referenda

2.5.1 Socio-demographic and Community Characteristics Associated with the Success of Transportation Referenda

When people make a decision on whether to adopt the local sales tax, they may consider the perceived costs (e.g. increasing sales tax rate) and benefits (increasing public services) that a new tax will generate. There may also be many more factors associated with this decision. In a view of local officials, Zhao (2005) summarizes three approaches, including the Dye-Sharkansky-Hofferbert (DSH) comparative studies, the median voter approach, and the multijurisdictional approach, that examined those factors affecting local tax structure. The local tax structure may influence the adoption of new local sales taxes.

The DSH approach examines policy outcomes across many jurisdictions to explain their variations with several factors. Using this approach, the wealth of communities, socio-demographic characteristics, and political characteristics have been identified as significant factors affecting policy decisions (Zhao, 2005). The median voter approach assumes that the preferences of the public are captured by the median characteristics of voters by aggregating individual voter's demand (Turnbull and Mitias, 1999), and they affect policy decisions. Finally, the multi-jurisdictional approach recognizes possible competition between jurisdictions. Since residents are free to choose where to live within the region, comparing the package of tax burdens and public services, officials in local governments may consider those packages in neighboring jurisdictions to induce (or keep) new (or current) residents for their tax bases and secure their political positions (Zhao, 2005)⁵.

⁵ This approach is consistent with Berry and Berry's (1990) regional diffusion model. They introduce two types of models that explain what influences a government to adopt a new policy: internal determinants and regional diffusion

Although these approaches focus on major factors associated with local tax structures, they also can be employed in explaining determinants of transportation ballot measures which contribute to forming local tax structures. For example, community characteristics, such as the financial health and socio-demographic and political characteristics are determined by aggregated median values of voters' characteristics in communities and directly or indirectly affect the decision on transportation sales taxes. The conditions of transportation, infrastructure, and the local economy change voters' demand for transportation services and then influence their decisions on transportation ballot measures. These features are consistent with the ideas of the median voter approach and the DSH approach. In addition, the same logic underlying the multi-jurisdictional approach may be held in voters' decisions on transportation sales taxes. In this case, voters, instead of officials in local governments, are interested in improving transportation infrastructure, which may not only increase their quality of life but also affect property values, comparing the conditions of neighboring jurisdictions. Zhao (2005) also finds that the adoption of local optional sales tax (LOST) by a county was influenced by policy diffusion. This influence results from both "neighboring diffusion" from bounding counties that have adopted the LOST and by "statewide or national diffusion" where the adoption of the LOST was influenced by the overall number of counties in Georgia that have adopted the measure.

Socio-demographic factors that affect voters' behaviors may include age, race, income, marital status, and population growth. Younger voters may be more favorable to vote for transportation sales taxes than older voters because it takes years to complete transportation and transit projects and older voters sometimes feel this is beyond their lifetimes. Also, young voters are more concerned about traffic congestion and experience the need for better transportation services more often than older voters because older voters are more flexible and also more willing

models. The internal determinants model is based on the assumption that the political, economic, and social characteristics of a state government are crucial factors of innovation of the state government, while the regional diffusion model emphasizes the influence of neighboring states' decision as "experimental laboratories"⁵ on adopting new policies.

to adjust their commuting schedule, avoiding peak hours (Colman, 1987; Harmatuck, 1973).

Colman (1987) and Harmatuck (1973) also found that higher income voters are less willing to approve the transportation sales taxes for transit projects than lower income voters. However, if the project is not limited to transit projects, including road and highway constructions or expansions, this result may not hold.

Community characteristics associated with the results of transportation ballot measures include spatial hierarchy, such as ‘urban versus rural areas’ or ‘metro versus non-metropolitan areas’, population density, ratio of homeowners, the local economy, tax exportation, and the condition of transportation and infrastructure. Particularly, the conditions of transportation services include congestion, provision of transit services, deterioration of roads and bridges, and presence of interstate highways. For example, there were two important forces behind the success of the Santa Clara County Measure A, an extension of the BART (Bay Area Rapid Transit) system, with a margin of 70.6% to 29.4%. One important factor was the extensive traffic congestion of the region that often forced voters to seek other transportation solutions, and the other primary factor was the popularity of the BART system in the region as an alternative. This implies that both well-articulated problem settings and transportation projects that effectively address the problems and propose solutions are essential to obtain voters’ approval. In addition, Pajari (1984) suggested that greater urbanization and the presence of an Interstate highway were associated with a greater likelihood of approval of sales taxes since regional retail centers and other commercial activities tended to be located in urban areas and along major highways, thus influencing the potential of tax exportation.

2.5.2 Campaign and Proposal Characteristics Associated with the Success of Ballot Measures

Haas, Massey, Valenty, and Werbel (2000) argue that campaign and referenda and proposal characteristics are more significant factors associated with the success of transportation

ballot measures than the socio-demographic characteristics of voters and community characteristics. For example, in their case study of Seattle, Washington, the percentage of voters' support for transportation measures changed from 47% in 1995 to 57% in 1996. They concluded that differences in transportation packages and communication campaigns contributed to the success of transportation ballot measure in 1996 as there was no specific change in the characteristics of the community within a two year time frame. They also argue that the impact of community characteristics on voting behavior varies by geography, implying that it may be difficult to generalize the effects of socio-demographic variables on the success of transportation ballot measures. For instance, regression analysis with different datasets in terms of geography (California and the nation in their study) identified few common variables with statistical significance. Moreover, the variable of people with ages of 65 and over, which is the only common variable between the two datasets, had different results for similar cohorts or voters.

As reported by Werbel and Haas (2001), communications campaign strategies for local transportation funding initiatives can be broadly categorized into three important components: budgets and fund-raising, variety of media used, and content of communications.

2.5.2.1 Budgets and Fund-raising

The success of the supporter's campaign is more dependent on the quantity (total fiscal amount) generated by fund-raising efforts. This is due to the fact that the responsibility of gaining the voter's support rests largely on the proponent group. The opponents groups tend to operate on smaller budgets as their campaigns are strategic reactions to the proponents' campaigns. Fund raising is primarily a collaborative effort between local governments, chambers of commerce, business organizations, and other supporters. In instances such as the San Antonio Light Rail System, weak support from these stakeholders led to poor fund raising outcomes (\$300,000).

Examples of more successful fund raising attempts include the Light Rail Line in the Denver Regional Transportation District, the Comprehensive Transit Package for the City of

Phoenix and the extension of BART into Santa Clara County, California, reaching or exceeding their targets of a million dollars or more. The California example was a particularly successful campaign with \$2.2 million being raised in 75 days. This was the result of the collaboration between dedicated supporters and prosperous companies in the Silicon Valley which saw the transportation initiative as a particularly worthwhile investment.

2.5.2.2 Variety of media used

Werbel and Haas (2001) document the communications campaign methods and results in seven case studies of funding initiatives for local transportation across the United States. In most of the cases, television advertising was the most preferred medium for advertising the funding initiatives. Radio, telephone and direct mail were also used to reach out to voters. Publicity through newspaper coverage though limited, was influential in swaying voter opinions.

Advertisements used for television and radio covered general content on the aims and benefits of the transportation initiative. Distribution pieces (such as door hangers) and direct mailers contained more detailed technical information. For example, in the San Antonio Light Rail initiative, VIA (San Antonio Metropolitan Transit Authority) developed a four-page information document that was distributed as an insert in a local newspaper. The document contained detailed maps and text, describing the content of the different light rail lines proposed. Mailers used in other campaigns contained more specifics about the plans, especially with regard to quantitative aspect of the improvements, the location of services and the financial aspects of these improvements as well as statistics and comparisons with other similar initiatives to provide objective information.

In many instances, these mailers were developed to counter opponents' criticisms of vague plans and non-disclosure of details. Additionally, direct mail was used to reach out to more skeptical or swing voters (as identified through market research) in order to educate them and gain their support. For example, in the Santa Clara initiative, information on mailers were

directed towards anti-tax public interest groups and other demographic groups that may not have directly benefited from the transportation initiative, in order to gain their support.

Endorsements on these mailers from prominent public officials and other political figures also played an important role in the capacity to influence voters. Republicans are generally less supportive of tax-increasing initiatives compared to Democrats. However, in the case of Charlotte, the use of a former Republican mayor as the campaign spokesperson greatly weakened the oppositions standing. Another example is the City of Phoenix, where the mailers had strong endorsements from the Mayor and district councilpersons.

2.5.2.3 Content of Communications

a. Strategies used by proponents of the transportation initiative

Campaign strategies used by proponents varied from “stealth” to transparent campaigns. Stealth campaigns avoided controversial issues and divulged little information to the public. These campaigns (such as the St. Louis MetroLink Measure M) were less successful as they tend to get heavily attacked by opponents for vagueness and lack of transparency. On the other hand, campaigns that were more forthright in the content and details seemed to fare better in garnering support.

Also, campaigns that used previous failed attempts as learning opportunities and adjusted their campaign strategies to preempt previous inadequacies also had a better success rate. Extensive market research also helped proponents develop more targeted and effective campaign strategies. In the case of Charlotte, extensive market research helped ascertain existing preferences and values towards the light rail system. This research helped proponents implement a strategic and successful communications campaign albeit on a limited budget (\$ 250,000).

Primary themes used by proponents campaign included:

Congestion Relief: The messages used here were primarily to appeal to the emotional side of the voters. Symbolism in television ads (such as images of beautiful flowers in a mountain

valley— Denver Regional Transportation district) was used to convey the valuable assets of the region worth preserving and how the transportation initiative would help that goal.

In addition, the transportation initiative was advertised as a solution to traffic problems. Transit would save travel time (implying more time with family), take more cars off the road, reduce emissions (improve air quality) and thus contribute to a better quality of life overall.

Improved transit and more transportation options: Transportation initiatives that included multiple modes (for example the Comprehensive Transit Package for the City of Phoenix) advertised the ubiquitous benefits of increased bus service in addition to light rail and the importance of better transit overall.

Loss of Federal funding: A theme used in some campaigns (for example, Denver Regional Transportation district) was the loss of federal funding if the measure was defeated. A similar strategy can be used in the campaign of the regional SPLOSTs. For example, if voters fail to approve the regional SPLOST referendum in Georgia, every local government within the district would provide a 30 percent matching fund to receive Local Maintenance Improvement Grants from GDOT, while passage requires only a 10 percent match. Therefore, the increasing burden of matching fund to receive the grants when they fail to approve the referendum should be highlighted in the campaign.

b. Strategies used by opponents of the transportation initiative

Primary themes used by opponents in their communications campaign included:

Attack on plan content: Plans that were considered “vague” or ones that did not provide financial details or lacked routing information provided prime fodder for opponents’ attacks. A good example of this type of campaign is the unsuccessful Measure M and MetroLink initiative in St. Louis. The initiative for the Light Rail System for San Antonio suffered the same fate. The plan came under heavy criticism for lack of detail and insufficient background research.

In instances where plans were detailed enough, opposition strategies were to primarily counteract the claims of the proponents. For example, in the Denver Light Rail initiative, opponents were unable to raise sufficient funds to mount an effective campaign. However, their primary message was that the initiative was over-promising on claims of cleaner air, loss of federal funding and congestion relief.

Distrust of public agencies: The vagueness of the plans and campaign were manipulated by opponents to imply a larger lack of accountability on the part of public agencies. This is again exemplified in the MetroLink case.

A particularly strong opposition campaign in the case of the Light Rail System for San Antonio, mounted a strong attack on the VIA Metropolitan Transit in San Antonio. Accusations included misappropriation of public funds, manipulation of data (over ambitious population estimates) and other financial inconsistencies. Thorough research on the part of the opponents empowered their campaign efforts. They even filed a lawsuit against the VIA as a good way for the initiative to garner negative publicity. As a counter to previous criticisms of opposition, they even proposed alternative solutions to the transit measure.

2.5.2.4 Others

Other macro-level exogenous variables, such as economic recession, could play an adverse role in getting voters' approval (Hass et al., 2000). Economic recession or economic instability not only discourages voters to agree with an increase of any form of taxes but also decreases transportation demand, possibly reducing traffic congestion and the need for transportation investment.

Even in a normal economic situation, voters discontent with increasing taxes (Citrin, 1999), meaning that the creation of transportation measures for new projects may have less support from voters than the extension of existing projects. A preliminary analysis with Georgia SPLOST data, conducted by Center for Quality Growth and Regional Development (CQGRD) at

Georgia Tech, showed that voters are reluctant to adopt transportation sales taxes, although sales tax is more favorable than the gas tax or property tax (Beale, Bishop, and Marley, 1996), if they already have additional tax burdens with sales taxes at the time when they need to decide on the adoption of a proposed transportation referendum. Also, the amount of the sales tax supporting projects and its duration appear to be related to the results and the success or failure of transportation ballot measures (Middleton, 1998; Beale, Bishop, and Marley, 1996).

2.6 Regional or Multi-Jurisdictional Initiatives in the U.S.

The trends seen in the use and approval of transportation sales tax referenda is not unique to Georgia but can be seen throughout the country. Coussan (2009) in a survey of 35 states found that transportation funding through ballot measures were most used at the local level in comparison to the regional or statewide level. From the surveyed years of 2000 – 2009, Coussan shows that the number of local transportation related referenda found on local ballots had more than doubled since 2004, from 54 local referenda during the period 2000 – 2004, to 119 since 2004. He credited the increased popularity of these measures to the increased demands being placed on financing transportation related projects, the move at the local level to be more responsive to transportation infrastructure investment, the relative success of these measures and the ability of local authorities to craft these measures to meet their local needs. A large proportion of the proposed sales tax increases were associated with transit projects, however some measures directed funds to highway/road projects or a combination of multi-mode projects. Coussan also found that an increasing number of sales tax measures were being proposed to voters at the regional level. During the 2000 – 2009 time periods, thirteen regional transportation related sales tax measures were proposed and nine were approved by voters. The majority of these proposed tax measures were transit related while some provided funding across transportation modes.

This section examines specific case studies across the United States that have funded transportation projects at the regional level in recent years. The cases present a mix of initiatives

that may support transit projects, highway projects or a combination of the two. It is also important to identify cases that reflected multi-jurisdictional or regional cooperation in both a large and small urbanized environment. Ten cases are categorized into large, medium, and small urbanized areas as shown in Figure 1. The large urbanized areas include Los Angeles, California, Dallas-Fort Worth, Texas, and San Francisco, California; the medium size urbanized areas include Seattle, Washington, San Diego, California, Denver, Colorado, and Salt Lake City, Utah; and the small size urbanized areas include Rio Metro, New Mexico, Charleston, South Carolina, and Santa Fe, New Mexico.

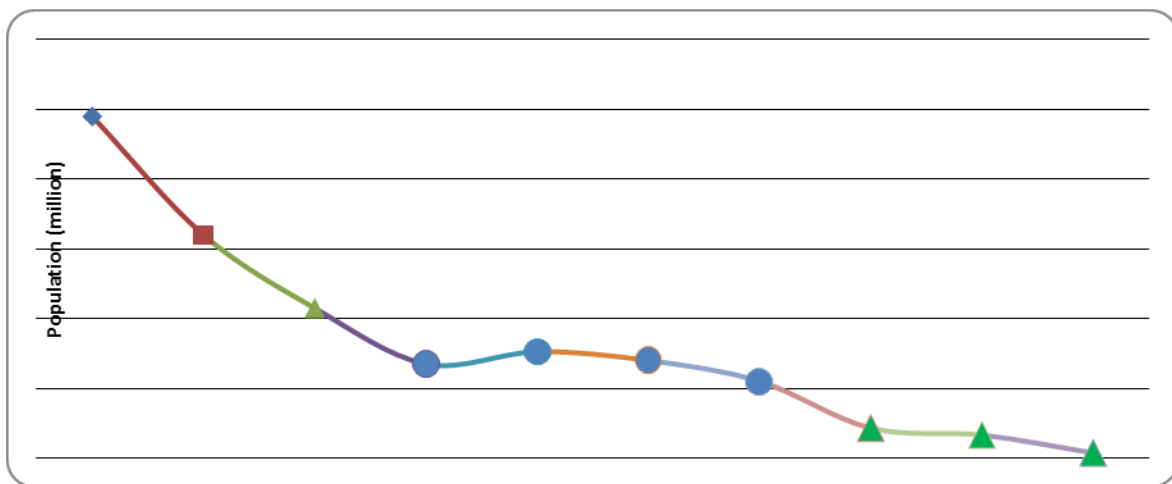


Figure 1. District population of cases

Since funding through voter approved sales tax are of interest, special consideration will be given to how this funding source is levied and used within each case area. Through a review of these selected cases the following summarizes have been produced.

2.6.1 Large Size Urbanized Areas

2.6.1.1 METRO – Los Angeles County MTA

Los Angeles County Metropolitan Transportation Authority (METRO) is a California state-chartered regional transportation planning agency which manages the transportation policies,

plans, funding programs, and system solutions to address both the long and short range transportation needs of the region. METRO oversees the County of Los Angeles which comprises approximately 88 cities and communities which are further broken into nine sub-regions for planning purposes.⁶ METRO plans for approximately 9.6 million residents over a 1,433 square mile service area (Figure 2).

A large proportion of METRO's funding comes from the revenue collected from the County's levied sales taxes. In 2008 the residents of Los Angeles County voted on and approved Measure R – a ½ cent sales tax increase to fund designated transportation projects within the region. Revenues collected from Measure R will fund the Measure R - Expenditure Plan Projects identified within the county. These projects will include both transit and highway/freeway projects. The local cities within the county will receive a 15% return from the revenues collected in proportion to their population to fund their local transportation needs which may include road repairs, street scapes, signal synchronization, pedestrian and bicycle projects, and transit service improvements. Measure R sales tax will be effective over a 30-year period, 2009-2039.

Los Angeles County also has two other transportation sales taxes in place. Proposition A is a ½ cent sales tax passed by voters in 1980 to be used to improve public transit in Los Angeles County. Proposition C is an additional ½ cent sales tax passed in 1990 to also be used for public transit services. These two tax initiatives were primarily transit based proposals supporting bus, rail and commuter rail capital and operations projects. Highway projects funded under Proposition C were transit related projects such as the construction of carpool or HOV lanes or to fund portions of transit projects that are on state highways or freeways. The new Measure R sales tax however, will fund both transit and highway projects within the overall transportation system of the county.

⁶ METRO. 2009 Long Range Transportation Plan, Technical Document.



Figure 2. METRO – Los Angeles County MTA

2.6.1.2 TRE Trinity Rail Express – Dallas-Fort Worth, TX

The Trinity Rail Express (TRE) is a 34-mile commuter rail linking Dallas to Fort Worth, Texas. It was formed from an inter-local government agreement between Dallas Area Rapid Transit (DART) and Fort Worth Transportation Authority (The T), crossing over the counties of Dallas and Tarrant. The operations and maintenance of the rail line is covered by the two agencies and is partially funded from sales tax revenue contributions from DART and The T. Cooperation between the two cities of Dallas and Fort Worth is also present in their joint ownership of the Dallas-Fort Worth International Airport. DART is a regional transit agency formed in 1983 and funded in part by a 1% local sales tax, federal funds, investment income and fares. DART services 13 cities within a 700 square mile area, within seven counties including Dallas, Collin, Denton, Ellis, Kaufman, Rockwall and Tarrant (Figure 3). Each of its member

cities levies a 1% sales tax for use in support of the transit system which includes commuter rail, light rail, bus transit services and supporting HOV lanes, stations and parking facilities.⁷

The Fort Worth Regional Transportation Authority (The T) was created in 1983 and was funded by a ¼ cent sales tax approved by the city of Fort Worth to help fund mass transit programs. This tax was later increased in 1989 to a ½ cent sales tax. Member cities of The T include Fort Worth, Richland Hills and Blue Mound. Both Blue Mound and Richland Hills became member cities in 1992 after levying a ½ cent sales tax increase to join the system with revenues contributing to the construction and operation of commuter rail and other transit services. The newest member to join the Fort Worth Regional Transportation Authority is the City of Grapevine which approved a ½ cent sales tax increase in 2006 for transportation with 3/8 of the collected revenue going toward The T.⁸

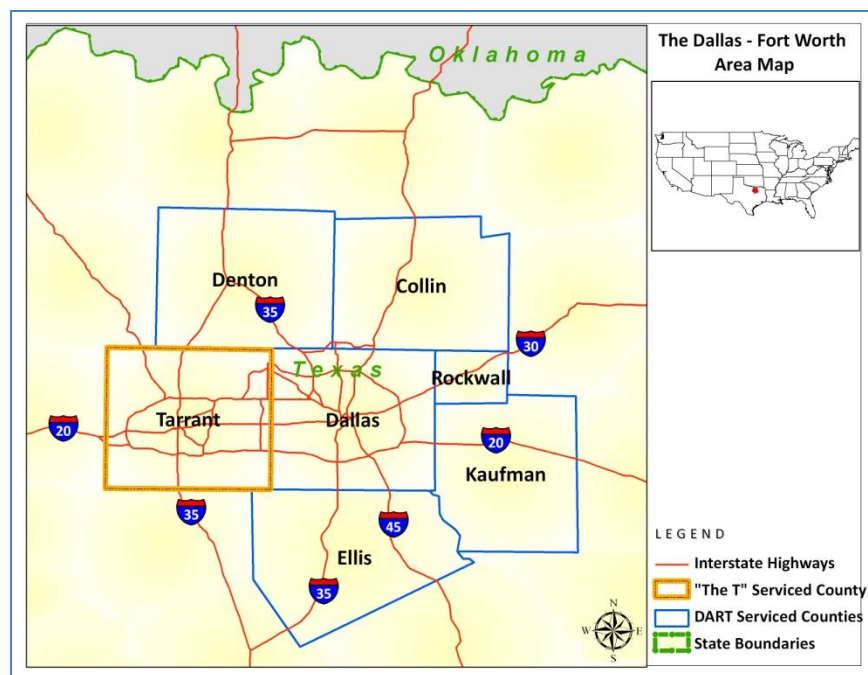


Figure 3. TRE Trinity Rail Express – Dallas-Fort Worth, TX

⁷ DART Agency Overview, December 2009. Retrieved September 22, 2010 <<http://www.dart.org>>

⁸ Fort Worth Transportation Authority: Basic Financial Statements and Supplementary Information. September 30, 2008.

2.6.1.3 BART – San Francisco Bay Area Rapid Transit District

The San Francisco Bay Area Rapid Transit District comprises the three-county area of Alameda, Contra Costa and San Francisco counties (Figure 4). Formed by legislation in 1957, the district was created by the San Francisco Bay Area Rapid Transit Commission's recommended least cost solution to a rising regional congestion problem. The District spans an area of approximately 1,505 square miles and will accommodate 3,384,114 by 2009 US Census estimates. Construction of the system began in 1964 however, after running into a number of constructions and funding problems the state legislature in 1969, in an effort to secure funding, approved a ½ cent sales tax levy in designated BART counties to complete the system. As the system progressed, in 1977 state legislature approved a permanent expansion of the ½ cent sales tax that was initially signed into law for the three counties.

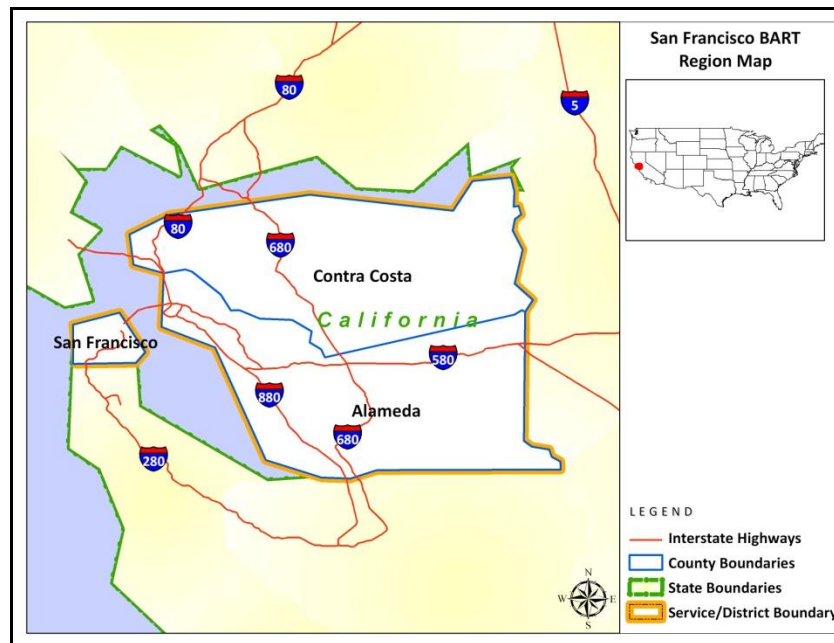


Figure 4. San Francisco Bay Area Rapid Transit (BART)

In addition to this permanent transit sales tax each of the counties within BART district have since proposed and passed voter approved temporary local transportation sales taxes which

are dedicated to funding both transit and highway projects. Although the BART district includes three counties, its service has been expanded into the neighboring county of San Mateo by means of a joint agreement between the two. Portions of Santa Mateo's local transportation taxes have been appropriated to BART to provide this service. There have also been plans to expand BART service into the county of Santa Clara. These counties, although not part of the BART district, have in place both a voter approved permanent transportation sales tax which supports their local transit services and temporary voter approved measures in place.

2.6.2 Medium Size Urbanized Areas

2.6.2.1 Sound Transit– Central Puget Sound Regional Transit Authority (RTA)

The Central Puget Sound Regional Transit Authority, more popularly referred to as Sound Transit, operates and oversees the regional mass transit system of King, Pierce and Snohomish counties in the state of Washington. The region's mass transit operations include express bus, commuter rail and light rail services. Sound Transit has openly expressed its shift toward regionalism as it seeks to develop alternatives to more effectively meet the travel needs of the region, across county lines. The District's boundaries encompass the most congested urbanized areas of the three-county region, covering approximately 1,000 square miles and 52 cities, and is further broken down into 5 district subareas which include Snohomish County, Pierce County, North King County, South King County and East King County (Figure 5). As per the 2000 Census the population for the district stood at 2.7 million, which is approximately 46% of the state's total population.⁹

⁹ Central Puget Sound Regional Transit Authority, 2010 Financial Plan. November 2009.



Figure 5. Sound Transit – Central Puget Sound Regional Transit Authority (RTA)

In 1993 the three counties voted to participate in the Regional Transit Plan and thus created the Central Puget Sound RTA to facilitate the plan's implementation. The Agency is permitted under law to levy and collect voter-approved local option taxes to pay for the building and operation of a high capacity transit system for the region. These taxes may take the form of employer taxes, special motor vehicle excise taxes and sales and use taxes. Until recent the RTA district tax included a 0.3% motor vehicle tax and a 0.4% sales tax which was approved by district voters in 1996 to provide funding for the region-wide transit improvement package referred to as Sound Move. In 2008 district voters voted on Proposition 1 which proposed a 0.5% sales tax increase to the RTA district to fund Sound Transit 2. This new proposal, Sound Transit 2, is a 15-year transit package (2009-2023) to expand the region's high capacity transit system which includes light rail, commuter rail, express bus and other transit expansion projects.¹⁰

¹⁰ Sound Transit Office of Corporate Communication, Operations, Projects and Corporate Services. Sound Transit History and Chronology. October 2007.

Investments under Sound Transit are delivered fairly in each of the five participating subareas. This principle is deemed unique to the plan and assures that the tax revenues raised in each of the subareas is used to fund capital and operational projects that will directly benefit the subarea. Priority projects for each subarea are identified through a public process and regional projects are coordinated between jurisdictions.

2.6.2.2 TransNet (Proposition A) – San Diego Association of Governments

The San Diego Transportation Improvement Project (TransNet) was first approved by voters of San Diego County, California in 1988 and saw a sunset date in 2008. The overall funding structure of TransNet is overseen by the San Diego Association of Governments (SANDAG) which is a regional agency that addresses issues such as transportation, environmental management, housing, open space, air quality and economic development within San Diego County. SANDAG's regional responsibility comprises 18 cities and the county of San Diego which accounts for approximately 3 million citizens within a 4,200 square mile area (Figure 6). San Diego County is in fact the third most populated county in California after Los Angeles and Orange Counties.



Figure 6. San Diego Association of Governments Region

The original TransNet program was funded in part by a ½ cent regional sales tax which was used to expand transit services, extend commuter rail and trolley lines, upgrade highway networks, improve and maintain local roads and fund regional bike and pedestrian projects. In 2004 voters of San Diego County voted on Proposition A or the TransNet Program Extension which proposed a ½ cent sales tax to fund a comprehensive program of transportation projects to run from 2008 to 2048. The projects included under this new extension consist of highway projects (HOV/Express lanes), highway widening projects, transit projects (light rail and bus rapid transit), local streets and roads projects, and bike and walking projects. It would also provide funding for innovative environmental and smart growth projects. This proposal was approved by voters in 2004 by a 67% margin. Major highway and transit projects are undertaken at the regional level and must contribute to reduced congestion and increased mobility of the region. TransNet local road revenues however, are distributed annually to each of the member

jurisdictions using a formula based on population and road miles within the various jurisdictions.¹¹

2.6.2.3 FasTracks Rail Transit Program – Denver RTD

The Denver Regional Transportation District (RTD) was created by the Colorado General Assembly to develop, operate, and maintain a mass transportation system for the benefit of the people in the RTD district.¹² It oversees and provides mass transportation services to eight counties which include: the City and County of Denver; the City and County of Broomfield; the counties of Boulder and Jefferson; parts of Adams, Arapahoe and Douglas Counties; and a small portion of Weld County (Figure 7). Transit service is provided to 40 municipalities in these 6 counties and 2 city-county jurisdictions. More than 2.7 million persons, approximately 55% of the Colorado population, reside within the RTD's 2,337 square mile area.¹³

In recent times Colorado has shown itself to be progressive in its transportation initiatives. The area's T-REX (Transportation Expansion) Project (1999) was an initiative to improve the transportation infrastructure of the region through efforts to widen major interstates and introduce light rail lines to the Denver metropolitan area. The T-Rex project area serviced 3 counties and 6 cities in the Denver Metro Area and was financed in part through a voter approved local initiative to allow the Regional Transit District (RTD) to sell bonds for the light rail component of the project and a statewide initiative to allow the Colorado Department of Transportation (CDOT) to sell bonds to help finance the highway portion of the project.¹⁴ This project in its size, scope and innovation soon became a model case of collaborative success in transportation project planning. The great success of the T-REX project led to the support of the Denver FasTracks Rail Transit Program.

¹¹ SANDAG. TransNet Extension Ordinance and Expenditure Plan. SANDAG.org

¹² Regional Transportation District (RTD). Report to the Region 2009-2010.

¹³ RTD Comprehensive Annual Financial Report, Fiscal Year ended December 2008-2007

¹⁴ Moler, Steve. U. S. Department of Transportation, Federal Highway Administration. "Colossal Partnership: Denver's \$1.67 Billion T-REX Project." Public Roads, Vol. 65, No. 2 (Sep/Oct 2001).

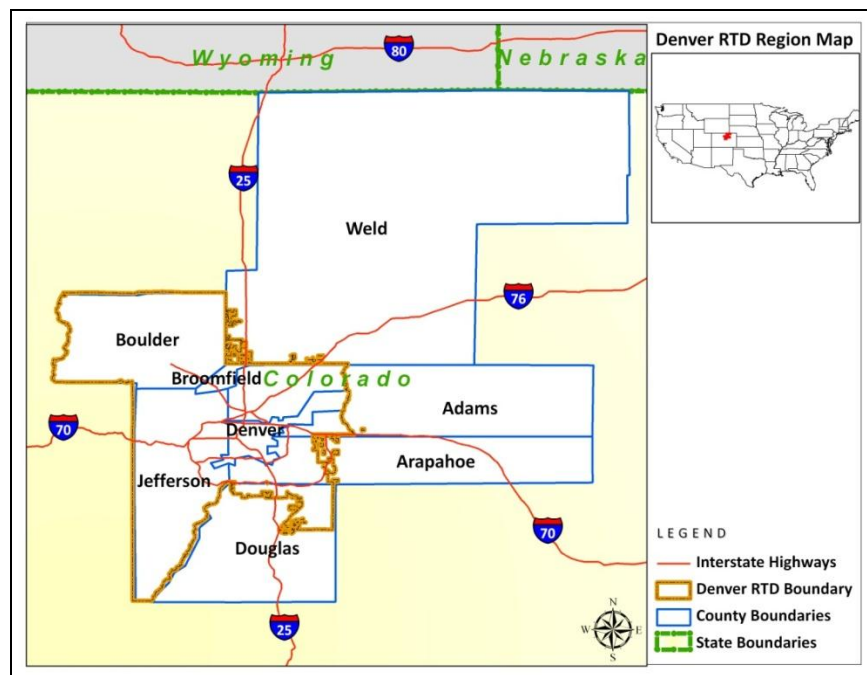


Figure 7. FasTracks Rail Transit Program – Denver RTD

Following the success of the T-REX project, citizens within the RTD region voted in 2004 for the FasTracks initiative which expands on previous mass transportation projects. This initiative increased the Denver RTD sales tax by 0.4%, from 0.6% to 1%, to fund primarily transit expansion projects which include light rail transit (LRT), commuter rail, the expansion of bus rapid transit routes, and the construction of stations and parking facilities to support the new rail lines. The sales tax increase was approved by 58% of the district's voters in the 2004 election and went into effect in January 2005. The FasTracks project was originally projected to be completed by 2017; however, due to the recent economic downturn coupled with the increases in construction costs, the project's original budgeted cost of \$4.7 billion is now being revealed to have been under budgeted and the completion year is also being pushed out. The RTD's 2010 FasTracks Financial Plan estimates that the current budget for the project stands at \$6.7 billion.¹⁵ Measures are now being considered to re-evaluate the project items and scopes originally

¹⁵ Urban Engineers, Inc and First Southwest Company. Denver Regional Council of Governments, Assessment of Denver Regional Transportation District 2010 FasTracks Financial Plan. July 2010.

considered under FasTracks to reduce the over-budgeted costs. Consideration is also being made to propose an additional 0.4% sales tax increase to finance the completion of FasTracks projects. This tax increase proposal is yet to be placed on the ballot.

2.6.2.4 FrontLines 2015 – Utah Transit Authority (UTA)

The Utah Transit Authority (UTA) operates a public transportation system along the Wasatch Front of Utah. The Wasatch Front is an 80 mile long urban corridor comprising of a chain of cities and towns along the north and central region of the state of Utah. This front or corridor of development encompasses five counties in Utah and is bounded by the Wasatch Mountain Range to the east and the Utah Lake, Oquirrah Mountains and the Great Salt Lake to the west (Figure 8). These natural boundaries have limited the extent to which this region can physically grow and has thus tasked the authorities within this area to make smart choices to accommodate the population growth being experienced. One of the major initiatives undertaken for this region to accommodate the increasing population is to develop the transportation infrastructure and transit options available.¹⁶

The UTA's service area comprises of roughly 75 cities in the 6 counties of Salt Lake, Utah, Davis, Box Elder, Weber and Tooele. With the exception of Tooele the five other counties make up the Wasatch Front. Approximately 78% of Utah's total population or roughly 2.2 million as stated by the US Census Bureau 2008 estimates, reside within the UTA service area of over 1,600 square miles.¹⁷

¹⁶ Utah Transit Authority 2009 Sustainability Report

¹⁷ www.rideuta.com

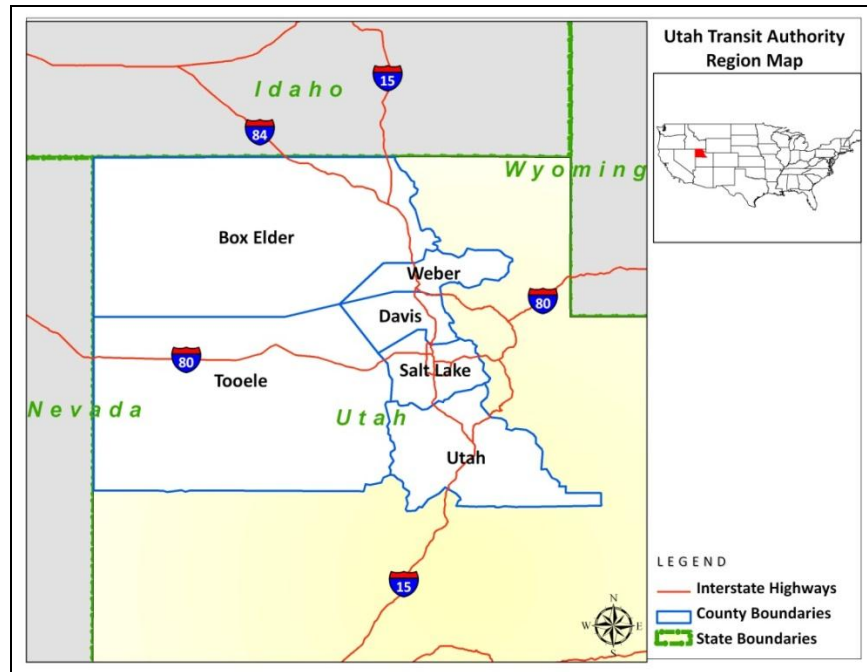


Figure 8. Utah Transit Authority (UTA) Region

In 2000 the three anchoring counties of the UTA (Salt Lake, Weber and Davis) each proposed and passed an additional $\frac{1}{4}$ cent sales tax increase on the $\frac{1}{4}$ cent regional sales tax for mass transit that was already in place from 1974. This ballot was presented to each county as a separate yet identical tax measure. However, success of this measure in delivering the projects proposed to the regional citizens were dependent on the tax increase being passed in all three counties. Local mass transit sales taxes are also levied in UTA member cities in Tooele and Box Elder counties.

In an effort to meet the increased population growth and transportation needs along the densely populated corridor, local officials supported the acceleration of the UTA 2030 Long-Range Transportation Plan which called for the construction and operation of 70 miles of light and commuter rail by the year 2015. This accelerated transit component is referred to as the FrontLines 2015 Project which requires the construction of four new light rail lines and one new commuter line to service the area. In an effort to accelerate construction, in 2006 residents of

Utah and Salt Lake counties voted on and approved a ¼ cent sales tax increase to finance this project in part. The proposed tax increase was not applicable to the entire UTA region but focused on the two more populated counties. Both Salt Lake and Utah counties plan to dedicate approximately 75% of the tax increase toward transit projects with the balance going toward the funding of highway related projects.¹⁸

2.6.3 Small Size Urbanized Areas

2.6.3.1 Rio Metro – New Mexico Mid-Region Transit District

The New Mexico Mid-Region Transit District or the Rio-Metro Transit District was formed in 2005 and includes the counties of Sandoval, Bernalillo and Valencia (Figure 9). The District covers a 5,945 square mile area with a population of 712,738, as per the 2000 census. Rio Metro provides a wide range of transit services to the region which includes rail services, commuter express bus, local fixed route bus, neighborhood circulators and flex-route bus services to the region's citizens. The major rail line which operates in the area is the New Mexico Rail Runner a 97 mile long commuter rail line which runs through the major cities of Las Lunas, Valencia County; Albuquerque, Bernalillo County; Bernalillo, Sandoval County, to Santa Fe, Santa Fe County. The New Mexico Department of Transportation (DOT) and the Mid-Region Council of Governments are responsible for the development of the rail service.

¹⁸ NCHRP 20-24 (62). Making the Case for Transportation Investment and Revenue. October 2009.

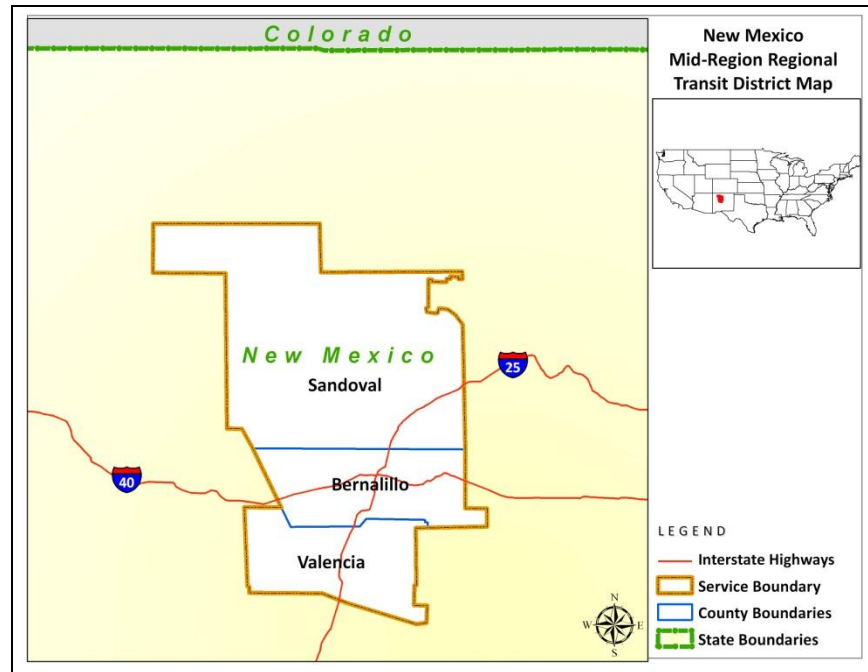


Figure 9. Rio Metro – New Mexico Mid-Region Transit District

With federal funding for the Rail Runner system ceasing in 2009, the local and state governments looked toward new and innovative ways to continue to fund and support the system. In 2008 the Mid-Region Transit District placed a sales tax initiative on the local ballot to fund, in part, the operational costs of the rail system. Voters within the district voted on and passed a proposed regional 1/8 cent sales tax increase. One half of the tax revenue raised from this tax increase will go toward the Rail Runner system, while the balance will be used to fund a combination of transit, and other surface transportation projects throughout the counties.

2.6.3.2 New Mexico North-Central Regional Transit District

The New Mexico North-Central Regional Transit District is one of three transit districts in the state. It was the first of the three Districts established as a result of the New Mexico State Legislature authorization of the Regional Transit District Act of 2003. It was certified in 2004 by the New Mexico Transportation Commission. This RTP is very unique as it engages a partnership between tribal and local government authorities to improve regional planning and transportation

coordination on transit services and transportation projects across urban, rural and tribal lands and boundaries. The region includes Santa Fe County, Los Alamos County, Rio Arriba County and Taos County which was recently included into the District in 2007 (Figure 10).



Figure 10. New Mexico North-Central Regional Transit District

Initiatives are coordinated between the 4 counties, 2 major cities of Santa Fe and Espanola and 5 tribal pueblos. In 2008 voters in the region approved a 1/8 cent sales tax increase to support transit within the region. Santa Fe County will dedicate one half of its tax revenue collected to the Rail Runner transit system, with the balance going toward rural bus and van transit and local county projects. The other member counties, which are more rural in character, will dedicate sales tax revenues to rural bus and van projects as well as their local transportation projects.

2.6.3.3 South Carolina – Berkeley-Charleston- Dorchester Council of Governments

The Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) is the regional transportation planning agency responsible for addressing transportation related issues within the tri-county region. Through the Charleston Area Transportation Study (CHATS), the BCDCOG performs the major planning and programming functions in the CHATS region's most urbanized areas comprising of roughly 800 square miles as well as the less urbanized areas of the region. Charleston County falls within the Charleston-North Charleston MSA which comprises the three counties of Berkeley, Charleston and Dorchester. In 2004, Charleston County of 355,276 residents voted on and approved a ½ cent sales and use tax for the purpose of financing roads, public transportation and greenbelt projects over a twenty-five year period. This initiative, "Small Change for Big Change", was approved by 60% of county voters and involves the coordination of approximately 16 municipalities (BCD Council of Governments – Transportation Planning, 2011).

Dorchester and Berkeley counties also have voter approved transportation sales taxes in place to help finance highway and road projects. Dorchester County approved a one cent sales tax in 2004 to fund 22 road improvement projects which includes a mix of roadway construction and widening, intersection and sidewalk improvements, and roadway resurfacing and paving projects. This tax will be levied for a period of 5-7 years after which the county residents can vote on a continuation of this tax. Berkeley County, in 2008, approved a one cent sales tax to be levied over a 7 year period. Revenues collected from this levy will also finance roadway improvement projects. Although these counties did not levy their respective taxes as a single regional initiative, the coordination of select roadway projects between these counties financed by each of the locally levied taxes was considered in the CHATS Long Range Transportation Plan 2030 and is programmed accordingly in the region's Transportation Improvement Program. Some of the roadway projects identified and programmed by each county clearly expresses the coordination of projects along shared corridors within the three counties in an effort to address congestion issues

in the area (BCD Council of Governments – Transportation Planning, 2011). Table 2 below provides a summary of the select cases identified in this section.

Table 2. Selected cases of regional or multi-jurisdictional use of transportation sales tax in the U.S.

Location		Proposal	Characteristics	Outcomes	Area Population MSA/CSA	District Population
Large Size Urbanized Areas	Los Angeles, CA	METRO – Los Angeles County MTA	<ul style="list-style-type: none"> • Transit, highway, local road system • County of Los Angeles • 1/2 cent county sales tax increase (2008-2038) 	<ul style="list-style-type: none"> • Approved 67% (2008) • Currently 2 other 1/2 cent county sales taxes have been approved (Prop A and C) 	• 12.9 million ¹⁹	• 9.8 million ²⁰
	Dallas-Fort Worth, TX	Trinity Rail Express (TRE) – Dallas Area Rapid Transit (DART) and Fort Worth Transport. Authority (The T)	<ul style="list-style-type: none"> • DART – Transit • 1% sales tax levied on member cities (13 member cities) • The T – Transit • ½ cent sales tax levied on member communities • TRE – Inter-local government agreement between DART and The T • System links Dallas to Fort Worth • Operations and maintenance covered by both agencies and is partially financed from sales tax revenues 	<ul style="list-style-type: none"> • Newest city to the T was the City of Grapevine (2006) • Approved 1/2 cent sales tax increase for transportation, of which 3/8 cents will go to the T for the construction and operation of expanded service through the City 	• 6.4 million ²¹	-

(continued)

¹⁹ US Census 2009 estimate for Los Angeles-Long Beach-Santa Ana MSA (Los Angeles-Long Beach-Glendale Metropolitan Division (Los Angeles County) and Santa Ana-Anaheim-Irvine Metropolitan Division (Orange County)).

²⁰ US Census 2009 estimate for the Los Angeles-Long Beach-Glendale Metropolitan Division (Los Angeles County).

²¹ US Census 2009 estimate for the Dallas-Fort Worth-Arlington MSA (Collin County, Dallas County, Delta County, Denton County, Ellis County, Hunt County, Johnson County, Kaufman County, Parker County, Rockwall County, Tarrant County and Wise County).

Location		Proposal	Characteristics	Outcomes	Area Population MSA/CSA	District Population
	San Francisco, CA	San Francisco Bay Area Rapid Transit (BART)	<ul style="list-style-type: none"> • Transit initiative • Counties of Alameda, Contra Costa and San Francisco • Permanent ½ cent sales tax enacted by legislation • BART system also supported from contributions from county specific transportation sales taxes 	<ul style="list-style-type: none"> • Permanent sales tax enacted by legislation in 1977 	<ul style="list-style-type: none"> • 4.3 million²² 	<ul style="list-style-type: none"> • San Francisco County 805,000 • Alameda County 1.5 million • Contra Costa County 1.05 million
Medium Size Urbanized Areas	Seattle, WA	Sound Transit – Central Puget Sound Regional Transit Auth.	<ul style="list-style-type: none"> • Transit Proposal (commuter, light rail and regional express bus) • 3 county district of King, Pierce and Snohomish County • 0.5% sales tax increase (2009-2023) 	<ul style="list-style-type: none"> • Approved 58% to 42% (2008) 	<ul style="list-style-type: none"> • 3.4 million²³ 	<ul style="list-style-type: none"> • 2.7 million in Sound Transit District²⁴
	San Diego, CA	TransNet (Proposition A) – San Diego Assoc. of Gov'ts	<ul style="list-style-type: none"> • Transit, highway, local road system • 1 county region (18 cities) • 1/2 cent regional tax expansion (2008-2048) 	<ul style="list-style-type: none"> • Approved 67% to 33% (2004) 	<ul style="list-style-type: none"> • 3.05 million²⁵ 	<ul style="list-style-type: none"> • 3.05 million
	Denver, CO	FasTracks Rail Transit Program – Denver RTD	<ul style="list-style-type: none"> • Transit Proposal (Rail/Bus) • 8 county region of Denver-Aurora-Boulder • 0.4 % sales tax increase 	<ul style="list-style-type: none"> • Approved 58% to 42% (2005) 	<ul style="list-style-type: none"> • 3 million²⁶ 	<ul style="list-style-type: none"> • 2.8 million in RTD District²⁷

(continued)

²² US Census 2009 estimate for the San-Francisco-Oakland-Fremont MSA (San Francisco County, Alameda County, Contra Costa County, Marin County, San Mateo County)

²³ US Census 2009 estimate for the Seattle-Tacoma-Bellevue MSA (Seattle-Bellevue-Everett Metropolitan Division (King County and Snohomish County) and the Tacoma Metropolitan Division (Pierce County))

²⁴ Central Puget Sound Regional Transit Authority. 2010 Financial Plan.

²⁵ US Census 2009 estimate for the San Diego-Carlsbad-San Marcos MSA.

²⁶ US Census 2007 estimate for Denver-Aurora-Boulder CSA. Includes Denver-Aurora MSA (City and County of Denver, Arapahoe County, Jefferson County, Adams County, Douglas County, City and County of Broomfield, Elbert County, Park County, Clear Creek County and Gilpin County); Boulder MSA (Boulder County); and Greeley MSA (Weld County)

²⁷ Regional Transportation District (RTD) Adopted Budget 2011.

Location		Proposal	Characteristics	Outcomes	Area Population MSA/CSA	District Population
	Salt Lake City, UT	Utah Transit Authority (UTA) Proposition 3	<ul style="list-style-type: none"> • UTA represents 6 counties Utah, Davis, Weber, Box Elder, Tooele, and Salt Lake • Partially funded by • Prop 3 passed in 2006, 1/4 cent sales tax increase dedicated to transit and highways • Dedicated transit sales tax 	<ul style="list-style-type: none"> • 3 counties have approved • Approval of sales tax goes on a county-by-county basis 	• 2.3 million ²⁸	• 2.2 million in UTA service area ²⁹
Small Sized Urbanized Areas	Rio Metro, NM	Mid-Region Transit District	<ul style="list-style-type: none"> • Transit and surface transportation projects • Counties of Bernalillo, Sandoval and Valencia • Voters in district voted for a 1/8 cent increase in sales tax • Half of the tax increase dedicated to the New Mexico Rail Runner Express commuter train, while the other half will go toward surface transportation projects within the counties 	<ul style="list-style-type: none"> • Approved in 2008 	• 858,000 ³⁰	<ul style="list-style-type: none"> • Sandoval County 132,000 • Bernalillo County 663,000 • Valencia County 77,000

(continued)

²⁸ US Census 2009 estimate Salt Lake-Ogden-Clearfield CSA (Salt Lake City MSA -Salt Lake County, Tooele County, Summit County; Ogden-Clearfield MSA – Davis County, Weber County, Morgan County; Brigham City μSA – Box Elder County; Heber μSA – Wasatch County) and the Provo-Orem MSA – Utah County and Juab County

²⁹ www.rideuta.com. Estimate provides 2008 US Census figure.

³⁰ US Census 2009 estimate for Albuquerque MSA (Valencia County, Bernalillo County, Sandoval County, Torrance County)

Location		Proposal	Characteristics	Outcomes	Area Population MSA/CSA	District Population
	Charleston, SC	Berkeley-Charleston-Dorchester COG	<ul style="list-style-type: none"> • Charleston County – ½ cent sales tax to finance transit, roadway and greenbelt projects • Dorchester and Berkeley counties – 1 cent sale tax to finance roadway projects • Not a single regional initiative, but select projects financed in part by each local tax are clearly coordinated in regional Charleston Area Transportation Study (CHATS) along corridors (between counties) to make regional impact on congestion 	<ul style="list-style-type: none"> • Charleston County – approved 2004 (60%) • Dorchester County – approved 2004 • Berkeley County – approved 2008 	• 659,000 ³¹	<ul style="list-style-type: none"> • Charleston County 348,000 • Dorchester County 136,000 • Berkeley County 175,000
	Santa Fe, NM	North-Central Regional Transit District	<ul style="list-style-type: none"> • Transit initiative • Counties of Santa Fe, Los Alamos, Rio Arriba, Taos • Voters in district voted for a 1/8 cent increase in gross receipts tax • Santa Fe county will dedicate half of tax revenue to the New Mexico Rail Runner • Other counties would use tax revenue to support and develop local/rural bus/van projects 	• Approved 2008	• 148,000 ³²	<ul style="list-style-type: none"> • Santa Fe County 148,000 • Los Alamos County 18,000³³ • Taos County 33,000³⁴ • Rio Arriba County 40,000³⁵

³¹ US Census estimate 2009 for Charleston-North Charleston-Summerville MSA (Charleston County, Dorchester County, Berkeley County)

³² US Census 2009 estimate for Santa Fe MSA (Santa Fe County)

³³ County belongs to the Los Alamos μSA

³⁴ County belongs to the Taos μSA.

³⁵ Rio Arriba County belongs to the Espanola μSA.

3. CASE STUDIES: IMPACTS OF REGIONAL FUNDING APPROACHES ON COUNTY-SPECIFIC TRANSPORTATION SALES TAXES

3.1 Overview

In an effort to further explore the relationship or impacts of regional funding initiatives on county-specific transportation sales taxes, four regional systems were selected from the case studies presented in Section 2. While there are new and innovative transportation funding alternatives being utilized by both urban and rural jurisdictions, compelling examples of regional or multi-jurisdictional cooperation in transportation funding were found in regions that are anchored by more urbanized or metropolitan areas. Coussan (2009), in his work exploring the use of referendum-based measures and measures passed by legislature to increase the resources available to states for transportation, found that the number of reported regional transportation related referenda grows substantially if a region is classified to be a Metropolitan Statistical Area³⁶ or a transportation management association with populations of 200,000 and above.

Jung (2002) further suggests that the use of sales taxes as a funding mechanism is more popular widely utilized and supported in more urban areas since the capacity to share the tax burden over a greater population as well as the ability to export the tax burden to external users of the system is increased. Regional, as emphasized in these four select cases, considers coordination amongst multiple counties and not coordination amongst jurisdictions within one county such as San Diego and Los Angeles, California. This multi-county designation of “regional” was made in keeping with the regional structure proposed within Georgia’s Transportation Investment Act of 2010 (HB 277).

³⁶ Metropolitan Statistical Area—“A Core Based Statistical Area associated with at least one urbanized area that has a population of at least 50,000. The Metropolitan Statistical Area comprises the central county or counties containing the core, plus adjacent outlying counties having a high degree of social and economic integration with the central county or counties as measured through commuting”.
U.S. Census Office of Management and Budget (2010), 2010 Standards for Delineating Metropolitan and Micropolitan Statistical Areas.

Transportation issues usually stem from population growth and the increased demand that this growth place on the available transportation infrastructure. Investment needs for both highway and transit systems increase in more densely populated areas as a means of managing or alleviating issues associated with congestion, to increase the mobility of the population and contribute to the overall economic vitality of an area. With increased investments in transportation infrastructure also comes increased expenses associated with system maintenance, operation and preservation. Of the 19 multi-county regional transportation measures proposed nationally between 2000 and 2009 identified by Coussan (2009), the most popular and successful measures were that of regional sales tax increases to preexisting rates which accounted for a total of 13 measures of which 9 were successful. Most of these measures were also associated with securing funding for regional mass transit projects, although some were associated with providing funding for multi-modal projects.

The four cases examined in this section include the BART system of California, Sound Transit of Washington, Denver RTD of Colorado, and the Utah Transit Authority (UTA). The cases presented here provide regional coordination that was largely propelled by mass transit initiatives although some funding is appropriated to highway expenditures. The support for more transit oriented regional measures might arise from the perspective that transit investments can be more easily presented to citizens of a region as a regional investment that can benefit all involved versus investments in highway projects. These examples are however looking at historical and current scenarios. As the transportation and funding environment changes, and as citizens and authorities are faced with new challenges, regional sales tax measures that support more highway investments might become more prevalent.

More importantly, the cases presented needed to show the impacts of regional transportation funding initiatives on county-specific transportation sales taxes or vice-versa. In each of the following cases an attempt was made to provide a general yet comprehensive summary of the sales tax culture within each state, the regional tax that is in place to fund the

associated transportation system as well as any county-specific transportation related sales taxes that are levied in any of the counties within the region of interest. Further emphasis was also placed on any regional characteristics, campaign approaches, system organizations, or unique structures that may have influenced the success or failure of their respective measures.

3.2 San Francisco BART (California)

3.2.1 California Transportation Sales Taxes

For many years federal and state motor fuel taxes have served as a major source of state highway and interstate system funding in California and the rest of the nation. Funding for other local transportation needs have also been met through various sources such as the use of property taxes, vehicle taxes, tolls and appropriations from general and local sales taxes (Lewis and Barbour, 1999). These appropriations are however very modest in size or are usually in competition with other local uses. The California Transportation Development Act of 1972 provides two major sources of funding for public transportation through the Local Transportation Fund (LTF) and the State Transit Assistance fund (STA). The LTF collects a one quarter share of the general sales tax raised statewide while the STA is derived from a portion of the statewide fuel tax. Funds from the STA can only be utilized for transportation planning and mass transportation purposes, however some counties have the option of utilizing the LTF for local road and street purposes if they can clearly show no transit needs are unmet (Transportation Development Act: Statutes and California Codes of Regulations, 2009).

Faced with a high and increasing need for transportation investments for both new facilities and the maintenance of existing infrastructure, coupled with a declining share of state and federal revenue available for transportation, California counties as well as other localities nationwide began to look toward alternative transportation funding opportunities to finance their transportation investment needs (Goldman, Corbett and Wachs, 2001). In response to this challenge the use of local transportation sales taxes emerged as an important funding source since

it provided a dedicated source of funding and it also provided an effective project delivery system which adds to the success of transportation improvement programs (Hamm and Schmidt, 2008).

At first, the California legislature authorized the use of local sales taxes within transit districts however, its use quickly expanded to other local authorities. The movement toward the use of local option sales taxes to provide transportation funding was facilitated by the 1976 California Legislature which allowed four of the 58 California counties the authority to levy a ½ cent sales tax for transportation purposes. By 1984, this alternative funding approach was made available to all counties. Thirty-four transportation sales tax elections were held throughout the state between the years 1984 – 1990 with measures being passed in 16 counties. Proposed measures covered a mix of projects ranging from rail investments, street maintenance, traffic operation improvements, new and expanded freeway investments, and vanpool and paratransit programs (Goldman, Corbett and Wachs, 2001). Today, Hamm and Schmidt (2008) have identified 19 California counties that have a “self-help” or county-specific transportation program in place where local voter approved taxes have been levied in an effort to fund new transportation investments.

The option to levy local sales taxes to finance transportation projects grew in popularity and prominence during the 1980s. However, after the passage of Proposition 62 in 1986 which required special purpose tax measures to secure a two-thirds supermajority of votes for their passage, the number of counties placing local option sales tax measures on their ballots slowed. Only general-purpose tax increases could be passed with a simple majority vote. Recent victories in local measures in counties such as Alameda (2000), Santa Clara (2000), Riverside (2002), San Francisco (2003), Contra Costa (2004), Sacramento (2004), Marin (2004), San Bernardino (2004), San Diego (2004), San Mateo (2004) and Sonoma (2004) as local tax measures were either passed or reauthorized, have been viewed as a revival in the use of transportation sales taxes (Crabbe et al., 2005).

Researchers such as Crabbe et al. (2005), Hannay and Wachs (2007), and Hamideh, Oh, Labi and Mannering (2008) have associated the success and popularity of local option transportation sales taxes as a viable funding source for transportation investments to the following characteristics:

- Local option sales taxes must be approved directly by voters within the proposed taxing area;
- The funds raised through the tax is spent within the county or area that endorsed it, thus voters experience direct benefits from the tax revenues raised;
- Most local option transportation sales taxes are temporary (5-10 years) with a designated expiration or “sunset” date. Thus reauthorization or continuity of the tax must be approved by the local citizenry through another vote;
- Voter approved measures are often tied to a designated list of transportation specific projects or program categories for which the tax funds would be used.

These characteristics provide voters with an increased sense of control over the use of this tax revenue and transportation investment decisions; it provides them with increased flexibility to change investment directions in the short-run if investment plans prove to be not as effective as anticipated; and there is an increased sense of accountability from local authorities to the citizens since funds are directly tied to a list of projects or program uses.

3.2.2 BART – San Francisco Bay Area Rapid Transit District

Affected by the large migration of individuals into the Bay area and the increased automobile use experienced after WWII, the San Francisco Bay Area Rapid Transit Commission was created to address the long-range transportation needs and associated environmental impacts related to the region’s future plans for development. The Commission, in response to this challenge in 1957, recommended the creation of the San Francisco Bay Area Rapid Transit district and its associated BART system as a least cost recommendation to address the rising

congestion problem within the region. The district, formed by legislation in 1957, comprises the three-county area of Alameda, Contra Costa and San Francisco counties which spans approximately 1,500 square miles and accommodates a population of roughly 3.4 million residents by 2009 U.S. Census estimates (Figure 11).

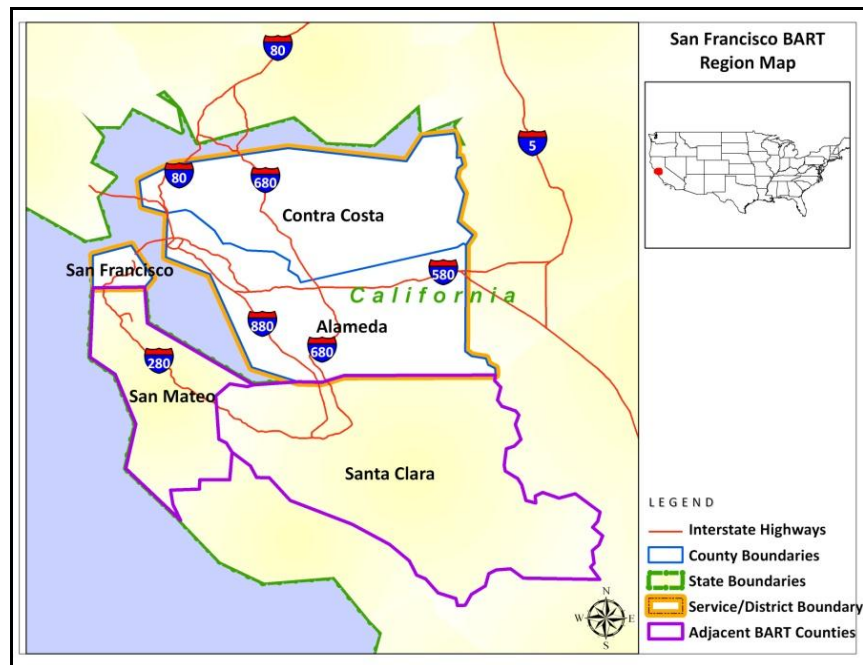


Figure 11. Map of BART District and adjacent counties in service area

Construction of the BART system commenced in 1964 with the primary objectives of joining San Francisco to the eastern communities in Contra Costa and Alameda counties, to provide an alternative to the demands placed on the Bay Bridge thus reducing future congestion on this link, and to provide connection between the suburbs and urban core. However, a number of construction delays, system changes and improvements, and inflation resulted in project costs rising above the proposed cost of the system. BART directors were faced with either scaling down the original project scope or finding a new source of funding. Unwilling to compromise the vision for the BART system the State Legislation in 1969 granted the district's request to levy a ½ cent sales tax to its participant counties to fund the completion of the project; covering debt

service and operating costs of the system. In 1977 legislation granted a permanent expansion of the ½ cent regional sales tax levied within the BART district, providing a permanent and secure funding source for the system. Table 3 provides a timeline of the regional and county-specific sales taxes levied within BART district.

As the needs of the region have continued to change, the BART service area has been expanded beyond the three-county district in which it was established. BART services now extend into the adjacent county of San Mateo where 5 BART stations are located. This expansion was initiated in 1992 and was made possible by a joint undertaking between BART and the San Mateo local transit authority. Expansion of BART services into Santa Clara is currently being negotiated between the Santa Clara Valley Transportation Authority (VTA) and BART. Part of the sales tax revenues collected from the approved Santa Clara 2000 tax measure has been appropriated to fund this project. The counties of Santa Clara and San Mateo, although not members of the BART district, each has proposed and approved a permanent ½ cent sales tax to finance their respective local transit systems and transportation projects in 1976 and 1982 respectively. Even with the existing permanent transportation tax in place, these counties have also approved and renewed temporary sales tax measures over the years (Table 3).

Table 3. Transportation sales taxes levied within the BART District and neighboring counties

Year	Counties	Sales Tax Rate	Period		Comment
1969	Alameda, Contra Costa, San Francisco Counties (BART District)	1/2 %	-	Legislature	Introduced to complete BART System
1977	Alameda, Contra Costa, San Francisco Counties (BART District)	1/2 %	Permanent	Legislature	No addition to the 1969 tax rate. Existing tax made permanent through legislature.
1986	Alameda	1/2 %	15 years	Voter Approval	County Tax administered through the Alameda County Transportation Authority. Funds transit (32%) and highway projects
1998	Alameda	1/2 %	20 years	Voter Approval <i>Failed Measure</i>	First attempt to extend 1986 county tax.
2000	Alameda	1/2 %	20 years	Voter Approval	Measure to extend 1986 tax. Administered through the Alameda County Transportation Improvement Authority. Funds transit (61%) and highway projects
1986	Contra Costa	1/2 %	20 years	Voter Approval <i>Failed Measure</i>	
1988	Contra Costa	1/2 %	20 years	Voter Approval	County-specific tax used for BART and local transit funding, as well as road expenditures
2004	Contra Costa	1/2 %	25 years	Voter Approval	County-specific tax used for BART and local transit funding, as well as road expenditures
1989	San Francisco	1/2 %	20 years	Voter Approval	County-specific tax used for BART and local transit funding, as well as road expenditures
2003	San Francisco	1/2 %	30 years	Voter Approval	County-specific tax used for BART and local transit funding, as well as road expenditures
1976	Santa Clara	1/2 %	Permanent	Voter Approval	Provide operating funds for local transit
1984	Santa Clara	1/2 %	10 years	Voter Approval	Highway projects
1996	Santa Clara	1/2 %	9 years	Voter Approval	Multi-modal projects
2000	Santa Clara	1/2 %	30 years	Voter Approval	Transit projects
1982	San Mateo	1/2 %	Permanent	Voter Approval	Provide operating funds for local transit
1988	San Mateo	1/2 %	20 years	Voter Approval	
2004	San Mateo	1/2 %	25 years	Voter Approval	

Sources: Hamm & Schmidt (2008), Crabbe et al. (2005), Werbel & Hass (2001), Bay Area Alliance, Contra Costa Transportation Authority, Bay Area Rapid Transit, California State Board of Equalization: California City and County Sales and Use Tax Rates (2011).

3.2.3 County-specific Transportation Sales Taxes within the BART District

3.2.3.1 Alameda County

The BART District permanent ½ cent sales tax is levied within Alameda County, Contra Costa County and San Francisco County. The net revenue distribution of this tax has appropriated 75% of revenues toward supporting the operation of the BART system with the balance allocated

toward supporting both Alameda-Contra Costa (AC) Transit and San Francisco Municipal (Muni) Railway for service improvements (Bay Area Rapid Transit. A History of BART). In addition to the BART regional or district sales tax levied in Alameda County which supports a primary transit element, there has also been a county specific transportation sales tax proposed and approved by county residents in 1986. The Alameda County Transportation Authority (ACTA), a special government agency authorized by law and created by local voters, authorized and collected the approved tax revenues for specific transportation projects and programs and ensured the delivery of such projects and programs. The 1986 measure was approved by a 57% margin to finance both transit and highway projects over a 15 year period running from 1987 – 2002 (Werbel and Haas, 2001; Hamm and Schmidt, 2008; CTE, 2006).

As the “sunset” date of this temporary transportation tax approached, an attempt to extend the 1986 measure was placed on the 1998 ballot. This ballot measure secured 58% approval from voters; however this margin was less than the two-thirds majority needed at the time to successfully pass the measure. Failure of the 1998 tax extension was credited in part to the lack of support from key stakeholder groups due to environmental concerns. These groups were also dissatisfied with their lack of involvement in the decision making process as well as the proposed funding allocation. Many of these groups, which were environmental advocates, wanted to allocate more funds toward transit investments in comparison to highway projects (Werbel and Haas, 2001; CTE, 2006).

Another attempt was made in 2000 to secure an extension of the local transportation sales tax before the old measure expired. The campaign surrounding this new proposed measure worked to increase involvement and coordinate efforts with major stakeholder groups throughout the process. Strong coalitions were built between business/labor and environmental groups; strong fund raising efforts were undertaken and political consulting teams were utilized to push the measure forward. Major campaigning elements used in this measure included television ads, direct mail and outdoor ads. Focus was also placed on the balanced and comprehensive

transportation package proposed and emphasis was placed on the fact that the prior projects and programs promised in the last measure were delivered to the county residents. The 2000 measure passed with a strong 81% margin of support which secured an extension of the ½ cent transportation sales tax dedicated to both transit and highway uses through 2022 (Werbel and Haas, 2001; CTE, 2006).

3.2.3.2 Contra Costa County

Contra Costa County also falls within the BART district and thus has a permanent ½ cent sales tax in place to support the operation of the BART system and its local transit system. Soon after the alternative funding approach was made available to all counties by state legislature in 1984, Contra Costa County attempted to approve a county-specific local transportation sales tax in 1986. The county failed to pass this measure in 1986 securing 47% voter approval, due to growth-management concerns that transportation investments would subsidize new development. As a result, the 1988 Contra Costs ballot measure included a Growth Management Program provision which provided that future development (residential, business and commercial) should be responsible for the facilities needed to meet the increased demand resulting from that growth. Inclusion of this provision made the measure more favorable to voters in the 1988 ballot measure and was passed with 58% voter approval (Bay Rail Alliance. Local Transportation Funding Sources; Hamm and Schmidt, 2008).

Administration and coordination of planning and project delivery is organized by the Contra Costa Transportation Authority. The collected tax revenue funded projects which included BART extension, freeway improvements, bus service improvements, bicycle and pedestrian facility improvements, road and street maintenance and improvements, and increased transit service options for seniors and disabled individuals (Hamm and Schmidt, 2008). In 2004 voters approved, by a 71% margin, the continuation of the original county-specific ½ cent transportation sales tax over 25 years running from 2009 – 2034. Similar to the expenditures covered by its

predecessor, projects and programs included in this extension package cater to both transit and highway projects. Updates were also made to the Growth Management Program (GMP) to reflect the changing needs of the county. A major update to the GMP called for the adoption of an Urban Limit Line (Contra Costa Transportation Authority, 1988 Measure C and 2004 Measure J).

3.2.3.3 San Francisco County

San Francisco County's temporary county-specific local option transportation sales tax was first passed in 1989 by 65% of voters. The San Francisco County Transportation Authority was created to administer the proceeds of this first local sales tax but its role has expanded and the Authority now services as the designated Congestion Management Agency for San Francisco as well as the program manager for grants from the Transportation Fund for Clean Air (San Francisco County Transportation Authority). This initial local option tax was approved for a 20 year period to finance a mix of transportation projects including both highway and transit elements. Extension of this sales tax for transportation was attempted in 2003 where the measure covering a 30 year period was passed by 75% of voters. Revenues are planned to support both transit and highway projects including BART expansion, highway and road and street improvements and maintenance, local transit and bus service improvements and expansion, bicycle, pedestrian and trail projects, and improvement of transit service to the elderly and disabled (Bay Rail Alliance and San Francisco Transportation Authority).

3.2.4 Relationship between Regional Transportation Sales Taxes and County-specific Transportation Sales Taxes

Prior to ISTEA (Intermodal Surface Transportation Efficiency Act, 1991) legislation and the use of local option transportation sales taxes, the state transportation department made most transportation planning and funding decisions. Crabbe et al. (2005) has identified that federal requirements made under ISTEA have placed greater control of federal transportation funds

programming in the hands of metropolitan planning organizations (MPO) or authorities functioning at similar capacities. Similarly, the creation of county transportation authorities and their influence over the use of local option sales taxes to finance local transportation needs has reinforced the shift in planning and decision making authority toward local governments. However, the urban, multi-county planning practiced by MPO bodies is not necessarily strengthened or supported by the county level authority gained from the use of local sales taxes. As county authorities act in their local interest, they are predisposed to allocate a considerable amount of sales taxes to local projects (Crabbe et al., 2005).

In the study undertaken by Crabbe et al. (2005), it was revealed that several Bay Area county transportation authorities did not constrain their local project prioritizing efforts consistent with the Regional Transportation Plan. Counties instead ‘consider “regional” projects to mean larger projects within their boundaries’ (Crabbe et al., 2005). Regional travel patterns and problems cross county lines, however local county authorities are less willing to address congested links that are considered “feeders” to or from other counties, before addressing the needs within the county. Advancement of regional goals or perspectives are also challenged by the imbalances created by counties that have instated a local option tax and neighboring counties that do not have a similar tax in place. This affects not only the coordination of regional projects, but may result in disparate infrastructure between counties. Furthermore, as counties utilize this funding mechanism to address their local transportation needs, advancement of the state transportation program to address some of the inadequacies in the state transportation-finance system is limited. Intra and inter-county coordination has been more successful with transit projects. Local county-specific sales taxes which have been approved by county voters provide an independent source of revenue to local authorities but do not necessarily increase the programming authority of multicounty metropolitan planning organizations or support their regional priorities and objectives (Crabbe et al., 2005).

Regional and county-specific sales taxes will ultimately increase the amount of taxes paid by residents and the tax burden that they bear. Goldman, Corbett and Wachs (2001) suggest that voters may be more receptive to an increase in sales taxes if the base sales tax is relatively low in comparison to higher base rates. Thus the level of existing taxes influences the support of future additions to the tax rate. This might have major implications on the success of approving a regional tax, a county-specific tax or both taxes.

3.3 Puget Sound Regional Transit Authority (Washington)

3.3.1 Washington Transportation Sales Taxes

The state of Washington secures its transportation revenues from a number of sources. The motor vehicle fuel tax is the largest source of transportation revenue, but other sources include vehicle sales taxes, property taxes, sales taxes, employer taxes, federal funds, bond sales, tolls, licenses, permits and fees (Washington State Legislature Joint Transportation Committee, 2010). Approximately 38% of the state's transportation funding is derived from fuel taxes; however, if other revenue sources dependent on fuel consumption (federal funds and bond sales) are considered, approximately 64% of the state's revenue comes from fuel sources (Washington State Transportation Commission, 2010).

As vehicles become more fuel efficient due to higher levels of new vehicle fuel economies, increases in fuel prices and the use of alternative fuels, and the fact that the fuel tax is a flat rate tax which is eroded by inflation, the fuel tax is becoming a less effective revenue source. Fixed rate revenue sources, such as fuel taxes, licenses, permits and fees which are not adjusted for inflation and are eroded over time, make up approximately 80% of the state's direct transportation revenues. The Washington State Joint Transportation Committee's *2007 Long-Term Transportation Financing Study* and the subsequent *2010 Implementing Alternative Transportation Funding Methods Report* were undertaken to identify and develop alternative transportation funding sources which address these issues.

Transportation revenues for local jurisdictions come from federal, state and local sources. Cities and counties have a number of funding mechanisms available for their use; however a large proportion of their operating revenues, debt service funding and financing of local transportation infrastructure is appropriated from property tax and sales tax revenues.

3.3.2 Sound Transit – Central Puget Sound Transit Regional Transit Authority

The Central Puget Sound Regional Transit Authority (RTA), also referred to as Sound Transit, is responsible for overseeing the construction and operation of the regional mass transit system of King, Snohomish and Pierce counties in the state of Washington (Figure 12). The RTA was created in 1993 by state legislature and originated out of the three-county Joint Regional Policy Committee which was commissioned in 1990 to plan for a regional transit system within the region's most heavily used travel corridors. Sound Transit's operations include the provision of light rail ("Link"), commuter rail ("Sounder"), and regional express bus services ("ST Express"). Its responsibilities also include the construction of other transit related facilities or support facilities which include high-occupancy vehicle (HOV) lane improvements, transit stations, park and ride lots, and any other facility which enhances or supports regional transit. The RTA district includes the most congested urbanized areas of the three-counties covering approximately 1000 square miles. The district's boundaries follow the urban growth boundaries of each county which were created in accordance to the state's Growth Management Act.

The population within the district, from the 2000 Census stood at 2.8 million, which is roughly 46% of the state's total population. This district figure was up 55% from the 1970 population total of 1.8 million. The need to address area wide traffic and congestion and their influence on the livability of the area was a major concern for residents (Hass et al., 2000). In addition to the increased population growth, the region was also experiencing growing congestion due to urban sprawl, an increase in the distance between individual's places of work and their homes, increases in the average number of daily trips per household, increases in the number of commuters driving to work alone and a decrease in the share of regional trips accommodated by transit (Hass et al., 2000).



Figure 12. Sound Transit District – Central Puget Sound Regional Transit Authority (RTA)

Tax revenues serve as the primary funding source for Sound Transit. The RTA is permitted under law to levy and collect voter-approved local option sales taxes to finance the construction and operation of a high capacity transit system for the region. District voters approved a RTA district tax in 1996 by a 56.5% margin, which included a 0.3% motor vehicle tax and a 0.4% sales tax to fund the region-wide transit improvement package referred to as Sound Transit I or Sound Move (Table 4). Passage of this measure was however, preceded by a thirty year period punctuated by a number of failed mass transit plans (Hass et al., 2000). The most recent failed measure, during that period occurred in 1995 and has served as a major resource providing an opportunity for transit proponents to learn from their past mistakes.

Hass et al. (2000) suggest that the failure of the 1995 measure resulted from a number of factors including the following:

- Insufficient “lead time” to conduct efficient campaigning. A mandate set by the legislature required that the RTA develop and present voters with a regional plan within two years of the RTA’s creation. Interviews reveal that the plan was

completed in haste in order for it to be approved by each county before it was placed on their election ballot for consideration. Approval of the plan by the district's counties allowed an average three month period for proponents to advance their position.

- The proposal was perceived to be highly “Seattle-centric”. Many of the proposed projects were located in an around the city of Seattle located in King County and was not well balanced over the RTA district.
- The measure was presented in an election off-year to meet the legislative mandate. It is thought that special elections such as this tend to attract lower voter turnout as well as higher percentages of older and tax-resistant voters.
- Campaign funding fell well below the level budgeted for promoting the measure.
- The effects of economic recession within the region due to the downsizing of a major employer as well as a downturn of the overall local economy were evident.

The fact that the 1995 measure was held as a special election has been particularly emphasized as a factor that may have led to its failure. Some scholars suggest that the voter turnout for special elections is usually smaller and they also tend to be more fiscally conservative than that of general elections, especially presidential general elections. This has led some to suggest that the measure may have passed if it was presented during a general election (Hass et al., 2000).

Following the failure of the 1995 measure, proponents were determined to revise the proposed transportation initiative and place it on the ballot of the 1996 general election. To address the previously identified factors which were associated with failure, the RTA modified the following:

- Support from leaders within business and political institutions was actively pursued.
- The region was divided into five sub-areas, each providing an area plan to the RTA.

The RTA then consolidated these plans into a region-wide plan to ensure that the

transportation initiative addressed the needs and interests of the district more equitably and also promoted a coherent regional plan. This approach attempted to eliminate projects from being concentrated in one area and thus foster regional support district-wide.

- The RTA created a Regional Outreach Committee which undertook an aggressive public outreach campaign to ensure that the measure appealed to voters within the RTA service area and that the plan was generated through this public outreach process. Regular meetings were conducted throughout the RTA district with constituent groups, city councils and other community leaders. Opponents to the 1995 measure were also invited to participate in some outreach events.
- Instead of promoting and securing support for a list of projects, the RTA Board focused on presenting “guiding principles” to the district’s constituents which focused on the regional approach of the new measure, sub-area equity in funding projects, and the creation and introduction of high capacity transit with a multi-modal approach. This new approach instead of being project driven, stressed the transportation issues in the region and the general need to address these problems within the region.

As a result of this new approach, the 1996 Sound Transit I measure was reworked from being a transit dominant package to a highway and transit mixed measure. This measure was more conservative on cost, reducing the proposed project cost by approximately 40% from \$6.7 billion to \$3.9 billion; the project timeline was shortened from 16 years to 10 years; and the mix of projects which were previously focused on commuter and light rail projects now included expansion of express bus services and enhanced access to HOV facilities. The reduced scope of the commuter and light rail components as well as the less costly bus and HOV alternatives did not only reduce the overall cost of the plan but it also appeared to serve a larger part of the RTA district since these services could benefit constituents residing in both the urban and less urban

areas of the district. In addition to this new approach which was utilized to develop the Sound Transit I plan, a campaign consultant was hired to promote and manage the new campaign. The consultant developed an effective communication campaign which utilized mass media resources including, television ads, direct mail, brochures and leaflets, radio advertising and yard signs (Hass et al., 2000).

As the initial Sound Transit I plan drew to a close, the RTA looked toward expanding its services and implementing new measures to further address the region's transportation needs. In 2007 district voters were presented with a Road and Transit measure which comprised a transit package (Sound Transit 2) and a road package developed by the Regional Transportation Investment District (RTID) – an entity charged with developing a proposed plan which addresses the most highly congested highways and bridges in the region. This measure called for a 0.5% sales tax increase within the district to fund both transit system expansions as well as regional roadway improvements. However, this measure was defeated 56% to 44% due to the road element included in the proposal. The measure was quickly modified to be an exclusive transit package and was placed on the 2008 ballot for approval. In 2008 voters were presented with Proposition 1, a 0.5% sales tax increase in the RTA district to fund Sound Transit 2 – a 15-year transit package (2009-2023) which expands the region's high capacity transit system. This measure was approved by a 57% margin. Current RTA district taxes include the current 0.9% sales tax, a 0.3% motor vehicle excise tax and a 0.8% rental car tax. The RTA district tax will be rolled back to a lower rate upon completion of the capital components of the approved Sound Transit 2 Plan. The reduced tax rate will be set at a level sufficient to cover bond repayment, asset replacement and to operate and maintain the services and facilities implemented.

Table 4. Transportation sales taxes levied within the Sound Transit District

Year	Counties	Sales Tax Rate	Period		Comment
1996	King, Pierce, Snohomish Counties (Sound Transit District)	0.4 %	-	Voter Approval	Measure to fund Sound Transit I or Sound Moves. No sunset date.
2007	King, Pierce, Snohomish Counties (Sound Transit District)	0.5 %	20 years	Voter Approval <i>Failed Measure</i>	Attempt to increase district tax by 0.5%. Road and Transit measure.
2008	King, Pierce, Snohomish Counties (Sound Transit District)	0.5 %	15 years	Voter Approval	Revised Road and Transit measure from 2007. Tax increase from 0.4% to 0.9% to fund Sound Transit 2. Transit Package.
1972	King County	0.3 %	-	Voter Approval	Local transportation tax to finance the King County local transit services
1980	King County	0.3 %	-	Voter Approval	Increase in tax rate from 0.3% to 0.6%. To finance King County local transit services
2000	King County	0.2 %	-	Voter Approval	Increase in tax rate from 0.6% to 0.8% to finance the King County local transit services
2006	King County	0.1 %	-	Voter Approval	Increase in tax rate from 0.8% to 0.9% to finance the King County local transit services
1976	Snohomish County	0.3%	-	Voter Approval	Local transportation tax to finance local Community Transit services
1990	Snohomish County	0.3%	-	Voter Approval	Increase in tax rate from 0.3% to 0.6% to finance local Community Transit services
2001	Snohomish County	0.3%	-	Voter Approval	Increase in tax rate from 0.6% to 0.9% to finance local Community Transit services
1979	Pierce County	0.3%	-	Voter Approval	Local transportation tax to finance local Pierce Transit services
2002	Pierce County	0.3%	-	Voter Approval	Increase in tax rate from 0.3% to 0.6% to finance local Pierce Transit services
2011	Pierce County	0.3%	-	Voter Approval <i>Failed Measure</i>	Proposed increase in tax rate from 0.6% to 0.9% to finance local Pierce Transit services

Sources: Hass et al. (2000), Goldman, Corbett and Wachs (2001), Washington State Department of Revenue, www.kingcounty.gov, www.co.pierce.wa.us.

3.3.3 County-specific Transportation Sales Taxes within the Sound Transit District

3.3.3.1 King County

Before Sound Transit was commissioned to construct and operate high capacity mass transit in the region, the King County local transit system also referred to as Metro Transit, provided local and regional bus services to citizens. Metro Transit was born out of the consolidated services of the then failing transit services within King County and the City of Seattle. Voters in 1972 approved a 0.3% countywide sales tax to help fund Metro Transit. To

provide continued funds for the operation, maintenance and expansion of such services, voters approved subsequent sales tax increases which includes a 0.3% tax increase in 1980; a 0.2% increase in 2000; and most recent in 2006, county voters approved a 0.1% tax increase to fund the Transit Now proposal from King County and a major street repair proposal from Seattle (Puget Sound Regional Transit Commission, 2006). The cumulative 0.9% sales tax levy which supports Metro Transit is set at the maximum allowed tax level legislatively approved to support public transportation.

3.3.3.2 Snohomish County

Sales tax revenues support a large proportion of many local transit system operating expenses in Washington State. Community Transit of Snohomish County serves a public transit benefit area. This transit system was created from voter approval in 1976 when citizens of seven communities within Snohomish County approved a 0.3% sales tax to fund this local transit system. Since then twelve additional communities have voted to join the public transportation benefit area. The sales tax rate has been increased twice by voter approval in 1990 (0.3% increase) and 2001 (0.3% increase) to now stand at the 0.9% sales tax rate ceiling set by legislation. Community Transit provides both local and regional bus transit, vanpool and para-transit service to its citizens. The largest city within Snohomish County, the city of Everett, is not part of the public transit benefit area and instead is serviced by Everett Transit. City residents voted for and approved an initial 0.3% sales tax to support the operation of this system. In 2002 city voters again approved a 0.3% sales tax increase, which places the city of Everett transit sale tax at 0.6%.

3.3.3.3 Pierce County

Pierce Transit is the public transit authority for Pierce County. This transit service, like Snohomish County's Community Transit and King County's Metro Transit, provides both local

and regional bus service, vanpool and para-transit service to its citizens. Pierce Transit was formed in 1979 when county voters approved a 0.3% sales tax to fund public transportation. An additional 0.3% sales tax increase was approved by voters in 2002. Given the reduced tax revenues collected due to the recent economic downturn, Pierce County residents were presented with a proposed 0.3% local sales tax increase to support Pierce Transit in 2011. This measure was rejected by voters.

3.3.4 Relationship between Regional Transportation Sales Taxes and County-specific Transportation Sales Taxes

The use of sales taxes to support transportation investments in the state of Washington has been used mainly to support transit related projects or programs. The local transit services identified in Snohomish, Pierce and King counties as well as the regional Sound Transit system have identified the importance of working together or coordinating services amongst themselves to achieve greater regional mobility. Sound Transit has openly expressed its shift toward regionalism as it seeks to meet the regions travel and mobility needs across county borders. These agencies along with additional transit providers in the region have worked together to coordinate services and create integrated payment plans. Local bus services have been integrated into the Sound Transit light rail services; para-transit services are coordinated amongst providers; there is a regional fare agreement; and there is a smart card system which allows users to utilize multiple services more seamlessly.

The use of both local and regional sales taxes to fund transit projects and programs have called for innovate governance to ensure regional equity and accountability. Although the Sound Transit district encompasses the highly urbanized areas of King, Snohomish and Pierce counties, investments under Sound Transit are delivered fairly in each of five participating subareas – Snohomish County, Pierce County, South King County, North King County and East King County – generally in proportion to the revenue generated in each. This principle of subarea

equity was a major element of the 1996 Sound Move proposal to ensure regional coordination and cooperation. This principle is deemed unique to the plan and it assures that tax revenues generated in each of the subareas are utilized to fund capital and operational projects that will directly benefit the subarea. To ensure that projects are not limited to small localities, priority projects for each subarea are identified through a public process and regional projects are coordinated between jurisdictions so that the build timeframe for regional projects can be done concurrently or as close together as possible. Regional or system-wide projects that improve regional mobility are funded by each of the five subareas as a percent of their local tax revenues (Central Puget Sound Regional Transit Authority, 2009).

Given the level of coordination amongst the counties within the RTA district as well as a means of building the public trust, Sound Transit has emphasized a high level of project and organizational accountability. Annual subarea equity reports detailing the revenues raised, distributed and spent in each subarea, and the investments or projects undertaken in each area have been produced since 1998. Sound Transit's strict cost and project controls, external audits and oversight, and clearly defined milestones that are updated annually further supports its commitment to openness and accountability to the public. External oversight for the RTA is provided by both a volunteer Citizen Oversight Panel which monitors and ensures that the regional transit plan is implemented as approved by voters, and an independent Diversity Oversight Committee which ensures compliance with the plan's employment and contracting principles. The US Congress also provides oversight on projects funded by federal grants. Sound Transit also facilitates a strict process of external audits by a number of entities. A national accounting firm has been contracted by the agency to conduct annual financial audits, the Federal Transit Administration (FTA) conducts quarterly reviews of the RTA, the state of Washington reviews the agency annually, and there is an ongoing internal review of projects and financial controls undertaken by the agency. The aggressive system of monitoring costs, schedules and

financial issues provides the agency and the public with a strong tool for tracking costs, budgets and progress of the region's plan (Central Puget Sound Regional Transit Authority, 2009).

3.4 Utah Transit Authority (Utah)

3.4.1 Utah Transportation Sales Taxes

Following the trend in many states, Utah has turned toward alternative funding methods to generate the much needed revenue to finance transportation related projects and programs. Traditional sources of transportation revenues have continued to be out paced by the rising need for transportation investments in both transit and highway infrastructure. Local authorities have been given the authority to adopt local sales taxes for both highway and transit uses; however local option sales taxes have been more dominantly used as a funding source for public transit (Goldman, Corbett and Wachs, 2001).

In addition to the state sales and use tax, jurisdictions have three general-purpose local option taxes at their disposal. These taxes include a general-purpose local option tax of 1% and a 0.25% county option sales tax which has been adopted uniformly in all counties, and a 0.25% town option tax which has been adopted in one city (Goldman, Corbett and Wachs, 2001; Utah State Tax Commission, 2011). Transportation related sales taxes which have been levied in some counties and cities include a mass transit tax, an additional mass transit tax, a mass transportation fixed guide way tax, a county option transportation sales tax, a county option airport, highway and public transit tax, and a highway tax (Utah State Tax Commission, 2011). The municipal highway tax, created by legislature in 1997, has been adopted by 25 cities statewide and can be utilized to fund highway maintenance or public transit. This tax cannot be utilized by counties which have imposed the mass transit tax (Goldman, Corbett and Wachs, 2001; Utah State Tax Commission, 2011).

3.4.2 Utah Transit Authority

Incorporated in 1970 the Utah Transit Authority (UTA) is a public transit district responsible for providing a public mass transportation system for communities along Utah's Wasatch Front. Initially established by voters within a select number of communities in Salt Lake County the authority added the counties of Weber and Davis in 1973 when residents voted to join the UTA. Other communities in adjoining counties have also joined the UTA overtime by voting to be included in the transit district and to levy the mass transit sales tax. Today the transit district's service area includes the counties of Salt Lake, Davis, and Weber as well as cities in Utah, Tooele and Box Elder counties (Figure 13). Transit services provided by UTA include regional bus services, commuter express bus services between several major cities, light rail and commuter rail services, vanpool, and para-transit services (Office of the Utah Legislative Auditor General, 2008).

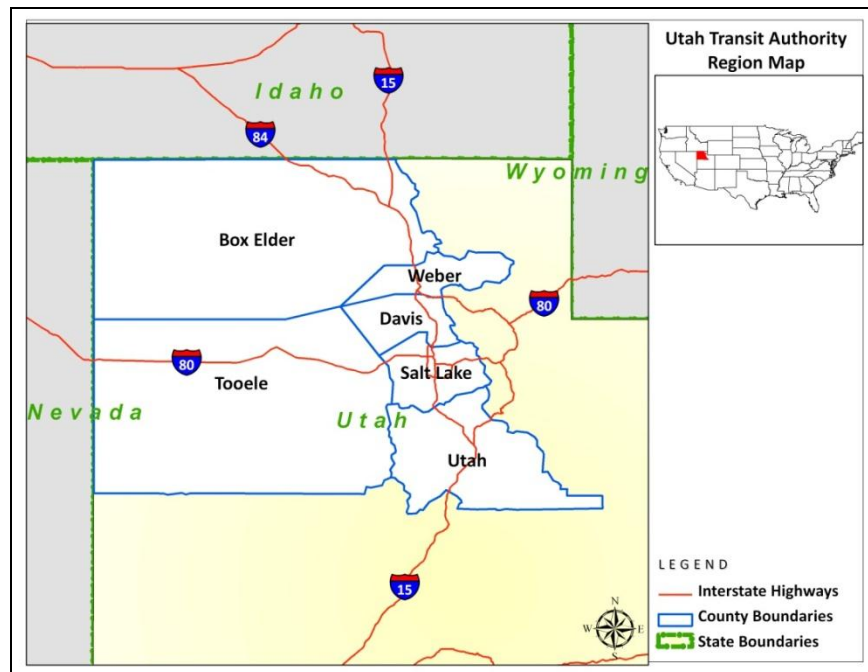


Figure 13. Utah Transit Authority (UTA) service area

In an effort to secure funding for the mass public transportation system voters within the UTA service area in 1974 voted for a 0.25% sales tax dedicated to area-wide transit services which at the time included bus and para-transit services (Table 5). This tax was approved by both Salt Lake and Weber counties while Davis County rejected the measure. Davis County however continued to contribute to the UTA from appropriated revenues from their liquor fund. When faced with the loss of this revenue source Davis County voted on and approved the 0.25% mass transit sales tax in 1975 (Wilkins, 1988). In an effort to expand the bus system and introduce light rail to the region a proposed 0.25% increase to the mass transit tax was presented to residents of the highly urbanized Salt Lake County in 1992. This measure was not approved by voters as it was defeated by a 57% margin. Goldman, Corbett and Wachs (2001) identified that failure of this measure could be attributed to county resident's not viewing congestion as a critical problem at that time and uncertainty about the impact a light rail system would have on congestion. However, the light rail project was pursued and UTA was able to secure the required funds from the federal government as well as from revenues from the existing 0.25% mass transit tax. In 1999 a 15 mile light rail line was opened for operation having been completed on time and within budget (Goldman, Corbett and Wachs, 2001).

The region's transportation system during this time was highly influenced by Salt Lake City's success in securing the bid to host the 2002 Olympic Games. Expansion of the bus and light rail system as well as highway improvements to the region's major north-south corridor of I-15 within Salt Lake City was undertaken to improve the mobility of the region in preparation of this major world event. Improvement to the I-15 segment within the city began in 1997 and was completed by 2001, a year before the games (National Academy of Sciences, 2011).

Successes in the construction of the light rail system as well as the road closures and increased congestion experienced during the highway widening of I-15 influenced citizens' reception of the 2000 sales tax measure. Goldman, Corbett and Wachs (2001) reported that although congestion would have been positively influenced upon completion of the interstate

improvement; the lengthy construction, the negative effects on congestion during the construction period and the construction problems experienced over the course of the project influenced the number of individuals who viewed highway congestion as a critical problem and may have also increased resident support of the commuter rail project presented on the ballot. In 2000 the district's anchoring counties of Salt Lake, Weber and Davis were presented with separate, but identical measures which proposed a 0.25% sales tax increase to fund the expansion of basic bus services in each of the counties approving the tax, expansion of the light rail system in Salt Lake County and the development of a high speed commuter rail system throughout the three counties if they approved the measure.

Although this measure was presented separately to each county, success of the proposal and the raising of the funds necessary to cover all the proposed projects depended on securing voter approval in all three counties. The measure was approved in the three counties of Salt Lake, Davis and Weber by majority margins of 53.6%, 57.5% and 52.8% respectively. The 2000 measure placed on the Salt Lake County ballot did not openly highlight that 25% of the proposed increase in the mass transit tax sales tax revenue collected was to be appropriated to the I-15 highway improvement project within the county. This position might reflect the lack of popularity of highway expansions in 2000 (Goldman, Corbett and Wachs, 2001).

Table 5. Transportation sales taxes levied within the UTA Transit District

Year	Counties	Sales Tax		Comment
1974 - 1975	Salt Lake, Davis and Weber Counties (UTA District)	0.25%	Voter Approval	Voters in Salt Lake and Weber County approved tax in 1974. Davis County rejected the 1974 measure but contributed to the UTA from revenues from a liquor fund. Davis voted on and approved Mass Transit Tax in 1975
2000	Salt Lake, Davis and Weber Counties (UTA District)	0.25%	Voter Approval	Additional 0.25% Mass Transit Tax
1992	Salt Lake County	0.25%	Voter Approved <i>Failed Measure</i>	To finance construction of proposed light rail system
2006	Salt Lake County	0.25%	Voter Approved	Voter approval of 0.25% County Option Transportation Sales Tax for Highway and Transit use
2008	Salt Lake County	0.30%	Legislature	Mass Transit Tax of 0.25% is repealed and amended to reflect increase to 0.30%
2008	Davis County	0.05%	Legislature Senate Bill 245	0.05% Supplemental Sales Tax
2007	Weber County	0.25%	Voter Approval	Voter approval of 0.25% County Option Transportation Sales Tax for Highway and Transit use
2008	Weber County	0.05%	Legislature Senate Bill 245	0.05% Supplemental Sales Tax
1996	Box Elder (3 Cities)	0.25%	Voter Approval	Cities approved Mass Transit Tax of 0.25% to join UTA
2007	Box Elder (3 Cities)	0.25%	Voter Approval	Additional 0.25% Mass Transit Tax
2008	Box Elder (3 Cities)	0.30%	Legislature	Initial Mass Transit Tax of 0.25% is repealed and amended to reflect increase to 0.30%
1990	Tooele (2 cites and 4 unincorporated areas)	0.25%	Voter Approval	Cities/Areas approved Mass Transit Tax of 0.25% to join UTA
2008	Tooele (2 cites and 4 unincorporated areas)	0.30%	Legislature	Initial Mass Transit Tax of 0.25% is repealed and amended to reflect increase to 0.30%
-	Utah County (17 counties)	0.25%	Voter Approval	Cities approved Mass Transit Tax of 0.25% to join UTA at various times
2006	Utah County (Countywide)	0.25%	Voter Approval	County sales and use tax to fund highways, fixed guide ways, or systems for public transit
2008	Utah County (Countywide)	0.30%	Legislature	County sales and use tax to fund highways, fixed guide ways, or systems for public transit approved in 2006 increased to 0.3%
2008	Utah County (Countywide)	0.25%	-	County airport, highway and public transit tax

Sources: Goldman, Corbett and Wachs (2001), Werbel and Hass (2001), Utah State Tax Commission, www.brighamcity.utah.gov.

3.4.3 County-specific Transportation Sales Taxes within the Utah Transit Authority

3.4.3.1 Salt Lake County

The entire county of Salt Lake falls within the UTA transit district, thus the regional mass transit tax levied in the UTA region coexists with other county specific transportation taxes. In addition to the UTA regional sales tax imposed in the county (1974 and 2000), Salt Lake County residents voted on and approved a 0.25% County Option Transportation sales and use tax in 2006 to finance both transit and highway projects within the county. Due to a reduction in the state sales and use tax on foods and food ingredients, effective in 2007, legislature allowances permitted jurisdictions to increase the mass transit tax from 0.25% to a rate of 0.30% to maintain the necessary tax revenues collected by authorities which would have been lost as a result of the decrease in the state tax. This increase in the mass transit tax rate was introduced in 2008 as reflected in Table 5.

3.4.3.2 Weber County

Weber County along with Salt Lake and Davis counties joined the UTA as a whole county. This county also imposes the countywide mass transit sales tax which funds the UTA and the subsequent mass transit tax increase approved in 2000. In an effort to maintain the sales tax collected from residents following the decrease in the state sales tax rate on foods and food ingredients, legislature through Senate Bill 245 allowed the county to levy a 0.05% Supplemental Sales Tax. This new supplemental tax took effect in 2008. Weber County residents also approved a county-specific 0.25% County Option Transportation sales tax for highway and transit uses in 2007.

3.4.3.3 Davis County

Davis County does not levy any county-specific transportation sales taxes in addition to the UTA regional mass transit sales tax.

3.4.3.4 Box Elder and Tooele Counties

Both Box Elder and Tooele Counties have select cities which are members of the UTA transit district. The counties as a whole are not members of the UTA. These cities have levied the UTA regional mass transit tax. The three member cities in Box Elder County voted on and approved a 0.25% mass transit tax in 1996 in order to join the UTA and also voted to levy an additional 0.25% mass transit sales tax in 2007 to provide further tax revenues. Similarly, two cities and four rural unincorporated areas in Tooele County are members of the UTA service area. These areas voted on and approved a 0.25% mass transit sales tax in 1990 in order to join the UTA. Both counties, however, do not have any county-specific transportation sales taxes levied in addition to the UTA regional tax levied in the mentioned member communities.

3.4.3.4 Utah County

The vast majority of Utah County's urban area is included in the UTA transit district. Seventeen of the county's cities are members of UTA and have joined the district over time. These cities, as a requirement to become a member of the UTA district have voted on and approved the 0.25% mass transit tax. In addition to this regional UTA tax which is levied in these select cities, there also exists a county-specific 0.25% county sales and use tax to fund highways, fixed guide ways, or systems for public transit. This measure was approved county-wide in 2006 (Table 5).

3.4.4 Relationship between Regional Transportation Sales Taxes and County specific Transportation Sales Taxes

The urbanized area of Utah has made marked improvements to its transportation infrastructure. Investments in both its transit and highway infrastructure have been progressive in nature as the region tries to address transportation issues associated with population growth. The UTA district of Salt Lake County, Davis County, Weber County and portions of Tooele, Utah and

Box Elder counties have successfully levied transportation related sales and use taxes concurrently at the regional and county level.

Although this report focuses on the impacts of transportation sales taxes levied at the regional level on county-specific sales taxes, the Utah case presented here includes an important lesson garnered from the I-15 highway improvement project under construction. The highway improvement to I-15 along the Salt Lake and Utah County segment was initially motivated by the need to address the general congestion and safety issues along this link and was undertaken to improve the transportation system of Salt Lake City and its environs as it prepared to host the 2002 Olympic Games. Funding for the I-15 highway improvement was provided by the Centennial Highway Fund (CHF) which was created by state legislature in 1997 to fund major highway needs throughout Utah that were not supported by the transportation fund. Funds for the CHF come from increases in the state gas tax and other fees. However, recognizing the need to improve regional mobility and to promote equal funding throughout the state beyond Salt Lake County, a 1999 study was undertaken by local agencies to address transportation issues and develop solutions across Utah's urbanized areas (National Academy of Sciences, 2011).

The resulting Inter-Regional Corridor Alternatives Analysis (IRCAA) study combined the planning efforts of agencies such as the Wasatch Front Regional Council (WFRC), the Mountainland Association of Governments (MAG), the Utah Transit Authority (UTA) and Utah Department of Transportation (UDOT), to produce a coordinated, long-range assessment of inter-regional transportation needs and to examine a mix of effective multi-modal approaches to solve the needs identified. The study utilized transportation, transit and corridor studies that were completed or under way for the region as reference. With input from the public, the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and the Federal Railroads Administration (FRA), the IRCAA produced a preferred alternative plan comprising a mix of commuter rail, expanded bus services, roadway improvements, ITS, and travel demand management (TDM) recommendations (National Academy of Sciences, 2011).

Major recommendations resulting from the IRCAA include the proposed commuter rail system, expansion of bus and light rail services, roadway system improvements in Salt Lake and Utah counties and improvements, including highway widening, bridge improvements and interchange construction, along the I-15 corridor which expands on the earlier improvements completed along I-15 in Salt Lake County. The cooperation and coordination facilitated in the planning process of the IRCAA has also been applied to the project implementation and delivery process. The current “I-15 NOW” project involves the widening and updating of interstate infrastructure along a 9.3 mile segment of highway in Weber County.

Another unique and effective approach utilized in the “I-15 NOW” project was that of the design-build concept. In contrast to the traditional design-bid-build process which employs a project designer and a project contractor as separate entities, the design-build processes employs a single entity that is responsible for both the design and build components of a project. This process has been employed in an attempt to reduce risk and overall project costs and has been credited to the quick delivery and efficient use of limited funds on the I-15 project. This project serves as a prime example of successful interregional coordination. Local jurisdictions along the length of the improvement segment have been actively involved in the project and has coordinated their efforts to ensure delivery of the project in a timely manner, continuity in the project over a segment that would have a regional impact in improving traffic operations for the state, and to also reduce any redundancy spending that may arise if the project was approached in a piecemeal manner (National Academy of Sciences, 2011).

This successful and nationally noteworthy project has been credited as a prime example of successful collaboration in reports such as *Collaborative Leadership: Success Stories in Transportation Mega Projects* produced by the University of Maryland University College and FHWA and *Case Study: Utah I-15 Now Calculated Engineering and Design-Build for Rapid Delivery of Improvements* produced by the National Academy of Sciences as part of the Second Strategic Highway Research Program. A recent report produced by the Urban Land Institute and

Ernst and Young, *Infrastructure 2011: A Strategic Priority*, again acknowledges Utah's approach to addressing the need to update the state's aging infrastructure. The success of the light rail system and expanded commuter rail system in Salt Lake has had positive influences on the public support of rail transit. This support has been credited to the success of the sales tax referendum that voters approved to accelerate the completion of the proposed transit projects even during this time of economic recession. Successful initiatives such as this which delivers on its promises and is well backed by citizens and authorities alike, add to building the public's trust and could be extended to future collaborations which may include funding regional projects through sales tax initiatives.

3.5 Denver Regional Transit Authority (Colorado)

3.5.1 Colorado Transportation Sales Tax

Like many other states, Colorado has also had to focus on developing alternative transportation funding options in an effort to generate sufficient revenue to maintain and expand its transportation system. In a 2008 Aspen Times article, state Senator Suzanne Williams commented that "[we] have a national crisis in transportation" and members of Colorado Governor Bill Ritter's blue ribbon panel gathered to address finding alternative funding for what they called "Colorado's quiet crisis of crumbling bridges and roads" (Paulson, 2008). A study conducted for the Colorado Department of Transportation, *Transportation Revenue Options Study*, shows that the share of total state appropriations designated for direct state spending on transportation has steadily declined over time. Over the period 1980-2007 the share of state appropriations dedicated to transportation went from being as high as 15% in 1984 to as low as 5.3% in 2006. Over the more recent ten-year period 1997-2007 the share has fluctuated between 7.7% and 5.3% (Carter & Burgess, Inc. and Charles Brown Consulting Inc., 2007).

Fuel taxes have been the dominant source of revenue to fund transportation investments in Colorado. However, this revenue source has not keep pace with the growth in transportation funding needs. Other sources of transportation revenue include, but are not limited to registration and license fees, sales and use taxes, property taxes, and impact fees. The state also has a diverse structure of authorities in addition to county or municipal local governments, which have the ability to access fees, levy taxes or issue bonds in an effort to raise revenue. These special authorities or districts include metropolitan districts, regional service authorities, regional transportation districts, intergovernmental authorities, rail and tunnel districts, public highway authorities, and rural transportation authorities (Carter & Burgess, Inc. and Charles Brown Consulting Inc., 2007).

3.5.2 The Denver Regional Transportation District (RTD)

Created by the Colorado General Assembly in 1969, the Denver Regional Transportation District (RTD) is responsible for the development, operation and maintenance of a mass transportation system which benefits the Denver metropolitan area. The RTD is responsible for servicing all or parts of the eight-county district which includes the City and County of Denver, the City and County of Broomfield, the counties of Boulder and Jefferson, parts of Adams, Arapahoe and Douglas Counties, and a small portion of Weld County (Figure 14).

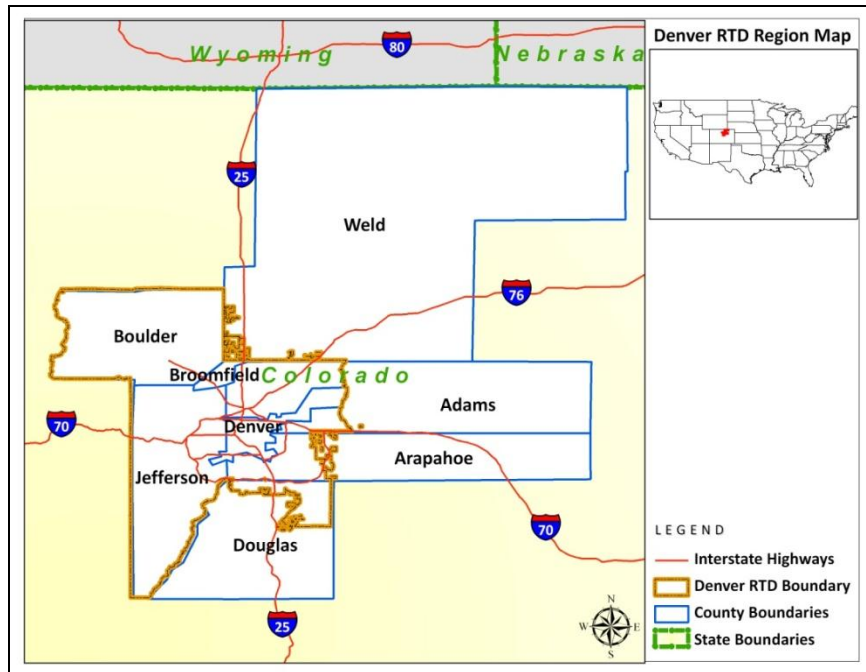


Figure 14. Denver RTD member counties and service area

Upon its creation the Denver RTD was funded in part by a mix of fees and property tax appropriations. However, in 1973 the RTD was granted legislative authority to levy a 0.5% sales tax within its district. This tax initiative was presented to district voters and was approved in 1973, ultimately providing much of the needed revenue for the RTD to begin acquiring existing transit companies and slowly build a regional mass transit system (Table 6). In 1983 the elected RTD Board was granted the authority to levy an additional 0.1% sales tax to provide support to the transit system which brought the District's RTD sales tax to 0.6% (Carter & Burgess, Inc. and Charles Brown Consulting Inc., 2007).

The District's sales tax rate remained at 0.6% for the majority of two decades until the RTD region voted in 2004 for the "FasTracks" initiative which provides for the expansion of the mass transit system. The measure called for an increase in the sales tax rate by 0.4%, bringing the RTD transit sales tax to 1.0%. It was passed by a 58% voter margin and went into effect in 2005. The additional revenue generated was intended to fund transit expansion projects which included

light rail transit, commuter rail, expanded bus rapid transit and the construction of additional stations and parking facilities to support the new rail infrastructure.

Table 6. Transportation sales taxes levied within the Denver RTD district and in member counties

Year	Counties	Sales Tax	Period		Comment
1973	Denver RTD counties	0.50%	-	Voter Approval	Voter approved sales tax levy in RTD district to fund the creation of a regional mass transit system
1980	Denver RTD counties	1.25%	-	Voter Approval <i>Failed Measure</i>	Increase in district tax to fund a light rail initiative
1983	Denver RTD counties	0.10%	-	Voter Approval	Increase to 0.50% rate by 0.10%. The new RTD sales tax stands at 0.6%
1997	Denver RTD counties	0.40%	-	Voter Approval <i>Failed Measure</i>	Increase in district tax by 0.4% to fund “Guide the Ride” proposal
2004	Denver RTD counties	0.40%	-	Voter Approval	Increase in RTD rate from 0.6% to 1.0% district wide to fund the RTD “FasTracks” project
2001	Boulder County	0.10%	7 years	Voter Approval	County Road and Transit Improvement Tax approved county-wide
2007	Boulder County	0.10%	15 years	Voter Approval	Extension of County Road and Transit Improvement Tax levied first approved in 2001
1993	Adams County	0.50%	7 years	Voter Approval	Transportation and capital outlay projects
2001	Adams County	0.50%	6 years	Voter Approval	Extension of tax to fund transportation and capital outlay projects
2006	Adams County	0.50%	20 years	Voter Approval	Extension of tax to fund transportation and capital outlay projects

Source: Hass et al. (2000), Werbel and Hass (2001), Colorado Department of Revenue, www.co.adams.co.us, www.bouldercounty.org.

Since the approval of the 0.4% sales tax increase, the “FasTracks” project has been affected by the recent economic downturn and increased construction costs. Originally budgeted at a cost of \$4.7 billion and a completion year of 2017, the project was reassessed in 2010 through the RTD’s 2010 FasTracks Financial Plan to cost an estimated \$6.7 billion and the completion

year is being pushed back beyond 2017 (Urban Engineers, Inc. and First Southwest Company, 2010). In an effort to keep the project on track authorities are considering an additional 0.4% sales tax increase within the RTD district. It is currently being debated if this tax increase should be placed on the 2012 ballot for approval.

Although the first major change in the RTD's district tax did not occur until 2004, prior attempts were made to increase the RTD sales tax without success. Hoping to expand the region's light rail system the RTD proposed a \$1 billion light rail plan which called for an increase in the RTD sales tax to 1.25%. This measure was defeated in 1980 (Ciruli, 1998). In 1997 the Denver Metropolitan Region presented the "Guide the Ride" (GTR) proposal which encompassed mainly light and heavy rail line construction, feeder bus route improvements and additional transit modifications within the Denver Metropolitan Region. The proposal on the 1997 ballot required an increase in the sales tax rate from 0.6% to 1.0% to fund GTR. This measure failed to gain voter support and was defeated by a 58% margin (Ciruli, 1998; Hass et al., 2000).

3.5.3 County-specific Transportation Sales Taxes within the Denver RTD

3.5.3.1 Boulder County

In addition to the 1.0% RTD sales and use tax levied in Boulder County, the county also has in place a 0.1% County Road and Transit Improvement Tax (Table 6). This county transportation tax was approved by voters in 2001 for a 7-year period to finance transportation projects including roadway improvements, roadway widening projects, priority transit programs, projects or programs that increases mobility, reduces pollution and congestion, increases system wide safety and contributes to the efficiency of alternative transportation modes and traffic flows (Boulder County, Transportation Sales Tax). In 2007 voters were presented with and approved an extension to the 0.1% county transportation tax from 2009-2024 (Boulder County Budget Summary, 2009).

3.5.3.2 Adams County

A portion of Adams County falls within the Denver RTD district and is thus subject to the RTD 1.0% sales tax. There also exists, a county wide 0.5% sales tax levy which is used to finance various county and city capital projects (Adams County, About Sales and Use Tax). First approved by county voters in 1993 the 0.5% sales tax was used to fund capital outlay projects for both a county justice and detention center. In 2001 county voters supported an extension of this sales tax through 2008 to finance a mix of projects including roads, bridges and other transportation infrastructure (Table 6). In 2006 voters once again approved an extension of the county 0.5% sale tax from 2009-2028 where 0.3% of the sales tax will be used for approved capital projects and 0.2% will be utilized for transportation projects (Adams County, About Sales and Use Tax; Adams County News, 2006).

3.5.3.2 Other Counties

Other counties within the Denver RTD do not appear to have any sales and use taxes dedicated to fund transportation investments at the county level. However, in addition to the portions of Jefferson County that fall within the RDT district and are subject to the 1.0% RDT sales tax, the county also has a special district, the Southeast Jefferson Local Improvement District (LID), which levies a 0.5% sales tax to fund district improvements which may include transportation related projects. The portions of Jefferson County within the RTD district and the Southeast Jefferson LID do not overlap and thus these two taxes are not both levied over the same area.

3.5.4 Relationship between Regional Transportation Sales Taxes and County-specific Transportation Sales Taxes

The case presented by the Denver RTD provides both a regional and county specific transportation sales tax levy. However, a major accolade in the Denver transportation landscape

comes from the success held by the 1999 Denver T-REX (Transportation Expansion) Project. This transportation initiative proposed to improve the transportation infrastructure of the region by undertaking both transit and highway improvements. T-REX proposed to introduce light rail lines to the Denver metropolitan area as well as deliver highway expansion along major corridors within the metro area. This project was financed in part through a voter approved local initiative which allowed the RTD to sell bonds for the light rail component of the project and a statewide initiative which allowed the Colorado DOT to sell bonds to finance the highway portion of the project (Moler, 2001).

The governor of Colorado during the startup of this project was very adamant to execute this project without a tax rate increase. The size and scope of this project, the collaboration undertaken during its delivery and the ability to deliver this “megaproject” below cost and in less time budgeted for, has placed this project as a showcase of innovation and collaborative success in project delivery (Johnston, Haynes and Schultz, 2006). The great success of this project has had positive influences on the Denver FasTracks Rail Transit Program proposed for voter approval in 2004.

3.6 Conclusions of case studies

The cases presented in this section have attempted to identify the successes, failures and lessons that can be learned from the use of sales and use tax levies to fund transportation related projects at both the regional and county-specific levels. These cases further present voter approval of county-specific transportation sales tax initiatives occurring while a previous regional transportation sales tax was in place, or vice-versa. This occurrence is of importance since it shows that it is possible for local jurisdictions to gain support to impose multiple sales and use taxes to support various transportation initiatives during the same period.

Other factors have also contributed to the success of multiple transportation sales and use taxes being levied on a jurisdiction during the same period. In the case of the California BART

system the history and successes of numerous other counties levying similar county-specific initiatives has cultivated a sales tax culture amongst residents that is more familiar with its use. The Central Puget Sound Regional Transit Authority (Sound Transit) has focused on building public trust by engaging in rigorous practices of accountability, transparency and equity. Regions such as the Utah Transit Authority have allowed sales tax appropriations to differ between member areas based on their needs. For example, the more metropolitan or urbanized county of Salt Lake appropriates their tax revenues to rail transit and highway investments, while the less urban counties make appropriations toward more bus and local transportation needs.

Given the proposed regional approach being suggested under the Transportation Investment Act of 2010 (HB 277), it is hoped that these cases will provide some insight into how other regional transportation sales tax initiatives have functioned. Although the structure proposed in the state of Georgia is unique in its scope, as it seeks to include all the counties within the state over a twelve district area, it is hoped that these localized cases will provide some insights that can be of use to authorities.

4. POSSIBLE IMPACTS OF REGIONAL SPLOSTS ON COUNTY-SPECIFIC SPLOSTS IN GEORGIA

4.1 Overview

In response to the Transportation Investment Act of 2010 (HB 277), enacted by the Georgia General Assembly in 2010, 12 special tax districts were formed throughout the state based on existing regional commission boundaries to create transportation regional SPLOSTs. As discussed in the literature review section (Chapter 2) of this report, diverse criteria, including socio-demographic characteristics, economic environment, transportation and infrastructure conditions, and campaign and communications, may affect voters' decisions on regional SPLOSTs.

This section describes the characteristics of Georgia's 12 special tax districts including demography, economy, and transportation, and it includes an examination of historical voting results for SPLOSTs using the election results of one percent sales tax referenda voted on between 1985 and March 2011 in Georgia's 159 counties. In particular, the analysis identifies major factors associated with the voting results, providing some insight into probable impacts and implications of regional SPLOSTs on county-specific SPLOSTs for transportation and infrastructure.

4.2 Characteristics of the Twelve Special Tax Districts

The regional structure for the proposed transportation sales tax divides the state of Georgia into 12 districts based on traditional regional commissions' boundaries. A comprehensive map of the 12 Regional Commissions and their composite counties is provided in Figure 15. Each district comprises a geographic grouping of 10-18 counties based on the state's existing regional commission boundaries. The population distribution within each region is not uniform, but provides a diverse mix of counties, some with high population totals and others that are more rural in character. To better illustrate the population distribution across the districts

Figure 16 provides the Core Based Statistical Area (CBSA)³⁷ designations for each county within the 12 special tax districts.

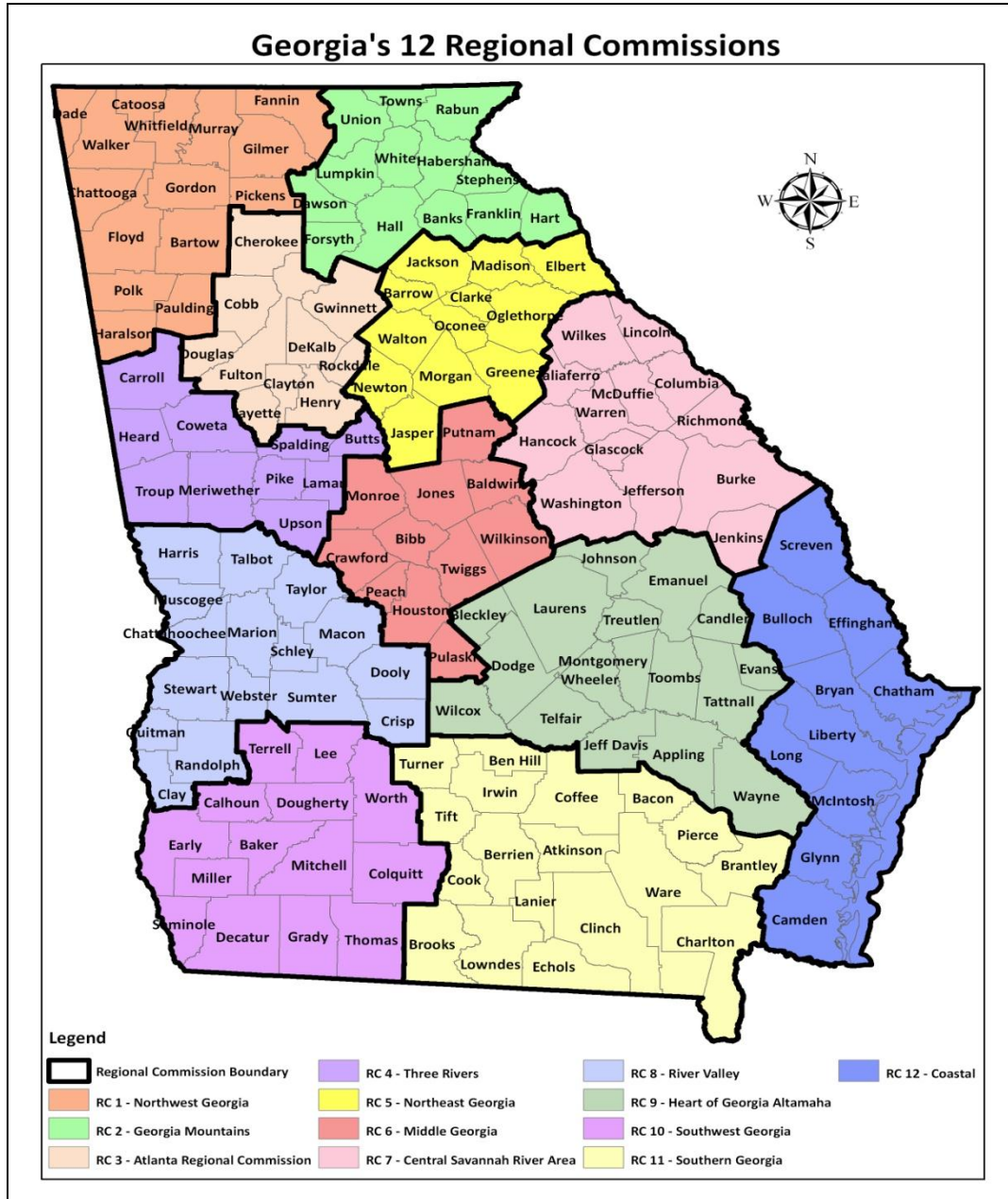


Figure 15. Map of the 12 Special Tax Districts with their counties

³⁷ The CBSA collectively refers to both metropolitan and micropolitan statistical areas. Counties within each district have been classified as a metropolitan statistical area if it contains a core urban area of 50,000 or more in population, a micropolitan statistical area if it contains an urban core of at least 10,000 but less than 50,000 in population, otherwise a county is classified as rural.

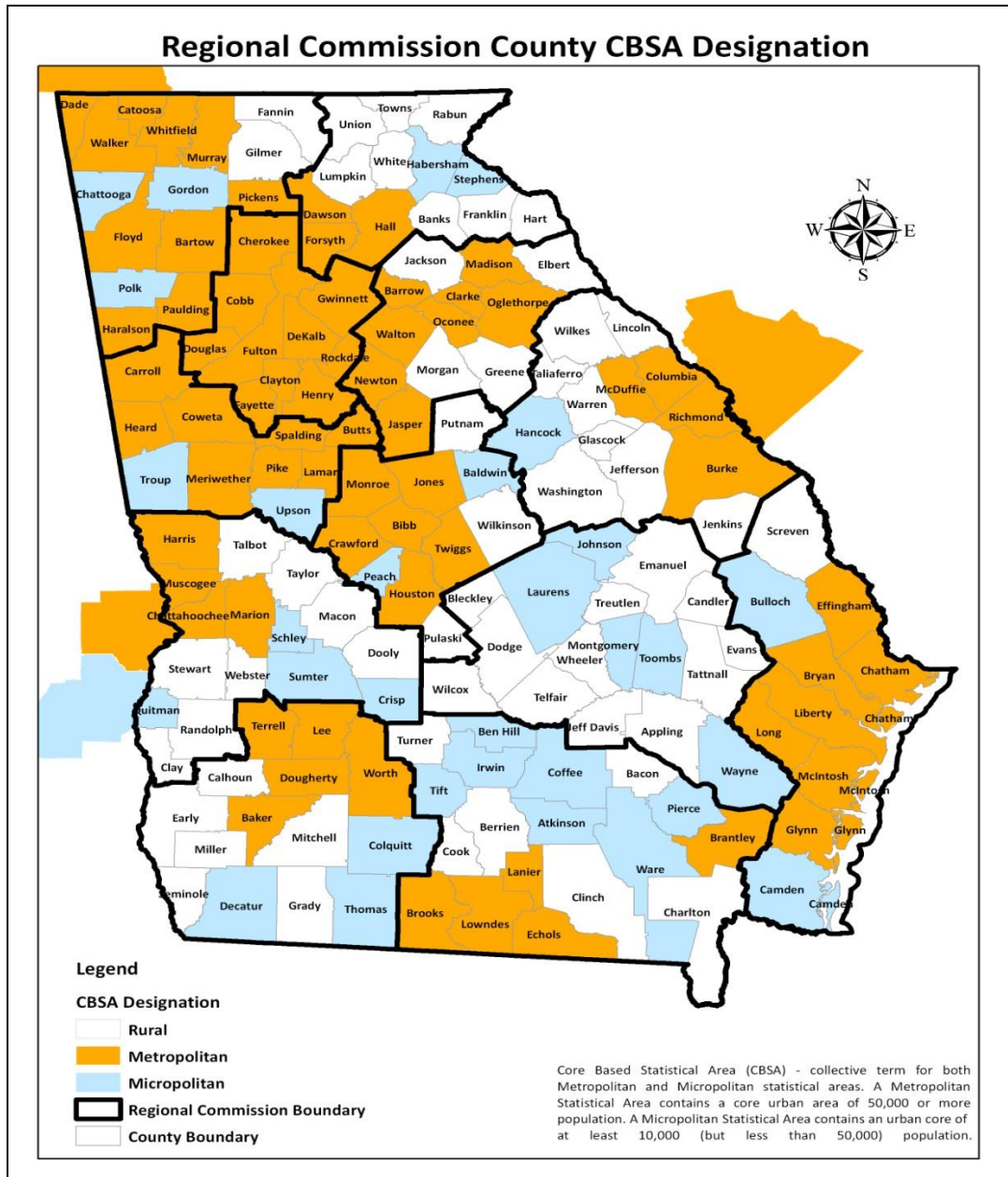


Figure 16. Core Based Statistical Area (CBSA) designations for counties within each Regional Commission

The special tax districts reflect a varied grouping of counties ranging from completely metropolitan (Atlanta Regional Commission – Region 3) to districts that are more rural in nature. All of the identified districts contain at least one metropolitan statistical area except for the Heart of Georgia – Region 9 which comprises a mix of micropolitan statistical areas (42%) and rural

counties (58%). Table 7 provides the metropolitan, micropolitan and rural mix of each region. For the most part, a fair portion of the regions are classified as being metropolitan, where more than 60% of the district falls under this classification. In addition to the aforementioned Heart of Georgia which does not contain any metropolitan areas, Southwest Georgia – Region 10 and Southern Georgia – Region 11 have the lowest proportion of their district designated as metropolitan, with 15% and 38% respectively. However Southwest Georgia has the highest micropolitan designation which accounts for 77% of the district.

Table 7. Districts’ mix of Metropolitan, Micropolitan and Rural Statistical Areas

Regional Commissions	% of District Metropolitan Statistical Area	% of District Micropolitan Statistical Area	% of District Rural
Region 1 – Northwest Georgia	80%	14%	6%
Region 2 – Georgia Mountains	62%	11%	27%
Region 3 – Atlanta Regional Commission	100%	-	-
Region 4 – Three Rivers	81%	19%	-
Region 5 – Northeast Georgia	80%	-	20%
Region 6 – Middle Georgia	76%	15%	9%
Region 7 – Central Savannah River Area	81%	2%	17%
Region 8 – River Valley	67%	17%	16%
Region 9 –Heart of Georgia	-	42%	58%
Region 10 – Southwest Georgia	15%	77%	8%
Region 11 – Southern Georgia	38%	44%	18%
Region 12 – Coastal	79%	19%	2%

The following sections provide an overview of the established 12 special tax districts with respect to selected socio-demographic, economic and transportation variables.

4.2.1 Socio-Demographic Variables

The population distribution amongst regions is not equal and ultimately reflects the metropolitan-rural mix of the composite counties. Given the 2010 population totals for each region in Table 8 below, the state’s population is concentrated in the Atlanta Regional

Commission – Region 3 and the Southwest Georgia – Region 10, which accounts for approximately 37% and 11% of Georgia’s total population.

Table 8. 2010 Population distributions over the 12 special tax districts

Regional Commissions	Population* (2010)	%
Region 1	865.3	8.7%
Region 2	632.5	6.4%
Region 3	3,643.0	36.6%
Region 4	501.1	5.0%
Region 5	596.7	6.0%
Region 6	488.1	4.9%
Region 7	444.5	4.5%
Region 8	359.2	3.6%
Region 9	298.1	3.0%
Region 10	1,092.4	11.0%
Region 11	400.2	4.0%
Region 12	639.5	6.4%
Total	9960.6	100%

*Population measured in ‘000s

The other districts’ population is more modest in comparison ranging from 3% - 7% of the state’s total. The more sparsely populated regions include Heart of Georgia – Region 9, River Valley – Region 8, and Southern Georgia – Region 11, with population contributions of 3.0%, 3.6% and 4.0%, respectively.

Table 9 provides a summary of aggregate population and select demographic data for each of the 12 districts. Over the decade 2000 – 2010, some districts experienced great population increases. Districts 1 – 5 (Northwest Georgia, Georgia Mountains, Atlanta Regional Commission, Three Rivers and Northeast Georgia) all comprising the northern section of the state of Georgia experienced great population growth over the 10-year period with growth rates of approximately 23%, 37%, 29%, 23% and 35%, respectively. The remainder of districts which encompasses the

southern section of the state saw much smaller growth rates with the most modest increases occurring in the Central Savannah River Area – Region 7 and River Valley – Region 8 with population increases of 6% and 2 %, respectively.

Increases in the districts' population with ages less than 17 are in keeping with the trend seen in the total population figures for the 12 districts. The major increases in this population sub-group are again seen in districts 1 – 5. However, the Central Savannah River Area – Region 7 and River Valley – Region 8 experienced decreases in this sub-group over the 10-year period. Figure 17 below provides the proportion of each county's 2010 population that is under age 17.

Table 9. Summary of Socio-Demographic Variables for the 12 Regional Commissions

Special Tax Districts	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12
Number of Counties	15	13	10	10	12	11	13	16	17	14	18	10
Area (m^2)	5,048.2	3,515.3	3,021.3	3,324.7	3,659.1	3,598.8	5,140.4	5,313.6	6,903.5	6,004.2	8,033.1	5,256.7
Population (2000)	702.3	460.3	2,813.4	406.3	441.7	440.9	420.0	353.7	273.2	993.5	365.4	559.4
Population (2010)	865.3	632.5	3,643.0	501.1	596.7	488.1	444.5	359.2	298.1	1,092.4	400.2	639.5
% Change 2000-2010	23.21%	37.41%	29.49%	23.33%	35.09%	10.71%	5.83%	1.55%	9.11%	9.95%	9.52%	14.32%
Population <17 (2000)	184.3	116.5	753.7	109.6	111.5	115.8	115.6	95.3	71.6	254.3	98.8	150.5
Population <17 (2010)	228.9	166.3	971.0	130.4	151.2	122.0	113.1	92.1	72.7	266.8	103.8	168.4
% Change 2000-2010	24.20%	42.75%	28.83%	18.98%	35.61%	5.35%	-2.16%	-3.36%	1.54%	4.92%	5.06%	11.89%
Population >65 (2000)	79.7	53.1	201.5	44.5	44.0	49.4	46.1	42.0	34.9	93.3	41.8	58.3
Population >65 (2010)	104.7	79.8	304.1	58.2	65.0	61.1	54.7	45.7	40.2	114.4	48.8	70.7
% Change 2000-2010	31.37%	50.28%	50.92%	30.79%	47.73%	23.68%	18.66%	8.81%	15.19%	22.62%	16.75%	21.27%
White (2000)	612.6	391.8	1,730.9	295.1	333.7	262.3	227.2	179.6	181.7	394.4	247.4	345.5
White (2010)	712.1	505.8	1,844.8	358.6	429.1	280.1	236.2	177.4	191.7	405.7	262.1	396.0
% Change 2000-2010	16.24%	29.10%	6.58%	21.52%	28.59%	6.79%	3.96%	-1.22%	5.50%	2.87%	5.94%	14.62%
Black (2000)	43.1	23.3	762.5	99.4	86.0	164.0	174.9	155.0	79.0	504.1	100.0	186.9
Black (2010)	66.8	33.8	1,172.9	118.0	123.5	185.3	186.0	159.1	86.0	549.4	109.1	204.7
% Change 2000-2010	54.99%	45.06%	53.82%	18.71%	43.60%	12.99%	6.35%	2.65%	8.86%	8.99%	9.10%	9.52%
Asian (2000)	4.1	4.4	112.5	2.5	6.6	4.8	7.1	4.4	1.2	29.9	2.6	8.0
Asian (2010)	7.8	14.2	208.4	4.4	11.4	7.1	8.4	5.9	1.7	36.6	3.3	11.5
% Change 2000-2010	90.24%	222.73 %	85.24%	76.00%	72.73%	47.92%	18.31%	34.09%	41.67%	22.41%	26.92%	43.75%
Hispanic (2000)	40.4	39.5	201.1	8.3	14.5	8.7	9.6	13.4	10.8	63.0	14.4	17.3
Hispanic (2010)	76.0	76.9	405.8	18.8	31.5	14.2	12.6	15.5	18.2	97.8	24.6	25.1
% Change 2000-2010	88.12%	94.68%	101.79 %	126.51 %	117.24 %	63.22%	31.25%	15.67%	68.52%	55.24%	70.83%	45.09%

*Population measured in '000s

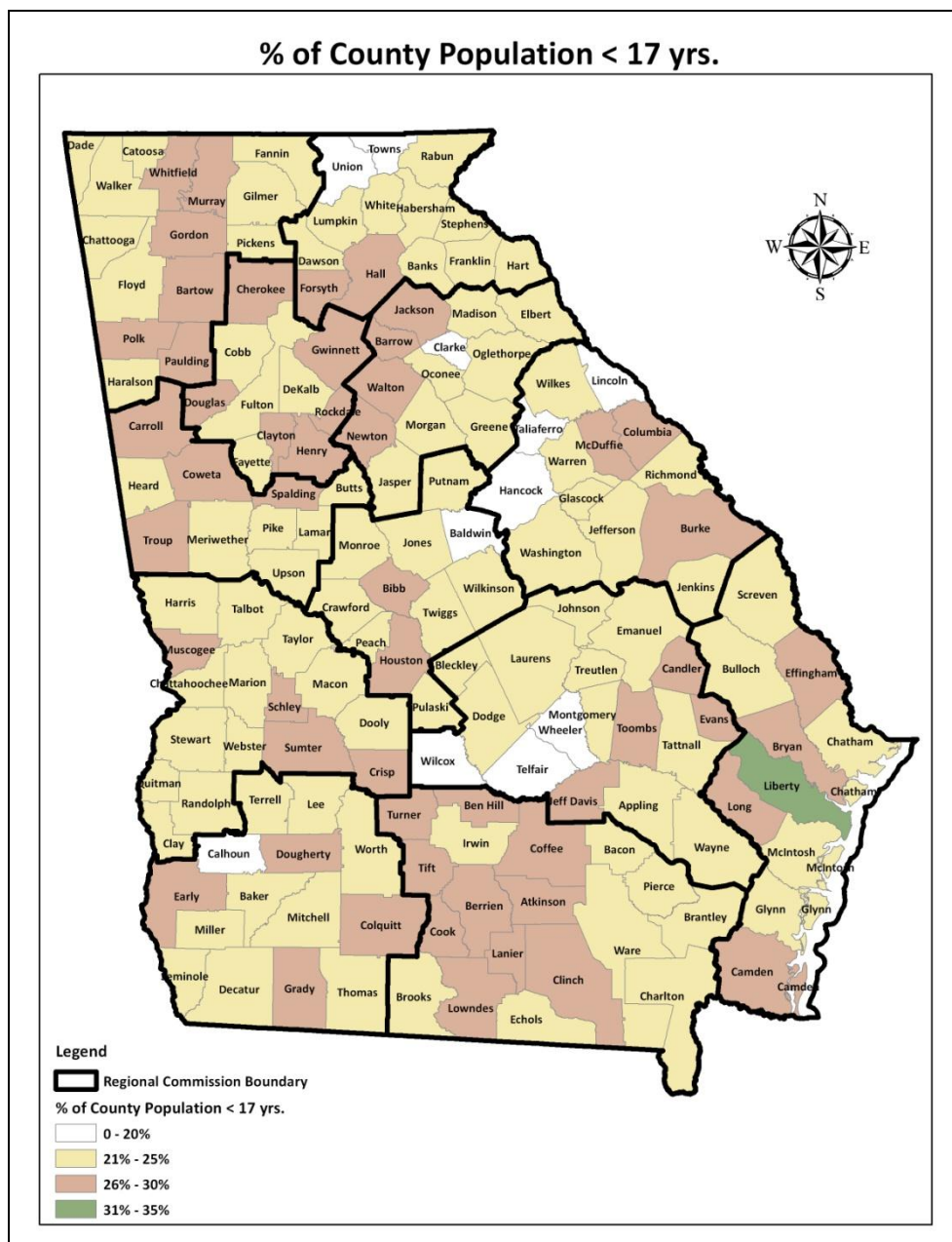


Figure 17. Proportion of county population under age 17

The majority of counties have approximately 21% – 25% of its population falling within this age group. Counties with higher proportions of its population less than age 17 (26% - 30%) are concentrated in Southern Georgia – Region 11 and in the counties and regions surrounding the core counties of Fulton, Cobb, DeKalb and Fayette within the Atlanta Regional Commission –

Region 3. All districts experienced healthy increases in their population over 65 years of age ranging from 15% - 50%. The most modest population increase of roughly 9%, seen in this age group from 2000 – 2010 occurred in River Valley – Region 8. The proportion of each county’s 2010 population that is over the age of 65 is presented in Figure 18 below.

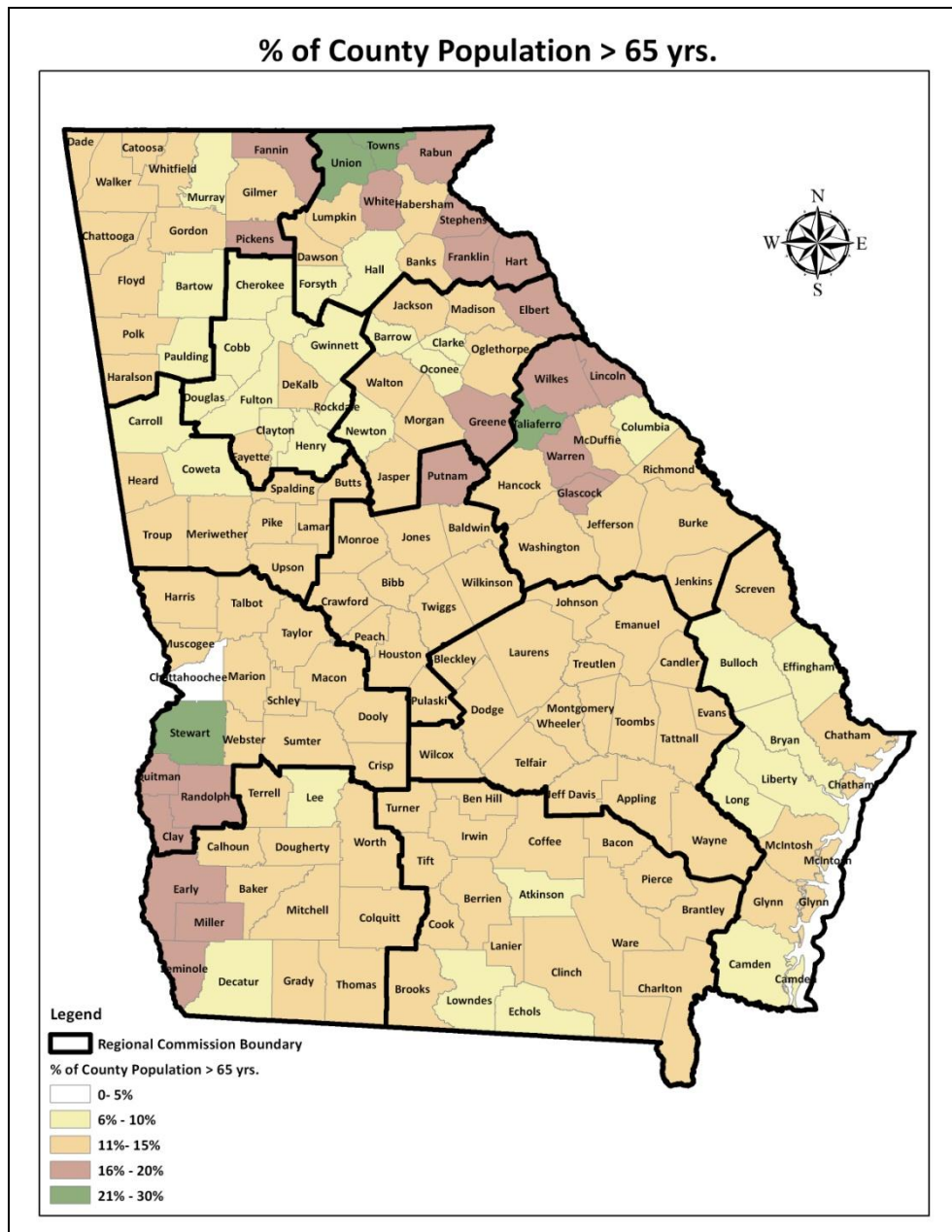


Figure 18. Proportion of county population over age 65

For many of the state's counties, 11% - 15 % of the county's population is above age 65. However, some counties have a lower portion of their population falling within this age group. Counties with 6% - 10% of their population above age 65 seem to be concentrated in the two areas, the Atlanta Regional Commission – Region 3 as well as in Coastal – Region 12. Counties with higher proportions of their population over age 65 are clustered around the Southwest Georgia and River Valley regions; and also along the north and northeastern borders of the state within the Georgia Mountains, Northeast Georgia and Central Savannah regions.

All districts are majority “White”, except in Southwest Georgia – Region 10 where the majority racial composition is “Black”. The most consistent and major increases in population were seen in the Asian and Hispanic racial groups across all districts (Table 9).

4.2.2 Economic Variables

Table 10 provides the employment figures, by sector, for each region. The major employment sectors for all regions include services, state and local government, retail trade, finance, insurance and real estate, and management. These sectors when combined account for more than 50% of the districts' employment share. In comparison to the other districts, Heart of Georgia – Region 9 and Southern Georgia – Region 11 have the higher concentrations of employment in the primary sectors of farming, and fishing and mining, with employment contributions of 6% and 4% respectively in the farming sector and 3% and 2% in the fishing and mining sector. The other 10 regions' average employment in these sectors is approximately 1.42% in farming and 0.74% in the fishing and mining sectors.

Other notable employment concentrations occur in the education sector in Southwest Georgia – Region 10 which accounts for 5.03% of employment; federal government employment is highest in River Valley – Region 8 and Coastal – Region 12 with levels of 12.37% and 10.73%; and the Atlanta Regional Commission – Region 3 has sizeable employment in the information, professional and technical industry of 13.15%. The manufacturing sector still provides

employment to a considerable proportion of the regions with levels greater than 10% in six of the twelve districts. The largest manufacturing concentration occurs in Northwest Georgia – Region 1 where 19% of the total employment is in this sector.

Table 10. Employment Figures for each Region by Sector (2010)

Special Tax Districts	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12
Farming	5.929	6.182	3.022	3.447	6.034	3.067	4.105	4.001	8.575	8.038	8.46	1.96
	1.53%	2.12%	0.13%	1.60%	2.34%	1.12%	1.68%	1.89%	6.13%	1.28%	4.09%	0.52%
Forestry, Fishing & Mining	2.128	1.521	5.96	1.293	1.642	2.649	2.814	3.006	4.105	3.644	4.662	2.613
	0.55%	0.52%	0.26%	0.60%	0.64%	0.97%	1.15%	1.42%	2.93%	0.58%	2.25%	0.70%
Utilities	2.389	1.236	9.448	1.30	1.161	1.466	0.907	0.582	0.991	1.797	0.888	1.798
	0.62%	0.42%	0.42%	0.60%	0.45%	0.54%	0.37%	0.27%	0.71%	0.29%	0.43%	0.48%
Construction	28.86	27.624	126.72	15.258	19.737	14.00	13.613	10.173	9.561	30.191	11.435	21.377
	7.45%	9.49%	5.57%	7.09%	7.66%	5.12%	5.58%	4.80%	6.83%	4.82%	5.53%	5.69%
Manufacturing	73.359	38.961	101.361	26.14	27.415	18.869	18.788	14.031	15.798	36.264	21.609	23.60
	18.95%	13.39%	4.45%	12.15%	10.64%	6.90%	7.70%	6.62%	11.29%	5.79%	10.45%	6.28%
Whole Sale Trade	12.391	13.516	135.462	6.769	10.478	6.76	5.999	5.593	3.959	22.016	6.831	10.224
	3.20%	4.65%	5.95%	3.15%	4.07%	2.47%	2.46%	2.64%	2.83%	3.52%	3.30%	2.72%
Retail Trade	41.386	32.544	218.816	24.26	26.406	29.236	24.486	21.793	15.61	62.493	25.259	38.988
	10.69%	11.18%	9.62%	11.28%	10.25%	10.70%	10.03%	10.28%	11.15%	9.98%	12.22%	10.37%
Transp. & Warehousing	11.86	6.602	104.677	6.272	5.624	5.454	6.643	3.761	4.852	24.916	8.552	16.818
	3.06%	2.27%	4.60%	2.92%	2.18%	2.00%	2.72%	1.77%	3.47%	3.98%	4.14%	4.47%
Information, Professional & Technical	22.707	15.641	299.301	12.264	13.982	15.758	13.805	13.946	4.441	61.917	7.749	19.929
	5.87%	5.38%	13.15%	5.70%	5.43%	5.76%	5.66%	6.58%	3.17%	9.89%	3.75%	5.30%
Finance, Insurance and Real Estate	24.35	19.476	238.15	14.739	16.414	21.346	12.292	16.215	6.114	55.601	11.298	23.907
	6.29%	6.69%	10.47%	6.85%	6.37%	7.81%	5.04%	7.65%	4.37%	8.88%	5.46%	6.36%
Management	25.677	23.722	220.26	15.195	15.42	17.675	17.012	15.465	7.056	59.26	11.799	27.558
	6.63%	8.15%	9.68%	7.06%	5.98%	6.47%	6.97%	7.30%	5.04%	9.46%	5.71%	7.33%
Education	4.769	4.953	41.948	2.212	3.643	5.387	3.939	1.887	1.294	31.485	1.478	7.38
	1.23%	1.70%	1.84%	1.03%	1.41%	1.97%	1.61%	0.89%	0.92%	5.03%	0.71%	1.96%
Services	82.703	62.099	513.915	53.188	57.841	70.182	61.506	50.291	31.166	148.908	45.671	96.021
	21.36%	21.34%	22.59%	24.73%	22.44%	25.67%	25.20%	23.73%	22.27%	23.78%	22.09%	25.54%
Federal Gov.	3.958	3.29	43.685	2.332	4.537	22.039	18.034	26.22	2.882	20.782	6.352	40.33
	1.02%	1.13%	1.92%	1.08%	1.76%	8.06%	7.39%	12.37%	2.06%	3.32%	3.07%	10.73%
State & Local Gov.	44.66	33.607	212.662	30.425	47.393	39.472	40.105	25.001	23.57	58.823	34.698	43.422
	11.54%	11.55%	9.35%	14.14%	18.39%	14.44%	16.43%	11.79%	16.84%	9.39%	16.78%	11.55%
Total	387.127	290.974	2275.38	215.094	257.727	273.36	244.048	211.965	139.974	626.135	206.741	375.925

**Employment measured in '000s*

Table 11 presents the percentage change in employment by sector, for each region over the ten year period 2000 – 2010. During this period all regions have seen a decline in both the manufacturing and farming sectors. River Valley – Region 8 experienced the largest decline in manufacturing employment of roughly 45%. Other districts such as Three Rivers – Region 4, Southern Georgia – Region 11, Central Savannah River Area – Region 7, and Atlanta Regional Commission – Region 3 also experienced sizeable declines in this sector.

Although employment declines were experienced in some sectors, there has also been considerable growth in others. Sectors, such as services, education, management, state and local government, and finance, insurance and real estate, have seen large increases in employment over all regions from 2000 – 2010. Regions are also expanding in the information, professional and technical sector. Major employment growth in this sector was experienced especially in the Georgia Mountains – Region 2, Three Rivers – Region 4 and Northeast Georgia – Region 5 with rates of 42%, 55% and 56%, respectively.

Southwest Georgia – Region 10 has seen decline over the most sectors in comparison to other regions. However it has achieved the third largest growth rate in the transportation and warehousing sector of approximately 24%.

Table 11. Change in Employment by Sector 2000-2010 (% Growth or Decline)

Special Tax Districts	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12
Farming	-9.15	-9.06	-11.09	-9.58	-7.40	-5.98	-4.53	-4.33	-5.66	-4.64	-4.24	-6.98
Forestry, Fishing & Mining	0.52	-10.37	-12.24	-10.08	-7.28	-20.07	-24.40	-10.00	18.06	-12.53	10.60	0.08
Utilities	52.46	39.98	15.60	12.26	64.91	42.75	22.73	-8.78	58.81	-36.34	2.07	33.98
Construction	17.93	13.44	3.41	3.99	15.15	12.63	0.41	11.14	17.78	-1.69	-3.07	8.47
Manufacturing	-12.98	-16.52	-25.81	-34.84	-16.64	-20.20	-24.66	-45.12	-23.14	-24.00	-28.16	-13.26
Whole Sale Trade	-5.93	38.30	1.14	33.93	57.78	8.42	25.03	30.80	5.12	-22.83	24.22	45.64
Retail Trade	7.39	26.52	-2.03	0.84	8.02	2.84	-1.09	5.37	4.21	-0.53	6.57	6.72
Transp. & Warehousing	-4.72	10.35	-0.82	32.10	14.61	3.28	9.89	8.54	21.70	23.97	-7.71	41.48
Information, Professional & Technical	8.30	41.60	8.72	54.63	56.05	16.83	27.80	-7.18	4.54	4.06	11.26	29.31
Finance, Insurance and Real Estate	40.18	46.41	28.38	46.64	51.52	22.57	9.01	23.66	25.83	19.04	30.19	40.65
Management	53.96	92.27	4.15	23.21	48.31	32.57	1.98	13.99	28.67	21.57	50.06	33.43
Education	66.46	42.08	52.59	39.47	72.00	24.47	68.62	79.71	54.05	63.80	55.58	85.19
Services	37.21	39.81	29.67	35.58	44.07	25.07	26.68	24.51	27.23	20.14	22.91	28.51
Federal Gov.	-2.30	1.23	-5.13	-3.12	1.23	8.25	2.09	0.24	1.05	2.93	-9.06	9.51
State & Local Gov.	30.10	44.90	32.52	19.69	45.18	24.22	14.53	8.87	10.27	10.92	25.33	20.43

4.2.3 Transportation Variables

In all regions the majority of workers drive alone for commuting purposes, as illustrated in Table 12. In 1990 on average, across all regions 4.5 times more workers drove alone for commuting purposes than those who carpooled. In 2000 this average ratio increased where 5.1 times more workers drove alone in comparison to those who carpooled. All 12 districts experienced similar average growth rates for the years 1990 – 2000 for both workers who drive alone and carpool for commuting purposes. The growth rate experienced for workers who drive alone was consistently higher than the growth rate seen for workers who carpooled for all regions except for the Atlanta Regional Commission – Region 3. This region between the years 1990 – 2000, had a marginally higher growth rate for carpoolers (1.43%) in comparison to workers who drive alone (1.36%).

The numbers of workers who commute more than 25 minutes have also steadily increased across all regions over the decade. The largest increases were experienced in the Georgia Mountain – Region 2 and Northeast Georgia – Region 5 areas which experienced a 1.65% and 1.60% rate increase, respectively.

Table 12. Summary of Transportation Variables for the 12 Regional Commissions

Special Tax Districts	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Region 11	Region 12
Workers Drive Alone for Commuting (1990)	199,749	112,655	1,041,158	111,787	112,935	134,894	125,370	105,158	73,209	99,988	101,376	160,230
Workers Drive Alone for Commuting (2000)	257,315	169,720	1,323,737	141,904	160,650	153,507	139,206	113,831	82,059	110,533	120,665	195,783
Average Growth Rate - Drive Alone (1990-2000)	1.35	1.46	1.36	1.28	1.42	1.22	1.09	1.17	1.11	1.16	1.24	1.38
Workers Carpool for Commuting (1990)	45,005	25,905	160,357	28,185	26,584	27,771	30,501	23,809	19,273	23,578	23,338	33,318
Workers Carpool for Commuting (2000)	50,511	32,578	233,165	29,086	31118	26,538	25,839	24,316	18,434	24,908	24,289	36,280
Average Growth Rate - Carpool (1990-2000)	1.14	1.23	1.43	1.00	1.12	0.92	0.82	0.94	0.95	1.01	1.04	1.10
Workers Commute >25 minutes (1990)	90,363	49,963	64,6678	51,744	48,130	46,088	52,970	31,448	26,493	31,674	29,147	60,716
Workers Commute >25 minutes (2000)	13,5747	89,174	93,1596	76,337	82,309	61,861	60,710	40,071	35,811	40,771	41,000	85,258
Average Growth Rate - Commute >25 minutes (1990-2000)	1.51	1.65	1.49	1.42	1.60	1.39	1.18	1.30	1.35	1.31	1.39	1.53

4.3. Data and Methods

4.3.1. Data

Data on 1% sales tax measures was gathered for the following types of initiatives: Special Purpose Local Option Sales Tax (SPLOST), Education Special Purpose Local Option Sales Tax (ESPLOST), and the general-purpose Local Option Sales Tax (LOST). The data ranged from 1985 to March 2011. Primary data was provided by the Georgia Secretary of State's Office. One percent (1%) sales taxes have been levied by counties and municipalities as a means of supporting a variety of infrastructure projects and general operations; the sales taxes were based on the provisions outlined in the following paragraphs for LOSTs, SPLOSTs, and ESPLOSTs. Specifically, the LOST, enacted in 1975, allows counties to issue a one percent general purpose sales and use tax to support **operations** (Rubenstein and Sjoquist, 2003; Jung 2001). The SPLOST³⁸ law was enacted in 1985 to finance local **capital projects**, such as roads, streets, bridges, drainage, water and sewer system, landfills, and the construction of public facilities, such as city or county administration buildings, libraries, and community centers. In 1996, ESPLOST legislation (O.C.G.A. § 48-8-110) was enacted along with a subsequent constitutional amendment (Article VIII, Section VI, paragraph IV) in 1997. This allowed local boards of education to hold referenda for SPLOSTs specifically for **education capital projects** (Rubenstein and Sjoquist, 2003).

The examination of the election results of 1% sales taxes proposed specifically for transportation, education, capital outlay projects, and multi-purpose uses may provide important insights into the trend of transportation funding. For example, it is interesting to know whether or not funding for transportation projects have competed with or complemented funding for other purposes and funding at different geographical level (regional vs. local).

³⁸ The SPLOST is defined as “an optional one percent county sales tax used to fund capital outlay projects proposed by the county government and participating qualified municipal governments” (ACCG, 2008).

The election data includes 1,413 1% sales tax referenda for 159 Georgia counties. Among them, 1,269 referenda were passed and 144 failed. The detailed examination of these election results are discussed here and in the following chapters.

In this report, the purposes of 1% sales tax referenda are classified into transportation only, education, capital outlay projects only, multi-purposes (for both transportation and other capital outlay projects), and LOST. Although the Georgia Secretary of State's Office ³⁹ provides the election results of 1% sales tax referenda on its website, this online data cannot be directly used in the analysis. The data provided by the Georgia Secretary of State's Office covers a limited time period from 1998 to the present; however, since Georgia counties have used SPLOST since 1985, a complete dataset covering the entire 26 year span is necessary to conduct a comprehensive analysis. Another problem associated with this online data arises from the manner in which sales tax purposes are grouped or categorized. Purposes are categorized into four major uses, including transportation (road, street, and bridge), education, capital outlay projects, and miscellaneous purposes. Although most miscellaneous projects include water and sewer system improvement projects, waste management, landfill, construction of administration building, courthouse, library, county jail, sidewalk improvement projects, and others, many referenda classified with miscellaneous purposes actually include transportation projects as well. However, the online data does not specify how many of the initiatives with miscellaneous purposes included transportation projects. For these reasons, the research team manually reviewed each referendum stored in the Georgia Archives and constructed a database by distinguishing transportation referenda from miscellaneous purpose referenda. The manual review determined that 193 (or 81.8%) of the 236 miscellaneous purpose referenda included transportation projects.

The SPLOST data are combined with other variables that may affect the election results. Data for other variables are collected at the county level and include factors that are socio-demographic, economic, geographic, and transportation related. Variables associated with the election results, identified through the analysis, may provide important information and

implications that are critical to the successful implementation of regional SPLOSTs and their possible impacts on county-specific SPLOSTs and vice versa. This permits some insight into the public's willingness to support referenda recognizing current indebtedness and/or preferences for supporting referenda the based on its purpose.

As discussed in Chapter 2, diverse factors, including homeownership, population over age 65, retail tax base, voter turnout (Jung, 2002), urbanization, (Pajari, 1984), and ethnicity (Button, 1993), are associated with the sales tax election results.

To incorporate such additional information into the dataset, the model aggregated the geographic and built-environment characteristics of each county in the context of regional spatial structure, socio-demographic factors, economic variables, and transportation and infrastructure characteristics. To control for the characteristics of special tax districts, dummy variables indicating 12 special tax districts were included (Table 13).

Table 13. Variables and data sources

Variables		Description	Source
SPLOST	ELOST	Presence of existing ELOST when an election took place	Georgia Dept. of Revenue
	LOST	Presence of existing LOST when an election took place	
	SPLOST	Presence of existing SPLOST when an election took place	
	OTHR_LOST	Presence of existing other LOST when an election took place	
	MARTA	Dummy VAR for MARTA 1% sales tax	
	SALES_TAX	Existing sales tax rate when an election took place	
	YR_ELOST	Dummy VAR for years after 1996 when ESPLOST was enacted.	Georgia Archives
	YEAR	Year in which election took place from 1985 – 2011 (T= 1,2,3,...,25)	
	MULTI_REFERENDA	Dummy VAR for multiple referenda with different purposes; this is different from a multiuse referendum	
	PERIOD_QTR	Project period (tax period; quarter)	
	PASS	Dummy VAR for passage	
	PREFERENCE	# of voters with Yes answer / total voters	
	TURNOUT	Turnout ratio: actual voters / registered voters	
	P_TRANS	Dummy VAR for transportation purpose	
	P_EDU	Dummy VAR for education purpose	
	P_CAP	Dummy VAR for capital outlay project purpose	
	P_M_TRAN_CAP	Dummy VAR for multiuse purpose (transportation and capital outlay)	
	P_LOST	Dummy VAR for LOST	
Geography	RC1	Dummy VAR for Regional Commission 1: Northwest Georgia	Georgia Dept. of Community Affairs
	RC2	Dummy VAR for Regional Commission 2: Georgia Mountains	
	RC3	Dummy VAR for Regional Commission 3: Atlanta Regional Commission	
	RC4	Dummy VAR for Regional Commission 4: Three Rivers	
	RC5	Dummy VAR for Regional Commission 5: Northeast Georgia	
	RC6	Dummy VAR for Regional Commission 6: Middle Georgia	
	RC7	Dummy VAR for Regional Commission 7: Central Savannah River Area	
	RC8	Dummy VAR for Regional Commission 8: River Valley	
	RC9	Dummy VAR for Regional Commission 9: Heart of Georgia Altamaha	

(continued)

Variables		Description	Source
	RC10	Dummy VAR for Regional Commission 10: Southwest Georgia	
	RC11	Dummy VAR for Regional Commission 11: Southern Georgia	
	RC12	Dummy VAR for Regional Commission 12: Coastal	
	METROPOLITAN	Dummy VAR for metropolitan county	ESRI
	MICROPOLITAN	Dummy VAR for micropolitan county	
	RURAL	Dummy VAR for rural county	
	POP_DENSITY	Population density (thousand people / square mile)	US CENSUS
Demography	POP_GROW	Population growth (population in T+5 year / population in T year)	US CENSUS
	POP17	Ratio of population with age 17 and under to the total population	
	POP65	Ratio of population with age 65 and over to the total population	
	WHITE	Ratio of White population	
	BLACK	Ratio of Black population	
	ASIAN	Ratio of Asian population	
	HISPANIC	Ratio of Hispanic population	
Economy	EMP_GROW	Employment growth (employment in T+5 year / employment in T year)	Woods & Poole
	FARM	Ratio of Farm employment to the total employment	
	FORMIN	Ratio of Forestry, Fishing, Related Activities, & Other and Mining employment to the total employment	
	UTIL	Ratio of Utilities employment to the total employment	
	CONS	Ratio of Construction employment to the total employment	
	MANU	Ratio of Manufacturing employment to the total employment	
	WHOLE	Ratio of Wholesale employment to the total employment	
	RETAIL	Ratio of Retail employment to the total employment	
	TRANS	Ratio of Transportation & Warehousing employment to the total employment	
	INFOPRO	Ratio of Information and Professional & Technical Services employment to the total employment	
	FIRE	Ratio of Finance & Insurance and Real Estate & Rental & Leasing employment to the total employment	
	MANAGADM	Ratio of Management of Companies & Enterprises and Administrative & Waste Services employment to the total employment	
	EDU	Ratio of Educational Service employment to the total employment	

(continued)

Variables		Description	Source
	SERV	Ratio of Health Care & Social Assistance and Arts, Entertainment, & Recreation and Accommodation & Food Services and Other Services, Except Public Admin employment to the total employment	
	FEDGOV	Ratio of Federal Civilian Government and Federal Military Government employment to the total employment	
	STLOCGOV	Ratio of State & Local Government employment to the total employment	
	INCOME_CAPITA	Total Personal Income per Capita (2004 \$)	
	GRP_CAPITA	Gross Regional Product per Capita	
	MEAN_INCOME	Mean Household Income (2004 \$)	
	RETAIL_SALE_CAPITA	Total Retail and Food Service Sales per Capita	
	SALE_EXPORTATION	Sales exportation index: extent to sales derived from non-residents	ga-splist.org
	TOT_POV	Poverty rate	US CENSUS
Housing and infrastructure	H_OWN	Ratio of owner occupied housing unit	US CENSUS
	H_M_VALUE	Median home value	
	R_H_PLUMBING	Ratio of housing units with complete plumbing facilities	
	R_H_WATER_SYSTEM90	Ratio of housing units whose source of water is public system or private company in 1990	
	R_H_SEWAGE_PUBLIC90	Ratio of housing units with public sewer system in 1990	
Transportation	TRAVEL_25	Ratio of workers who commute more than 25 minutes	US CENSUS
	WORKERS_HOME	Ratio of workers who work at home	
	WORKERS_DRIVE	Ratio of workers who drive alone for commuting	
	WORKERS_CARPL	Ratio of workers who carpool for commuting	
	WORKERS_DRIVE_GROWTH	Growth of workers who drive alone for commuting between 1990 and 2000	
	WORKERS_CARPL_GROWTH	Growth of workers who carpool for commuting between 1990 and 2000	
	TRAVEL_25_GROWTH	Growth of workers who commute more than 25 minutes between 1990 and 2000	
	INT_HWY	Miles of interstate highway within county	ESRI

4.3.2 Methods

The primary methodologies used in this study include both descriptive analysis and multivariate analysis. The trends for Georgia SPLOST election results between 1985 and March 2011 are analyzed using descriptive analysis for 1,413 election results. Specifically, the election results are explored to identify how voters' preferences for the SPLOSTs have changed over time in combination with their purposes.

In addition, multivariate analyses are employed to determine whether there are impacts of regional SPLOSTs on county-specific SPLOSTs and to identify the major factors associated with the passage of sales tax referenda in Georgia. However, since the regional SPLOSTs have not been implemented in Georgia, it is not possible to measure their actual impacts using existing historical regional SPLOST data. Instead, this research uses several proxy variables extracted from the historical data. We assume that the imposition of the regional SPLOSTs may increase voters' tax burden and possibly discourage their approval of additional (county-specific) SPLOSTs. It is also assumed that the introduction of the regional SPLOSTs might also influence the sensitivity of voters' response to new SPLOSTs when current SPLOSTs are enacted. Similarly, certain sales tax rates may indirectly influence the passage of regional SPLOSTs at the county level. Among the variables described in Table 13, the presence of existing ESPLOSTs, SPLOSTs, LOSTs, other LOSTs, and MARTA sales tax, and the actual sales tax rate when an election took place can represent possible tax burdens when it comes to imposing an additional regional SPLOSTs based on a 1% sales tax.

To measure the impacts of those variables on election results, either a Multilevel Model (or Linear Mixed Model) and a Generalized Estimating Equations (GEE) model is employed in order to take advantage of the fact that the SPLOST dataset is made up of longitudinal panel data. In other words, observations on referenda in each county may occur several times because most counties initiated multiple SPLOSTs between 1985 and March 2011. The presence of repeated observations makes the use of ordinary least squares problematic, because

it violates the assumption that observations are independent, thus leading to biased results. The Multilevel Model and the GEE model incorporate the possible correlation of observations into the statistical analysis. In the SPLOST dataset developed here for purposes of this study, a county variable showing 159 Georgia counties, is used as the subject level variable within the models.

4.3.2.1 Multilevel model

The primary objectives of this modeling analysis are to measure how much voters are willing to support SPLOSTs under the pressure of a given sales tax rate and existing SPLOSTs and to also identify the factors that affect their willingness to support SPLOSTs. The ratio of voters who supported a referendum to all voters who participated in the referendum is used as a dependent variable; the ratio represents the willingness of the electorate to support the referendum in a specific County. The results examine election results for all 1,413 referenda, and it examined separately referenda for transportation, education, capital outlay projects, and multi-purposes for transportation and other capital outlay projects. The following model structures³⁹ are employed:

$$PREFERENCE_ALL_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (1)$$

$$PREFERENCE_TRANS_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (2)$$

$$PREFERENCE_EDU_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (3)$$

³⁹ While, the first equation uses all 1,413 observations regardless of purposes of referenda, the second equation analyzes the referenda proposing transportation purpose only, the third equation does education only referenda, the fourth equation does capital outlay projects referenda, and the final equation is for multi-purposes referenda where both transportation and other capital outlay projects are mixed.

$$PREFERENCE_CAPITAL_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (4)$$

$$PREFERENCE_MULTI_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (5)$$

where i refers to an individual referendum proposed and t , to each year when the election took place. *PREFERENCE* is a dependent variable representing the percentage of voters who voted for a referendum. *SPLOST* includes election related variables. They include presence of existing SPLOSTs, a sales tax rate when an election took place, a dummy variable for the year of 1997 and over when ESPLOSTs were actively introduced, a length of projects proposed, and the purposes of referenda. *GEO* represents the characteristics of regional spatial structure, such as dummy variables for metropolitan county, Micropolitan County, and rural county, and dummy variables for the 12 special tax districts. *DEMO* and *ECON* includes socio-economic variables. Socio-demographic characteristics that may be related to voters' behavior are measured by ratios of different age groups, such as 'under 17' and 'over 65', and race. Economic characteristics are measured by ratio of employment by sectors, median household income, retail sales, and tax exportation, resending the degree of tax exportation to non-residents. It is expected that counties with higher-income level residents and higher tax-exportation potential, that can export some of their sales taxes to non-residents, are likely to adopt SPLOSTs. *HOUS* represents housing variables, including housing tenure, median housing value, plumbing facilities, and water and sewage systems. *TRANSPORT* includes transportation and infrastructure related variables, such as ratio of workers who commute more than 25 minutes, travel mode, and the length of interstate highways. A full list of variables and their descriptions are provided in Table 13.

4.3.2.2 Generalized Estimating Equations (GEE) model

While the multilevel model incorporates the percent of voters who are willing to support the SPLOST referenda, it does not address whether the referenda are passed or failed.

An efficient way to address this is to use a binary variable that represents a passage or failure of the referenda as a dependent variable. Since the dependent variable is a binary variable, a discrete-choice model, such as an ordered regression, is a useful tool rather than an ordinary regression model where a continuous variable is used as a dependent variable. Another issue regarding the use of the dataset is that same counties repeatedly appear in observations because each county has normally initiated several SPLOSTs over the last 26 years, generating a correlation issue among observations.

The Generalized Estimating Equations (GEE) model takes these two issues into account. In other words, a complete specification of distribution for a response variable and an independent characteristic among observations are not required within the GEE model.

Setting the passage of the referenda as a dependent variable and all other right-hand variables used in the multilevel model as independent variables, the following models are proposed, with:

$$PASS_ALL_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (6)$$

$$PASS_TRANS_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (7)$$

$$PASS_EDU_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (8)$$

$$PASS_CAPITAL_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (9)$$

$$PASS_MULTI_{it} = f(SPLOST_{it}, GEO_i, DEM_{it}, ECON_{it}, HOUS_{it}, TRANSPORT_{it}) \quad (10)$$

where *PASS* is a dependent variable showing the passage or failure of the SPLOST referenda.

4.4. Trend of One Percent Sales Tax Initiatives in Georgia

As of April 2011, all but five counties, including Cherokee, Cobb, DeKalb, Gwinnett, and Rockdale, out of 159 Georgia counties have adopted LOST. The five counties that have failed to gain voters' approval for or have not initiated LOST are located in the Atlanta Regional Commission district. Among them, Rockdale, Cherokee, and DeKalb counties have placed LOST measures on the ballot in 1989, 1993, and 1996, respectively, but voters in those counties did not approve them. As seen in Figure 19, a new LOST has not been initiated since 2002.

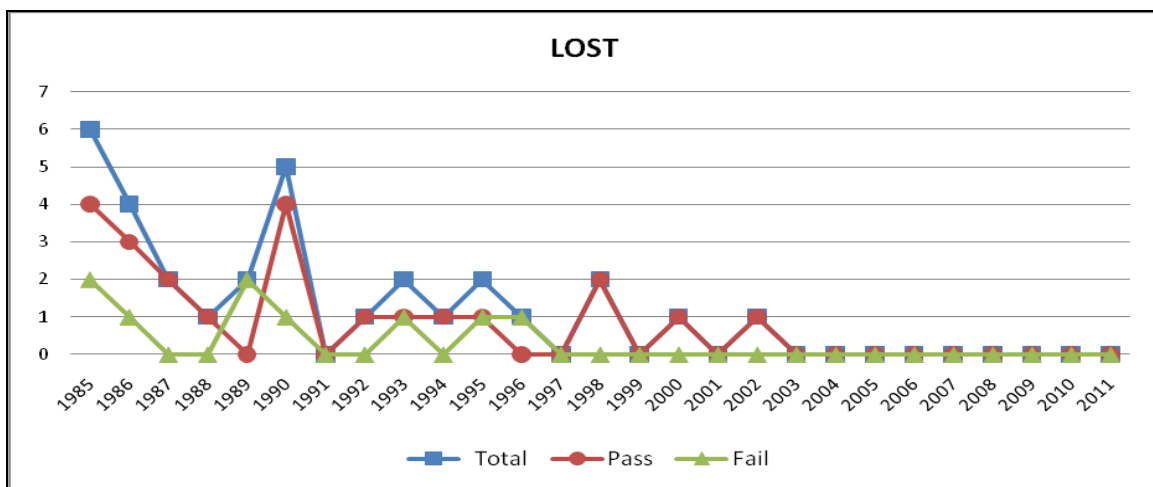


Figure 19. Trend of sales tax ballot measures for LOST in Georgia

4.4.1 Popular one percent sales tax uses for local projects

Overall, the number of one percent local option sales tax initiatives has increased along with an increase of passed ballot measures, while the number of failed measures has decreased (Figure 20). Approximately 90 percent of proposed ballot measures for a one percent local optional sales tax have been passed since 1985 when the SPLOST law was enacted (Table 14). Between 2005 and 2011 only, 96 percent of the proposed ballot measures got voters' approval, implying that Georgia voters are highly willing to support local projects.

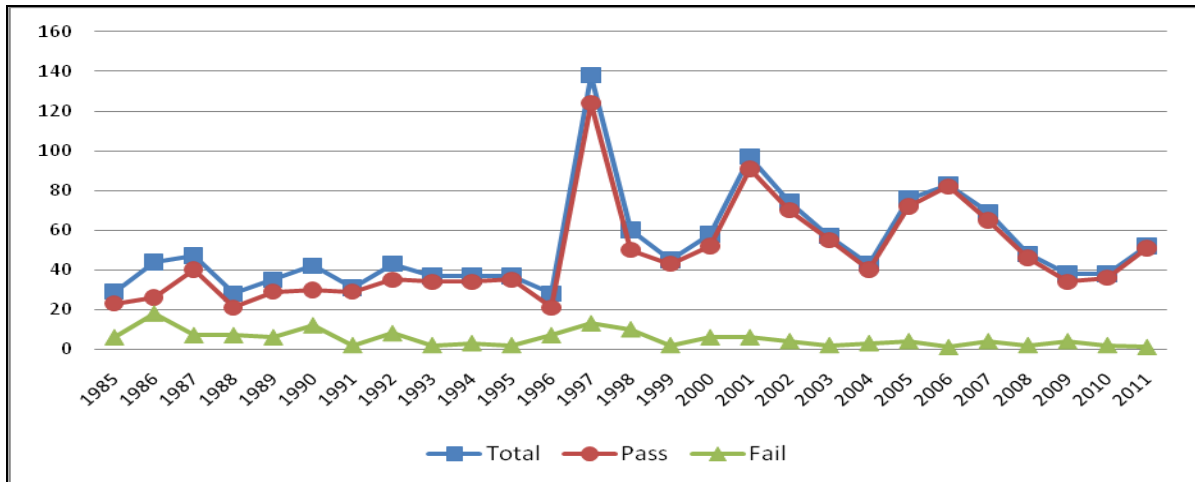


Figure 20. Trend of sales tax ballot measures in Georgia

Table 14. Voting results of one percent local option sales tax by purpose in Georgian (between 1985 and 2011)

	Purposes					Total
	Transportation	Education	Capital outlay	Multi-purpose: transportation and capital outlay project	LOST	
Pass	85 (73.9%)	487 (94.6%)	251 (86.6%)	417 (92.1%)	22 (71.0%)	1262 (89.9%)
Fail	30 (26.1%)	28 (5.4%)	39 (13.4%)	36 (7.9%)	9 (29.0%)	142 (10.1%)
Total	115	515	290	453	31	1404

Source: Data aggregated by authors from the 1% Sales Tax Election Results maintained by the Georgia Archives.

4.4.2 Higher preferences for ESPLOST

However, voters' willingness to pay for an increased sales tax may differ based on their needs and the type of projects proposed to be funded by the tax increase. For example, the initiatives for education purposes have gotten the highest support from voters, presenting an average 95 percent of success rate since 1997.

The number of initiatives proposed over the period also varies widely based on their purpose. Although the ESPLOST has a shorter history (15 years) compared with the history of LOST and SPLOST, its initiatives have been most popular in terms of the number of proposed

initiatives and its success rates. Since the ESPLOST law was enacted in 1996, ESPLOSTs have significantly contributed to a dramatic increase of one percent sales tax initiatives in Georgia (Figure 21). Figure 21 also shows that the frequency of ESPLOSTs has sharply increased almost every five years since 1997. This may be because the proposed term of both SPLOST and ESPLOST is five years and many ESPLOST initiatives have been renewed when they were close to expiring.

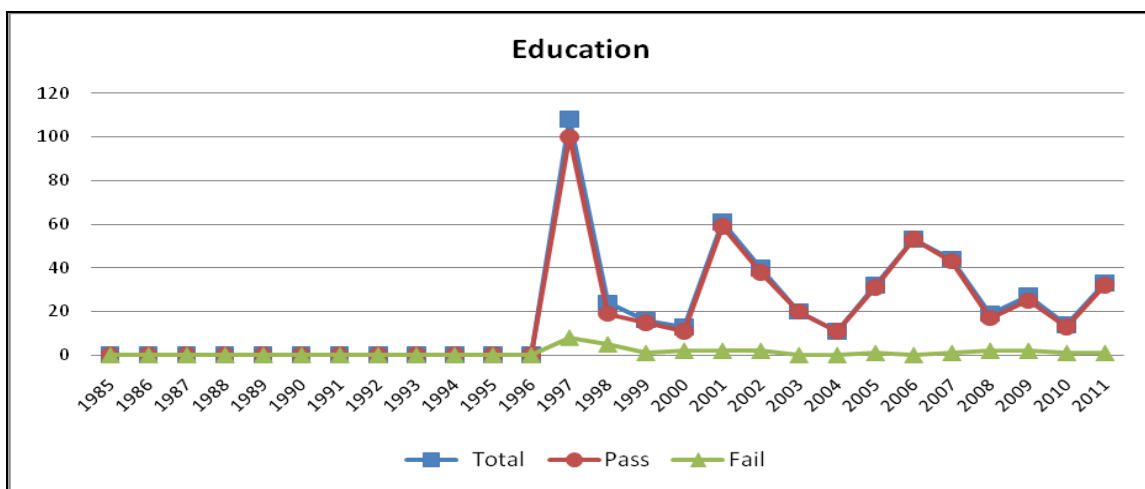


Figure 21. Trend of sales tax ballot measures for Education purpose in Georgia

4.4.3 Multi-purpose initiatives combining transportation and capital outlay projects

The SPLOST initiatives for transportation purposes only have had an approximate average success rate of 74 percent since 1985, which is the lowest rate besides the LOST initiatives⁴⁰, and both multi-purpose initiatives, including transportation and other capital outlay projects, and capital outlay projects only are ranked second and third, respectively. In particular, an average passage rate of the multi-purpose referenda for transportation and capital outlay

⁴⁰ The election results for LOST before 1984 were not included in this calculation. Since the LOST was enacted in 1975, the success rate of the whole LOST initiatives may be different. However, the calculations for SPLOSTs and ESPLOSTs are based on all their historical data.

projects is 92 percent, which is close to that of the education referenda. This means that transportation initiatives may have better chances of getting support from voters when they are combined with other capital outlay projects rather than proposed alone.

In terms of the frequency, the initiatives with transportation purposes only have been consistently decreasing to the point where there have not been any single transportation only initiative since 2008 (Figure 22), while those with multi-purpose initiatives for both transportation and other capital outlay projects have experienced some increases until 2009 when the current economic crisis affected all sectors (Figure 23). However, it has fared better than transportation only and capital outlay projects only referenda (Figure 24).

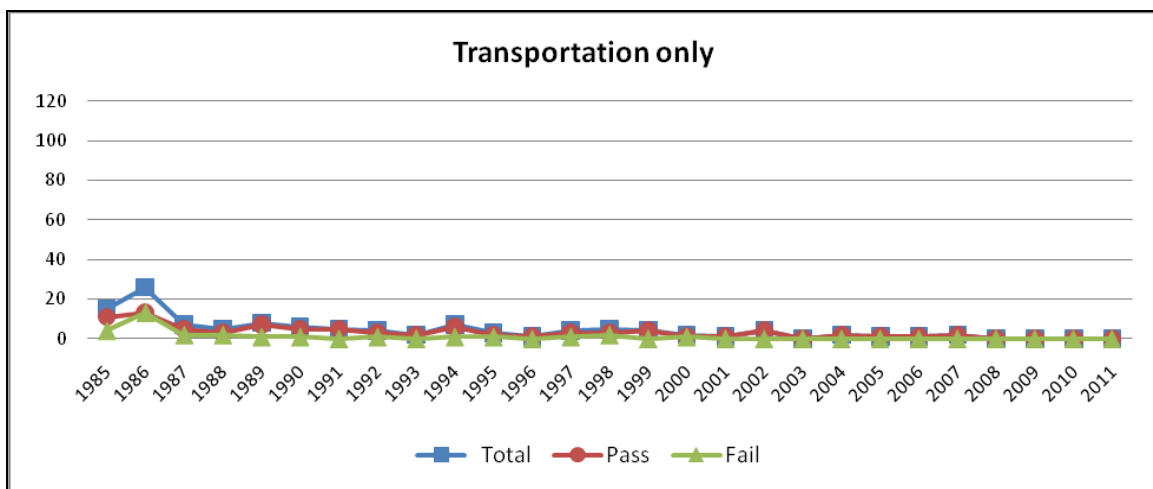


Figure 22. Trend of sales tax ballot measures for Transportation purpose in Georgia

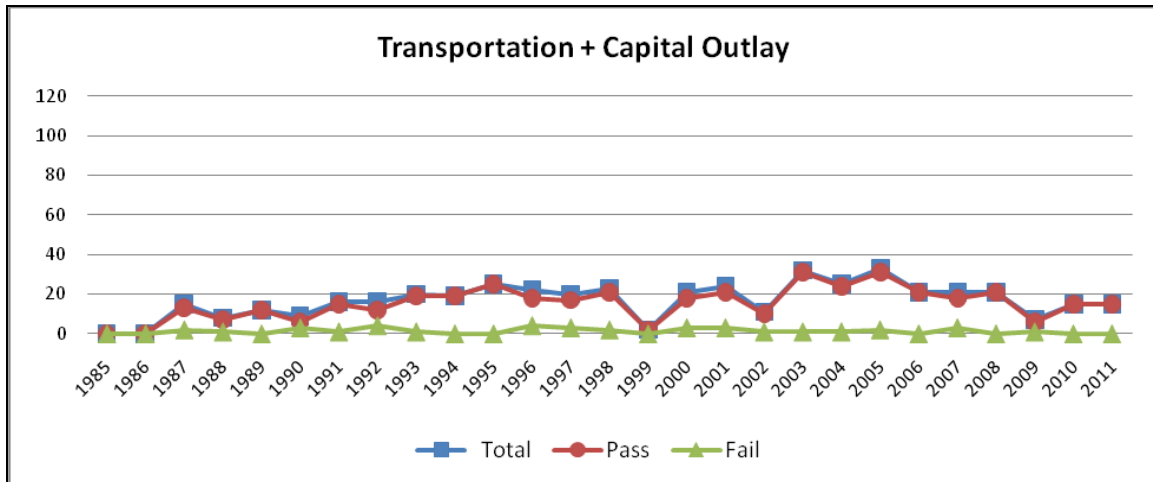


Figure 23. Trend of sales tax ballot measures for multi-purpose (Transportation and Capital Outlay) purposes in Georgia

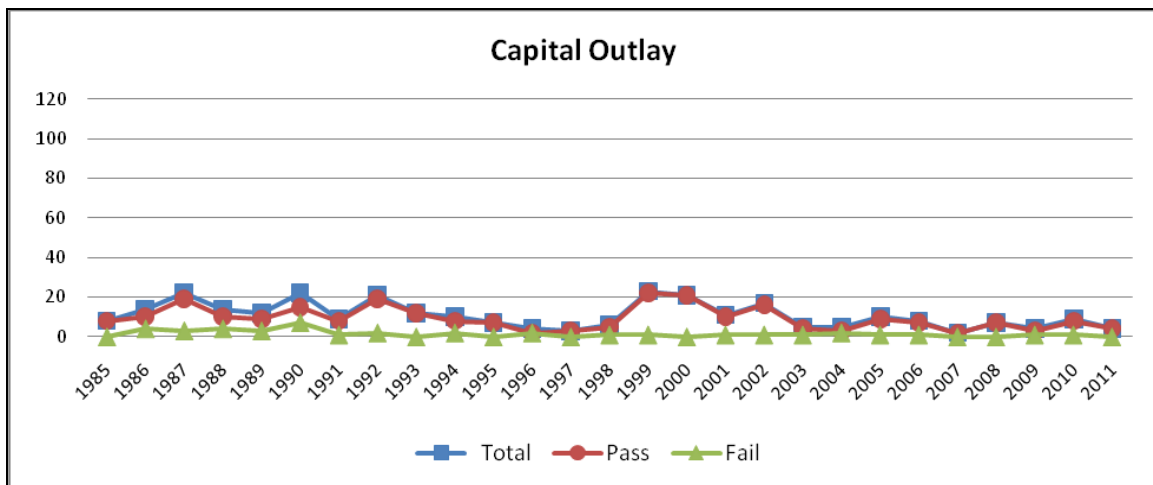


Figure 24. Trend of sales tax ballot measures for Capital Outlay purpose in Georgia

4.5 Major Factors Associated with Adoption of SPLOSTs and Their Implications for Regional and County-specific SPLOSTs

4.5.1 Main factors associated with voters' willingness to support for SPLOSTs by purpose

Five multilevel models are performed for the election results of the SPLOST referenda for (1) all purposes, (2) transportation only, (3) education only, (4) capital outlay projects only, and (5) multi-purpose for both transportation and other capital outlay projects. As mentioned earlier, these models use the ratio of voters who supported SPLOST referenda as the dependent variable, representing the willingness to support the SPLOSTs. Table 15 presents the estimation results of the refined models removing some correlated independent variables after testing multicollinearity and variables that are not statistically significant.

Some variables in the SPLOST category, such as the presence of existing ESPLOSTs, other LOSTs, and MARTA sales tax, have different signs of coefficients by equation, implying that the history of SPLOSTs may affect counties' SPLOST referenda differently depending on their purposes.

Overall, voters in the Heart of Georgia Altamaha district appear to be supportive for all purposes with a coefficient of 0.042 at the 11% significance level. Counties in Micropolitan areas, which is less urbanized than metropolitan areas but more urbanized than rural counties, tend to be supportive of capital outlay projects.

For demographic characteristics, the ratio of population aged over 65 has a negative sign in both all purposes and education models, suggesting that a 1 per cent increase in the ratio of population aged 65 and over may result in 0.10 per cent and 0.23 per cent decreases in the ratio of voters who support SPLOSTs as a whole and education SPLOSTs, respectively. Since the time period of most SPLOSTs is more than 5 years, this age group may not feel that they get immediate benefits from SPLOSTs, particularly education SPLOSTs. Interestingly, the ratio of White population has a positive effect on the support of educational SPLOSTs, but a negative

effect on the Transportation and the multi-purpose SPLOSTs. According to Table 15, a 1 per cent increase in the ratio of White population may increase 0.12 per cent of the ratio of voters who support education SPLOSTs, but reduce by 0.62 and 0.13 per cents the ratio of voters who support transportation and multi-purpose SPLOSTs, respectively. This means that counties with a higher portion of white residents tend to support more education SPLOSTs than transportation projects. On the other hand, counties with a higher ratio of Hispanic residents have a negative effect on the support of the education SPLOSTs, and those with a higher ration of Asian do have a positive effect on the support of the multi-purpose SPLOSTs.

For economic characteristics, counties with higher ratios of employment in farm and FIRE (Finance, Insurance, and Real Estate) industries have positive effects on SPLOSTs, while those counties with higher employment in other industries have negative effects. In particular, employment growths in the farm and FIRE industries have positive effects on transportation only SPLOSTs and construction has a negative effect. As expected, a higher retail sale per capita has a positive effect on the support of SPLOSTs, particularly education, capital outlay projects, and multi-purpose SPLOSTs. However, unexpectedly, the sales exportation rate turns out to be negative to SPLOSTs, possibly indicating that when voters decide on SPLOSTs they do not consider how much non-residents contribute to county's sales or they were not aware of such information.

In housing and infrastructure characteristics, the ratio of housing unit with public sewer system is negatively significant to SPLOSTs possibly reflecting that those counties with a higher ratio of public sewer systems might need less infrastructure construction. The ratio of owner occupied housing units has a negative effect on the SPLOSTs for transportation only projects. However, its effect on other SPLOSTs is not statistically significant.

For transportation characteristics, the length of interstate highway has a positive effect on the support of SPLOSTs for education purposes, while it has a negative effect on the transportation SPLOSTs. In general, counties with a higher rate of workers who commute more

than 25 minutes tend to be less supportive for SPLOSTs, particularly for multi-purpose SPLOSTs, although they show a positive sign for transportation only SPLOSTs.

The most important issue in this analysis is the relationship between voters' responses to SPLOSTs referenda and corresponding counties' historical characteristics of SPLOSTs. All dummy variables of education, capital outlay projects, and multi-purpose SPLOSTs have positive coefficients (0.137, 0.068, and 0.065, respectively), indicating that voters in Georgia counties are generally supportive for those SPLOSTs. In addition, the variable of years since the inception of SPLOSTs has statistically significant and positive coefficients with 0.058, 0.104, and 0.115, in all purposes, transportation only, and multi-purpose equations, respectively, reinforcing the notion that Georgia voters have been increasingly supportive for SPLOSTs since 1985 when the SPLOST law was enacted. However, it seems that after 1996 when the education SPLOST law was enacted, voters' preferences for transportation only projects and multi-purpose SPLOSTs have decreased (-0.154 and -0.095), while the preference for capital outlay projects is still positive (0.222).

A longer project period (or tax period) and multiple referenda where different purposes are separately proposed at the same time turned out to negatively affect SPLOSTs. These factors may make voters feel more tax burdened.

Overall, the presence of existing SPLOSTs and education SPLOSTs (ESPLOSTs) positively affect proposed SPLOSTs, while the presence of existing LOSTs has negative effects. Since the presence of existing SPLOSTs or ESPLOSTs implies that voters are considering their extension when a referendum is proposed, the results indicate that once either SPLOSTs or ESPLOSTs are adopted, voters are likely to extend these sales tax initiatives. However, when the effects of these variables are broken down by purpose, the results provide different implications. For example, the presence of ESPLOSTs has a positive coefficient (0.122) in the education equation, while it has a negative one (-0.134) in the capital outlay project equation, meaning that voters who are likely to extend existing ESPLOSTs are reluctant to support a new SPLOST for

capital outlay projects probably because this may increase taxes. Similarly, the presence of existing SPLOSTs only positively affects the capital outlay projects and multi-purpose SPLOSTs. The result is consistent with CFTE's (2006) conclusion that voters are less willing to support new tax initiatives. The presence of other LOSTs, which are usually 1 year temporary sales taxes at the local level of which 13 cases existed in Georgia counties as of 2011, negatively affects ESPLOSTs, but positively affects both transportation only and multi-purpose SPLOSTs.

On the one hand, a 1% MARTA sales tax, which is applied in Fulton and DeKalb counties and which does not have a sunset date, negatively affects transportation only SPLOSTs, while positively affecting other SPLOSTs for education and capital outlay projects. This indicates that the existing transit sales tax discourages voters to support additional transportation projects in those counties, while it does not prevent the adoption of education and capital outlay project SPLOSTs. However, generalizing this result to all Georgia counties are limited by the fact that only two counties, including Fulton and DeKalb, currently levy the 1% MARTA sales tax.

Based on the results from the Multilevel Models, it can be concluded that voters in Georgia counties are likely to extend existing SPLOSTs no matter what their purposes are. However, given the tax burden of existing SPLOSTs, it seems that they are reluctant to adopt a new SPLOST initiative for other purposes. In particular, the presence of existing education SPLOSTs decreases the willingness to support the SPLOSTs for capital outlay projects.

Table 15. Main Factors Associated With Willingness to Support SPLOSTs

Variables		All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
	Intercept	-0.7033***	-0.585***	-1.122***	-0.098	-1.173***
SPLOST	Existing ESPLOST present during election	0.047***	-	0.134***	-0.134**	0.053^
	Existing LOST present during election	-0.089**	-0.236***	-	-	-
	Existing SPLOST present during election	0.055***	-	-	0.066*	0.105***
	Existing Other LOST present during election	-	0.844***	-0.308**	-	0.301**
	MARTA 1% sales tax (DV)	0.157*	-1.236***	0.579***	0.504***	
	Years after 1996 when ESPLOST enacted (DV)		-0.154**	-	0.222***	-0.094**
	Years since the inception of SPLOSTs	0.058***	0.104***	-	-	0.115***
	Multiple referenda different purposes – not multiuse	-0.077*	-0.262*	-	-	-
	Project or tax period	-0.021**	-	-	-0.048*	-
	Education purpose (DV)	0.137***	-	-	-	-
	Capital outlay project purpose (DV)	0.068***	-	-	-	-
	Multiuse purpose - transport. and capital only (DV)	0.065**	-	-	-	-
Geography and built environment	RC 1: Northwest Georgia (DV)	-0.074***	0.440***	-0.095***	-	-
	RC 2: Georgia Mountains (DV)	-0.171***	0.544***		-	-
	RC 3: Atlanta Regional Commission (DV)	-	-	-0.167***	-	-
	RC 4: Three Rivers (DV)	-0.052^	-	-	-	-
	RC 5: Northeast Georgia (DV)		0.410***	-	-	-
	RC 6: Middle Georgia (DV)	-0.069**	0.291**	-0.064*	-	-
	RC 7: Central Savannah River Area (DV)	-	-	-	0.130**	
	RC 9: Heart of Georgia Altamaha (DV)	0.042^	0.396***	-	-	0.091***
	RC 11: Southern Georgia (DV)	-	0.282***	-	-	-
	RC 12: Coastal (DV)	-	0.305***	-	-	0.169***
Demography	Micropolitan County (DV)	-	-	-	0.063*	-
	Ratio population 65+ to total population	-0.102***		-0.225***	-	-
	Ratio of White Population	-	-0.623***	0.122**	-	-0.132***
	Ratio of Asian Population	-	-	-	-	0.017**
Economy	Ratio of Hispanic Population	-	-	-0.038**	-	-
	Employment growth	-	0.701***	0.058***	-	-
	Ratio of Farm employment to total employed	0.043***	0.065**	-	0.046***	0.050***
	Ratio of Forestry, Fishing, etc. to total employed	-0.009^	-	-	-	-
	Ratio of Construction employment to total employed	-	-0.092*	-0.041*	-0.054*	-
	Ratio of Manuf. employment to total employed	-	-	-0.009**	-	-
	Ratio of Finance/Insurance/etc. employment to total employed	0.037**	0.199***	-	-	-
	Ratio of Management/Admin/etc. employment to total employed	-0.038***	-	-0.054***		-0.041**
	Ratio of Health Care/Arts/Ent./etc. employment to total employed	-	-	-	-	-0.088**
	Gross Regional Product per Capita	-	-	-	-0.193***	-
	Total Retail and Food Service Sales per Capita	0.062***	-	0.065***	0.131***	0.074**
Housing and infrastructure	Sales Exportation Rate	-0.037*	-	-	-	-0.053*
	Ratio of owner occupied housing unit		-0.632***	-	-	-
	Ratio of housing units with public sewer system (1990)	-0.030*	-	-0.036*	-	-0.074***

(continued)

Variables		All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
Transportation	Miles of Interstate Highway in County	0.002**	-0.007**	0.003***	-	-
	Growth of workers who commute > 25mins. (1990-2000)	-	-	-0.208**	-	-
	Growth of workers who carpool for commute (1990-2000)	-	-	0.177***	-	-
	Ratio of workers who commute >25 minutes	-0.053*	0.167**	-	-	-0.137***
	Ratio of workers who drive alone for commute	-	-	-	-	0.205**
	Ratio of workers who carpool for commute	0.068**	-	-	-	-

Note: DV = dummy variable, *** significant at the 1% level, ** significant at the 5% level, * significant at the 10% level, and ^ significant at the 11% level.

4.5.2 Main factors associated with the odds of adopting SPLOSTs by purpose

To identify major factors that affect the passage of SPLOSTs, the Generalized Estimating Equations (GEE) model where a binary variable (pass/fail) is used as a dependent variable is conducted for five equations: (6) all purposes, (7) transportation only, (8) education only, (9) capital outlay projects only, and (10) multi-purposes for both transportation and other capital outlay projects. Table 16 presents the final estimation results of the GEE models, and Table 17 the odd ratios of statistically significant variables. The model estimates the odds of an electorate adopting a SPLOST contingent upon the variables included in the equation. Variables that are significant and positive represent an increase in the odds of adopting a SPLOST. Variables that are significant and negative represent a reduction in the odds of adopting.

For geographic characteristics, a dummy variable for Metropolitan counties is positive and statistically significant in the education and capital outlay project equations, meaning that more urbanized counties are more likely to pass education and capital outlay SPLOSTs compared with rural counties. The result is consistent with Jung's (2002) and Pajari's (1984) findings that sales tax initiatives are more likely to be passed in areas with greater urbanization and a significant retail tax base that may not be found in rural counties.

In demographic characteristics, counties with a higher rate of population aged over 65 are less likely to pass SPLOSTs, particularly the education and multi-purpose SPLOSTs, and those with a higher ratio of White population have a negative effect on the passage of multi-purpose SPLOSTs. According to Table 17, an increase of the ratio of population with age 65 and over from its current average value has reduced the odds of the education and multi-purpose referenda passing by 99 per cent. Overall, an Asian population has a positive effect on the adoption of SPLOSTs, particularly education SPLOSTs.

For economic characteristics, most variables statistically significant in the multilevel models also have the same signs in the GEE models. The retail and food service sales per capita

have increased the odds of the SPLOST referendum passing by 99 per cent, the sales exportation rate has reduced the odds of the multi-purpose SPLOSTs passing by 71 per cent.

Similar to the results of the Multilevel Models, education, capital outlay projects, and multi-purpose SPLOSTs are more likely to be passed. Overall, the variation in years since the inception of SPLOSTs has a positive effect on the passage of SPLOSTs, particularly for transportation only projects and multi-purpose ones, although it has a negative effect on capital outlay projects.

The presence of existing ESPLOSTs has a positive effect on the passage of the education SPLOSTs only, showing that the odds of it passing are approximately 4 times the odds of it not passing. Also, the existing SPLOSTs positively affect the passage of capital outlay projects and multi-purpose SPLOSTs, indicating that the odds of them passing are 5.1 and 2.8 times the odds of them not passing, respectively. This implies that existing SPLOSTs are likely to be extended in the next term. However, it may be difficult for a new SPLOST to be passed when another SPLOST with other purposes is already being levied.

Given the tax burden of existing SPLOSTs, levies such as the existing county-specific SPLOSTs for capital outlay projects and ESPLOSTs may be a major hurdle for adopting the regional SPLOSTs. Bearing in mind the results from both the multilevel and the GEE models, to ensure a successful implementation of regional SPLOSTs, it would be important to analyze what SPLOSTs, such as transportation, education, capital outlay projects, and multi-purpose SPLOSTs, are currently imposed in each county to develop appropriate and effective outreach and marketing strategies. There is also a need to emphatically emphasize the point that a certain amount of proceeds from the proposed regional SPLOSTs would be earmarked for local (county) transportation projects as well.

Given the relationship between voters' behavior and election results, it is expected that the new regional SPLOSTs would bring a minimal or no negative effect on local level transportation projects because the regional SPLOST itself partly contributes to local level

projects. Also, the regional SPLOSTs may not significantly affect the education SPLOSTs because 157⁴¹ Georgia counties out of 159 already have active ESPLOSTs, and, if needed, they may likely be extended with the same purposes given the historical high rate of passage of ESPLOSTs. However, the regional SPLOSTs, which include only transportation projects, may generate a possible negative impact on new SPLOSTs for other capital outlay projects at the local level, particularly when both ESPLOSTs and the regional SPLOSTs are active in a county.

⁴¹ 56 of them will be expired before the election of the regional SPLOSTs in 2012.

Table 16. Main Factors Associated With Adoption of SPLOSTs

	Variables	All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
	Intercept	-2.361	3.518*	-11.4318	25.633	5.700
SPLOST	Existing SPLOST present during election	-	-	1.408***	-	-
	Existing LOST present during election	-1.020***	-2.310***	-	-	-4.363***
	Existing SPLOST present during election	0.812***	-	-	1.639***	1.029**
	Existing Other LOST present during election	-	-	3.477*	-	-
	Years since the inception of SPLOSTs	0.345***	0.929***	-	-0.717**	1.663***
	Project or tax period	-	-	-7.334***	-	-
	Education purpose (DV)	1.060***	-	-	-	-
	Capital outlay project purpose (DV)	0.836***	-	-	-	-
	Multiuse purpose - transport. and capital only (DV)	0.814**	-	-	-	-
Geography and built environment	RC 1: Northwest Georgia (DV)	-	-	-1.931***	-2.286***	-7.478*
	RC 2: Georgia Mountains (DV)	-	1.124*	-1.703*	-	-
	RC 3: Atlanta Regional Commission (DV)	-1.314***	-2.296**	-3.759***	-2.865***	-8.382**
	RC 4: Three Rivers (DV)	-	-	-2.846***	-1.416*	-6.740*
	RC 5: Northeast Georgia (DV)	-	-	-1.721*	-	-9.017**
	RC 6: Middle Georgia (DV)	-0.829***	-	-1.878***	-2.835***	-8.925**
	RC 7: Central Savannah River Area (DV)	-	-	-	-	-9.276**
	RC 9: Heart of Georgia Altamaha (DV)	-	-	-	-	-8.609**
	RC 10: Southwest Georgia (DV)	-	-	-	-	-8.535**
	RC 11: Southern Georgia (DV)	-	-	-	-	-9.355**
	RC 12: Coastal (DV)	0.846*	-	-	-	-
	Metropolitan County (DV)	-	-	1.656**	1.135**	-
	Micropolitan County (DV)	-	-	-	2.090***	-1.849***
Demography	Population growth	-	-	-7.841**	-	-8.642***
	Ratio population <17 to total population	-	-	-	-6.750***	-
	Ratio population 65+ to total population	-0.860**	-	-4.568***	-	-4.197***
	Ratio of White Population	-1.183***	-	-	-	-4.160***
	Ratio of Asian Population	0.249***	-	0.795***	-	0.844***
	Ratio of Hispanic Population	-	-	-0.715*	-	-
Economy	Ratio of Farm employment to total employed	0.391***	-	0.966***	-	1.050***
	Ratio of Forestry, Fishing, etc. to total employed	-	-	-0.873***	0.507***	0.485*
	Ratio of Utilities employment to total employed	-	-	-0.083**	-	0.116**
	Ratio of Construction employment to total employed	-	-	-	-0.864**	1.800**
	Ratio of Manuf. employment to total employed	-0.245**	-	-0.292***	-0.904***	-
	Ratio of Wholesale employment to total employed	-0.284***	-	-0.861**	-	-
	Ratio of Retail employment to total employed	-	-	-3.325***	-	-
	Ratio of Information/Professional/Tech. Services employment to total employed	-	-	-	1.739***	-
	Ratio of Finance/Insurance/etc. employment to total employed	0.643**	1.466***	-	-1.531***	-

(continued)

Variables		All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
Economy	Ratio of Management/Admin/etc. employment to total employed	-0.718***	-0.983*	-	-	-1.372***
	Ratio of Educational Services employment to total employed	-0.134**	-	-0.767***	-	-
	Ratio of Federal Gov. employment to total employed	-	-	-1.397***	-	-
	Total Personal Income per Capita (2004 \$)	-	-	-	-3.199**	-
	Total Retail and Food Service Sales per Capita	0.689***	-	2.844***	1.377***	-
	Sales Exportation Rate	-	-	-	-	-1.226*
Infrastructure	Ratio of housing units with public sewer system (1990)	-0.396*	-	-1.502***	-	-1.560**
Transportation	Growth of workers who carpool for commute (1990-2000)	-	-2.385**	-	-	-
	Ratio of workers who commute >25 minutes	-	-	-	2.851***	-5.424***
	Ratio of workers who drive alone for commute	1.108**	-	-	-	-

Note: DV = dummy variable, *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

Table 17. Odd Ratios of Main Factors Associated With Adoption of SPLOSTs

	Variables	All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
SPLOST	Existing ESPLOST present during election	-	-	4.089***	-	-
	Existing LOST present during election	0.361***	0.099***	-	-	0.013***
	Existing SPLOST present during election	2.251***	-	-	5.148***	2.798**
	Existing Other LOST present during election	-	-	32.364*	-	-
	Years since the inception of SPLOSTs	1.411***	2.532***	-	0.488**	5.274***
	Project or tax period	-	-	0.001***	-	-
	Education purpose (DV)	2.886***	-	-	-	-
	Capital outlay project purpose (DV)	2.306***	-	-	-	-
	Multiuse purpose - transport. and capital only (DV)	2.257**	-	-	-	-
Geography and built environment	RC 1: Northwest Georgia (DV)	-	-	0.145***	0.102***	0.0006*
	RC 2: Georgia Mountains (DV)	-	3.077*	0.182*		
	RC 3: Atlanta Regional Commission (DV)	0.269***	0.101**	0.023***	0.057***	0.0002**
	RC 4: Three Rivers (DV)	-	-	0.058***	0.243*	0.001*
	RC 5: Northeast Georgia (DV)	-	-	0.179*	-	0.0001**
	RC 6: Middle Georgia (DV)	0.437***	-	0.153***	0.059***	0.0001**
	RC 7: Central Savannah River Area (DV)	-	-	-	-	0.0001**
	RC 9: Heart of Georgia Altamaha (DV)	-	-	-	-	0.0002**
	RC 10: Southwest Georgia (DV)	-	-	-	-	0.0002**
	RC 11: Southern Georgia (DV)	-	-	-	-	0.0001**
	RC 12: Coastal (DV)	2.330*	-	-	-	-
	Metropolitan County (DV)	-	-	5.237**	3.111**	-
	Micropolitan County (DV)	-	-	-	8.084***	0.158***
Demography	Population growth	-	-	0.0004**	-	0.0002**
	Ratio population <17 to total population	-	-	-	0.001***	-
	Ratio population 65+ to total population	0.423**	-	0.010***	-	0.015***
	Ratio of White Population	0.307***	-	-	-	0.016***
	Ratio of Asian Population	1.283***	-	2.215***	-	2.327***
	Ratio of Hispanic Population	-	-	0.489*	-	-
Economy	Ratio of Farm employment to total employed	1.478***	-	2.628***	-	2.857***
	Ratio of Forestry, Fishing, etc. to total employed	-	-	0.418***	1.660***	1.624*
	Ratio of Utilities employment to total employed	-	-	0.920**	-	1.123**
	Ratio of Construction employment to total employed	-	-	-	0.422**	6.049**
	Ratio of Manuf. employment to total employed	0.783**	-	0.747***	0.405***	-
	Ratio of Wholesale employment to total employed	0.753***	-	0.423**	-	-
	Ratio of Retail employment to total employed	-	-	0.036***	-	-
	Ratio of Information/Professional/Tech. Services employment to total employed	-	-	-	5.692***	-
	Ratio of Finance/Insurance/etc. employment to total employed	1.902**	4.332***	-	0.216***	-
	Ratio of Management/Admin/etc. employment to total employed	0.488***	0.374*	-	-	0.254***
	Ratio of Educational Services employment to total employed	0.875**	-	0.464***	-	-
	Ratio of Federal Gov. employment to total employed	-	-	0.247***	-	-

(continued)

	Variables	All purposes	Transportation only	Education only	Capital outlay	Multi-purposes
Economy	Total Personal Income per Capita (2004 \$)	-	-	-	0.041**	-
	Total Retail and Food Service Sales per Capita	1.992***	-	17.190***	3.964***	-
	Sales Exportation Rate	-	-	-	-	0.294*
Infrastructure	Ratio of housing units with public sewer system (1990)	0.673*		0.223***		0.210**
Transportation	Growth of workers who carpool for commute (1990-2000)	-	0.092**	-	-	-
	Ratio of workers who commute >25 minutes	-	-	-	17.300***	0.004***
	Ratio of workers who drive alone for commute	3.028**	-	-	-	-

Note: DV = dummy variable, *** significant at the 1% level, ** significant at the 5% level, and * significant at the 10% level.

5. CHARACTERISTICS OF SPECIAL TAX DISTRICTS AND IMPLICATIONS FOR REGIONAL SPLOSTs IN GEORGIA

5.1 Overview

This section examines the characteristics of 12 special tax districts in Georgia focusing on their historical voting results for SPLOSTs using the election results of one percent sales tax measures voted between 1985 and March 2011. In particular, the analysis identifies major factors associated with the voting results, providing implications for the impacts of regional SPLOSTs on county-specific SPLOSTs for transportation and infrastructure.

5.2 Trends of SPLOSTs by Purpose and Special Tax District

As seen in Table 18, there have been 1,413 sales tax initiatives, including LOST, SPLOST, and ESPLOST, between 1985 and March 2011. Among them, the Southern Georgia district has proposed the largest number of initiatives during this time period among the 12 special tax districts. The Northwest Georgia and the Heart of Georgia Altamaha districts ranked the second and the third with 141 and 140 sales tax initiatives, respectively. Besides the River Valley district, where the city of Columbus is located, which ranks the fourth, most districts accommodating large urbanized areas ranked at a lower level. For example, the Atlanta Regional Commission district, which houses a capital city of Georgia, ranks tenth out of the 12 special tax districts with 98 sales tax initiatives during the same time period. The Central Savannah River Area district with Savannah and the Middle Georgia district with Macon are ranked seventh and the ninth, respectively.

However, this does not mean that the sales tax initiatives for local projects are more popular in less dense (or rural) special tax districts because the number of counties, which may be correlated with the number of the initiatives, varies by district. For example, the last two rows of Table 18 show that the number of counties of special districts ranges from 10 to 18, but an

average number of the sales tax initiatives for local projects per county does not vary much by special tax district, ranging from 7.7 to 10.0.

Table 18. One percent sales tax initiatives by purpose and district (1985 – March 2011)

Purposes		Northwest Georgia	Georgia Mountains	Atlanta Regional Commission	Three Rivers	Northeast Georgia	Middle Georgia	Central Savannah River Area	River Valley	Heart of Georgia Altamaha	Southwest Georgia	Southern Georgia	Coastal	Total
Transportation only	Pass	7 (5%)	8 (6%)	8 (8%)	0 (0%)	6 (5%)	6 (6%)	7 (6%)	11 (8%)	6 (4%)	5 (5%)	14 (9%)	7 (8%)	84 (6%)
	Fail	1 (1%)	2 (2%)	6 (6%)	2 (2%)	0 (0%)	1 (1%)	2 (2%)	6 (5%)	2 (1%)	2 (2%)	4 (3%)	2 (2%)	30 (2%)
Education only	Pass	49 (35%)	44 (34%)	29 (30%)	33 (38%)	36 (31%)	37 (35%)	35 (32%)	53 (40%)	48 (34%)	39 (36%)	55 (34%)	29 (34%)	487 (34%)
	Fail	2 (1%)	2 (2%)	3 (3%)	2 (2%)	1 (1%)	5 (5%)	2 (2%)	4 (3%)	4 (3%)	0 (0%)	1 (1%)	2 (2%)	28 (2%)
Capital outlay only	Pass	25 (18%)	27 (21%)	15 (15%)	15 (17%)	19 (16%)	20 (19%)	25 (23%)	25 (19%)	23 (16%)	21 (19%)	24 (15%)	12 (14%)	251 (18%)
	Fail	8 (6%)	3 (2%)	4 (4%)	4 (5%)	4 (3%)	9 (9%)	1 (1%)	0 (0%)	2 (1%)	1 (1%)	3 (2%)	0 (0%)	39 (3%)
Multi-purpose (Transport+Capital)	Pass	39 (28%)	36 (28%)	18 (18%)	27 (31%)	40 (34%)	25 (24%)	33 (30%)	30 (23%)	49 (35%)	36 (33%)	52 (33%)	32 (38%)	417 (30%)
	Fail	6 (4%)	0 (0%)	7 (7%)	2 (2%)	5 (4%)	2 (2%)	3 (3%)	1 (1%)	3 (2%)	2 (2%)	5 (3%)	0 (0%)	36 (3%)
LOST	Pass	2 (1%)	6 (5%)	2 (2%)	1 (1%)	2 (2%)	0 (0%)	2 (2%)	1 (1%)	2 (1%)	2 (2%)	1 (1%)	1 (1%)	22 (2%)
	Fail	0 (0%)	1 (1%)	4 (4%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	1 (1%)	0 (0%)	1 (1%)	0 (0%)	9 (1%)
Total (1985-March 2011) ⁴²		141(100%)	130(100%)	98 (100%)	87(100%)	116(100%)	105(100%)	110(100%)	133(100%)	140(100%)	108(100%)	160(100%)	85(100%)	1,413(100%)
Number of counties		15	13	10	10	12	11	13	16	17	14	18	10	159
Total initiatives per county		9.4	10.0	9.8	8.7	9.7	9.5	8.5	8.3	8.2	7.7	8.9	8.5	8.9

⁴² The total number of one percent sales tax initiatives includes 11 missing values that did not specify the purposes of the initiatives.

Each special tax district has different characteristics of demography, economy, and infrastructure needs that may be attributed to different statistics of one percent sales tax initiatives. Figures 25 and 26 present the share of five different purposes of the initiatives, including transportation only, education, capital outlay projects only, multi-purpose with transportation and other capital outlay projects, and SPLOST, by district.

Overall, the one percent sales tax initiatives for education and multi-purposes account for the majority of passed initiatives in most districts (Figure 25). Education is the most popular purpose of the sales tax initiatives in all special districts but the Northeast Georgia, the Heart of Georgia Altamaha, and the Coastal districts where an investment on multi-purpose projects for transportation and other capital outlay projects is a dominant purpose of the initiatives.

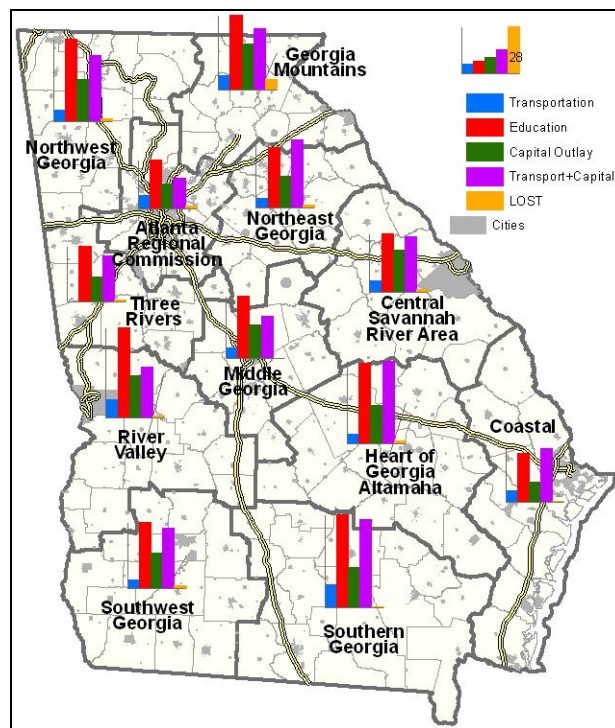


Figure 25. One percent sales tax initiatives PASSED by district since 1985

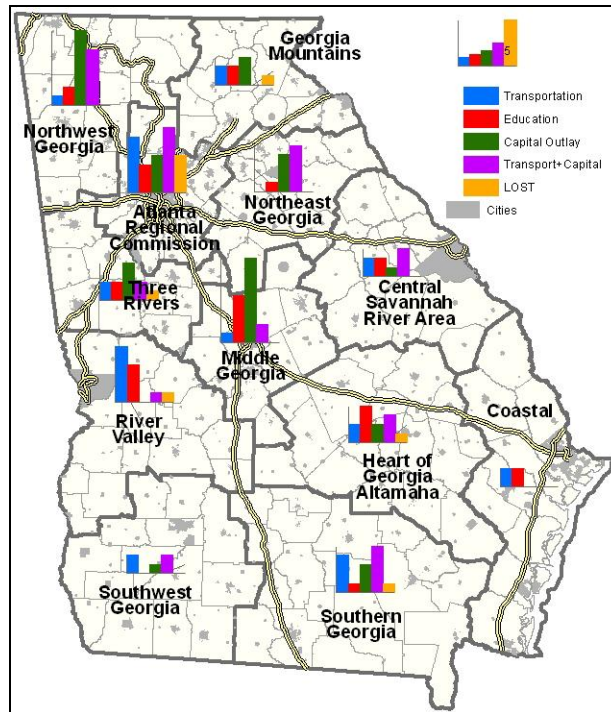


Figure 26. One percent sales tax initiatives FAILED by district since 1985

If multi-purpose initiatives (combination of transportation and capital outlay projects) are taken into account, a transportation use has a fair share of the sales tax initiatives although the share of the transportation purpose only is small. For example, 7 special tax districts, including the Georgia Mountains, Northeast Georgia, Central Savannah River Area, Heart of Georgia Altamaha, Southwest Georgia, Southern Georgia, and Coastal, have so far passed more transportation referenda, which list transportation projects with or without other capital outlay projects, than educational ones.

Out of 84 passed initiatives for transportation purpose only, 14 initiatives, which account for 17 percent of transportation only initiatives, were passed in the Southern Georgia district, followed by 11 initiatives in the River Valley district. The Three Rivers district has never passed an initiative for transportation purpose only since the inception of the SPLOST. The Atlanta Regional Commission and the River Valley districts also have higher failed rates of transportation

only initiatives. For example, failed transportation only initiatives account for 6 percent of the total proposed sales tax initiatives in the Atlanta Regional Commission district between 1985 and March 2011, and 5 percent of the River Valley district (Table 18). Figure 26 also shows that more transportation only initiatives have been failed in the Atlanta Regional Commission and the River Valley districts than in any other districts.

Since the education SPLOST law was enacted in 1996, the initiatives of other purposes, particularly transportation only, have been directly and indirectly affected by this new initiative. An education only has issued 515 referenda, 487 of which have been passed, between 1997 and March 2011. For transportation only referenda proposed before 1997, although only 63 of them were passed. After the ESPLOST was introduced, only 26 transportation only referenda have been proposed. This is almost one third of the initiated during the previous 11 years (1985 and 1996). The capital outlay project referenda have been stagnant with a gradual decrease (Table 19).

However, in addition to the popularity of ESPLOSTs, multi-purpose referenda played a major role in increasing the use of SPLOSTs. Over the last 26 years, 471 multi-purpose initiatives have been approved in Georgia, which account for approximately 24 percent of the total referenda (including rejected ones) proposed during the same time period. Between 1997 and March 2011 only, 271 multi-purpose referenda, the second largest purpose next to the educational purpose, were passed. Given the decreasing proposal rate of transportation only referenda, the increase of multi-purpose referenda indicates that counties increasingly tend to issue combined referenda with transportation and other capital outlay projects rather than proposing either transportation or capital outlay projects only. Also, voters' preference for the multi-purpose referenda has been increased since the ESPLOSTs have been introduced. For example, the 90.1% passage rate of the multi-purpose referenda between 1985 and 1997 has been increased to 93.1% over the last 15 years since 1997.

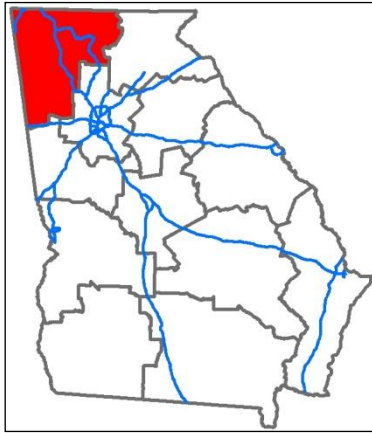
With respect to this trend, detailed election results of each special tax district are discussed in the next section.

Table 19. One percent sales tax initiatives before and after the ESPLOST law by purpose and district

	Purposes		Northwest Georgia	Georgia Mountains	Atlanta Regional Commission	Three Rivers	Northeast Georgia	Middle Georgia	Central Savannah River Area	River Valley	Heart of Georgia Altamaha	Southwest Georgia	Southern Georgia	Coastal	Total
Before ESPLOST (1985-1996)	Transportation only	Pass	5 (4%)	7 (5%)	7 (7%)	0 (0%)	6 (5%)	6 (6%)	4 (4%)	6 (5%)	3 (2%)	5 (5%)	8 (5%)	6 (7%)	63(4%)
		Fail	0 (0%)	2 (2%)	5 (5%)	2 (2%)	0 (0%)	1 (1%)	2 (2%)	5 (4%)	2 (1%)	2 (2%)	3 (2%)	2 (2%)	26(2%)
	Capital outlay only	Pass	14 (10%)	20 (15%)	7 (7%)	11 (13%)	9 (8%)	8 (8%)	17 (15%)	10 (8%)	10 (7%)	6 (6%)	10 (6%)	5 (6%)	127(9%)
		Fail	7 (5%)	3 (2%)	2 (2%)	1 (1%)	3 (3%)	5 (5%)	1 (1%)	0 (0%)	2 (1%)	1 (1%)	3 (2%)	0 (0%)	28(2%)
	Multi-purpose (Transport+Capital)	Pass	10 (7%)	8 (6%)	7 (7%)	6 (7%)	17 (15%)	6 (6%)	9 (8%)	12 (9%)	20(14%)	13(12%)	24 (15%)	14 (16%)	146(10%)
		Fail	3 (2%)	0 (0%)	1 (1%)	1 (1%)	4 (3%)	1 (1%)	1 (1%)	1 (1%)	0 (0%)	0 (0%)	4 (3%)	0 (0%)	16(1%)
	LOST	Pass	2 (1%)	4 (3%)	1 (1%)	1 (1%)	2 (2%)	0 (0%)	2 (2%)	0 (0%)	2 (1%)	2 (2%)	1 (1%)	1 (1%)	18(1%)
		Fail	0 (0%)	1 (1%)	4 (4%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	1 (1%)	0 (0%)	1 (1%)	0 (0%)	9(1%)
	Sub-total (1985-1996)			42 (30%)	45 (35%)	34 (35%)	23(26%)	43(37%)	27(26%)	36 (33%)	36(27%)	40(29%)	29(27%)	54 (34%)	28 (33%)
After ESPLOST (1997-March 2011)	Transportation only	Pass	2 (1%)	1 (1%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	3 (3%)	5 (4%)	3 (2%)	0 (0%)	6 (4%)	1 (1%)	22 (1%)
		Fail	1 (1%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)	1 (1%)	0 (0%)	4 (0%)
	Education only	Pass	49 (35%)	44 (34%)	29 (30%)	33(38%)	36 (31%)	37(35%)	35 (32%)	53(40%)	48(34%)	39 (36%)	55 (34%)	29 (34%)	487 (25%)
		Fail	2 (1%)	2 (2%)	3 (3%)	2 (2%)	1 (1%)	5 (5%)	2 (2%)	4 (3%)	4 (3%)	0 (0%)	1 (1%)	2 (2%)	28 (1%)
	Capital outlay only	Pass	11 (8%)	7 (5%)	8 (8%)	4 (5%)	10 (9%)	12(11%)	8 (7%)	15(11%)	13 (9%)	15(14%)	14 (9%)	7 (8%)	124 (6%)
		Fail	1 (1%)	0 (0%)	2 (2%)	3 (3%)	1 (1%)	4 (4%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)
	Multi-purpose (Transport+Capital)	Pass	29(21%)	28 (22%)	11(11%)	21(24%)	23 (20%)	19(18%)	24(22%)	18(14%)	29(21%)	23(21%)	28 (18%)	18(21%)	271(14%)
		Fail	3 (2%)	0 (0%)	6 (6%)	1 (1%)	1 (1%)	1 (1%)	2 (2%)	0 (0%)	3 (2%)	2 (2%)	1 (1%)	0 (0%)	20 (1%)
	LOST	Pass	0 (0%)	2 (2%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (0%)
		Fail	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Sub-total (1997-March 2011)			99(70%)	85(65%)	64(65%)	64(74%)	73(63%)	78(74%)	74(67%)	97(73%)	100(71%)	79(73%)	106(66%)	57(67%)
Total (1985-March 2011)			141 (100%)	130 (100%)	98 (100%)	87 (100%)	116 (100%)	105 (100%)	110 (100%)	133 (100%)	140 (100%)	108 (100%)	160 (100%)	85 (100%)	1,413 (100%)

5.3 Characteristics of SPLOSTs within Special Tax Districts

5.3.1 Northwest Georgia District



There were 141 one percent sales tax initiatives proposed within the Northwest Georgia district between 1985 and 2011 (March). Among them, 121 ballot measures were approved by voters presenting 87.9 percent of passage rate, which is slightly lower than a statewide average rate (89.8%) of passage during the same time period.

However, the ballot measures with transportation purpose only in this district had a higher passage rate than other parts of the state, while those for capital outlay projects and multi-purposes (transportation and other capital outlay projects) were less successful than the state as a whole. For example, 87.5 percent of transportation purpose only ballot measures (7 cases) were passed in the Northwest Georgia district, while its statewide passage rate is 73.7 percent with 84 passed measures (Table 21). Same as other districts, an education is a dominant single purpose for the one percent sales tax initiative (Figure 27).

Table 20. Historical SPLOST results in the Northwest Georgia district

Purpose	Result	Northwest Georgia	Georgia
Transportation only	Pass	7 (87.5%)	84 (73.7%)
	Fail	1 (12.5%)	30 (26.3%)
Education only	Pass	49 (96.1%)	487 (94.6%)
	Fail	2 (3.9%)	28 (5.4%)
Capital outlay only	Pass	25 (75.8%)	435 (90.1%)
	Fail	8 (24.2%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	39 (86.7%)	232 (89.6%)
	Fail	6 (13.3%)	27 (10.4%)
LOST	Pass	2 (100.0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	124 (87.9%)	1,269 (89.8%)
	Fail	17 (12.1%)	144 (10.2%)

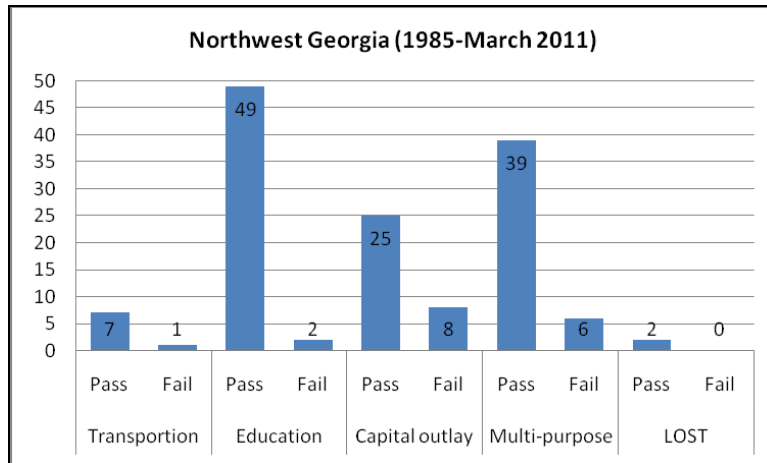


Figure 27. SPLOSTs in the Northwest Georgia (1985-March 2011)

The year 1997, a year after the ESPLOST law was enacted, was a diverging point after which the purpose of the one percent sales tax is concentrated on education throughout the district (Figure 32), negatively affecting transportation purpose only initiatives. Regardless of the passage rate of transportation purpose only initiatives, the number of proposed transportation measures was dramatically decreased in Georgia. In the Northwest Georgia, while five transportation measures (transportation purpose only) were proposed between 1985 and 1996 with all of them passed, only three transportation measures were proposed during the last 15 years and two of them obtained voters' approvals. As seen from Figure 30, these two counties include Chattooga and Whitfield. However, it appears that the education purpose measures have brought no effect on multi-purpose measures for transportation and other capital outlay projects during the second period (between 1997 and March 2011) (Figures 28 and 29). This means that transportation only referenda have become unpopular in the Northwest Georgia as they have been obviously combined with other capital outlay projects to be included in 1% sales tax referenda.

In addition, Figures 31, 33, 35, and 37 present hot spots where SPLOSTs for transportation only, education, capital outlay projects, and multi-purposes, respectively, failed to pass between 1997 and March 2011.

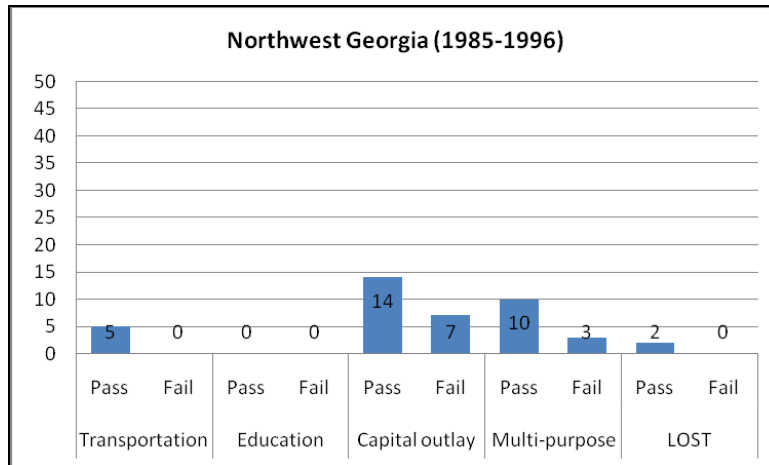


Figure 28. SPLOST in the Northwest Georgia (1985-1996)

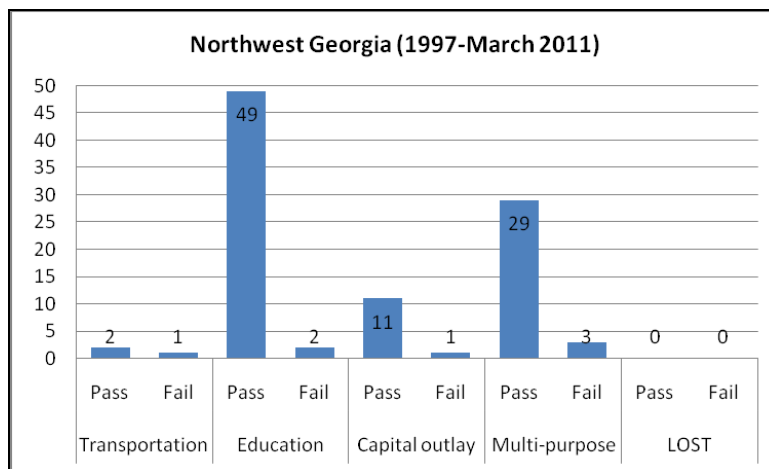


Figure 29. SPLOST in the Northwest Georgia (1997-March 2011)

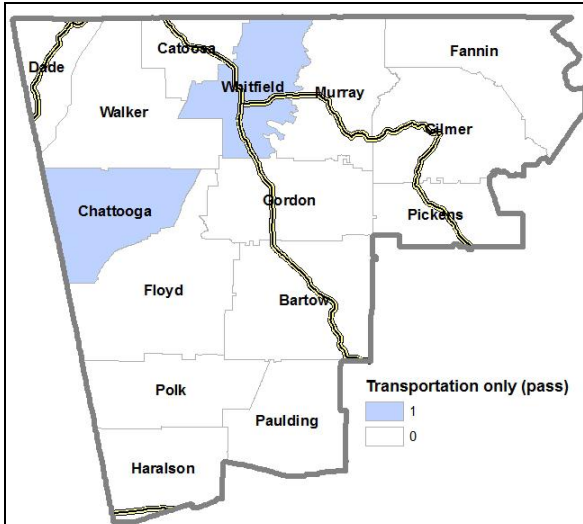


Figure 30. Passed 1% sales tax referenda for transportation only in the Northwest Georgia (1997-March 2011)

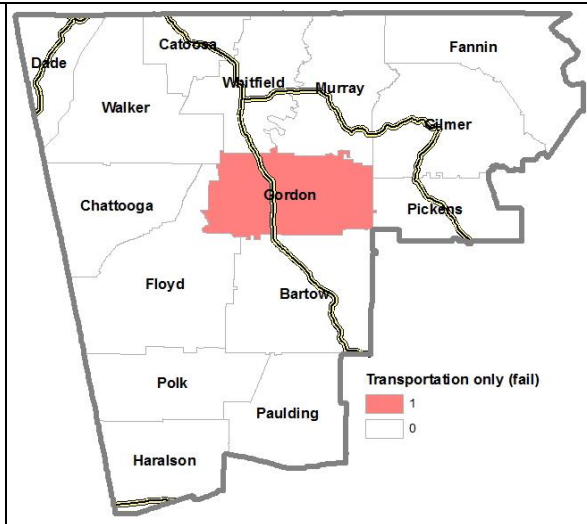


Figure 31. Failed 1% sales tax referenda for transportation only in the Northwest Georgia (1997-March 2011)

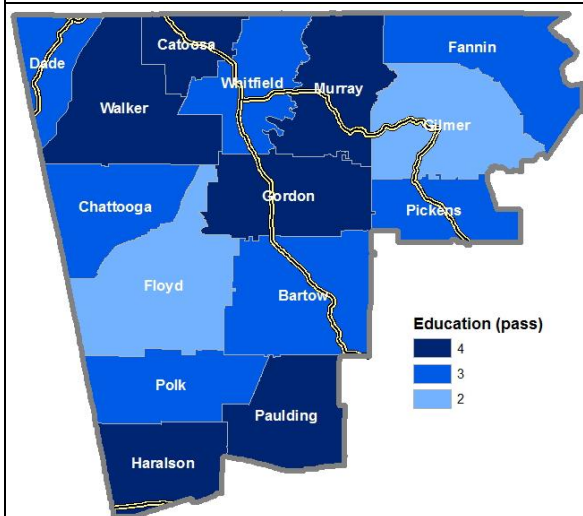


Figure 32. Passed 1% sales tax referenda for education in the Northwest Georgia (1997-March 2011)

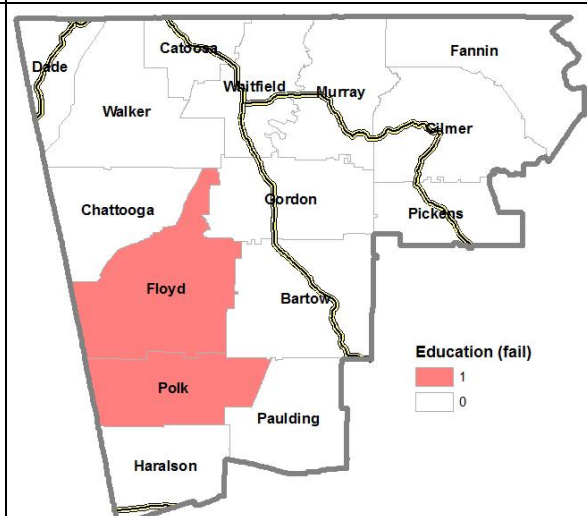


Figure 33. Failed 1% sales tax referenda for education in the Northwest Georgia (1997-March 2011)

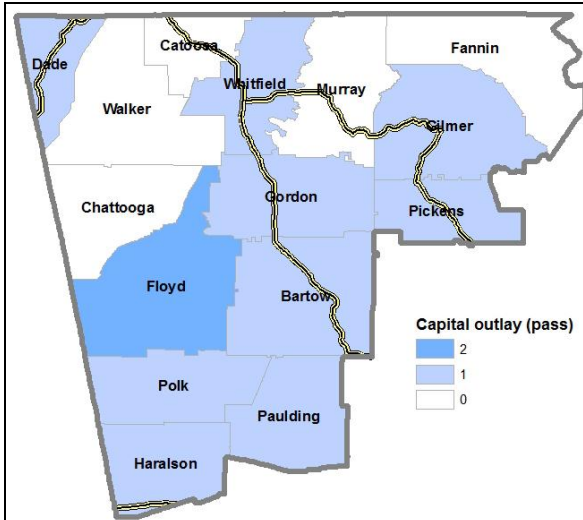


Figure 34. Passed 1% sales tax referenda for capital outlay projects in the Northwest Georgia (1997-March 2011)

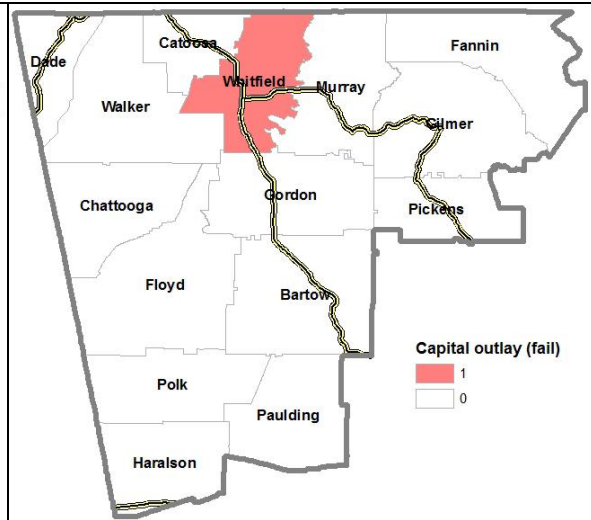


Figure 35. Failed 1% sales tax referenda for capital outlay projects in the Northwest Georgia (1997-March 2011)

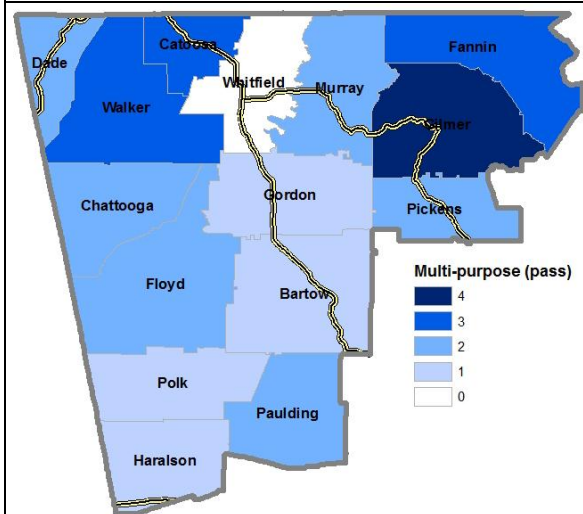


Figure 36. Passed 1% sales tax referenda for multi-purpose in the Northwest Georgia (1997-March 2011)

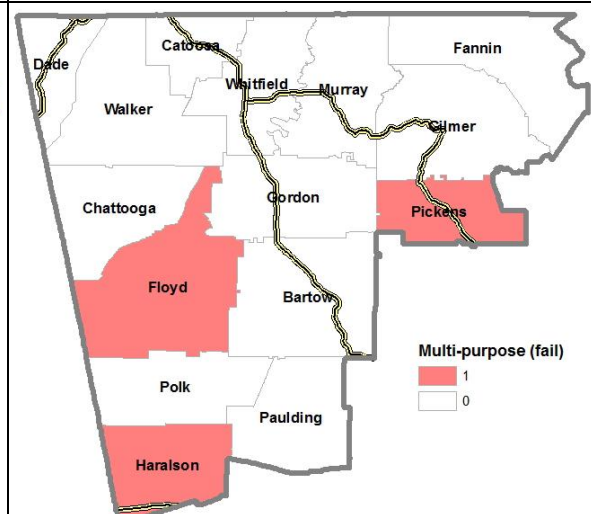
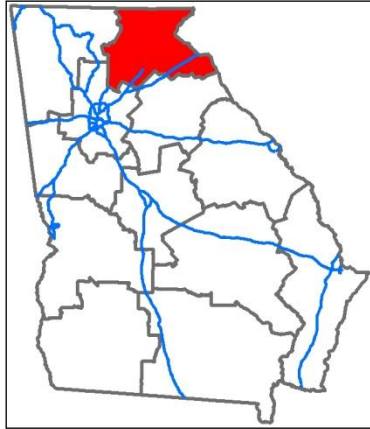


Figure 37. Failed 1% sales tax referenda for multi-purpose in the Northwest Georgia (1997-March 2011)

5.3.2 Georgia Mountains District



There were 130 one percent sales tax initiatives proposed within the Georgia Mountains district between 1985 and March 2011. Among them, 122 referenda were approved by voters presenting 93.8 percent of passage rate, which is higher than a statewide passage rate (89.8%) during the same time period. The ballot measures with

transportation purpose only had a higher passage rate than other parts of the state. However, compared with the average passage rates of education, capital outlay project, and multi-purpose referenda, which are 95.7, 90.0, and 100.0 percent, respectively, only 80 percent of transportation measures (transportation purpose only) were passed in this district (Table 21). Similar to the Northwest Georgia district, an education purpose (44 initiatives) is dominant, followed by multi-purposes (36 initiatives) and capital outlay projects (27 initiatives) (Figure 38), implying that combined initiatives of transportation and capital outlay projects would be more successful in the district.

Table 21. Historical SPLOST results in the Georgia Mountains district

Purpose	Result	Georgia Mountains	Georgia
Transportation only	Pass	8 (80.0%)	84 (73.7%)
	Fail	2 (20.0%)	30 (26.3%)
Education only	Pass	44 (95.7%)	487 (94.6%)
	Fail	2 (4.3%)	28 (5.4%)
Capital outlay only	Pass	27 (90.0%)	435 (90.1%)
	Fail	3 (10.0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	36 (100.0%)	232 (89.6%)
	Fail	0 (0%)	27 (10.4%)
LOST	Pass	6 (85.7%)	22 (71.0%)
	Fail	1 (14.3%)	9 (29.0%)
Total	Pass	122 (93.8%)	1,269 (89.8%)
	Fail	8 (6.2%)	144 (10.2%)

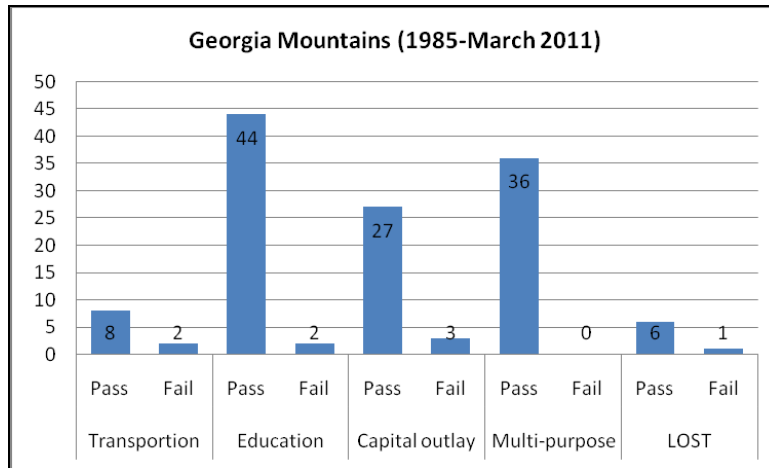


Figure 38. SPLOSTs in the Georgia Mountains (1985-March 2011)

As seen in Figures 39 and 40, the total number of transportation measures (transportation purpose only) was dramatically decreased from 9 to 1 before and after the year 1997 probably because of the inception of ESPLOSTs, which initiated 46 education ballot measures with 44 of them approved. Two counties that failed to pass the education SPLOSTs include Towns and Hart counties (Figure 44). However, the initiatives for capital outlay projects have experienced a very slow increase since 1997, while multi-purpose referenda have fairly increased from 8 to 28 between the two time periods (between 1985 and 1996 VS. between 1997 and March 2011).

In sum, voters of the Georgia Mountains district have shown their preferences for the one percent sales tax initiatives for multi-purposes as well as education. Particularly, those counties that passed multi-purpose SPLOSTs are scattered across the district (Figure 47). The preference for transportation purpose only has become weak particularly since 1997.

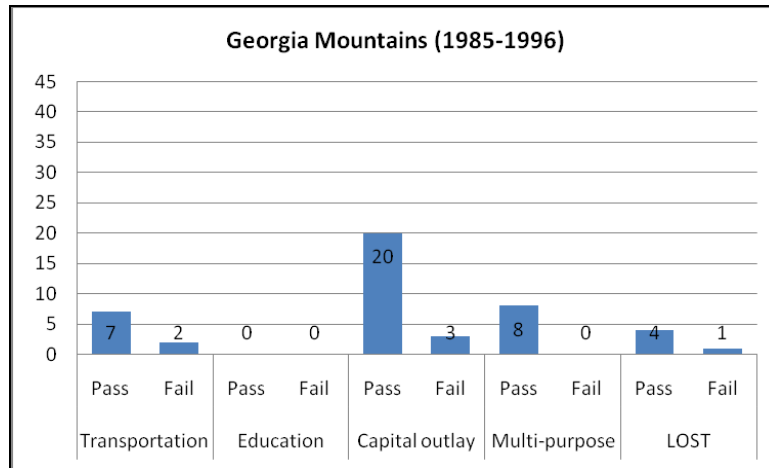


Figure 39. SPLOSTs in the Georgia Mountains (1985-1996)

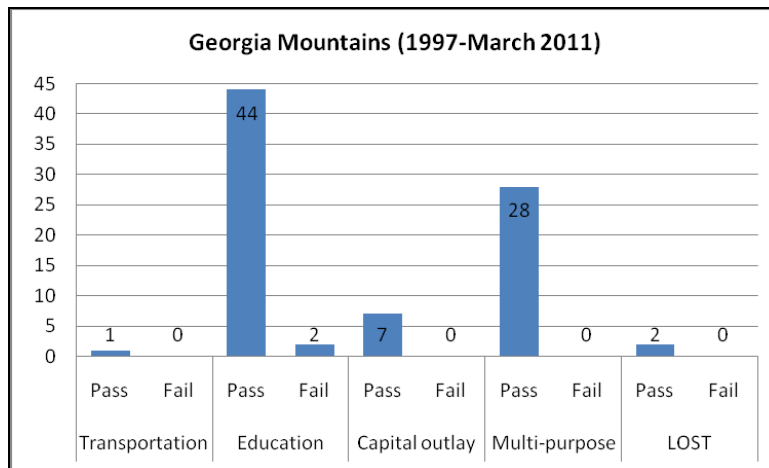


Figure 40. SPLOSTs in the Georgia Mountains (1997-March 2011)

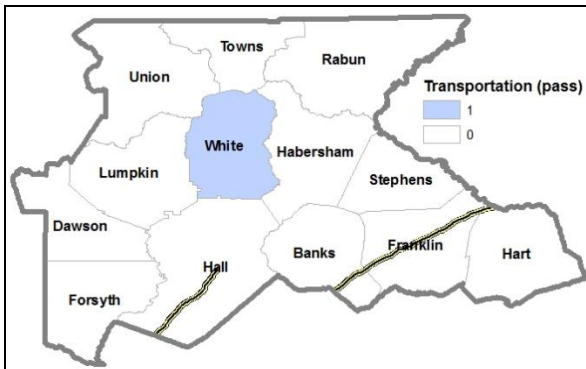


Figure 41. Passed 1% sales tax referenda for transportation only in the Georgia Mountains (1997-March 2011)

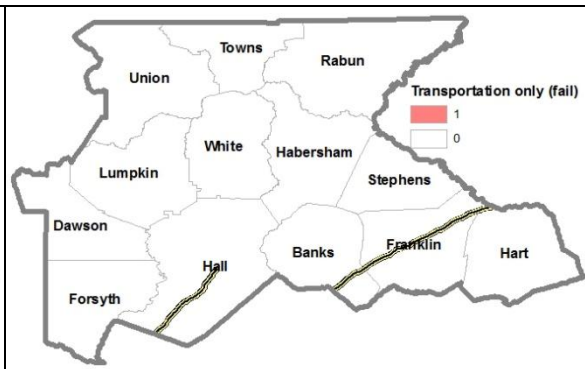


Figure 42. Failed 1% sales tax referenda for transportation only in the Georgia Mountains (1997-March 2011)

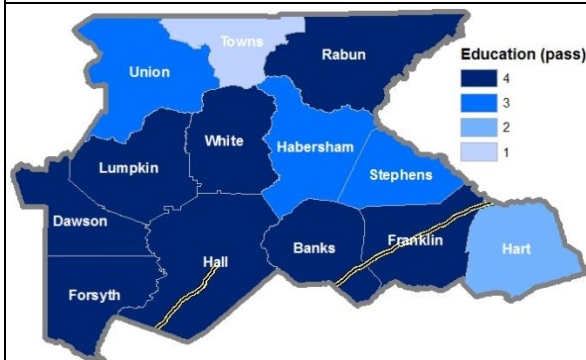


Figure 43. Passed 1% sales tax referenda for education in the Georgia Mountains (1997-March 2011)

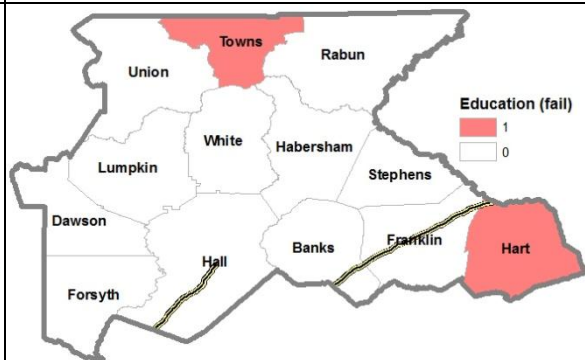


Figure 44. Failed 1% sales tax referenda for education in the Georgia Mountains (1997-March 2011)

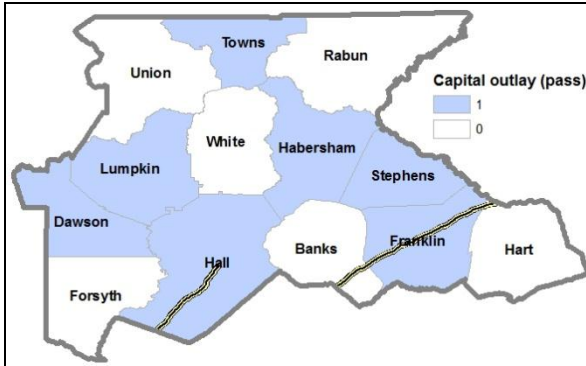


Figure 45. Passed 1% sales tax referenda for capital outlay projects in the Georgia Mountains (1997-March 2011)

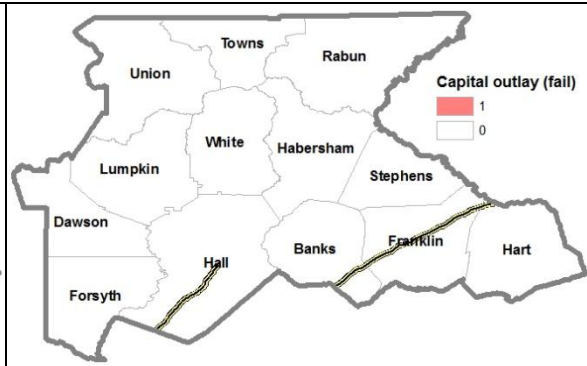


Figure 46. Failed 1% sales tax referenda for capital outlay projects in the Georgia Mountains (1997-March 2011)

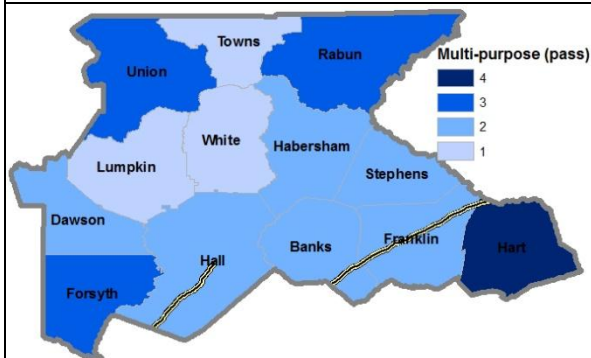


Figure 47. Passed 1% sales tax referenda for multi-purpose in the Georgia Mountains (1997-March 2011)

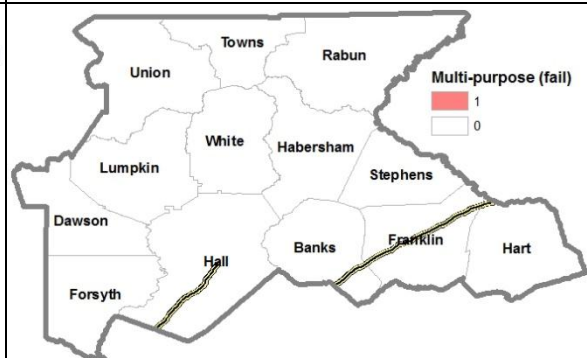
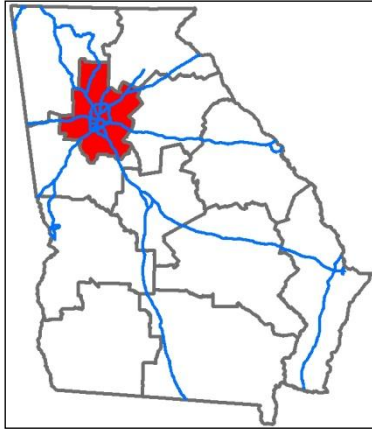


Figure 48. Failed 1% sales tax referenda for multi-purpose in the Georgia Mountains (1997-March 2011)

5.3.3 Atlanta Regional Commission



There were 98 one percent sales tax initiatives proposed within the Atlanta Regional Commission district between 1985 and 2011 (March). Among them, 74 ballot measures were approved by voters presenting 75.5 percent of passage rate, which is much lower than a statewide average passage rate (89.8%) during the same time

period. Particularly, the ballot measures with transportation purpose only and multi-purposes for transportation and other capital outlay projects present very low passage rates. For example, only 57.1 percent and 72.0 percent of proposed transportation only and multi-purpose measures were passed, respectively, as of March 2011. Even LOST, which is a popular local financing tool in Georgia⁴³, shows only 33.3 percent of passage rate. On the other hand, education ballot measures are popular in this district with 90.6 percent of passage rate although this is lower than the state average (94.6%) (Table 22). An education is a dominant purpose for SPLOSTs in the district, followed by multi-purposes (18 initiatives) and capital outlay project (15 initiatives) (Figure 49).

Table 22. Historical SPLOST results in the Atlanta Regional Commission district

Purpose	Result	Atlanta Regional Commission	Georgia
Transportation only	Pass	8 (57.1%)	84 (73.7%)
	Fail	6 (42.9%)	30 (26.3%)
Education only	Pass	29 (90.6%)	487 (94.6%)
	Fail	3 (9.4%)	28 (5.4%)
Capital outlay only	Pass	15 (78.9%)	435 (90.1%)
	Fail	4 (21.1%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	18 (72.0%)	232 (89.6%)
	Fail	7 (28.0%)	27 (10.4%)
LOST	Pass	2 (33.3%)	22 (71.0%)
	Fail	4 (66.7%)	9 (29.0%)
Total	Pass	74 (75.5%)	1,269 (89.8%)
	Fail	24 (24.5%)	144 (10.2%)

⁴³ All but five counties have adopted this tax.

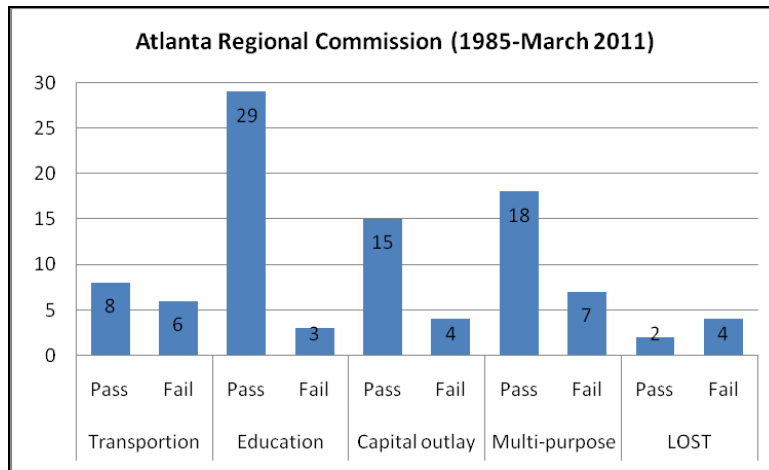


Figure 49. SPLOSTs in the Atlanta Regional Commission (1985-March 2011)

As seen in Figures 50 and 51, the total number of transportation measures (transportation purpose only) was dramatically decreased from 12 to 2 before and after the year 1997. Only Fayette County passed one transportation only SPLOST and Cobb County failed to pass it since 1997 (Figures 52 and 53). Instead, new 29 education SPLOSTs have been passed since 1997. All counties within the Atlanta Regional Commission district passed ESPLOSTs at least once since 1997 (Figure 54). The number of approved ballot measures for capital outlay projects and multi-purposes were slightly increased from 7 to 8 and from 7 to 11, respectively, between the two time periods (between 1985 and 1996 VS. between 1997 and March 2011).

In sum, given a relatively small number of SPLOST initiatives proposed and their lower rate of approval, voters in the Atlanta Regional Commission district seem to be less supportive for one percent sales tax initiatives except for education purposes, compared to other special tax districts. This implies that existing strategies for county level SPLOSTs for transportation purposes may not be effective for the success of the regional transportation SPLOST in this district. More emphasis on transportation problems at the regional level and the regional level

project list that proposes to solve such problems should be made rather than focusing on projects in individual counties. T (Figures 53 and 59).

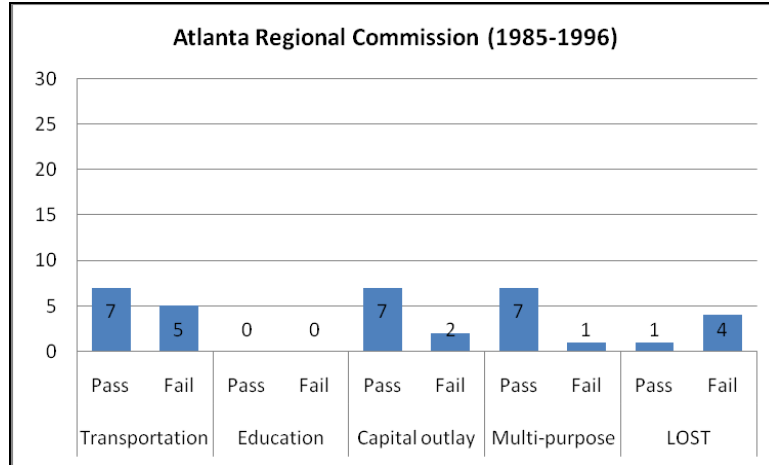


Figure 50. SPLOSTs in the Atlanta Regional Commission (1985-1996)

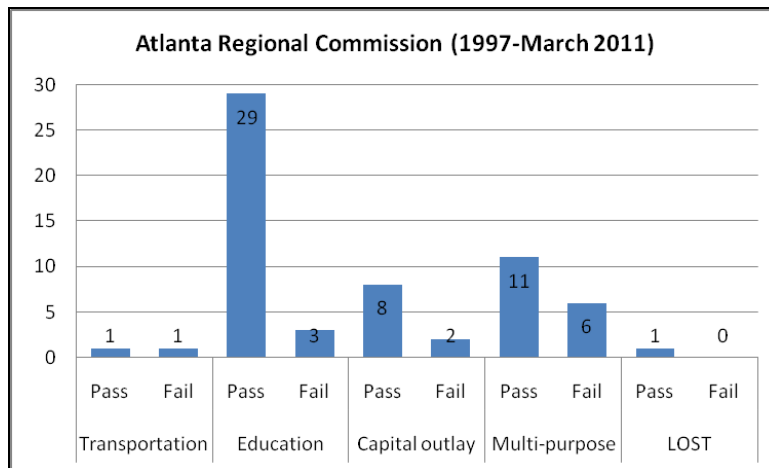


Figure 51. SPLOSTs in the Atlanta Regional Commission (1997-March 2011)

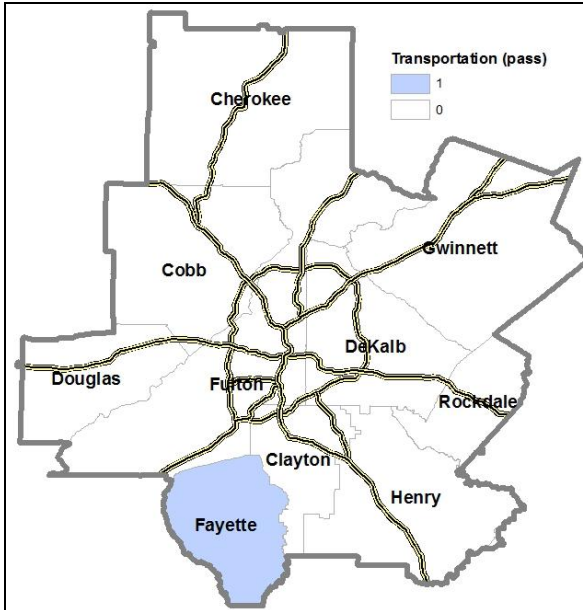


Figure 52. Passed 1% sales tax referenda for transportation only in the Atlanta Regional Commission (1997-March 2011)

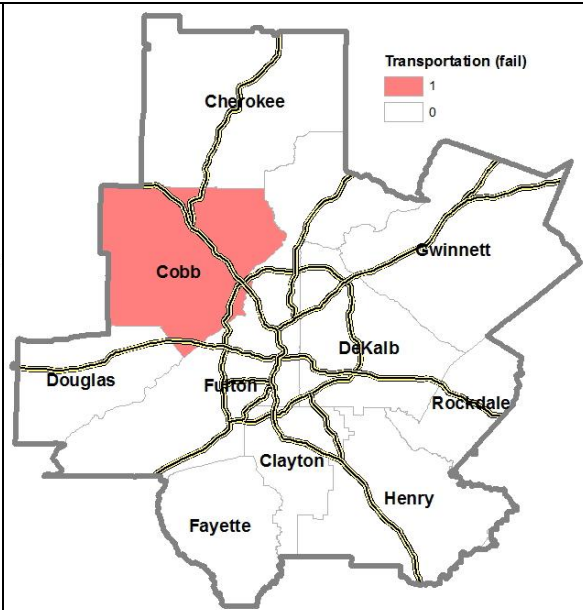


Figure 53. Failed 1% sales tax referenda for transportation only in the Atlanta Regional Commission (1997-March 2011)

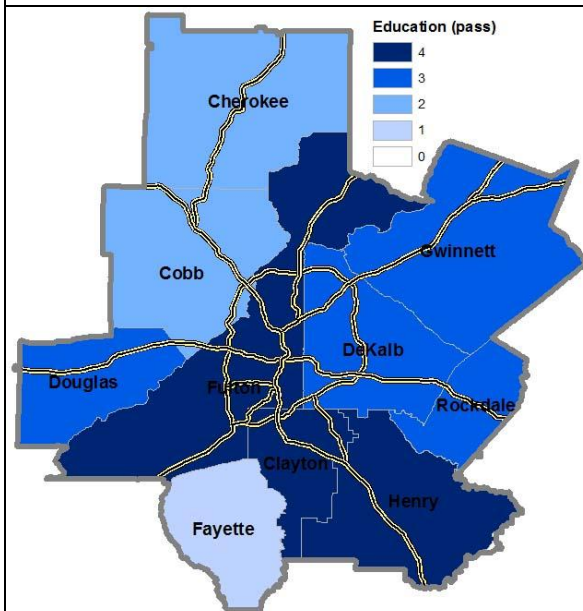


Figure 54. Passed 1% sales tax referenda for education in the Atlanta Regional Commission (1997-March 2011)

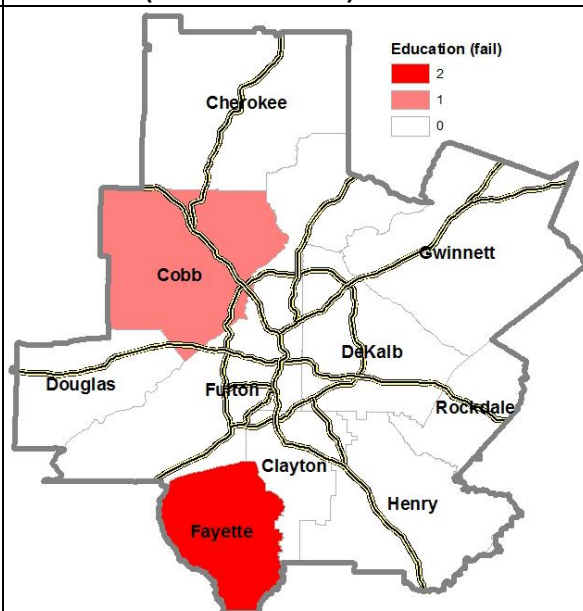


Figure 55. Failed 1% sales tax referenda for education in the Atlanta Regional Commission (1997-March 2011)

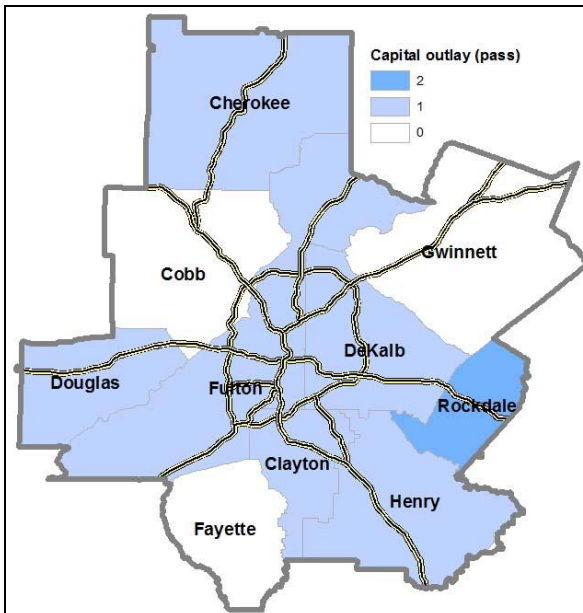


Figure 56. Passed 1% sales tax referenda for capital outlay projects in the Atlanta Regional Commission (1997-March 2011)

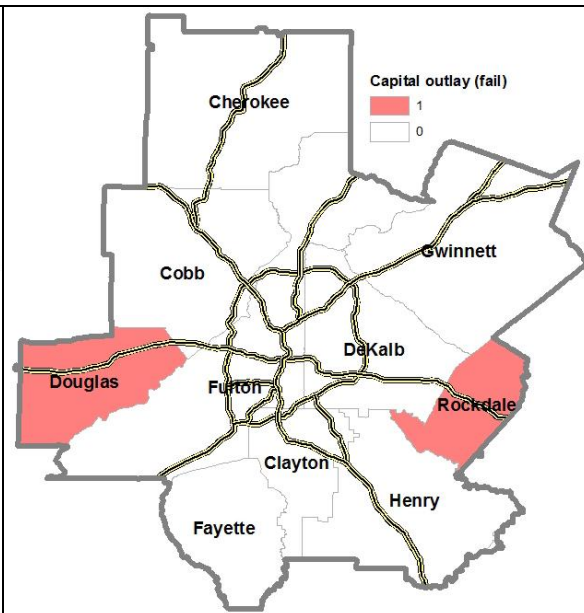


Figure 57. Failed 1% sales tax referenda for capital outlay projects in the Atlanta Regional Commission (1997-March 2011)

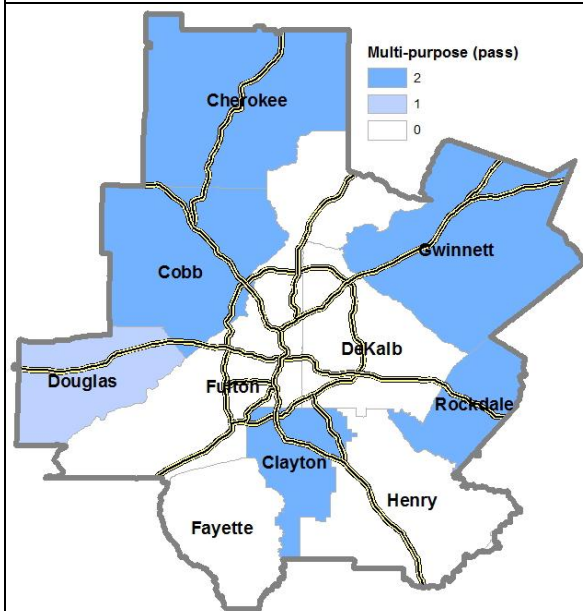


Figure 58. Passed 1% sales tax referenda for multi-purpose in the Atlanta Regional Commission (1997-March 2011)

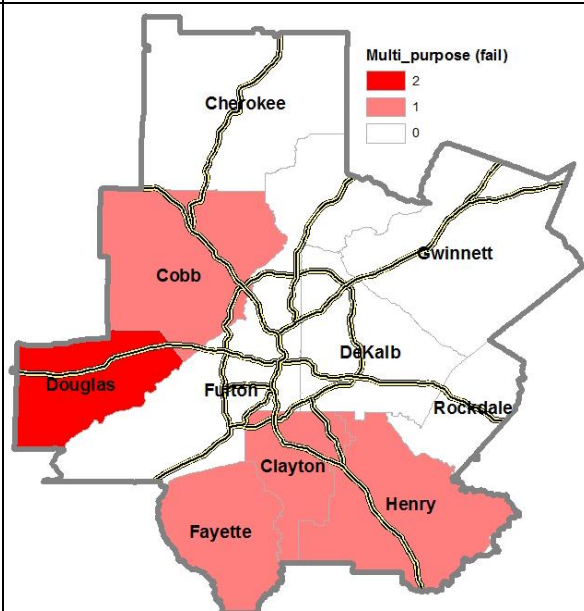
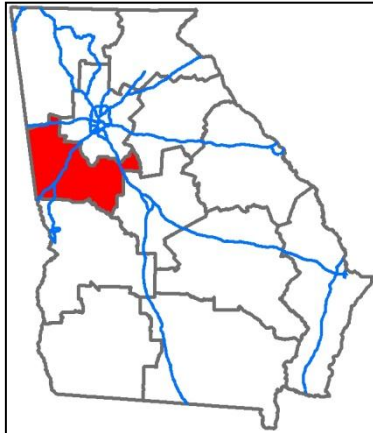


Figure 59. Failed 1% sales tax referenda for multi-purpose in the Atlanta Regional Commission (1997-March 2011)

5.3.4 Three Rivers



There were 87 one percent sales tax initiatives proposed within the Three Rivers district between 1985 and 2011 (March). Among them, 76 ballot measures were approved by voters presenting 87.4 percent of passage rate, which is slightly lower than a statewide average passage rate (89.8%) during the same time period. Only two

ballot measures for transportation purpose only were proposed within this district during the time period (nothing since 1997), but they failed to get a voters' approval. However, multi-purpose initiatives for transportation and other capital outlay projects have a higher passage rate of 92.9 percent, which is higher than the state average (89.6%). Also, education purpose ballot measures show a high rate of passage (94.3%), while those for capital outlay projects has a lower passage rate (85.3%) than the state average (90.1%) (Table 23). Both education and capital outlay projects are dominant purposes for SPLOSTs in the district with 33 and 29 passed initiatives, respectively, followed by 13 of multi-purposes (Figure 60).

Table 23. Historical SPLOST results in the Three Rivers district

Purpose	Result	Three Rivers	Georgia
Transportation only	Pass	0 (0%)	84 (73.7%)
	Fail	2 (100.0%)	30 (26.3%)
Education only	Pass	33 (94.3%)	487 (94.6%)
	Fail	2 (5.7%)	28 (5.4%)
Capital outlay only	Pass	15 (78.9%)	435 (90.1%)
	Fail	4 (21.1%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	27 (93.1%)	232 (89.6%)
	Fail	2 (6.9%)	27 (10.4%)
LOST	Pass	1 (50.0%)	22 (71.0%)
	Fail	1 (50.0%)	9 (29.0%)
Total	Pass	76 (87.4%)	1,269 (89.8%)
	Fail	11 (12.6%)	144 (10.2%)

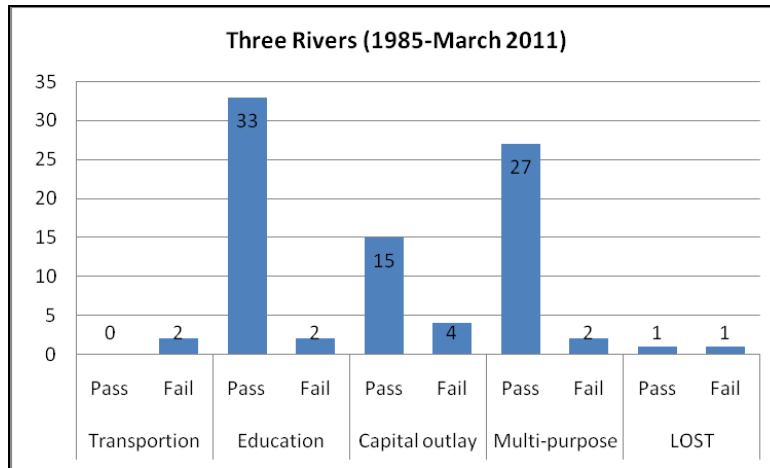


Figure 60. SPLOSTs in the Three Rivers (1985-March 2011)

As seen in Figures 61 and 62, no single transportation purpose only ballot measure has been proposed within this district since 1997, while two transportation measures were failed before 1997. New 33 education SPLOSTs have been passed since 1997, and the number of approved ballot measures for multi-purposes were increased between the two time periods (between 1985 and 1996 VS. between 1997 and March 2011), while the proposed referenda for capital outlay projects decreased. All but Spalding County⁴⁴ passed multi-purpose SPLOSTs at least once since 1997 (Figure 69), indicating that transportation projects in this district have been fairly supported by multi-purpose SPLOSTs.

In sum, this district presents higher preferences for education and multi-purpose projects, including transportation and other capital outlay projects. However, given the record of no passage for transportation only projects, more attention with special strategies should be given to this district for the success of the regional SPLOSTs because this initiative will propose only transportation projects. For example, while capital outlay projects other than transportation infrastructure cannot be included in the project list of the regional SPLOSTs, the ballot measure

⁴⁴ Although Spalding County passed three education SPLOSTs since 1997, it passed only one capital outlay SPLOST and failed to pass four SPLOSTs initiatives during the same time period.

for the regional SPLOST may be able to include descriptions of how the proposed transportation projects are connected or contributing to existing capital outlay projects.

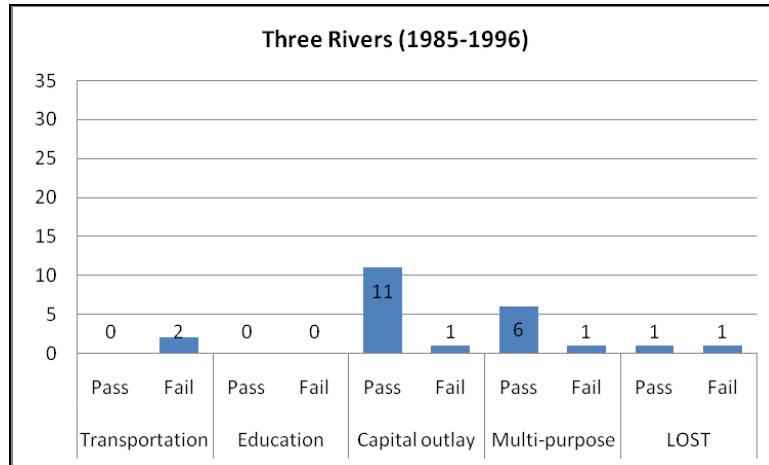


Figure 61. SPLOSTs in the Three Rivers (1985-1996)

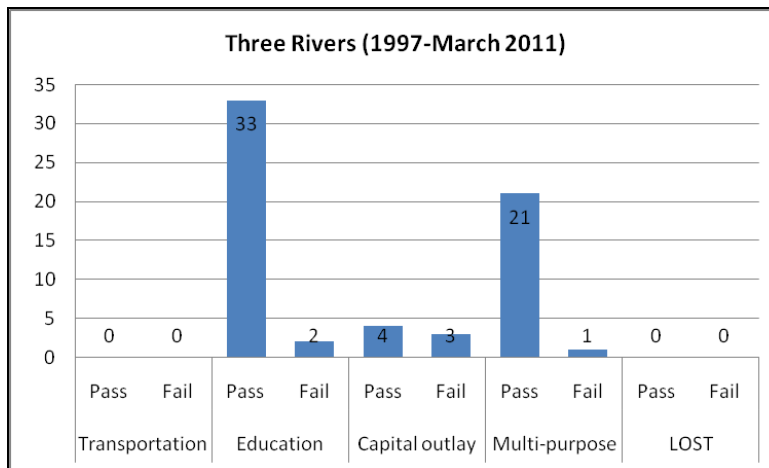


Figure 62. SPLOSTs in the Three Rivers (1997-March 2011)

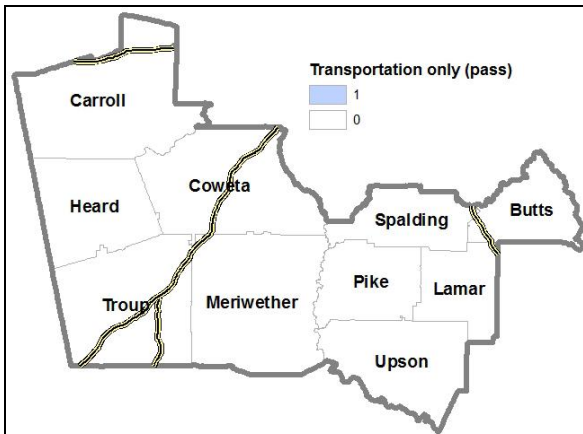


Figure 63. Passed 1% sales tax referenda for transportation only in the Three Rivers (1997-March 2011)

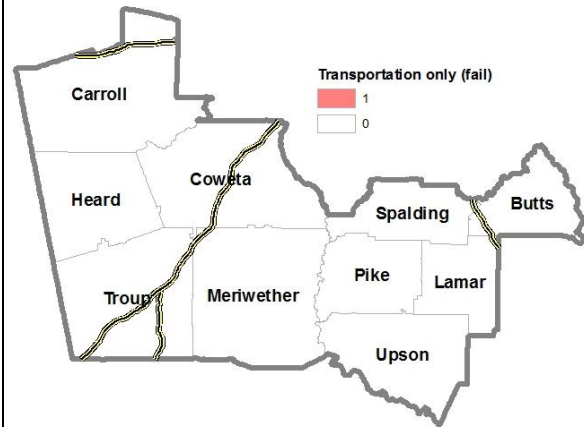


Figure 64. Failed 1% sales tax referenda for transportation only in the Three Rivers (1997-March 2011)

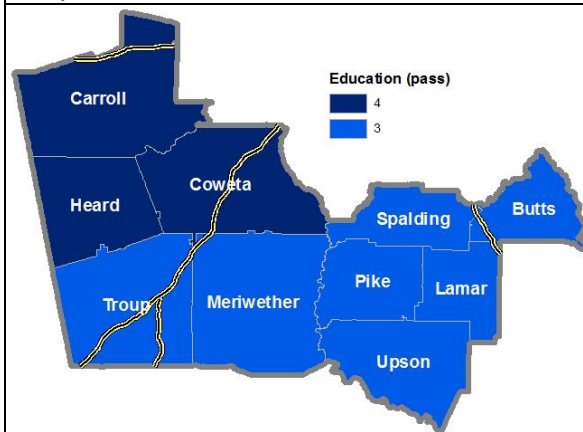


Figure 65. Passed 1% sales tax referenda for education in the Three Rivers (1997-March 2011)

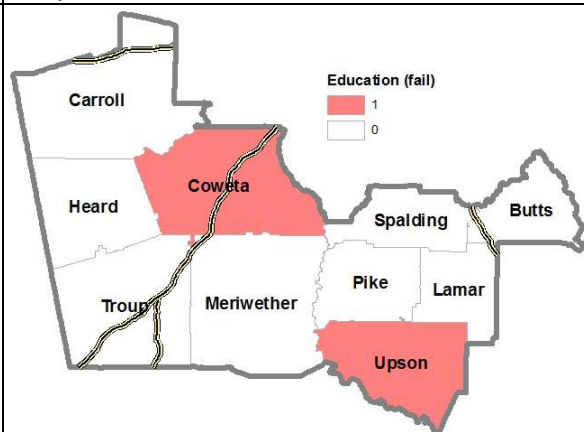


Figure 66. Failed 1% sales tax referenda for education in the Three Rivers (1997-March 2011)

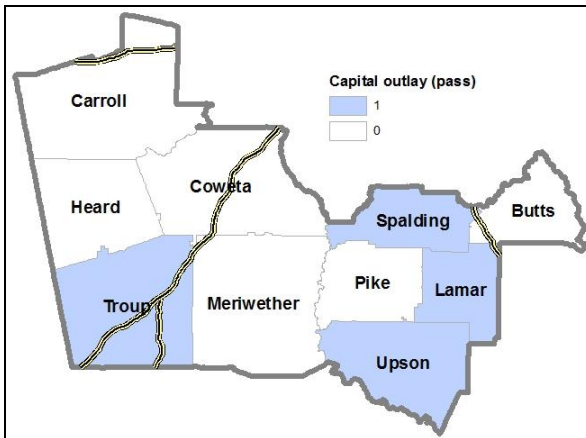


Figure 67. Passed 1% sales tax referenda for capital outlay projects in the Three Rivers (1997-March 2011)

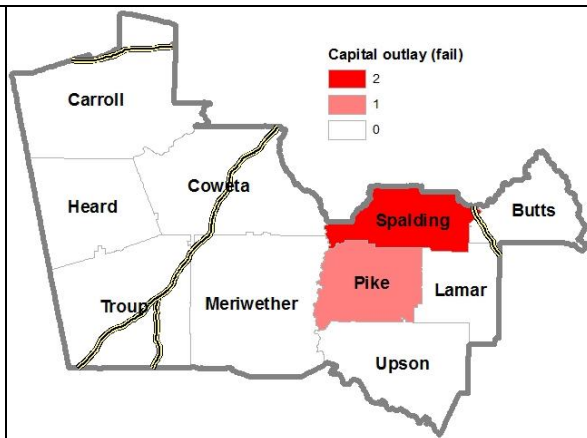


Figure 68. Failed 1% sales tax referenda for capital outlay projects in the Three Rivers (1997-March 2011)

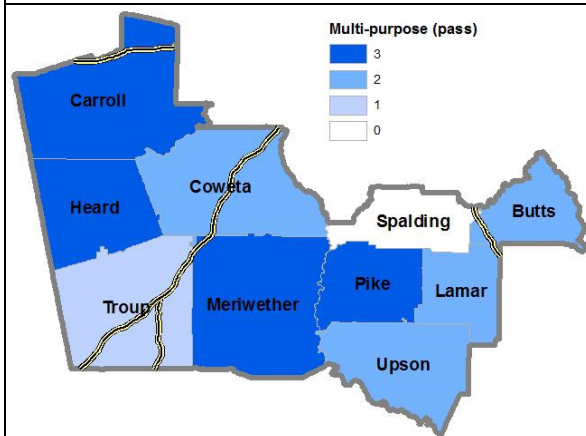


Figure 69. Passed 1% sales tax referenda for multi-purpose in the Three Rivers (1997-March 2011)

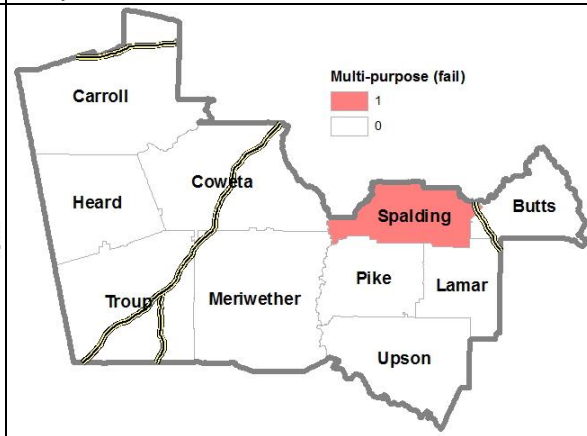
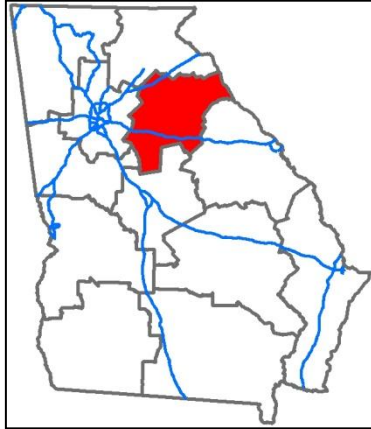


Figure 70. Failed 1% sales tax referenda for multi-purpose in the Three Rivers (1997-March 2011)

5.3.5 Northeast Georgia



There were 116 one percent sales tax initiatives proposed within the Northeast Georgia district between 1985 and 2011 (March). Among them, 105 ballot measures were approved by voters presenting 90.5 percent of passage rate, which is slightly higher than a statewide average passage rate (89.8%) during the same time period. There

have been six ballot measures for transportation purpose only with 100 percent of passage rate, while multi-purpose measures that also include transportation projects had less chances of passage with 82.1 percent, compared to 89.6 percent of the state average. Education purpose referenda show a very high rate of passage (97.3%), followed by those for capital outlay projects with 90.0 percent (Table 24). An equal number of 36 ballot measures for both education and capital outlay purposes have been approved (Figure 71).

Table 24. Historical SPLOST results in the Northeast Georgia district

Purpose	Result	Northeast Georgia	Georgia
Transportation only	Pass	6 (100.0%)	84 (73.7%)
	Fail	0 (0%)	30 (26.3%)
Education only	Pass	36 (97.3%)	487 (94.6%)
	Fail	1 (2.7%)	28 (5.4%)
Capital outlay only	Pass	19 (82.6%)	435 (90.1%)
	Fail	4 (10.0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	40 (88.9%)	232 (89.6%)
	Fail	5 (11.1%)	27 (10.4%)
LOST	Pass	2 (100.0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	105 (90.5%)	1,269 (89.8%)
	Fail	11 (9.5%)	144 (10.2%)

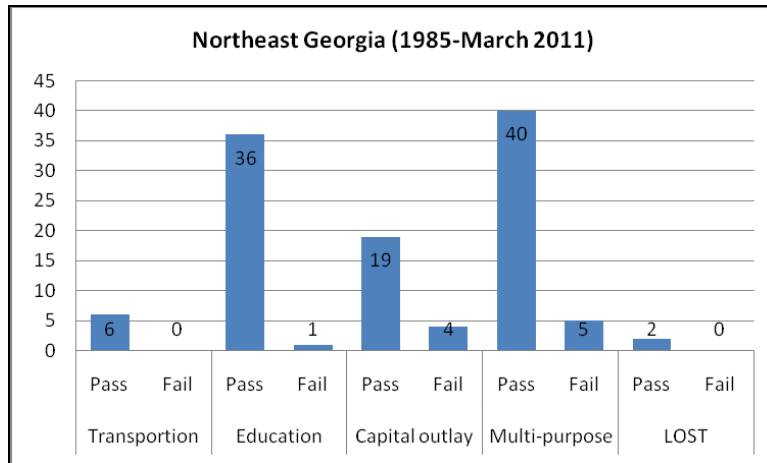


Figure 71. SPLOSTs in the Northeast Georgia (1985-March 2011)

As seen in Figures 72 and 73, no single referendum for transportation purpose only has been proposed within this district since 1997, although six transportation measures were proposed and all of them were successfully passed before 1997. Also, 17 multi-purpose ballot measures for both transportation and other capital outlay projects were passed before 1997. Since then, new 36 education SPLOSTs have been passed with only one education ballot measure failed, and the number of approved ballot measures for capital outlay projects and multi-purposes have been slightly increased between the two time periods (between 1985 and 1996 VS. between 1997 and March 2011).

In sum, while this district showed positive results of SPLOSTs for transportation purpose only in the past, it seems that more priorities have been recently given to education and capital outlay projects. Transportation projects are increasingly combined with other capital outlay projects in the referenda, and this multi-purpose SPLOSTs have been imposed across the district (Figure 80).

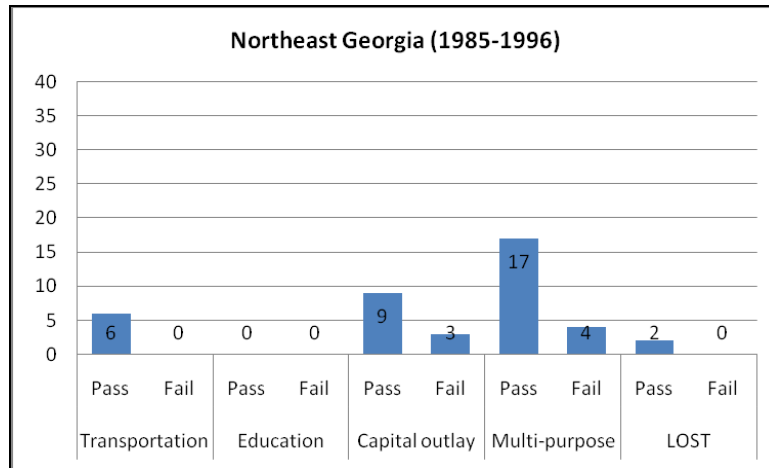


Figure 72. SPLOSTs in the Northeast Georgia (1985-1996)

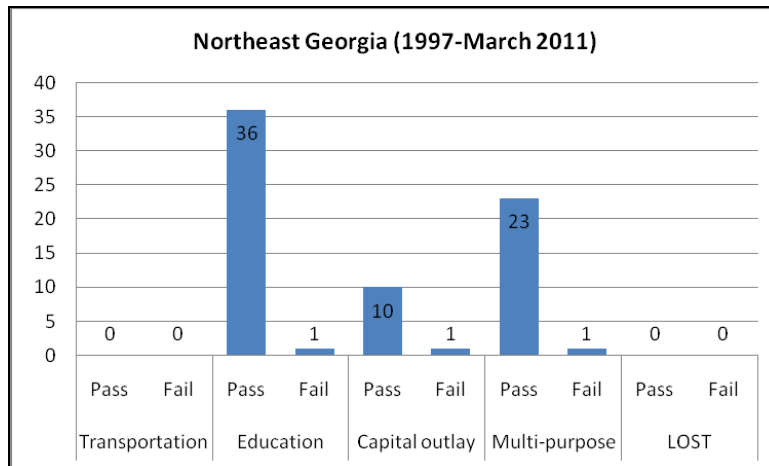


Figure 73. SPLOSTs in the Northeast Georgia (1997-March 2011)

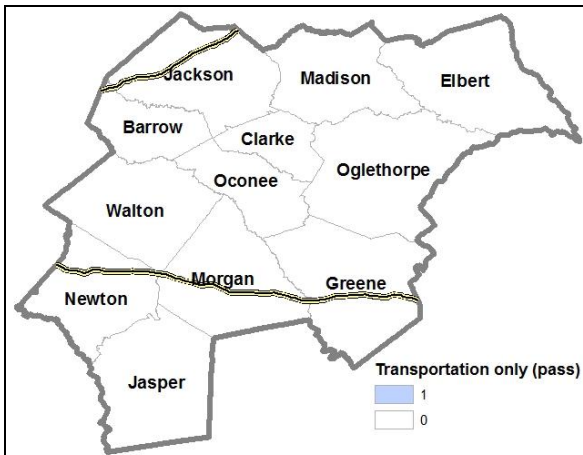


Figure 74. Passed 1% sales tax referenda for transportation only in the Northeast Georgia (1997-March 2011)

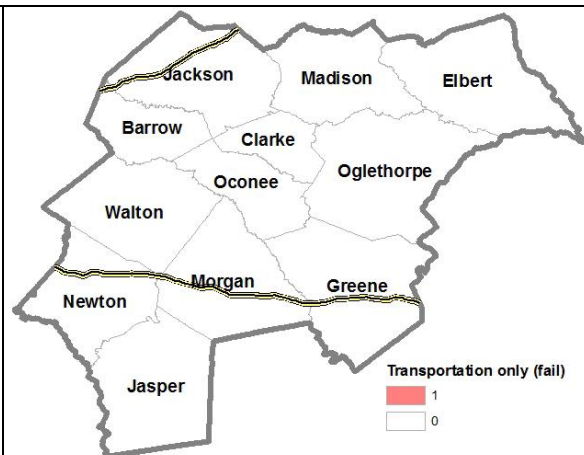


Figure 75. Failed 1% sales tax referenda for transportation only in the Northeast Georgia (1997-March 2011)

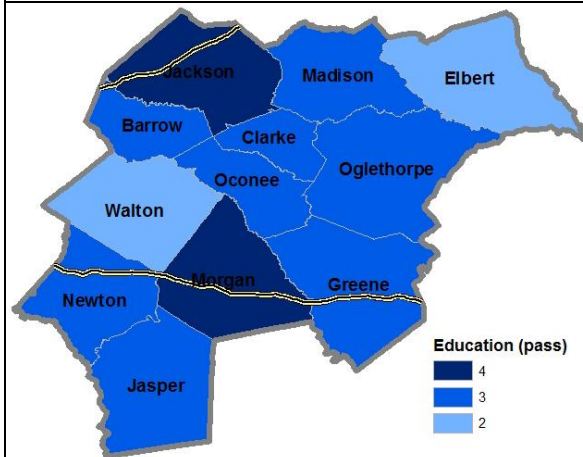


Figure 76. Passed 1% sales tax referenda for education in the Northeast Georgia (1997-March 2011)

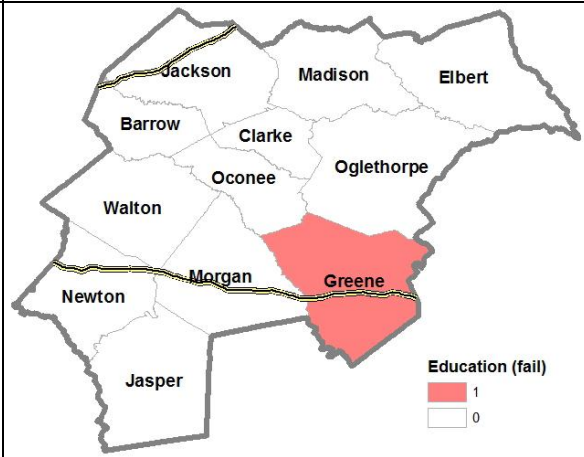


Figure 77. Failed 1% sales tax referenda for education in the Northeast Georgia (1997-March 2011)

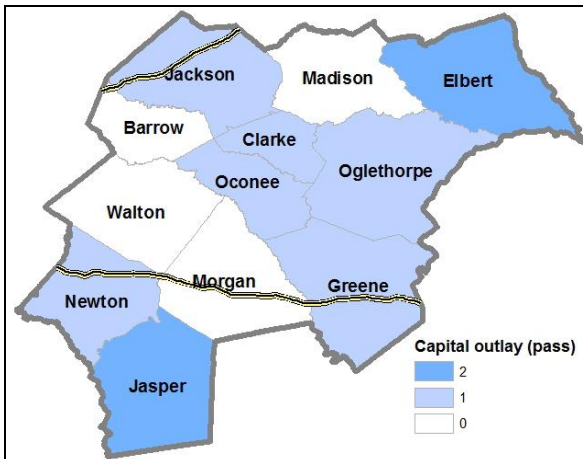


Figure 78. Passed 1% sales tax referenda for capital outlay projects in the Northeast Georgia (1997-March 2011)

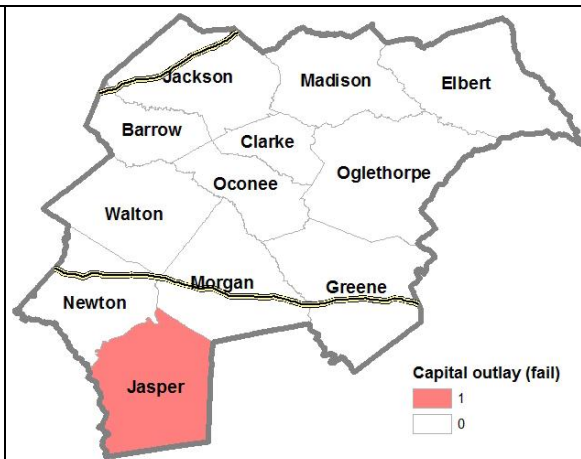


Figure 79. Failed 1% sales tax referenda for capital outlay projects in the Northeast Georgia (1997-March 2011)

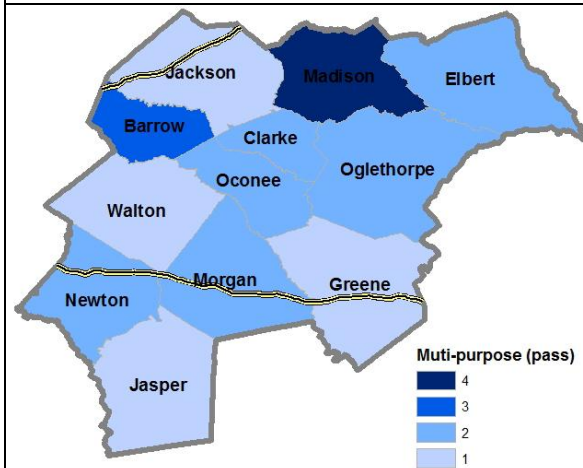


Figure 80. Passed 1% sales tax referenda for multi-purpose in the Northeast Georgia (1997-March 2011)

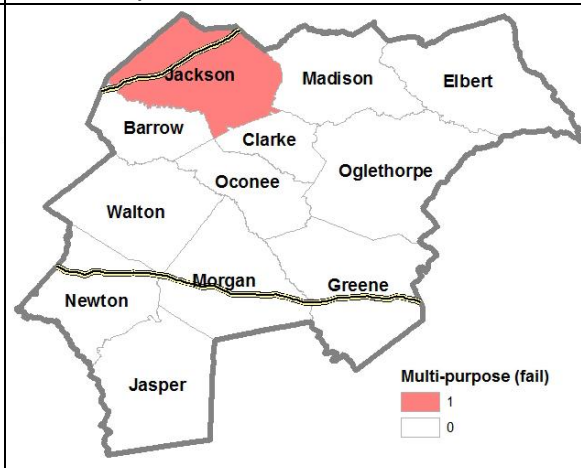
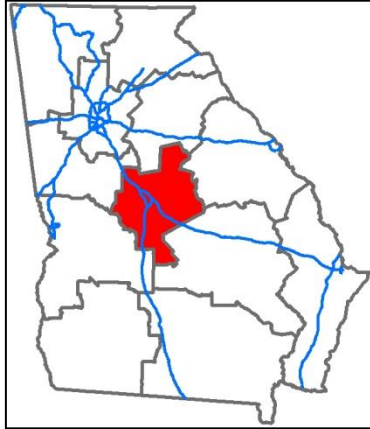


Figure 81. Failed 1% sales tax referenda for multi-purpose in the Northeast Georgia (1997-March 2011)

5.3.6 Middle Georgia



There were 105 one percent sales tax initiatives proposed within the Middle Georgia district between 1985 and 2011 (March). Among them, 88 ballot measures were approved by voters presenting 83.8 percent of passage rate, which is lower than a statewide average passage rate (89.8%) during the same time period. There have

been six referenda for transportation purpose only with 85.7 percent of passage rate, which is higher than the state average rate (73.7%) of transportation ballot measures (transportation purpose only). Other than transportation purpose only, ballot measures for all other purposes had lower passage rates than state averages (Table 25). However, education and capital outlay projects are still major purposes of SPLOSTs in this district with 37 and 32 passed referenda, respectively, since 1985 (Figure 82).

Table 25. Historical SPLOST results in the Middle Georgia district

Purpose	Result	Middle Georgia	Georgia
Transportation only	Pass	6 (85.7%)	84 (73.7%)
	Fail	1 (14.3%)	30 (26.3%)
Education only	Pass	37 (88.1%)	487 (94.6%)
	Fail	5 (11.9%)	28 (5.4%)
Capital outlay only	Pass	20 (69.0%)	435 (90.1%)
	Fail	9 (31.0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	25 (92.6%)	232 (89.6%)
	Fail	2 (7.4%)	27 (10.4%)
LOST	Pass	0 (0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	88 (83.8%)	1,269 (89.8%)
	Fail	17 (16.2%)	144 (10.2%)

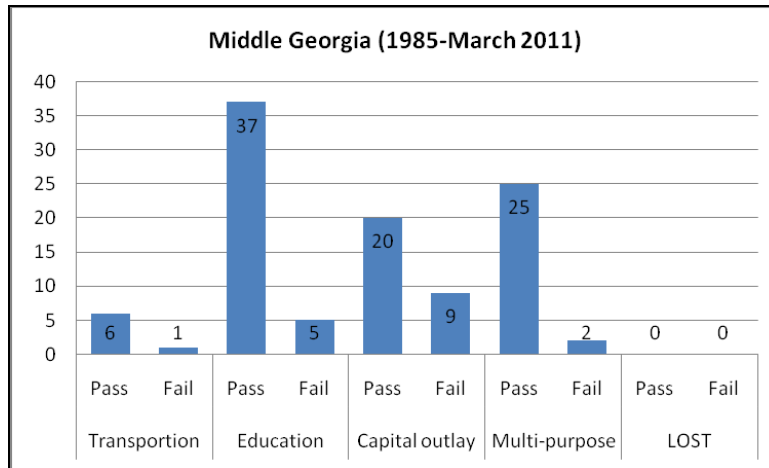


Figure 82. SPLOSTs in the Middle Georgia (1985-March 2011)

As seen in Figures 83, 84, 85, and 86, no single referendum for transportation purpose only has been proposed within this district since 1997, while seven transportation measures were proposed and six of them were successfully passed before 1997. Between 1985 and 1997, passed ballot measures were almost equally distributed to each purpose, including transportation, capital outlay projects, and multi-purposes. For example, six of transportation purpose only, eight of capital outlay projects only, and six of multi-purpose ballot measures were passed, while five more referenda for capital outlay projects were proposed and failed. Since 1997, Putnam County failed to pass two education SPLOSTs (Figure 88), and Bibb and Twiggs counties also failed to pass two capital outlay SPLOSTs for each (Figure 90).

In sum, although education and capital outlay projects have been major purposes of SPLOSTs in the district since 1997, their passage rates are much lower than the state averages. Voters of this district have been supportive for transportation projects through either transportation only (before 1997) or multi-purposes (since 1997) SPLOSTs.

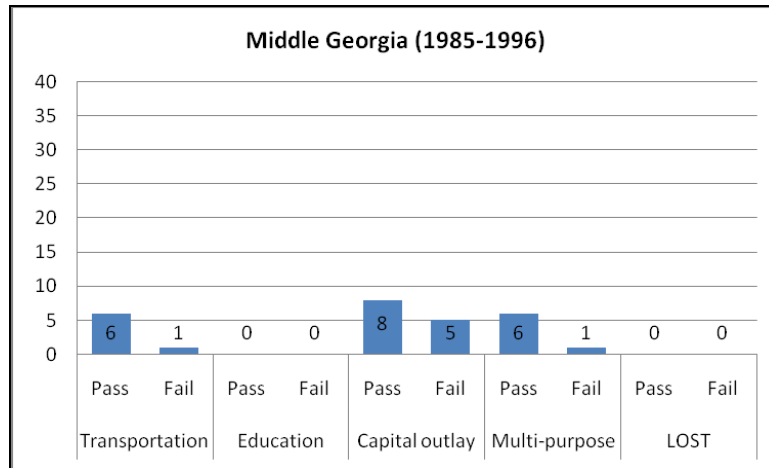


Figure 83. SPLOSTs in the Middle Georgia (1985-1997)

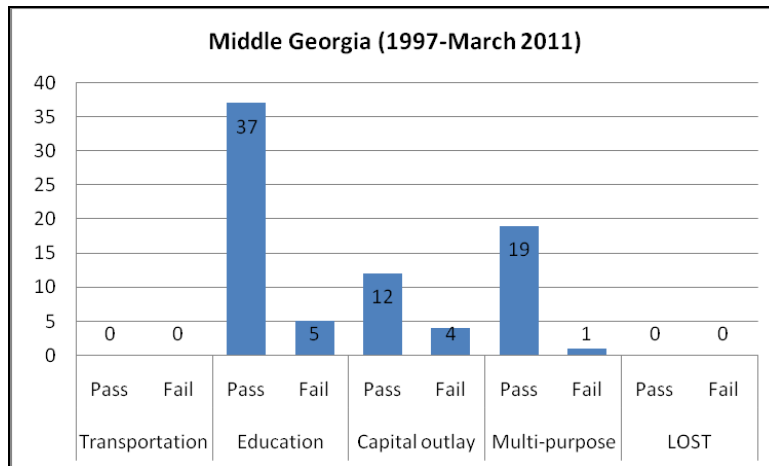


Figure 84. SPLOSTs in the Middle Georgia (1985-March 2011)

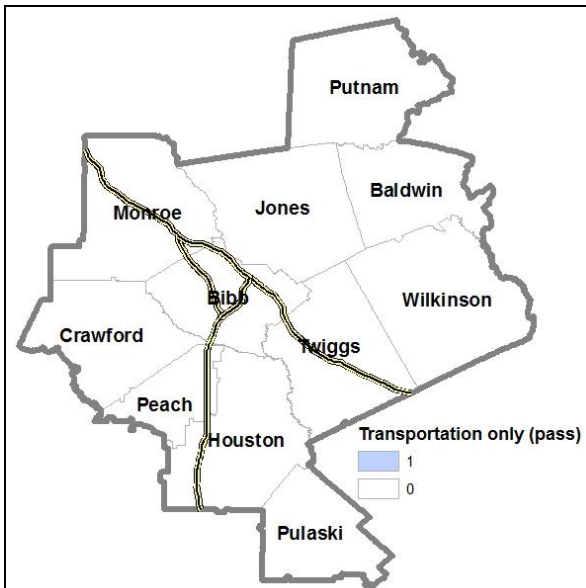


Figure 85. Passed 1% sales tax referenda for transportation only in the Middle Georgia (1997-March 2011)

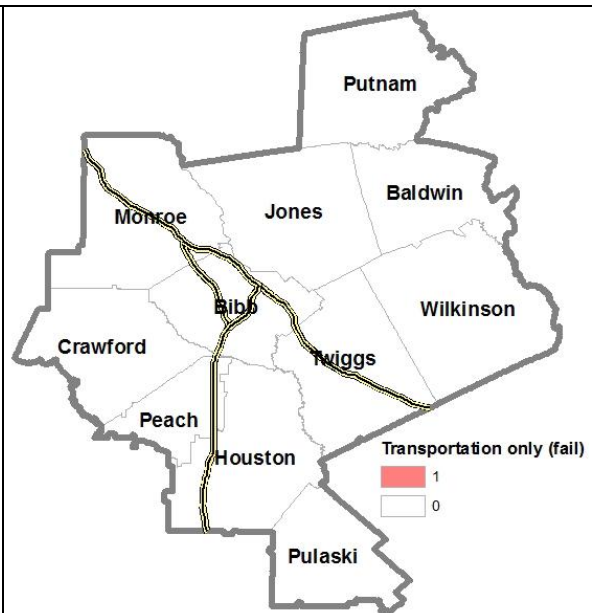


Figure 86. Failed 1% sales tax referenda for transportation only in the Middle Georgia (1997-March 2011)

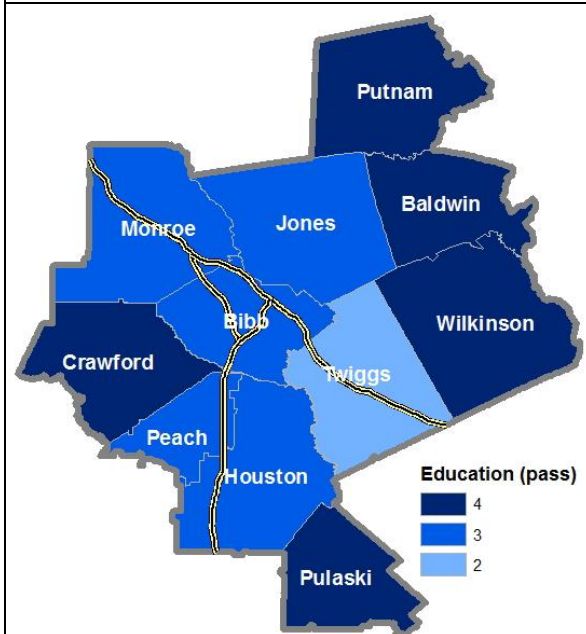


Figure 87. Passed 1% sales tax referenda for education in the Middle Georgia (1997-March 2011)

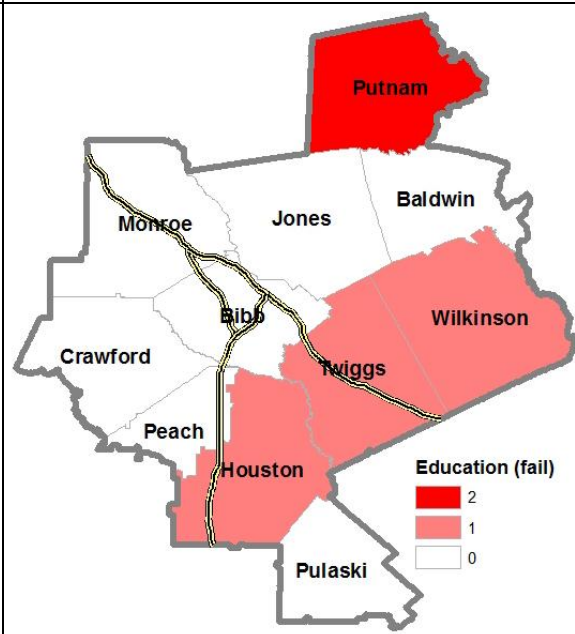


Figure 88. Failed 1% sales tax referenda for education in the Middle Georgia (1997-March 2011)

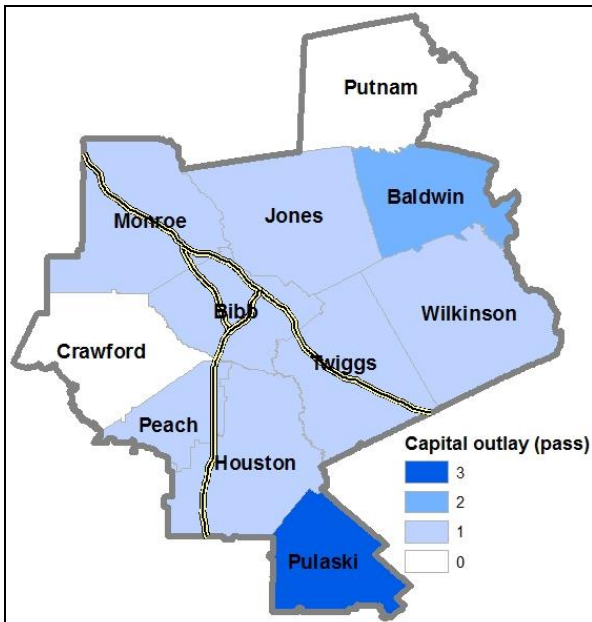


Figure 89. Passed 1% sales tax referenda for capital outlay projects in the Middle Georgia (1997-March 2011)

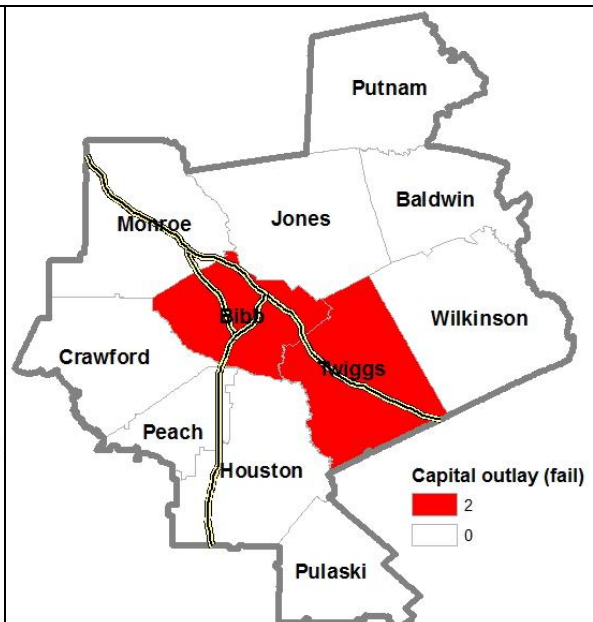


Figure 90. Failed 1% sales tax referenda for capital outlay projects in the Middle Georgia (1997-March 2011)

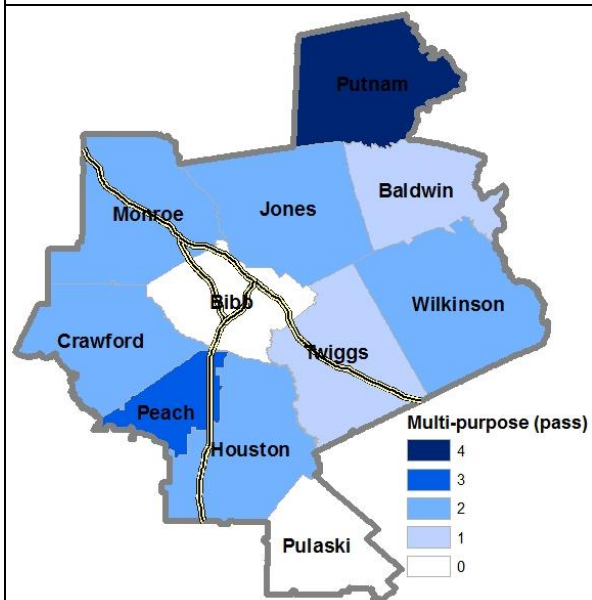


Figure 91. Passed 1% sales tax referenda for multi-purpose in the Middle Georgia (1997-March 2011)

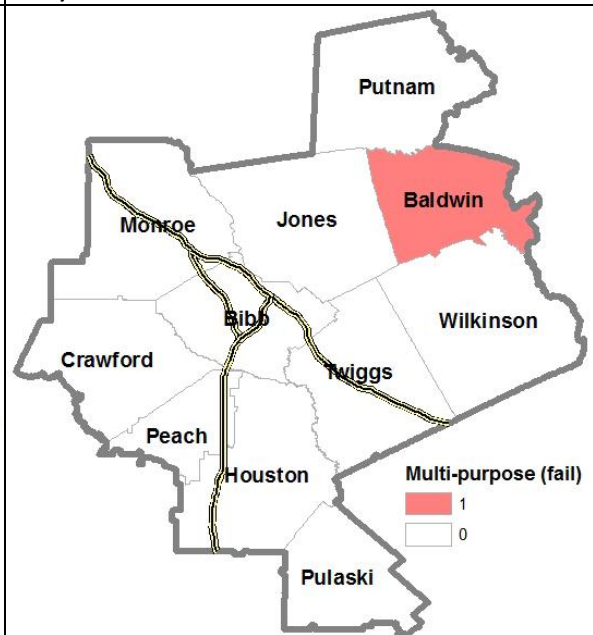
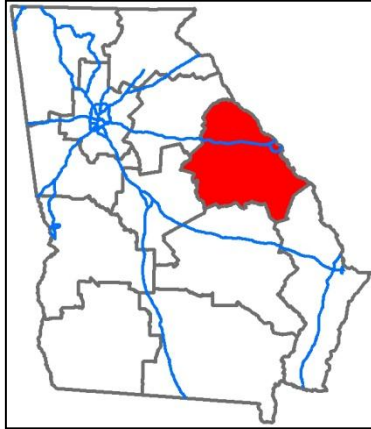


Figure 92. Failed 1% sales tax referenda for multi-purpose in the Middle Georgia (1997-March 2011)

5.3.7 Central Savannah River Area



There were 110 one percent sales tax initiatives proposed within the Central Savannah River Area district between 1985 and 2011 (March). Among them, 102 ballot measures were approved by voters presenting 92.7 percent of passage rate, which is higher than a statewide average passage rate (89.8%) during the same time period. There

have been nine ballot measures for transportation purpose only with 77.8 percent of passage rate, which is slightly higher than the state average rate (73.7%) of transportation ballot measures (transportation purpose only). Capital outlay projects received more supports from voters than any other purposes with 95.5 percent of passage rate, which is also higher than the state average (90.1%). Referenda for other purposes, including education and multi-purposes, had similar passage rates to the state averages (Table 26).

Table 26. Historical SPLOST results in the Central Savannah River Area district

Purpose	Result	Central Savannah River Area	Georgia
Transportation only	Pass	7 (77.8%)	84 (73.7%)
	Fail	2 (22.2%)	30 (26.3%)
Education only	Pass	35 (94.6%)	487 (94.6%)
	Fail	2 (5.4%)	28 (5.4%)
Capital outlay only	Pass	25 (96.2%)	435 (90.1%)
	Fail	1 (3.8%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	33 (91.7%)	232 (89.6%)
	Fail	3 (8.3%)	27 (10.4%)
LOST	Pass	2 (100.0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	102 (92.7%)	1,269 (89.8%)
	Fail	8 (7.3%)	144 (10.2%)

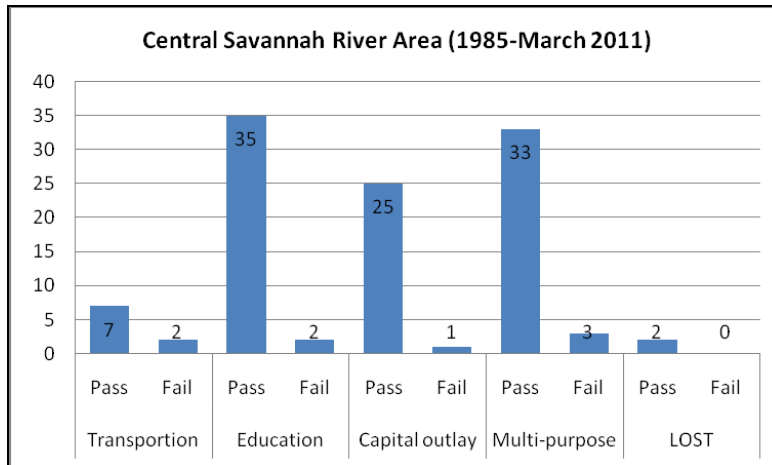


Figure 93. SPLOSTs in the Central Savannah River Area (1985-March 2011)

As seen in Figures 94 and 95, three referenda for transportation purpose only have been proposed within this district since 1997 and all of them were passed, although two out of six transportation measures were failed between 1985 and 1996. This is a positive sign for transportation projects because transportation ballot measures (transportation purpose only) have not been proposed or have had little success in many other districts (eight out of twelve) since 1997, although these successes are geographically limited to two counties, including Taliaferro and Lincoln (Figure 96). Also, multi-purpose ballot measures for both transportation and capital outlay projects have been relatively well positioned in this district. For example, 9 out of 10 multi-purpose ballot measures were passed before 1997 and 24 out of 26 were passed since 1997. Also, those counties that passed multi-purpose SPLOSTs are well spread out within the district (Figure 102).

In sum, voters of the Central Savannah River Area district have been supportive for the one percent sales tax initiatives for all purposes. However, this also means that existing sales tax rates may be higher than other districts, raising a question about the maximum willingness to pay for the sales tax. As some part of the proceeds from the regional SPLOSTs will be used for local

transportation projects as well, this fact should be emphasized during the campaign for the regional SPLOSTs in this district.

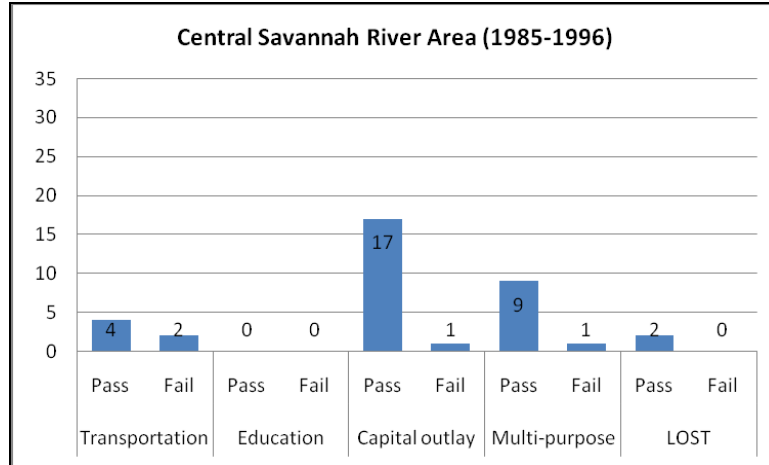


Figure 94. SPLOSTs in the Central Savannah River Area (1985-1996)

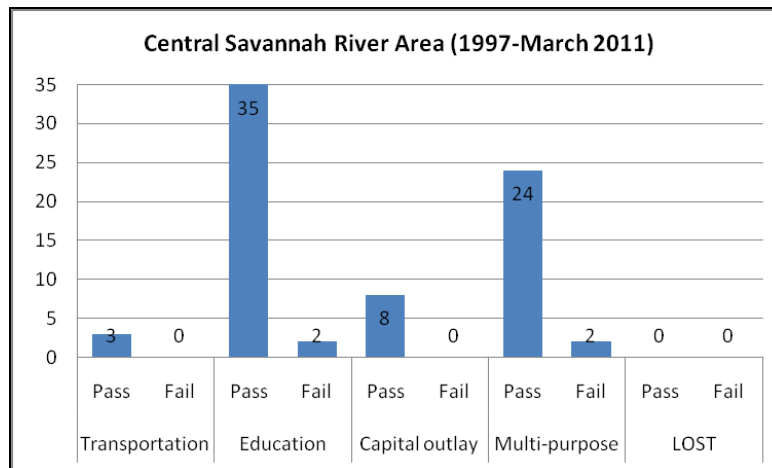


Figure 95. SPLOSTs in the Central Savannah River Area (1997-March 2011)

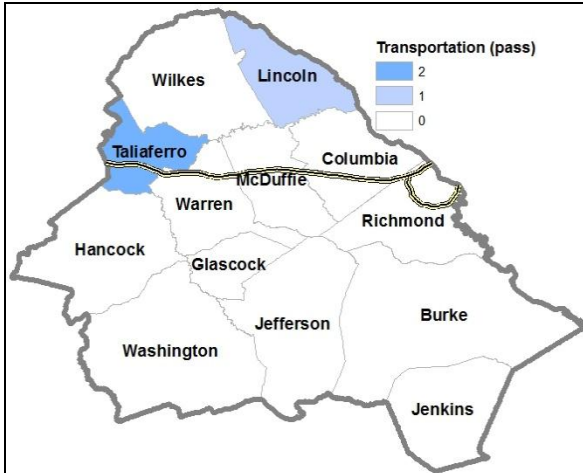


Figure 96. Passed 1% sales tax referenda for transportation only in the Central Savannah River Area (1997-March 2011)

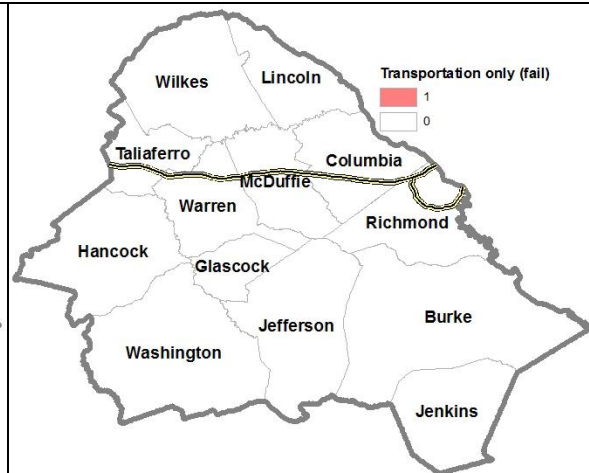


Figure 97. Failed 1% sales tax referenda for transportation only in the Central Savannah River Area (1997-March 2011)

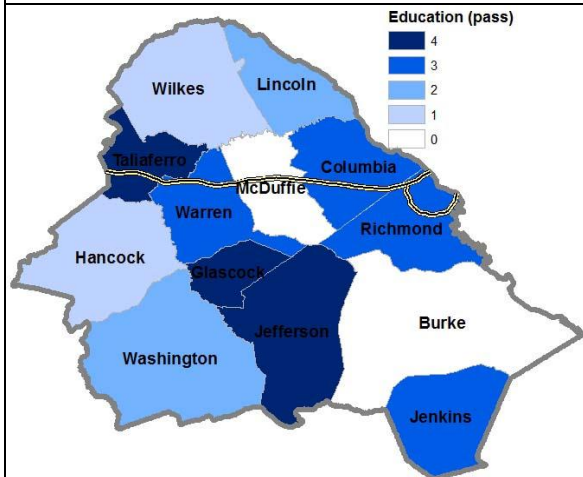


Figure 98. Passed 1% sales tax referenda for education in the Central Savannah River Area (1997-March 2011)

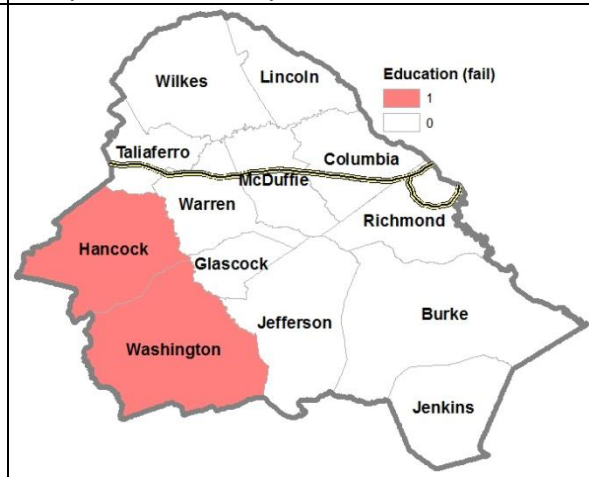


Figure 99. Failed 1% sales tax referenda for education in the Central Savannah River Area (1997-March 2011)

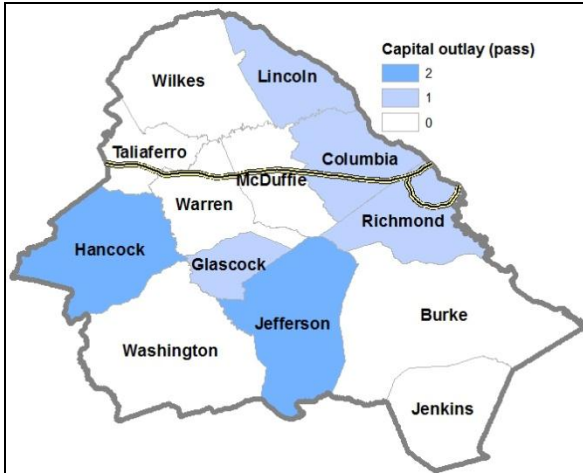


Figure 100. Passed 1% sales tax referenda for capital outlay projects in the Central Savannah River Area (1997-March 2011)

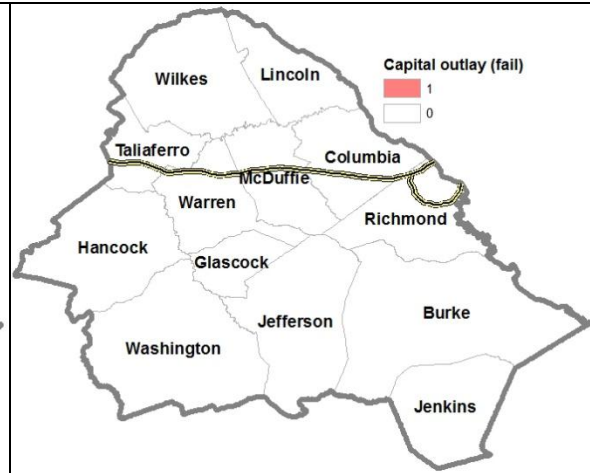


Figure 101. Failed 1% sales tax referenda for capital outlay projects in the Central Savannah River Area (1997-March 2011)

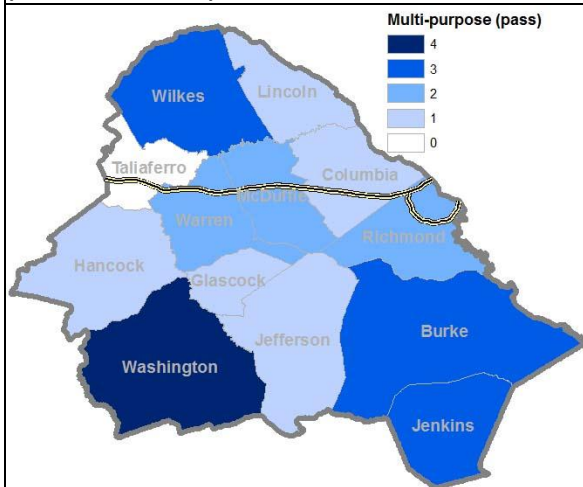


Figure 102. Passed 1% sales tax referenda for multi-purpose in the Central Savannah River Area (1997-March 2011)

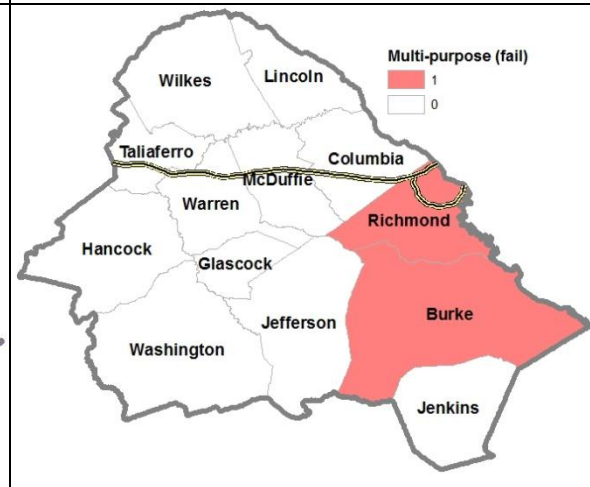
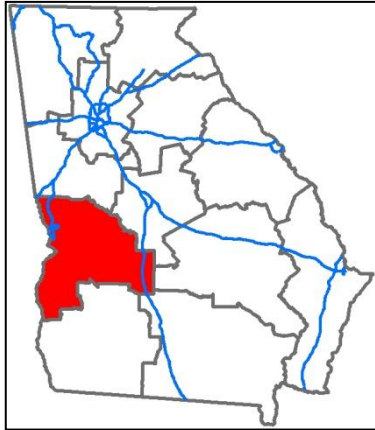


Figure 103. Failed 1% sales tax referenda for multi-purpose in the Central Savannah River Area (1997-March 2011)

5.3.8 River Valley



There were 133 one percent sales tax initiatives proposed within the Central Savannah River Area district between 1985 and 2011 (March). Among them, 120 ballot measures were approved by voters presenting 90.2 percent of passage rate, which is slightly higher than a statewide average passage rate (89.8%) during the same time period. There have been 17 ballot measures for transportation purpose only with 64.7 percent of passage rate, which is lower than the state average rate (73.7%) of transportation ballot measures (transportation purpose only). However, the referenda for capital outlay projects and multi-purpose ballot measures for both transportation and capital outlay projects hold much higher passage rates than the state average. For example, all referenda for capital outlay projects and 17 out of 18 multi-purpose ballot measures have been passed (Table 27). 53 education ballot measures have been passed since 1997, which is the second largest number for ESPLOST referenda passed in 12 districts (Figure 104).

Table 27. Historical SPLOST results in the River Valley district

Purpose	Result	River Valley	Georgia
Transportation only	Pass	11 (64.7%)	84 (73.7%)
	Fail	6 (35.3%)	30 (26.3%)
Education only	Pass	53 (93.0%)	487 (94.6%)
	Fail	4 (7.0%)	28 (5.4%)
Capital outlay only	Pass	25 (100.0%)	435 (90.1%)
	Fail	0 (0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	30 (96.8%)	232 (89.6%)
	Fail	1 (3.2%)	27 (10.4%)
LOST	Pass	1 (50.0%)	22 (71.0%)
	Fail	1 (50.0%)	9 (29.0%)
Total	Pass	120 (90.2%)	1,269 (89.8%)
	Fail	13 (9.8%)	144 (10.2%)

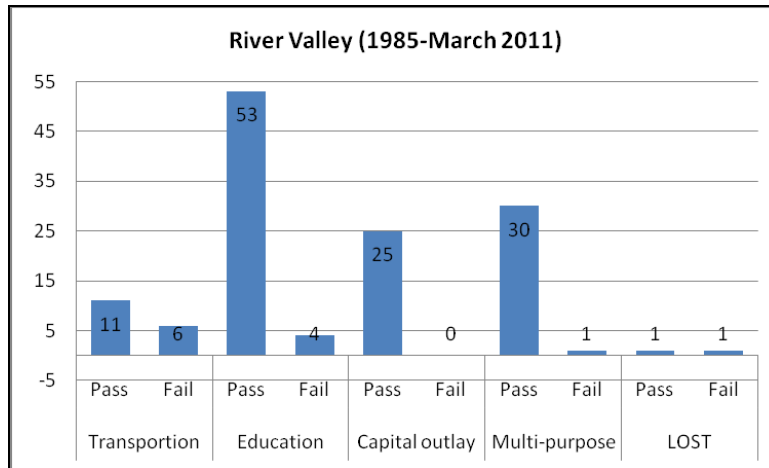


Figure 104. SPLOSTs in the River Valley (1985-March 2011)

As seen in Figures 105 and 106, six referenda for transportation purpose only have been proposed within this district since 1997 and five of them (83.3%) have been successfully passed, although only six out of eleven transportation measures (54.5%) were passed between 1985 and 1996. The number of proposed referenda for transportation purpose only is unusually higher in this district compared to other districts. Also, all 15 proposed referenda for capital outlay projects and 18 referenda for multi-purposes for both transportation and capital outlay projects have been passed since 1997. However, three counties, including Muscogee, Stewart, and Schley, have never proposed transportation related SPLOSTs since 1997 (Figures 113 and 119). Interestingly, 4 out of 5 failed referenda since 1997 are concentrated in education SPLOSTs (Figures 108 and 110).

In sum, the recent positive results of the referenda for transportation projects along with the higher passage of multi-purpose SPLOSTs indicate that voters of the River Valley district have been increasingly supportive for transportation SPLOSTs.

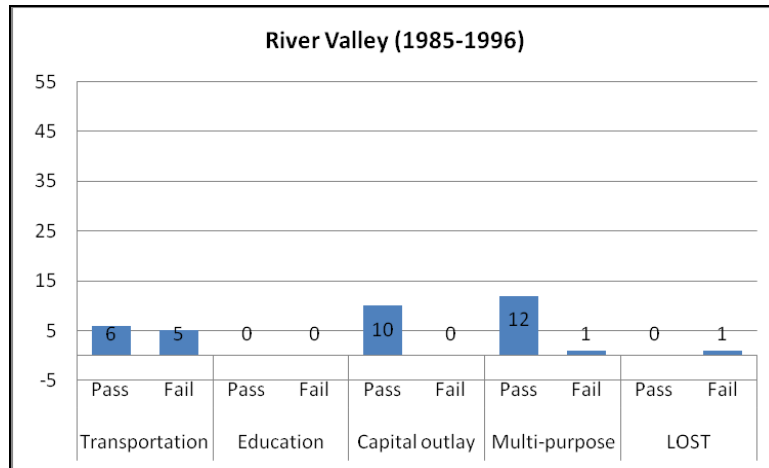


Figure 105. SPLOSTs in the River Valley (1985-1996)

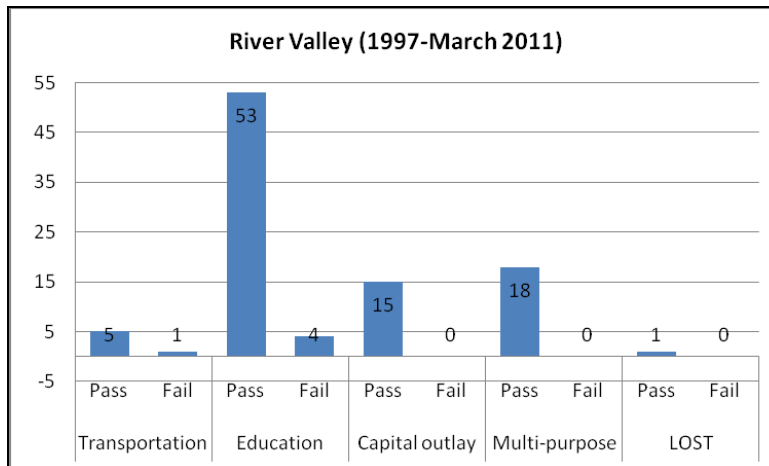


Figure 106. SPLOSTs in the River Valley (1997-March 2011)

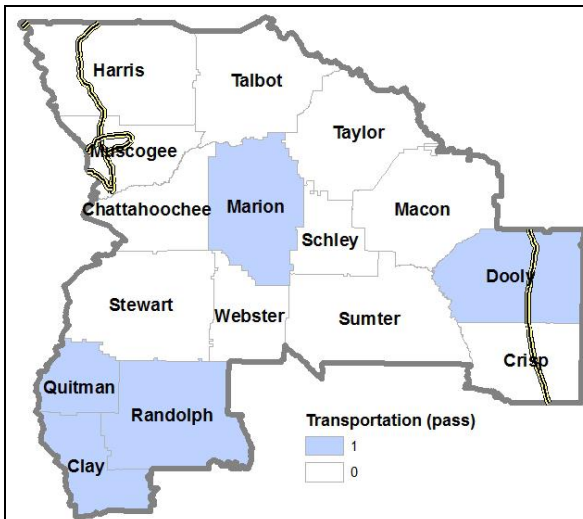


Figure 107. Passed 1% sales tax referenda for transportation only in the River Valley (1997-March 2011)

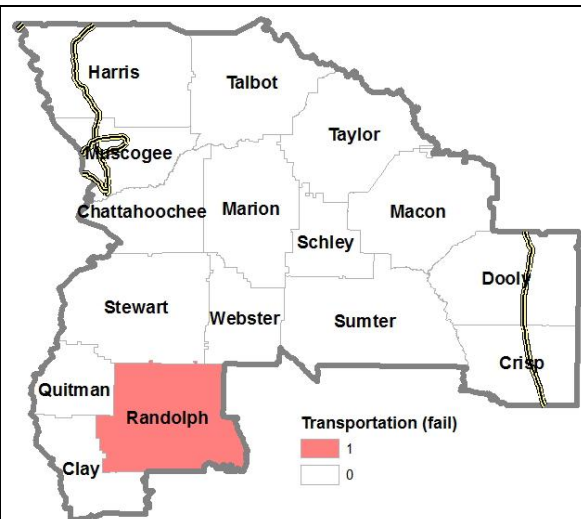


Figure 108. Failed 1% sales tax referenda for transportation only in the River Valley (1997-March 2011)

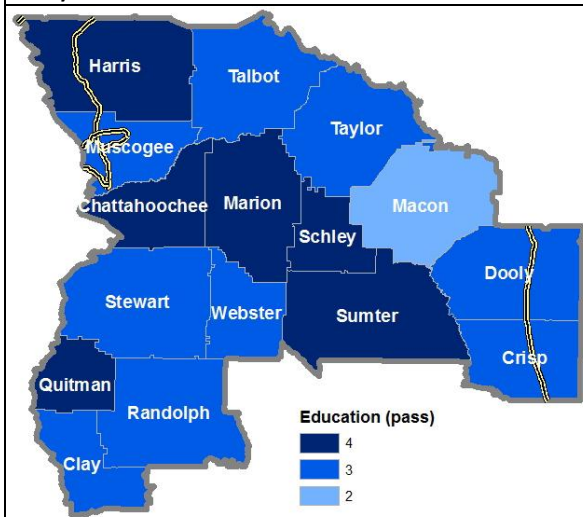


Figure 109. Passed 1% sales tax referenda for education in the River Valley (1997-March 2011)

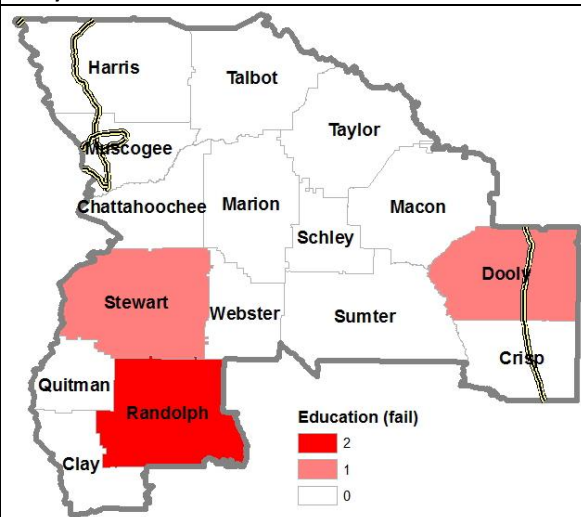


Figure 110. Failed 1% sales tax referenda for education in the River Valley (1997-March 2011)

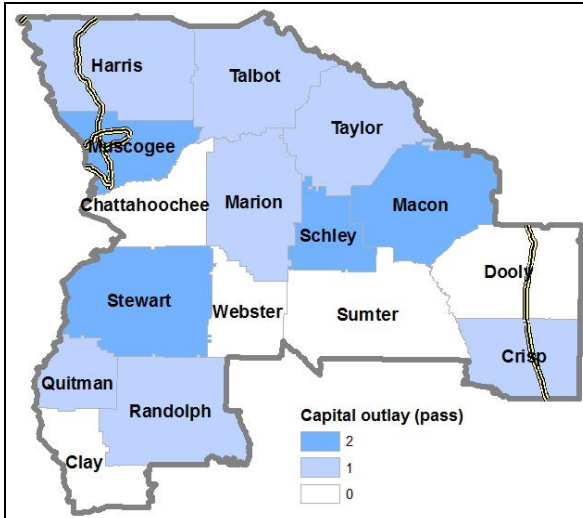


Figure 111. Passed 1% sales tax referenda for capital outlay projects in the River Valley (1997-March 2011)

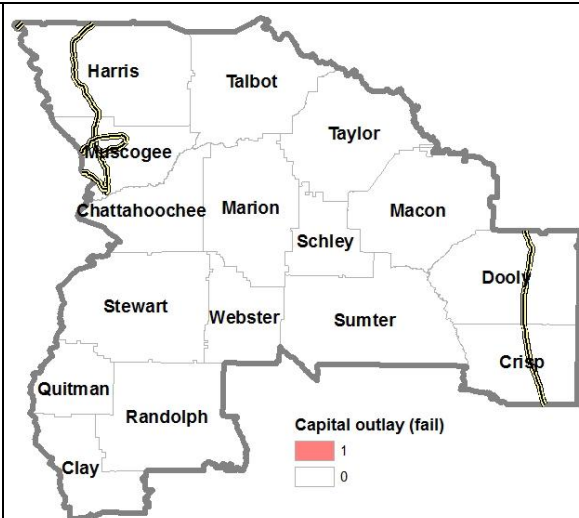


Figure 112. Failed 1% sales tax referenda for capital outlay projects in the River Valley (1997-March 2011)

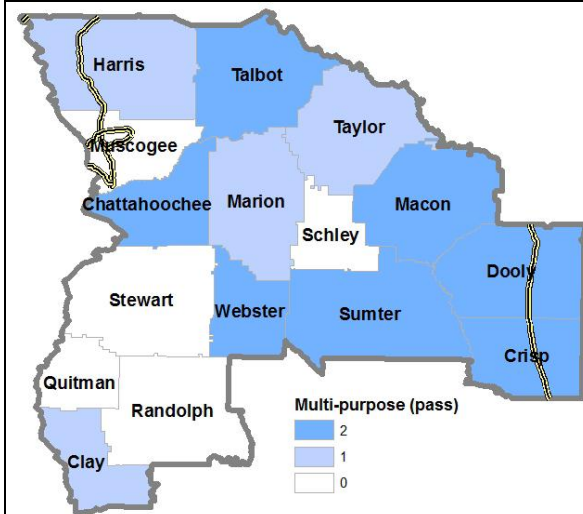


Figure 113. Passed 1% sales tax referenda for multi-purpose in the River Valley (1997-March 2011)

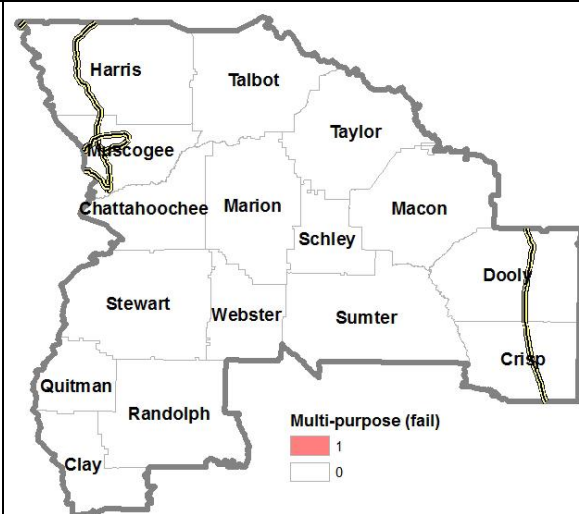
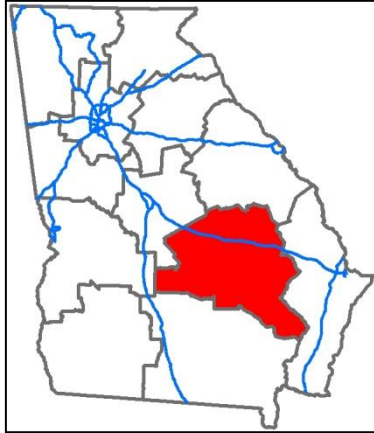


Figure 114. Failed 1% sales tax referenda for multi-purpose in the River Valley (1997-March 2011)

5.3.9 Heart of Georgia Altamaha



There were 140 one percent sales tax initiatives proposed within the Central Savannah River Area district between 1985 and 2011 (March). Among them, 128 ballot measures were approved by voters presenting 91.4 percent of passage rate, which is higher than a statewide average passage rate (89.8%) during the same time

period. There have been 8 ballot measures for transportation purpose only with 75.0 percent of passage rate, which is slightly higher than the state average rate (73.7%) of transportation ballot measures (transportation purpose only). All other SPLOSTs for education, capital outlay projects, and multi-purposes except for LOSTs have higher passage rates of more than 90 percent.

Particularly, the passage rates of the referenda for both capital outlay projects and multi-purpose are higher than that of education purposes. In addition, this district has the second largest number of approved referenda for multi-purpose SPLOSTs for transportation and other capital outlay projects (Table 28). However, an education is still one of major purposes of SPLOSTs in this district with 48 passed ballot measures since 1997 (Figure 115).

Table 28. Historical SPLOST results in the Heart of Georgia Altamaha district

Purpose	Result	Heart of Georgia Altamaha	Georgia
Transportation only	Pass	6 (75.0%)	84 (73.7%)
	Fail	2 (25.0%)	30 (26.3%)
Education only	Pass	48 (92.3%)	487 (94.6%)
	Fail	4 (7.7%)	28 (5.4%)
Capital outlay only	Pass	23 (92.0%)	435 (90.1%)
	Fail	2 (8.0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	49 (94.2%)	232 (89.6%)
	Fail	3 (5.8%)	27 (10.4%)
LOST	Pass	2 (66.7%)	22 (71.0%)
	Fail	1 (33.3%)	9 (29.0%)
Total	Pass	128 (91.4%)	1,269 (89.8%)
	Fail	12 (8.6%)	144 (10.2%)

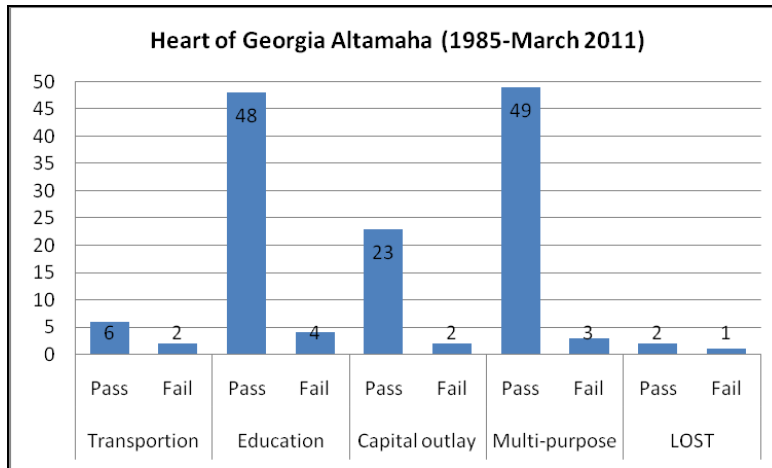


Figure 115. SPLOSTs in the Heart of Georgia Altamaha (1985-March 2011)

As seen in Figures 116 and 117, three transportation purpose only referenda have been proposed within this district since 1997 and all of them have been successfully passed, while two out of five transportation measures were failed between 1985 and 1996. Multi-purpose SPLOSTs are evenly distributed across the district with a fair amount of passed referenda (Figure 124). It turns out that only Wheeler County has never proposed transportation related referenda since 1997.

Overall, voters of the Heart of Georgia Altamaha tend to be supportive for the one percent sales tax initiatives. However, it is not appropriate to suggest that they are highly supportive for transportation projects because the number of passed transportation referenda is small (3 referenda since 1997), and the multi-purpose SPLOSTs, which are popular in this district, propose not only transportation projects but also include other capital outlay projects that will not be supported by the regional SPLOSTs.

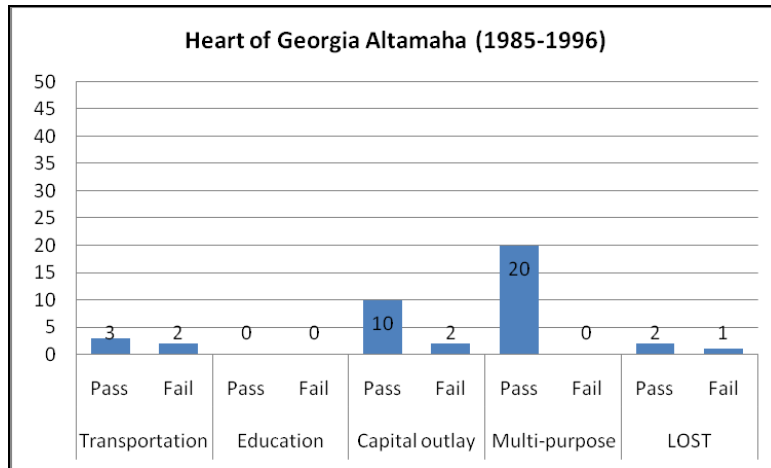


Figure 116. SPLOSTs in the Heart of Georgia Altamaha (1985-1996)

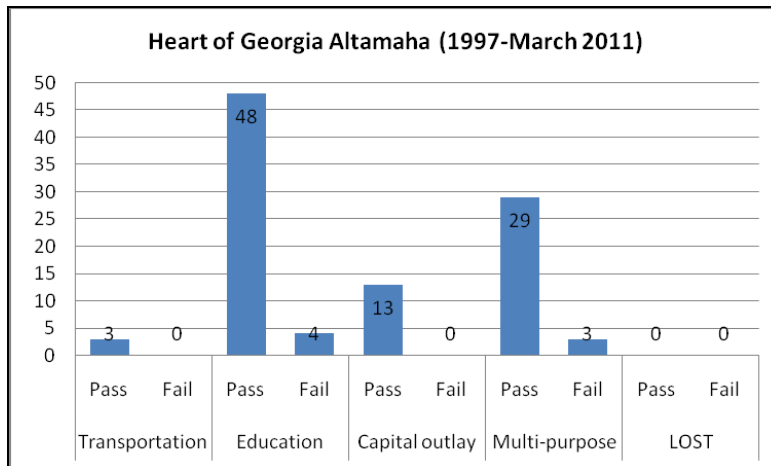


Figure 117. SPLOSTs in the Heart of Georgia Altamaha (1997-March 2011)

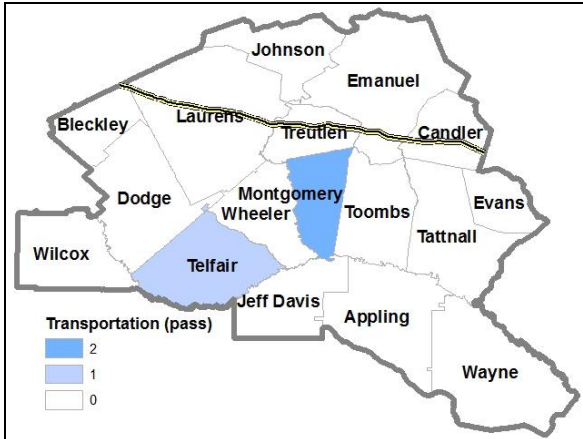


Figure 118. Passed 1% sales tax referenda for transportation only in the Heart of Georgia Altamaha (1997-March 2011)

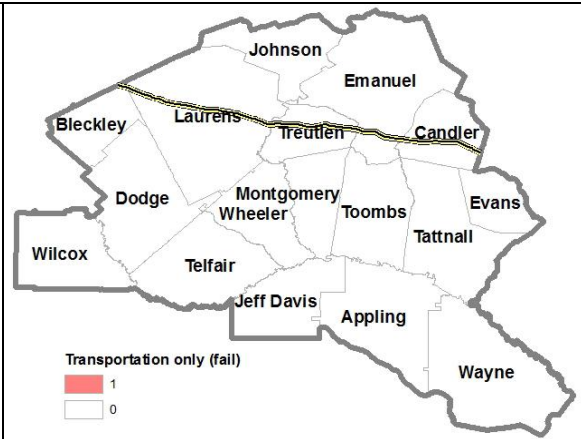


Figure 119. Failed 1% sales tax referenda for transportation only in the Heart of Georgia Altamaha (1997-March 2011)

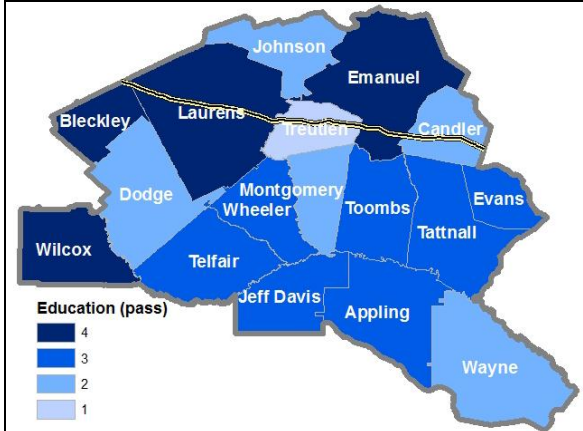


Figure 120. Passed 1% sales tax referenda for education in the Heart of Georgia Altamaha (1997-March 2011)

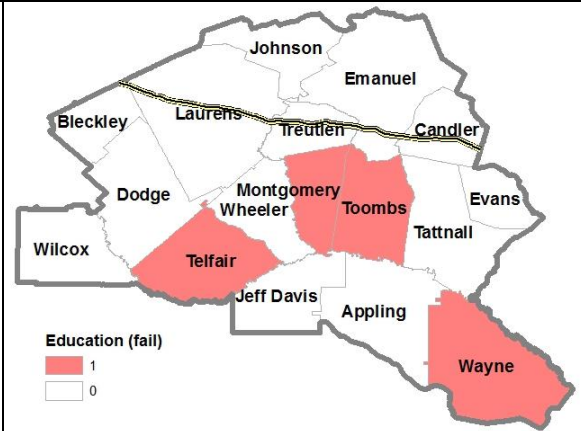


Figure 121. Failed 1% sales tax referenda for education in the Heart of Georgia Altamaha (1997-March 2011)

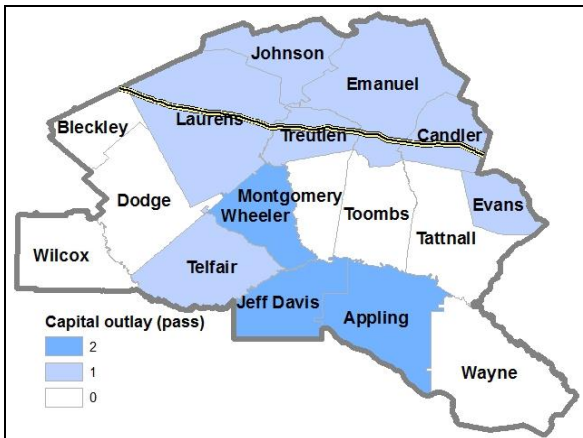


Figure 122. Passed 1% sales tax referenda for capital outlay projects in the Heart of Georgia Altamaha (1997-March 2011)

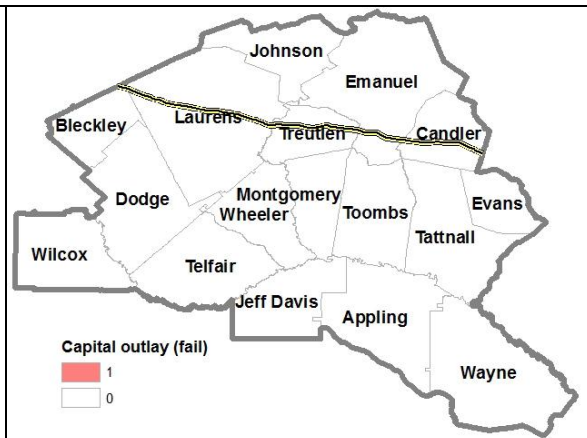


Figure 123. Failed 1% sales tax referenda for capital outlay projects in the Heart of Georgia Altamaha (1997-March 2011)

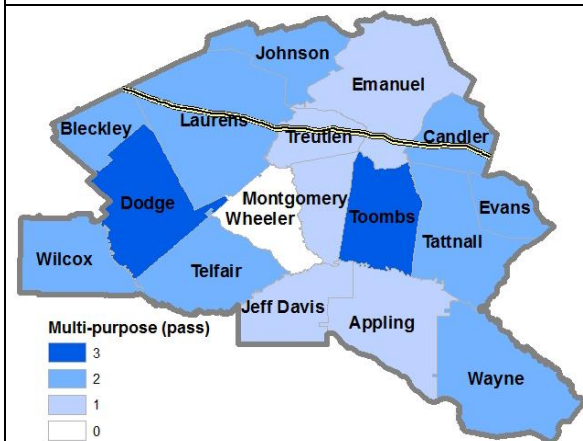


Figure 124. Passed 1% sales tax referenda for multi-purpose in the Heart of Georgia Altamaha (1997-March 2011)

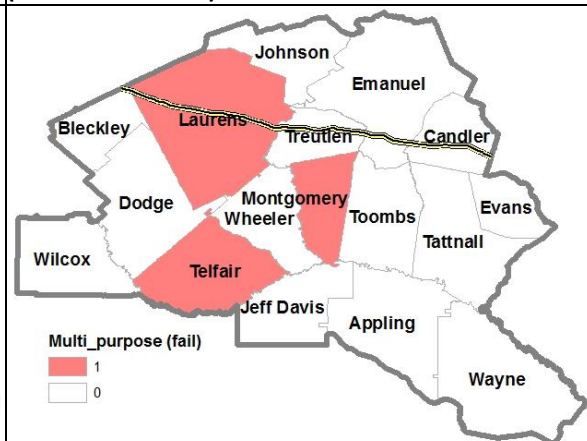
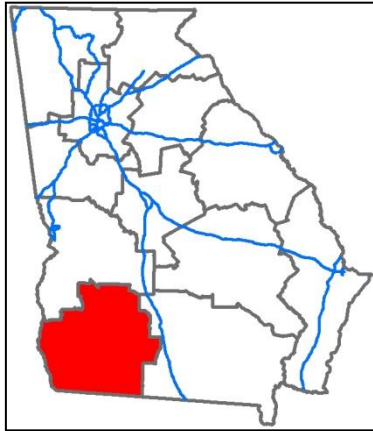


Figure 125. Failed 1% sales tax referenda for multi-purpose in the Heart of Georgia Altamaha (1997-March 2011)

5.3.10 Southwest Georgia

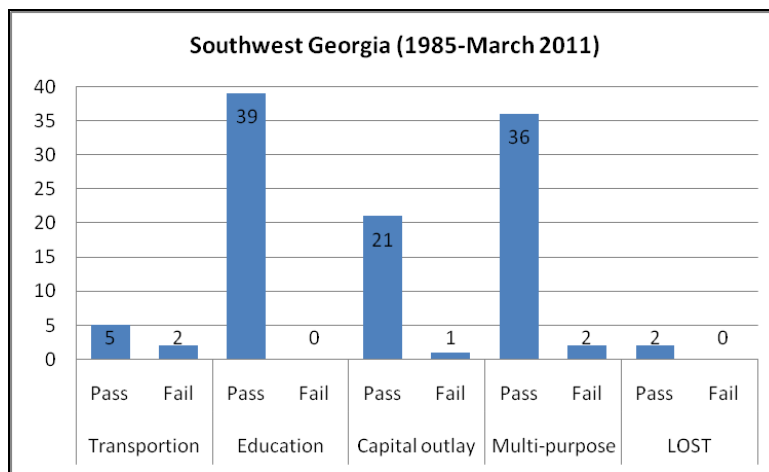


There were 108 one percent sales tax initiatives proposed within the Southwest Georgia district between 1985 and 2011 (March). Among them, 103 ballot measures were approved by voters presenting 95.4 percent of passage rate, which is much higher than a statewide average passage rate (89.8%) during the same time period. However, the

referenda for transportation purpose only have not gotten such supports from voters in this district. For example, there have been 7 referenda for transportation purpose only with 71.4 percent of passage rate, which is lower than the state average rate (73.7%) of transportation ballot measures (transportation purpose only). From the fact that 36 multi-purpose referenda have been passed with a higher passage rate of 94.7 percent, it is assumed that many transportation projects have been integrated into capital outlay projects. All other SPLOSTs for education and capital outlay projects only and LOSTs have substantially higher passage rates than the state averages. Particularly, all 39 proposed education referenda and 2 LOST referenda have been passed within the district (Table 29). Education and multi-purpose projects are major purposes of SPLOSTs in the district with 39 and 36 passed ballot measures, respectively, followed by capital outlay projects since 1985 (Figure 126).

Table 29. Historical SPLOST results in the Southwest Georgia district

Purpose	Result	Southwest Georgia	Georgia
Transportation only	Pass	5 (71.4%)	84 (73.7%)
	Fail	2 (28.6%)	30 (26.3%)
Education only	Pass	39 (100.0%)	487 (94.6%)
	Fail	0 (0%)	28 (5.4%)
Capital outlay only	Pass	21 (95.5%)	435 (90.1%)
	Fail	1 (4.5%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	36 (94.7%)	232 (89.6%)
	Fail	2 (5.3%)	27 (10.4%)
LOST	Pass	2 (100.0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	103 (95.4%)	1,269 (89.8%)
	Fail	5 (4.6%)	144 (10.2%)

**Figure 126. SPLOSTs in the Southwest Georgia (1985-March 2011)**

As seen in Figures 127 and 128, no single referendum for transportation purpose only has been proposed within the district since 1997, while five out of seven transportation measures were passed between 1985 and 1996. On the other hand, the education SPLOSTs have been well supported by voters with 100% passage rate, and all counties within the district have imposed at least twice of ESPLOSTs since 1997 (Figures 131 and 132).

In sum, transportation only projects were not supported well by voters of the Southwest Georgia district. As voters' response to multi-purpose initiatives is still highly positive, such an alternative combining transportation with capital outlay projects may be more actively considered.

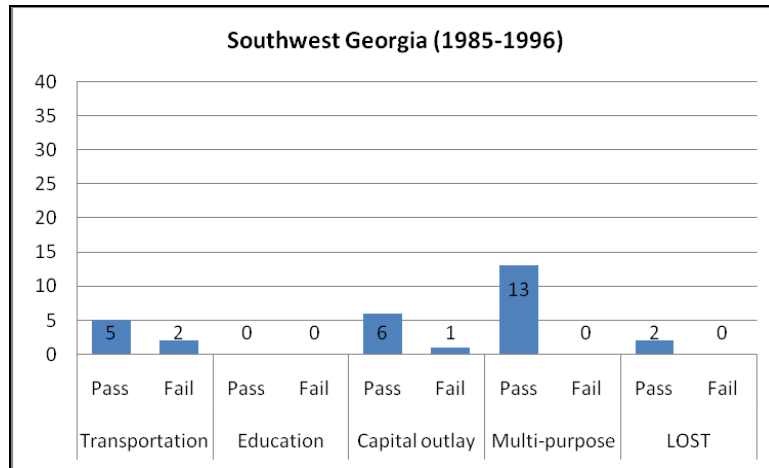


Figure 127. SPLOSTs in the Southwest Georgia (1985-1996)

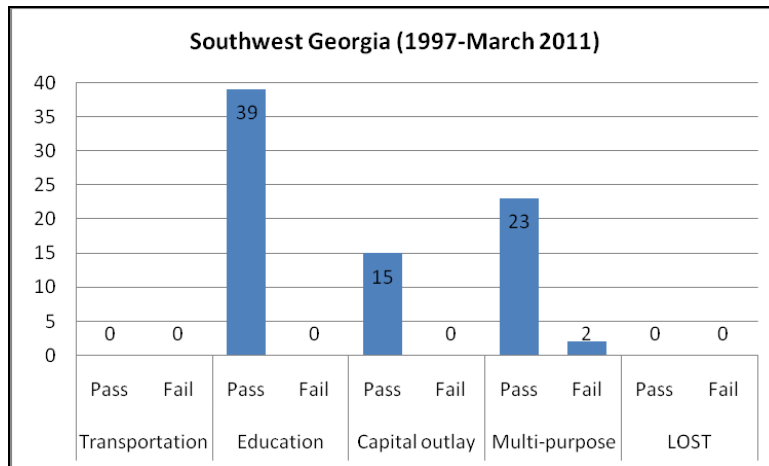


Figure 128. SPLOSTs in the Southwest Georgia (1997-March 2011)

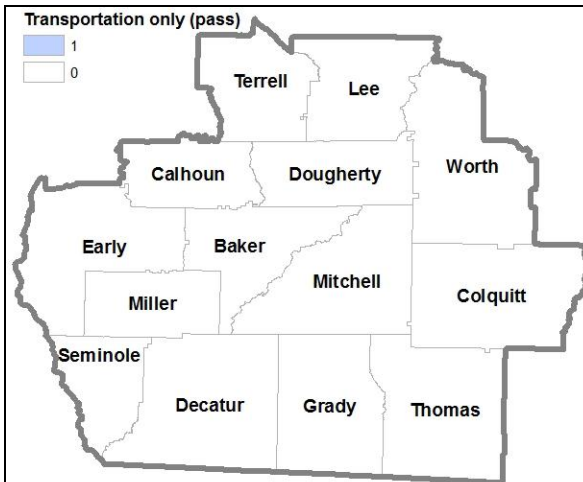


Figure 129. Passed 1% sales tax referenda for transportation only in the Southwest Georgia (1997-March 2011)

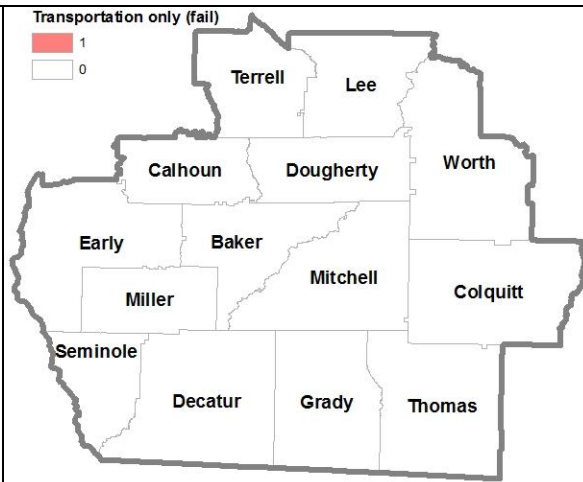


Figure 130. Failed 1% sales tax referenda for transportation only in the Southwest Georgia (1997-March 2011)

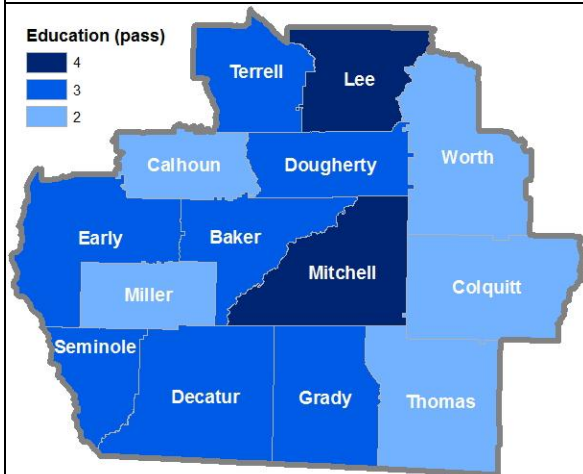


Figure 131. Passed 1% sales tax referenda for education in the Southwest Georgia (1997-March 2011)

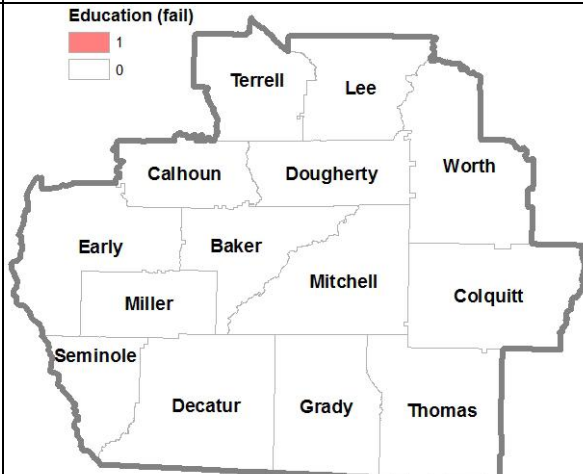


Figure 132. Failed 1% sales tax referenda for education in the Southwest Georgia (1997-March 2011)

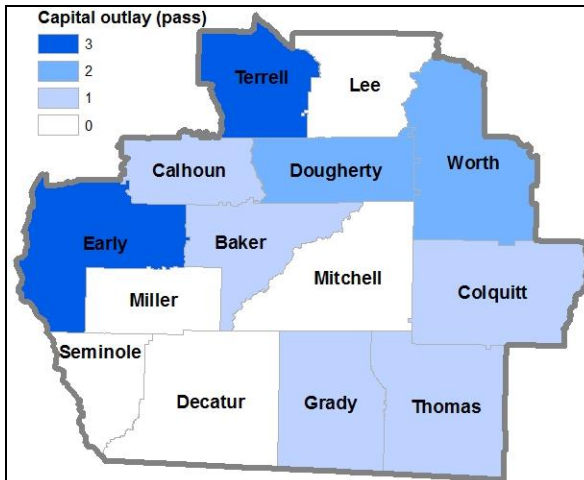


Figure 133. Passed 1% sales tax referenda for capital outlay projects in the Southwest Georgia (1997-March 2011)

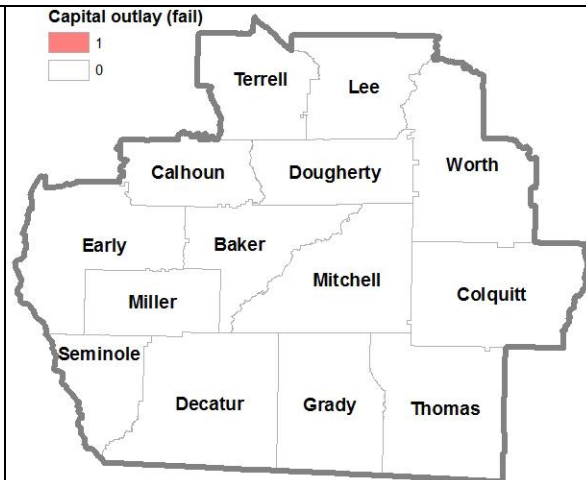


Figure 134. Failed 1% sales tax referenda for capital outlay projects in the Southwest Georgia (1997-March 2011)

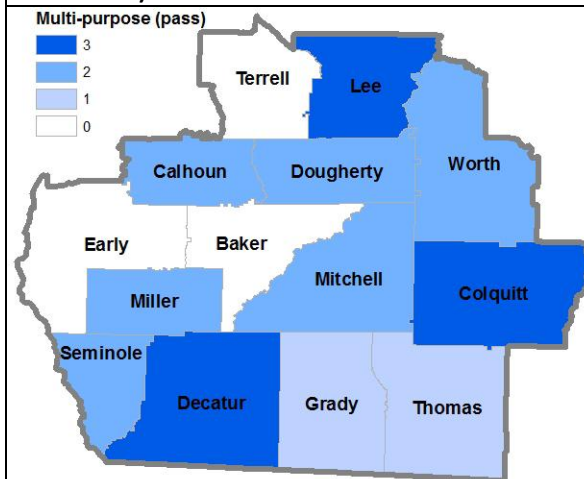


Figure 135. Passed 1% sales tax referenda for multi-purpose in the Southwest Georgia (1997-March 2011)

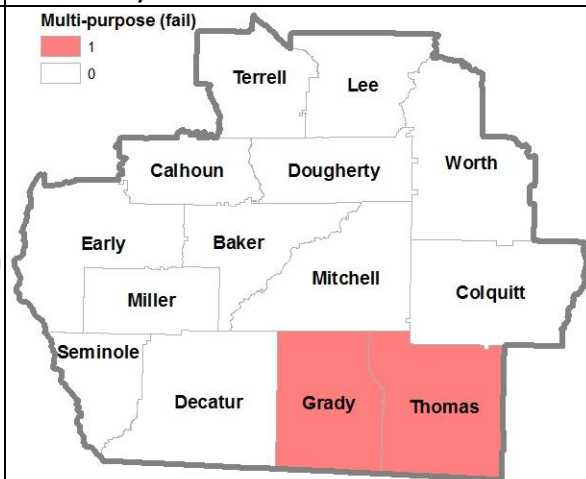
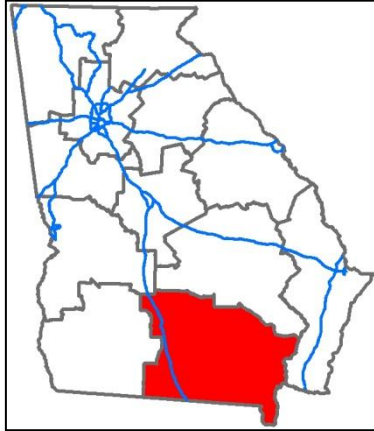


Figure 136. Failed 1% sales tax referenda for multi-purpose in the Southwest Georgia (1997-March 2011)

5.3.11 Southern Georgia



There were 160 one percent sales tax initiatives proposed within the Southern Georgia district between 1985 and 2011 (March). Among them, 146 ballot measures were approved by voters presenting 91.3 percent of passage rate, which is slightly higher than a statewide average passage rate (89.8%) during the same time period. There

have been 18 referenda for transportation purpose with 77.8 percent of passage rate, which is higher than the state average rate (73.7%). Also, the 14 absolute number of passed transportation referenda within the district accounts for approximately 17 percent of the total referenda for transportation purpose only proposed in Georgia since 1985, indicating that voters of the Southern Georgia district passed the largest number of transportation referenda among 12 districts. Almost all education SPLOSTs (55 out of 56) have been passed within the district with a 98.2 percent of passage rate, while capital outlay projects and multi-purpose initiatives had moderate passage rates (Table 30). Similar to the Southwest Georgia district, education and multi-purpose projects have been major purposes of SPLOSTs in the district with 55 and 52 passed ballot measures, respectively, followed by capital outlay projects since 1985 (Figure 137).

Table 30. Historical SPLOST results in the Southern Georgia district

Purpose	Result	Southern Georgia	Georgia
Transportation only	Pass	14 (77.8%)	84 (73.7%)
	Fail	4 (22.2%)	30 (26.3%)
Education only	Pass	55 (98.2%)	487 (94.6%)
	Fail	1 (1.8%)	28 (5.4%)
Capital outlay only	Pass	24 (88.9%)	435 (90.1%)
	Fail	3 (11.1%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	52 (91.2%)	232 (89.6%)
	Fail	5 (8.8%)	27 (10.4%)
LOST	Pass	1 (50.0%)	22 (71.0%)
	Fail	1 (50.0%)	9 (29.0%)
Total	Pass	146 (91.3%)	1,269 (89.8%)
	Fail	14 (8.8%)	144 (10.2%)

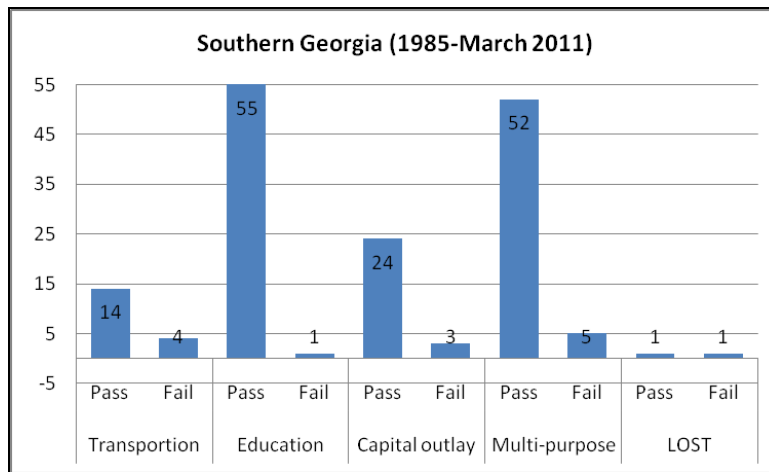


Figure 137. SPLOSTs in the Southern Georgia (1985-March 2011)

As seen in Figures 138 and 139, the Southern Georgia district has shown a higher passage rate of the sales tax referenda since 1997. For example, 102 out of 105 proposed ballot measures have been passed since 1997, showing approximately 97 percent of passage rate, while 43 out of 55 referenda were passed between 1985 and 1996. In particular, 6 out of 7 referenda for transportation only and 28 out of 29 multi-purpose referenda have gotten voters' approval since 1997. The SPLOST referenda for transportation purpose only are relatively popular in Lanier and Clinch counties with 3 and 2 passed referenda, respectively, even after 1996 (Figure 140).

Transportation related SPLOSTs, including transportation purpose only and multi-purposes, have

been evenly imposed across the district in terms of a geographical distribution, although four counties, including Ben Hill, Irwin, Echols, and Brantley, have never passed those referenda since 1997 (Figures 140 and 146).

The recent higher passage rate for transportation referenda, including transportation purpose only and multi-purposes indicates that voters of the Southern Georgia district have shown higher willingness to support for transportation projects.

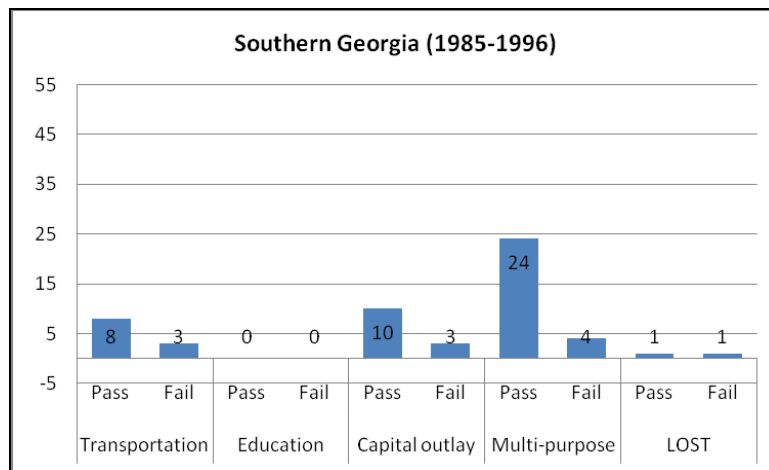


Figure 138. SPLOSTs in the Southern Georgia (1985-1996)

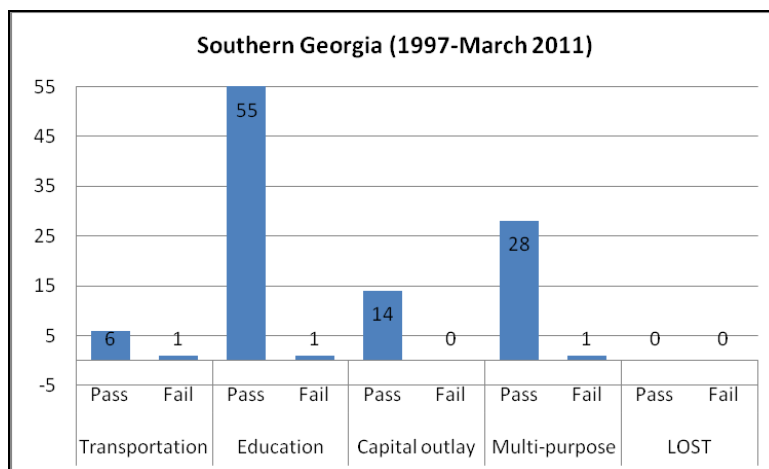


Figure 139. SPLOSTs in the Southern Georgia (1997-March 2011)

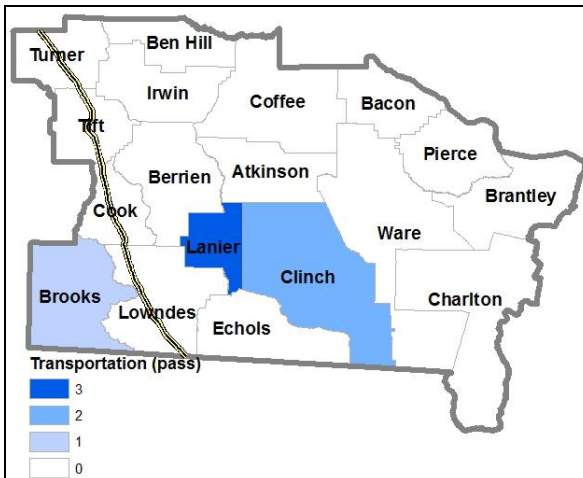


Figure 140. Passed 1% sales tax referenda for transportation only in the Southern Georgia (1997-March 2011)

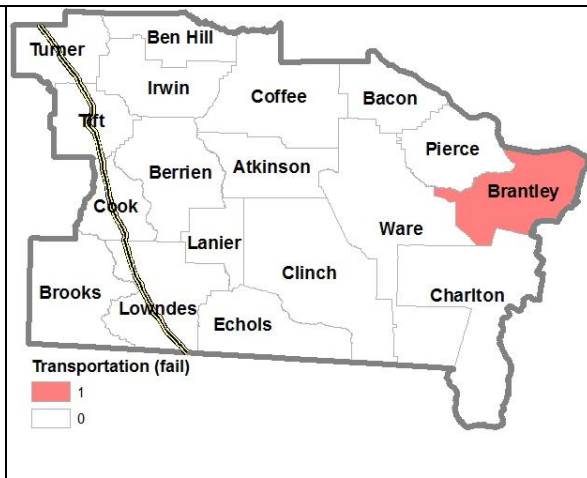


Figure 141. Failed 1% sales tax referenda for transportation only in the Southern Georgia (1997-March 2011)

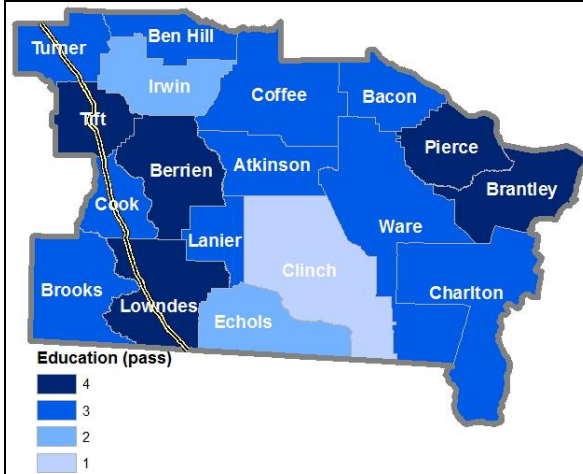


Figure 142. Passed 1% sales tax referenda for education in the Southern Georgia (1997-March 2011)

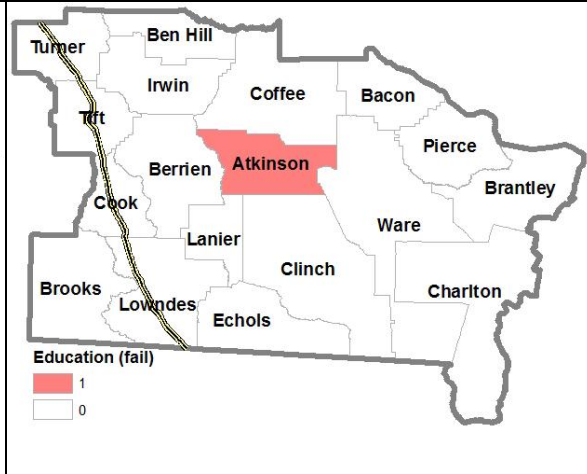


Figure 143. Failed 1% sales tax referenda for education in the Southern Georgia (1997-March 2011)

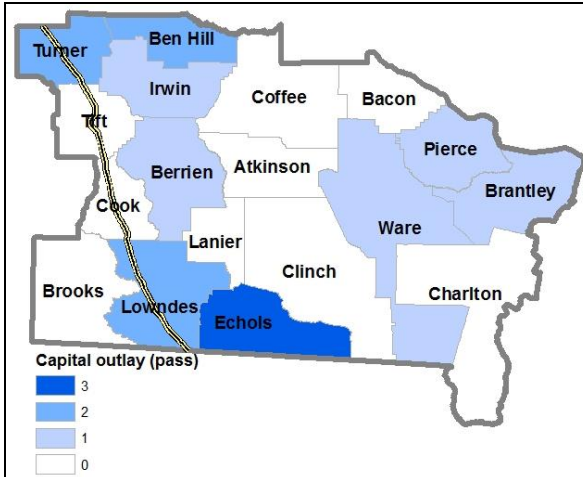


Figure 144. Passed 1% sales tax referenda for capital outlay projects in the Southern Georgia (1997-March 2011)

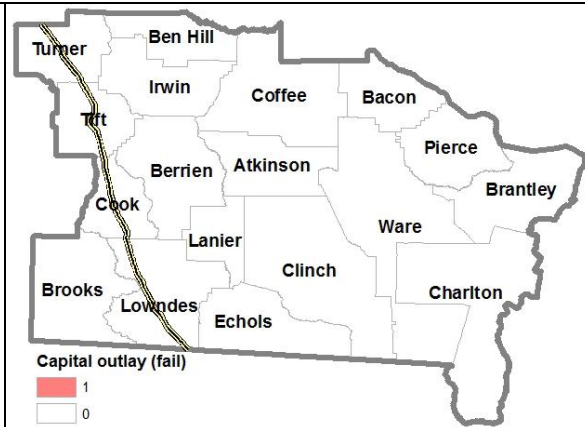


Figure 145. Failed 1% sales tax referenda for capital outlay projects in the Southern Georgia (1997-March 2011)

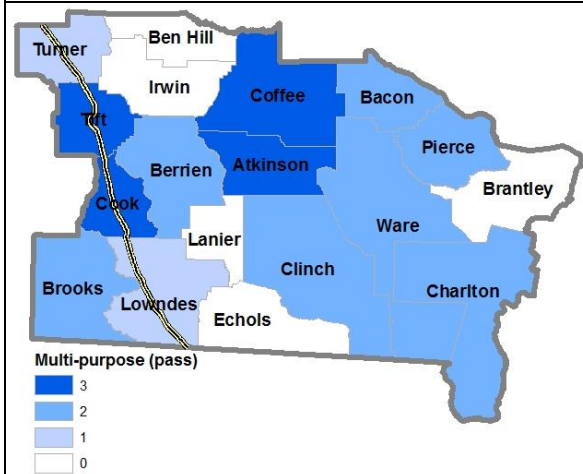


Figure 146. Passed 1% sales tax referenda for multi-purpose in the Southern Georgia (1997-March 2011)

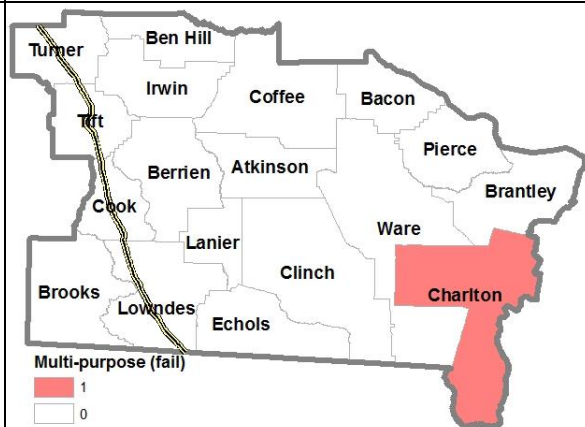
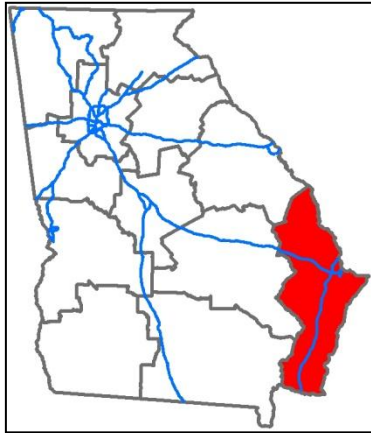


Figure 147. Failed 1% sales tax referenda for multi-purpose in the Southern Georgia (1997-March 2011)

5.3.12 Coastal



There were 85 one percent sales tax initiatives proposed within the Coastal district between 1985 and 2011 (March). Among them, 81 ballot measures were approved by voters presenting 95.3 percent of passage rate, which is much higher than a statewide average passage rate (89.8%) during the same time period. There have been 9

referenda for transportation purpose with 77.8 percent of passage rate, which is higher than the state average rate (73.7%). While education SPLOSTs have shown a slightly lower passage rate (93.5%) than the state average (94.6%), all SPLOST referenda for capital outlay projects (12 referenda) and multi-purposes (32 referenda), which also includes transportation projects, have been passed since 1985 (Table 31). Figure 148 shows that education SPLOSTs within the Coastal district are not much strong in terms of the absolute number of passed referenda, compared with the number of passed education ballot measures in other districts.

Table 31. Historical SPLOST results in the Coastal district

Purpose	Result	Coastal	Georgia
Transportation only	Pass	7 (77.8%)	84 (73.7%)
	Fail	2 (22.2%)	30 (26.3%)
Education only	Pass	29 (93.5%)	487 (94.6%)
	Fail	2 (6.5%)	28 (5.4%)
Capital outlay only	Pass	12 (100.0%)	435 (90.1%)
	Fail	0 (0%)	48 (9.9%)
Multi-purpose (Transport + Capital outlay)	Pass	32 (100.0%)	232 (89.6%)
	Fail	0 (0%)	27 (10.4%)
LOST	Pass	1 (100.0%)	22 (71.0%)
	Fail	0 (0%)	9 (29.0%)
Total	Pass	81 (95.3%)	1,269 (89.8%)
	Fail	4 (4.7%)	144 (10.2%)

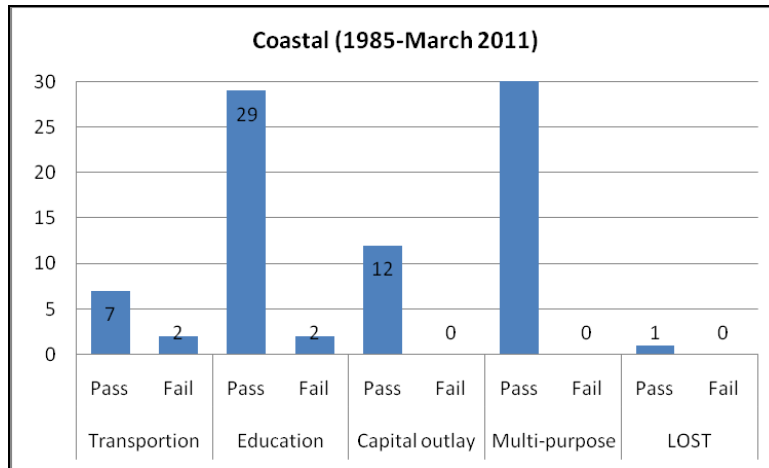


Figure 148. SPLOSTs in the Coastal (1985-March 2011)

As seen in Figures 149 and 150, the results of referenda for transportation purpose only are quite different before and after the enactment of the ESPLOST law. For example, 8 transportation ballot measures were proposed before 1997 with six of them approved. However, since the ESPLOST was enacted in 1996, only one referendum for transportation purpose only was proposed and passed in Long County (Figure 151), while 29 education SPLOSTs have been approved since then, implying that education SPLOSTs might negatively affect the initiation of the SPLOSTs for transportation purpose only.

Although, the referenda for both capital outlay projects and multi-purposes were slightly increased between the two time periods (between 1985 and 1996 VS. between 1997 and March 2011) from 5 to 7 and from 14 to 18, respectively, all those referenda were passed with 100% passage rates. In addition, only two counties, including Glynn and McIntosh, have experienced the failure of referenda in education purposes since 1997, and all other counties that proposed SPLOST referenda for any purposes have been successful (Figures 152, 154, 156, and 158), implying that voters of the Coastal district have been very supportive of SPLOSTs even for transportation purposes.

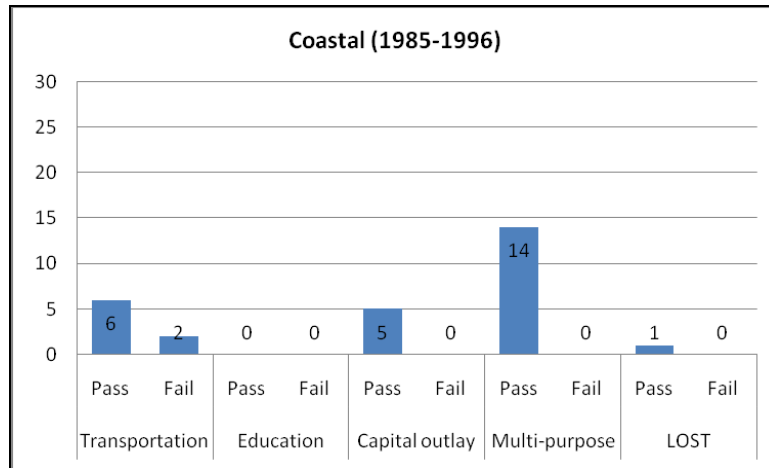


Figure 149. SPLOSTs in the Coastal (1985-1996)

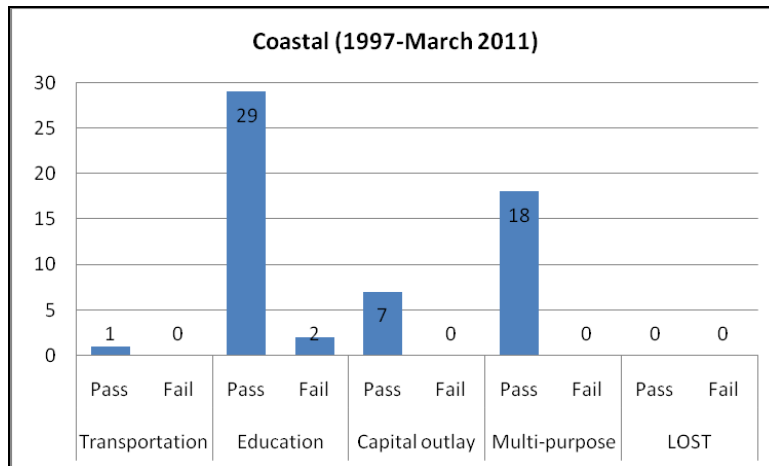


Figure 150. SPLOSTs in the Coastal (1997-March 2011)

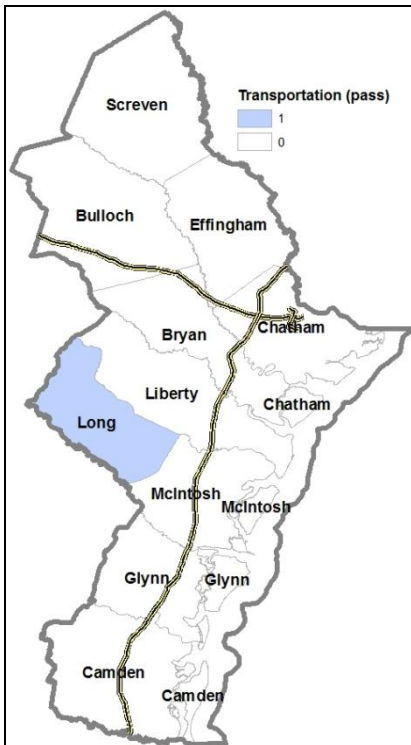


Figure 151. Passed 1% sales tax referenda for transportation only in the Coastal (1997-March 2011)

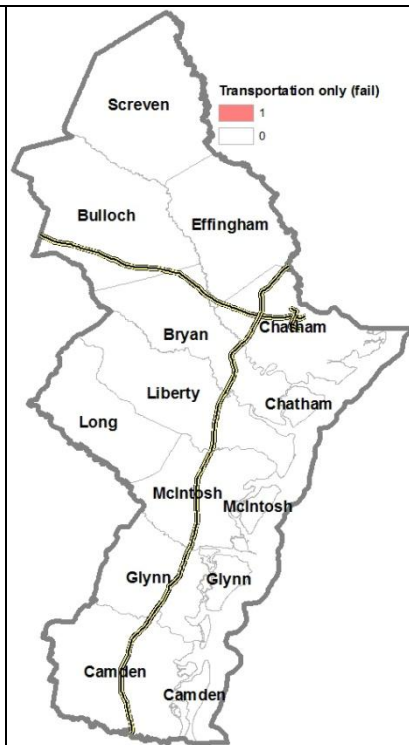


Figure 152. Failed 1% sales tax referenda for transportation only in the Coastal (1997-March 2011)

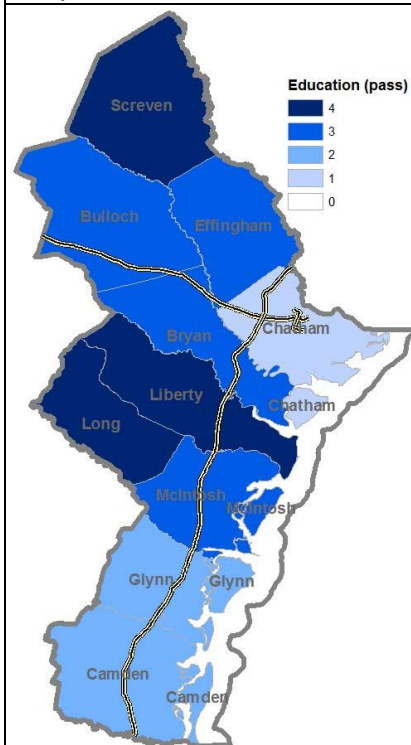


Figure 153. Passed 1% sales tax referenda for education in the Coastal (1997-March 2011)

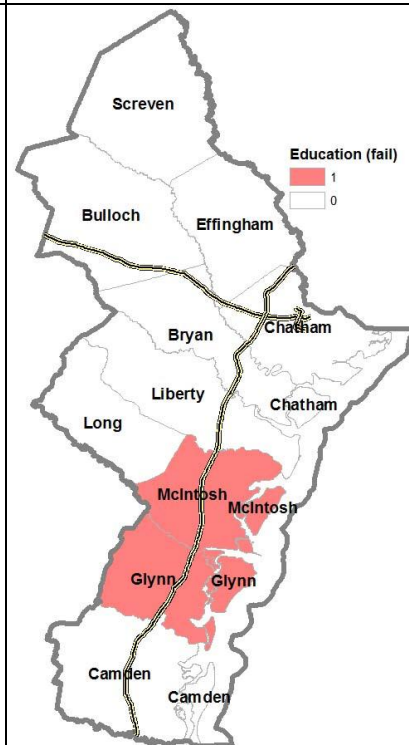


Figure 154. Failed 1% sales tax referenda for education in the Coastal (1997-March 2011)

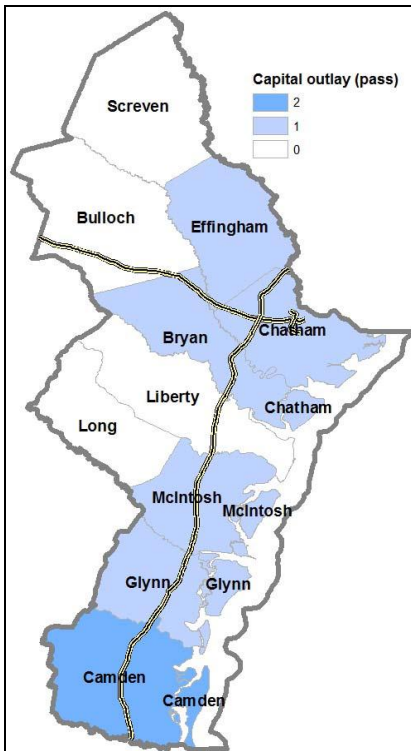


Figure 155. Passed 1% sales tax referenda for capital outlay projects in the Coastal (1997-March 2011)

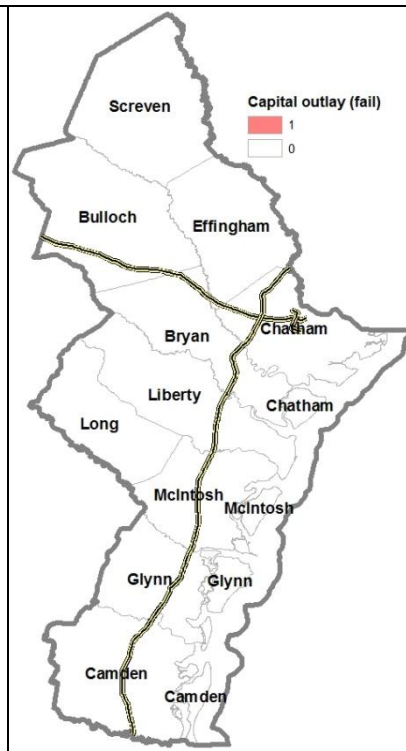


Figure 156. Failed 1% sales tax referenda for capital outlay projects in the Coastal (1997-March 2011)

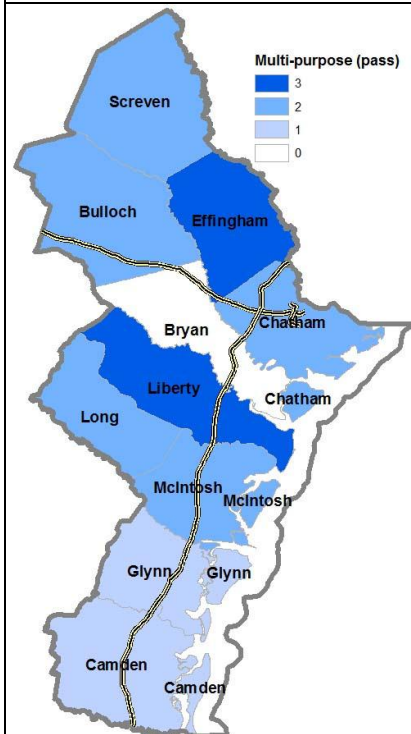


Figure 157. Passed 1% sales tax referenda for multi-purpose in the Coastal (1997-March 2011)

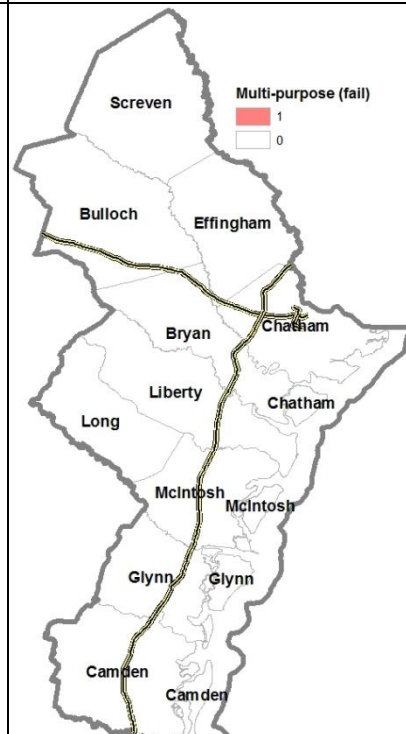


Figure 158. Failed 1% sales tax referenda for multi-purpose in the Coastal (1997-March 2011)

6. CONCLUSIONS AND IMPLICATIONS

Traditionally, the major source of transportation funding at both the federal and state level in the U.S. has been supported by fuel tax revenues. Although this revenue source has been presented as an equitable way of funding transportation projects since the users of the roads who pay the fuel taxes directly benefit from the transportation improvements funded by the taxes, it has not kept pace with the level of transportation investment needed to maintain and provide an efficient transportation system in the U.S. In addition, many argue that the true costs of road usage and driving is not paid by drivers. Certain states have also restricted the use of this revenue to highway and road projects making transit related investments ineligible. Due to advances in vehicle fuel economies, increases in fuel prices, an increased use of alternative fuels, and the fact that the fuel tax has remained a flat rate which has been constantly eroded by inflation, the fuel tax is becoming a less effective revenue source. This funding strain has also influenced the revenues available to local governments to provide for their local transportation needs. Acknowledging the importance of maintaining an efficient transportation system and its influence on the environmental, social and economic well-being of a region, local authorities have progressively begun to explore more innovative means of generating the much needed revenue to support their transportation system.

One such innovation has been the use of local ballot measures to secure transportation revenues. This research in particular, focused on providing a very comprehensive review of the use of a voter approved local transportation sales tax initiative to generate transportation funds. In the state of Georgia authorities have utilized local sales tax options to finance public spending since the 1970s through the use of the local option sales tax (LOST) which can be used for general purpose expenditures, the special purpose local option sales tax (SPLOST) used to finance capital outlay including transportation expenditures, and the educational special purpose local option sales tax (ESPLOST), utilized specifically for educational capital outlay. The SPLOSTs have provided local authorities with transportation funds which have been used to

address local transportation issues. However, transportation issues, and their solutions, are not localized and constrained within a single locality or jurisdiction. These issues and associated solutions have to be addressed in a more regional manner, void of county boundaries and engaging multi-jurisdiction coordination and cooperation. Given the regional scope of transportation issues, Georgia authorities are currently proposing the introduction of a regional 1% transportation sales tax across all counties within the state. Seeing that this voter approved regional tax will now have to interact with other county-specific local option taxes that are in place, this research explored the possible impacts that a regional sales tax might have on county-specific transportation taxes, or vice versa, and the factors or initiatives that might lend themselves to gain voter support or approval of this measure.

Through a review of literature and an extensive assessment of current practice certain factors or initiatives were identified that influence and leads to the success or failure of such voter approved measures. These factors include the existing tax burden borne by residents when the measure is proposed; the socio-demographic and community characteristics of a locality; the community's perception of transportation issues and the degree to which they view these issues as a problem; the campaign, marketing and outreach tools used including the size of the campaign budget, the media used for advertising and the content that is communicated to voters; the stakeholders that are engaged in the process and the level of community input and involvement fostered. A regional transportation sales tax initiative at the scale being proposed by Georgia authorities has not been undertaken anywhere else in the U.S. and thus there is no existing case or model that can be examined that satisfies this unique arrangement. However, to better understand the current use of regional transportation sales tax initiatives in the nation, this report also provides a brief overview of ten cases that are utilizing a regional or multi-county voter approved sales tax structure.

Drawing from these case studies explored, four select cases were reviewed in detail to show how these regional taxes function and how they interact with other county-specific

transportation sales taxes. These cases included the – San Francisco BART (California), Puget Sound Regional Transit Authority (Washington), Utah Transit Authority (Utah), and Denver Regional Transit Authority (Colorado). The cases presented here attempted to identify the successes, failures and lessons to be learned from the use of sales and tax levies to fund transportation related projects at both the regional and county levels. For all cases both county-specific and regional transportation sales taxes co-exist, implying that authorities can get voters to support and approve multiple tax initiatives to fund transportation investments during the same period if needed. Additional factors or circumstances also presented themselves in these cases that can be useful to Georgia as they move forward with this measure.

In the case of San Francisco’s BART system, the regional tax and county-specific local sales tax was supported by voters due in part to the large use of sales taxes by other counties within the state to generate transportation revenues. This prominent use has influenced and bred a tax culture amongst the citizens who are more familiar with its use. Seattle’s Sound Transit has focused on promoting an equitable distribution of investment throughout the five regional subareas created. Subarea equity was a large selling point on the Sound Transit campaign to gain voter support for their regional tax. This authority also rigorously promotes accountability and transparency within their operations to build public trust and support. In both the Utah Transit Authority and the Denver RTA cases these authorities have gained voter support for their local and regional taxes from prior success on projects of regional significance. Denver’s T-REX project and Utah’s I-15 project both have been nationally acknowledged as successful projects fostering inter-jurisdictional coordination and cooperation. The management and the delivery of these projects under the proposed time and cost has help to build the publics’ support and has thus influenced the passage of additional tax initiatives in the region.

This research looks at the proposed Georgia regional 1% transportation sale tax and the regional structure being considered. Through a historical review of local option sales tax initiatives undertaken in Georgia, this report identified the variables that might influence the

voters' support and willingness to adopt a regional tax given the other local sales taxes that are in place. Models which incorporate a number of variables including the various local option taxes that are currently in place within participating counties and their historical interactions of approvals and failures, as well as economic, socio-demographic, transportation and infrastructural data, were produced to provide some insight into these interactions.

Through the literature review, case studies, and the analysis of historical data of Georgia SPLOSTs, the following conclusions and implications can be provided for implementing the regional SPLOSTs in Georgia.

First, existing Georgia SPLOSTs have a higher passage rate than other states in the U.S. Although Georgia voters have shown relatively higher support for SPLOSTs, many approved referenda were associated with the renewal of SPLOSTs which maintained current tax burden. Georgia voters are however less willing to support new taxes.

Second, the purposes associated with SPLOST levies have been in competition with one another. While there were a decent amount of SPLOSTs for transportation purposes only, by 1996 following the enactment of the education SPLOST law, the trends show that education SPLOSTs were more dominant in terms of the absolute number of referenda passed. During this period it was also noted that more transportation projects were increasingly combined with other capital outlay projects. This implies that the competition among the purposes of SPLOSTs will be more critical than those between county-specific and regional SPLOSTs.

Third, the new regional SPLOSTs may bring a minimal or produce no negative effect on county level transportation projects because some portion of the proceeds generated from the regional SPLOSTs will be earmarked for local transportation projects. However, the regional SPLOSTs, which propose only transportation projects, may result in negative outcomes for new initiatives of other capital outlay projects at the local level, particularly when both ESPLOSTs and the regional SPLOSTs are active in the same county. To mitigate these possible negative impacts on capital outlay projects, legislation that allows the local portion of the proceeds from

the regional SPLOSTs to be used in multi-purpose projects for both transportation and other capital outlay projects may be considered.

Fourth, as each special tax district has different characteristics of demography, economy, and transportation and infrastructure needs, there have been variations in the election results of SPLOSTs among the 12 districts, calling for customized strategies in each district implementing the regional SPLOSTs. The research could be a starting point, analyzing what SPLOSTs in terms of their purposes, such as transportation only, education, capital outlay projects, and multi-purposes, are currently imposed in each county within all districts and conducting surveys with voters to identify their needs as well as to identify the opinions of opponents. .

Fifth, the literature shows that communications and campaign strategies are important factors which can significantly influence the success of transportation sales tax initiatives. Providing well-articulated problem settings, such as congestion and its negative impacts on the economy and quality of life, as well as proposing a comprehensive and well defined listing of transportation projects which addresses those problems identified are essential to obtain voters' approval. Endorsements on mailers from prominent public officials and other political figures will play an important role in influencing voters. In addition, during the campaigns, it should be emphasized that the burden of securing matching fund to receive grants from the state will increase when voters fail to approve the regional SPLOST referendum. This might possibly increase property tax rates in an effort to offset the burden. Emphasis should also be placed on the fact that a certain amount or percent of the tax proceeds from the regional SPLOSTs will be earmarked for local projects, possibly supporting ongoing transportation projects at the local level and under the existing tax rate.

Finally, the state's limited amount of resources can be strategically focused on targeted special tax districts where the success of regional SPLOSTs is highly anticipated. According to the regional diffusion model that emphasizes the influence of neighboring communities' decision as "experimental laboratories" on adopting new policies, the success of the regional SPLOSTs in

one special tax district may generate positive impacts on neighboring districts which might ultimately encourage them to adopt the SPLOSTs.

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APPENDIX

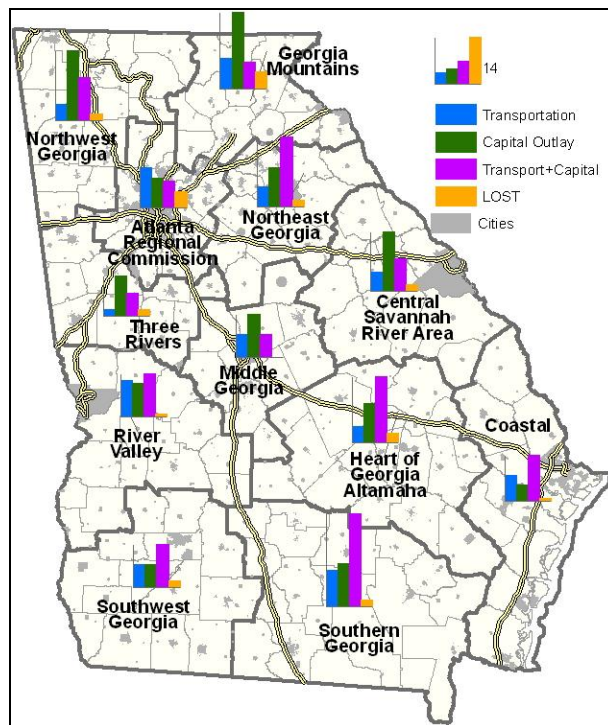


Figure 159. One percent sales tax initiatives proposed by district between 1985 and 1996

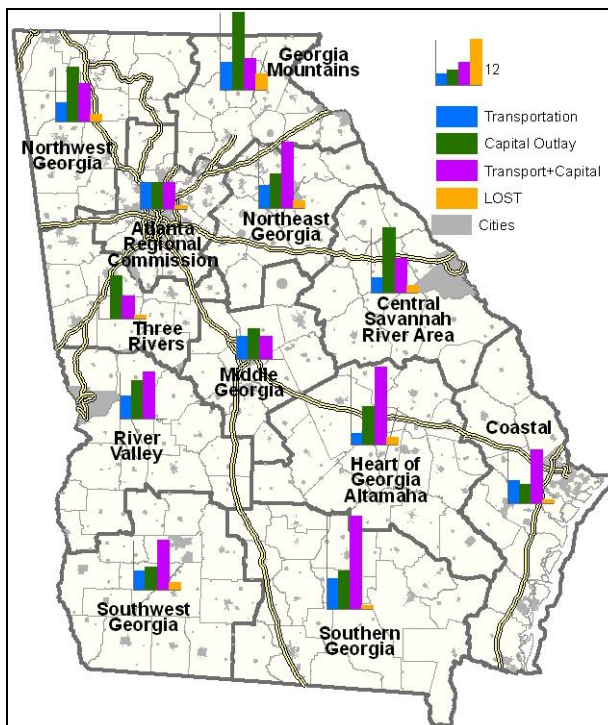


Figure 160. One percent sales tax initiatives passed by district between 1985 and 1996

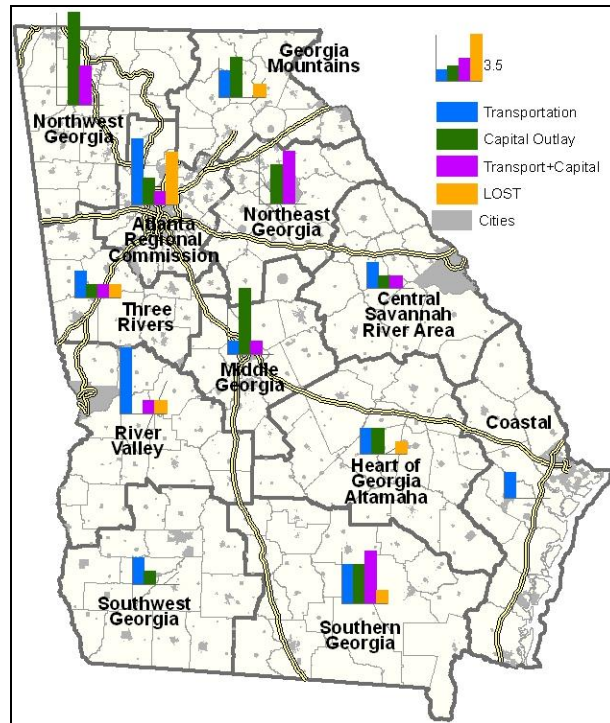


Figure 161. One percent sales tax initiatives failed by district between 1985 and 1996

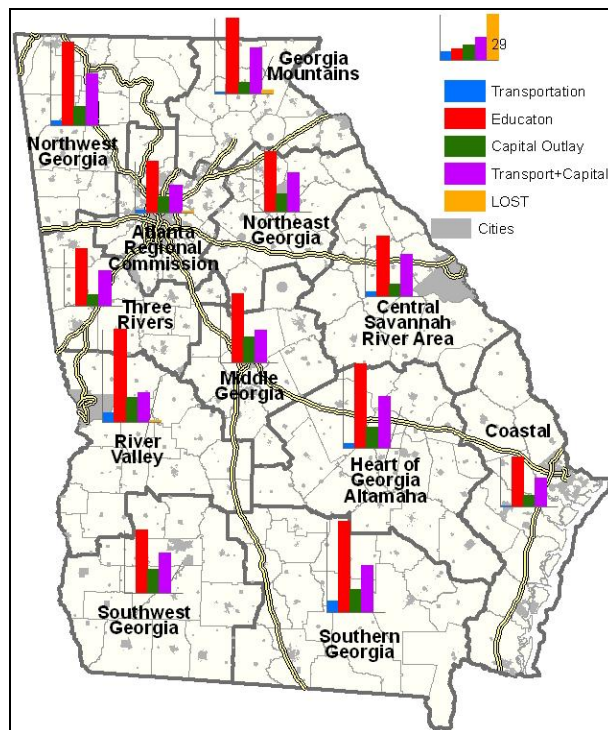


Figure 162. One percent sales tax initiatives proposed by district since 1997

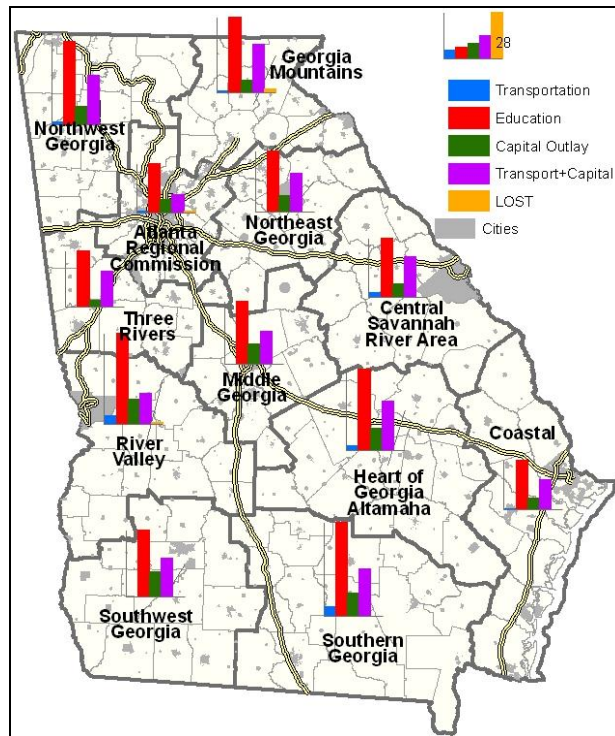


Figure 163. One percent sales tax initiatives passed by district since 1997

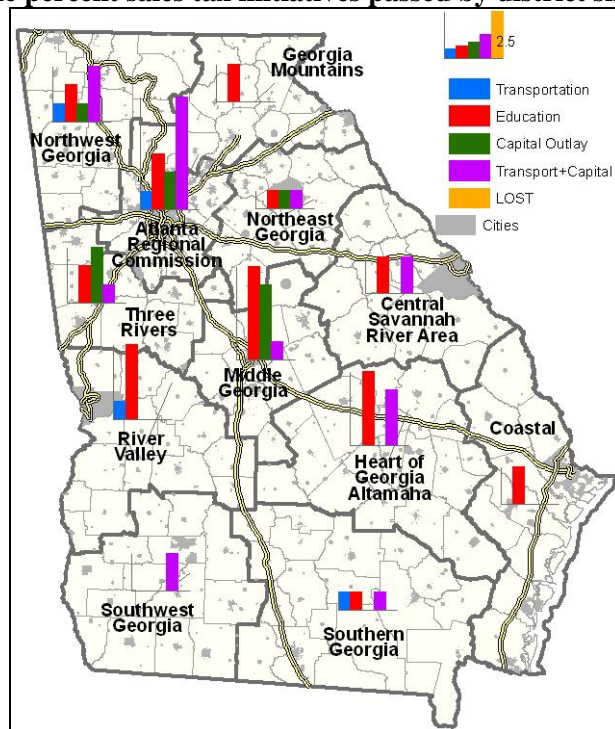


Figure 164. One percent sales tax initiatives failed by district since 1997

Table 32. Select History of Sales and Use Tax Rates in California and Counties within BART District

Effective Date	End Date	State Rate	Local Rate	BART Tax ⁴⁵ 1970	County Tax ⁴⁶ 1987-2002	County Tax ⁴⁷ 2002-2022	Add. County Tax ⁴⁸ 2004 –	BART Tax 1970	County Tax ⁴⁹ 1989-2009	County Tax ⁵⁰ 2009-2034	BART Tax 1970	County Tax ⁵¹ 1990-2010	County Tax ⁵² 2010-2040	Add. County Tax ⁵³ 1993 –
07/01/11		6.25%	1.00%	0.50%		0.50%	0.50%	0.50%		0.05%	0.50%		0.50%	0.25%
04/01/09	06/30/11	7.25%	1.00%	0.50%		0.50%	0.50%	0.50%		0.05%	0.50%	0.50%**	0.50%**	0.25%
07/01/04	03/31/09	6.25%	1.00%	0.50%		0.50%	0.50%	0.50%	0.05%		0.50%	0.50%		0.25%
01/01/02	06/30/04	6.00%	1.25%	0.50%	0.50%*	0.50%*		0.50%	0.05%		0.50%	0.50%		0.25%
01/01/01	12/31/01	5.75%	1.25%	0.50%	0.50%			0.50%	0.05%		0.50%	0.50%		0.25%
07/15/91	12/31/00	6.00%	1.25%	0.50%	0.50%			0.50%	0.05%		0.50%	0.50%		0.25%
01/01/91	07/14/91	4.75%	1.25%	0.50%	0.50%			0.50%	0.05%		0.50%	0.50%		
12/01/89	12/31/90	5.00%	1.25%	0.50%	0.50%			0.50%	0.05%		0.50%	0.50%		
04/01/74	11/30/89	4.75%	1.25%	0.50%	0.50%			0.50%	0.05%		0.50%			
10/01/73	03/31/74	3.75%	1.25%	0.50%				0.50%			0.50%			
07/01/73	09/30/73	4.75%	1.25%	0.50%				0.50%			0.50%			
07/01/72	06/30/73	3.75%	1.25%	0.50%				0.50%			0.50%			
08/01/67	06/30/72	4.00%	1.00%	0.50%				0.50%			0.50%			
01/01/62	07/31/67	3.00%	1.00%											

Source: California State Board of Equalization (2011), California City and County Sales and Use Tax Rates

*0.50% Alameda County Tax (1987-2002) ended 03/31/02 and 0.50% Alameda County Tax (2002-2022) effective 04/01/02. Taxes do not overlap.

**0.50% San Francisco County Tax (1990-2010) and San Francisco County Tax (2010-2040) do not overlap. The later tax is a continuation of the former.

Table presents countywide taxes. Select cities in counties might have additional city taxes that increases total tax rate.

⁴⁵ BART District Tax passed by legislation in 1970 and is levied in Alameda, Contra Costa and San Francisco Counties

⁴⁶ Alameda County-Specific Transportation Tax approved by voters in 1986 election

⁴⁷ Alameda County-Specific Transportation Tax to extend 0.50% tax from 1986 measure approved by voters in 2000

⁴⁸ Non-Transportation Tax levied in county that may affect total tax rate at time of new measure consideration

⁴⁹ Contra Costa County-Specific Transportation Tax approved by voters in 1988 election

⁵⁰ Contra Costa County-Specific Transportation Tax to extend 0.50% tax from 1988 measure approved by voters in 2004

⁵¹ San Francisco County-Specific Transportation Tax approved by voters in 1989 election

⁵² San Francisco County-Specific Transportation Tax to extend 0.50% tax from 1989 measure approved by voters in 2003

⁵³ Non-Transportation Tax levied in county that may affect total tax rate at time of new measure consideration

Table 33. Snapshot of Sales and Use Tax Rates in Washington and Sound Transit Counties at select periods*

	King County				Pierce County			Snohomish County		
	State Rate	Local Rate ⁵⁴	RTA Transit Tax ⁵⁵	Metro Transit Tax ⁵⁶	Local Rate ⁵⁷	RTA Transit Tax	Pierce Transit PTBA Tax ⁵⁸	Local Rate ⁵⁹	RTA Transit Tax	Snohomish County (Community Transit) PTBA Tax ⁶⁰
Current	6.5%	1.7%	0.9%	0.9%	1.3%	0.9%	0.6%	1.2%	0.9%	0.9%
2008	6.5%	1.7%	0.4%	0.9%	1.3%	0.4%	0.6%	1.1%	0.4%	0.9%
2007	6.5%	1.6%	0.4%	0.9%	1.3%	0.4%	0.6%	1.1%	0.4%	0.9%
2006	6.5%	1.6%	0.4%	0.8%	1.3%	0.4%	0.6%	1.1%	0.4%	0.9%
2002	6.5%	1.6%	0.4%	0.8%	1.3%	0.4%	0.3%	1.1%	0.4%	0.9%
2001	6.5%	1.6%	0.4%	0.8%	1.3%	0.4%	0.3%	1.1%	0.4%	0.6%
2000	6.5%	1.6%	0.4%	0.6%	1.2%	0.4%	0.3%	1.1%	0.4%	0.6%
1996	6.5%	1.6%	-	0.6%	1.2%	-	0.3%	1.1%	-	0.6%
1990	6.5%	1.1%	-	0.6%	1.0%	-	0.3%	1.1%	-	0.3%
1980	4.5%	0.5%	-	0.3%	0.5%	-	0.3%	0.5%	-	0.3%
1979	4.5%	0.5%	-	0.3%	0.5%	-	-	0.5%	-	0.3%
1976	4.6%	0.5%	-	0.3%	0.5%	-	-	0.5%	-	-
1972	4.5%	0.5%	-	-	0.5%	-	-	0.5%	-	-

Source: Department of Revenue, Washington State (2011)

*Selected years coincide with the year that transportation sales tax measures were proposed to voters to provide an idea of the general tax burden borne by voters at that time.

⁵⁴ Local sales tax includes the total local rate less the RTA Transit tax and Metro Transit tax. Sales taxes levied for criminal justice, mental health, King County food and beverage tax uses are included in this local rate. Taxes which are not levied on general goods or transactions such as the MVT tax introduced in 2003 is not included.

⁵⁵ RTA Transit (Sound Transit) tax is levied in the Sound Transit District.

⁵⁶ The Metro transit tax is levied county-wide within King County.

⁵⁷ Pierce County local sales taxes include levies for criminal justice, juvenile detention and Pierce zoo and parks uses.

⁵⁸ The maximum tax that can be levied by a public transit system is set at 0.9%. Pierce Transit has not reached this limit and can increase local transit tax by 0.3% if approved by voters.

⁵⁹ Snohomish County local sales taxes include levies for criminal justice, mental health and general uses.

⁶⁰ Snohomish County Public Transportation Benefit Area (PTBA) includes all cities in Snohomish County except the city of Everett which has its own local transit system (Everett Transit). Everett residents do not pay the local transit tax for Community Transit (0.9%); instead city residents pay 0.6% sales tax to Everett Transit.

Table 34. : Snapshot of Sales and Use Tax Rates in Utah and core counties of Utah Transit Authority (UTA) at select periods*

			Salt Lake County			Davis County			Weber County			
	State Rate	Local Rate	Mass Transit Tax	County Option Transp. Tax	Other Sales and Use Tax	Mass Transit Tax	Supplemental State Sales and Use Tax	Other Sales and Use Tax	Mass Transit Tax	County Option Transp. Tax	Supplemental State Sales and Use Tax	Other Sales and Use Tax
Current	4.70%	1.00%	0.55%	0.25%	0.35%	0.50%	0.05%	0.25%	0.50%	0.25%	0.05%	0.35%
2008	4.70%	1.00%	0.55%	0.25%	-----	0.50%	0.05%	-----	0.50%	0.25%	0.05%	-----
2007	4.65%	1.00%	0.50%	0.25%	-----	0.50%	-	-----	0.50%	-	-	-----
2006	4.75%	1.00%	0.50%	-	-----	0.50%	-	-----	0.50%	-	-	-----
2000	4.75%	1.00%	0.25%	-	-----	0.25%	-	-----	0.25%	-	-	-----
1996	4.875%	1.00%	0.25%	-	-----	0.25%	-	-----	0.25%	-	-	-----
1992	5.00%	1.00%	0.25%	-	-----	0.25%	-	-----	0.25%	-	-	-----
1990	5.07%	0.9297%	0.25%	-	-----	0.25%	-	-----	0.25%	-	-	-----
1975	4.00%	0.50%	0.25%	-	-----	-	-	-----	0.25%	-	-	-----
1974	4.00%	0.50%	-	-	-----	-	-	-----	-	-	-	-----

Source: Utah State Tax Commission (2011)

*Selected years coincide with the year that transportation sales tax measures were proposed to voters to provide an idea of the general tax burden borne by voters at that time.