FISCAL RESEARCH CENTER

TRANSPORTATION FUNDING ALTERNATIVES: A PRELIMINARY ANALYSIS

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Executive Summary

Introduction

There is growing concern regarding the revenue available to adequately fund transportation programs in Georgia. To address these transportation funding needs, several alternative proposals have been suggested. These financing options include the following:

- Option 1a - Increase the state fuel taxes.

- Option 1b - Allow additional fuel taxes to be levied on a county or regional basis.

- Option 2a - Impose a 1 percent general sales tax on a statewide basis with the funds going to the state and earmarked for transportation program funding.

- Option 2b - Impose a 1 percent general statewide sales tax with the revenue earmarked for transportation program funding and allocated to specified regions of the state based on where the revenue was generated.

- Option 2c - Replace the state levied 7.5 cents and 3 percent prepaid fuel taxes with a 1 percent sales tax on a statewide basis with the funds earmarked for state transportation program funding. (The version of this proposal from Georgians for Better Transportation that we are aware of leaves open whether both of the fuel taxes would be eliminated. For purposes of this report we assume both fuel taxes would be eliminated.)

- Option 3 - Allow the adoption of a one percent Transportation SPLOST (TSPLOST) by any two or more counties. (The proposal from the Metropolitan Atlanta Chamber of Commerce specifies that the tax would be in place for a period of up to 8 years. There is no discussion of the possibility of renewal, but we assume that the counties could agree to hold subsequent referenda.)

- Option 4 - Impose a tax based on the number of vehicle miles driven.

This report provides a preliminary analysis of these revenue options.

Revenue Forecast

Table 1 provides preliminary forecasts of the revenues associated with the 4 financing options that rely on the sales tax, along with a forecast of fuel tax revenue

TABLE 1. TRANSPORTATION FUNDING OPTIONS (IN 2006 DOLLARS)

		State Sales Tax Option 2(a,b)	State Sales Tax Less Fuel Taxes Option 2c	TSPLOST State Total Option 3	TSPLOST ARC Region Option 3
----------------Revenue Effects of Transportation Funding Options ($ in millions)----------------
Year	**Fuel Taxes**				
2006	$867	$1,428	$561	$1,628	$710
2015	$848	$1,795	$947	$2,046	$985
2030	$848	$2,197	$1,350	$2,505	NA
Total 2006-2030	$21,418	$46,895	$25,477	$53,460	NA
Total 2008-2015	$6,851	$13,612	$6,761	$15,325	$7,342

NA: Not Applicable.

based on the current fuel tax rates. (We assume that the TSPLOST tax base includes the consumption of food consumed at home.) For the TSPLOST option we also provide a revenue forecast for the 10-county Atlanta Regional Commission (ARC) area. Due to a lack of data and proposal details, no estimate is provided for the other funding options.

Fuel Taxes

The current state fuel excise tax rate on gasoline is 7.5 cents per gallon. In addition to the per gallon excise tax, Georgia also levies a second motor fuel tax of 3 percent on the sale price per gallon.[A] The Department of Revenue converts this prepaid 3 percent tax into a per gallon tax based on a survey of retail prices. Currently, the prepaid tax on gasoline is 5.7 cents per gallon, for a total state fuel tax on gasoline of 13.2 cents per gallon.

All revenues from motor fuel taxes are earmarked for transportation purposes, but the funds are constitutionally restricted to the construction and maintenance of roads and bridges. In fiscal year 2006, the combined motor fuel tax in Georgia generated $801 million in revenue. This amount does not include the approximately $66 million in fuel tax revenue that was not collected due to the suspension of the fuel taxes in September of 2005.

[A] Motor fuels are also subject to a 1 percent state sales tax, with the revenue going to the General Fund, and to all of the local option sales taxes.

Motor Fuels Tax Trends

In nominal terms, revenues from the state motor fuels tax have increased over time. However, Georgia's per capita motor fuel revenues, inflation adjusted, have declined substantially. Between 1980 and 2003, the inflation-adjusted per capita motor fuel tax revenue declined by 52.2 percent. Furthermore, real revenue per vehicle mile traveled (VMT) has also declined.

Highway transportation demands are expected to continue to rise. Based on the linear trends, by 2010, the average Georgia resident will be driving a distance in excess of 14,600 miles a year, which is 11.3 percent more than in 2003 and 30.6 percent more than in 1991. Furthermore, the downward trend in inflation-adjusted fuel tax per mile traveled is expected to continue. An increase in congestion, and a decrease in road maintenance, road quality, and highway safety are likely the eventual result of the reduction in revenue per VMT.

Economic Issues

In this section we address economic issues associated with the various financing options.

Option 1. Increase the State Motor Fuel Tax.

- The per gallon fuel tax is a relatively stable revenue source over the business cycle.

- Fuel tax revenues have declined over time in real value and in terms of per miles driven.

- Increasing the fuel tax has the advantage of discouraging consumption of gasoline and driving. Studies have found that on average a 1 percent increase in the price of gasoline decreases consumption by about 0.43 percent.

- Increasing the fuel tax will result in a long-run decline in motor fuel consumption. Furthermore, the growth of the tax base of the motor fuels tax will diminish over time due to increases in fuel efficiency and use of alternative fuels, making this base a less than optimal match for a public service with increasing needs over time.

- Proponents of increasing the state fuel tax often cite secondary benefits such as reduced congestion and air pollution. Many economists have long touted

increased fuel taxes as the appropriate solution for correcting the negative side effects associated with driving.

■ Excise taxes more closely resemble user fees or prices. If the fuel tax accurately reflects the cost of driving by including such costs as road maintenance and construction and congestion, then the fuel tax operates in much the same manner as a market price and as such is not a source of economic distortion in our economy.

Option 2(a and b). Increase the State Sales Tax.

■ An increase in the general sales tax increases the price of all taxed goods in the state. Therefore, increasing this tax will increase the distortion between purchases of goods and services captured under the sales tax and purchases of those which are not.

■ Sales taxes are paid by all consumers while gas taxes are paid by those individuals receiving the most benefit from transportation expenditures. Replacing the tax on gasoline with a sales tax disrupts the link between public expenditures and benefits and may increase the overall welfare loss to society from the imposition of taxes.

■ Another view of this argument states that all residents, not simply drivers, benefit from increased transportation infrastructure.

■ Sales tax revenues are projected to increase over time as the population and prices increase.

■ The revenue from the state sales tax can be subject to cyclical swings in the economy and is slightly more volatile than the fuel tax.

■ Increasing the sales tax rate reduces the revenue from the existing sales taxes since the increased sales tax rate will reduce total taxable purchases, for example through increased cross border shopping.

■ Increasing the sales tax rate will increase efforts to avoid the sales tax and will reduce purchases of taxable items. For example, there will likely be an increase in cross border shopping by Georgians and a reduction by non-Georgians. There will be a likely increase in electronic purchases on which Georgia is currently unable to collect sales tax.

Option 2c. Increase the State Sales Tax and Eliminate the State Fuel Taxes.

■ Eliminating both state fuel taxes removes a disincentive to drive so that there may be some increase in congestion, air pollution, and additional wear and tear on the existing transportation infrastructure.

Option 3. Transportation SPLOST.

■ Local option sales tax revenues are more stable over the business cycle than state sales tax revenues due to the inclusion of food consumed at home in the local option sales tax base.

■ The implementation of a regional SPLOST will cause increased cross-regional shopping as a means to avoid the tax.

Option 4. Tax on Vehicle Miles Traveled.

■ The monitoring infrastructure needed for this taxing system is costly, as is the equipment placed in the vehicles.

■ There is no opportunity to export the tax to nonresidents living outside the monitored area since the tax would not be imposed on nonresidents.

Tax Equity Issues

We calculated the effective tax rates by each income category, i.e., taxes paid divided by income, for the local option sales tax, the state sales tax, and motor fuel taxes. We find that all three taxes are regressive. The state sales tax and the local sales tax base are less regressive than the state motor fuel tax. In addition, the local option sales tax base is slightly more regressive than the state sales tax base; this is due to the inclusion of food consumed at home in the local sales tax base.

Other Issues

There are several other issues that we consider, many of them of an administrative nature.

■ The magnitude of the needed transportation revenue is not known with any precision.

The need for additional transportation revenue is driven by two factors. First, State spending on transportation has not kept pace with the growth in demand, as measured by vehicle miles driven (VMT). Thus, the State has a large backlog of transportation infrastructure improvements that are needed to catch up with current demand (i.e., VMT). Second, the State continues to grow rapidly and VMT is projected to grow even faster. The State needs additional transportation funding to just keep pace with this growth.

However, as far as we know, there is no statewide, long-term plan that has determined what transportation improvements are in fact needed and what they might cost.

■ Fuel tax rates would have to increase to generate the same revenue as a 1 percent sales tax rate.

In FY 2006, the state sales tax raised an estimated $5,712.1,[B] or $1,428.0 million per penny. Increasing both fuel taxes to generate an additional $1,428.0 would require that the fuel excise tax be increased by 12.3 cents to 19.8 cents per gallon and the prepaid tax be increased by 4.9 percentage points to 7.9 percent. If just the per gallon fuel excise tax was increased, the tax rate would have to increase from 7.5 cents per gallon to 34.9 cents per gallon.

■ The nature of the required legislation.

To increase the state fuel tax would require the General Assembly to pass legislation increasing the fuel tax; no Constitutional amendment would be required. The Constitution specifies that fuel taxes are earmarked for transportation.

An increase in the state sales tax can be legislated by the General Assembly. However, under current law the funds cannot be earmarked for transportation. Thus, to ensure that the revenue is appropriated to the Department of Transportation, it would be necessary to pass a Constitutional amendment that would earmark this sales tax revenue for transportation.

The TSPLOST could be adopted by general legislation of the General Assembly; no Constitutional amendment would be required.

■ Nature of earmarking.

The State Constitution restricts the use of the funds from fuel taxes to roads and bridges, none of the funds can be used for transit, trails, etc. There is a desire in many of the State's metropolitan areas to increase the financing of transit; this is especially true in the Atlanta area. A Constitutional amendment would be needed to allow the fuel tax revenue to be used to fund transit and other non-road and non-bridge transportation needs.

The enabling legislation for a TSPLOST could restrict the use of the funds in the same way that current SPLOST funds are restricted, although in the case of TSPLOST the restriction would be that the funds be used only for transportation. Furthermore, allowable transportation projects could include more than roads and bridges, in particular transit projects.

[B] The final audited amount is not yet available.

■ Effect on existing funds for transportation.

One potential concern is that a substantial increase in revenue devoted to transportation could displace revenue already being used to fund transportation.

With a sizable increase in earmarked transportation funds going to Georgia DOT (either through an increase in fuel taxes or a shift to a sales tax), it is possible that the General Assembly would eliminate the current allocation to the Department of Transportation from the General Fund. For FY 2006, the General Assembly allocated $14.6 million to the Department of Transportation.

If a TSPLOST is adopted, there is some possibility that voters will reject new SPLOSTs, particularly if they were used to fund transportation, or that counties will remove transportation projects from future SPLOSTs.

■ Political support.

Opinion polls suggest that voters are resistant to an increase in fuel taxes.

There is a question as to whether voters will support a permanent 1 percent sales tax earmarked entirely for transportation.

Support for an increase in the sales tax may be influenced by the current sales tax rate faced by voters. As of October 2006, in 145 countries the sales tax rate was 7 percent (the 4 percent state sales tax and 3 percent local option sales tax), while in the other 14 counties the rate was 6 percent.

■ Duration of the tax increase.

All of the options, with the exception of the TSPLOST, are seen as permanent increases in the tax rate. For the TSPLOST, the proposal calls for a duration of up to 8 years; it is assumed that renewal is possible.

An 8-year TSPLOST is longer than the allowable SPLOST duration. However, in considering the types of long-range, large projects that need to be funded, it is not clear that 8 years is sufficient to accomplish the projects.

A second issue regarding duration is the need for funding maintenance and operations, particularly transit.

There are two principal proposals that are currently being discussed. For this reason we focus on several issues that are specific to these two proposals.

Option 2c. Increase the Sales Tax and Eliminate the Fuel Tax.

This option has been advanced by Georgians for Better Transportation. There is uncertainty regarding many of the details of this proposal. For example, will both fuel taxes be eliminated, and if so, will the general sales tax apply to fuel purchases?

Eliminating the fuel taxes and imposing a permanent 1 percent sales tax removes a degree of freedom from the General Assembly regarding future funding options for other expenditures. Fuel taxes can be used to finance transportation projects, but are unlikely to be used to fund other needs such as increased health care or education expenditures. If the state sales tax rate is increased to 5 percent, the state would have a more difficult time financing a major increase in health care or education spending.

Option 3. A Regional Transportation SPLOST (TSPLOST).

This proposal has been advanced by the Metropolitan Atlanta Chamber of Commerce. The proposal would allow any two or more counties to agree to vote to impose a sales tax, with the revenue dedicated to transportation projects. Many details of the proposal are still evolving.

■ In order for two or more counties to agree to form a region, each must believe it will receive a fair share of the revenue. Fair in this case probably means that it gets projects equal in value to the revenue collected in its county.

■ There is a presumption that one of the regions will be the 10-county ARC region (or perhaps a somewhat larger area), while only a few other urban counties will form transportation regions. However, there is no reason to believe that all 10 counties will be able to reach agreement on a list of projects. This means that the need for some regional transportation projects may not be addressed.

■ The proposal currently specifies that there would be an appointed supervisory body that would oversee implementation of the proposed transportation projects. This body would have authority to change the proposed projects if that was necessary. But there are several issues regarding how this supervisory body is formed. Should it be elected or appointed? If appointed, who does the appointing? Should representation be based on population or equal numbers per county.

■ If a region is formed and a TSPLOST is approved, what happens when the TSPLOST comes up for renewal? Will a county be able to back out of the agreement at that time? Could a new county join the region?

Recommendations and Policy Considerations

Based on our analysis and consideration of these proposals, we outline our thinking about how to increase funding for transportation. We do not have answers or recommendations for several of the issues listed above.

■ We believe it is important to retain, and actually increase the fuel taxes if an increase in transportation spending is desired. While there appears to be little public support for this option, the argument that economists make for using user charges is very strong. Funding transportation projects with fuel tax revenue ties the cost of providing roads and bridges to the benefits accruing to the person using them. In addition, increasing the fuel tax reduces the use of roads, and thus reduces the need for additional capacity and the maintenance costs for existing infrastructure.

■ Fuel taxes are a way of linking the benefits from using roads to the funding of them. However, the link between the use of roads and fuel taxes paid is not a perfect relationship since gas mileage differs across drivers. Furthermore, improvements in fuel efficiency and the use of alternative fuels have reduced the fuel tax revenue per mile driven. For these reasons a VMT tax is seen by economists as a more desirable mechanism than fuel taxes. In addition, a VMT tax can be used to discourage driving at times of peak congestion. Portland, Oregon is experimenting with a VMT tax and several other states are considering it. This is an option that Georgia should at least study.

■ Any new funding source must be allowed to fund transit and other non-road and non-bridge projects.

■ Once a Constitutional amendment is passed establishing a state sales tax dedicated to transportation it will be very hard to change or eliminate the tax. Thus, before substantially increasing transportation revenue on a dedicated, permanent basis through a Constitutional amendment, the State should determine if it needs to devote that much revenue to transportation essentially in perpetuity. This suggests that the General Assembly should not specify the sales tax rate in the Constitution, but allow the rate to be set by general law.

■ For the regional TSPLOST, we suggest the following provisions be considered:

o   The authorizing legislation should specify what counties will form at least some of the regions, in particular, the counties in urban areas. For example, the legislation might specify that the 10 ARC counties form one region. Provisions should be made for counties to join a region before the referendum. It is also important that some provision be made for a county to opt out of the region before the referendum, but it should not be easy for a county to exit. We are concerned that it will be difficult to get counties to agree on being partners without substantial negotiations over the geographic allocation of the revenues, and that a county could try to hold the other counties hostage.

o   The allowable duration for imposing a TSPLOST should be longer than 8 years, and probably much longer. Regions should be able to decide the duration, subject to some maximum.

o   Allowance should be made for sales tax rates of less than 1 percent. At some point, a region may decide that it needs a sales tax rate of ½ percent or even ¼ percent. Furthermore, during the life of the SPLOST the region should have the option of reducing the tax rate.

o   Serious consideration needs to be given to the administration of the region. We don't believe that every county should have to approve every decision. But we don't know how independent the governing body of the region should be, how it should be selected, or what authority it should have. However, these are clearly important decisions.

1. Introduction

There is growing concern regarding the revenue available to adequately fund transportation programs in Georgia. The Georgia Department of Transportation (DOT) recently announced that it had removed 510 projects from its six-year project list due to a lack of funding. The Atlanta Regional Commission reports that it is currently expecting to cut anywhere from $4.4 billion to $7 billion in projects from its 25-year Atlanta Regional Transportation Plan, but this estimate is likely to increase.

To address these transportation funding needs, several alternative proposals have been suggested. These financing options include the following:

- Option 1a - Increase the state fuel taxes.

- Option 1b - Allow additional fuel taxes to be levied on a county or regional basis.

- Option 2a - Impose a 1 percent general sales tax on a statewide basis with the funds going to the state and earmarked for transportation program funding.

- Option 2b - Impose a 1 percent general statewide sales tax with the revenue earmarked for transportation program funding and allocated to specified regions of the state based on where the revenue was generated.

- Option 2c - Replace the state levied 7.5 cents and 3 percent prepaid fuel taxes with a 1 percent sales tax on a statewide basis and the funds earmarked for state transportation program funding. (The version of this proposal from Georgians for Better Transportation that we are aware of leaves open whether both of the fuel taxes would be eliminated. For purposes of this report we assume both fuel taxes would be eliminated.)

- Option 3 - Allow the adoption of a one percent Transportation SPLOST by any two or more counties. (The proposal from the Metropolitan Atlanta Chamber of Commerce specifies that the tax would be in place for a period of up to 8 years. There is no discussion of the possibility of renewal, but we assume that the counties could agree to hold subsequent referenda.)

- Option 4 - Impose a tax based on the number of vehicle miles driven.

Table 1 provides preliminary forecasts of the revenues associated with the 4 financing options that rely on the sales tax, along with an estimate based on current fuel tax rates. These estimates assume that the Transportation SPLOST (TSPLOST)

TABLE 1. TRANSPORTATION FUNDING OPTIONS (IN 2006 DOLLARS)

----------------Revenue Effects of Transportation Funding Options ($ in millions)--------------					
Year	Fuel Taxes	State Sales Tax Option 2(a,b)	State Sales Tax Less Fuel Taxes Option 2c	TSPLOST State Total Option 3	TSPLOST ARC Region Option 3
2006	$867	$1,428	$561	$1,628	$710
2015	$848	$1,795	$947	$2,046	$985
2030	$848	$2,197	$1,350	$2,505	NA
Total 2006-2030	$21,418	$46,895	$25,477	$53,460	NA
Total 2008-2015	$6,851	$13,612	$6,761	$15,325	$7,342

NA: Not Applicable.

tax base would include the consumption of food consumed at home. In addition, the estimates provided below do not account for a decrease in general consumption or fuel usage due to changes in the tax. Nor do the estimates account for an increase in tax avoidance behavior such as increased electronic commerce and cross-border shopping. The estimates below are solely for the purpose of providing ball-park figures for the financing options under consideration. These estimates are subject to possible revision at a future date. The revenue generated from Option 2a is equal to that of Option 2b since the only difference is in the use of the revenue. For Option 3 we also summarize the forecast for the 10-county Atlanta Regional Commission (ARC) area. Due to a lack of data and proposal details, no estimate is provided for the other options.

This report provides a preliminary analysis of these revenue options, considering issues associated with each. We begin with a discussion of current motor fuel taxes. Following that we present a long-range forecast (to 2030) for Georgia fuel taxes; an appendix contains an estimate of how much of that revenue is currently generated by each county. We also provide a long-range forecast (to 2030) for a statewide sales tax; a mid-term forecast (to 2015) for local option sales tax revenues for each county is presented in Appendix B. Next, we consider several economic issues associated with each revenue option. We then consider the implications for tax equity associated with each of the financing options listed above. This involves a discussion of the change in the tax burden by income level and a discussion of the implications for businesses associated with each option. We also discuss other issues

associated with the proposals. We conclude with some recommendations and policy considerations.

2. Fuel Taxes[1]

The current state fuel excise tax rate on gasoline is 7.5 cents per gallon. In addition to the per gallon excise tax, Georgia also levies a second motor fuel tax of 3 percent on the sale price per gallon.[2] This tax is referred to as the "second motor fuel tax" or the prepaid fuel tax, and is collected from the fuel distributor. The Department of Revenue converts this prepaid 3 percent tax into a per gallon tax based on a survey of retail prices. Currently, the prepaid tax on gasoline is 5.7 cents per gallon, for a total state fuel tax on gasoline of 13.2 cents per gallon. This is in addition to the Federal excise tax of 18.4 cents per gallon. The state prepaid taxes levied on other fuels are currently:

Diesel:	7.7 cents per gallon
Propane (L.P.G.):	4.9 cents per gallon
CNG (Natural gas):	5.2 cents per gallon
Aviation fuel:	11.8 cents per gallon

All revenues from motor fuel taxes are earmarked for transportation purposes but the funds are constitutionally restricted to the construction and maintenance of roads and bridges. Thus, non-road and non-bridge transportation projects, including transit, must be financed by revenue sources other than the motor fuels revenue. The decision to use fuel taxes as a dedicated revenue source is not an uncommon one. Currently, 30 states earmark the fuel tax for highway construction. In addition, many states currently have restrictions on the use of tax revenues derived from motor fuels.

In fiscal year 2006, the combined motor fuel tax in Georgia generated $801 million in revenue.[3] This amount does not include the approximately $66 million in fuel tax revenue that was not collected due to the suspension of the fuel taxes in September of 2005. As noted above, motor fuel taxes apply to the sale of many different fuels; however, the sale of gasoline for passenger cars and light trucks in

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[1] This section is drawn from Eger and Smith (2006).
[2] Motor fuels are also subject to a 1 percent state sales tax, with the revenue going to the General Fund, and to all of the local option sales taxes.
[3] This figure is the combined total revenue from the 7.5 cent per gallon tax and the 3 percent prepaid motor fuels tax.

Georgia accounts for 75 percent of the motor fuel sold by volume. Gasoline tax revenues also account for 75 percent of the gross tax revenues generated under the motor fuels tax.[4]

The per unit excise tax rates do not account for all specific charges that apply to gasoline or motor fuels. In addition to a state-level fuel excise tax, more than half of the states in the U.S. impose one or more additional taxes or fees. Based on the American Petroleum Institute estimates of total gasoline taxes levied in each state in 2004, Georgia ranked as the state with the third lowest effective state-local tax rate on gasoline, ahead of only Alaska and Wyoming. Florida, Georgia's only neighboring state with a lower state excise tax rate, moves from the lowest state excise tax rate in the U.S. to the eighth highest effective tax rate once other state and local taxes are factored in. Because of the increases in fuel prices over the past year, Georgia's effective fuel tax has increased from its 2004 value. The current state fuel tax in Georgia is 13.2 cents per gallon for gasoline (and 15.2 cents per gallon for diesel), which includes the per gallon excise portion and the 3 percent prepaid portion of the fuel tax. The U.S. average for state fuel excise taxes is 21 cents per gallon, while the average for total fuel taxes is about 25 cents per gallon. The median tax rate for both the state fuel excise tax and the total fuel tax is 23.5 cents per gallon.

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[4] Source: The Energy Information Administration. The remainder of the motor fuel tax revenues comes from fuels used in heavy trucks (primarily diesel) and other alternative fuels such as LPG and CNG.

3. Motor Fuels Tax Trends

In nominal terms, revenues from the state motor fuels tax has increased over time but inflation, population, and the changing fuel economy of cars have an effect on the revenue generating capacity of the excise tax on gasoline. Although the overall price level of goods and services has risen steadily over the past half century, only Rhode Island has seen its fuel excise tax rate increase faster than inflation. Had all states adjusted their gasoline excise tax rates for inflation (as measured by the Consumer Price Index) beginning in the 1950s, when the Highway Trust Fund was implemented, the average fuel excise tax rates across the U.S. would be 38.2 cents per gallon (in addition to the federal gas tax) instead of the actual average of 21 cents per gallon. Had Georgia's gasoline excise tax rate increased with the rate of inflation over the same period, the current rate would be 43.6 cents per gallon instead of its current rate of 7.5 cents per gallon.

Figure 1 presents price-deflated revenues on a per capita basis using two alternative price indices. The first index is the Consumer Price Index (CPI) published by the Bureau of Labor Statistics and the second is the Price Trends in Federal-Aid Highway Construction, which we refer to as the road price index (RPI), produced by the Federal Highway Administration. Regardless of which index is used, Georgia's per capita motor fuel revenues, inflation adjusted, have declined substantially. Between 1980 and 2003, the average Georgian has seen their inflation-adjusted motor fuel user fees decline by 27.1 percent or 52.2 percent, depending on which price index is used.

FIGURE 1: PER CAPITA GEORGIA GASOLINE EXCISE TAX REVENUES
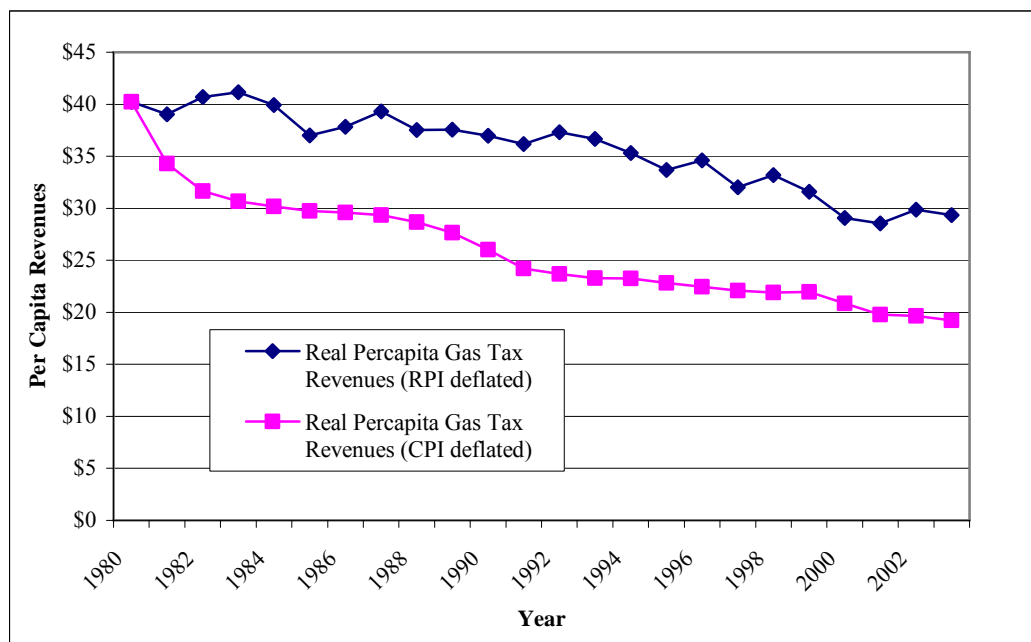
Source: Federal Highway Administration.

Figure 2 provides real (inflation-adjusted) gas tax revenues collected per vehicle mile traveled (VMT) using both the CPI and the road construction price index (RPI). One expects that, for a given size vehicle, each VMT generates approximately the same road construction and maintenance costs. Therefore, over time, the inflation-adjusted revenue per VMT would need to be the same, year after year, just to maintain the highway system. However, Figure 2 shows that inflation-adjusted revenue per vehicle mile travel has declined substantially in the past decade. Not only are Georgia residents paying less fuel taxes in real terms, they are also paying less per mile of travel.

FIGURE 2: GEORGIA GASOLINE EXCISE TAX REVENUE PER THOUSAND VMT (ESTIMATED 2002-2006)
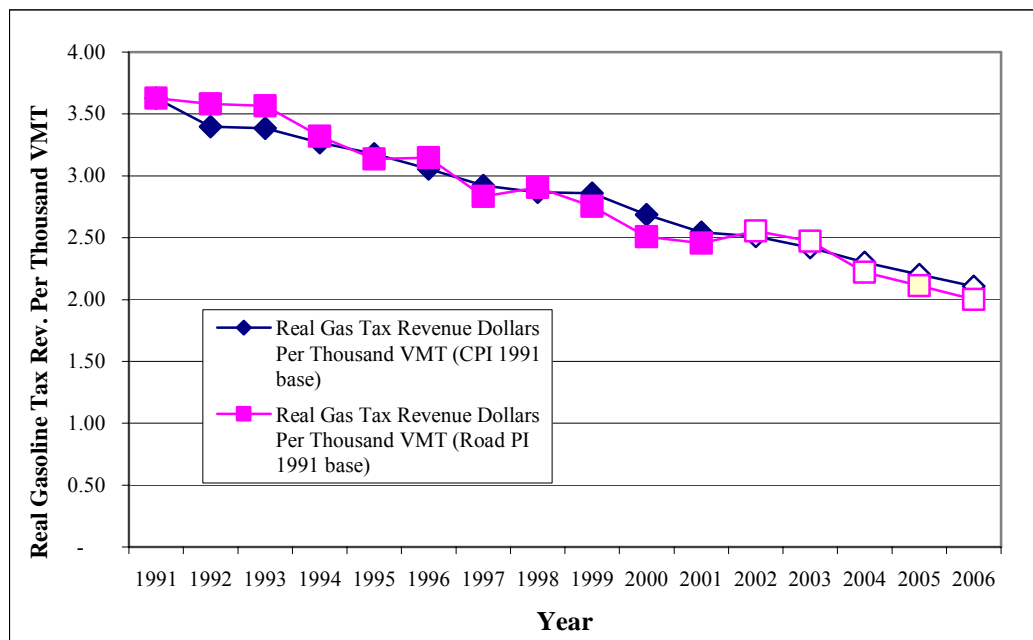
Source: VMT 1991-2001 comes from the Bureau of Transportation Statistics. The highway construction price index comes from the Federal Highway Administration. The CPI comes from the Bureau of Labor Statistics.

Highway transportation demands are expected to continue to rise. Based on the linear trends, by 2010, the average Georgia resident will be driving a distance in excess of 14,600 miles a year, which is 11.3 percent more than in 2003 and 30.6 percent more than in 1991. Furthermore, if trends continue in the real revenue per vehicle mile traveled, Georgians can expect their average inflation-adjusted fuel tax per mile traveled to continue to decrease. An increase in congestion, and a decrease in road maintenance, road quality, and highway safety are the likely consequences of the reduction in revenue per VMT.

4. Revenue Forecasts

4.1 Fuel Tax Revenue Forecast

We estimated total fuel taxes out to year 2030 for the fuel excise tax and the prepaid fuel tax. These forecasts are in 2006 dollars. The forecast for the 7.5¢ excise tax is based on historical revenue data and a forecast of fuel consumption. The forecasting procedure is described in Appendix A. Figure 3 shows the actual fuel excise tax revenue for 1970 through 2006, the fitted values for that period using the forecasting equation, and the forecast of revenues for the 2006-2030 period. (We smoothed the forecasted values rather than show the predicted fluctuations, since the fluctuations increase the forecasting error.)

Table 2 contains the annual forecast for the two fuel taxes and the total. Again, these forecasts are in 2006 dollars. We deflated the nominal values using an inflation rate of 2.2 percent. The Congressional Budget Office projects that the Consumer Price Index will increase 2.2 percent per year out to 2015. We assume that rate for the entire forecasting period. Over the 2006-2030 period, we estimate that fuel tax revenue in 2006 dollars will be a cumulative $21.4 billion.

Appendix Table B1 contains an estimate of the share of the fuel tax on gasoline that is currently collected in each county.

FIGURE 3. GEORGIA FUEL EXCISE TAX REVENUE FORECAST (2006 DOLLARS)
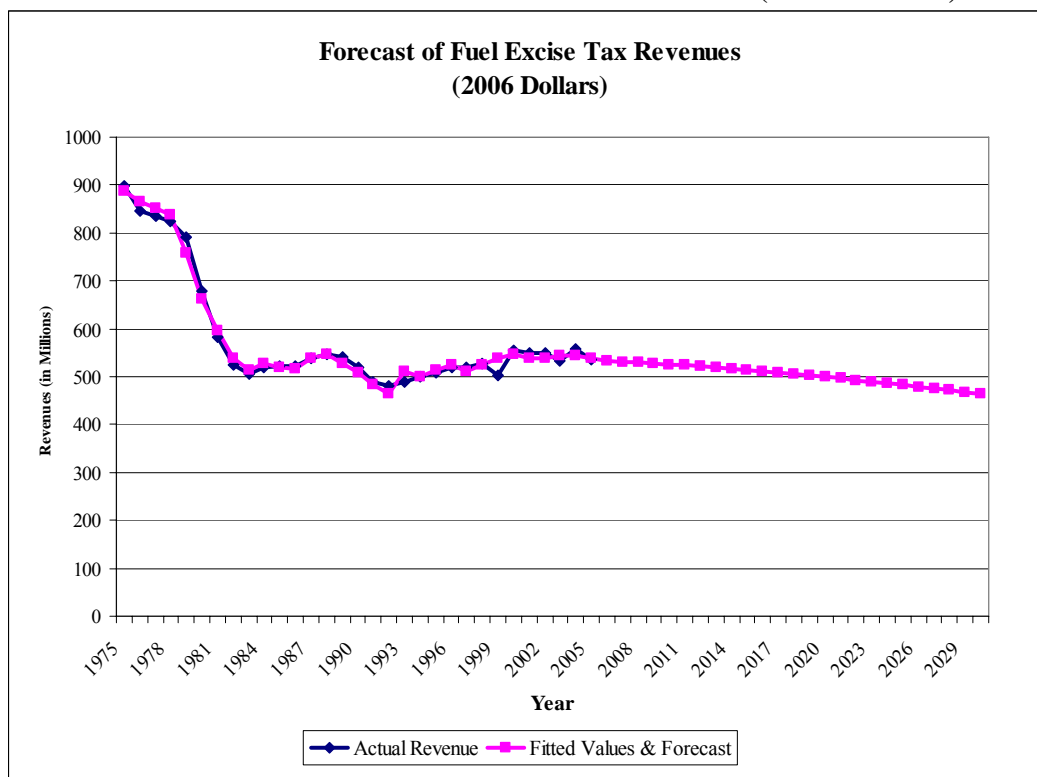
Forecast of Fuel Excise Tax Revenues (2006 Dollars)

TABLE 2. FORECAST OF GEORGIA STATE FUEL AND SALES TAXES (IN 2006 DOLLARS)

Year	7.5 ¢ Excise Tax	Prepaid Fuel Tax	Total Fuel Taxes	1% State Sales Taxes
		-----------Forecast-----------		
2006	$532,094,763	$365,381,817	$897,476,580	$1,554,096,693
2007	530,811,679	352,768,670	883,580,349	1,580,904,644
2008	529,337,270	349,099,797	878,437,068	1,607,712,595
2009	527,680,368	339,564,208	867,244,576	1,634,520,546
2010	525,849,512	327,590,903	853,440,415	1,661,328,497
2011	523,852,960	330,408,746	854,261,706	1,688,136,448
2012	521,698,693	330,320,252	852,018,944	1,714,944,400
2013	519,394,427	330,737,243	850,131,670	1,741,752,351
2014	516,947,618	330,346,892	847,294,509	1,768,560,302
2015	514,365,470	333,653,922	848,019,392	1,795,368,253
2016	511,654,945	337,869,081	849,524,026	1,822,176,204
2017	508,822,765	341,487,443	850,310,208	1,848,984,155
2018	505,875,425	345,519,463	851,394,888	1,875,792,106
2019	502,819,194	349,801,143	852,620,337	1,902,600,057
2020	499,660,127	355,534,815	855,194,942	1,929,408,008
2021	496,404,067	359,298,888	855,702,955	1,956,215,959
2022	493,056,653	362,968,871	856,025,524	1,983,023,910
2023	489,623,328	366,025,098	855,648,427	2,009,831,861
2024	486,109,342	368,636,260	854,745,602	2,036,639,812
2025	482,519,758	371,321,821	853,841,579	2,063,447,763
2026	478,859,459	374,257,855	853,117,314	2,090,255,714
2027	475,133,153	376,223,625	851,356,778	2,117,063,665
2028	471,345,378	379,140,281	850,485,659	2,143,871,617
2029	467,500,507	381,260,336	848,760,843	2,170,679,568
2030	463,602,753	383,985,438	847,588,192	2,197,487,519
Total 2006-2030	*$12,575,019,614*	*$8,843,202,866*	*$21,418,222,480*	*$46,894,802,647*
Total 2008-2015	*$4,179,126,318*	*$2,671,721,963*	*$6,850,848,280*	*$13,612,323,392*

Note that 2006 values are forecasted values, not actual values.

4.2 Sales Tax Revenue Forecast

Since many of the transportation funding proposals call for an increase in the general sales and use tax, we generated annual estimates of sales and use tax revenue from a 1 percent statewide sales tax out to 2030. We also estimate annual sales and use tax revenue by county out to 2015. These forecasts are net of inflation, that is, they are in 2006 dollars. Appendix A provides a discussion of the procedures used to generate the estimates.

Figure 4 shows the actual annual sales tax revenues for 1976 through 2005, the revenue predicted for those years using the forecasting model and the annual

FIGURE 4. ONE PERCENT SALES TAX FORECAST FOR GEORGIA (2006 DOLLARS)
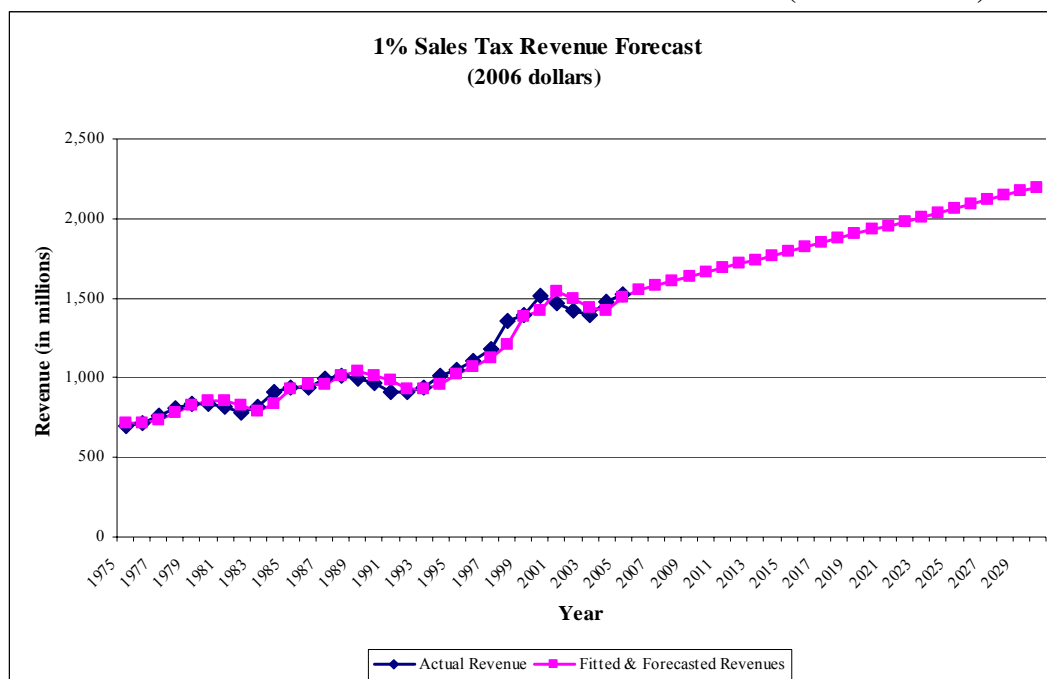
projections for 2006 through 2030. As can be seen, the forecasting model does a very good job of predicting the actual revenues. (The forecasted revenues were smoothed for presentation in the report.)

The last column of Table 2 gives the annual forecasted revenues from a 1 percent statewide sales tax. Over the next 25 years (2006 through 2030), we estimate that a one percent state sales tax will generate a cumulative total of $46.9 billion in 2006 dollars. Note that the local sales tax does not exempt food purchased for home consumption, and thus generates greater revenue than the statewide sales tax of equal rate.

Appendix Table B2 contains information on the local option sales tax revenues by county. We included the 2005 value, the 2010 and 2015 forecasts, and the total forecasted revenue over the 8-year period 2008-2015.

5. Economic Issues

In this section we address other economic issues associated with the various financing options. These include issues of economic efficiency, compliance, revenue adequacy, and volatility.

Option 1. Increase the State Motor Fuel Tax.

■ The per gallon fuel tax is relatively stable over the business cycle. Since 1998, the revenues of the motor fuels tax have been somewhat less volatile than the general state sales tax revenues.

■ Fuel tax revenues have declined over time in real value and in terms of per miles driven. The revenue depends on vehicle miles traveled (VMT) and fuel efficiency. VMT have increased in Georgia, in large part because of the increase in population but also because individuals are driving more miles. For example, in 1995 VMT in Georgia was about 85 million miles.[5] By 2006, this figure had increased to 114 million miles.[6]

■ Increasing the fuel tax has the advantage of discouraging consumption of gasoline and driving. Espey (1998) summarizes a large number of studies of gasoline consumption. Based on this review, the estimated long-run price elasticity of gasoline was found to range from 0 to -2.72. On average the studies found that a 1 percent increase in the price of gasoline decreased consumption of about 0.58 percent in the long run.

■ Increasing the fuel tax will result in a long-run decline in motor fuel consumption. Furthermore, the growth of the tax base of the motor fuels tax will diminish over time due to increases in fuel efficiency and use of alternative fuels, making this base a less than optimal match for a public service with increasing needs over time.

■ Proponents of increasing the state fuel tax often cite secondary benefits such as reduced congestion and air pollution. Many economists have long touted increased fuel taxes as the appropriate solution for correcting the negative side effects associated with driving. Based on traditional public finance theory, taxing an activity that produces negative effects to others serves to reduce the activity to a level deemed appropriate by society. The tax revenue generated by this action is an added benefit that can used to reduce or supplement other more distortionary taxes. In this case, increasing the motor fuels tax would decrease congestion and air pollution in the state while at the same time provide revenues for additional transportation projects.

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[5] 1995 Highway Statistics from the Federal Highway Administration.
[6] 2006 Highway Statistics from the Federal Highway Administration.

o Two issues arise when considering this approach. The first is that the tax increase in this type of scenario is determined by the value society places on the negative activity, not by the amount of transportation revenues needed. In this type of externality correcting situation, the revenues generated are a complete windfall.

o The second issue arises from the secondary effects associated with the tax. An increase in the motor fuels tax will be passed on to consumers directly in form of higher gas prices and indirectly in the form of higher general prices. A higher general price level is analogous to a reduction in the real wage. Theory predicts and studies confirm that a reduction in the real wage reduces the labor market participation of some groups such as women, youth, younger retirees, and those with second jobs.[7] This reduction in the labor supply can have serious distorting effects on our state economy and have ramifications to our state distribution of income.

■ Excise taxes more closely resemble user fees or prices. If the fuel tax accurately reflects the cost of driving by including such costs as road maintenance and construction and congestion, then the fuel tax operates in much the same manner as a market price and as such is not a source of distortion in our economy. Furthermore, without excise taxes drivers would consider the use of the road system a free good, thus requiring larger investment in road infrastructure than would be economically desirable.

Option 2(a and b). Increase the State Sales Tax.

■ An increase in the general sales tax increases the price of all taxed goods in the state. While the state sales tax has a broader base then the state motor fuel tax, it does not apply to the sale of all goods and services in the state. Therefore, increasing this tax will increase the distortion between goods and services captured under the sales tax and those that are not.

■ The labor market effects discussed in association with the fuel tax will also be associated with this option. Since an increase in the sales tax increases the price of consumption, it works like a reduction in the real wage. We expect a more muted but wider effect in this case since the increase in the sales tax rate will be smaller as it is spread out over a larger base.

■ This option may represent a reduction in economic efficiency. Sales taxes are paid by all consumers while gas taxes are paid by those individuals receiving the most benefit from transportation expenditures. In some respect, the motor fuels tax can be considered a user fee instead of a tax since the benefits are tied to the taxed activity. Lower efficiency losses are associated with the use of user fees compared to taxes. Replacing the tax on gasoline with a sales tax

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[7] It also tends to increase the labor market participation and hours worked of primary workers, men and single women.

disrupts the link between expenditures and benefits and may increase the overall welfare loss to society from the imposition of taxes.

■ Another view of this argument states that all residents, not simply drivers, benefit from increased transportation infrastructure. A broad based tax such as the sales tax allows all residents to bear a portion of the tax burden for this public good.

■ The sales tax base is projected to increase over time as the population and prices increase. Since the growth in the base is closely linked to the growth in the state population, it will more closely match the growth in need for future transportation funds.

■ Revenues from the state sales tax can be subject to cyclical swings in the economy revenue and are slightly more volatile than the fuel tax.

■ Increasing the sales tax rate reduces the revenue from the existing sales taxes since the increased sales tax rate will reduce total taxable purchases, for example through increased cross border shopping.

■ Increasing the sales tax rate increases efforts to avoid the sales tax and reduces purchases of taxable items. For example, there will likely be an increase in cross border shopping by Georgians and a reduction by non-Georgians. There will be a likely increase in electronic purchases on which Georgia is unable to currently collect sales tax. Consumers will increase their shift to purchases of non-sales taxable goods and services. Finally, even if there were no such changes in purchases, increasing the sales tax rate increases the cost of all taxable goods and services so that less will be purchased. It has been estimated that a 15 percent increase in the sales tax rate will increase revenue by only 13 percent.

Option 2c. Increase the State Sales Tax and Eliminate the State Fuel Taxes.

■ Eliminating both state fuel taxes removes a disincentive to drive so that there may be some increase in congestion, air pollution, and additional wear and tear on the existing transportation infrastructure.

Option 3. Transportation SPLOST.

■ Local option sales tax revenues are more stable over the business cycle than state sales tax revenues due to the inclusion of food consumed at home in the local option sales tax base.

■ The implementation of a regional SPLOST will cause increased cross-regional shopping as a means to avoid the tax.

Option 4. Tax on Vehicle Miles Traveled.

■ The monitoring infrastructure needed for this taxing system is costly, as is the equipment placed in the vehicles.

■ There is no opportunity to export the tax to nonresidents living outside the monitored area since the tax would not be imposed on nonresidents.

6. Tax Equity Issues

In this section we discuss the tax burdens and the effect on tax equity of the various funding options. We consider, in general, increases to the fuel taxes and the sales tax. Because the local sales tax base includes food for home consumption, we provide a separate calculation. All the options being considered are simply combinations of these two tax bases.

For each tax we first determined the effective tax rates for each income category, i.e., taxes paid divided by income. Because the amount of revenue differs for each tax source, we report the effective tax rate relative to the effective tax rate for the $5,000-$9,999 income category. The results are illustrated in Figure 5 for each of the three tax bases. If a tax is regressive, i.e., the effective tax rate decreases as income increases, then the bars in Figure 5 will be shorter and shorter. As income increases the effective tax rates decrease relative to the effective tax rate in the $5,000-$9,999 income category. Thus, all three taxes are regressive.

The relative effective tax rates for the local option sales tax fall faster than for the state sales tax. This implies that the local option sales tax base is slightly more regressive than the state sales tax base. This is due to the inclusion of food consumed at home in the local sales tax base. At lower income levels, the fuel tax is less regressive than the sales taxes. However, at higher income levels, the effective tax rate relative to the rate for the $5,000-$9,999 income category falls faster for the fuel tax, implying that it is more regressive at higher income levels than the sales tax. Overall, the fuel tax is more regressive than the sales tax.

FIGURE 5. TAX SHARE BY INCOME CATEGORIES
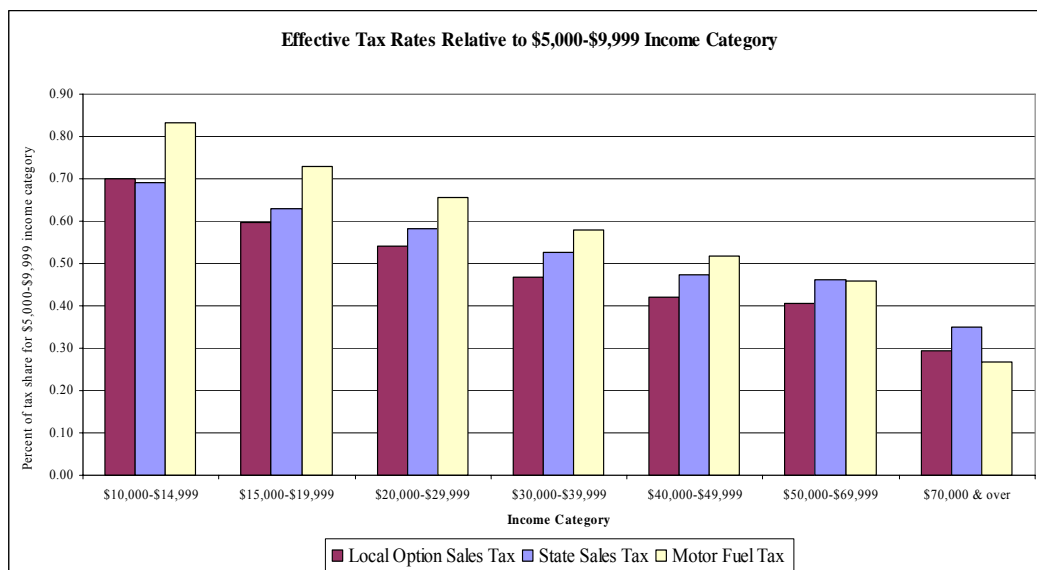
Source: Consumer Expenditure Survey data and authors' calculations.

Option 1. Increase the State Motor Fuels Taxes.[8]

■ For many goods, excise taxes, like general sales taxes, tend to be regressive. That is because lower income individuals spend a larger percent of each dollar on taxed consumption than higher income individuals. Although higher income individuals may consume more overall, as a percentage of each dollar spent, low income individuals pay more in sales and excise taxes. Thus, increasing the state motor fuels taxes increases the regressivity of the state tax system as a whole.

■ There is evidence that the existing excise tax on motor fuels is more regressive than the general sales tax. Based on consumption data from the Consumer Expenditure Survey published by the Bureau of Labor Statistics, the average percent of income spent on gasoline for individuals with income between $5,000 and $70,000 is roughly 4.2. This percentage drops to 3.1 for individuals with incomes in excess of $70,000. This data reveal a slightly more regressive pattern of consumption for motor fuels than for consumption in general.

■ In the short- and medium-run, gasoline consumption is inelastic and consumers and businesses will not be able to change their consumption patterns quickly if prices change. If higher income individuals are able to adjust their consumption patterns in response to the tax more effectively, for example by purchasing hybrid vehicles and teleworking, than low income individuals, then the fuel tax becomes even more regressive in the long-run.

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[8] In terms of tax burden, the choice of a state fuel tax versus a regional fuel tax does not matter.

■ The increase in the motor fuels tax will affect businesses as well as consumers. Many businesses will pass this increase in cost on to their customers. Since the current motor fuels tax in Georgia is low relative to our neighbors, this may not result in a large loss in competitive advantage for Georgia's businesses.

■ Because it is a specific commodity tax, some businesses will be affected more than others. Obviously, those businesses in which motor fuels is a large component of their cost will be hardest hit.

Option 2(a,b). Increase State Sales Tax.

■ In this option, the tax burden to all taxpayers, drivers and non-drivers, increases relative to the status quo due to the increase in the sales tax rate. That is, the burden of funding transportation falls on all consumers in proportion to the rate at which they consume taxed goods.

■ In terms of the distribution of the tax burden, the combined effect of the existing tax on motor fuels and a higher state sales tax is expected to be slightly less regressive than the current combination of sales and fuel taxes. This is due to the relative decline in the more regressive motor fuels tax as percent of the total combined tax.

■ This option will be less regressive than the option to solely increase the motor fuels tax.

■ Increasing the general sales tax will have an effect on businesses as well as consumers. Although a pure retail sales tax would not be applied to sales to businesses, the actual sales tax does include business purchases.[9] Therefore, a portion of the tax revenues will be collected from business sales.

■ Just as in the case with the fuel tax, this increase in sales tax will affect some businesses more than others, but the effect will be more general than in the case of the fuel tax.

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[9] A study by Ring (1999) found that consumers pay about 59 percent of state sales taxes directly and businesses, non-profits and governments pay the remaining 41 percent.

Option 2c. Increase State Sales Tax and Eliminate the Motor Fuels Taxes.

■ This option replaces the motor fuel taxes with a larger state sales tax and reduces the overall regressivity of our state tax system because this revenue option replaces a more regressive tax (the state motor fuels taxes) with a less regressive tax (the general state sales tax).

Option 3. Allow for Transportation SPLOSTs.

■ The local option sales tax base includes the sale of food consumed at home, causing this version of the sales tax to be more regressive than the state version.

■ Therefore, the overall regressivity of the combined tax system is increased under this option as a more regressive tax (the local option sales tax) is increased.

Option 4. Impose a Tax Per Vehicle Miles Driven.

■ This type of tax is currently being piloted in Portland, Oregon. Under this tax, each vehicle is equipped with a meter that is continuously read by sensors placed around the metropolitan area.

■ The tax can be levied by vehicle weight, time of travel or area of travel, allowing a greater tax for heavier vehicles or higher taxes during rush hour. This tax is similar in incidence to the existing motor fuel tax but can be targeted at drivers in high congestion areas and times.

■ We have no information that allows us to analyze the distribution of tax burdens for this option.

7. Other Issues

There are several other issues that we consider, many of them of an administrative nature.

■ The magnitude of the needed transportation revenue is not known with any precision.

The need for additional transportation revenue is driven by two factors. First, State spending on transportation has not kept pace with the growth in demand, as measured by vehicle miles driven (VMT). Thus, the State has a large backlog of transportation infrastructure improvements that are needed to catch up with current demand (i.e., VMT). Second, the State continues to grow rapidly and VMT is projected to grow even faster. The State needs additional transportation funding to just keep pace with this growth.

However, as far as we know, there is no statewide, long-term plan that has determined what transportation improvements are in fact needed and what they might cost. The long-range regional transportation plans (RTP) developed by Metropolitan Planning Organizations (MPO), such as the Atlanta Regional Commission, are constrained by the funds expected to be available. Thus, these plans do not include projects that are desirable but not fundable given current revenue streams. The ARC did prepare a plan referred to as the Aspirations Plan, but it was not developed with the same level of rigor and public involvement as the RTP. The cost of the Aspirations Plan was about $74 billion, or about $21 billion more than the $53 billion in funds that was expected to be available. The Georgia Department of Transportation has a list of proposed projects that cost far more than the revenue that can be expected with currently available revenue sources. While it is clear that current needs far exceed available revenue, we do not have a well supported estimate of how much additional revenue is needed.

States rely on grants from the Federal Highway Trust Fund. However, there are concerns that funding from the Trust Fund will decline in the future. If this happens, then states, including Georgia, will be forced to fund a larger share of the cost of transportation projects.

■ Fuel tax rates would have to increase to generate the same revenue as a 1 percent sales tax rate.

For FY 2006, a 1 percent sales tax would have generated 164 percent more revenue for transportation than the two fuel taxes. In FY 2006, the state sales tax raised an estimated $5,712.1,[10] or $1,428.0 million per penny. Increasing both fuel taxes to generate an additional $1,428.0 would require that the

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[10] The final audited amount is not yet available.

excise tax be increased by 12.3 cents to 19.8 cents per gallon and the prepaid tax be increased by 4.9 percentage points to 7.9 percent. If just the per gallon excise tax was increased, the tax rate would have to increase from 7.5 cents per gallon to 34.9 cents per gallon.

However, as shown earlier, sales tax revenue is projected to increase faster than the fuel tax revenue, given current fuel tax rates. Based on the revenue forecasts presented above, over the next 10 years the sales tax would generate $17 billion in total revenue as compared to the $8.6 billion that is expected from the fuel tax. In 2015, the total fuel tax would have to increase to 41.1 cents per gallon to yield the same revenue as would a 1 percent sales tax in that year.

- The nature of the required legislation.

   To increase the state fuel tax would require the General Assembly to pass legislation increasing the fuel tax; no Constitutional amendment would be required. The Constitution specifies that fuel taxes are earmarked for transportation.

   An increase in the state sales tax can be legislated by the General Assembly. However, under current law the funds cannot be earmarked for transportation. The State Constitution generally prohibits the earmarking of revenue; the fuel tax is an exception. Thus, to ensure that the revenue is appropriated to the Department of Transportation, it would be necessary to pass a Constitutional amendment that would earmark this sales tax revenue for transportation.

   The TSPLOST could be adopted by general legislation of the General Assembly; no Constitutional amendment would be required.

   The city of Atlanta currently has a 7 percent hotel-motel tax and aggregate local option taxes of 8 percent. Georgia code section §48-201(d) states that after July 1, 2007, the total cannot exceed 14 percent. Thus, an additional local option sales tax would require a further reduction in the hotel-motel tax unless this code provision is amended.

- Nature of earmarking.

   The revenue from an increase in the fuel taxes would be earmarked for transportation. However, since the State Constitution restricts the use of the funds from fuel taxes to roads and bridges, none of the funds could be used for transit, trails, etc. There is a desire in many of the State's metropolitan areas to increase the financing of transit; this is especially true in the Atlanta area. A Constitutional amendment would be needed to allow the fuel tax revenue to be used to fund transit and other non-road and non-bridge transportation needs.

The enabling legislation for a TSPLOST could restrict the use of the funds in the same way that current SPLOST funds are restricted, although in the case of TSPLOST the restriction would be that the funds be used only for transportation. Furthermore, allowable transportation projects could include more than roads and bridges, in particular transit projects. Restricting the use of the funds would only require general legislation.

■ Effect on existing funds for transportation.

One potential concern is that a substantial increase in revenue devoted to transportation could displace revenue already being used to fund transportation.

With a sizable increase in earmarked transportation funds going to Georgia DOT (either through an increase in fuel taxes or a shift to a sales tax), it is possible that the General Assembly would eliminate the current allocation to the Department of Transportation from the General Fund. For FY 2006, the General Assembly allocated $14.6 million to the Department of Transportation.

If a region adopts a TSPLOST, it is possible that the Georgia Department of Transportation will consider that region as having a greater ability to pay and thus allocate less state transportation funds to that region, for example by requiring a larger match for projects. This possibility would be limited by the Congressional balancing requirement.

If a TSPLOST is adopted, there is some possibility that voters will reject new SPLOSTs, particularly if they were used to fund transportation, or that counties will remove transportation projects from future SPLOSTs. This means that part of the additional revenue from the TSPLOST will be offset by a reduction in the number of SPLOSTs or in the amount of SPLOST funds used for transportation. However, there is no evidence that when voters were asked to vote on EDSPLOST that there was an increase in the number of SPLOST referenda that failed. If all counties become associated with a TSPLOST, the highest local tax rate would be 9 percent (including the state portion) in Atlanta and the average would be 7.8 percent.

Regarding the diversion of SPLOST funds from transportation projects, the Association of County Commissioners of Georgia (ACCG) has been collecting information on the use of SPLOST funds, and has information on 69 counties. Based on the information ACCG has collected, and kindly made available to us, we calculated that statewide about 15 percent of SPLOST revenue is allocated to transportation projects, while for the Atlanta metropolitan area it is about 18 percent. Thus, if all of the current SPLOST revenue that is allocated to transportation were to be diverted to other purposes, a TSPLOST would increase net transportation spending by about 80 to 85 percent of the TSPLOST revenue. However, this probably

overstates the amount of current SPLOST revenue that would be diverted, although we have no way of estimating the actual effect.

■ Decisions regarding transportation projects.

For those options that increase State government funding, decisions regarding what transportation projects get funded will be determined by the Georgia Department of Transportation. (Of course, the MPO still has a voice in what projects get approved.)

With TSPLOST or any regional sales tax, the region will have more say regarding what projects are undertaken than without these funds. However, large road and bridge projects will require federal funding and possibly state funds. In those cases, Georgia Department of Transportation will still have a voice in the decision.

Currently, most state transportation funds are subject to Congressional balancing, which is a requirement that project funds be uniformly allocated between Congressional districts. The use of revenue from a statewide sales tax would likely be subject to the Congressional balancing requirement while the revenue from a regional sales tax would not.

■ Political support.

Opinion polls suggest that voters are resistant to an increase in fuel taxes.

While an increase in the state sales tax can be implemented by the General Assembly through a general act, the members of the General Assembly may be reluctant to do that without voter concurrence, either formal or informal. There is a question as to whether voters will support a permanent 1 percent sales tax earmarked entirely for transportation.

With regards to an increase in State funds, presumably, regional balance (i.e., equity) and transportation needs will be factors in the allocation of these funds across the state. This implies that the revenues will not be spent in the areas from which the revenues were generated. This generates two potential conflicting concerns: 1) that revenue collected in the Atlanta metropolitan area will be used to fund projects outside the area, and 2) that because of the transportation needs in the Atlanta metropolitan area more money will be spent in the Atlanta area than is generated there. Clearly, both of those cannot be true, but if each part of the state believes that it will come out on the short end of the stick, generating political support for proposals to increase State funds will be difficult.

Support for an increase in the sales tax may be influenced by the current sales tax rate faced by voters. In addition to the state 4 percent sales and use tax rate there are local option sales taxes. As of October 2006, in 145 countries

the sales tax rate was 7 percent (the 4 percent state sales tax and the 3 percent local option sales taxes), while in the other 14 counties the rate was 6 percent (4 percent state plus the 2 percent local option sales taxes). In addition, in the city of Atlanta the sales tax rate is 8 percent. The average local sales tax rate in Georgia is 2.8 percent (calculated as total revenue divided by the total tax base.)

■   Duration of the tax increase.

All of options, with the exception of TSPLOST, are seen as permanent increases in the tax rate. For TSPLOST, the proposal calls for a duration of up to 8 years; it is assumed that renewal is possible.

An 8-year TSPLOST is longer than the allowable SPLOST duration. However, in considering the types of long-range, large projects that need to be funded, it is not clear that 8 years is sufficient to accomplish the projects. If the funds can be held in reserve, then funding can be stretched out over the life of the project. However, if only a small proportion of the funds have been used after 8 years, the question arises regarding voters' willingness to approve an extension.

A second issue regarding duration is the need for funding maintenance and operations, particularly transit. If the funds from the TSLOST are used to build transportation infrastructure, that is, new and expanded roads, transit systems, and bike and walking trails, revenue will be needed in the future to maintain and operate these facilities.

■   Administrative issues.

For all of the options other than the tax based on miles traveled, the administrative infrastructure for collecting the tax is in place.

The major drawback of the VMT tax is its administrative expense. Each vehicle must be equipped with a meter and sensors must be installed and maintained throughout the area. Administratively the Portland system works so that each time the driver fills the tank, the meter is read and the tax due is added to the bill for the gasoline. In this way, collection and compliance are greatly improved over an invoice system.

There are two principal proposals that are currently being discussed. For this reason we focus on several issues that are associated with those two proposals.

Option 2c. Increase the Sales Tax and Eliminate the Fuel Tax.

This option has been advanced by Georgians for Better Transportation. There is uncertainty regarding many of the details of this proposal. For example, will both fuel taxes be eliminated, and if so, will the general sales tax apply to fuel purchases? We assume that both fuel taxes are proposed to be eliminated and that fuel will be taxed at 1 percent under the general State sales tax and will be part of the base for all of the local option sales taxes.

Obviously this option will generate less revenue than a 1 percent sales tax with the fuel taxes remaining in place. For FY 2006, a 1 percent sales tax would have increased revenue by approximately $1,554 million, while revenue would increase by approximately $657 if the fuel taxes are eliminated.

Eliminating the fuel taxes and imposing a permanent 1 percent sales tax removes a degree of freedom from the General Assembly regarding future funding options. Fuel taxes can be used to finance transportation projects, but are unlikely to be used to fund other needs such as increased health care or education expenditures. If the state sales tax rate is increased to 5 percent, the state would have a more difficult time financing a major increase in health care or education spending.

Option 3. A Regional Transportation SPLOST (TSPLOST).

This proposal has been advanced by the Metropolitan Atlanta Chamber of Commerce. The proposal would allow any two or more counties to agree to vote to impose a sales tax, with the revenue dedicated to transportation projects. Many details of the proposal are still evolving.

■ In order for two or more counties to agree to form a region, each must believe it will receive a fair share of the revenue. Fair in this case probably means that it gets the revenue collected in its county. Thus, in developing the list of proposed projects to be funded, there will likely have to be an allocation across counties in proportion to the revenue collected.

■ There is a presumption that one of the regions will be the 10-county ARC region (or perhaps a somewhat larger area), while only a few other urban counties will form transportation regions. However, there is no reason to believe that all 10 counties will be able to reach agreement on a list of

projects. This means that the need for some regional transportation projects may not be addressed.

■ The proposal currently specifies that there would be an appointed supervisory body that would oversee implementation of the proposed transportation projects. This body would have authority to change the proposed projects if that was necessary. Such a body is necessary since if the county commissions of all member counties have to approve the project list or the timing of the projects, it could be very difficult, if not impossible, to reach agreement. But there are issues regarding how this supervisory body is formed. The MPO is the obvious regional body for making transportation decisions if all the counties within the MPO are party to the TSPLOST. However, if not all counties in the MPO form the taxing region, it is not clear how the membership should be determined. While the proposal calls for an appointed body, it could be either elected or appointed. If appointed, should it be the county commissions or all local governments in the county that make appointments? Representation could be based on population or equal numbers per county.

■ The proposal calls for the TSPLOST to be in place for a period of up to 8 years; we assume it could be renewed. While this is longer than current SPLOSTs, it is short in terms of financing major transportation projects. The 8-year period would also limit the ability to issue bonds backed by future sales tax revenue.

■ If a region is formed and a TSPLOST is approved, what happens when the TSPLOST comes up for renewal? Will a county be able to back out of the agreement at that time? Could a new county join the region? Suppose that a road project that one county wanted was completed but other projects in the region were not completed during the 8-year period. Could that county then back out of the region at the time for renewal and not contribute to the funding of other projects?

■ While pairs of counties in the Atlanta region might agree on a list of projects, it is still up to ARC to approve the projects.

■ If the revenue is to be used for operations and on-going maintenance, not making the tax permanent (perhaps at a reduced tax rate) posses problems.

■ If the region agrees to include some projects that are state facilities, what guarantees the State's participation, especially at the funding level and timing specified by participating counties?

8. Recommendations and Policy Considerations

Based on our analysis and consideration of these proposals, we outline our thinking about how to increase funding for transportation. We do not have answers or recommendations for several of the issues listed above.

■ We believe it is important to retain, and actually increase the fuel taxes if an increase in transportation spending is desired. While there appears to be little public support for this option, the argument that economists make for using user charges is very strong. Using fuel taxes ties the cost of providing roads and bridges to the benefits accruing to the person using them. In addition, increasing the fuel tax reduces the use of roads, and thus reduces the need for additional capacity and the maintenance costs for existing infrastructure.

■ Fuel taxes are a way of linking the benefits from using roads to the funding of them. However, the link between the use of roads and fuel taxes paid is not a perfect relationship since gas mileage differs across drivers. Furthermore, improvements in fuel efficiency and the use of alternative fuels have reduced the fuel tax revenue per mile driven. For these reasons a VMT tax is seen by economists as a more desirable mechanism than fuel taxes. In addition, a VMT tax can be used to discourage driving at times of peak congestion. Portland, Oregon is experimenting with a VMT tax and several other states are considering it. This is an option that Georgia should at least study.

■ Any new funding source must be allowed to fund transit and other non-road and non-bridge projects.

■ Once a Constitutional amendment is passed establishing a state sales tax dedicated to transportation it will be very hard to change or eliminate the tax. Thus, before substantially increasing transportation revenue on a dedicated, permanent basis through a Constitutional amendment, the State should determine if it needs to devote that much revenue to transportation essentially in perpetuity. This suggests that the General Assembly should not specify the sales tax rate in the Constitution, but allow the rate to be set by general law.

■ For the regional TSPLOST, we suggest the following provisions be considered:

o The authorizing legislation should specify what counties will form at least some of the regions, in particular, counties in urban areas. For example, the legislation might specify that the 10 ARC counties form one region. Provisions should be made for counties to join a region before the referendum. It is also important that some provision be made for a county to opt out of the region before the referendum, but it should not be easy

for a county to exit. We are concerned that it will be difficult to get counties to agree on being partners without substantial negotiations over the geographic allocation of the revenues, and that a county could try to hold the other counties hostage.

o   The allowable duration for imposing a TSPLOST should be longer than 8 years, and probably much longer. Regions should be able to decide the duration, subject to some maximum.

o   Allowance should be made for sales tax rates of less than 1 percent. At some point, a region may decide that it needs a sales tax rate of ½ percent or even ¼ percent. Furthermore, during the life of the SPLOST the region should be able to reduce the tax rate.

o   Serious consideration needs to be given to the administration of the region. We do not believe that every county should have to approve every decision. But we do not know how independent the governing body of the region should be, how it should be selected, or what authority it should have. However, these are clearly important decisions.

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Appendix A. Sales Tax and Fuel Tax Estimating Procedure

Fuel Tax Forecast

Fuel excise tax revenues were estimated using ordinary least squares (OLS). The explanatory variables were obtained from the Energy Information Administration and consist of total gasoline sales and nominal price per million BTU (British Thermal Unit) for gasoline. The model had an in sample MAPE (mean absolute percentage error) of 2.37 percent and a RMSE (root mean squared error) of $8,750,590 for an average forecasted revenue amount of $657 million. The coefficients on both the price per BTU and the barrels consumed were significant at the 99 percent confidence interval. Both independent variables were forecasted using exponential weighting models.

To forecast the prepaid fuel tax, we used the forecast of fuel consumption and a forecast of fuel prices from the Energy Information Administration.

Sales Tax Forecast

To predict the real (inflation adjusted) state tax revenue per each one percent of the sales tax, we used the Winter's exponential smoothing model to allow for both a trend and the presence of long-term cycles in the data. The model had a MAPE of 3.71 percent and a RMSE of $51.4 million in sample. Considering that the average estimated state revenue was $1.8 billion, the error is fairly small.

To generate county-level forecasts, we started with each county's share of the total sales tax revenue from a 1 percent local option tax. County population forecasts are available for 2010 and 2015 from the Office of Planning and Budget. We adjusted the current county share of sales tax revenue by the county's percentage change in its share of total state population. Since the sum of the share does not have to equal one, we adjusted each by the same fraction so that they summed to one. The resulting shares were multiplied by the forecasted state sales tax revenue, increased by 14 percent to account the exclusion of food for home consumption from the state sales tax base.

Appendix B

TABLE B1: ESTIMATED COUNTY SHARE OF THE STATE GAS TAX

Name	Est. Percent of State Gas Tax	Name	Est. Percent of State Gas Tax	Name	Est. Percent of State Gas Tax
APPLING	0.24%	CHEROKEE	1.11%	FANNIN	0.20%
ATKINSON	0.10%	CLARKE	1.01%	FAYETTE	0.66%
BACON	0.12%	CLAY	0.11%	FLOYD	1.34%
BAKER	0.14%	CLAYTON	1.56%	FORSYTH	0.54%
BALDWIN	0.72%	CLINCH	0.04%	FRANKLIN	0.98%
BANKS	0.12%	COBB	7.09%	FULTON	6.82%
BARROW	0.42%	COFFEE	0.67%	GILMER	0.25%
BARTOW	1.31%	COLQUITT	0.49%	GLASCOCK	0.05%
BEN HILL	0.18%	COLUMBIA	0.83%	GLYNN	1.84%
BERRIEN	0.14%	COOK	0.10%	GORDON	0.68%
BIBB	1.91%	COWETA	0.98%	GRADY	0.53%
BLECKLEY	0.24%	CRAWFORD	0.04%	GREENE	0.28%
BRANTLEY	0.39%	CRISP	0.78%	GWINNETT	4.31%
BROOKS	0.13%	DADE	0.62%	HABERSHAM	0.46%
BRYAN	0.74%	DAWSON	0.22%	HALL	1.83%
BULLOCH	1.12%	DECATUR	0.49%	HANCOCK	0.16%
BURKE	0.27%	DEKALB	2.86%	HARALSON	0.90%
BUTTS	0.92%	DODGE	0.30%	HARRIS	0.18%
CALHOUN	0.02%	DOOLY	0.22%	HART	0.28%
CAMDEN	1.55%	DOUGHERTY	1.35%	HEARD	0.07%
CANDLER	0.49%	DOUGLAS	0.75%	HENRY	1.16%
CARROLL	1.49%	EARLY	0.10%	HOUSTON	1.28%
CATOOSA	0.75%	ECHOLS	0.00%	IRWIN	0.08%
CHARLTON	0.19%	EFFINGHAM	0.37%	JACKSON	0.84%
CHATHAM	3.00%	ELBERT	0.29%	JASPER	0.12%
CHATTAHOOCHEE	0.00%	EMANUEL	0.35%	JEFF DAVIS	0.16%
CHATTOOGA	0.42%	EVANS	0.15%	JEFFERSON	0.42%

Table B-1 continues next page…

TABLE B1 (CONTINUED). ESTIMATED COUNTY SHARE OF THE STATE GAS TAX

Name	Est. Percent of State Gas Tax	Name	Est. Percent of State Gas Tax	Name	Est. Percent of State Gas Tax
JENKINS	0.21%	OCONEE	0.30%	TELFAIR	0.32%
JOHNSON	0.10%	OGLETHORPE	0.08%	TERRELL	0.14%
JONES	0.12%	PAULDING	0.78%	THOMAS	0.58%
LAMAR	0.09%	PEACH	0.68%	TIFT	0.85%
LANIER	0.12%	PICKENS	0.42%	TOOMBS	0.37%
LAURENS	0.95%	PIERCE	0.23%	TOWNS	0.18%
LEE	0.27%	PIKE	0.12%	TREUTLEN	0.11%
LIBERTY	0.72%	POLK	0.56%	TROUP	2.02%
LINCOLN	0.09%	PULASKI	0.13%	TURNER	0.13%
LONG	0.07%	PUTNAM	0.34%	TWIGGS	0.13%
LOWNDES	2.14%	QUITMAN	0.08%	UNION	0.37%
LUMPKIN	0.18%	RABUN	0.15%	UPSON	0.22%
MCDUFFIE	0.35%	RANDOLPH	0.01%	WALKER	0.71%
MCINTOSH	0.23%	RICHMOND	3.18%	WALTON	0.53%
MACON	0.11%	ROCKDALE	0.38%	WARE	1.41%
MADISON	0.39%	SCHLEY	0.03%	WARREN	0.03%
MARION	0.03%	SCREVEN	0.22%	WASHINGTON	0.54%
MERIWETHER	0.45%	SEMINOLE	0.09%	WAYNE	0.44%
MILLER	0.10%	SPALDING	0.71%	WEBSTER	0.06%
MITCHELL	0.53%	STEPHENS	0.37%	WHEELER	0.07%
MONROE	0.30%	STEWART	0.09%	WHITE	0.31%
MONTGOMERY	0.07%	SUMTER	0.41%	WHITFIELD	1.71%
MORGAN	0.65%	TALBOT	0.10%	WILCOX	0.17%
MURRAY	0.45%	TALIAFERRO	0.02%	WILKES	0.24%
MUSCOGEE	2.18%	TATTNALL	0.35%	WILKINSON	0.25%
NEWTON	0.70%	TAYLOR	0.09%	WORTH	0.17%

TABLE B2. FORECAST FOR 1 PERCENT SALES TAX BY COUNTY

| County | 2005 Actual Revenue | Forecast | | Total 2008-2015 |
		2010	2015	
Appling	$2,893,673	$3,573,639	$3,652,358	$28,387,559
Atkinson	599,140	773,557	815,856	6,200,763
Bacon	1,128,077	1,320,935	1,310,759	10,415,064
Baker	204,057	282,014	305,074	2,272,658
Baldwin	6,102,506	7,359,659	7,333,024	57,995,440
Banks	3,034,899	4,030,649	4,434,559	32,786,656
Barrow	8,027,000	11,185,990	13,244,834	93,416,567
Bartow	18,984,876	26,516,154	30,319,295	218,303,713
Ben Hill	2,355,152	2,682,500	2,601,583	21,011,266
Berrien	1,559,701	1,893,975	1,920,307	15,016,962
Bibb	29,983,555	35,499,779	35,107,719	279,322,470
Bleckley	974,412	1,186,399	1,207,874	9,419,834
Brantley	1,151,436	1,489,397	1,587,128	11,985,462
Brooks	1,103,038	1,265,573	1,223,978	9,897,218
Bryan	3,027,464	4,161,011	4,801,011	34,418,003
Bulloch	9,031,689	11,186,256	11,717,738	89,688,583
Burke	2,671,810	3,335,325	3,452,360	26,604,179
Butts	3,788,294	6,782,313	7,731,932	54,902,398
Calhoun	371,747	421,277	391,171	3,248,041
Camden	7,533,511	9,727,706	10,161,783	77,686,018
Candler	1,220,767	1,572,389	1,681,560	12,674,671
Carroll	14,370,572	20,189,590	22,955,973	165,779,472
Catoosa	8,274,291	11,174,863	12,516,772	91,446,234
Charlton	924,364	1,231,786	1,294,909	9,840,011
Chatham	55,480,179	67,362,803	67,864,226	532,809,361
Chattahoochee	431,100	819,231	874,411	6,433,686
Chattooga	2,339,292	2,994,548	3,150,243	23,994,353
Cherokee	27,462,804	39,587,891	47,297,794	331,105,175
Clarke	18,636,859	23,381,560	24,160,101	186,313,122
Clay	326,593	404,883	402,331	3,181,025
Clayton	49,488,154	68,690,072	77,151,091	561,707,924
Clinch	650,839	807,187	817,556	6,387,926
Cobb	115,563,579	151,714,669	164,998,359	1,229,434,362
Coffee	5,379,876	6,863,650	7,186,839	54,909,291
Colquitt	5,202,260	6,374,710	6,523,567	50,691,200
Columbia	13,603,624	18,100,303	20,257,903	148,219,175
Cook	1,913,468	2,329,749	2,374,631	18,505,955
Coweta	17,090,371	23,920,573	27,881,988	198,440,347
Crawford	500,754	590,919	591,252	4,671,237
Crisp	3,781,606	4,471,250	4,419,096	35,176,180
Dade	2,236,613	2,903,210	3,084,450	23,329,773
Dawson	4,651,410	6,911,263	8,224,585	57,600,089
Decatur	4,555,091	5,330,604	5,271,158	41,976,314

Table B-2 continues next page…

TABLE B2 (CONTINUED). FORECAST FOR 1 PERCENT SALES TAX BY COUNTY

| County | 2005 Actual Revenue | Forecast | | Total 2008-2015 |
		2010	2015	
DeKalb	89,900,550	111,743,207	112,498,822	882,143,111
Dodge	1,932,526	2,362,147	2,388,228	18,700,084
Dooly	1,335,479	1,562,222	1,543,600	12,298,600
Dougherty	16,682,604	19,655,959	19,231,186	154,087,178
Douglas	20,954,130	27,521,632	31,242,647	226,843,413
Early	1,816,573	2,137,262	2,086,871	16,743,505
Echols	130,910	167,125	182,026	1,357,671
Effingham	6,655,629	9,205,639	10,751,832	76,489,370
Elbert	2,004,138	2,392,349	2,390,753	18,887,191
Emanuel	2,511,560	2,957,364	2,928,577	23,290,253
Evans	1,332,332	1,835,852	2,027,787	14,920,031
Fannin	3,304,501	4,402,885	4,853,551	35,834,450
Fayette	18,832,199	24,956,023	27,755,584	203,903,368
Floyd	15,427,784	19,450,675	20,184,062	155,192,123
Forsyth	27,091,094	41,915,562	52,524,004	355,975,121
Franklin	4,224,562	5,394,309	5,728,961	43,390,560
Fulton	207,413,143	221,802,513	220,420,753	1,761,443,955
Gilmer	4,160,624	5,723,140	6,503,846	47,048,438
Glascock	160,108	197,800	207,000	1,585,606
Glynn	18,758,300	23,593,477	24,738,766	189,036,244
Gordon	8,238,250	10,965,106	12,161,012	89,464,553
Grady	2,491,562	3,067,356	3,137,881	24,380,086
Greene	2,742,207	3,569,084	3,862,870	28,884,391
Gwinnett	139,130,016	197,500,826	230,712,408	1,638,388,036
Habersham	5,660,451	7,508,582	8,214,353	60,945,676
Hall	25,609,551	35,648,574	40,838,248	293,776,204
Hancock	472,501	651,097	638,786	5,052,939
Haralson	3,548,199	4,684,840	5,121,376	38,026,648
Harris	2,211,618	2,920,307	3,277,357	23,951,923
Hart	2,774,263	3,342,953	3,416,836	26,601,980
Heard	5,020,992	6,018,160	6,092,848	47,734,177
Henry	25,385,947	39,612,760	49,603,885	336,145,919
Houston	18,822,484	25,198,080	28,013,872	205,709,449
Irwin	553,741	676,529	685,046	5,359,094
Jackson	8,151,699	11,035,700	12,813,202	91,603,956
Jasper	1,044,294	1,430,890	1,617,842	11,742,070
Jeff Davis	1,816,633	2,231,986	2,277,141	17,724,478
Jefferson	1,996,245	2,280,707	2,210,041	17,854,453
Jenkins	664,542	827,157	845,172	6,566,367
Johnson	524,196	623,940	623,425	4,926,621
Jones	2,327,046	3,042,995	3,354,173	24,796,829
Lamar	1,383,007	1,772,249	1,853,895	14,168,340
Lanier	452,198	543,432	552,445	4,316,307

Table B-2 continues next page…

TABLE B2 (CONTINUED). FORECAST FOR 1 PERCENT SALES TAX BY COUNTY

County	2005 Actual Revenue	2010	2015	Total 2008-2015
Laurens	7,603,316	9,559,456	9,959,734	76,405,511
Lee	3,169,010	4,439,467	5,623,937	38,107,714
Liberty	6,114,137	6,974,477	6,728,652	54,515,783
Lincoln	632,819	816,678	839,799	6,482,699
Long	352,302	447,234	472,792	3,592,431
Lowndes	20,395,754	25,116,638	25,818,623	199,999,903
Lumpkin	2,910,025	3,998,282	4,445,776	32,586,455
Macon	1,202,259	946,500	929,343	7,661,811
Madison	1,776,158	5,769,117	6,186,411	44,014,318
Marion	408,089	255,183	253,980	2,115,693
McDuffie	3,355,423	3,194,481	3,200,045	25,667,521
McIntosh	1,436,507	2,683,400	2,730,486	20,699,428
Meriwether	1,662,327	1,994,633	1,997,807	15,754,962
Miller	591,393	697,177	675,491	5,445,097
Mitchell	2,118,801	2,507,284	2,471,074	19,703,136
Monroe	3,456,428	4,609,868	5,035,980	37,382,672
Montgomery	555,467	750,074	800,362	6,021,504
Morgan	3,175,413	4,256,041	4,734,059	34,749,340
Murray	3,953,043	5,309,856	5,865,101	43,227,045
Muscogee	32,349,738	37,965,834	37,207,228	297,893,622
Newton	9,381,009	14,008,386	17,311,915	118,542,723
Oconee	4,695,518	6,056,495	6,842,171	49,883,819
Oglethorpe	656,061	859,226	925,888	6,938,777
Paulding	12,897,876	19,346,687	23,797,849	163,355,153
Peach	3,266,509	4,050,100	4,189,665	32,313,346
Pickens	3,862,479	5,795,655	6,942,433	48,402,647
Pierce	1,609,869	2,000,168	2,119,749	16,105,978
Pike	1,008,022	1,337,579	1,508,382	10,988,164
Polk	4,180,409	5,337,371	5,634,661	42,832,909
Pulaski	862,125	1,065,486	1,083,098	8,445,878
Putnam	4,021,289	5,164,494	5,459,175	41,449,528
Quitman	242,192	260,645	256,266	2,060,650
Rabun	3,167,996	4,103,899	4,450,473	33,248,989
Randolph	793,485	851,977	820,750	6,685,737
Richmond	34,256,574	40,182,135	39,167,818	314,657,615
Rockdale	16,066,352	20,870,763	23,114,200	170,467,135
Schley	298,519	385,066	415,408	3,114,236
Screven	1,117,109	1,335,394	1,328,489	10,523,582
Seminole	976,918	1,194,606	1,204,105	9,445,845
Spalding	8,627,648	10,875,128	11,507,900	87,431,129
Stephens	2,995,059	3,642,838	3,623,648	28,670,778
Stewart	314,156	339,103	316,103	2,627,827
Sumter	3,895,175	4,618,540	4,549,047	36,280,517

Table B-2 continues next page…

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TABLE B2 (CONTINUED). FORECAST FOR 1 PERCENT SALES TAX BY COUNTY

County	2005 Actual Revenue	--------Forecast-------- 2010	2015	Total 2008-2015
Talbot	469,222	554,326	557,016	4,388,744
Taliaferro	75,358	83,472	79,278	650,073
Tattnall	1,408,040	1,658,991	1,669,211	13,143,683
Taylor	712,091	865,365	868,198	6,833,407
Telfair	1,099,012	1,091,618	1,055,144	8,627,454
Terrell	834,161	974,438	943,571	7,613,941
Thomas	6,863,235	8,408,021	8,632,989	66,946,384
Tift	7,875,461	9,661,708	10,005,096	77,173,415
Toombs	4,109,531	4,904,856	4,968,243	38,923,063
Towns	1,872,097	2,464,952	2,739,505	20,142,849
Treutlen	394,771	532,421	539,490	4,189,580
Troup	9,216,383	11,258,774	11,585,413	89,738,251
Turner	874,895	1,061,638	1,061,675	8,373,861
Twiggs	719,892	846,286	840,193	6,672,026
Union	3,152,701	4,406,611	5,032,456	36,259,351
Upson	3,171,634	3,914,598	3,967,984	30,999,233
Walker	5,031,291	6,194,438	6,388,133	49,387,368
Walton	8,742,722	12,274,764	14,375,483	102,004,263
Ware	6,066,933	7,583,531	7,502,552	59,446,479
Warren	505,599	554,567	524,059	4,314,030
Washington	3,350,211	3,977,957	3,908,979	31,217,818
Wayne	3,579,325	4,473,026	4,673,491	35,805,531
Webster	139,090	149,023	148,535	1,184,620
Wheeler	390,155	557,787	609,387	4,502,477
White	2,914,501	4,210,050	4,939,014	34,946,251
Whitfield	18,604,345	23,495,522	24,960,351	189,157,209
Wilcox	397,463	489,024	493,287	3,866,188
Wilkes	1,055,283	1,276,073	1,259,716	10,018,476
Wilkinson	1,482,888	1,791,003	1,773,710	14,079,450
Worth	1,459,403	1,693,964	1,657,668	13,294,723
Total	*$1,477,239,341*	*$1,893,914,487*	*$2,046,719,808*	*$15,325,296,309*

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The Fiscal Research Center provides nonpartisan research, technical assistance, and education in the evaluation and design of state and local fiscal and economic policy, including both tax and expenditure issues. The Center's mission is to promote development of sound public policy and public understanding of issues of concern to state and local governments.

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Personal Property Tax on Motor Vehicles (**Laura Wheeler, John Matthews and David L. Sjoquist**). This brief shows the expected reduction in the property tax base in each county if motor vehicles were tax exempt. FRC Brief 130 (July 2006)

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