



## **Volusia County Transportation Challenge**

**Addressing Congestion through Long-Range Planning:**

**Funding Transportation in an Era of Rising Costs**

**Report by:**

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# Addressing Congestion through Long-range Planning: Funding Transportation in an Era of Rising Costs

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## EXECUTIVE SUMMARY

The US as a whole is facing a series of transportation challenges that include aging infrastructure (road, rail, transit, and bridge), rising costs for new construction and maintenance, and limited revenue from existing sources to support transportation. These challenges are hindering the ability of government to maintain and increase the capacity of the US transportation system resulting in moderate to severe congestion in many areas. Other rapidly growing regions face the prospect of congestion over the next two decades if action is not taken now to address the problem. Volusia County is one such region. The traffic modeling and planning process has identified congestion as a likely outcome in 2025 and 2050 if no action is taken beyond the existing and committed projects. Unfortunately, despite innovative and successful efforts to reach out to municipal governments for funding to address specific areas of concern, the County has utilized almost all of the traditional sources of funding to finance the current plan, leaving in doubt their ability to meet future projected needs. Further complicating the situation is data from a survey of local residents that reports their perception that congestion is **NOT** a problem in the county. Of course, this perception is based on current conditions and not the conditions predicted to exist in 2025 or 2050. Unfortunately, the process of transportation planning, funding, and construction is a lengthy one and the only way to address capacity problems is to anticipate them and act before the problem becomes so severe that residents demand action.

In an effort to be proactive on this issue, the County of Volusia asked the Volusia-Flagler Higher Education Consortium to offer its input and assistance on the transportation challenges facing the County. This report is one part of that effort. It specifically addresses the question of traffic congestion and transportation funding. Part I of the report explored the issues of congestion, transportation planning, and general transportation funding mechanisms. Part II builds on this background to present the results of a benchmarking effort for state and local transportation systems that includes overall funding levels as well as the general sources of funding utilized to address transportation issues. The benchmark group includes 1) high and low growth US states, 2) selected high and low growth counties, 3) other counties in the Volusia Metropolitan Planning Organization, 4) other high growth Florida counties. The following presents a brief summary of the findings:

## Part I: Transportation Issues and Funding

1. Volusia County is not alone is facing transportation needs that outstrip current resources. The problems of congestion, repair and maintenance of aging infrastructure, anticipated revenue shortfalls, and rising construction are being felt across the country and the world.
2. The transportation planning process in the US involves all levels of government, but recent trends in the process have been a) to place greater emphasis on intermodal planning, b) public transit, and c) citizen participation. Further, the trend has been to place more of the burden on state and local governments.
3. Transportation funding is often a confusing mix of private and public responsibility. Although there has always been private investment in transportation such as the Transcontinental Railroad, the move to public-private partnerships (PPPs) is growth. One reason for the growth in PPPs is the belief that traditional funding sources are at their limits. The following facts are important:
  - i. In 2002, fuel taxes accounted for 39.87 percent of the total revenue spent on highways with the remainder of the revenues coming from general fund appropriations (14.96%), vehicle taxes and fees (14.72%), other taxes and imposts (11.46%), bond issues (9.38%), tolls (4.83%), and property taxes (4.77%).
  - ii. The Federal Highway Trust Fund is predicted to run out of money to fund currently approved program at the end of this year. In a newly released report by the National Surface Transportation Policy and Revenue Study Commission (2007) entitled *Transportation for Tomorrow*, the commission is recommending a 40 cent increase in the Federal gas tax rate and similar increases in state taxes.
  - iii. Volusia County levies the full 12 cent fuel tax allowed under current law and does not use property taxes to support transportation. There is limited room to use bond financing going forward due to existing indebtedness. The County is already one of the 67 local governments to impose impact fees, but additional impositions in an uncertain housing market are problematic. This leaves non-traditional sources of funding: other fees or taxes, sales tax, tolling, PPPs for new infrastructure, and congestion pricing.

## Part II: Benchmarking

1. The US population currently stands at an estimated 300 million and is estimated to rise to 363 million by roughly 2030 (6.4 percent change); however, certain states and regions are experiencing much more rapid rates of growth.
2. High growth states such as California, Florida, and Texas are predicted to see double digit changes in population by 2025. This increase in population will raise

- the population density of the regions. On the other hand, lower growth states will experience rates of population change more consistent with the national average.
3. Both high and low growth states utilized the traditional sources of funding: toll, bond, gas tax, motor carrier fees, and vehicle related fees such as licenses, fines for overweight operation, etc. The use of property tax seemed to be more common in most states, although it is not clear what percentage of revenue it represents. Florida was the primary state utilizing impact fees for transportation purposes.
  4. While one of the high growth counties had minimal responsibility for local roads (North Carolina), the others did assume key funding responsibilities. All used local property tax. Only one county reported the use of impact fees.
  5. A variety of special sales taxes and fees were utilized. Voter-approved sales taxes were particularly common for new or expanded transit projects, although it was used in two counties for road transportation.
  6. Early experiments are now in progress on congestion pricing plans such as HOT lanes. Some of the states (regions) are exploring other congestion pricing such as cordon fees (New York)

## Conclusion

The time to begin planning for the transportation needs of the future is today. Because population growth is a key factor in the demand for transportation, future transportation needs can be estimated well into the future. While technical and environmental considerations are important elements of planning the future transportation system, the system will not get built without careful consideration to the revenue available. Local governments hold a unique position in the US system of government; they are at once the first line of contact with citizens' needs and concerns and the last in line to receive unfunded 'mandates' from state and federal governments. While they are the first to feel the weight of citizen demands, they are the last to receive revenues raised by other levels of government. Still, local governments can reach out to their citizens in a more personal and effective way to discuss the needs and options available. They command a higher level of trust from their citizens precisely because these citizens feel that they can exercise more control and engage in greater scrutiny of their actions. A 21<sup>st</sup> century economy demands a 21<sup>st</sup> century transportation infrastructure and local governments have an important role to play in creating these systems. This report was intended to be part of a broader Consortium effort to help lay the foundation for discussions within the county on the future of transportation. The goal of this discussion is to reach a consensus among the stakeholders on how Volusia County can build the type of infrastructure that will insure the level of economic development and quality of life desired by its citizens becomes a reality.

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## Introduction

It has been 52 years since the Federal-Aid Highway Act set forth President Eisenhower's vision of a national highway system connecting major population centers and speeding up the flow of goods and people throughout the US. This Act created the largest public works program in US history, the Interstate Highway Program. In the five decades since this program began the US population has risen from 168,903,031 to an estimated 300,000,000 in 2007. The federal debt has gone from \$272.7 billion to roughly \$9 trillion. The US has gone from being a net exporter to a net importer with a negative balance of payments of \$601.3 million. The number of registered drivers has gone from 87 million to roughly 200 million. The total number of miles open to traffic has risen to 161,809,000 and the total vehicle miles traveled on those roads has topped 1.3 billion (Bureau of Transportation Statistics, 2007; Federal Highway Administration, 2007; Infoplease.com, 2007).

The infrastructure for this highway network was essentially completed in the early 1980s and is now showing increasing signs of decay and overcrowding. The Minnesota bridge collapse is just the most spectacular example of the problems facing US transportation infrastructure. It is estimated that more than one-quarter of the 596,842 roadway bridges in the US need serious repair or replacement. Although the state of Florida has a lower percentage of structurally deficit or functionally obsolete bridges than the national average, eighteen percent of our bridges fall into this category (Ripley, 2007). The more mundane and more common sign of the state of our infrastructure is congestion, long lines of cars inching along US roadways. In the early 1980s, only one urbanized area in the US, Los Angeles, suffered congestion problems severe enough to cause the average driver to spend 40 or more hours a year stuck in traffic. Twenty years later, more than 25 areas qualify for this dubious distinction. The Texas Transportation Institute has estimated that congestion costs each big-city resident \$1,000 each year. In Atlanta where congestion has risen 475 percent since the early 1980s, the Institute estimates that a 90 percent reduction in congestion could save each resident \$2,900 per year (Balaker, 2007).

The rapid growth of four Metropolitan Statistical Areas in the state of Florida – Orlando, Daytona, Melbourne, and Lakeland – has brought the issue of infrastructure and congestion to the forefront of the challenges facing our state (myregion.org). The total population of the state in 1960 was 5 million. Today it is roughly 18 million (US Census, 2007). While the vibrant economy that accompanied this growth has contributed in many ways to the state, growth costs money, and rapid growth places tremendous stresses on state and local governments. The reality is that revenues rarely keep pace with expenditures in part because the revenues must be approved in a complex political process in which the interests of various groups must be considered. Another reality is that state and local governments are the first to hear the pain expressed by citizens over rising taxation and, conversely, their need for additional services. While the federal government cuts funds and increases unfunded mandates, state and local governments must find new sources of revenue.

Volusia County is part of the rapidly growing Central Florida region. Since 1980, its population has grown 95 percent while the number of licensed drivers has risen 281 percent. At the same time, the percentage of new lane miles has risen only 8 percent. By 2030, the population of the county is expected to be 705,000, a 37 percent increase since 1980. A 2006 Volusia County Citizens Survey found that only 37 percent of the current residents consider congestion to be a problem in the incorporated areas of the county (46 percent in unincorporated areas), however, current traffic predictions suggest that congestion will represent a significant problem by 2030 unless action is planned and initiated in the near-term future. Unfortunately, rising maintenance and construction costs are jeopardizing the County's ability to continue to expand and improve the transportation infrastructure to meet expected future demands (Volusia County's Transportation Challenges, 2007).

The transportation challenges facing the County have been identified as one of the most pressing problems. The purpose of this report is to address three key aspects of the problem. First, the report presents an overview of the broad factors that have contributed to the problem and the complex process of planning and funding transportation projects. Second, the report explores the range of the funding sources used across the US for maintenance and new construction. Third, the report presents the results of an effort to benchmark state and local funding by total and general source of revenue in order to help identify the options available to Volusia and its citizens.

Part One:

## Transportation Issues and Funding

## Transportation Challenges

Beginning with the 1956 Federal-Aid Highway Act, transportation became a major source of fund transfer from the Federal government to the states. In fact, federal transportation programs returned more money to state and local governments than any other program involving physical infrastructure. As a result, these programs have had a substantial influence on the nature and spatial form of local transportation (Katz, Puentes and Bernstein, 2005). The US highway system encompasses a total of 3,975,000 miles of urban and rural roadways and accounted for 2,891,000,000 of the miles traveled in the US (Federal Highway Administration, 2003). In 2004, these roadways were utilized by 243,023,486 motor vehicles, 136,430,651 of which were registered passenger cars (Federal Highway Administration, 2004).

Beginning in the 1980s, the interstate highway system was largely complete and the Federal government began to devolve a number of its powers to state and local entities. Two key acts in the 1990s, the Intermodal Surface Transportation Efficiency Act and the Transportation Equity Act for the Twenty-first Century, sought to give state and local areas more certainty in transportation funding and create greater flexibility in program design. At the same time, federal subsidies for the construction of public infrastructure began to decline. New state and federal mandates for erosion control, wastewater treatment, highway construction, stormwater drainage, etc. have combined with general increases in construction materials since 2003 to raise the cost of new construction (Nelson and Moody, 2003). The post-World War II transportation infrastructure in many regions is badly in need of maintenance and repair, competing for funding with new construction. The combination of these factors has placed a serious burden on local governments, particularly in high growth areas of the country. At the present time, the main challenges facing local communities and their government are congestion and growth, aging infrastructure, limited revenue sources, rising construction and maintenance costs, and resident perceptions of transportation issues.

### Congestion and Growth

Several basic realities tend to make congestion a fact of modern life. As population and income rise, people can and do travel more. The structure of industrial society means that they tend to want to travel at certain peak times of the day. In the US, low density settlement makes public transit an inefficient travel option for consumers and costly option for local government, as ticket box fares rarely cover the full costs of operation. Further, urban sprawl leads to longer distance commutes and most of this commuting population will be traveling in single occupancy vehicles (Downs, 2004). The US Department of Transportation has labeled congestion a threat to our economy and way of life (USDOT, 2002). According to a 2006 study conducted by the Reason Foundation's Galvin Mobility Project, the number of severely congested lane miles in the United States is expected to increase from 39,500 in 2003 to 59,700 in 2030. The current direct cost of traffic congestion is \$63 million a year in lost time and fuel. Indirect costs include higher prices for good and services because of the inefficiencies and delays in the movement of freight, air pollution, and increased carbon emission to the atmosphere. While the Northeast has the most severe congestion in the US, the Southeast is experiencing rapid

growth and the congestion that comes with it. Texas and Florida top the list of Southeastern states facing the greatest problems. Overall, Florida has been ranked fifth in terms of congested lane miles in 2030 and third in the number of lane miles needed by that same time. To add the lane miles necessary to relieve the most severe congestion in the US would cost approximately \$533 billion over the next 25 years. For the State of Florida, the estimated cost is \$38.7 billion for the construction of an estimated 8,536 lane miles (Hartgen and Field, 2006).

### **Aging Infrastructure**

The American Society of Civil Engineers (ASCE) has estimated that it would cost \$1.6 trillion over five years to fix the water systems, dams, runaways, roads and bridges in the United States (Jones and Nassar, 2007). The ASCE 2005 report card on infrastructure rated American roads a D while giving US bridges a slightly higher C. The ASCE estimates that poor road conditions cost US motorists \$54 billion per year in repair and operating costs. The cost to Florida residents was an estimated \$1.1 billion. Outdated and substandard conditions also contribute to motor vehicle crashes and fatalities which resulted in an additional \$230 billion per year cost for the US as a whole (ASCE, 2005).

The American Association of State Highway and Transportation Officials (AASHTO) has estimated that all levels of government would have to increase spending by 42% to achieve their estimated \$92 billion cost-to-maintain level, and by 94% to reach the \$125.6 billion cost-to-improve level. This figure is considerably higher than the Federal Highway Administration estimate of a 17.5% increase for a projected \$75.9 billion cost-to-maintain level, and 65.3% increase for a \$106.9 billion cost-to-improve level. Both estimates are below the announced spending of all levels of government and do not account for the sharp rise in construction and maintenance costs discussed below.

### **Limited Revenue Sources**

The State of Florida ranks 4<sup>th</sup> in total direct federal expenditures to the most populous states for 2005. Controlling for population, Florida ranked 2<sup>nd</sup> with per capita expenditures of \$7,572. Transportation funding represented the second highest category of expenditure with a 2005 total of \$2.2 billion (Florida Legislative Committee on Intergovernmental Relations, 2007). As noted above, federal expenditures for transportation purposes have been declining since the 1980s. This trend is expected to continue into the next decade for a number of reasons. The most obvious reason for the expected decline is the federal deficit which has risen dramatically over the past several years to US\$9.1 trillion for 2007, a 50-year high for debt as a percentage of GDP. Defense spending and interest on the debt account for almost half of the obligations from the General fund (zFacts, 2007).. Meanwhile revenues have remained largely unchanged as Congress has been reluctant to raise taxes. The federal highway fund is projected to go into the red in October of next year (2008) unless some action is taken. Unfortunately, the bridge collapse in Minnesota which highlighted a number of issues relating to transportation did not result in any consensus on the need to increase funding to transportation and infrastructure. In fact, this disaster provided critics a platform to

complain about the “patronage program in this county” with its pet transportation projects, Congressional earmarks, and bridges to nowhere (Ripley, 2007).

For the period 2003-2007, the State of Florida received approximately 30% of its transportation funding from the federal government, representing an estimated 5.06 percent share of the Highway Trust Fund. This percentage of Trust Fund share is not expected to change through 2012. However, federal funding is projected to represent only 25% of the total projected transportation funding going forward to 2012. Total state share of funding will rise to 57 percent (Florida Department of Transportation, 2007). It is likely that local government will also bare a greater share of the funding burden in the coming years.

### **Construction and Maintenance Costs**

The estimated cost of new roadway construction in the Reason Foundation report was \$3.8 million per lane mile (Hartgen and Field, 2006). However, construction costs have been rising dramatically since 2003, particularly for construction materials such as asphalt. In part, this rise reflects global demand for construction materials and the rising cost of oil and petroleum-based products. While the national average increase has been 7.3 percent per year since 2003, some states have experienced even higher cost increases due to local conditions such as construction competition from the residential sector.

According to the Florida Department of Transportation, asphalt costs in the state increased 80 percent between 2003 and 2007. The cost of other materials such as steel, concrete, and earthwork rose between 38 and 57 percent over the same period (FDOT, 2007). Construction activity in the state has been twice the national average since 1991 and it is believed that the construction industry in the state is at or over capacity resulting in fewer bids per contract and higher contract costs due to the lack of competition. Land prices have also soared, affecting the cost of purchasing land for right-of-ways and retention ponds.

### **Resident Perceptions**

National polls rarely identify transportation as a major issue for US residents; however, the lack of mobility is a quality of life issue and it wastes time and money. In a 2005 study conducted by Cambridge Systematics and the Texas Transportation Institute for the Federal Highway Administration, respondents identified insufficient capacity as the number one reason for congestion, well above, traffic accidents and bad weather (Balaker, 2007). Sadly, there is often no clear consensus to the solution to the problem. An opinion poll conducted for the National Association of Realtors on transportation and growth found that only 21 percent of the respondents favored building more roads as a way to reduce congestion. Almost 50 percent suggested that improved public transportation was the best way to reduce traffic congestion. Even respondents that favored growth suggested that smart development strategies such as limiting home construction in outlying areas, redeveloping and filling older sections of urban areas, and employing mixed-use development strategies to create walkable communities should be executed (Ulm, 2007). While some experts believe that it is possible to ‘build our way out of congestion’, others disagree suggesting that building more roads simply induces

demand, i.e. increases the desire to use the expanded system. Further, there is little or no evidence that public transit reduces long-term congestion. Like road construction, transit options might reduce congestion in the short term encouraging more people to ‘take to the roads’ (Downs, 2004; Hartgen and Field, 2006). If there is no consensus on the solution to transportation congestion, then it should not be surprising that there is even less consensus on how to fund improvements. When asked about transportation funding in the National Association of Realtors poll, over 72 percent opposed selling key roads to private enterprises, while onethird strongly opposed tolling. This poll did not ask about tolling for new construction and found the respondents split on tolling as a way to reduce congestion (Ulm, 2007).

A 2006 survey of Volusia County residents found that only 37 percent of respondents believed that congestion was a problem in the incorporated areas of the county while 46 percent believed it was a problem in the unincorporated areas. When asked the same question about their specific city or area, an identical percentage agreed. When asked if traffic congestion impacted their activities 75 percent of the incorporated and 71 percent of the unincorporated respondents disagreed. Overall, 81 percent of incorporated residents and 66 percent of unincorporated residents believed that the roadways were in good repair (Volusia County’s Transportation Challenges, 2007).

## Planning Responsibilities

In the United States, transportation planning has become a complex process involving all levels of government. At the federal level, the Intermodal Surface Transportation Efficiency Act (ISTEA), passed in 1991 and reauthorized in 1998 as the Transportation Equity Act for the Twenty-First Century (TEA-21) and in 2005 as the Safe, Affordable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) shifted the emphasis in US surface transportation policy in several ways. First, responsibility for planning and implementation was increased at the regional and local level through the metropolitan planning organization (MPO) structure. Second, federal funding was increased and guarantees were established to prevent the diversion of these funds away from surface transportation. SAFETEA-LU mandates that the State's return on its contributions will be at least 90.5 percent in 2005 and increase to a minimum of 92 percent by 2008 (Federal Highway Administration, 2006). Third, preservation and maintenance were recognized as key components of the transportation system, and reinvestment in existing systems was encouraged. Fourth, authority was given to states and regions to employ a portion of highway funds generated by the federal gas tax to transit purposes. Fifth, targeted programs were established to encourage intermodal transportation linkages and transportation alternatives for low-income workers. Sixth, environmental standards were strengthened to address metropolitan air quality and encourage regional and local consideration of the role of transportation in improving quality. Seventh, transportation decision making was expected to involve citizen participation early and often throughout the process (Katz, Puentes, and Bernstein, 2005). On the subject of road congestion, the newest legislation, SAFETEA-LU, suggests that road pricing (charging for travel at peak times) and real-time traffic management solutions be implemented; strategies for increasing transit are not mentioned as a means of reducing congestion (Federal Highway Administration, 2006).

## Transportation Funding Sources

There are essentially four ways to deal with the issue of congestion: add new capacity, use existing capacity more productively, provide alternatives to highway travel, and use market mechanisms to adjust supply and demand (congestion or value pricing). Building more capacity, maintaining it in optimal condition, installing various aspects of Intelligent Transportation System (ITS) technology, and creating transit options require planning and funding to succeed (McElroy and Taylor, 2007). Transportation funding in the US is often a confusing mix of private and public responsibility. The "gas tax and grant" system of transportation funding that began in the 1920s is now inadequate to the task of building and maintaining US highways (Samuel, 2007). While transit funding has received more emphasis in recent federal programs, grants and ticket revenues often fail to cover the cost of operation, much less expansion. Money for bridge and tunnel construction and maintenance has been lacking. These realities have forced local governments to explore new sources of funding as well as greater private involvement in transportation.

Local government funding comes in three basic forms – general, user, and shared. General (as opposed to dedicated) taxes such as property, sales, and income place the burden of taxes on the entire tax base. User fees such as water, sewer, and impact place the burden on all ratepayers. Cost sharing occurs when user and general funds at the local level are matched with funding from state and Federal sources (Nelson and Moody, 2003). The funding for transportation varies widely by state and locality, but almost all projects involve at least four types of funding – gas tax, vehicle registration and fees, general fund appropriations, and bond revenues. In 2002, fuel taxes accounted for 39.87 percent of the total revenue spent on highways with the remainder of the revenues coming from general fund appropriations (14.96%), vehicle taxes and fees (14.72%), other taxes and imposts (11.46%), bond issues (9.38%), tolls (4.83%), and property taxes (4.77%). A key trend in surface transportation financing has been a greater reliance on borrowing, tolling, and private financing rather than the traditional fuel tax (Wachs, 2005).

### *Gas Tax*

It is no coincidence that the Highway Revenue Act was passed in the same year as the creation of the Interstate Highway Program. This act specified that the revenue from the federal gas tax would be earmarked for roadway spending and created the Highway Trust Fund as the principal repository of the monies collected (Puentes and Prince, 2005). While the gas tax is identified as a user fee since only individuals purchasing gasoline pay it, it is in fact a manufacturer's excise tax since it is actually paid by the "first entity in the state to refine, distribute or wholesale gasoline" (Puentes and Prince, 2005: 46). The first state in the US to enact a gas tax was Oregon in 1919, but all states currently levy a gas tax. The state gas tax levied in 2004 averaged 19.1 cents per gallon. Table 1 presents the tax rate for selected states from 1990 to 2004 (Federal Highway Administration, 2004b). Since gas tax is levied on a cents per gallon basis rather than on the actual price of the gasoline, the gas tax has failed to keep up with inflation. In fact, the average tax rate has declined 17.5 percent. State spending of gas tax revenue varies. Some states such as Alaska, Pennsylvania, and West Virginia spend more than 90 percent of their receipts on highways. Other states (Massachusetts, Pennsylvania, and New Jersey) make sizeable contributions to mass transit funds out of the gas tax receipts (Puentes and Prince, 2005).

At the federal level, the gas tax was first levied in 1932 to balance the budget. The Highway Revenue Act in 1956 later designated that the receipts be deposited in the Highway Trust Fund. The Federal gas tax was increased in 1984 and one cent of a new five-cent increase was placed in a Mass Transit Account while the remainder went into the Highway Account. The current tax rate is 18.4 cents with 15.44 cents going to the Highway Fund, 2.86 cents to the Mass Transit Fund, and the remainder to the Leaking Underground Storage Tank Fund (Puentes and Prince, 2005). The Federal government mandates state and locally-generated matching funds for various transportation projects. The established funding match for transit projects is lower and less secure than highway projects. Federal funding for transit projects is also more competitive and demands that

proposed projects meet more extensive criteria for cost effectiveness, environmental safety, and land-use impact justification (Beimborn and Puentes, 2005).

Various federal, state and locally levied gas taxes represent the largest single source of revenue for state and local transportation funding. When the larger category of motor fuel taxes is considered, this source alone can account for over half of the transportation revenues available. Other fuel taxes may include such things as Oil Company Franchise taxes, motor carrier taxes, tire taxes, rental car taxes, new trailer taxes, etc (Pennsylvania Economy League, 2006 ). Unfortunately, the Federal Highway Trust Fund is predicted to run out of money to fund currently approved program at the end of this year. In a newly released report by the National Surface Transportation Policy and Revenue Study Commission (2007) entitled Transportation for Tomorrow, the commission is recommending a 40 cent increase in the Federal gas tax rate and similar increases in state taxes.

The State of Florida levies a Comprehensive Enhanced Transportation Tax of 6.2 cents per gallon on top of 11.3 cents of fuel tax (Florida Department of Transportation, 2007). There are seven local discretionary sales surtaxes in the state of Florida at the present time. One of these is the Local Option Infrastructure Sales Tax. Under the Local Option Infrastructure Sales Tax cities and counties may levy up to 12 additional cents under three separate levies a 1 - 5 cent fuel tax, a 1 - 6 cent fuel tax and the Ninth cent fuel tax. At the present time, Volusia County levies the full 12 cent fuel tax for an estimated 2007 total revenue of \$28,811,066 (Florida Legislative Committee on Intergovernmental Relations, 2007)

### ***Vehicle Registration and other Fees***

All states register vehicles, both private and commercial, as well as charging miscellaneous fees related to sales, rental, and operation. In some states, vehicle taxes and fees account for almost as much of the funding for state-administered roads as the motor fuel taxes. In other states, it represents only about 10 percent of the fuel tax total (Puentes and Prince, 2005). For the State of Florida, vehicle registration accounted for 25 percent of the transportation funding in 2006-07 while rental car taxes/fees accounted for 3 percent of the total (FDOT, 2007).

### ***General Fund Appropriations***

While most state and local governments try to avoid the use of general funds for transportation purposes, it is not uncommon to find up to 10 percent of the funds coming from this source. In many cases, these funds go to support transit rather than highways due in part to the nature of federal and state matching issues and the failure of ticketbox fares to cover the cost of transit operations in many areas (Puentes and Prince, 2005). In the State of Florida, general revenue accounted for only 2 percent of the total transportation funding for the period 2003-2007 and is not expected to account for any appreciable funds going forward to 2012 (FDOT, 2007).

**Table 1**  
**Selected State Gas Tax Rates, 1990-2004**

<b>State</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
California	9	9	15	16	17	18	18	18	18	18	18	18	18	18	18
Florida	9.7	10.9	11.2	11.6	11.6	12.1	12.3	12.5	12.8	13	13.1	13.1	13.6	13.9	13.9
Georgia	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Maryland	18.5	18.5	18.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Massachusetts	11	17	21	21	21	21	21	21	21	21	21	21	21	21	21
Nevada	18	18	21.5	24	24	24	24	24	24.75	24.75	24.75	24.75	24.75	24.75	25.7
New York	8	14.375	20.815	22.89	22.89	22.56	21.92	21.79	22.8	22.65	22	21.4	22	22.6	22.65
Ohio	18	20	21	21	22	22	22	22	22	22	22	22	22	22	24
Oregon	18	18	20	22	24	24	24	24	24	24	24	24	24	24	24
Pennsylvania	12	18.2	22.35	22.35	22.35	22.35	22.35	22.35	25.9	25.9	25.9	25.9	26	26.6	25.9
Tennessee	20	20	20	20	20	20	20	20	20	20	20	20	20	20	21.4
Washington	18	22	23	23	23	23	23	23	23	23	23	23	23	23	28
D. C.	18	18	18	20	20	20	20	20	20	20	20	20	20	20	20
All State Av.	14.19	15.47	17.55	17.99	18.34	18.51	18.50	18.57	19.05	19.96	19.29	20.17	19.07	19.13	19.1

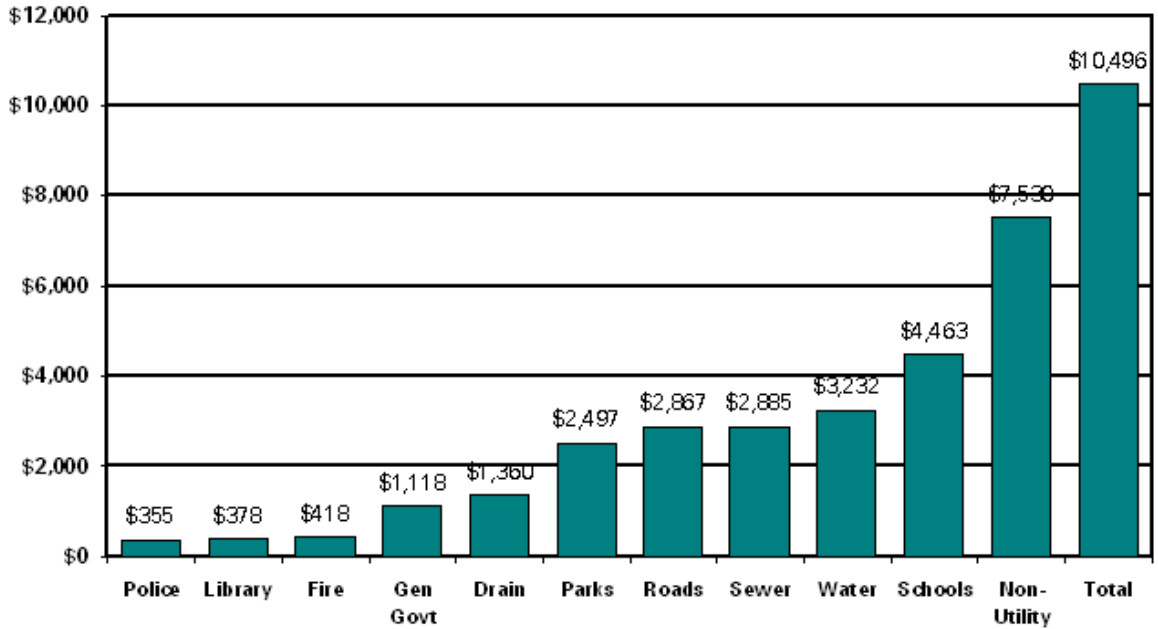
### ***Bond Revenue***

During the 1960s and 1970s many state and local governments relied extensively on bond issues for transportation funding which resulted in subsequent declines in transportation spending as these entities struggled under a significant debt service burden. Currently, the national average for state transportation bond revenue is roughly 12.4 percent. In addition to the traditional bond, many local governments are turning to Grant Anticipation Revenue Vehicles (GARVEEs). This is a short-term note or long-term bond that uses future federal funds to support payment of principle and interest. Future tolls collected by locally administered entities could also be used in a similar manner. However, most municipally issued bonds must be insured to attract buyers. The recent troubles in the financial sector have put at jeopardy the future viability of two of the nation's largest bond insurers, MBIA and AMBAC. Severe weakness or tightening in the bond insurer market could make it difficult for local governments to raise future money through bond issuance (CNBC, 2008; The Stock Masters, 2008).

### ***Impact Fees***

Impact fees, also called capacity fees, capital recovery fees or facility fees, are one-time charges on new development designed to help fund a wide range of facilities such as road, water and sewer construction, parks, fire and police stations, etc. required by residential and commercial development. Beginning in the early 1980s, a number of states passed impact fee enabling acts in order to allow local governments to supplement their traditional property tax funding sources for these infrastructure improvements. According to a 2007 survey by Duncan and Associates, the total average fees paid by the respondents in their survey was \$10,496 (Figure 1).

Figure 1: National Average Fees per Single Family Unit-2007

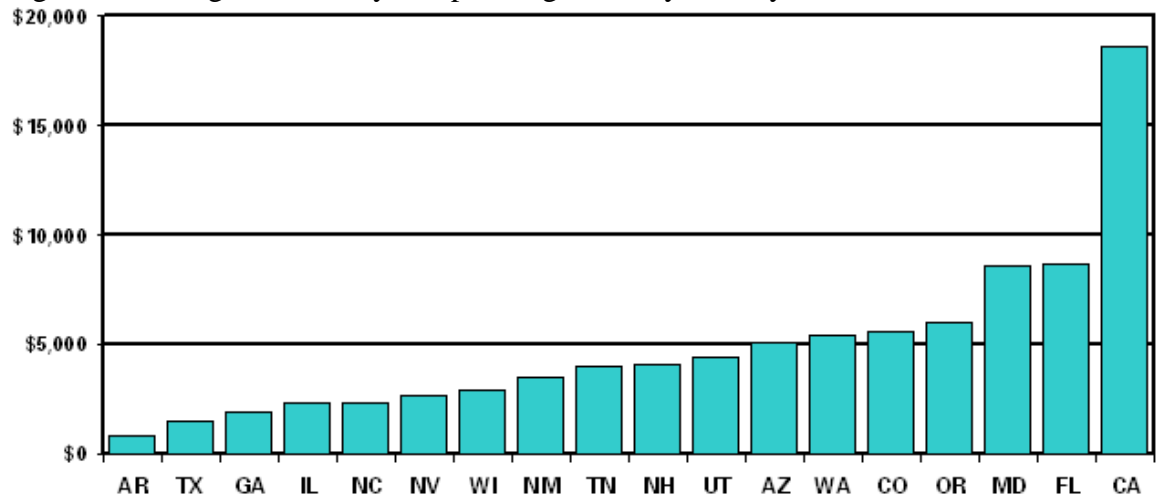


Source: Duncan & Associates (2007) National

Private interests and public officials have often opposed impact fees as a tax on capital that stifles investment and threatens job growth. Supporters argue that impact fees are an investment in the local community that can spur economic growth and development.

The State of Florida had the second highest average non-utility fee per single family unit in the 2007 impact fee survey (Figure 2) and reported more jurisdiction imposing impact fees than any other state (Figure 3).

Figure 2: Average Non-utility Fee per Single Family Unit by State in 2007

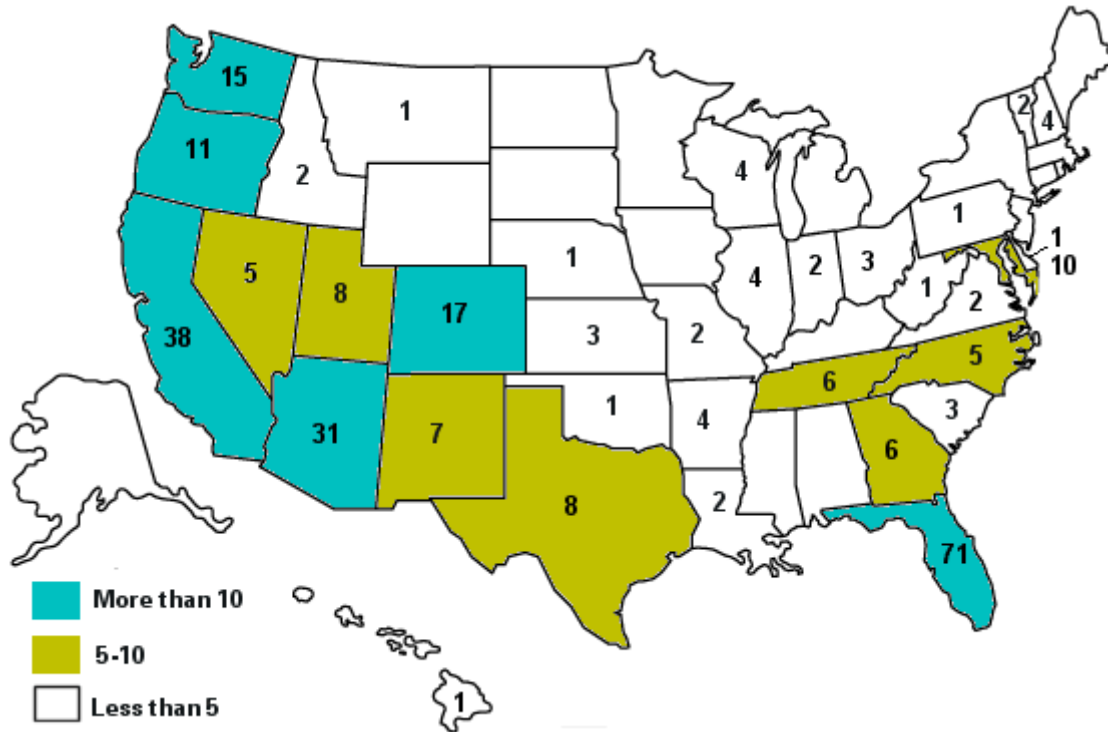


Source: Duncan & Associates (2007) National

The widespread use and early adoption of impact fees in the State of Florida was one reasons that it was selected for a study of impact fees by Nelson and Moody (2003). Their study of the 67 counties in Florida for 1993-1999 found that property tax revenues

had failed to cover the full costs of new development infrastructure. According to their research, transportation-related impact fees accounted for 54 percent of the total impact fees levied. On a positive note, their analysis did indicate that impact fees increased the supply of buildable land with minimal impact on job growth. It should be noted that the study period represents a period of high growth and rising housing process in Florida; no evidence is available on the effect of impact fees in periods of declining economic activity and housing values.

Figure 3: Jurisdictions Imposing Impact Fees-2007



Source: Duncan & Associates (2007) National

### Other State and Local Taxes and Revenue Sources

Sales taxes represent a common source of state and local funding, particularly for transit projects. A review of major local transit efforts across the US found that many relied specifically on voter approved sale tax levies for transit improvement and expansion (Rhoades and Nipper, 2007). In the state of Florida seven counties – Broward, Duval, Hillsborough, Miami-Dade, Pinellas, Sarasota, and Volusia – are eligible to levy the Charter County Transit System Surtax. To date, only Duval and Miami-Dade have enacted the surtax. A Local Option Infrastructure Sales Tax was also approved (FDOT, 2007).

A wide variety of other taxes and fees are used in the US to fund some portion of transportation activity including lottery and casino revenues, cigarette taxes, motor carrier taxes, tire taxes, taxes on the activity of oil and gas operators (and other mineral operators/leases), inspection and permit fees, and corporate taxes (Puentes and Prince,

2005). A number of regions also use some portion of local property taxes. In essence, potentially any sort of activity that can be taxed or regulated at the state or local level could be used as a transportation funding source, although new funding sources or a change in revenue usage will often require legislation and/or voter approval.

A significant source of transportation funding in the State of Florida is the Documentary Stamp Tax levied under Chapter 201 of the Florida Statutes on deeds (transfer or sale), stocks and bonds, notes and written obligations to pay, and mortgages, liens, and other evidence of indebtedness. Documentary taxes accounted for 16 percent of the funding for 2006-07 and is expected to account for 10 percent of the funding through 2012 (FDOT, 2007).

### **Public-Private Partnerships (PPPs)**

As state and local governments struggle to upgrade or replace roads and other transportation infrastructure, they are increasingly looking to private players to fund and manage projects. According to the publication *Public Works Financing*, there are currently 71 projects worth \$104 billion being considered for private development in the US. Examples of projects under way or in final approval include the Port of Miami Tunnel, a 99-year lease on the Chicago Skyway and a lease-tolling agreement for the South Bay Expressway. Private investment funds from some of the biggest names in investment such as Goldman Sachs and Morgan Stanley are competing for the opportunity become involved in lease and tolling projects across the country, however, this growing interest has begun to raise concerns from local citizens and government who fear that private interests and public interest will increasingly conflict (Kiviat, 2007).

The Public-Private Partnership Pilot Program, Known as Penta-P, was authorized under SAFETEA-LU to study whether PPPs could improve the time to project completion and reduce project costs and performance. Under this pilot program three projects were selected: Houston METRO's North Corridor and Southeast Corridor light rail, Denver RTDs East Corridor, and Gold Line and the BART Oakland Airport Connector Project. PPPs are one of the six components of the National Strategy to Reduce Congestion. ([www.FightGridlockNow.gov](http://www.FightGridlockNow.gov)).

The following sections briefly review types of Public-Private Partnerships in transportation:

***Changing Contracts.*** While government entities play a role in the design and construction of transportation projects, this role is most evident in the bidding and award of contracts and contract oversight. There are a range of new options with PPP including 1) design-build, 2) design-build with warranty, 3) design-build-operate-maintain, 4) design-build-finance, 5) design-build-finance-operate, 6) build-operate-transfer, 7) build-transfer-operate, 8) build-own-operate, 9) joint development, and 10) long-term lease or concessions. These options differ in the level of private involvement, short-term and long-term ownership, and which party bears the risk. The concepts of design-build-operate-maintain and build-operate-transfer/build-transfer-operate have been used for a number of years in other capital projects such as airports and oil refining facilities (American Public Transportation Association, 2006).

**Tolling.** In the case of roadways or transit operations, firms will frequently use tolling as a means of building (money raised on anticipated revenues), operating, and maintaining the operations. Tolling currently represents about 7 percent of total highway user revenues. Although tolling was used extensively in the 19<sup>th</sup> century, it fell out of favor until the late 1980s when wireless technology made it possible to electronically ‘pay the toll’ and avoid coming to a full stop. The Maine Turnpike (1947) pioneered the concept of bond financing backed by the pledge of future tolling to service the debt. This public authority tolling became a common practice in new road, bridge, and tunnel construction over the last 50 years. Initially, toll rates were set based on debt service requirements with the expectation that rates would remain constant through the life of the bond; however, this does not consider the effects of inflation and was often based on inaccurate estimates of traffic (Samuel, 2007). The concept of allowing private entities to collect tolls to pay for design, construction, operation, and/or maintenance is more recent and not without controversy

**Existing tolling.** A number of local governments have or are considering leasing existing roads to private concerns as a way of upgrading and improving infrastructure; however, many citizens are opposed to this use of tolling on the grounds of double taxation. There has often been no limit placed on the tolling rate and possible increases in the rate. Further, some of the private contracts have included noncompete clauses that preclude the public construction of possible competing roads (Kiviat, 2007). As noted above, 72 percent of the respondents strongly opposed the sell or lease of existing roads to private entities who would then levy tolls for its use. The number of respondents strongly opposed to new construction tolling was only 52 percent (Ulm, 2007).

**New Construction.** PPPs involving new construction avoid the double taxation issue and shift risk to private partners. In addition, these partnerships often include revenue sharing clauses that add money to state coffers (Kiviat, 2007).

**HOT Lanes.** HOT lanes or high-occupancy lanes are limited access lanes for buses and high occupancy vehicles that may be opened to single occupancy vehicles that pay a toll for their use. This toll is normally collected electronically and varies by locale and project. HOT lanes grew out of a dissatisfaction with the more traditional HOV lanes where violation rates are often very high and/or the lanes underutilized during peak traffic times. HOT lanes are a form of value pricing that is intended to preserve the time saving qualities of special laning while raising needed revenue (Gilroy and Pelletier, 2007)

**Transit.** Transit-oriented PPPs are growing in popularity. In addition to the Penta-P examples -Houston METRO’s North Corridor and Southeast Corridor light rail, Denver RTDs East Corridor and Gold Line, and the BART Oakland Airport Connector Project – other PPPs include the Dallas Area rapid Transit Mockingbird Station, the Dulles Corridor, and the Los Angeles METRO.

## Congestion Pricing

Congestion pricing relies on market forces to adjust demand and supply. It recognizes that the value of a given trip varies by individual, depending on time, location, destination, and cost, and more broadly among individuals depending on preference and access to transportation alternatives. In essence, congestion pricing includes both the direct cost to the traveler and the indirect cost of delay that this traveler imposes on others through delay. Congestion pricing seeks to discourage low value trips and encourage travel at less congested times or by alternate modes of transportation. Congestion or value pricing strategies can be either road or non-road. The following briefly discusses those strategies either tried or proposed:

**Road tolling** is a general category of road pricing that involves a fixed fee for driving on a particular road (see above). General tolling strategies of this sort are more often a means of paying for construction and maintenance rather than a congestion reducing mechanism.

**Congestion pricing** involves a fee (toll) which is higher during congested conditions than uncongested conditions and is intended to shift vehicle travel patterns to other routes, times, or modes. Variations of this concept include:

*Cordon fees* which are fees charged for driving in a particular area such as a city center. Ex. London and New York (proposed).

*HOT lanes* which charge low occupancy vehicles a fee to use the high occupancy vehicle (HOV) lanes either throughout the day or at certain times of the day. Fixed or variable pricing may be involved. HOT lanes may reduce congestion and will help raise revenue.

*Distance-based pricing* is a vehicle use fee that uses GPS devices to charge a fee based on the miles a vehicle is driven. This will reduce congestion and raise revenues.

*Pay-As-You-Drive* pricing prorates premiums by mileage when calculating insurance premiums. These last two have been suggested by the UK Commission for Integrated Transport (CFIT, 2002)

*Road space rationing* involves issuing revenue-neutral credits for driving during times of congestion that can be used, sold, or traded (Kockelman and Kalmanje, 2004).

**Non-road pricing** has been most notably used in regard to parking fees in countries such as the UK. The concept applies to fees for public as well as private parking areas and is designed to encourage carpooling or alternative modes of transportation. A private employer could charge employees a fee to park that could be 'rebated' if the employee opts to carpool or take public transit.

## Conclusion

The time to begin planning for the transportation needs of the future is today. Because population growth is a key factor in the demand for transportation, future transportation needs can be estimated well into the future. The general time horizon for such planning is normally 25-50 years into the future, although current planning systems review and update these long-range plans approximately every 5 years. While technical and environmental considerations are important elements of planning the future transportation system, the system will not get built without careful consideration to the revenue available. Transportation planning also involves efforts to project revenue out to match projected needs. However, this process can normally only identify funding shortfalls; that is, the gap between what planning processes predict will be needed and the funds available from existing sources. It is up to government officials to grapple with means of closing these funding gaps.

Local governments hold a unique position in the US system of government; they are at once the first line of contact with citizens needs and concerns and the last in line to receive unfunded 'mandates' from state and federal governments. While they are the first to feel the weight of citizen demands, they are the last to receive revenues raised by other levels of government. Still, local governments can reach out to their citizens in a more personal and effective way to discuss the needs and options available. They command a higher level of trust from their citizens precisely because these citizens feel that they can exercise more control and engage in greater scrutiny of their actions. A 21<sup>st</sup> century economy demands a 21<sup>st</sup> century transportation infrastructure and local governments have an important role to play in creating these systems. This report was intended to be part of a broader Consortium effort to help lay the foundation for discussions within the County on the future of transportation. The goal of this discussion is to reach a consensus among the stakeholders on how Volusia County can build the type of infrastructure that will insure the level of economic development and quality of life desired by its citizens. This discussion will not be short, nor will it be a simple 'just the facts' debate. The transportation planning process has always been as much about politics as about mobility, but the stakes are too high to avoid the discussion or hope that it simply goes away.

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## Part II

### Benchmarking Study

## Introduction

Both the Transportation Challenge Subcommittee of the Volusia-Flagler Higher Education Consortium and the County of Volusia suggested that information on the funding sources utilized by other states and counties would be helpful in the next phases of the Consortium efforts. Specifically, such information could form the basis for discussion on solutions to the funding challenges facing Volusia County. Many of the counties in the State of Florida face similar transportation challenges because of the relatively high population growth rates in our state, the percentage of minority and aging populations with special needs, and the lack of available funding. While these counties are a logical comparison group, the fact that they all come from the same state does limit the range of ideas for transportation funding because they all face specific state regulations and mandates on the types of taxes, fees and other activities that they can utilize to generate revenue. Therefore, it was recommended that the benchmarking effort include counties outside Florida with similar growth rates. Because time and budgetary considerations precluded data gathering directly from state and county officials outside Florida, we relied on secondary data from state and county budgets. Given this limitation, it was not possible to identify the exact dollar amount (or even percentages) coming from different revenue sources. Instead, we have attempted to identify the broad categories of revenue in each state or county. For the purpose of overall comparison, we have also identified a group of lower growth states who are experiencing the twin problems of congestion and aging infrastructure without the pressure of high population growth. As Florida has seen, population growth can translate into new sources of revenue but revenue has rarely, if ever, kept up with the pace of population growth.

## Summary of Tables

Table 2 provides an overview of the US itself. In 2000, the total population was 281 million with a projected 2030 population of 363 million. The population growth rate for the nation was 6.4 percent. The population density (total area divided by population) was 80 persons per square mile, rising to a projected 102 per square mile in 2030. Total public road length in 2000 was 3,966,485 miles with local roads making up the bulk of this length at 2,739,515 miles.

Table 3 presents the profiles of six states with double digit rates of growth between 2000 and 2025 – California, Florida, Georgia, North Carolina, Texas, and Virginia. These rates range from 52 percent in California to 20 percent in North Carolina. Of these states, Florida currently has the highest population density at 296.4 persons per square mile. Florida currently ranks third in total road length miles.

Table 4 presents a comparison group of lower growth US states – Pennsylvania, Illinois, Michigan, New Jersey, New York, and Ohio. The average growth rate from 2000-2025

was 8 percent, well below the growth rates posted by the states in Table 3. The 2000 population densities, however, were generally higher. This is an important factor in transportation because mass transit is most cost effective in high density areas.

Table 5 identifies funding sources for transportation in the high growth states. It was not possible to determine the exact amount of funding coming from each source, but tolls, bonds, and gas tax appear to be the three greatest sources. Motor carrier and vehicle registration fees were common in all states. All of the states utilized impacts fees and local property in some jurisdictions.

Table 6 presents the funding information for low growth states. As in the high growth states, toll, bonds, gas tax, motor carrier, and vehicle registration fees are common across all states. These states did not utilize impacts fees. Two states used non-conventional sources of funding – casino tax and lottery revenue.

Tables 7-9 present general information on Florida counties. The projected growth rates 2000-2025 for these counties range from 153 percent for Flagler to 28 percent for Miami-Dade. It should be noted that Miami-Dade already has the highest population density of these counties and, therefore, faces more limits to future growth. The total and transportation budgets of these counties reflect some of these differences in size as well as the extent total lane miles within the county.

Table 10 presents the profile for 5 high growth US counties. The projected growth rates from 2000-2025 for all but one of these counties is over 100 percent. It should be noted that the State of North Carolina assumes all budget and transportation responsibility for the counties.

Tables 11-13 present funding source information on the selected Florida counties. Almost all of the counties utilize impact fees and gas tax revenues. Many also reported revenue use from local property taxes.

Table 14 completes the benchmarking tables by presenting information. Only one reported the use of impact fees (Riverside, CA) or bonds (Gwinnett, GA). All reported the use of local property tax.

## **Conclusion**

Volusia County is not alone in facing serious challenges in the area of transportation. In fact, several of the states reviewed for this project had established their own versions of the “Transportation Challenge.” The mandates in each case were similar, that is, identify 1) the scope and magnitude of the congestion and infrastructure problems involved, 2) the possible economic and social impacts of no action, 3) the costs of addressing these needs, and 4) the sources of funding available to states and communities. In this regard, the State of Florida and the County of Volusia are at the forefront of an awakening movement to stem the decline in national transportation and infrastructure. They recognize that a world-class industrial nation can not survive without a modern world-

class system of transportation. Congested, failing transportation infrastructure costs lives, time, and money. Failing to proactively address these issues jeopardizes future economic growth and quality of life. Given the long lead time involved in transportation planning and construction, no responsible government can afford to wait until the 'problem' is obvious and undeniable; by this time, it is often too late to stop the flight of businesses, residents, revenues, and jobs. It is also difficult and expensive to play catch-up to the demand for more and better transportation.

## Table 2 National Profile

### National Data-General

	<b>United States</b>	
	<b>2000</b>	<b>2030</b>
Total Area	3,537,438	
Population	281,421,906	363,584,000
White	160,107,431	202,676,000
Black	3,602,220	50,442,000
Hispanic	35,622,475	73,055,000
Asian	1,210,114	22,580,000
Other	13,924,000	14,831,000
% Change	29	
Population Density	80/sq. mile	103/sq. mile
Public Road Length/ Miles	3,966,485	-----
Interstate	46,483	-----
Arterials	389,594	-----
Connectors	790,893	-----
Local	2,739,515	-----

**Table 3**  
**State Profiles**

**State Data- High Growth**

	<b>California</b>		<b>Florida</b>		<b>Georgia</b>		<b>North Carolina</b>		<b>Texas</b>		<b>Virginia</b>	
	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>
Total Area	155,959		53,927		57,906		48,710		261,797		39,594	
Population*	32,521	49,285	15,233	20,710	7,875	9,862	7,777	9,349	20,119	27,183	6,997	8,466
White	14,870	15,156	10,198	11,597	5,247	5,936	5,730	6,632	11,045	11,859	5,026	5,413
Black	2,425	3,426	2,326	3,556	2,279	3,322	1,738	2,244	2,543	3,871	1,416	1,973
Hispanic	10,647	21,232	2,390	4,944	189	346	121	210	5,875	10,230	269	538
Asian	4,289	9,076	267	526	142	247	96	173	562	1,065	267	519
Other	290	395	52	87	18	11	92	90	94	158	19	23
% Change	52		36		25		20		35		21	
Population Density	217.1	316.0	296.4	384.0	141.4	170.3	165.2	191.9	79.6	103.8	178.8	213.8
Road Length Miles**	167,898	---	119,785	---	115,777	---	101,743	---	301,776	---	70,950	---
Interstate	2,454	---	1,471	---	1,245	---	1,020	---	3,234	---	1,117	---
Arterials	28,554	---	12,631	---	13,263	---	9,200	---	29,723	---	8,416	---
Collectors	32,040	---	14,219	---	23,269	---	17,733	---	63,340	---	14,121	---
Local	104,850	---	91,464	---	78,000	---	73,790	---	205,479	---	47,296	---

\* Population figures from US Census

\*\* Road length from US Bureau of Transportation Statistics

**Table 4  
State Profiles**

**State Data- Low Growth**

	<b>Pennsylvania</b>		<b>Illinois</b>		<b>Michigan</b>		<b>New Jersey</b>		<b>New York</b>		<b>Ohio</b>	
	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>
Total Area	44,816		55,583		56,803		7,417		47,213		40,948	
Population*	12,202	12,683	12,051	13,440	9,679	10,078	8,178	9,558	18,146	19,830	11,319	11,744
White	10,407	10,077	8,469	8,229	7,760	7,580	5,398	4,954	10,942	9,504	9,652	9,486
Black	1,224	1,530	1,865	2,176	1,435	1,705	1,239	1,721	3,299	4,048	1,320	1,660
Hispanic	334	639	1,267	2,275	261	431	1,044	1,861	2,805	4,309	183	319
Asian	218	410	423	721	168	290	475	995	1,028	1,877	140	250
Other	19	27	27	39	55	72	22	27	72	92	24	29
% Change	4		12		4		17		9		4	
Population Density	274.0	283.0	223.4	241.8	175	177.4	1,134.5	1,288.6	401.9	420.0	277.3	286.8
Road Length Miles*	120,298	---	138,338	---	122,029	---	36,556	---	114,020	---	124,885	---
Interstate	1,757	---	2,170	---	1,240	---	431	---	1,674	---	1,573	---
Arterials	13,685	---	14,086	---	12,491	---	5,676	---	14,299	---	11,043	---
Collectors	19,812	---	21,646	---	25,715	---	4,556	---	20,555	---	22,105	---
Local	85,044	---	100,436	---	82,583	---	25,893	---	77,492	---	90,164	---

\* Population figures from US Census

\*\* Road length from US Bureau of Transportation Statistics

Table 5

## State Profiles

### Selected State Data-Funding Sources High Growth States

Source	California		Florida		Georgia		North Carolina		Texas		Virginia	
	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit
Toll	■		■		■		■		■			
Bond			■		■		■	■	■			■
Farebox		■		■		■		■		■		■
Gas Tax	■		■		■		■		■		■	
Motor Carrier	■		■		■		■		■		■	
Vehicle Registration	■		■		■		■		■		■	
Weight violation and Trucking fees*	■		■								■	
Recordation+											■	■
Miscellaneous	■				■		■				■	
General Appropriation	■		■				■		■			
Impact fee	*****		■		■		*****		*****		*****	
Local Sales		*****		*****		*****						
Local Property	*****		*****		*****		*****		■		■	
Local Income												

\* category includes tire fees, tractor/trailer fees, weight violation assessments

+ Recordation fees proposed in other areas including Georgia, Texas

Table 6  
State Profiles

Selected State Data-Funding Sources  
Low Growth States

Source	Pennsylvania		Illinois		Michigan		New Jersey		New York		Ohio	
	Roads	Transit	Roads	Transit	Roads	Transit	Road	Transit	Road	Transit	Road	Transit
Toll	■		■		■		■	■	■	■	■	
Bond	■		■		■		■		■		■	
Farebox		■		■		■		■		■		■
Gas Tax	■		■		■	■	■	■	■		■	
Motor carrier												
Vehicle registration	■		■		■	■	■		■	■	■	
Tire Tax		■										
Petroleum Business										■		
Vehicle Lease/Rental		■										
Corporate Franchise										■		
Public Utility		■										
Sales Tax		■										
Lottery Revenue		■										
Casino Revenue								■				
General Appropriation		■	■		■		■		■		■	■
Local Sales				■						■		■
Local Property	■			■		■				■		■
Local Income												■

**Table 7**  
**County Profiles**

**Metropolitan Planning Organization (MPO) Group- General**

	<b>Brevard</b>		<b>Flagler</b>		<b>Lake</b>		<b>Orange</b>		<b>Volusia</b>	
	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>
Total Area	1,018		485		953		908		1,103	
Population*	475,607	689,508	49,787	125,999	211,503	463,500	901,806	1,411,782	443,575	657,216
White	383,339	555,743	39,830	100,799	166,876	365,702	452,707	708,715	345,544	511,971
Black	46,134	66,882	4,829	12,222	18,824	41,252	189,379	296,474	44,801	63,379
Hispanic	30,439	44,129	3,635	9,198	20,727	45,423	219,139	343,063	43,470	64,407
Asian	9,512	13,790	896	2,268	2,538	1,205	39,679	62,118	6,210	9,201
Other	6,183	8,964	597	1,512	2,538	9,918	902	1,412	3,550	8,258
% Change	45%		153%		119%		57%		48%	
Population Density**	468/sq. mile	677/sq. mile	103/sq. mile	259/sq. mile	221/sq. mile	486/sq. mile	988/sq. mile	1,555/sq. mile	402/sq. mile	596/sq. mile
Total Lane Miles	2,423.1	2,638.3	619.2	707.8	1,401.5	1,607.9	3,769.6	4,567.3	1,401.5	1,607.9
Total Budget	1,235,601,288		152,490,359		559,143,986		3,421,686,729		602,603,971	
Transportation	166,901,585		10,188,809		60,648,923		303,710,020		81,725,662	

\* Population figures from US Census. Note: The MPO reports use different projects developed within the state.

\*\* Lane Miles from MPO report.

## Table 8 County Profiles

### Metropolitan Planning Organization Group (MPO) - General

	<b>Marion</b>		<b>Osceola</b>		<b>Polk</b>		<b>Seminole</b>		<b>Sumter</b>	
	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>
Total Area	1,579		1,322		1,874		308		546	
Population*	259,942	443,477	172,531	314,204	483,924	780,056	365,798	476,278	44,795	130,055
White	77.8	345,025	47.2	148,304	69.0	538,239	70.1	333,170	78.0	101,442
Black	11.6	51,443	10.9	34,248	14.2	110,768	11.2	53,343	12.3	15,997
Hispanic	8.5	37,696	38.9	122,225	14.5	113,108	14.5	69,060	8.0	10,404
Asian	1.2	5,322	3.0	9,426	1.4	10,921	3.5	16,670	0.7	910
Other	.9	3,991			.9	7,021	.7	3,334	1	1301
% Change	71%		82%				30%		190%	
Population Density	164/sq. mile	281/sq. mile	131/sq. mile	238/sq. mile	258/sq. mile	416/sq. mile	1,186/sq. mile	1,546/sq. mile	82/sq. mile	238/sq. mile
Total Lane Miles**	2,423.1	2,638.3	1,379.4	1,648.0	4357.1		997.3	1,648.0	708.1	871.1
Total Budget	355,789,875		935,436,722		1,824,850,291		1,064,000,000		169,595,694	
Transportation	44,252,178		187,886,317		350,082,833		233,500,000		31,526,243	

\* Population figures from US Census. Note: The MPO reports use different projects developed within the state.

\*\* Lane Miles from MPO report.

## Table 9 County Profiles

### Selected Other Counties in Florida – General

	Bay		Duval		Hillsborough		Lee		Miami-Dade	
	2000	2025	2000	2025	2000	2025	2000	2025	2000	2025
Total Area	763		774		1,051		804		1,946	
Population	148,217	213,959	810,698	1,143,906	998,948	1,607,043	440,888	970,736	2,253,362	2,968,488
White	124,761	173,735	506,961	681,768	579,390	932,085	328,902	924,169	412,914	543,233
Black	15,772	22,680	240,117	345,460	164,826	265,162	33,948	74,747	455,179	599,635
Hispanic	3,591	5,135	43,604	65,203	220,768	355,157	70,983	156,289	1,381,311	1,819,683
Asian	2,561	3,637	28,646	38,893	12,986	20,892	5,291	11,649	33,800	44,527
Other	1,532	8,772	779	1,144	20,978	33,748	1,764	3,883	6,670	8,906
% Change	44%		41%		61%		80%		28%	
Population Density	194/sq. mile	280/sq. mile	1,006/sq. mile	1,478/sq. mile	951/sq. mile	1,529/sq. mile	548/sq. mile	1,207/sq. mile	1,158/sq. mile	1,525/sq. mile
Total Lane Miles	1565.1		4346.5		5147.0		4426.7		8826.4	
Total Budget	280,931,045		1,876,175,022		4,046,700,000		2,397,597,300		4,907,492,000	
Transportation	19,688,492		136,863,799		161,123,564		292,538,596		939,911,000	

\* Population figures from US Census. Note: The MPO reports use different projects developed within the state.

\*\* Lane Miles from MPO report.

**Table 10**  
**County Profiles**

**Selected High Growth Counties – General**

	<b>Riverside, California</b>		<b>Gwinnett, Georgia</b>		<b>Wake, North Carolina</b>		<b>Denton, Texas</b>		<b>Loudoun, Virginia</b>	
	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025*</b>	<b>2000</b>	<b>2025#</b>	<b>2000</b>	<b>2025</b>	<b>2000</b>	<b>2025</b>
Total Area	7,207.37		432.73		831.92		888.54		519.85	
Population	1,559,039	3,204,859	588,448	1,262,595	627,846	1,180,991	432,976	903,374	169,599	524,804
White	801,110	1,225,385	394,164	845,732	420,559	791,080	333,058	598,427	130,330	395,564
Black	94,534	188,215	47,806	102,574	123,820	232,908	26,290	64,538	11,683	29,270
Hispanic	566,592	1,537,518	64,137	137,615	33,985	63,926	52,619	182,290	10,089	40,995
Asian	57,464	181,522	42,360	90,889	21,249	39,970	(in Other)	(in Other)	(in Other)	(in Other)
Other	39,339	72,219	39,981	85,785	28,233	53,107	21,009	58,119	17,497	58,977
% Change	106 %		115 %		86%		109%		209%	
Population Density	216.31	444.66	1,359.85	2917.74	754.70	1,419.60	487.29	1,016.69	326.25	1,009.53
Total Budget	\$ 2,553,142,078		\$ 1,675,049,117		\$ 1,378,361,674		\$ 170,084,228		\$ 1,600,000	
Transportation	\$ 208,737,407		\$ 256,383,976		\$ 0##		\$ 11,852,155		\$ 8,313,000	

\* Projection only until 2010 available for Georgia counties. 2025 data for Gwinnett County estimated by applying the same growth rate used for 2010 (approximately 2.9%)

# Projection is not available by race. The overall population growth rate for the county was applied to each race to calculate 2025 estimate.

## The State of North Carolina maintains the budget and responsibility for transportation in all its counties. Therefore, Wake County does not have a transportation and roads budget of its own.

Table 11  
County Profiles

Metropolitan Planning Organization Data-Funding Sources

Source	Brevard		Flagler		Lake		Orange		Volusia	
	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit
Toll			■							
Bond	■				■					
Farebox			■							■
MSTU or MSBU	■						■			
User Fees	■		■							
Grants	■		■							
Intergovernmental	■		■		■		■		■	
Federal Govt.										■
State Govt.	■		■		■					■
Const. Gas Tax	■		■		■		■		■	
Local Gas Tax	■		■				■		■	
Charges for Services	■		■		■		■			■
Franchise Fee Revenues	■									
Miscellaneous	■		■		■		■		■	
Local Sales										
Local Property	■		■		■		■			
Local Income										
Impact Fees	■		■		■		■		■	

Table 12  
County Profiles

Metropolitan Planning Organization Data-Funding Sources

Source	Marion		Osceola		Polk *		Seminole #		Sumter	
	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit
Toll										
Bond	■									
Farebox										
MSTU or MSBU					■		■			
User Fees										
Grants							■		■	
Intergovernmental			■		■				■	
Federal Govt.										
State Govt.					■					
Const. Gas Tax	■		■		■		■		■	
Local Gas Tax	■		■		■		■		■	
Charges for Services	■		■			■			■	
Franchise Fee Revenues										
Miscellaneous	■		■		■		■		■	
Local Sales							■			
Local Property					■		■		■	
Local Income										
Impact Fees			■		■		■		■	

\* Polk County assesses a direct 1 mill property tax for transportation

# Seminole County assesses a direct 0.31 mill property tax for transportation

Table 13  
County Profiles

Selected Other Counties in Florida -Funding Sources

Source	Bay		Duval		Hillsborough #		Lee		Miami-Dade	
	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit
Toll							■			■
Bond			■				■			
Farebox										■
MSTU or MSBU							■			
User Fees									■	
Grants	■								■	
Intergovernmental	■				■				■	
Federal Govt.									■	
State Govt.	■		■						■	
Const. Gas Tax	■		■		■		■		■	
Local Gas Tax	■		■		■		■		■	
Charges for Services	■		■		■		■		■	
Franchise Fee Revenues										
Miscellaneous	■		■		■				■	
Local Sales			■		■				■	
Local Property	■				■		■		■	
Local Income										
Impact Fees	■		■		■		■		■	

# Hillsborough assesses a 1/2 cent sales tax allocation straight to Transportation fund

Table 14  
County Profiles

Selected High Growth Counties -Funding Sources

Source	Riverside, California		Gwinnett, Georgia		Wake, North Carolina <sup>#</sup>		Denton, Texas		Loudoun, Virginia	
	Road	Transit	Road	Transit	Road	Transit	Road	Transit	Road	Transit
Toll										
Bond			■							
Farebox				■						
Auto Registration Fees					■		■			
Excess Vehicle Weight Fees					■		■			
Lateral Road Funding							■			
Subdivision Inspection Fees	■						■			
Interest from Investments	■		■		■		■			
Bonds			■							
Other Miscellaneous Fees	■						■		■	
Special Local Funding Programs	■									
Grants			■							
Gas Tax	■				■				■	
State Reimbursements	■		■						■	
Federal Reimbursements	■								■	
Local Sales			■		■					
Local Property	■		■	■	■		■		■	
Local Income					■					
Impact Fees	■									

# North Carolina sources are based on the State funding sources, since the state owns all the local roads as well.