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# Trends and Conditions Report - 2006

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## TRAVEL DEMAND: Trade and Freight Transportation March 2006

This “Trends and Conditions” report was prepared jointly by the Office of Policy Planning of the Florida Department of Transportation and the Center for Urban Transportation Research at the University of South Florida. It is part of a continuing process to support the needs of decision makers, transportation professionals and the interested public.

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## Travel Demand: Trade and Freight Transportation

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### Introduction

In addition to person travel for daily activities and tourist and visitor travel, the third largest source of travel demand for the transportation system is the shipment of materials and products to meet the needs of individuals and businesses. Freight travel demand has been a growing source of demand for transportation infrastructure and has increased at rates faster than person-travel demand growth. Many forecasters expect freight demand growth to continue to outpace person-travel demand growth. Airports, seaports, rail, and highway systems are used to transport freight in Florida. The Florida peninsula is precluded from being traversed to meet the surface travel demand for adjacent states; however, in an international context Florida provides a gateway to the Caribbean and Central and South America for air and ocean transport. In addition, as the fourth largest and one of the fastest growing states and a global tourist destination, Florida is a major generator of freight demand to serve the local and visitor population. Florida also produces numerous items from phosphates to citrus to tropical fish that are shipped internationally.

Over the past decade, there has been a growing recognition of the importance of freight and business travel as a major component of transportation demand. As the transportation system has become more crowded, there is a growing recognition that the transportation system performance has increasing impacts on business health. There is also a growing share of freight traffic on the surface transportation

*There is a growing recognition of the importance of freight travel as a major component of transportation demand.*

system and air travel system that also serves person travel. This has motivated a growing effort to develop a richer understanding of freight travel demands. The role of the private sector in providing freight travel and the proprietary nature of some freight data has resulted in a more limited body of information on freight travel. However, the growing public interest in integrating freight needs into transportation planning has resulted in rapid expansion the body of data and knowledge regarding freight transportation. In addition to the shorter history of knowledge on freight travel demand, there is evidence that the factors influencing freight demand may be more dynamic than those that govern person movement. For example, the shift to just-in-time manufacturing, the shifts from rail to truck travel, the recent impacts of transportation security, and fuel economy and pricing result in a very dynamic situation regarding freight travel demand. Hurricane events and recovery efforts may also be influencing freight demands.

### Freight Transportation for all Modes

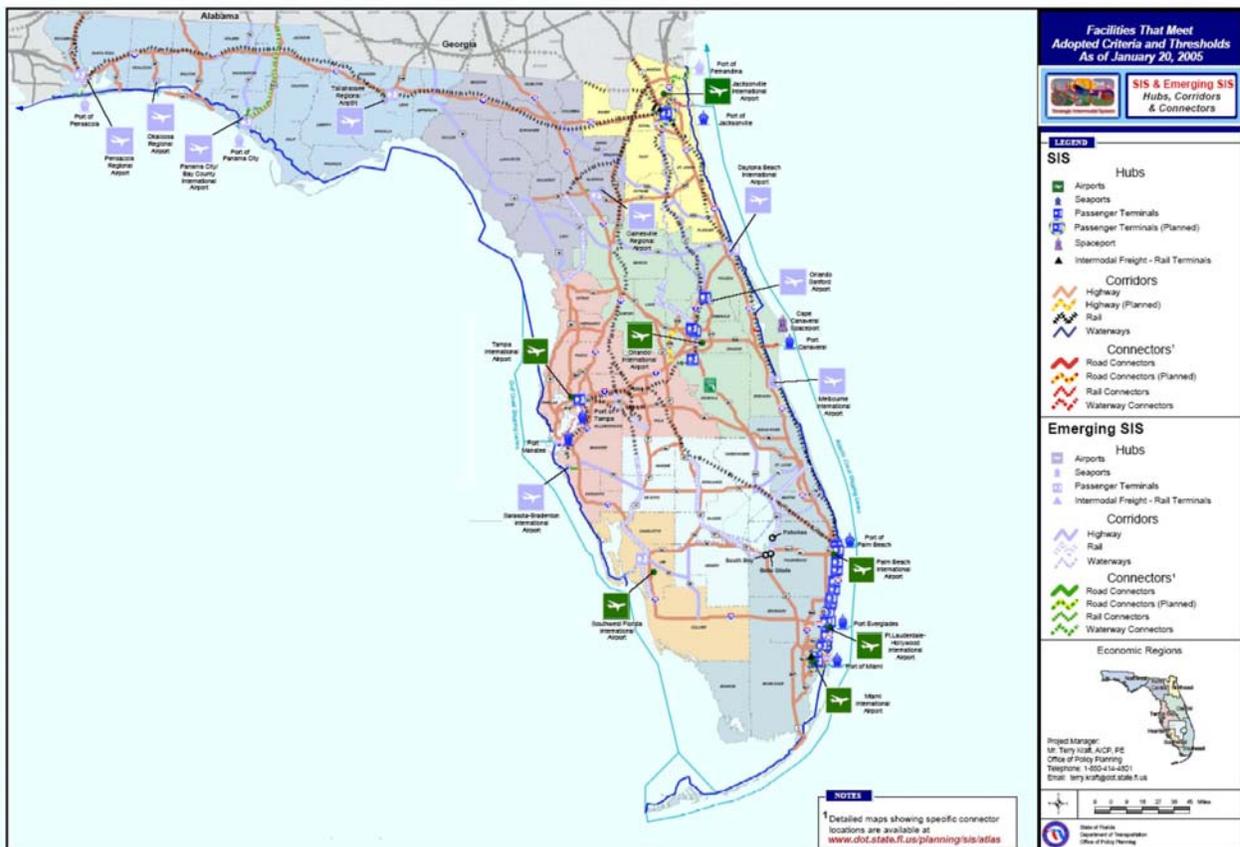
The major transportation facilities throughout Florida are displayed in Figure 1. In June of 1998, the Florida Freight Stakeholders Task Force was formed to address the needs of Florida's

## Travel Demand: Trade and Freight Transportation

intermodal freight transportation system, and specifically, to identify, prioritize, and recommend freight transportation projects for priority funding. A second purpose of the task force was to develop recommendations in the Florida Statewide Intermodal Systems Plan. Because of the plan, the Florida Strategic Freight Network was designated to include all roadways on the Florida Intrastate Highway System, connectors to all seaports, connectors to the six largest freight airports, all Class I, II and III railroads, and other significant statewide intermodal facilities and roadways.

Out of the 2020 Florida Transportation Plan (FTP), the statewide Strategic Intermodal System (SIS) is borne. The Statewide Intermodal Transportation Advisory Committee (SITAC), Florida Transportation Commission, the Metropolitan Planning Organization Advisory Council (MPOAC), the Regional Planning Councils, and other state, regional, public and private entities worked closely with FDOT to identify significant transportation facilities and modal linkages and options (See Figure 1). The designation process is a continuing process: new facilities will be added to SIS and emerging SIS when they meet the SIS criteria.

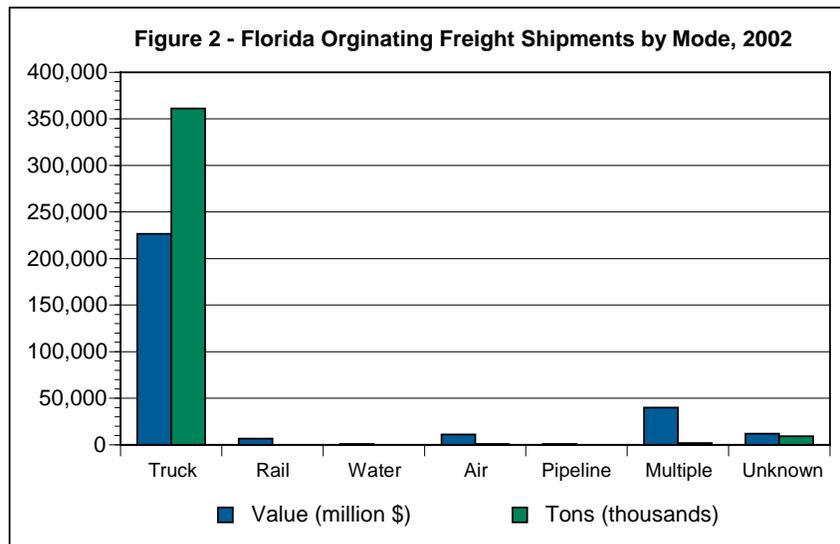
Figure 1 – Florida Major Transportation Facilities on SIS as of 2006



Source: Systems Planning Office, Florida Department of Transportation, 2006

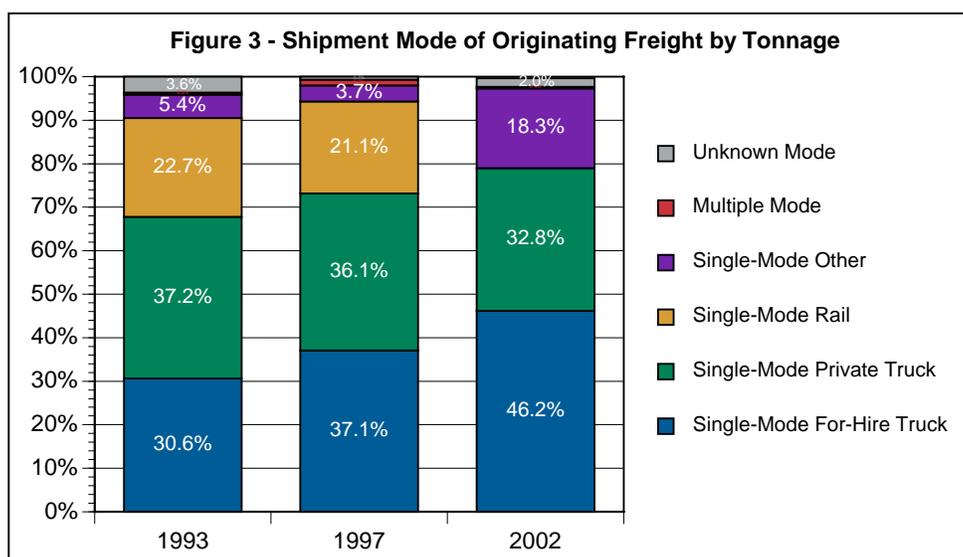
## Travel Demand: Trade and Freight Transportation

Figure 2 presents value and tonnage of Florida freight shipments by mode. In 2002, trucks handled 79.4 percent of the freight tonnage and 76.3 percent of the total freight value. Notably, total truck freight tonnage increased by 17.5 percent compared to that of 1997.



Source: U.S. Census Bureau, Economic Census, 2002 Commodity Flow Survey  
 Note: The tonnage for rail, water, and pipeline did not meet publication standards of the Commodity Flow Survey.

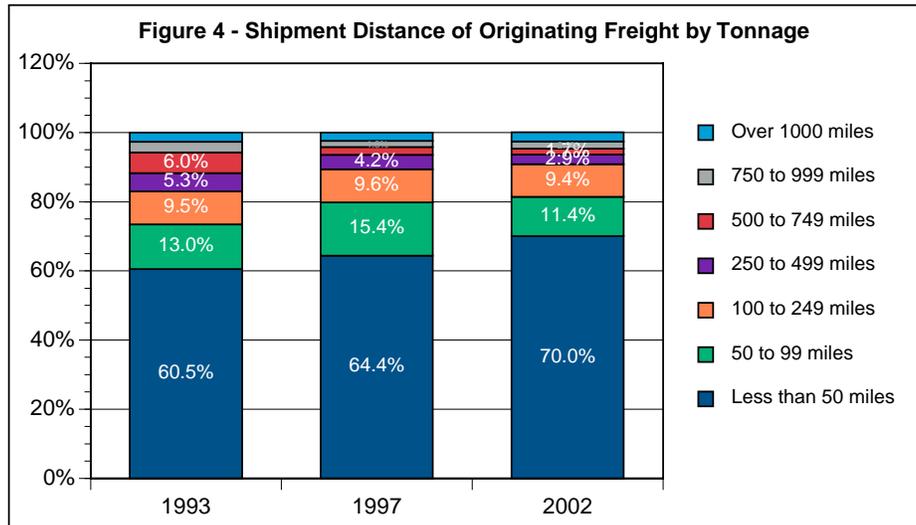
Figure 3-5 show the characteristics of freight shipments originating in Florida by tonnage. Figure 3 compares the shipment mode of Florida for 1993, 1997, and 2002. Florida has a higher share of freight transported by truck in recent years and has had a meaningful increase in “For-Hire Truck“, defined as trucks that carry shipments for a collected fee. Actual total rail tonnage figures did not meet publication standards in 2002.



Source: U.S. Census Bureau, Economic Census, 1993, 1997, and 2002 Commodity Flow Survey

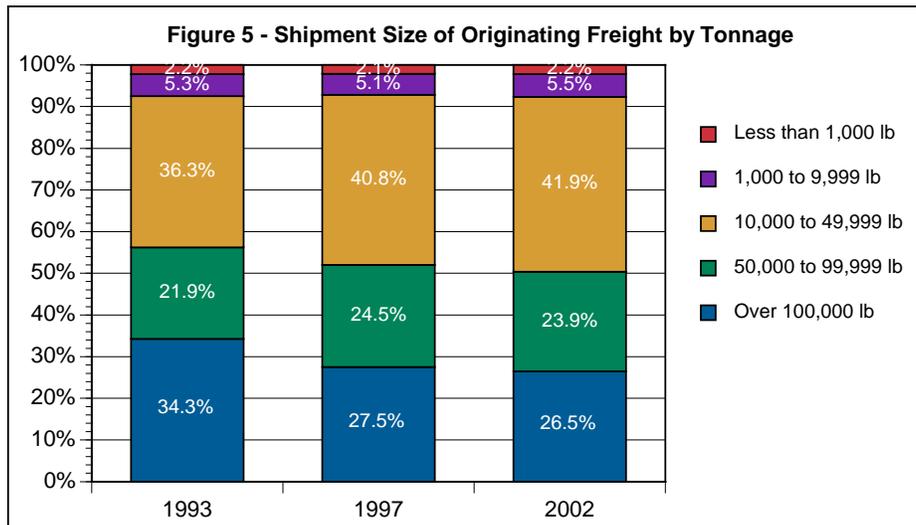
## Travel Demand: Trade and Freight Transportation

Figure 4 exhibits the percentage of freight shipments by length. Most freight shipments are less than 50 miles, which is a key reason why truck mode transports the largest share of freight. Since 1993, Florida's share of shipments less than 50 miles has shown an increase in trend.



Source: U.S. Census Bureau, Economic Census, 1993, 1997, and 2002 Commodity Flow Survey

The distribution of shipment size of freight originating in Florida is displayed in Figure 5. Nearly 93 percent of freight shipments originating in Florida are over 10,000 lbs, but this weight accounts for only 43 percent of the total value of the shipments. This is due to the heavier type of major commodities originating in Florida, including gravel and crushed stone, fertilizers, nonmetallic mineral products, and natural sands.



Source: U.S. Census Bureau, Economic Census, 1993, 1997, and 2002 Commodity Flow Survey

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## Travel Demand: Trade and Freight Transportation

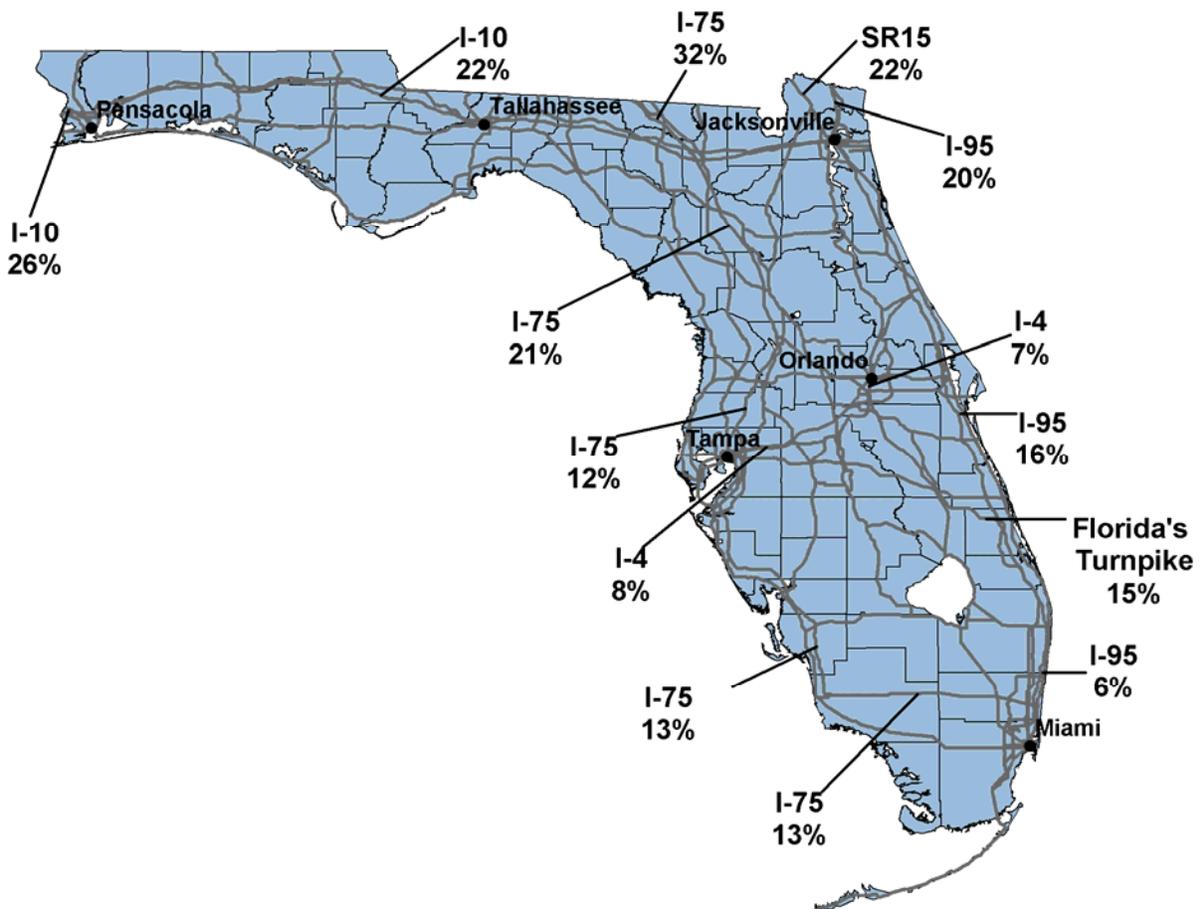
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### Surface Trade: Truck and Rail

The high percentage of freight transported by trucks speaks to the significance of the roadway network for handling freight traffic. The shift of the economy to services and high value consumer goods, the change to just-in-time inventory systems, the dispersion of population and the expansion of services, such as overnight delivery, and even internet purchasing, have accentuated the growth of roadway based truck freight transportation.

Figure 6 shows the share of average daily traffic attributed to trucks at various locations around the state. The share of daily truck traffic ranges from 6 percent to as much as 32 percent in the northern part of the state, typical for the area due to route proximities and adjacent trade states.

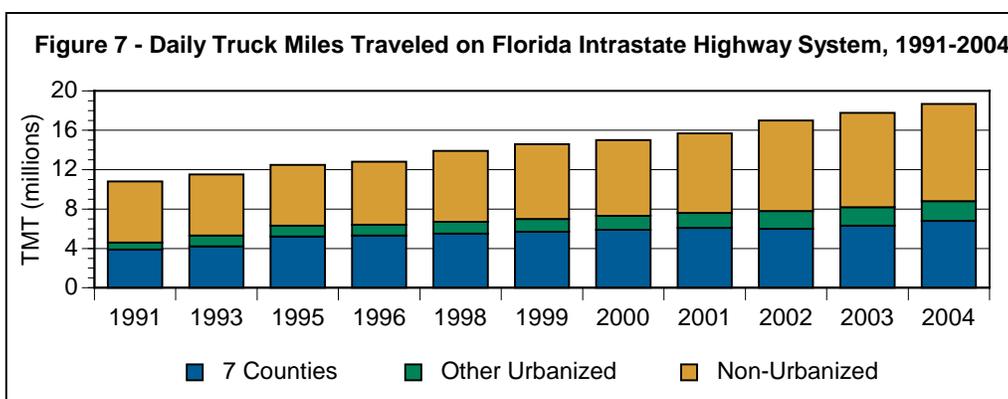
Figure 6 – Share of Average Daily Travel Attributed to Truck Traffic, 2004



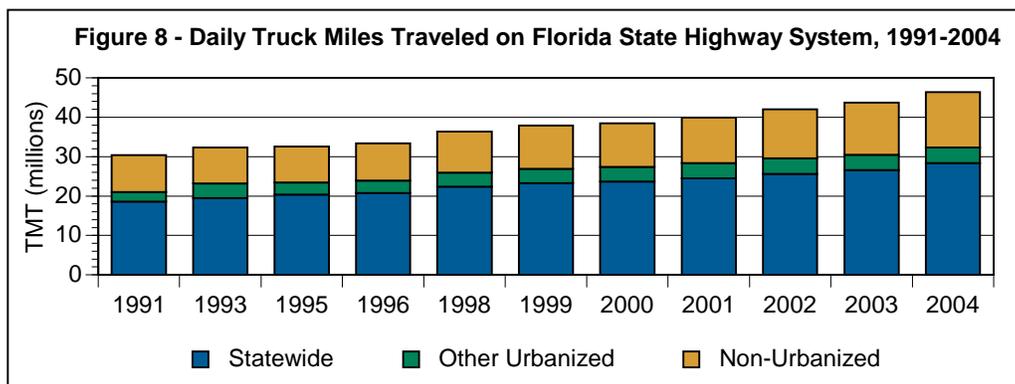
Source: Florida Department of Transportation, Florida Traffic Information, 2004

## Travel Demand: Trade and Freight Transportation

Two surrogate measures of freight movement by trucks are truck miles traveled and truck registrations. Figures 7, 8, and 9 illustrate the trends in these data for Florida. Since 1991, the daily truck miles traveled on all state highways have increased. Growth of truck travel on non-urbanized highways and turnpike facilities on the Florida Intrastate Highway system has shown the highest rate of increase. In 2004, trucks accounted for approximately 26.5 percent of all vehicle miles traveled statewide on Florida's State Highway System. An increase of 0.5 percent of share occurred from 2003. Peak-hour truck-travel has also been increasing on the State Highway System. Approximately 7.7 percent of daily truck miles traveled occurred during the peak hour, from 5:00 to 6:00 PM, in 2004.



Source: FDOT, Florida Highway Data Source Book and 2004 Statistics



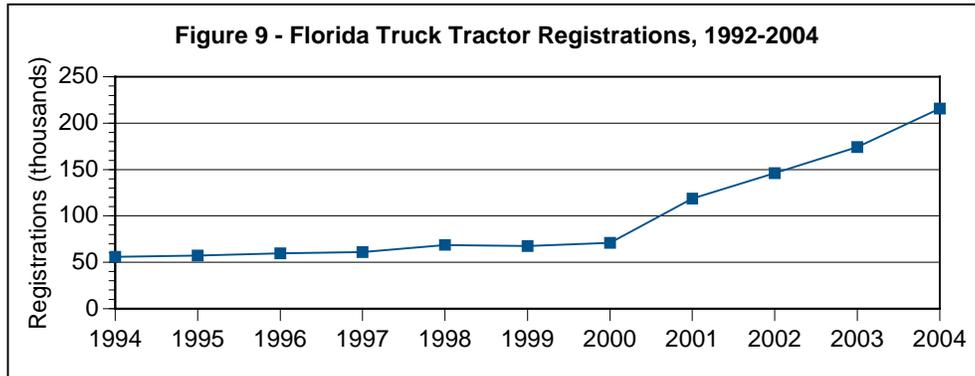
Source: FDOT, Florida Highway Data Source Book and 2004 Statistics

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## Travel Demand: Trade and Freight Transportation

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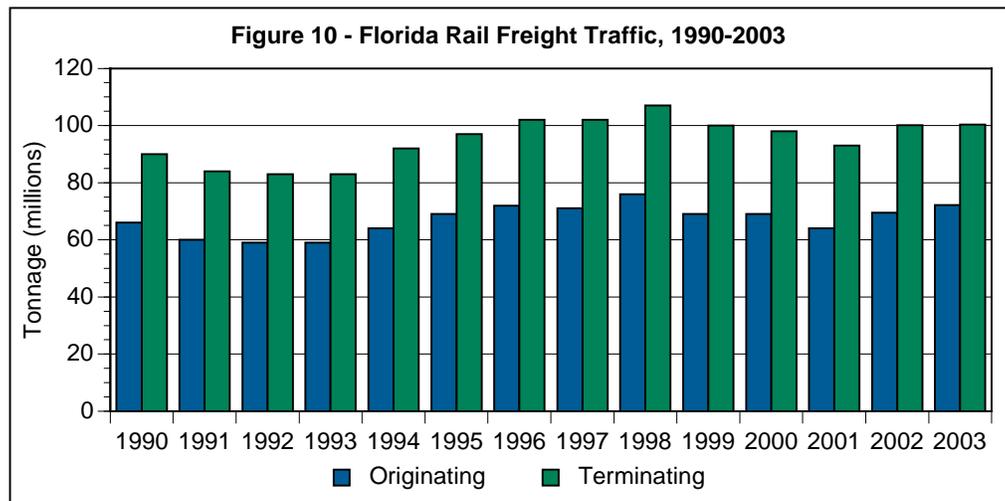
The number of truck tractor registrations in Florida has been steadily increasing since the early 90's and more significantly since 2000 as shown in Figure 9.



Source: U.S. DOT, Federal Highway Administration, Highway Statistics Series, Motor Vehicles, Truck Tractor Registrations, file mv9.

Note: Truck Tractor registration estimating procedures changed in 2001.

Rail is the other major surface mode used to transport freight. Figure 10 presents the tonnage of rail freight both originating and terminating in Florida. After 1998, Florida freight experienced a decline in rail tonnage, but has experienced a recent upward trend beginning in 2002. This is similar to national trends where improved rail services are gaining market.

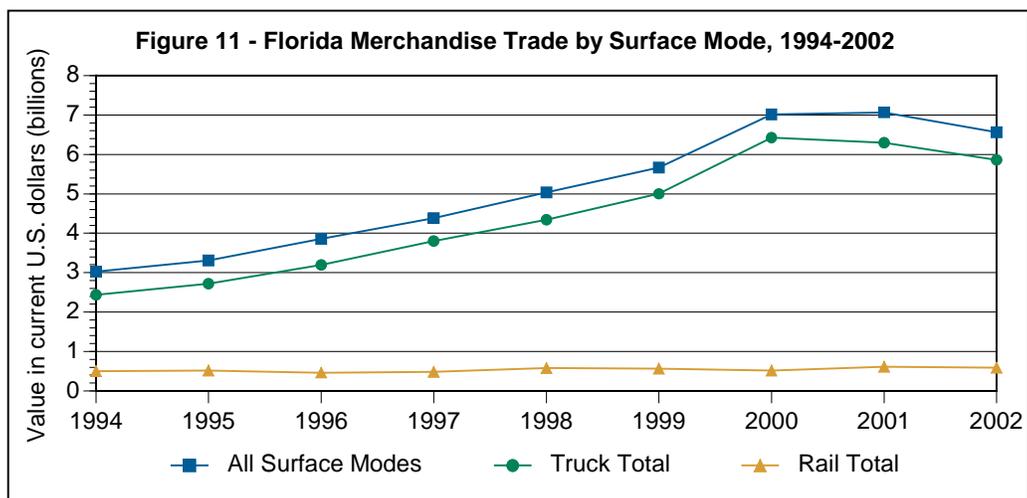


Source: FDOT, 2004 Florida Rail System Plan

*Florida's economic interdependence with the rest of the country is illustrated by truck flows that reveal linkages with all contiguous states.*

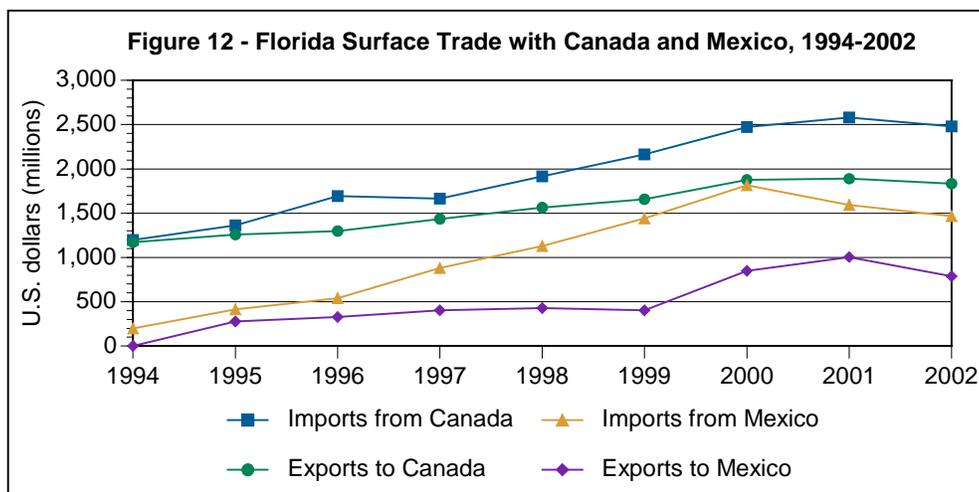
## Travel Demand: Trade and Freight Transportation

The trend in the value of freight by surface modes is presented in Figure 11. As indicated, trucks transport the greatest percentage of freight in Florida. The total value of freight had been increasing since 1994 but had begun to level off more recently since 2000. This no doubt reflects local, national, and international economic conditions.



Source: Bureau of Transportation Statistics, Transborder Surface Freight Data, Annual Summaries 1994-2002

Figure 12 is the trend of Florida surface trade with Canada and Mexico. The values of imports and exports with Canada and Mexico have been increasing steadily over the past decade with the exception of a slight decline post 2001.

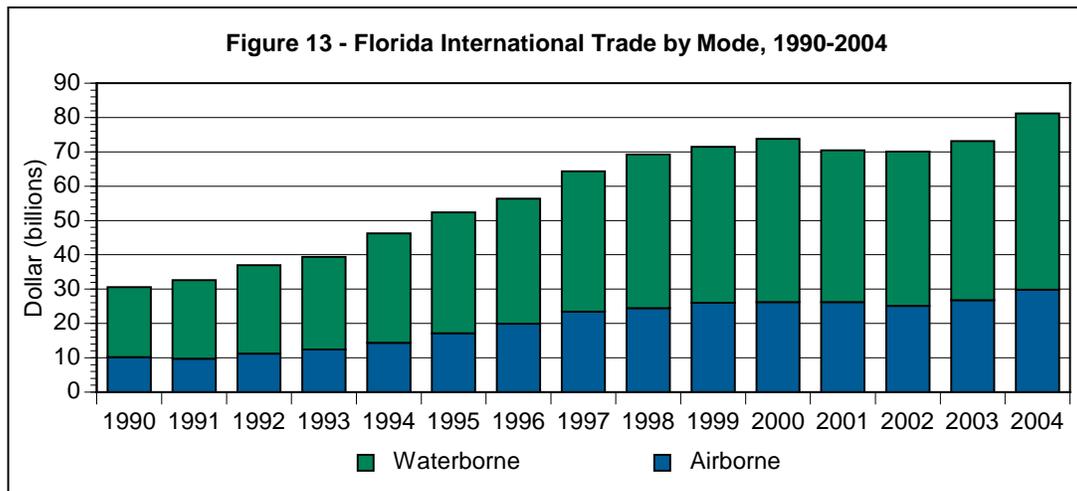


Source: Bureau of Transportation Statistics, Transborder Surface Freight Data, Annual Summaries 1994-2002

## Travel Demand: Trade and Freight Transportation

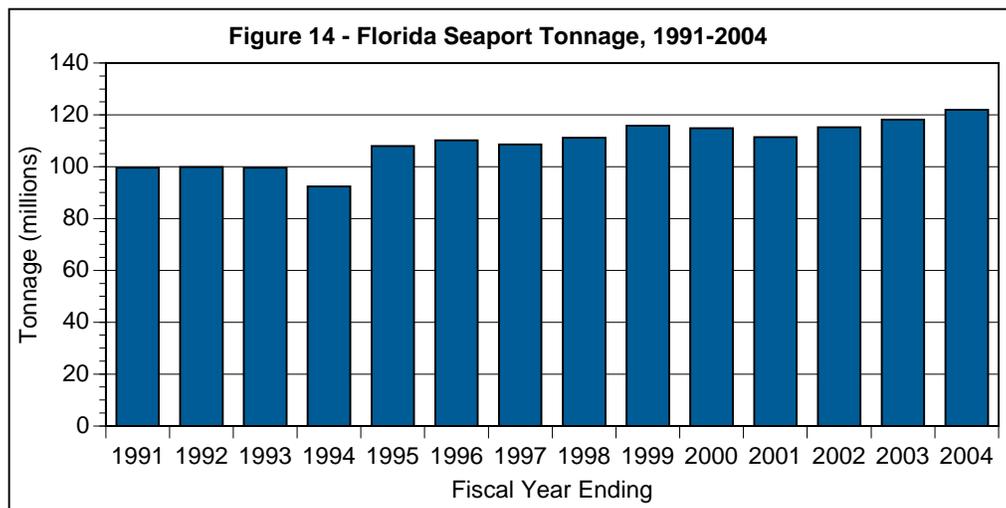
### Freight Transport: Air and Water

Figure 13 demonstrates the value of trade by air and water modes from 1990 through 2004. The total value of freight transported by water through Florida's ports and waterways is approximately twice that of the air freight. International trade by air and water modes has shown an overall increase over the past decade with the exception of 2001 and with a notably sharper increase in 2004. The noticeable decreases in trend in 2001 are due to 9/11.



Source: Florida Ports Council; Original Source: U.S. Census Bureau

The trend of tonnage handled at Florida's seaports from 1991 through 2004 is shown in Figure 14. In recent years, the tonnage has shown an upward trend with a slight drop in 2001.



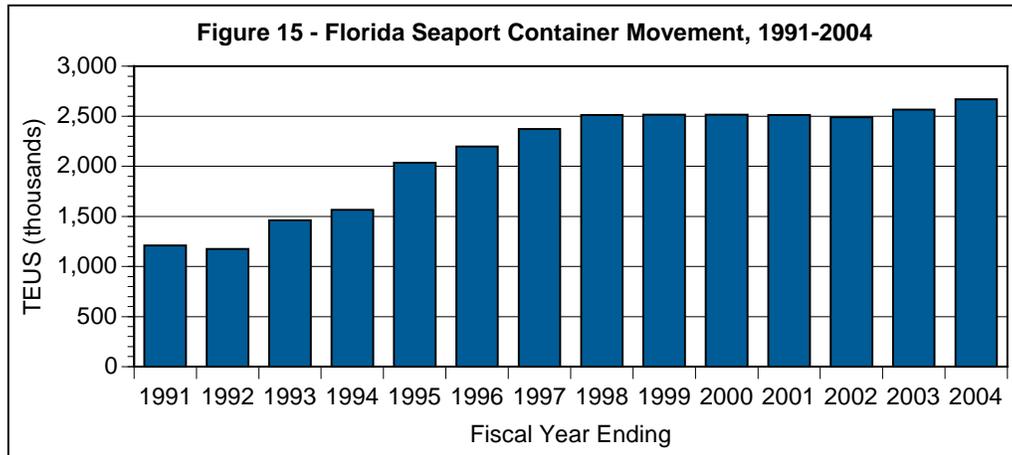
Source: Florida Seaports Transportation and Economic Development Council

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## Travel Demand: Trade and Freight Transportation

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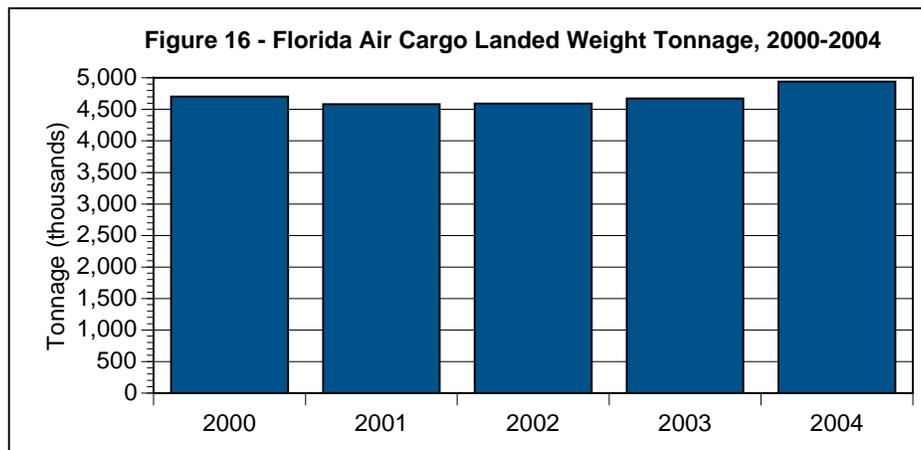
Likewise, Figure 15 displays the trend of container movements at Florida's seaports has displayed a steady increase over the past four years.



Source: Florida Ports Council

Note: Twent-foot equivalent unit (TEU) is a unit of measure equal to the space occupied by a standard twenty foot shipping container.

Figure 16 provides the trend of Florida air cargo landed weight tonnage from 2000 through 2004. Since 2000, the cargo tonnage appeared to slightly decrease, recovering upward again since 2002. This could be a result of changes in the air industry or fluctuations in the economy.



Source: Federal Aviation Administration, Qualifying Air Cargo Airports, Landed Weight Totals, 2000-2004

***By 2020, the transportation system in Florida is expected to carry approximately 1.1 billion tons of cargo worth nearly \$2 trillion.***

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## Travel Demand: Trade and Freight Transportation

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In general, air travel is utilized for the higher value, more fragile or more time sensitive commodities, such as mail and sophisticated manufactured items. The volume of many of these commodities will be related to the population and business activities in the state and the economic condition.

### Future of Freight

Table 1 shows prior and forecast freight flows to, from, and within Florida. This table verifies the dramatic forecasted increases in volumes and shows the continued dominance of the roadway network as the primary mode of freight movement.

**Table 1 – Freight Shipments To, From and Within Florida**

	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
Highway	562	834	1,052	395	795	1,319
Rail	143	193	235	42	73	114
Water	73	96	107	9	19	28
Air	2	4	6	120	269	492
Other	6	14	22	<1	3	7
Total	787	1,141	1,422	567	1,159	1,960

Source: FHWA, Office of Freight Management and Operations, Florida Freight Transportation Profile, 2002.

The projected increase of freight shipments by highway is a critical factor for the future of roadway system performance and physical condition. FHWA estimates that by 2020, the transportation system in the United States is expected to carry approximately 23 billion tons of cargo worth nearly \$30 trillion, with Florida carrying about \$2 trillion.

### Conclusion

The past few decades have seen significant shifts in the nature of the economy. Changes in demographic characteristics and technology have affected freight volumes. The shift from a manufacturing based economy to a service based economy at the national level has had implications on freight activities, yet, overall VMT attributable to freight have increased. Several factors may be attributable including a consolidation and restructuring of the rail freight business, evolution of just-in-time business inventory strategies, the dispersion of business and population in urbanized areas, and the globalization of manufacturing and production

*In light of higher overall travel volumes and more congested facilities, the public has an urgent interest in understanding and accommodating freight activities. Economic competitiveness and safe and efficient travel are supported by understanding freight travel demand.*

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## Travel Demand: Trade and Freight Transportation

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that results in greater transportation requirements for most products. In spite of the decline in domestic manufacturing, many commodities such as fuel, building materials and food products will ensure ongoing substantial freight volumes. In addition, the shift to just in time inventories and the dispersion of the employment and population simultaneous with a decline in freight rail mileage have produced a significant volume of small loads of freight to serve the dispersed needs of the public and businesses. Looking ahead, studies predict continued growth in freight volumes as these same factors continue to drive demands.

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# Trends and Conditions Report – 2006

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## TRANSPORTATION SYSTEM: Transit and Transportation Disadvantaged May 2006

This “Trends and Conditions” report was prepared jointly by the Office of Policy Planning of the Florida Department of Transportation and the Center for Urban Transportation Research at the University of South Florida. It is part of a continuing process to support the needs of decision makers, transportation professionals and the interested public.

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# Transportation System: Transit and Transportation Disadvantaged

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## Introduction to Public Transportation Services

Public transportation services are intended to serve the needs of those persons who are unable to make use of auto travel, to provide a choice option for travelers, and to provide a resource-efficient public mode in higher volume applications where accommodating auto travel is resource intensive. Public transit is most prevalent in urban areas, in peak periods and for trips to the urban core or downtown area. It meets needs that are often difficult or expensive to meet with other travel options. Public transportation is provided by local government entities but supported by passenger fares, and regional, state and federal governmental resources.

This report first provides overview materials for all public transportation systems in Florida. This part of the report covers bus and rail or other fixed guideway services and demand responsive services. Fixed route services are for the general public and are provided in numerous urban areas. Paratransit (demand response) services are targeted to special population groups and are provided in all of the counties in the state. The report then supplies information about the services for the transportation disadvantaged.

## Florida Fixed Route Public Transportation Services

Table 1 provides summary information on public transportation services in Florida. Florida currently has fixed route services in 27 counties provided by 29 different entities. Figure 1 shows the areas served by Florida transit services. In the recent past, several new areas have added fixed route bus services including: Collier County, Charlotte County, Highlands, Lake Worth and Boynton Beach. There is also a growing presence of fixed guideway services as evidenced by expansion and/or planned expansion of services and facilities such as the Miami busways, Jacksonville bus rapid transit, Central Florida commuter rail planning, double tracking of South Florida Regional Transportation Authority's Tri-Rail, Miami Metrorail expansion planning, streetcar planning in Miami and streetcar operation in Tampa.

Transit service in Florida has been growing at a rate faster than auto travel in the past few years, but overall transit use in Florida remains modest. Florida transit trips comprise over 2 percent of national transit use, while Florida has nearly 6 percent of the nation's population. Transit use in Florida is less than that of Atlanta, Georgia and is slightly more than half that in the Washington D.C. area. The availability of services and infrastructure, the densities, the central business district (CBD) concentration of employment and various other factors have resulted in historically modest transit use in Florida. However, there is a growing role for transit in Florida supported by the strong population growth, service expansion to new counties and within existing counties, and the 2002 referendum resulting in a larger transit resource commitment in Miami-Dade County.

## Transportation System: Transit and Transportation Disadvantaged

Of over 17 million Floridians, nearly 14 million live within the service area of a fixed route transit operator. These operators provide services to the larger urban areas, and hence, the large majority of the Florida population has access to some fixed route services. Geographically, service covers 9,390 square miles, about 17.6 percent of the State's area.

The most recent data shown in Table 1 indicate changes in several performance measures for 2004. This table provides a summary of key indicators of the supply of and use of public transportation services. Revenue miles, revenue hours, average speed, and total route miles increased. The data indicate average fixed route headway decreased (improved) by nearly 10 percent. System ridership, the ultimate measure of performance, increased by over 9% between 2003 and 2004. Multiyear data are shown in subsequent graphics.

*From 2003 to 2004 average transit headway time has improved by nearly 10 percent.*

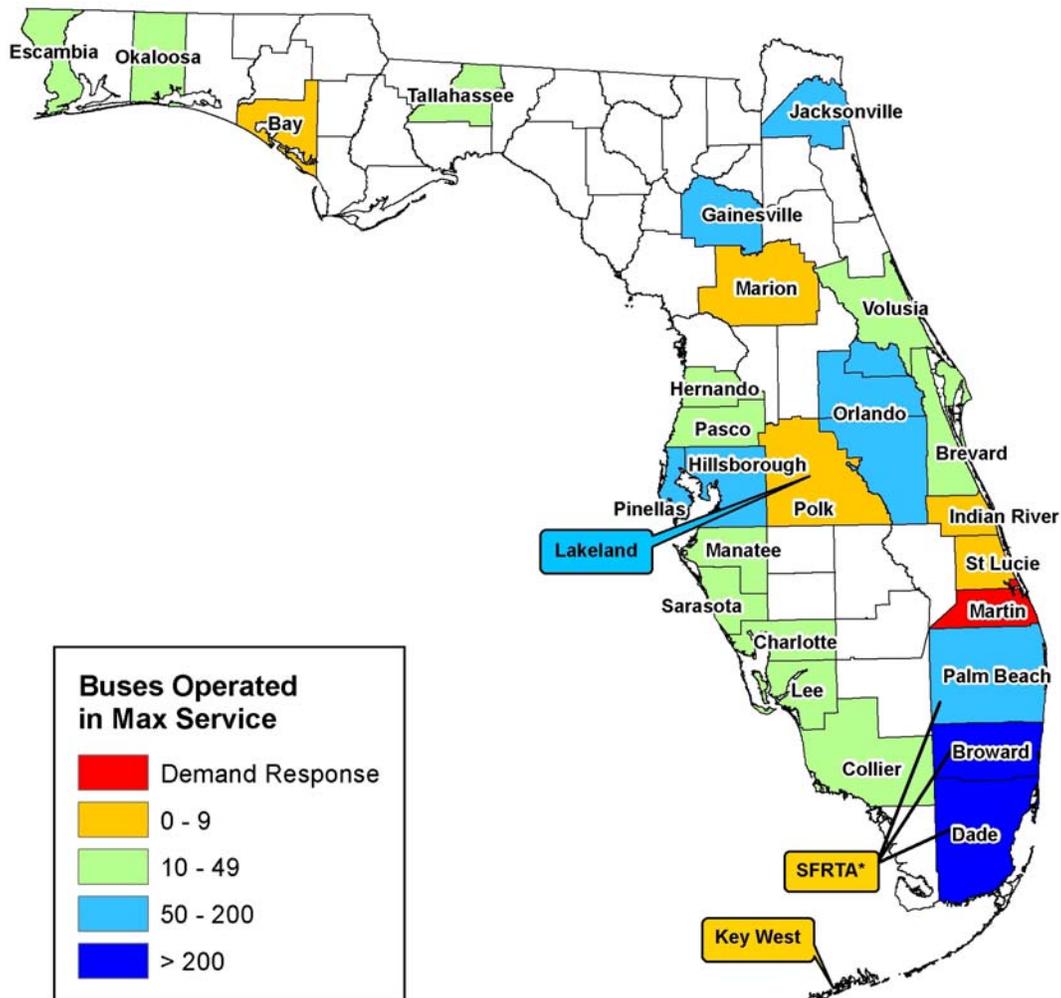
**Table 1 - Statewide Florida Transit System Totals, 2003 and 2004**

	2003	2004	% Change
<b>Public Transportation Supply</b>			
Service Area Population	14,489,556	14,900,240	2.8%
Service Area Size (square miles)	9,436	9,390	-0.5%
Route Miles (FR)	13,581	13,613	0.24%
Revenue Miles	178,280,533	183,041,440	2.7%
Revenue Hours (System Total)	12,205,085	12,525,369	2.6%
Vehicles Available for Maximum Service	5,132	5,141	0.2%
Vehicles Operated in Maximum Service (Fixed Rt)	2,089	2,264	8.4%
Average Speed (RM/RH)	14.28	15.76	10.4%
Average Headway (minutes) (Fixed Rt)	28.4	25.7	-9.6%
Average Age of Fleet (years)	2.92	N/A	N/A
Revenue Miles Per Route Mile	12,473.54	15,252.07	22.3%
Weekday Span of Service (hours)	15.91	N/A	N/A
Route Miles Per Square Mile of Service Area	1.65	1.56	-5.5%
Average Fare	\$0.78	\$0.74	-5.1%
Farebox Recovery (%)	19.91	18.7	-6.1%
<b>Public Transportation Demand</b>			
Passenger Trips	214,319,569	234,357,890	9.3%
Passenger Miles	1,156,134,113	1,205,492,640	4.3%
Passenger Trips Per Total State Capita	12.61	N/A	N/A
Passenger Trips Per Revenue Mile	1.2	1.28	6.7%
Passenger Trips Per Revenue Hour	17.56	20.13	14.6%
Passenger Fare Revenues	\$167,049,732	\$160,399,929	-4.0%

Source: Florida Transit Information System (FTIS), Version 2005, and National Transit Database (NTD)  
 Note: System-wide aggregate includes all transit systems (both fixed-route and demand-response if not specifically denoted).

## Transportation System: Transit and Transportation Disadvantaged

Figure 1 – Florida Transit Service Availability by County, 2004



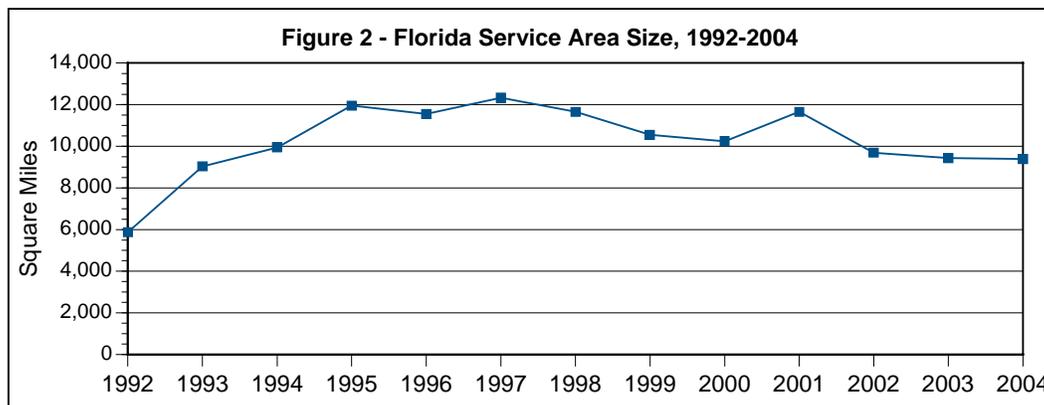
Source: National Transit Database (NTD), 2004

Note: Numbers are for motorbuses operated in maximum service, except for the demand-response systems that do not operate buses. SFRTA\* is the South Florida Regional Transportation Authority, operator of Tri-Rail service.

*Overall transit use in Florida comprises over 2 percent of national transit use, while Florida holds nearly 6 percent of the nation's population.*

## Transportation System: Transit and Transportation Disadvantaged

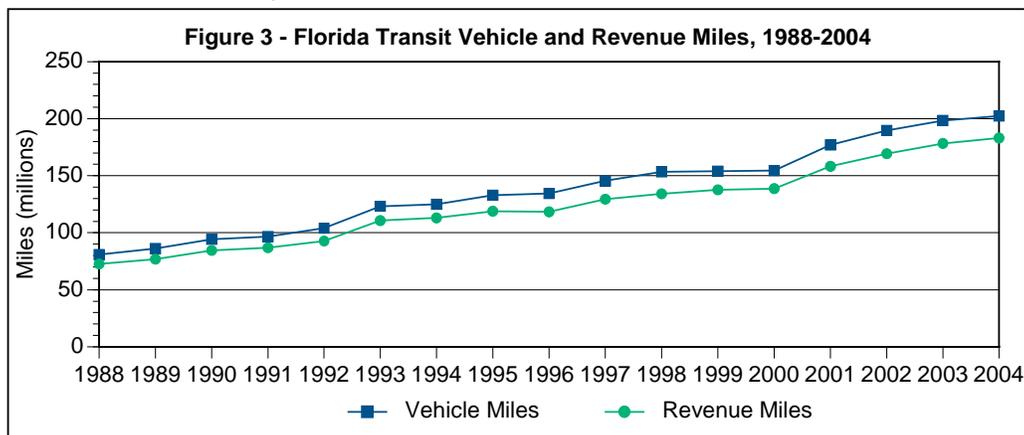
Figure 2 shows the size of the service area covered by public transportation in Florida. In 2004, transit service covered 17.6 percent of Florida's land area. Measures of area coverage are sometimes difficult to understand as various agencies report coverage differently. Some measures of service coverage report the actual land area within the vicinity of fixed routes, while others report geographic areas that are within the jurisdiction of the agency. Increasingly sophisticated GIS systems enable transit agencies to more precisely measure the market areas. This precision tends to decrease the amount of area being served by a given transit property. Part of this decline is made up for by expansions in service and the addition of service in new areas. Certain transit services, such as park and ride facilities, can provide services to travelers from a great distance away, even across jurisdictional lines. Nonetheless, these indicators give the reader a sense of the relative geographic availability of service.



Source: FTIS 2005

Note: Above Florida service area does not include SFRTA to avoid counting duplicate areas.

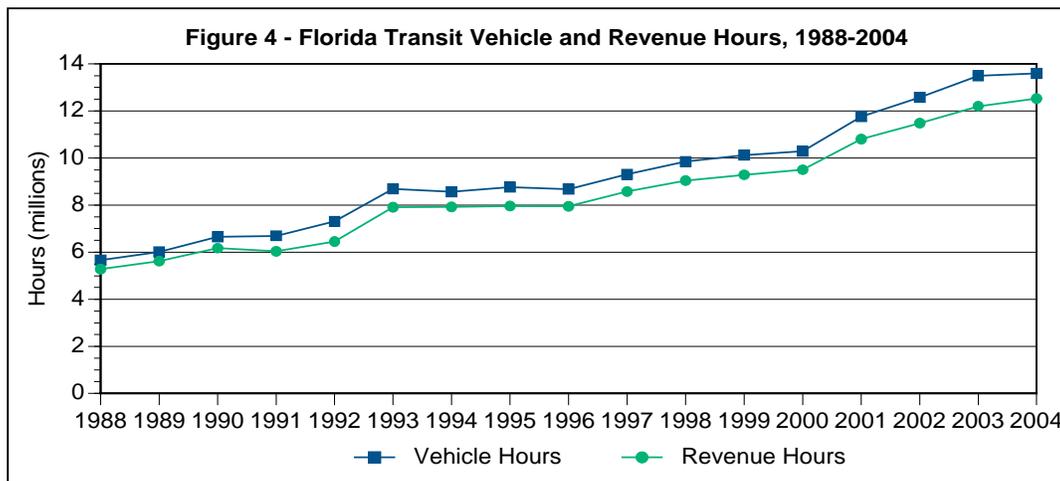
Figure 3 shows the trend in service supply using measures of both vehicle and revenue miles. Revenue miles refers to the actual miles of bus operation when the vehicle is available for passenger use whereas vehicle miles includes the mileage to get to and from the ends of the route as well as vehicle mileage for training or other purposes. Since 1988, service supply has grown over 7 percent annually.



Source: FTIS 2005 and National Transit Database

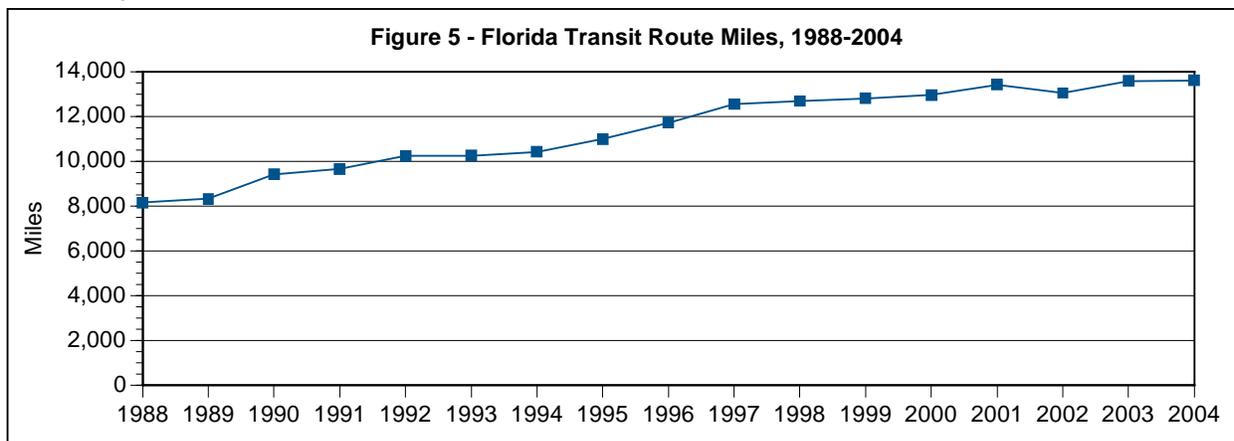
## Transportation System: Transit and Transportation Disadvantaged

Figure 4 shows the trend in vehicle and revenue hours of service. These measures have a more direct relationship on the cost of providing service than do service miles. Additionally, vehicle and revenue hours may change at a different rate than vehicle and revenue miles since a reorientation of service can occur on roadways where operating speeds are different. Typically, as roads become more congested, the service slows down. However, some of this downward pressure on speeds may be offset by expansion or restructuring of service to more distant suburban areas with generally faster travel, an increase in express services, or special treatments to enable faster transit travel. The growth in vehicle and revenue hours has begun to level since 2003.



Source: FTIS 2005 and National Transit Database

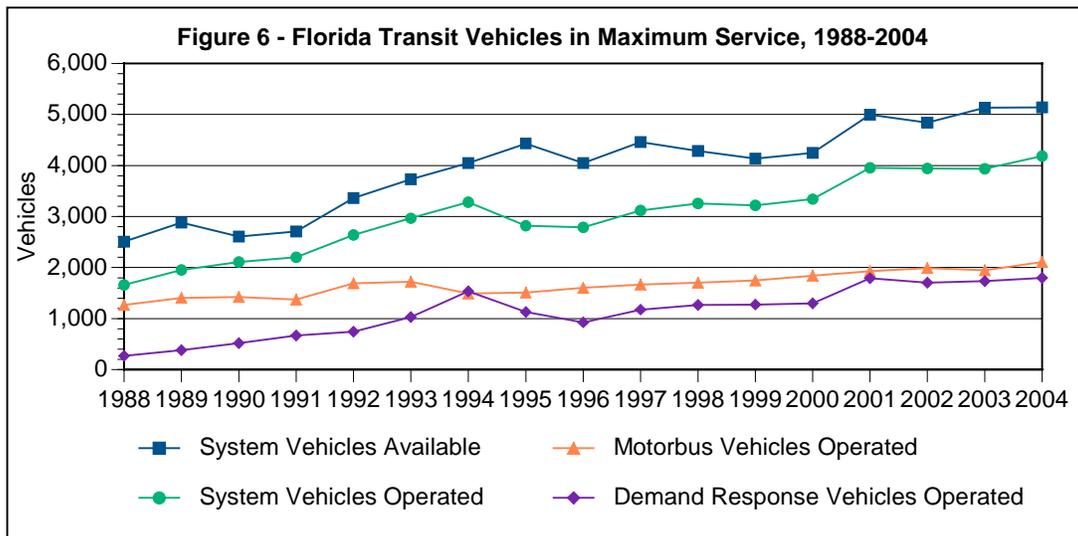
Figure 5 shows the mileage of transit routes in Florida. This is an indication of the prevalence of transit in the community. Transit Route Miles is not a direct measure of the share of roadway centerline miles that have transit service available as multiple routes can serve on the same street and route mileage is reported by direction. However, it provides an indicator of the availability of service.



Source: FTIS 2005

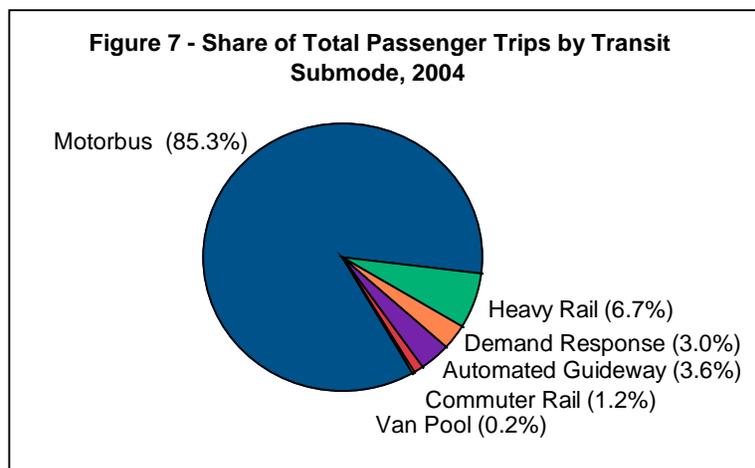
## Transportation System: Transit and Transportation Disadvantaged

Figure 6 shows the trend in the number of vehicles in service at Florida transit properties. System vehicles available refer to the number of vehicles owned. System vehicles operated refers to the number of vehicles simultaneously in service during the busiest times (almost always the peak periods).



Source: FTIS 2005

Figure 7 shows the share of trips that each of the sub-modes of transit provides in moving people in Florida. Not surprisingly, the bus is the dominant technology for public transit in Florida.

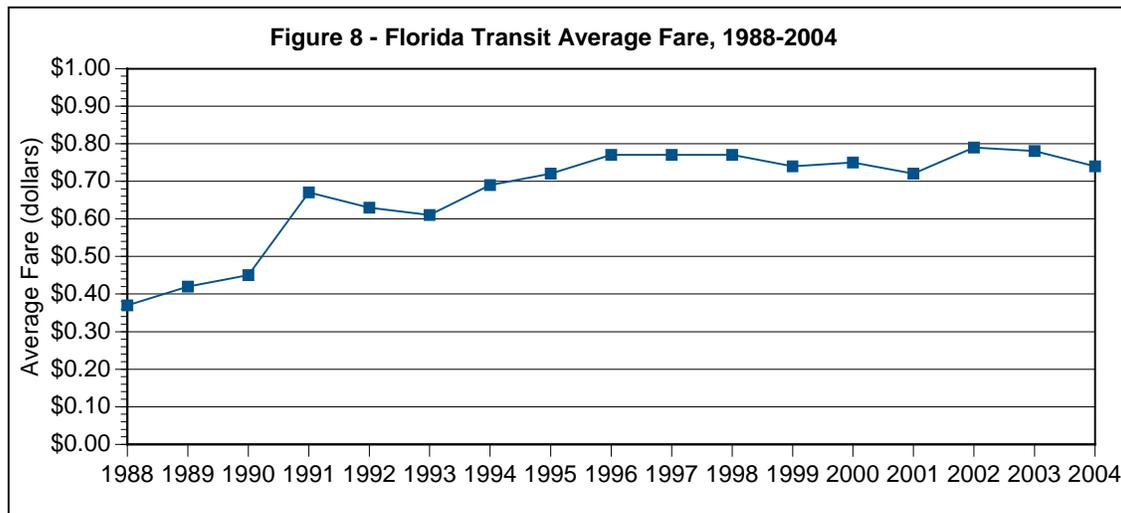


Source: FTIS 2005

*For nearly 20 years, transit service supply has grown over 7 percent annually.*

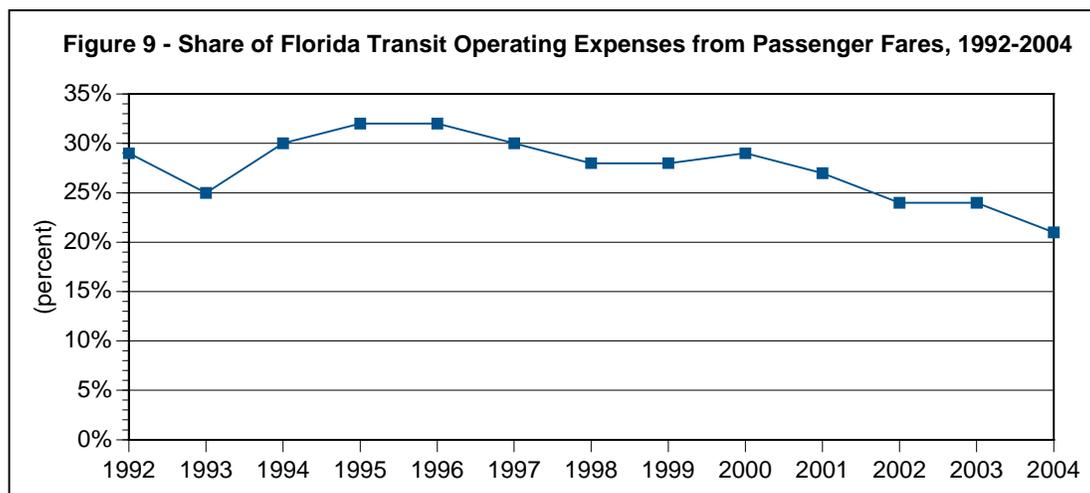
## Transportation System: Transit and Transportation Disadvantaged

Figure 8 shows the average fare for using transit in Florida. This is calculated by dividing total fare revenues by the total number of trips. Thus, various discounts for transfers, students, older adults, disadvantaged groups, pass users and other are included in the calculation.



Source: FTIS 2005

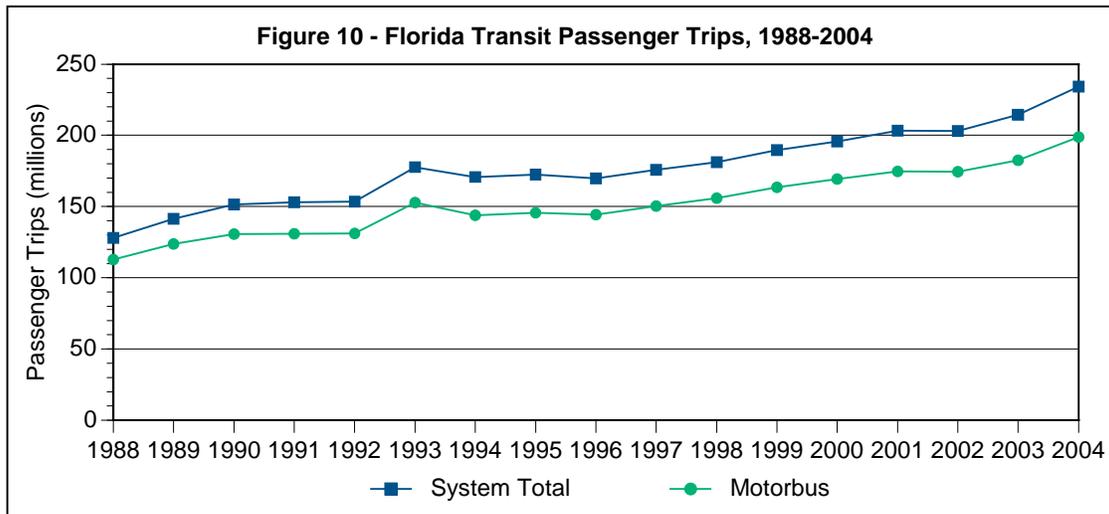
Figure 9 shows the share of transit operating expenses that are recovered from passenger fares. This share has remained near 30 percent in the past but has shown a decreasing trend since 2000. Various transit properties have different strategies regarding passenger revenues. Since transit provides a public value to more than just the travelers, revenues from other sources are used to support service. Policy bodies determine the transit fares considering the ability of the customers to pay the fare and other factors such as how the benefits of transit are perceived and what other resources are available.



Source: FTIS 2005

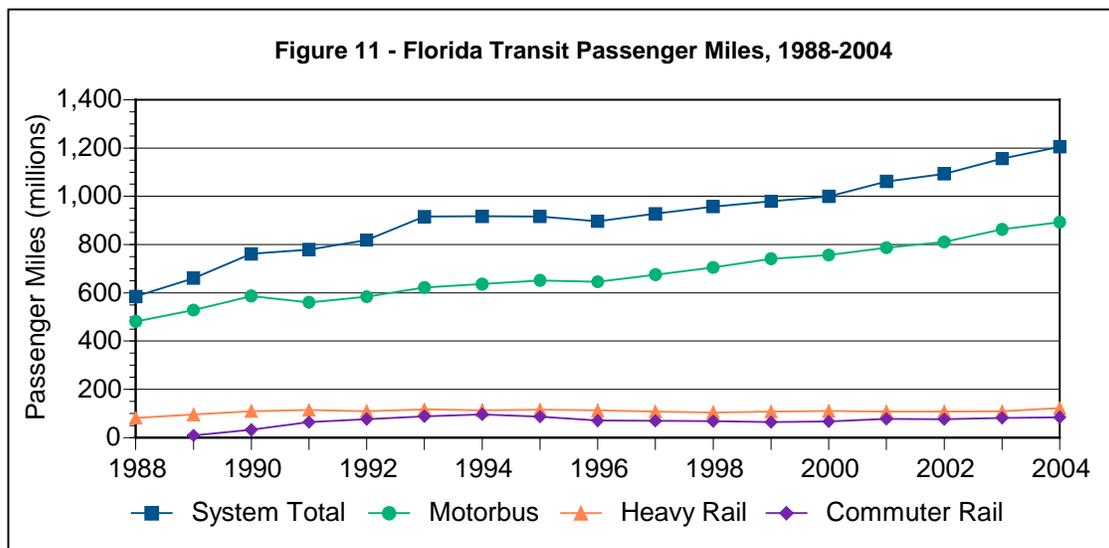
## Transportation System: Transit and Transportation Disadvantaged

Figure 10 shows the trend in passenger trips, a measure of transit use or consumption. Transit use has grown, since 1988, at an annualized rate of nearly 3.8 percent with growth accelerating the past two years.



Source: FTIS 2005 and National Transit Database

Figure 11 shows another measure of service consumption, passenger miles, which is the most relevant measure of the role that transit plays in relieving the demand on the roadway system. It accounts for both the number of transit trips and trip length. Serving longer trips on transit provides a greater benefit in terms of lessened vehicle demand on the roadway. It can be seen from the figure that passenger miles have been steadily increasing over the past decade.



Source: FTIS 2005 and National Transit Database

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## Transportation System: Transit and Transportation Disadvantaged

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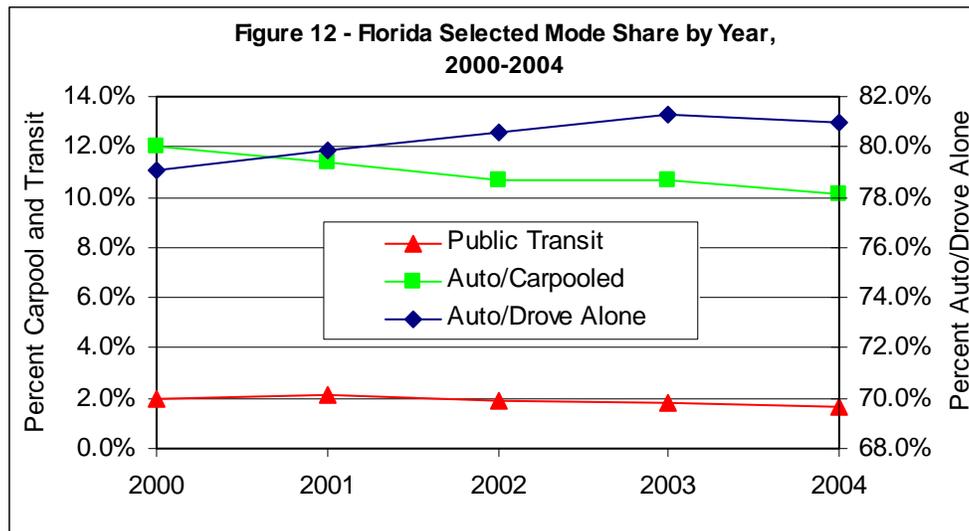
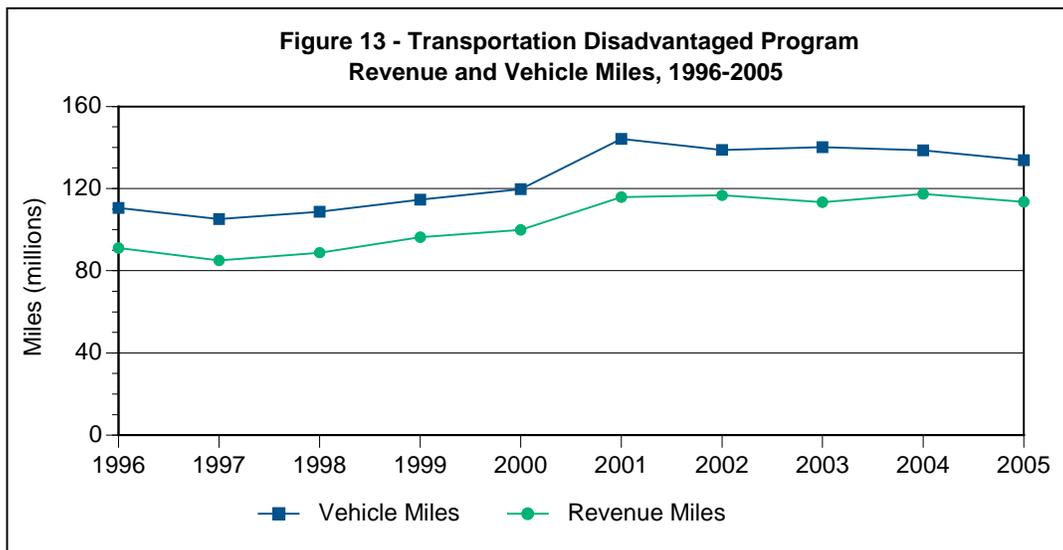


Figure 12 displays the trend for transit and auto mode share for work trip commuting over a five year period. There has been a modest decrease in transit mode share since 2000 (note that while all commuters are included in these calculations, transit service is not an available travel option for all commuters). This decline is less severe than for carpooling during the same time period. There has been an increase in auto drive alone commuting and also in work at home share. Since 2000, the work at home share has been increasing slightly and was 4.0 percent of the total share in 2004.

### Services for Transportation Disadvantaged

The Commission for the Transportation Disadvantaged was created by the Florida Legislature in 1989 to coordinate transportation services provided to the transportation disadvantaged. The mission of the Commission is “to ensure the availability of efficient, cost-effective, and quality transportation services for transportation disadvantaged persons.” For the purposes of the Commission, transportation disadvantaged persons are defined as “those persons who because of disability, income status, or age, are unable to transport themselves or to purchase transportation and are, therefore, dependent upon others to obtain life-sustaining activities.” Transportation disadvantaged services are provided in all 67 Florida counties by 480 qualified transportation operators.

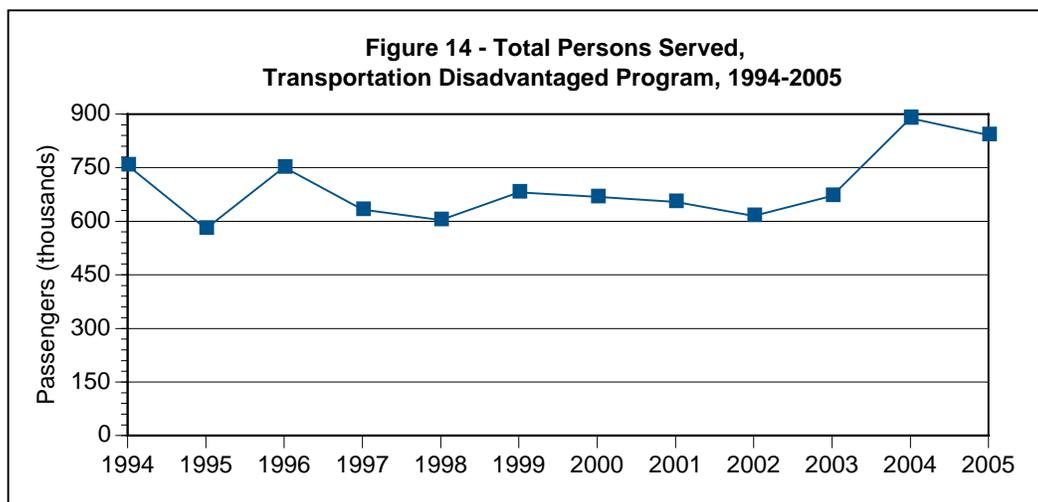
## Transportation System: Transit and Transportation Disadvantaged



Source: Commission for the Transportation Disadvantaged, 2005 Annual Performance Report

Figure 13 shows the total vehicle and revenue miles provided by the program from 1996 through 2005. The actual miles of service have been relatively steady in recent years.

In 2005, transportation disadvantaged services provided service to 841,190 unique passengers in Florida. Figure 14 provides the trend in number of persons served for the Transportation Disadvantaged program from 1994 through 2005. Since 2002, the number of persons served increased greatly, with a slight decline of about 5 percent in 2005.



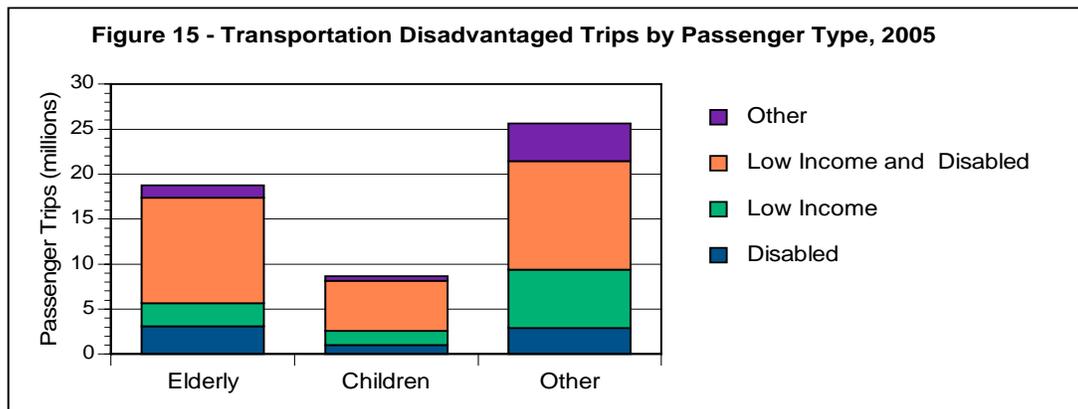
Source: Commission for the Transportation Disadvantaged, Annual Performance Report

The potential number of users of the transportation system is predicted to continue increasing over time. In 2005, an estimated 6.5 million persons were considered transportation

## Transportation System: Transit and Transportation Disadvantaged

disadvantaged and, thus, potential users of the system. This number is expected to increase to 8.5 millions persons by 2015.

The number of passenger trips provided also declined nearly 7 percent in 2005. The number of reported one-way passenger trips for 2005 was 53,033,782. Figure 15 shows the distribution of trips by passenger type for 2005. The elderly population of Florida accounts for approximately 35 percent of all passenger trips. The average number of trips taken per passenger decreased from 2004 by only 1.5 percent to about 63 in 2005.



Source: Commission for the Transportation Disadvantaged, 2005 Annual Performance Report

Table 2 provides the distribution of trips by trip purpose for 2004 and 2005. Medical trips accounted for 36 percent of all passenger trips in 2005, a decrease of 8 percent from 2004. The number of trips classified by employment purposes increased by 17 percent from 2004 and contributed nearly 12 percent of all passenger trips.

**Table 2 – Transportation Disadvantaged One-Way Passenger Trips by Trip Purpose**

Trip Purpose	2004	2005	Percent Change
Medical	21,254,527	19,479,287	-8%
Employment	5,340,556	6,234,694	17%
Education/Training	11,127,807	9,689,364	-13%
Nutritional	8,012,081	7,105,861	-11%
Life-Sustaining/Other	11,101,231	10,524,576	-5%
<b>Total</b>	<b>56,836,202</b>	<b>53,033,782</b>	<b>-7%</b>

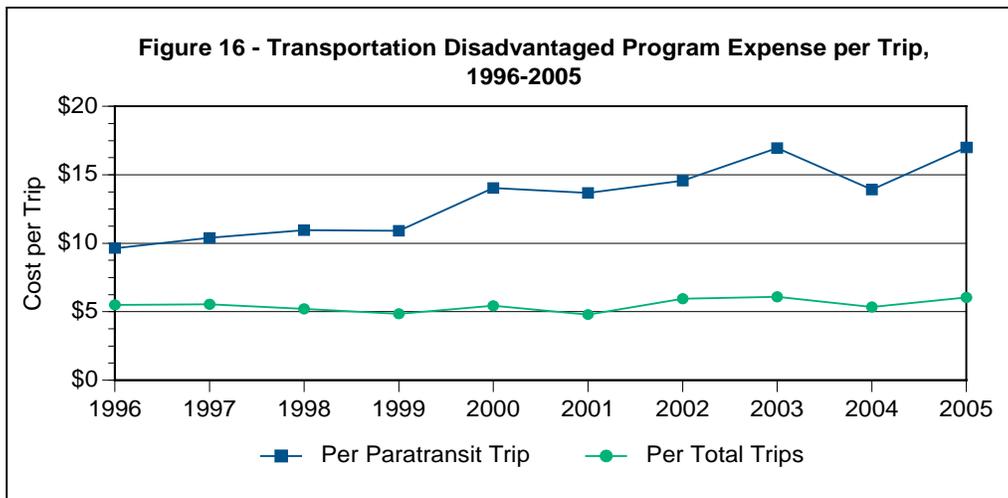
Source: Florida Commission for the Transportation Disadvantaged, 2005 Annual Performance Report

***In 2005, Florida Transportation Disadvantaged Services provided over 53 million passenger trips statewide.***

One limiting factor for serving transportation-disadvantaged persons of Florida is the operating cost per passenger trip. The trend of expense per passenger trip is shown in Figure 16.

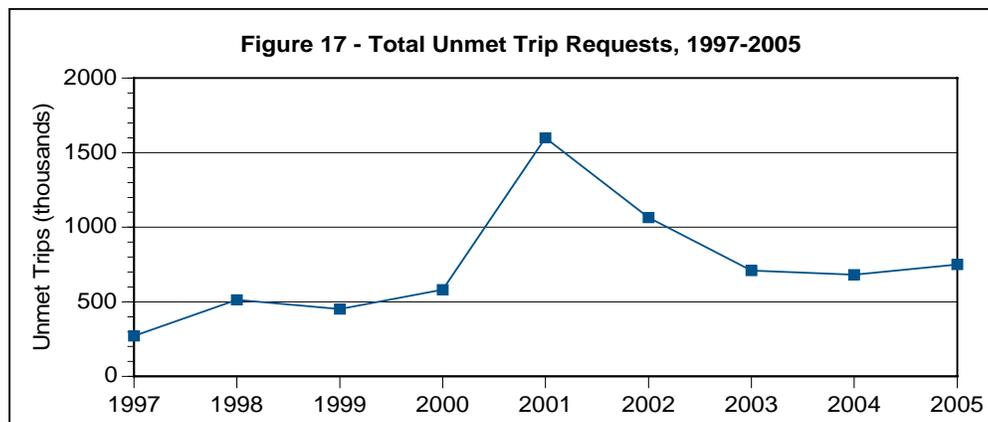
## Transportation System: Transit and Transportation Disadvantaged

Generally, the average cost per trip has been increasing over time. The operating cost per total passenger trip was \$6.04 in 2005, while the cost per paratransit trip was \$16.99. These costs increased from 2001 by 24 percent and 7 percent respectively. Passenger trips encompass the total one-way trips of the service including fixed-route, school bus, and paratransit trips. A paratransit trip is defined as a trip from a specific origin to a destination which deviated from a Transportation Disadvantaged fixed route, or was ambulatory, or wheelchair or stretcher assisted.



Source: Commission for the Transportation Disadvantaged, Annual Performance Report

The number of unmet trip requests had followed a decreasing trend since 2001, while the cost per trip had been increasing. However, since 2004, unmet trips have increased by 10 percent. Figure 16 presents the total number of unmet trip requests from fiscal year 1997 through 2005. Unmet trips are those that have been requested, but were unable to be provided when desired. Nearly 749,000 trips were denied due to lack of funding, lack of vehicle availability, or for another reason.



Source: Commission for the Transportation Disadvantaged, Annual Performance Report

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## Transportation System: Transit and Transportation Disadvantaged

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### Summary

Public transportation keeps playing an important role in meeting mobility needs of Floridians. This includes meeting the needs of those who do not have an alternative means of travel, providing a travel choice for individuals, and providing a resource efficient means of travel in high volume corridors where auto and parking capacity are not cost or space efficient in meeting mobility needs.

In Florida, the growth rate in public transportation use has outpaced the growth in population and roadway travel over the past several years; transit ridership is growing at a faster percentage rate than vehicle miles of roadway travel. This suggests that Florida is maturing as a public transit market. Currently transit service levels and use in

*Transit's future role in Florida will be partially dependent on the extent and concentration of future growth in Florida as well as on the willingness of federal, state and local governments to provide the resources necessary to expand public transit services.*

Florida's urban areas are below levels in some of the older large U.S. cities. Those cities have a history of transit service, infrastructure and use, and had higher overall densities and greater concentration of employment and activity in their central core areas. Many existing transit services in Florida are not speed or convenience competitive with auto travel for those travelers who have autos available and live in dispersed, low-density areas. However, evolving technologies for delivering transit services combined with increasing densities provide the prospect of a larger share of the travel market finding transit service options competitive and attractive.

As Florida continues its rapid growth, development density increases are occurring and activity concentration such as entertainment and residential growth in downtown areas is enhancing transit's opportunities to play a more significant role in Florida's mobility. Moreover, transit is receiving increased attention as a means of addressing Florida's mobility needs through recent initiatives in growth management, congestion mitigation, and workforce employment access. Transit's future role in Florida will be partially dependent on the concentration of future growth in Florida, as well as on the willingness of federal, state and local governments to provide the resources necessary to expand public transit services in concert with the growth in demand that might materialize with higher population and higher densities.

The demand for publicly coordinated paratransit services will depend on the growth in eligible population and the funding available. It is anticipated that there will be substantial growth in the eligible population segments as the population ages. Paratransit service will need adequate

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## **Transportation System: Transit and Transportation Disadvantaged**

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financial support to sustain itself as an attractive transit service option for meeting the travel needs of the eligible segments of the population.

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Federal Transit Administration - <http://www.fta.dot.gov/>

Florida Department of Transportation, Public Transit Office - <http://www.dot.state.fl.us/transit/>

Florida Transportation Indicator Web Page - <http://www.indicators.cutr.usf.edu/>

Florida Public Transportation Association - <http://www.floridatransit.org/>

National Transit Database - <http://www.ntdprogram.com/NTD/ntdhome.nsf/>

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# Trends and Conditions Report - 2005

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## **TRAVEL DEMAND: Travel Demand and Travel Behavior Trends December 2005**

This “Trends and Conditions” report was prepared jointly by the Office of Policy Planning of the Florida Department of Transportation and the Center for Urban Transportation Research at the University of South Florida. It is part of a continuing process to support the needs of decision makers, transportation professionals and the interested public.

This and other reports are being maintained on the Internet at:  
[www.dot.state.fl.us/planning/policy/trends](http://www.dot.state.fl.us/planning/policy/trends)



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# Travel Demand: Travel Demand and Travel Behavior Trends

## Introduction

Travel demand is a function of the population and the subsequent travel generated including: person travel by the residents, commercial and freight travel, and person travel by tourists. This report explores trends and conditions regarding resident travel. This collection of information provides an understanding about how the resident population of Florida influences the demands for travel. Information is included to give the reader a richer understanding of how and why Floridians travel. Various data sources are noted and some data are compared with national or historic data to provide an indication of trends and context.

## Travel Demand and Travel Behavior Trends

Just as population is the principal driver of travel demand, its characteristics also influence demand. Travel demand varies quite significantly across the population depending on the various characteristics of the population. Age, income, auto ownership and various other factors affect travel demand or are often highly correlated with travel demand and hence are reviewed in this report.

Table 1 illustrates household size distribution, a contributing factor to travel demand, for the U.S. and Florida. Typically, larger households include some youth and often contain more shared vehicle trips and hence less total vehicle travel per person. Additionally, some trips are reduced, for example, shopping may be carried out for a group by one person rather than each individual making a trip. However, multi-person households are often economically and socially active, possibly generating more person miles of travel. Florida's average household size is below that of the rest of the nation, principally due to the large number of one or two person households with retirees. These households may also have different housing location decision-making criteria. Access to employment is not critical and location decisions are more influenced by amenities and access to relevant services. Table 2 shows occupancy by tenure and indicated that owned units have slightly larger household sizes.

**Table 1 - Distribution of Households by Household Size**

<i>Household Size</i>	<i>Florida</i>	<i>US</i>
1	28.4	25.6
2	35.9	32.4
3	15.8	16.6
4+	19.9	25.4
Total	100%	100%

Source: NHTS, 2001

**Table 2 - Average Household Size of Occupied Housing Units by Tenure**

<i>Tenure</i>	<i>Florida</i>	<i>US</i>
Total:	2.49	2.6
Owner occupied	2.52	2.7
Renter occupied	2.42	2.39

Source: Census, American Community Survey 2004

## Travel Demand: Travel Demand and Travel Behavior Trends

*Seven out of 100 Florida households don't have a personal vehicle available.*

Ethnicity is often highly correlated with location choice, household size, household income, and immigration status. However, there are some travel traits, such as mode choice, that have some relationship to ethnicity even when other considerations are adjusted. Florida differs from the rest of the country in that its shares of African Americans and Hispanics are larger. Table 3 compares ethnicity between Florida and the remainder of the country.

Travel levels have long been correlated with income - higher incomes enable and motivate additional travel. Florida has moderately lower household incomes than the remainder of the country with higher shares of the households having incomes below the \$50,000 level. Table 4 compares the Florida household income levels with those of the remainder of the country.

**Table 3 - Distribution of Persons by Ethnic Origin, 2004**

Race	Florida	US
White	78.7%	77.1%
African-American	15.3%	12.4%
Other	6.0%	10.5%
Total	100.0%	100.0%
Origin	Florida	US
Hispanic	19.1%	14.2%
Non Hispanic	80.9%	85.8%
Total	100.0%	100.0%

Source: Census, American Community Survey 2004

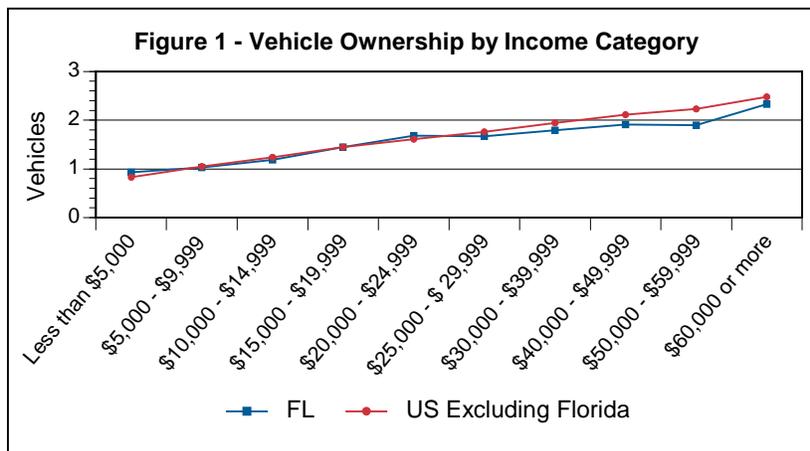
Vehicle travel demand is highly correlated with vehicle availability which is logically correlated to income levels. Figure 1 displays vehicle

availability data from the 2001 National Household Travel Survey (NHTS). Florida's recent vehicle availability levels are slightly lower than the remainder of the country although vehicle availability has been growing over time as income growth has enabled its increase. According to the Census American Community Survey

**Table 4 - Distribution of Households by Household Income, 2004**

Household Income	Florida	US
Less than \$10,000	8.10%	8.90%
\$10,000 to \$14,999	7.00%	6.30%
\$15,000 to \$24,999	13.70%	12.30%
\$25,000 to \$34,999	13.70%	12.00%
\$35,000 to \$49,999	16.50%	15.50%
\$50,000 to \$74,999	18.80%	19.00%
\$75,000 to \$99,999	9.60%	11.10%
\$100,000 to \$149,999	7.80%	9.40%
\$150,000 to \$199,999	2.50%	2.90%
\$200,000 or more	2.40%	2.70%
Mean household	56,550	60,070

Source: Census, American Community Survey 2004



Source: NHTS, 2001

## Travel Demand: Travel Demand and Travel Behavior Trends

2004, the vehicle availability level was 1.60 in Florida versus 1.69 for the U.S.

It is presumed that vehicle availability is generally less of a constraint on travel growth when the household has an equal number of vehicles and licensed drivers. Data indicated that on average, one vehicle is available per household licensed driver. However, since these vehicles are not uniformly spread over the population, some households remain more limited in their mobility. Low vehicle availability can result from income constraints, physical, mental, or legal constraints, or a choice to not own vehicles. In other cases, it is common for the number of vehicles to exceed the number of persons, where the additional vehicles provide a choice of vehicle types for the drivers or a contingency vehicle, should one vehicle be inoperable.

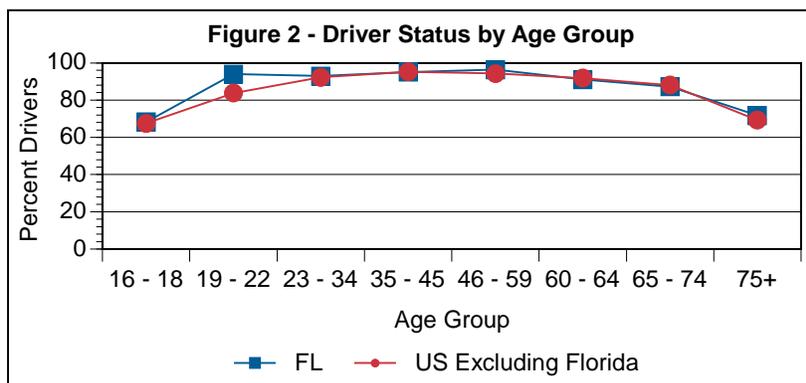
Average vehicle availability per household has increased slightly in the past four years for Florida and for the country as a whole. The number of households without any vehicles has dropped nearly one percent in share for both the state and the nation since 2000. This percentage suggests that household vehicle availability may be stabilizing. Legal constraints, mental and physical health and chronic poverty will continue to constrain some individuals from owning vehicles; however, fewer households are experiencing economic constraints as the limiting factor in vehicle ownership than in prior decades. Consequently, we anticipate less growth in travel demand from new households joining the ranks of vehicle owning households.

Table 5 shows the comparative data on household vehicle availability between Florida and the U.S. using Census data. Displayed in the table, are a lower zero-car household level, higher one-car household level and lower level of multi-car households for Florida as compared to the national average. The lower zero-car household level is consistent with higher auto dependency in much of Florida.

**Table 5 - Household Vehicle Availability Comparisons**

	Florida		US	
	2000	2004	2000	2004
No vehicles	7.2%	6.5%	9.4%	8.8%
1 vehicle available	40.9%	40.3%	33.8%	33.2%
2 vehicles available	38.8%	39.7%	38.5%	38.5%
3 or more vehicles	13.1%	13.5%	18.3%	19.5%
Mean Vehicles	1.58	1.60	1.66	1.69

Source: Census, American Community Survey 2004



Source: NHTS, 2001

Figure 2 presents the trends in driver status by age in Florida and the U.S. This is a measure of whether the survey respondent functioned as a driver for the response period of the data collection in the 2001 NHTS. The driver status rate in Florida

## Travel Demand: Travel Demand and Travel Behavior Trends

has been similar to the remainder of the country with the exception of the higher driver rates for young adults. Limited modal alternatives may contribute to this higher percentage of younger age driver participation.

Table 6 provides several mobility related information items. Focusing on the per capita data, one notes that Florida had slightly fewer and shorter trips per capita than the remainder of the country, but more trips by individuals as the vehicle driver. The slightly lower labor force participation and higher percent driver numbers are partially attributed to the age profile of Floridians.

*Floridians tend to make fewer and shorter trips than other Americans, but are more likely to be vehicle drivers for their travel.*

According to the NHTS 2001, each Florida household is responsible for over 9 person trips, comprised of nearly 6 vehicle trips generating over 50 vehicle miles of travel a day.

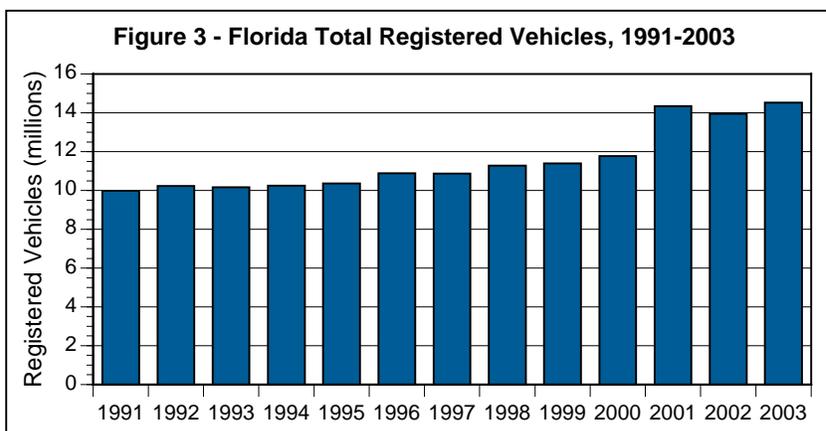
Vehicle availability and the number of registered vehicles have been critical factors in influencing mobility and vehicle miles of travel. Vehicle availability affects the choice of travel means and the length and number of trips taken. As shown in Figure 3 and Table 7, registered vehicles in Florida have increased more than 45

**Table 6 - Travel Related Characteristics**

Characteristics	Florida	US
Persons per Household	2.37	2.57
Drivers per Household	1.72	1.75
Workers per Household	1.19	1.32
Vehicles per Household	1.72	1.91
Daily Person Trips per Household	9.22	10.57
Daily Person Miles per Household	84.10	103.94
Daily Vehicle Trips per Household	5.70	6.02
Daily VMT (miles) per Household	53.03	58.60
Average Vehicle Trip Length	9.31	9.74
Percent Drivers	72.56	68.43
Percent Workers	50.89	52.40
Vehicles per Capita	0.73	0.74
Daily Person Trips per Capita	3.88	4.11
Daily Person Miles per Capita	35.44	40.42
Daily Vehicle Driver Trips per Capita	2.40	2.34
Daily VMT Driver (miles) per Capita	22.34	22.78
Average Person Trip Length	9.31	9.74

Source: NHTS, 2001

Note: These numbers may differ slightly from census tabulations due to different sample sizes.



Source: Federal Highway Administration, Highway Statistics Series

## Travel Demand: Travel Demand and Travel Behavior Trends

percent since 1991. This growth is a result of population growth and greater relative auto availability for the population. For example, in 1991 there were approximately 13,259,000 people in Florida, of which 9,692,974 were licensed drivers, and 9,980,076 vehicles or 0.73 vehicles per capita. By 2003, the ratio of vehicles per person had grown to 0.85, showing an increase in vehicle availability.

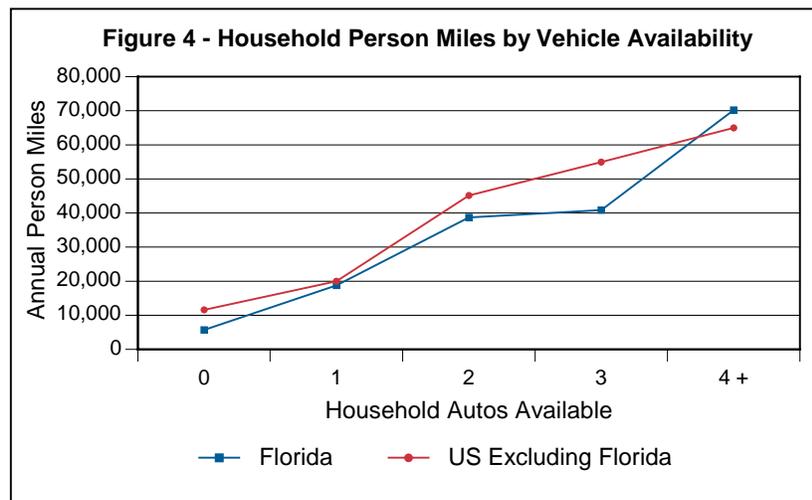
The growth of vehicle availability has slowed in recent years as vehicle availability has become widespread. The aging of the state and national population has contributed to this trend. A larger share of the population is older than 16, thus of driving age, and much of the population is middle aged where they are more likely to have the income to afford vehicles.

**Table 7 - Number of Registered Vehicles in Florida**

Year	Registered Vehicles	Percent Change from 1991
1991	9,980,076	0.0%
1992	10,232,336	2.5%
1993	10,169,556	1.9%
1994	10,251,810	2.7%
1995	10,369,395	3.9%
1996	10,888,596	9.1%
1997	10,874,031	9.0%
1998	11,276,389	13.0%
1999	11,389,713	14.1%
2000	11,781,010	18.0%
2001	14,340,102	43.7%
2002	13,963,596	39.9%
2003	14,526,125	45.6%

Source: Federal Highway Administration, Highway Statistics Series

As shown in Figures 4 and 5, the trip rate and miles of travel increase significantly as household vehicle availability goes up. Decennial Census data indicate that of 6.3 million households in



Source: NHTS, 2001

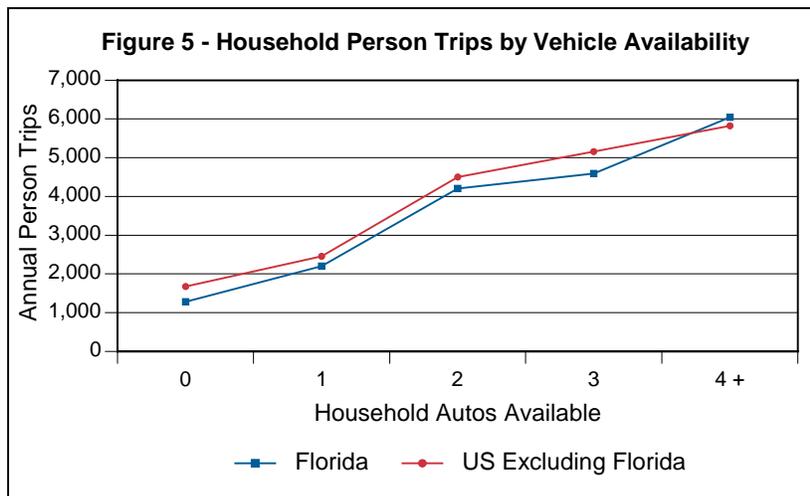
***There are more households in Florida with three or more vehicles than with zero vehicles.***

Florida in 2000, only 509,106 or 8 percent had no vehicles. The number of zero-vehicle households increased by approximately fifty thousand, but the share of zero-vehicle households in Florida declined from 9 percent in 1990. Nationally, the share of zero-vehicle households was approximately 9 percent in 2000. Vehicle availability has grown for lower income households and it is

increasingly likely that a vehicle is available for every licensed driver in a household. Crowded high school student parking lots and crowded street and driveway parking conditions in moderate and low-

## Travel Demand: Travel Demand and Travel Behavior Trends

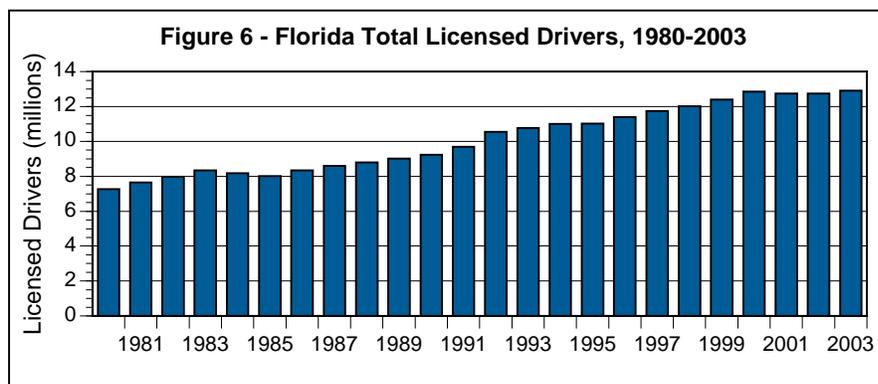
income areas illustrate the high levels of vehicle availability.



Source: NHTS, 2001

Table 8 details the number of licensed drivers in Florida and population trend from 1980 through 2003. In 2003, the licensed driver percentage of the population in Florida was nearly 76%, while nationally just over 67% of the population possessed a license.

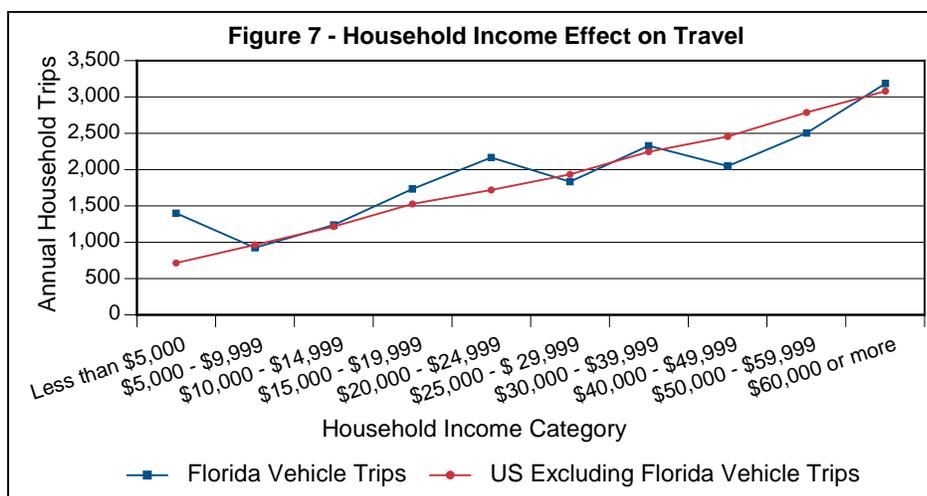
Figure 6 illustrates the trend of licensed drivers in Florida from 1980 through 2003.



Source: Federal Highway Administration, Highway Statistics Series 1995 (and prior) - 2003

Although fluctuations were observed from year to year, the general trend indicates some leveling and slowing growth in the number of licensed drivers.

Figure 7 presents the significant increase in household trips as

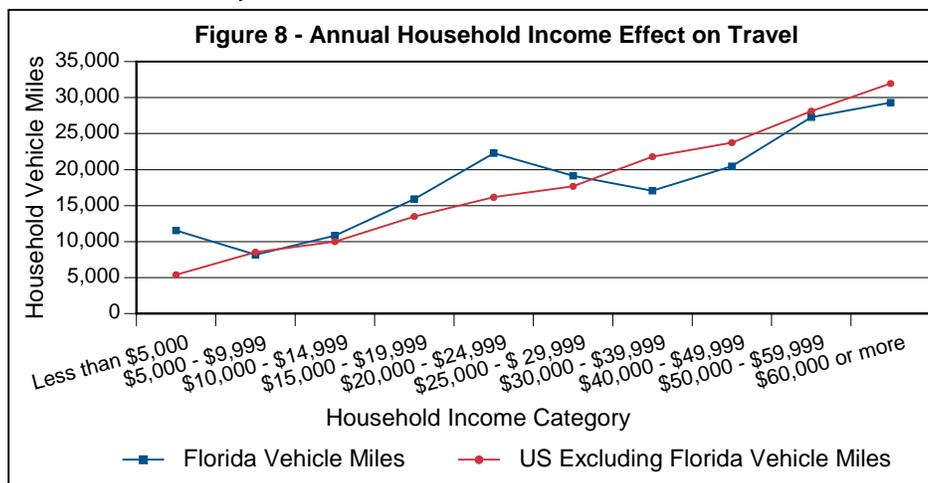


Source: NHTS, 2001

income rises. This 2001 NHTS data compares Florida conditions with national conditions. Florida had higher annual trips than the U.S. for households with incomes of less than \$5,000 and \$15,000-\$24,999, but lower trips for incomes of \$40,000-\$59,999.

## Travel Demand: Travel Demand and Travel Behavior Trends

Figure 8 shows household vehicle miles as a function of household income. It reveals the significance of the relationship between income and vehicle travel.



Source: NHTS, 2001

Table 8 - Licensed Drivers in Florida

Year	Licensed Drivers	Percent Change from prior year	Population	Percent of Population
1980	7,267,962	-0.3%	9,746,324	74.6%
1981	7,641,035	5.1%	10,192,774	75.0%
1982	7,978,824	4.4%	10,471,407	76.2%
1983	8,347,269	4.6%	10,749,851	77.7%
1984	8,185,949	-1.9%	11,039,925	74.1%
1985	8,016,239	-2.1%	11,351,118	70.6%
1986	8,334,798	4.0%	11,667,505	71.4%
1987	8,593,062	3.1%	11,997,283	71.6%
1988	8,789,843	2.3%	12,306,395	71.4%
1989	9,006,249	2.5%	12,637,715	71.3%
1990	9,231,405	2.5%	12,937,926	71.4%
1991	9,692,974	5.0%	13,259,000	73.1%
1992	10,537,677	8.7%	13,498,000	78.1%
1993	10,762,041	2.1%	13,730,000	78.4%
1994	11,005,438	2.3%	14,044,000	78.4%
1995	11,024,064	0.2%	14,336,000	76.9%
1996	11,399,593	3.4%	14,624,000	78.0%
1997	11,749,244	3.1%	14,939,000	78.6%
1998	12,026,947	2.4%	15,231,000	79.0%
1999	12,400,841	3.1%	15,581,000	79.6%
2000	12,853,428	3.6%	15,982,378	80.4%
2001	12,743,403	-0.9%	16,331,900	78.0%
2002	12,744,055	0.0%	16,674,900	76.4%
2003	12,905,813	1.3%	17,071,400	75.6%

Source: Federal Highway Administration, Highway Statistics Series; FDOT Statistics Office

Households with the means, clearly choose to spend resources on vehicle travel. Attaining the goal of having higher household incomes and lower poverty levels is accompanied by increased demand for vehicle travel. Florida data has indicated that travel demand increases as income increases to the middle-income level; a decline is then observed for the income levels of \$25,000-\$24,999 and \$25,000-\$39,999, and then demand picks up after household income exceeds approximately the \$50,000 level. Numerous researchers have predicted saturation of household travel demand at certain levels of income and vehicle availability. While that issue will be revisited with future NHTS data,

## Travel Demand: Travel Demand and Travel Behavior Trends

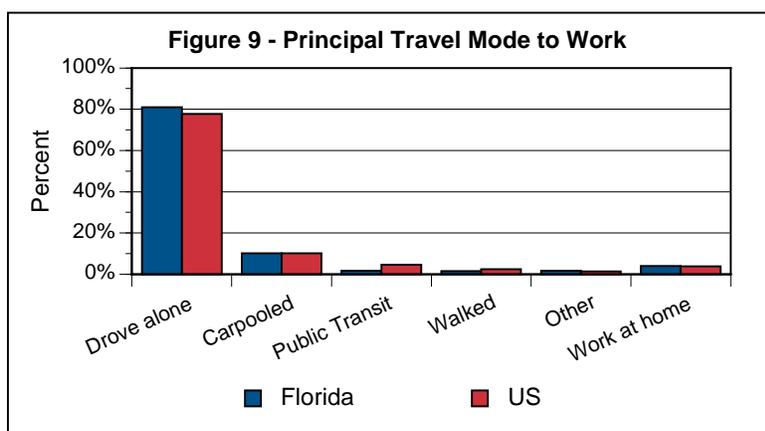
analysts have been surprised with the strength of the continuing growth in travel demand.

**Table 9 - Summary of Annual Household Vehicle Travel by Trip Purpose**

Trip Purpose	Florida			US Excluding Florida		
	Vehicle Trips Percent	VMT Percent	Trip Length (miles)	Vehicle Trips Percent	VMT Percent	Trip Length (miles)
To/From Work	20.9%	23.2%	10.45	22.0%	27.6%	12.30
Shopping	22.1%	12.8%	5.46	20.9%	14.2%	6.69
Family/ Personal	26.0%	21.8%	7.87	25.4%	19.1%	7.40
Church/ School	4.7%	3.8%	7.64	4.9%	3.7%	7.49
Social/ Recreational	12.8%	12.8%	9.41	13.7%	13.1%	9.40
Other	13.4%	25.5%	17.89	13.1%	22.2%	16.63
All Purposes	100.0%	100.0%	9.41	100.0%	100.0%	9.82

Source: NHTS, 2001

Beyond understanding total travel demand, it is useful to reflect on other aspects of overall travel behavior. One of the areas of key interest has been work travel. Work travel is a large share of total travel and occurs predominately in the peak periods when capacity is most constrained. It influences very large shares of total travel as numerous other trips are linked with work trips or planned around work travel schedules. Table 9 shows an allocation of travel by trip purpose for Florida and the rest of the nation. Given the share of retirees, it is not surprising that Florida has a lower share of work trips than the remainder of the country where work trips remain the most common trip purpose. Work trips are typically longer than trips for most other purposes so when considering shares by vehicle miles of travel, work trips have a somewhat higher share. While not shown in Table 9, the share of travel for work trips has declined over the past several years as growing mobility has enabled increased numbers of non-work trips via vehicles. Shopping, family/personal and social/recreational trips are among the categories that have seen significant growth in share.



Source: Census, American Community Survey 2004

Roadway travel demand is also influenced by the mode choice of travelers. Figure 9 and Table 10 provide Florida and national mode choice data for work trips. Table 10 reveals the strong dominance of single occupant vehicle (SOV) travel. Figure 9 and Table 10 show that Florida is more automobile oriented than the remainder of the country.

## Travel Demand: Travel Demand and Travel Behavior Trends

**Table 10 - Distribution of Workers by Principal Mode to Work**

	<i>Florida</i>	<i>US</i>
Drove alone; Car, Truck, or Van	81.0%	77.7%
Carpooled; Car, Truck, or Van	10.1%	10.1%
Public Transportation	1.7%	4.6%
Walked	1.5%	2.4%
Other means	1.7%	1.4%
Worked at home	4.0%	3.8%

Source: Census, American Community Survey 2004

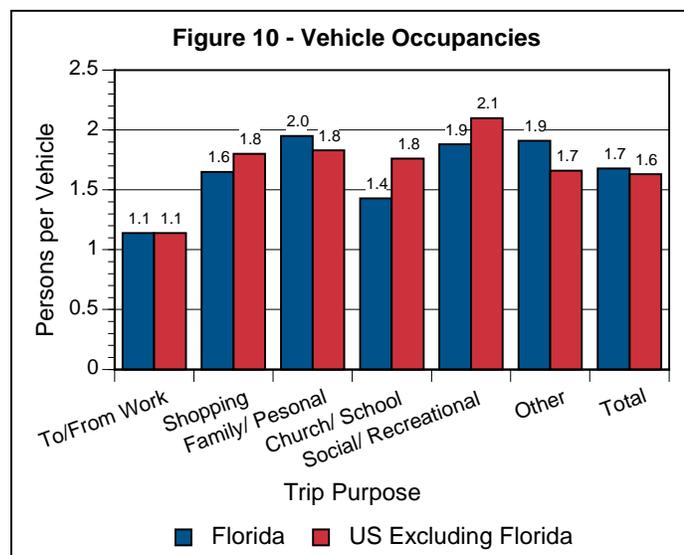
Table 11 indicates that most vehicle-based travel occurs with low vehicle occupancies. In Florida, NHTS 2001 data revealed that vehicle occupancies were slightly above national averages, most likely due to higher occupancies for family and personal travel, a dominant trip purpose that more than offsets higher national occupancies for shopping, school, and social or recreational travel.

**Table 11 - Average Vehicle Occupancy by Trip Purpose and Vehicle Type**

<i>Florida</i>	<i>To/From Work</i>	<i>Shopping</i>	<i>Family/ Personal</i>	<i>Church/ School</i>	<i>Social/ Recreational</i>	<i>Other</i>	<i>Total</i>
Car	1.10	1.65	1.98	1.38	1.84	1.67	1.62
Van, SUV, Trucks	1.20	1.64	1.89	1.62	1.98	2.11	1.77
RV, Motorcycle	1.00	1.00	1.23	1.00	1.78	1.01	1.37
Total	1.14	1.65	1.95	1.43	1.88	1.91	1.68
<b><i>US Excluding Florida</i></b>							
Car	1.11	1.70	1.78	1.57	2.00	1.62	1.57
Van, SUV, Trucks	1.17	1.95	1.89	2.14	2.26	1.71	1.71
RV, Motorcycle	1.00	1.05	1.96	1.38	1.14	1.50	1.26
Total	1.14	1.80	1.83	1.76	2.10	1.66	1.63

Source: NHTS, 2001

Figure 10 details vehicle occupancies for Florida and the remainder of the country. Trend data indicates that occupancies that have been declining for years appear to have stabilized since the mid 1990's. This is partially attributable to stabilization of the average household size and the fact that occupancies are currently quite low, leaving little room for further declines. The fact that modest shares of travelers use modes other than personal vehicles and that occupancies are currently at low levels limits the impact that could result from to SOV travel. The share of persons in these categories that could shift to SOV is far lower than in prior decades.



Source: NHTS, 2001

continued shifts

## Travel Demand: Travel Demand and Travel Behavior Trends

*Floridians, like the remainder of the country, are highly reliant on the personal vehicle with very modest use of other travel means.*

Table 12 summarizes travel behavior by person age. Not surprisingly, people are most active in their working years where they often have both employment and household-serving travel needs. The lower level of travel demand for youth and seniors are explained by lack of travel options for youth and lessened need and ability to travel for the elderly. However, both of these market segments have shown increasing mobility over time. The elderly in particular have shown significant increases in travel levels over the past several decades. This is attributable partially to better health and longer life and partially to the fact that the current generation reaching retirement is one where license-holding and vehicle-owning habit is entrenched – unlike prior generations where it was common for women not to have licenses. The largest share of the impact from women entering the work force and having drivers licenses has occurred over the past few decades so that the change in travel demand from these cultural changes appears to be almost fully reflected in current travel behavior. Future demand growth can be expected with further improvements in the health and economic circumstances of the older population. The same is true if economic conditions enable increased auto availability for young people and low-income persons who are economically constrained from auto ownership.

Table 12 - Summary of Daily Vehicle Travel by Age

Age	Florida			US Excluding Florida		
	Daily Vehicle Trips	Daily Vehicle Miles	Average Vehicle Trip Length (miles)	Daily Vehicle Trips	Daily Vehicle Miles	Average Vehicle Trip Length (miles)
Under 16 years	0.03	0.18	6.16	0.02	0.11	6.53
16-19 years	1.87	14.37	7.70	2.05	15.23	7.43
20-29 years	3.32	34.18	10.30	2.87	30.24	10.52
30-39 years	3.27	32.29	9.86	3.38	34.76	10.27
40-59 years	3.50	32.35	9.24	3.45	34.79	10.09
60-64 years	3.10	27.61	8.92	3.01	29.60	9.84
65+ years	2.18	18.11	8.29	2.28	16.79	7.36
Total	2.43	22.59	9.31	2.32	22.56	9.74

Source: NHTS, 2001

The demand for travel is also influenced by the performance of the transportation system. In addition to income levels and auto availability, the time demands of travel influence the overall level of demand. Historically, Americans have had a relatively stable travel time budget allocating approximately 45 minutes per day for commuting to and from work and spending approximately 70 minutes per day per person in total travel. Over the past several decades, average travel speeds have increased due to a number of factors. These include increased mileage of high-speed interstate/freeway roads; improved performance of arterial systems;

## Travel Demand: Travel Demand and Travel Behavior Trends

Table 13 - Commute Time Comparisons

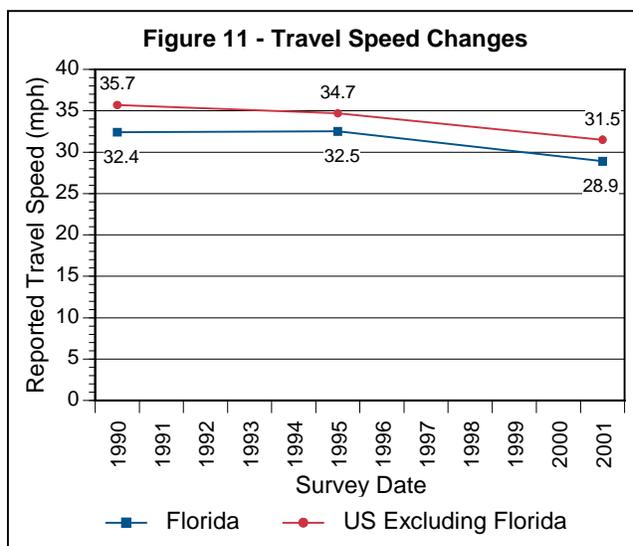
2004 Rank	State	2002	2004	Percent Change
1	New York	30.8	30.6	-0.6%
2	Maryland	30.0	29.7	-1.0%
3	New Jersey	28.3	29.4	3.9%
4	District of Columbia	29.4	28.0	-4.8%
5	Illinois	26.7	27.7	3.7%
6	California	26.6	27.1	1.9%
7	Georgia	26.5	26.8	1.1%
8	Virginia	25.7	26.5	3.1%
9	Massachusetts	25.8	26.4	2.3%
10	Hawaii	25.4	25.8	1.6%
11	West Virginia	25.9	25.6	-1.2%
12	<b>Florida</b>	24.8	25.4	2.4%
13	Pennsylvania	23.9	25.1	5.0%
14	Washington	24.4	24.8	1.6%
	<b>United States</b>	24.4	24.7	1.2%

Source: Census, American Community Survey, 2002, 2004

change in household location to more distant suburbs with less crowded and higher speed roads; shifts from slower travel modes such as transit, walk and shared ride; and shifts in travel times to avoid the peak periods for a larger share of total travel. These changes have enabled travel speeds to continue to increase until the past decade. The newest Census and NHTS data indicated that travel speeds are now starting to decline at an accelerating rate.

Table 13 provides Census Work Commute times, which indicate that the average work commute trip in Florida is higher than the national average. Floridians took an average of 25.4 minutes to commute to their workplace.

This figure has been growing at a faster pace than the rest of the country in the last two years. While additional, more detailed data need to be released before the time increases can be allocated between slower speeds and longer trip distances, preliminary evidence from other sources such as NHTS indicates that commute travel speeds are declining.



Source: NHTS, 2001

*Floridians, like other Americans, experience greatest travel demand in their peak parenting and working years: 20 to 60 years of age.*

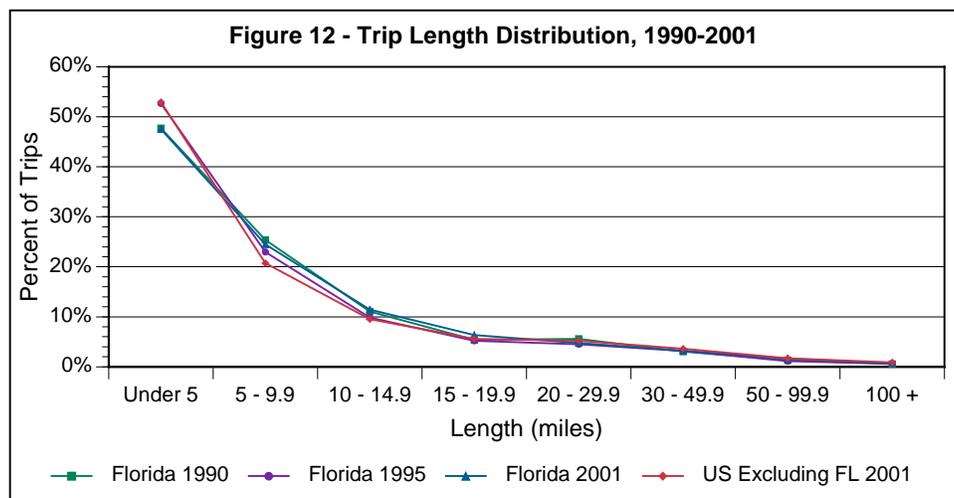
Figure 11 shows travel speed changes during the 1990's based on NHTS data. As this set of data indicates, the pace of declining speeds in Florida has accelerated in the past 6-year period and the decline in speeds in Florida is outpacing the national

speed declines. If congestion continues to contribute to slower speeds in the future, the

## Travel Demand: Travel Demand and Travel Behavior Trends

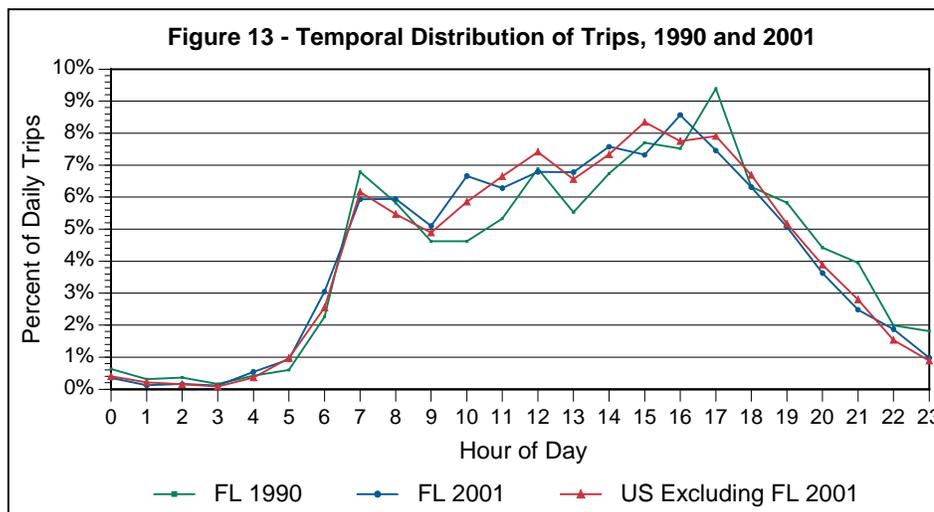
additional travel time absorbed by slower travel may dampen the willingness of travelers to spend even more time to enable more miles of travel.

Figure 12 presents the trip length distribution for travelers in Florida and the rest of the nation. Florida tends to have fewer trips under five miles and more trips in the 5-15 mile range than the U.S. Perhaps this is due to lower density development in Florida urban areas. The share of trips longer than 20 miles mirrors the national trend.



Source: NHTS, 2001

*Floridians' demand for travel may be dampened as slowing speeds result in a lessened inclination to increase vehicle miles of travel.*

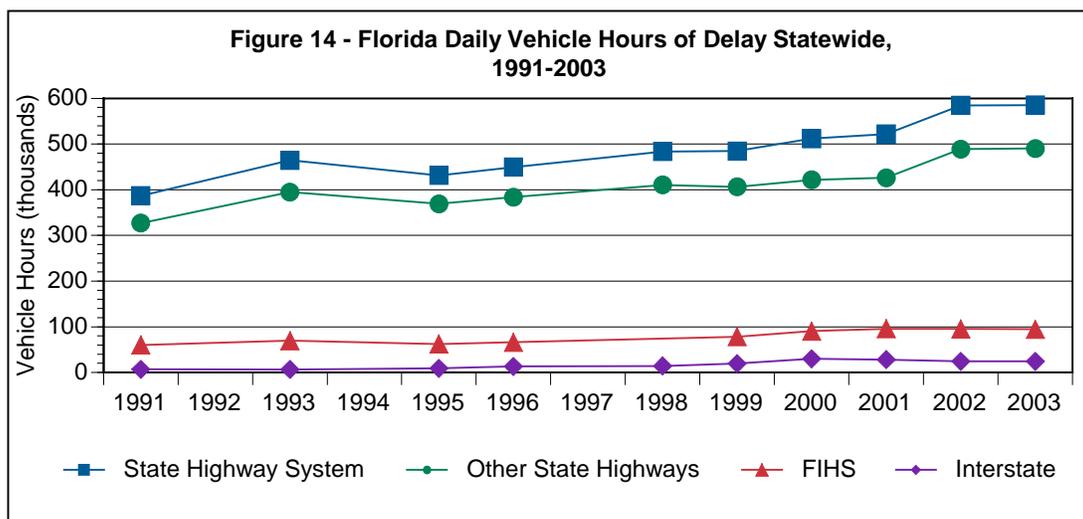


Source: NPTS, 1990 and NHTS, 2001

## Travel Demand: Travel Demand and Travel Behavior Trends

The temporal distribution of trips in Florida has changed over the past decade. As depicted in Figure 13, the percentage of trips beginning in the peak a.m. and p.m. periods has decreased, while the percentage of midday trips has increased. The distribution of daily trips for the rest of the nation has also experienced similar changes since 1990.

Figure 14 shows transportation system performance on Florida's highways expressed by a measure of travel delay. The data show a more moderate growth of delay since 2002 where a significant increase occurred over the previous year.



Source: Florida Department of Transportation. 2003 Florida Highway Data Source Book.

*Many of the pressures for increasing travel demand are dampening due to demographic and economic trends; therefore, slower growth of VMT may result.*

### Conclusion

The data collectively reveal some evolving trends that will no doubt influence future travel demand and behavior. Many of the pressures for increasing travel demand have been lessening nationally due to demographic and economic trends. Economic constraints and their effects on dampening travel demand appear to have leveled with auto availability and household licensure status becoming stabilized at high levels. Trends, such as women increasing their proportion of the work force and increasing drivers licensure possession rates, growing auto availability, and the aging of the baby boomers, have been major factors affecting

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## Travel Demand: Travel Demand and Travel Behavior Trends

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travel demand in the past few decades. Looking forward, it is unclear if new cultural or demographic conditions will produce the growth in travel demand at the same rate as in the past few decades. Similarly, shifts from transit, walk and shared ride appear to have played themselves out and are no longer likely to be factors increasing vehicle travel demand. The biggest likely factor in growing travel demand appears to be the prospect that continued or accelerated outward suburban and exurban growth will further increase trip lengths and travel demand. Over the past few years the rapid real estate price appreciation has forced some households to locate in more distant locations to find affordable housing. Also, strong economic conditions continue to result in an accelerated immigration based population growth. High fuel prices, if sustained, may also influence travel behavior in the future.

Unfortunately, the existing transportation system is operating at capacity in several metropolitan areas and is consequently extremely sensitive to incremental increases in demand. Just as some roads have deteriorating performance, many roadway links are more likely to show worsening congestion with even minor increases in vehicle travel demand. In parts of several urban areas, less opportunity exists to shift travel in time or space to less congested facilities. Although capacity for further peak spreading may still exist in many areas, travel periods adjacent to the peak periods are more often crowded and the alternative roadway paths are already congested. In Florida, the consequences of even modest increases in demand may be more severe than in the past.

*The consequences of even modest increases in travel demand may be more severe than in the past.*

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# Trends and Conditions Report – 2006

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## **TRAVEL DEMAND: Visitors and Tourists January 2006**

This “Trends and Conditions” report was prepared jointly by the Office of Policy Planning of the Florida Department of Transportation and the Center for Urban Transportation Research at the University of South Florida. It is part of a continuing process to support the needs of decision makers, transportation professionals and the interested public.

This and other reports are being maintained on the Internet at:  
[www.dot.state.fl.us/planning/policy/trends](http://www.dot.state.fl.us/planning/policy/trends)



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## Travel Demand: Visitors and Tourists

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### Introduction

Understanding tourist or visitor travel trends is important in being able to understand and predict future travel demands. Visitor travel has different temporal and geographic distributions than resident or freight travel. Visitor travel can also follow a different growth pattern than resident or freight travel, as has been the case over the past few decades in Florida where tourist travel has outpaced the growth in resident travel. Understanding the significance of tourist and visitor travel may be relevant to a variety of policy considerations such as how to fund transportation infrastructure and service investments in an equitable manner. Similarly, knowledge of tourism may have an impact on facility planning, design, and operation. A good understanding of visitor travel has implications on safety, traveler security, signage, and other aspects of how transportation facilities and services are provided.

While it has many positive impacts on local economic development, tourism can also impact the transportation system and environment of the host areas. Some of these impacts include air pollution from automobile driving, increased congestion levels, involvement in traffic accidents and fatalities, and related consequences of transportation activities.

As transportation planners have begun to develop a richer understanding of freight travel in recent

*Tourism travel has grown at a rate approximately 1.5 times that of population.*

years, it is equally appropriate that tourist and visitor travel garner similar attention particularly in Florida where tourist travel comprises a meaningful share of total travel on the transportation system. Data indicate that visitors comprise a higher share of vehicle miles of travel on Florida roadways than do heavy trucks and that tourism travel has grown at a rate approximately 1.5 times that of population. In 2004, heavy trucks accounted for 9.7 percent of all vehicle travel on the Florida State Highway System and nearly 6 percent of total vehicle miles traveled in the state<sup>1</sup>. During the same time period, CUTR estimated that visitors accounted for nearly 10 percent of all vehicle travel in the state.

The estimated annual number of visits by non-state residents increased from 29.9 million in 1984 to 73.4 million in 2004 in Florida. This is an increase of about 145 percent during the 20-year period. Such high volume and high growth of visitors are often cited when transportation problems in Florida are the topic. More recently, the post September 11, 2001 era is characterized by far greater uncertainty in tourism levels and some evidence of changes in tourist travel behavior. While initially attributed to the September 11, 2001 terrorist attack, the

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<sup>1</sup> These calculations are based on applying the methodology for estimating tourist travel outlined in Chu and Polzin, 2002, *An Application for Measuring Vehicle Travel by Visitors*, a CUTR report.

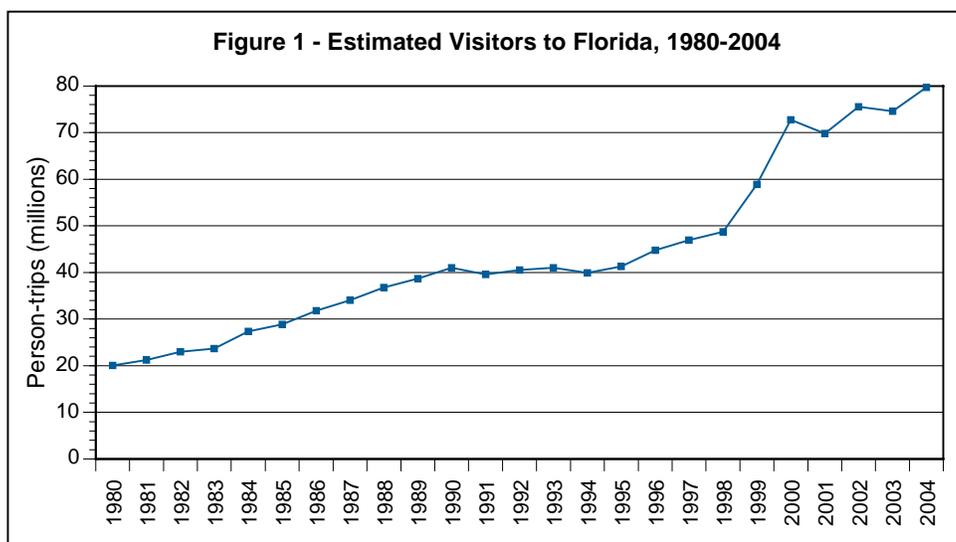
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## Travel Demand: Visitors and Tourists

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slowing economy and the unprecedented decline of the equities market coupled with the aging of the baby boom generation and fundamental changes in air travel are collectively influencing the nature of tourist travel. More recently energy prices, record levels of hurricanes and predictions for continued high levels of tropical storm activity, and chronic red tide increase the uncertainty regarding tourism. As a critical aspect of both the economy and a direct source of significant travel demand, tourism merits close scrutiny as there may be some fundamental changes in historic patterns taking place.

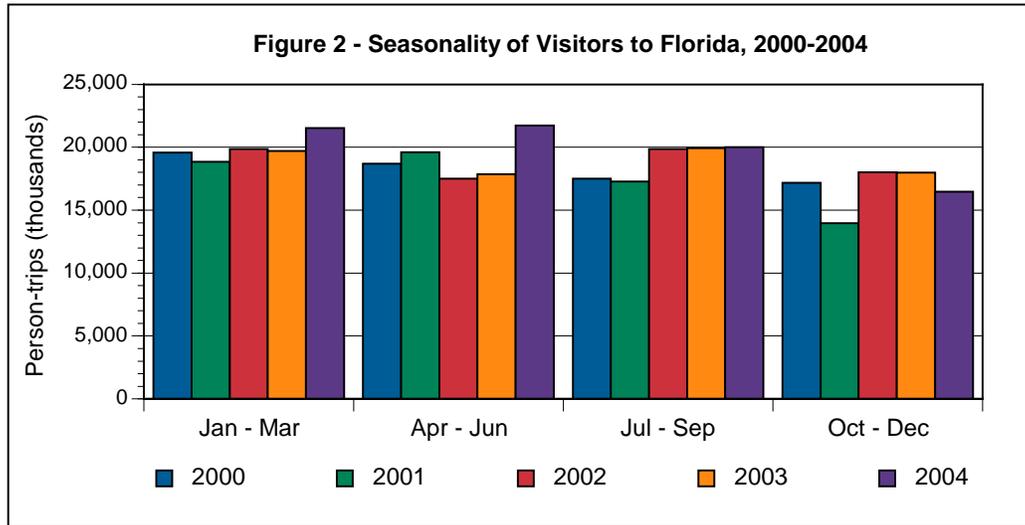
### Visitor Estimates and Characteristics



Source: FLA USA Visit Florida, Annual Florida Visitor Study (1997-2003) and Visitor Estimates. Note: New domestic visitor estimation system began July 1999.

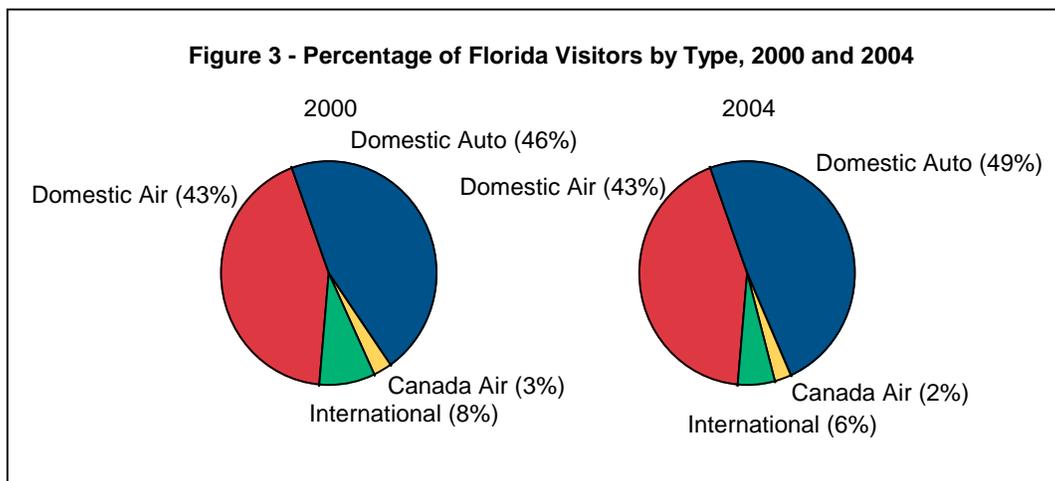
Figure 1 shows the estimates of visitors to Florida (from outside the state) from the Annual Florida Visitor Study carried out to monitor tourism trends. This set of data was redefined in mid-1999, accounting for the dramatic increase of the trend in 1999 and 2000. The 2001 datum indicates the impact of September 11 and the slowing economy. However, there was a resumption of the upward trend in visitors to Florida in 2002 and 2004.

## Travel Demand: Visitors and Tourists



Source: FLA USA Visit Florida, Annual Florida Visitor Study (2000-2004) Visitor Estimates

Figure 2 shows in greater detail the impact of the last quarter in calendar year 2001, and the subsequent recovery. This figure also shows that one advantage of the Florida tourism industry, coupled with the Florida climate, is the fact that historically tourist travel has remained relatively evenly distributed throughout the year. Interestingly, however, the visitor total was higher in the first half of the 2004 calendar year. Overall, the steady flow of tourist visitors throughout the year minimizes tourist travel level peaking and associated congestion and enables more efficient capacity utilization. The recent growth in tourism appears to be outside the tropical storm season.



Source: FLA USA Visit Florida, Annual Florida Visitor Study (2000, 2004)

Figure 3 shows the source and means of access for out of state visitors to Florida. The method of arrival has some clear implication in terms of the modal infrastructure (airports versus freeway/toll way system). Domestic travelers account for 92 percent of total out of state tourists.

## Travel Demand: Visitors and Tourists

When coupled with Florida resident tourism, it is clear that the vast majority of tourism destined for Florida originates in the United States.

The modal distribution of arrival has shifted in recent periods as a result of the changes in the air travel system. Airport security has increased the time and perceived risk of air travel and altered tourist travel patterns, especially in relation to visitors from outside the country. Tourists are indicating a preference for shorter trips (fewer days) than in prior years and are showing greater preference for auto travel. As illustrated in Figure 3, international air travel and Canadian air travel have each declined in share with domestic auto picking up the market share. The share of domestic air travel remains unchanged from 2000, although it did experience a slight fluctuation between 2000 and 2004. It remains to be seen if, over the longer term, tourist arrival shares will stabilize at current levels. The continued fundamental cost restructuring occurring in the airline industry, changing fuel costs for both auto and air travel and security, congestion and other factors will contribute to the ongoing uncertainty in traveler behavior.

Tables 1 and 2 show the originating location for Florida visitors in 2004. In that year, Florida was the most preferred destination of overseas visitors to the United States. The greatest percentage of these visitors was from the United Kingdom. The leading origin states for domestic visitors in 2004 were Georgia and New York. Domestic visitors arriving by automobile typically originate from neighboring states in the southeastern portion of the country, such as Georgia, while visitors arriving by air are distributed throughout the country with a high concentration in the northeast.

**Table 1 – Top 10 Overseas Origin Countries for 2004 Visitors to Florida**

<i>Country</i>	<i>Thousand Person Trips</i>	<i>Percent of Total</i>
United Kingdom	1,480	33.41%
Germany	265	5.98%
Venezuela	224	5.06%
Colombia	203	4.58%
Brazil	167	3.77%
France	122	2.75%
Italy	113	2.55%
Japan	82	1.85%
Spain	77	1.74%
Argentina	74	1.67%

Source: FLA USA Visit Florida, 2004 Florida Visitor Study

**Table 2 – Top 10 Domestic Origin States for 2004 Visitors to Florida**

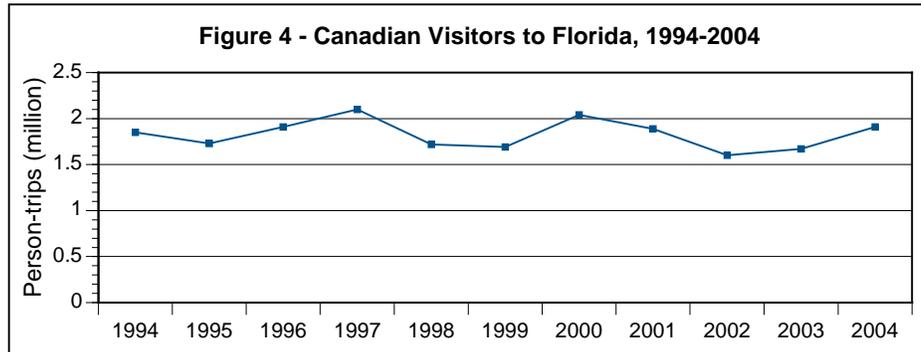
<i>State</i>	<i>Air</i>	<i>Auto</i>	<i>Percent of Total</i>
Georgia	1.40%	15.90%	9.70%
New York	13.50%	6.00%	9.30%
Illinois	6.60%	5.40%	6.00%
New Jersey	8.40%	2.30%	5.60%
Ohio	5.70%	4.40%	5.30%
North Carolina	2.20%	6.00%	4.00%
Michigan	4.60%	3.80%	3.90%
Alabama	0.40%	6.60%	3.80%
Indiana	3.00%	4.70%	3.70%
California	6.70%	0.50%	3.60%

Source: FLA USA Visit Florida, 2004 Florida Visitor Study

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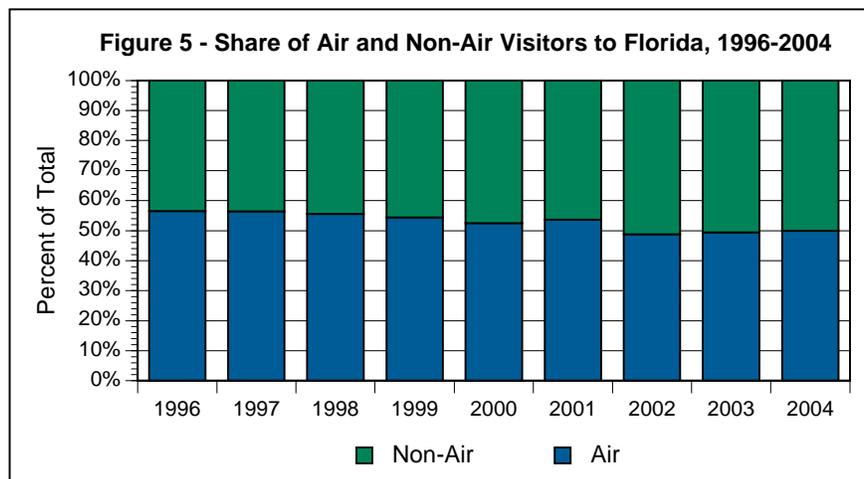
## Travel Demand: Visitors and Tourists

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Source: FLA USA Visit Florida, Annual Florida Visitor Study (1997-2004)

Figure 4 shows the history of Canadian visitor trends for Florida. Despite some fluctuation in the number of person trips by Canadian visitors since 1994, Canada has remained Florida's leading international market.



Source: FLA USA Visit Florida, Florida Visitor Study (1996-2004)

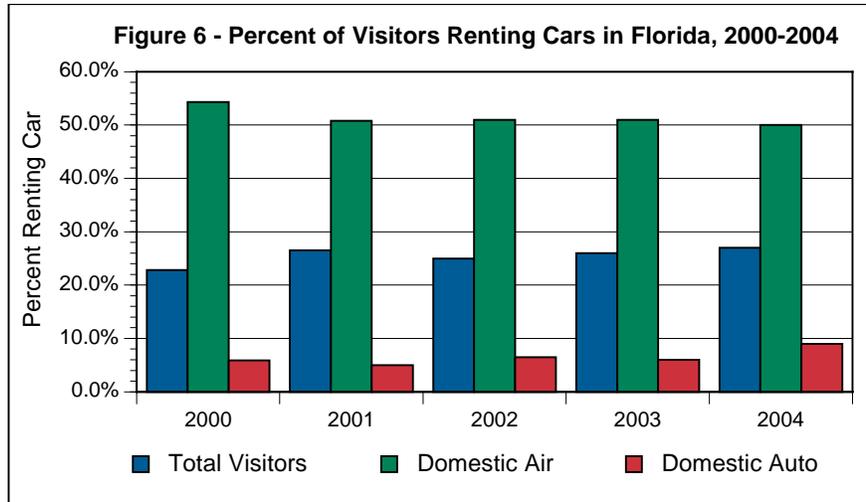
Figure 5 provides the air arrival share over the 1996–2004 time period. In 2002, following the events of September 11<sup>th</sup>, the share of air visitors to Florida declined, but has rebounded slightly in recent years. The arrival mode shares appear to have stabilized at approximately equal auto and air shares at this time.

*There is a growing share of visitors to Florida who arrive by automobile.*

Travelers arriving in Florida by air are not necessarily captive to public modes of travel on arrival or during the duration of their stay. The data in Figure 6 indicate that over half of the tourists subsequently rent cars for local intrastate travel while in Florida. Even some parties arriving by

## Travel Demand: Visitors and Tourists

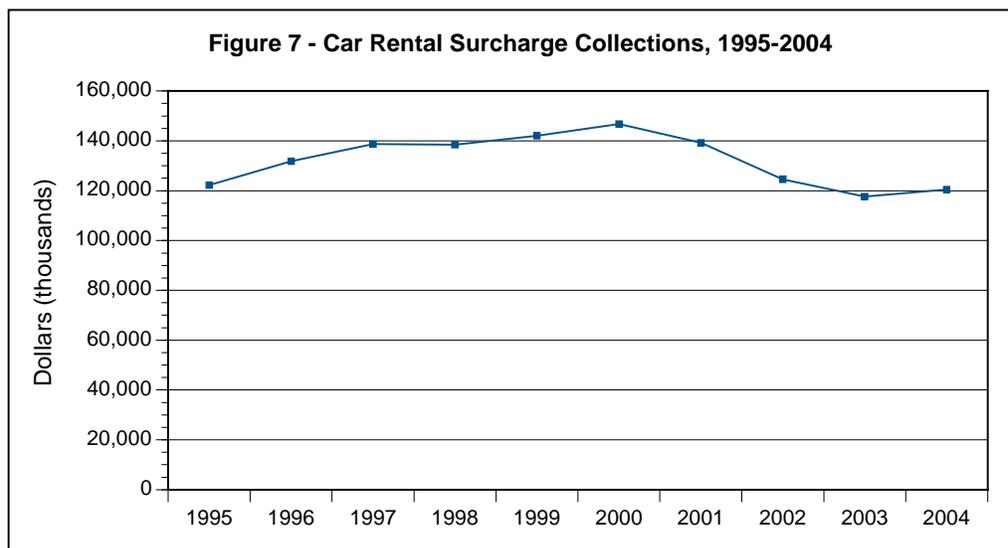
auto subsequently rent autos, perhaps as some of their group members participate in different activities.



Source: FLA USA Visit Florida, Florida Visitor Study (2000-2004)

Figure 7 shows data on auto rental fees collected in Florida. This is a surrogate measure of rental car activity as the fee is based on rental days of activity. To the extent that more tourists arrive in Florida with a car, one would anticipate a moderating of demand for rental vehicles. Similarly, this revenue stream is impacted by trip duration.

Other significant aspects of tourist related travel demand in Florida are the size of the travel group and the length of stay. The length of stay impacts the local mileage traveled within and between Florida's urban areas and



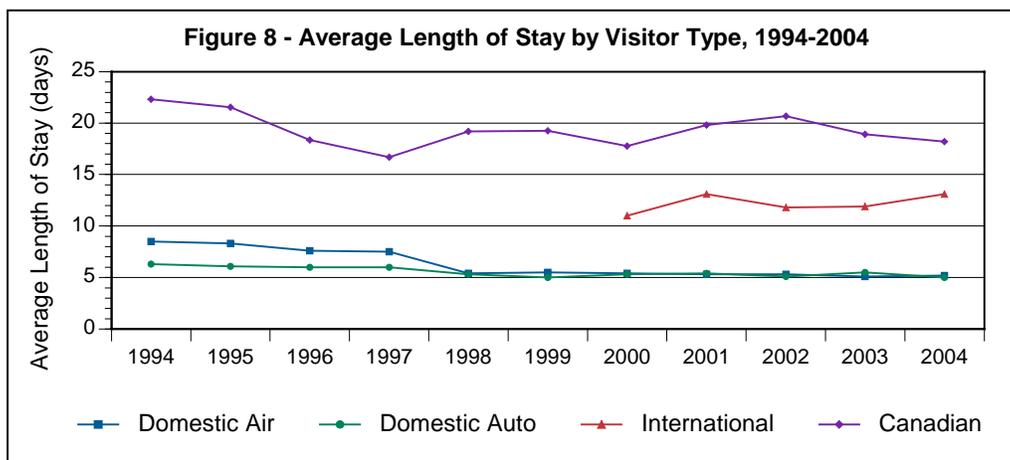
Source: FLA USA Visit Florida, Florida Visitor Study (1995-2004)

Note: The rental car surcharge is a \$2 per day for the first thirty days of a rental or lease of a vehicle.

tourist attractions. The group size influences travel demands for public modes of travel such as airlines where each individual would be paying a fare and occupying a seat. Additionally, group

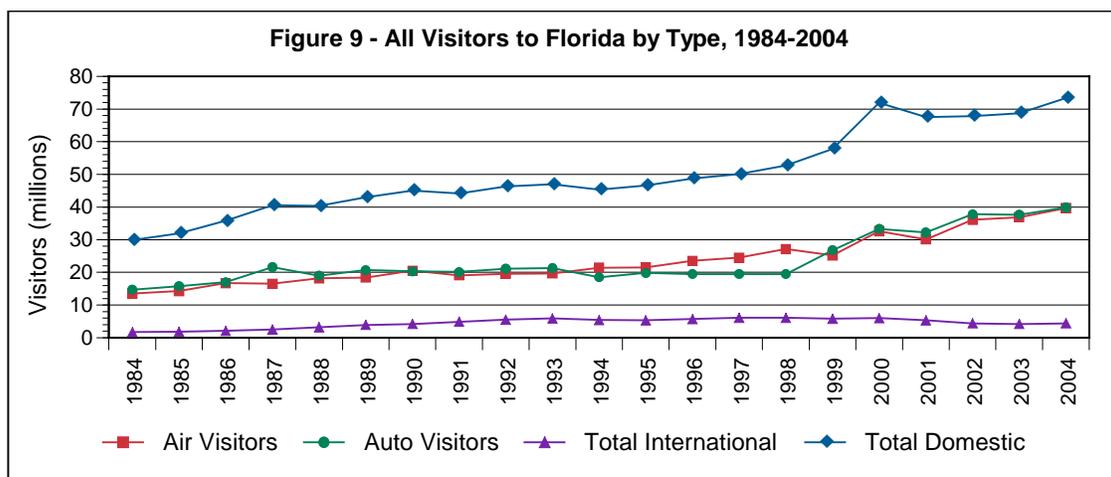
## Travel Demand: Visitors and Tourists

size may indirectly affect the amount of daily person trips as larger groups may participate in more activities which may cause an increase in vehicle travel.



Source: FLA USA Visit Florida, Annual Florida Visitor Study (1997-2004)

Figure 8 indicates that domestic travelers are relatively consistent in their average length of stay with only a very slight decrease in recent years. This is consistent with national trends toward more frequent and shorter vacations. International visitors, however, appear to be making longer duration trips. Figure 9 portrays the increase in domestic travelers to Florida since 2001. The number of international visitors to Florida has begun to level out following a decreasing trend started in 2001. Relatively modest costs for both air and auto travel in recent years (compared in real terms to historical travel costs) have helped sustain the growth trend in visitors.

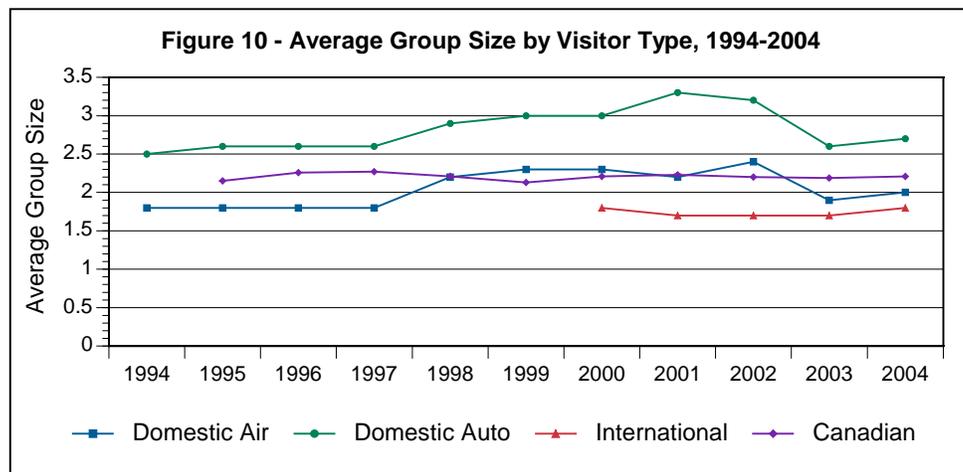


Source: FLA USA Visit Florida, Annual Florida Visitor Study (1997-2004)

Figure 10 shows group size trends. Increases in group size favor the auto travel mode which has no marginal transportation cost for additional passengers. Florida's appeal to family groups

## Travel Demand: Visitors and Tourists

and Florida's appeal to combined personal business and family vacation travel may be contributing to this overall trend.



Source: FLA USA Visit Florida, Annual Florida Visitor Study (1997-2004)

In addition to tourist travel by visitors, Florida's substantial population creates demand for in-state tourist travel as well. Figure 11 shows the trends in Florida resident tourist travel.

Resident tourist travel

is governed by the size of the population

and the economic conditions.

Post September 11,

tendencies for persons to vacation

closer to home may be contributing to

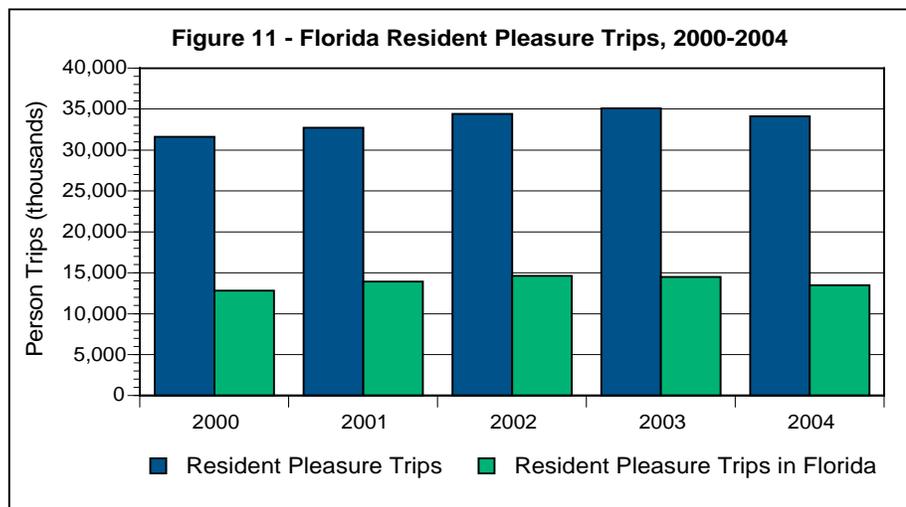
greater in-state tourism by Florida

residents. Generally, leisure travel is highly

related to disposable

income and, as the economy grows, one expects that the total amount of leisure travel would also be growing. Thus, growth in tourism by both residents and visitors to Florida will be influenced by the health of the economy.

The significance of tourist travel in terms of total travel demand in Florida is explored in Table 3. This table, developed based on research into Florida's total travel



Source: FLA USA Visit Florida, Florida Visitor Study (2000-2004)

*Tourists and visitors comprise nearly ten percent of total vehicle miles of travel in Florida.*

## Travel Demand: Visitors and Tourists

demand components, estimates the share of total travel demand that can be attributed to tourist travel.

**Table 3 – Vehicle Travel by Florida’s Visitors and Share of State Total, 1984-2004**

Year	Vehicle Miles Traveled (millions)				As a Percent of State Total			
	Domestic Air	Domestic Auto	Foreign	All Visitors	Domestic Air	Domestic Auto	Foreign	All Visitors
1984	2,699	5,184	452	8,334	3.2%	6.1%	0.5%	9.8%
1985	2,487	5,487	480	8,454	2.8%	6.2%	0.5%	9.6%
1986	2,853	5,435	581	8,870	3.3%	6.2%	0.7%	10.1%
1987	2,738	7,922	717	11,377	2.9%	8.5%	0.8%	12.3%
1988	3,514	8,707	934	13,156	3.3%	8.3%	0.9%	12.5%
1989	2,859	8,527	1,167	12,553	2.6%	7.8%	1.1%	11.5%
1990	2,929	8,415	1,266	12,610	2.7%	7.7%	1.2%	11.5%
1991	3,173	8,478	1,464	13,114	2.8%	7.5%	1.3%	11.6%
1992	3,370	9,407	1,696	14,472	2.8%	7.8%	1.4%	12.1%
1993	3,717	10,100	1,830	15,648	3.1%	8.4%	1.5%	13.0%
1994	3,775	9,186	1,648	14,609	3.1%	7.5%	1.4%	12.0%
1995	3,736	8,766	1,648	14,149	2.9%	6.9%	1.3%	11.1%
1996	3,912	8,309	1,839	14,061	3.0%	6.4%	1.4%	10.8%
1997	3,329	9,396	2,009	14,734	2.5%	7.0%	1.5%	11.0%
1998	3,775	9,425	2,057	15,257	2.7%	6.9%	1.5%	11.1%
**1999	2,634	6,901	2,265	11,801	1.8%	4.6%	1.5%	7.9%
2000	3,510	8,695	1,689	13,894	2.3%	5.8%	1.1%	9.3%
2001	3,254	7,676	1,820	12,749	1.9%	4.5%	1.1%	7.5%
2002	3,148	9,805	1,414	14,367	1.8%	5.5%	0.8%	8.0%
2003	4,032	11,880	1,390	17,302	2.2%	6.4%	0.7%	9.3%
2004	4,262	12,033	1,982	18,278	2.2%	6.1%	1.0%	9.3%

Source: Formula from CUTR, Xuehao Chu, “Measuring Vehicle Travel by Visitors”, 2002. Data from FLA USA, Visit Florida, Florida Visitor Studies.

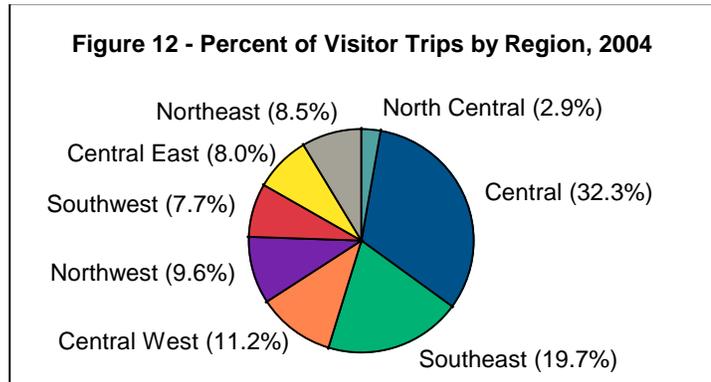
Note: \*\* In 1999, Visit Florida estimation method changed.

This estimate gives a sense of perspective regarding the overall share of tourism related vehicle travel demand and also provides insight into the relative growth rates of tourism related travel to overall vehicle miles of travel. This analysis indicated that as of 2004, tourism comprised 9.3 percent of all Florida vehicle miles of travel.

While the consequences of tourist travel have been alluded to earlier in this report, it is appropriate to address other characteristics of tourist travel that affect system performance and

## Travel Demand: Visitors and Tourists

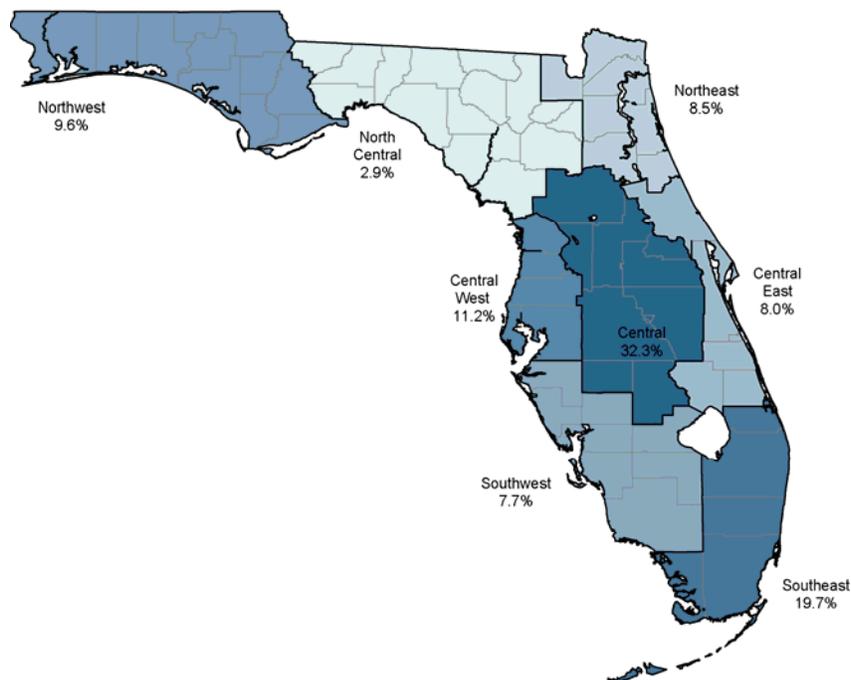
needs. Information on the geographic distribution of tourist travel around the state is presented in the figures and tables that follow. Figure 12 shows regional allocations of visitor trips. It is well known that there are locations like the Keys and the Orlando area as well as smaller sections of many areas where tourist travel is a very significant share of total travel demand. While available data can give a sense of tourism for various urban areas, such data are generally not available on a roadway segment level. However, local planning agencies develop knowledge of the geographic distribution of tourist travel as they carry out various survey and modeling initiatives. More detailed data on tourism travel routes would no doubt prove useful in addressing more localized transportation needs and funding strategy issues. The daily temporal distribution of tourist travel, specifically the presence of tourist travel during peak travel periods, would also be of use in local planning.



Source: FLA USA Visit Florida, Annual Florida Visitor Study 2004

Figure 13 shows, in map form, the allocation of tourist travel. Central and Southeast Florida have the highest share of visitor trips, because of the key tourist destinations there including Orlando and Miami.

**Figure 13 – Allocation of Visitor Trips by Region 2004**



Source: FLA USA, Visit Florida, Florida Visitor Study 2004

## Travel Demand: Visitors and Tourists

Table 4 provides the major destinations of Florida travelers from overseas locations. Table 5 presents the county destinations of domestic visitors. For both visitor groups, Orlando, Tampa-St. Petersburg and Miami are the choice destinations.

**Table 4 – Percent of Overseas Visitors to Major Florida Destinations by Top 10 Overseas Countries, 2004**

Origin Country	Miami	Orlando	Tampa-St. Petersburg	Fort Lauderdale	Florida Keys	Jacksonville	West Palm Beach	Fort Myers	Sarasota	Melbourne
Argentina	3.2%	0.9%	0.3%	1.3%	0.8%	-	0.7%	-	3.2%	-
Brazil	5.9%	3.9%	1.2%	3.7%	1.2%	-	3.3%	0.9%	0.0%	0.7%
Columbia	7.0%	3.4%	2.1%	8.1%	0.7%	1.9%	7.2%	1.0%	1.2%	0.6%
France	3.5%	1.4%	4.1%	4.2%	9.1%	10.7%	9.7%	5.1%	3.6%	6.9%
Germany	5.9%	3.7%	8.0%	11.4%	13.9%	15.6%	12.8%	36.2%	10.9%	16.8%
Italy	3.9%	1.3%	1.1%	1.3%	3.9%	2.3%	1.8%	-	-	1.1%
Netherlands	1.9%	1.3%	1.8%	0.1%	1.3%	1.2%	2.2%	6.1%	1.7%	-
Spain	2.7%	1.3%	1.8%	0.7%	1.8%	1.4%	3.9%	2.4%	0.8%	0.1%
United Kingdom	12.1%	58.7%	49.0%	29.0%	35.6%	37.7%	26.6%	29.8%	51.6%	44.5%
Venezuela	7.4%	2.4%	3.2%	4.8%	-	2.8%	2.1%	1.5%	2.6%	-

Source: FLA USA Visit Florida, Florida Visitor Study 2004

**Table 5 – Top 15 County Destinations for Domestic Visitors, 2004**

State	Air	Auto	Total
Orange	33.0%	25.2%	28.5%
Broward	9.8%	3.2%	6.6%
Hillsborough	7.7%	5.2%	6.4%
Miami-Dade	8.1%	2.1%	5.4%
Duval	2.7%	6.4%	4.6%
Volusia	2.8%	5.3%	3.9%
Palm Beach	6.4%	1.6%	3.9%
Pinellas	3.2%	3.8%	3.3%
Escambia	1.8%	4.7%	3.2%
Monroe	2.6%	2.7%	3.1%
Lee	3.9%	2.2%	2.8%
Bay	0.5%	4.9%	2.8%
Okaloosa	1.1%	4.5%	2.7%
Brevard	3.2%	1.4%	2.4%
Sarasota	3.0%	1.7%	2.3%

Source: FLA USA Visit Florida, 2004 Florida Visitor Study

*Orlando, in Orange County, has led Florida in total visitors for decades.*

*Domestic visitors are staying slightly fewer days and traveling in slightly larger groups.*

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## Travel Demand: Visitors and Tourists

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While the data in this report suggest reasonable seasonal uniformity for tourist travel, an hourly distribution of travel by tourists during the day is not quantified. One should also note that this report addressed tourists, defined by the World Tourism Organization as typically including persons who travel for the purpose of recreation at least fifty miles from their point of origin. This is not inclusive of all travel of seasonal residents. In addition to tourists, Florida has a significant number of seasonal residents that impact travel demand. Seasonal residents are typically here for a more extended time period than those classified as tourists. The website (<http://www.bebr.ufl.edu/Articles/Temp%20Res%20by%20County.pdf>) of the Bureau of Economic Business and Research, University of Florida, provides detailed information on temporary residents.

Other research conducted by John Lu and Wiemin Huang for FDOT has suggested that the impacts of tourist travel may be disproportionate to its share of the traffic volume. Specifically, tourists as non-regular users are more likely to be novice users on a given facility and may not operate their vehicles as would a regular traveler. Observing sites, looking for directions, and other distractions might result in somewhat slower travel and more disruptions, particularly on non-freeway facilities. Many tourists are also driving rental vehicles with which they may be less familiar, have many distractions from the large group size, are tired after busy event schedules, are driving campers or trailers or pulling trailers, or otherwise do not operate with the same performance as a regular local traveler.

### Conclusions

Looking ahead, one can expect tourists to continue to play an important role in terms of travel demand in Florida. While the relative share may fluctuate based on the economy, weather and other factors, it is highly likely that tourists will remain a disproportionate large share of Florida's travel demand and, hence, an important factor when planning transportation in Florida. The mobility of the dominant baby-boom generation and the fundamental appeal of Florida's climate as well as the significant tourist infrastructure base suggest that tourism will continue to be a significant factor in travel demand in Florida in the foreseeable future.

*Tourism is an integral component of travel demand in Florida and will remain an important aspect of travel demand in Florida's future.*

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