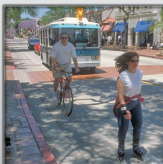


Pocket Guide to
**Florida Transportation
Trends & Conditions**



**Florida
Department of
Transportation**

2006 Edition

Introduction and Purpose

The Mission of the Florida Department of Transportation is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity and preserves the quality of our environment and communities. The Trends and Conditions process assists Florida's transportation policy-makers and planning organizations by identifying, analyzing, and disseminating information about the key factors and emerging issues that affect Florida.

This ***Pocket Guide to Florida Transportation Trends and Conditions*** is organized into three areas:

- The growing demand for transportation facilities and services;
- The current system or supply of transportation; and
- The impacts of the transportation system on our society.

We hope you find this publication useful and helpful in understanding Florida's transportation system. More detailed trends and conditions information is available from our Web site at:

www.dot.state.fl.us/planning/policy/trends



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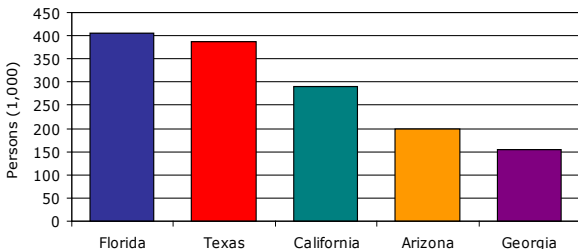
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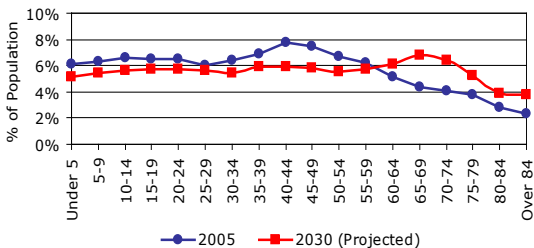
Growing Travel Demand

Population

2005 Population Increases for Fastest Growing States



Florida's Age Distribution, 2005 & 2030



Growing Travel Demand

Population

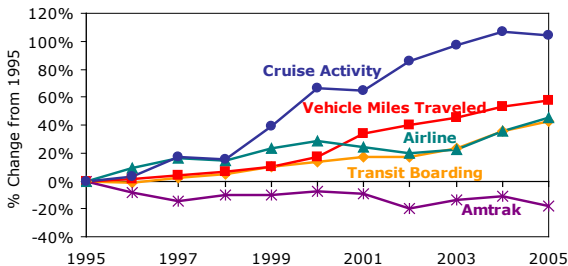
- In 2005, Florida's population grew to 17,918,100. Florida had the largest total population increase among all states.
- Between 2000 and 2005, Florida grew an average of 2.31% per year. The growth in 2004-2005 was 15% of the total US population growth. Florida's population is now 6% of the national total.
- From April 1, 2004 to April 1, 2005, Florida grew by an estimated 1,100 persons per day.
- By 2030, Florida is expected to surpass New York and become the third most populous state, with almost 26 million residents.
- Florida's population growth through 2025 will come primarily from interstate migration (65%) and immigration (30%). Natural increases is projected to account for only 5%.
- In 2030, 26% of the population is projected to be older than 65, compared to 9.8% in 1970 and 17.6% in 2000.
- From 2000 to 2005, Sumter, Osceola, Walton, Saint Johns, and Collier Counties grew by over 25%. Flagler, the fastest-growing county in Florida, added nearly 58% more residents. Glades, Desoto, Hardee, and Pinellas had the slowest rates of growth, below 3%.

Sources: U.S. Census Bureau. Bureau of Economic and Business Research (BEBR), University of Florida. Florida Department of Transportation (FDOT).

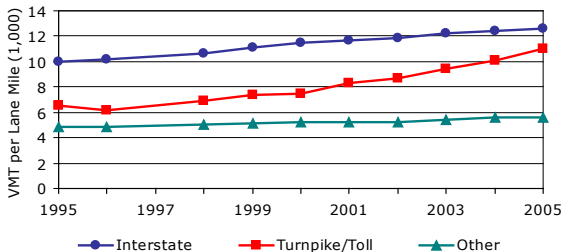
Growing Travel Demand

Travel Levels

Growth Trends by Person-Travel Mode



Average Daily VMT per Lane Mile on the Florida State Highway System (SHS)



Growing Travel Demand

Travel Levels

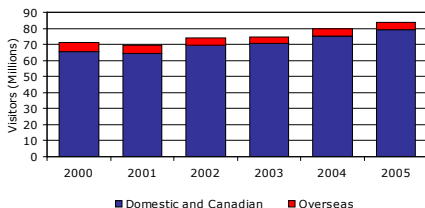
- Strong population growth, increased tourism, and various other factors have contributed to Florida's total person travel growth. Only Arizona had more rapid growth in Vehicle Miles Traveled (VMT) in 2004. Florida's VMT growth rate is well in excess of the national average.
- With the exception of Amtrak, all means of person travel have shown growth trends.
- Florida's VMT grew 2.4% in 2005. About 64% of the increase is attributable to population growth, while the remainder is a result of increased travel by residents, visitors, and businesses.
- VMT per lane mile is an indicator of the intensity of use of the roadway infrastructure. As travel demand growth has outpaced new roadway investment, travel per lane miles has increased.
- Vehicle registration and total licensure levels have continued to grow, partially as a result of increasing population.

Source: FDOT Transportation Statistics Office (TSO), State Highway System Mileage Reports. Florida Department of Highway Safety and Motor Vehicles (DHSMV), Amtrak, Florida Airport, Seaport, and Transit agency data.

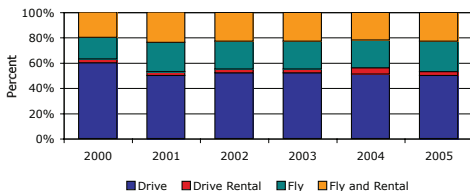
Growing Travel Demand

Tourism and Travel

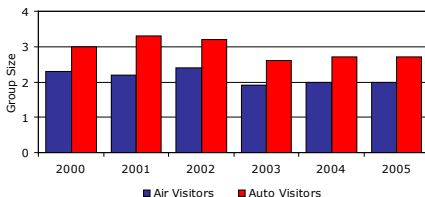
Domestic and Overseas Visitors to Florida



Travel Mode for Domestic Visitors to Florida



Group Size of Domestic Visitors



Growing Travel Demand

Tourism and Travel

- There were nearly 84 million visitor trips to Florida in 2005, an increase of almost 5% over 2004.
- Domestic visitors to Florida outnumber international visitors by 12 to 1.
- A stronger domestic economy supported domestic tourism in 2005. A higher percentage of Floridians chose to take pleasure trips in 2005.
- There are approximately 4.7 visitors to the state each year for every resident in the state. Visitor growth rates have outpaced population growth rates.
- About 51% of all visitors to Florida arrive by air.
- About half of domestic air travelers rent an auto when arriving in Florida.
- The group size of persons traveling to Florida is larger for auto travel than air. It has remained relatively steady for auto and air travel over the past three years.
- There were over 14 million cruise passengers in fiscal year 2005. Port Canaveral had over 4 million passengers while Port of Miami and Port Everglades each had over 3.5 million.

Source: Annual Florida Visitor Study Series, Visit Florida.

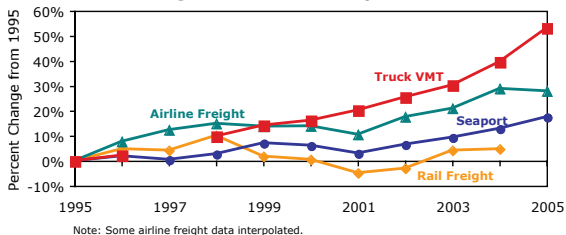
<http://media.visitflorida.org/about/research/>

Note: Cruise passenger data reported by respective Port Authority.

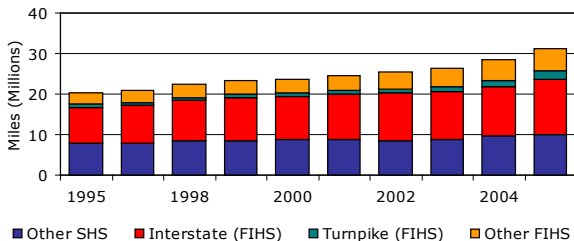
Growing Travel Demand

Freight and Commerce

Freight Growth Trends by Mode



Truck Miles Traveled on Florida State Highway System



Growing Travel Demand

Freight and Commerce

- The diversity of freight modes in Florida reflects both the variety of products generated and consumed in Florida and the availability of alternative modes for freight shipment.
- During the past 10 years, rail freight tonnage has fluctuated producing modest overall freight traffic growth. Thus, most growth in freight has had to be accommodated by the roadway system.
- On the Florida Intrastate Highway System (FIHS), truck travel has increased faster than travel for other vehicles in the last few years.
- Higher value, time-sensitive, smaller size, or more perishable products rely predominantly on truck travel.
- Waterborne cargo in Florida experienced a record increase in trade value in 2005 and accounted for more than two-thirds of the state's total international trade.

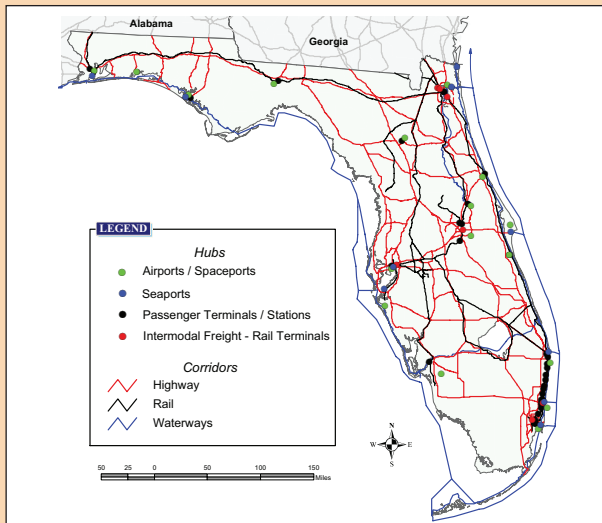


Sources: FDOT Transportation Statistics Office (TSO). FDOT Rail Office.
Florida Ports Council. Florida Aviation Database.

The Transportation System

Strategic Intermodal System

The Strategic Intermodal System (SIS) was established to enhance Florida's economic competitiveness by focusing limited state resources on those transportation facilities that are critical to Florida's economy and quality of life. It consists of facilities of statewide and interregional significance, including the state's largest and most significant commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways--the workhorses of Florida's transportation system.



The Transportation System

Strategic Intermodal System

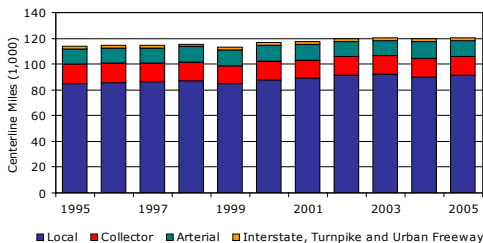
Facility Type	SIS	Emerging SIS
Commercial service airports	7	9
• Percent of all Florida enplanements	93%	6%
• Percent of all Florida air cargo tonnage	98%	1%
Spaceports	1	0
• Percent of all launch activity	100%	0%
Deepwater seaports	7	3
• Percent of all waterborne freight tonnage	98%	2%
• Percent of all home-port cruise passengers	>99%	<1%
Rail freight terminals	5	2
• Percent of all intermodal rail freight tonnage	85%	15%
Interregional passenger terminals	25	7
• Percent of all interregional passengers	70%	6%
Rail corridors	1,700 mi	400 mi
• Percent of all interregional rail passengers	100%	0%
• Percent of all freight rail tonnage	>90%	<10%
Waterways	1,100 mi	300 mi
• Percent of all waterborne freight on coastal and international shipping routes	100%	0%
• Percent of all waterborne freight on inland interregional waterways	0%	100%
Highways	3,514 mi	761 mi
• Percent of all traffic on SHS	51%	2%
• Percent of all truck traffic on SHS	66%	3%
Intermodal connectors	88 mi	92 mi
• Intermodal connectors (SHS Only)	52 mi	75 mi
• Intermodal connectors (Off-System)	36 mi	17 mi

Source: FDOT Office of Policy Planning (OPP), 2005. FDOT Systems Planning Office.

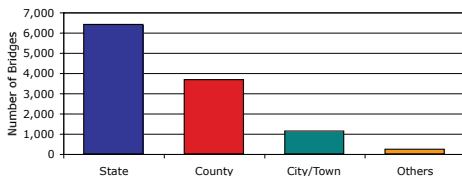
The Transportation System

Roadway System

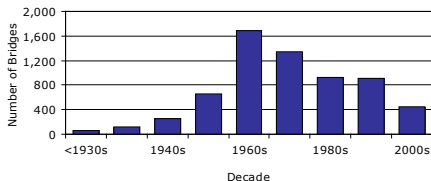
Public Road Length in Florida by Functional Class



Number of Bridges by Maintenance Responsibility



Florida Bridge Construction by Decade (Maintained by FDOT)



The Transportation System

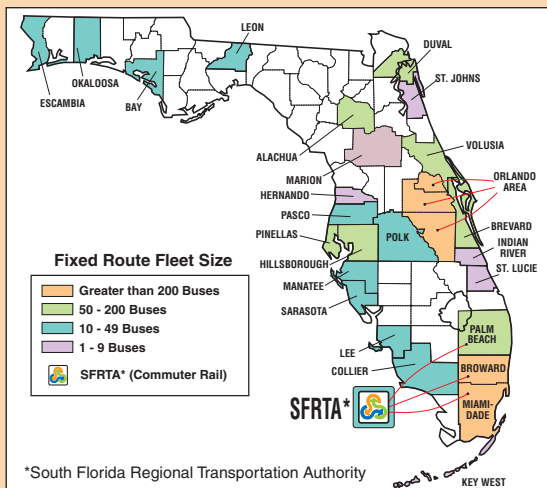
Roadway System

- Florida's roadway system has been growing steadily, but not nearly as fast as population or travel demand.
- The Florida State Highway System is approximately 10% of the entire Florida roadway network, but in 2005, it carried about 54% of all daily traffic.
- Urban and rural roads functionally classified as "local" comprised three fourths of the roadway centerline miles in 2005.
- Since 2000, total public road length in Florida has increased by 4,114 centerline miles.
- The pace of new roadway capacity additions has been steady, governed by funding availability and the lead-time for securing right-of-way, engineering, and construction.
- Several factors impact the amount of new roadway system that can be afforded with existing resources:
 - rapidly growing right-of-way costs
 - growing traffic maintenance costs during construction
 - recent cost increases for concrete, steel, and asphalt
 - costs of impact mitigation
- Of the 11,436 bridges in Florida, more than 56% are maintained by FDOT and the remaining 44% by local governments and organizations.

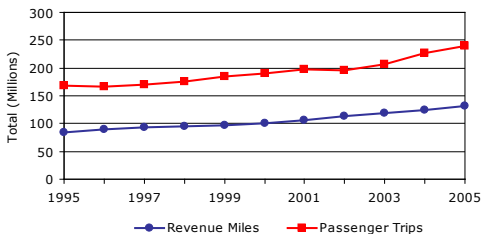
Sources: Federal Highway Administration (FHWA), Highway Statistics Series. FDOT TSO, 2006. FDOT Maintenance Office, 2006.

The Transportation System

Transit Systems



Florida Fixed Route Transit Service

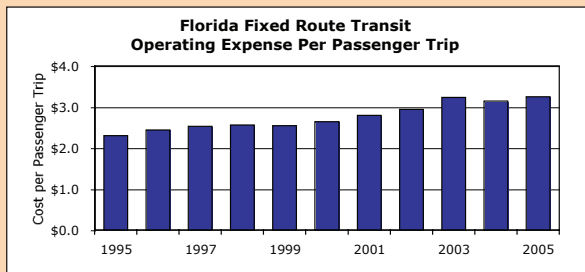


Note: 2005 data is preliminary.

The Transportation System

Transit Systems

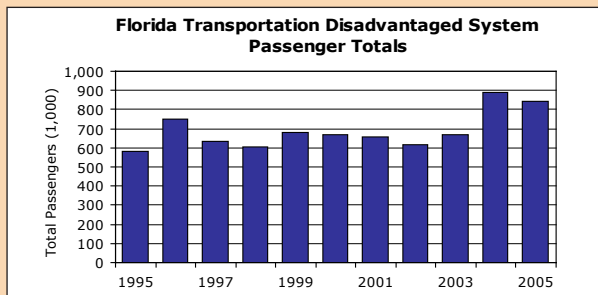
- Passenger boardings approached 240 million on fixed route systems in 2005, a growth of about 4.5% from 2004.
- Thirty-nine percent of Florida's population resides within walking distance of a transit route.
- Transit ridership and service levels have grown steadily over the past 15 years.
- In recent years, the growth of transit use has outpaced the growth of vehicle miles of travel, indicating that transit is playing an increasingly important role in meeting travelers' needs.
- Several Florida urban areas are planning for or exploring bus rapid transit or rail transit to meet current and future travel needs.



Source: Federal Transit Administration National Transit Database.
Florida Transit Information System (FTIS). FDOT Transit Office.

The Transportation System

Transportation Disadvantaged Services



- Florida's Transportation Disadvantaged (TD) Program coordinated and provided over 53 million trips during 2005, a decrease of 7% from 2004.
- Over 34 million TD Program trips were provided on fixed route transit services.
- Of the trips provided by the Transportation Disadvantaged Program, 37% were for medical purposes, 12% for employment purposes, 18% for education/training, 13% for nutrition, and 20% for other services.
- Florida's residents 65 or older account for 35% of TD trips, while children and other adults account for 16% and 49%, respectively.
- The number of unmet TD trip requests in 2005 increased by 10% from 2004 to over 700,000.

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

The Transportation System

Pedestrian and Bicycle Services

- The ability of bicyclists to use transit extends the potential range of travel for this group and increases the service coverage area for transit riders. Bikes on bus usage has steadily grown in Florida.

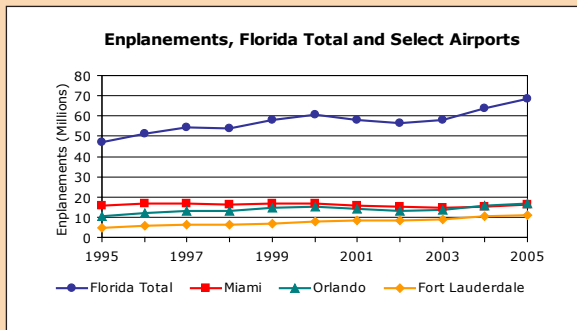
Florida Monthly Bikes on Bus Boardings					
Agency	2001	2002	2003	2004	2005
BCT, Fort Lauderdale	NA	NA	NA	30,000	31,300
PSTA, St. Petersburg	9,290	11,150	12,700	13,850	15,320
HARTline, Tampa	4,600	4,800	5,700	7,300	9,800
Space Coast, Brevard	NA	NA	NA	4,000	4,000
Star Metro, Tallahassee	1,310	1,055	965	900	1,200

Source: National Center for Transit Research, Analysis of Bikes on Bus Programs, 2005. FDOT Safety Office. Transit agency statistical data.

- Within urban areas, it is estimated that facilities for use as bikeways (roadway bicycle lanes or paved shoulders at least 4 feet wide) are present on over 50% of urban SHS centerline-miles that are not on limited access highways.
- By Florida law, bicycles are prohibited on limited access roadways unless a specific exception is authorized.
- On the entire non-limited access portion of the SHS, bikeway facilities are present on approximately two-thirds of the roadways.
- The Florida Department of Transportation now routinely includes paved bicycle lanes and sidewalks in many urban construction projects.

The Transportation System

Airports



- Population and tourism growth in Florida are among the factors that underlie the 7% air travel growth in 2005.
- Dramatic changes in the air travel industry, security concerns, and fuel prices have created more uncertainty regarding air travel growth; however, the core demand for air travel, particularly recreational travel, appears to remain strong.
- Florida's commercial airports have substantial capacity expansion plans for implementation as demand increases and expansion becomes financially viable.

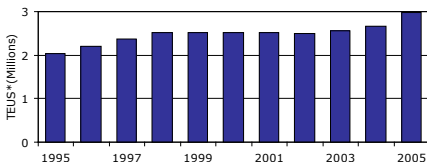
Source: FDOT Aviation Office. Florida individual airport data.

The Transportation System

Seaports

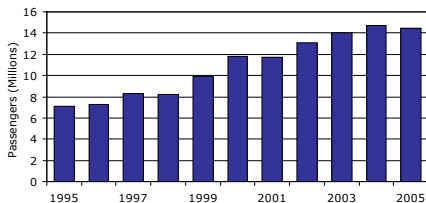
- Florida has 14 deepwater seaports that provide freight access to various global trade hubs.
- Container movements have been growing at Florida ports. In terms of tonnage, freight activity has been relatively stable.
- Florida remains a leader in the U.S. cruise industry, with seven of the seaports involved in the multi-day cruise industry.

Container Movement at Florida Seaports



*Twenty-foot equivalent unit (TEU) is a measure of containerized cargo capacity equal to one standard 20 ft container.

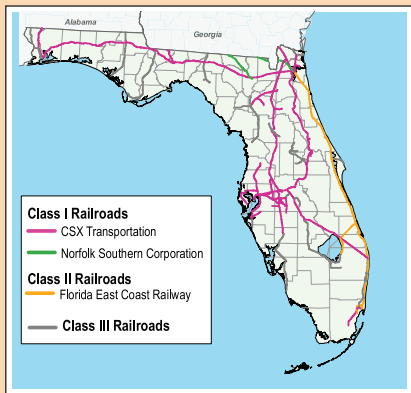
Florida Cruise Passenger Totals



Source: FDOT Seaport Office, 2005. Florida Ports Council.

The Transportation System

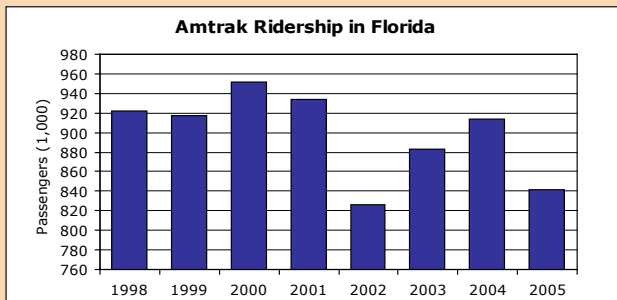
Rail System



- The rail system in Florida serves both passenger and freight transportation needs.
- The Florida rail system consists of just over 2,900 miles of routes owned by twelve companies. CSX, which owns almost 60% of the track mileage, is the largest operator.
- In 2004, Florida's freight railroads moved more than 119 million tons of freight, up from 117 million in 2003. This includes totals of inbound, outbound, through, and local freight tonnage. Florida is unique among states in that local tonnage contributes nearly half of the total.
- Non-metallic minerals, primarily phosphates, are the dominant rail product by weight followed by chemicals and food products.

The Transportation System

Rail System



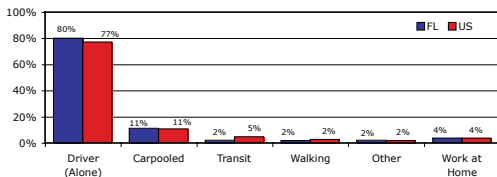
- While the vast majority of the rail system is privately owned and operated, the Florida Department of Transportation has investments in rail infrastructure and services including Amtrak and the South Florida Regional Transportation Authority.
- Amtrak does not own any track in Florida.
- Amtrak operates just under 22,000 route miles nationally and 914 in Florida.
- Amtrak carried 841,240 passengers in Florida in fiscal year 2005, up from 626,115 passengers in 1980, but down from the peak year of 1993 when ridership reached over 1.2 million.
- A total of 947 Florida residents were employed by Amtrak in fiscal year 2005.

Source: FDOT Rail Office. Amtrak.

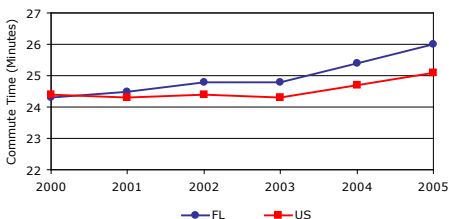
Transportation Impacts

Travel Behavior of Floridians

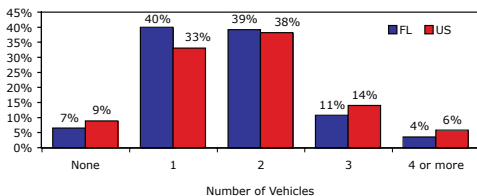
Mode of Travel for Work Commute, 2005



Mean Travel Time to Work



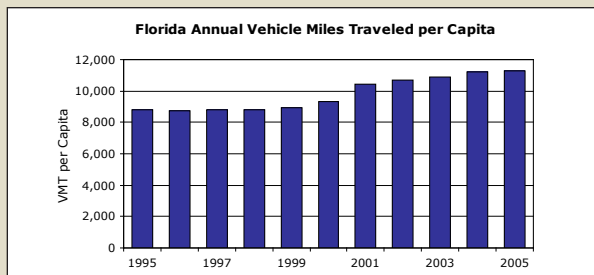
Household Vehicle Availability, 2005



Transportation Impacts

Travel Behavior of Floridians

- Nearly 90% of all person trips made by Floridians are by automobile – as drivers or passengers, slightly higher than the national average.
- In Florida, transit carries approximately 1% of trips, about half the average for the rest of the country. Increasing population and transit service expansion in urbanized areas may make transit more competitive in Florida.
- Walking is also a less common means of travel in Florida.
- Commute times continue to increase with Florida outpacing National trends.



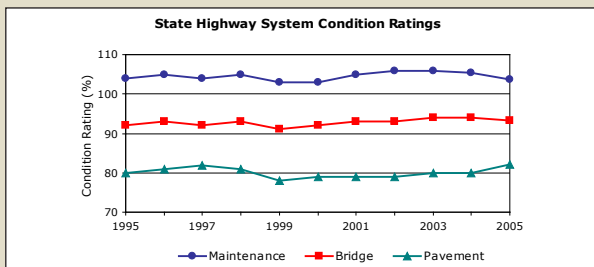
Source: 2000-2005 American Community Survey, U.S. Census Bureau.

Transportation Impacts

System Performance

System performance measures characterize the performance of the transportation system. Three measures are used to report performance.

- **Condition** describes the physical condition and maintenance requirements of system infrastructure.
- **Accessibility** is a measure of the ease with which people can connect to the multimodal transportation system.
- **Level of Service** is a measure of the quality of service provided by the transportation system to a typical traveler.



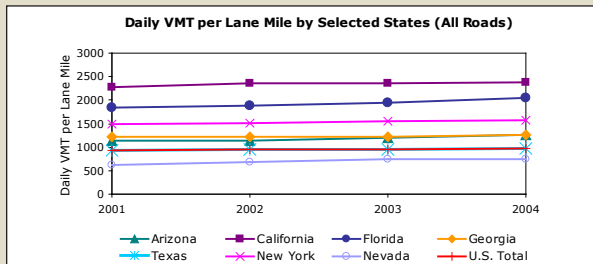
These measures are applied to all modes. However, the extent of public ownership and usage of the State Highway System results in more information being reported for highways.

The State is committed to keeping the State Highway System in acceptable condition. This includes meeting standards for maintenance, bridges and pavement condition.

Transportation Impacts

System Performance

System Accessibility			
	Interstate Lane Miles per 100 Sq. Miles	Class I Rail Miles per 100 Sq. Miles	Airports per Million Residents
FL	11.2	3.5	1.8
U.S.	3.5	2.8	2.0
CA	9.0	3.6	0.8
GA	11.0	6.0	1.0
TX	5.7	4.3	0.7



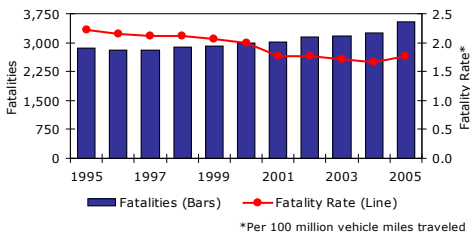
- Capacity expansion of the Florida Interstate Highway System (FIHS) is not keeping up with travel demand based on 1995-2005 data. On the FIHS, from 2004 to 2005:
 - Lane miles increased about 1.5%.
 - VMT increased just over 3.5%.
- Intelligent Transportation Systems (ITS) apply advanced technologies to improve the movement of people, goods, and services. This may delay or possibly eliminate building new roads and expanding existing ones.
- In 2005, 217.9 miles (or 10.3% of the limited-access FIHS mileage) incorporate ITS.

Source: US Census Bureau. Bureau of Transportation Statistics, FHWA, Highway Statistics. Florida Department of Transportation.

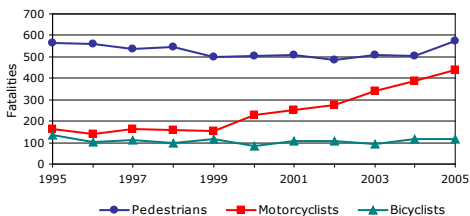
Transportation Impacts

Transportation Safety

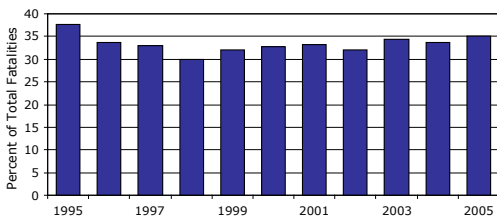
Total Florida Highway Fatalities and Fatality Rate



Florida Bicyclists, Motorcyclists, and Pedestrians Killed in Highway Crashes



Alcohol-Related Share of Death on Florida's Highways



Transportation Impacts

Transportation Safety

- Safety trends are influenced by a host of factors including population growth, demographic characteristics, vehicle and roadway design, driving behavior, enforcement, and education.
- In 2005, the Department of Highway Safety and Motor Vehicles (DHSMV) reported that traffic crashes increased 6.2% to 268,605 crashes, an average of 736 crashes per day.
- Counter to national trends, Florida's total number of transportation deaths has increased through the past decade, climbing nearly 25% since 1995.
- After a steady decline in the death rate per 100 million vehicle miles traveled in Florida, the rate increased to over 1.7 in 2005.
- Of Florida's 3,533 traffic deaths in 2005, bicyclists, pedestrians, and motorcyclists accounted for 31% of these deaths.
- In 2005, more than 35% of the traffic deaths in Florida were alcohol-related, up slightly from the previous year.
- Florida, like other southeastern states, has a higher-than-average death rate for transportation accidents, thus motivating initiatives to understand and improve safety for Florida travelers.

Source: Florida DHSMV, Florida Traffic Crash Facts (2005 preliminary).

Transportation Impacts

Transportation and the Environment



- Using community input and quantitative data sources, FDOT's Sociocultural Effects Evaluation Program addresses the impacts a transportation project may have on a community and its quality of life.
- More than \$10 million was spent on assessments, surveys, protection, conservation, and mitigation projects for Florida's threatened and endangered wildlife and plant species between 2003 and 2005. Another \$35 million was spent in 2005 on wetland mitigation.
- As of 2005, FDOT has constructed over 70 wildlife crossing structures specifically to accommodate wildlife species. At least 10 additional wildlife crossings are currently in the design phase or planned for construction within the next three years.



Transportation Impacts

Transportation and the Environment

- Seventeen Florida corridors covering 650 miles have been designated as Florida Scenic Highways for the unique and significant intrinsic resources they possess: historic, recreational, archeological, scenic, cultural and natural. Ten additional corridors are expected to gain designation status as Florida Scenic Highways.
- Investment in Florida's Highway Beautification Program is making a difference in conserving natural resources and creating scenic beauty. The investment helps restore natural systems, connect habitats, provide shade and comfort to pedestrians and bicyclists, screen unsightly views, and improve the experience of travel.
- The last two hurricane seasons have had a major impact on Florida's transportation system. In 2005, FDOT spent more than \$253 million removing nearly 17 million cubic yards of debris resulting from Hurricanes Dennis, Katrina, Rita and Wilma. The cost for emergency repairs to roads and bridges damaged by storms in 2005 was in excess of \$55 million.

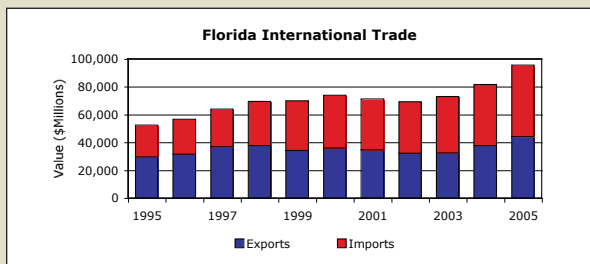


Source: FDOT Environmental Management Office.

Transportation Impacts

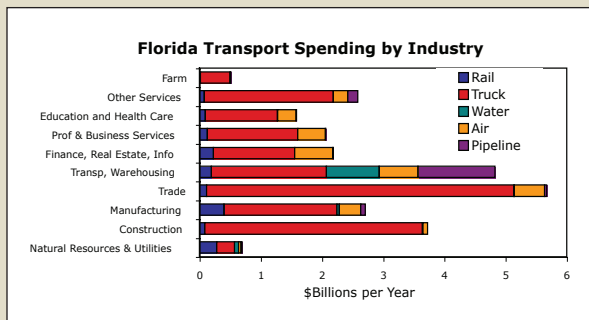
Transportation and the Economy

- Sustaining the performance of the transportation system enables a strong competitive economy and spending on transportation infrastructure significantly contributes to the economy. Every \$1 invested in transportation in Florida results in a return of \$5.60, and every \$1 billion spent on highways creates over 38,000 jobs in direct construction and spin-off industries.
- The transportation and warehousing industry in Florida is responsible for over 280,000 jobs statewide and approximately \$8 billion in wages.
- In 2005, Florida's international trade (imports and exports) was valued at \$95.3 billion, an increase of 83 percent since 1995. Imports have grown most rapidly, reflecting the importance of Florida's seaports which handle more containers than any other South Atlantic or Gulf state.



Transportation Impacts

Transportation and the Economy



- Industry spending on transportation across all modes is estimated to be over \$26 billion per year. The retail/wholesale trade, transportation and warehousing, construction, and manufacturing industries purchase the largest amount of transportation services.
- Florida has traditionally had a higher share of truck miles traveled (TMT) on its highways than the U.S. Its 2005 TMT constitutes over 10% of vehicle travel on the State Highway System.

Source: FDOT Macroeconomic Analysis Report. Enterprise Florida. FDOT TSO.

Other Resources

Additional Resources

This **Pocket Guide** as well as other **Transportation Trends and Conditions** products are available at:

www.dot.state.fl.us/planning/policy/trends.

Other Internet resources that provide useful information related to Florida's transportation trends and conditions include:

- **2025 Florida Transportation Plan**
<http://www.dot.state.fl.us/planning/ftp>
- **Florida Transportation Indicators**
<http://www.indicators.cutr.usf.edu>
- **FDOT Transportation Statistics Office**
<http://www.dot.state.fl.us/planning/statistics>
- **Florida Aviation Database**
<http://www.florida-aviation-database.com>
- **Florida Traffic Crash Facts**
<http://www.hsmv.state.fl.us/reports/crash facts.html>
- **Florida Ports Council**
<http://www.flaports.org/statistics.htm>

Other Resources

For further information, please contact:

**Florida Department of Transportation
Office of Policy Planning**

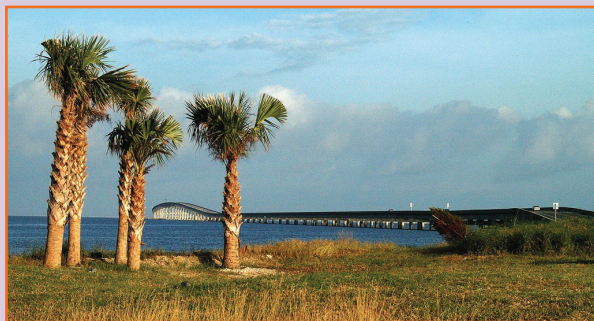
605 Suwannee Street MS 28

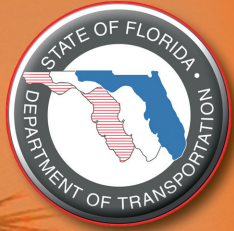
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