# Tracking the Trends

A Look Back at 2009 Transportation System Performance in Central Florida



### **Tracking the Trends 2009**

A Report on Transportation System Performance and Related Indicators in the Orlando Metropolitan Area

September 2010



### **Table of Contents**

	Page Numbers
<b>Executive Summary</b>	i
Introduction	1
Orlando Metropolitan Area Profile	2
Population	2
Employment	3
Hotel/Motel Rooms	3
Visitors	3
Highway Statistics	4
Traffic Counts - Major Roadways	4
Traffic Counts - Toll Roads	13
Toll Transactions and Revenues	17
Vehicle Miles Traveled	18
Registered Vehicles	20
Commercial Trucks	22
Motorcycles	24
Motorcycle Safety	26
Licensed Drivers	27
Traffic Crashes	29
Rental Car Surcharge Revenues	36
Gasoline Consumption	38
Average Monthly Gasoline Price per Gallon	40
Diesel Fuel Consumption	41
Average Monthly Diesel Fuel Price per Gallon	43
State Road Mileage	44
Local Road Mileage	44
Travel Time Index	45
Air Quality	46

Table of Contents (continued)	Page Numbers
Management and Operations Statistics	47
Overview	47
Computer-Coordinated Traffic Signals	48
Road Rangers	50
E-PASS/SunPASS Transponders	51
Red Light Cameras	52
Transit Statistics	53
LYNX Service	53
Average Mileage of LYNX Bus Fleet	57
Carpool Matching Program	58
I-Ride Service	59
Park-and-Ride Lots	59
School Bus Ridership	60
Aviation Statistics	63
Scheduled/Charter Service	63
General Aviation	66
Rail Statistics	68
Passenger Service	68
<b>Bicycle and Pedestrian Statistics</b>	71
Bicycle and Pedestrian Facilities and Levels of Service	71
Sidewalks and Pedestrian Level of Service	71
Bikeways and Bicycle Level of Service	72
Bicyclist and Pedestrian Injuries and Fatalities	74
Port Canaveral Statistics	76
<b>Transportation Improvement Funding Statistics</b>	77

Table of Contents (continued)	Page Numbers
Appendix A – 2004-2008 Traffic Count Report	A-1
Appendix B – 2008 Crash Surveillance Report	B-1
Appendix C – 2009 Ozone Charts	C-1
Appendix D – Miscellaneous Maps	D-1

\*Please note: Appendices are uploaded as a separate file due to size.

#### TRACKING THE TRENDS 2009

#### **EXECUTIVE SUMMARY**

#### **Purpose and Findings**

The purpose of this report is to evaluate the trends that have occurred over the past several years on the transportation system in the Orlando Metropolitan Area. The report contains information on such transportation modes as private automobiles, transit, aviation, rail, bicycling and walking. Statistics with regard to commercial trucks, as well as passengers and freight at Port Canaveral, have also been included. In addition, population and employment data are included for comparison purposes. This information is presented in a series of tables and bar charts that show recent changes in these various categories.

These are some examples of findings from the report:

- From 2005 to 2009, the estimated population of the Orlando Metropolitan Area (Orange, Osceola and Seminole Counties) increased by **6.3**%. (page 2)
- From 2004 to 2008, the number of vehicle miles traveled in the Orlando Metropolitan Area increased by **7.1%**. (page 19)
- From FY 2004/05 to 2008/09, the number of registered vehicles in the Orlando Metropolitan Area decreased by **2.2**%. (page 21)
- From 2004 to 2008, the number of traffic crashes in the area increased by **2.1%**, the number of injuries decreased by **5.8%**, and the number of fatalities decreased by **17%**. (pages 31-35)
- From FY 2004/05 to 2008/09, the number of gallons of gasoline consumed in the Orlando Metropolitan Area decreased by **2.8**%. (page 39)
- From FY 2004/05 to 2008/09, the number of gallons of diesel fuel consumed in the Orlando Metropolitan Area decreased by **15.3**%. (page 42)
- From 2002 to 2007, the travel time index in the area was unchanged. (page 45 The 2007 data was the latest available for this report.)
- From 2005 to 2009, the number of E-PASS/SunPASS transponders in use on the toll roads in the area increased by **41.3%**. (page 51)
- From FY 2004/05 to 2008/09, the total number of passengers on the LYNX transit system increased by **9.5**%. (page 56)
- During the same period, the number of passengers on the I-Ride trolley system held constant. (page 59)
- From 2005 to 2009, the total number of passengers at the Orlando International Airport increased by **7.5%**. (page 63)

- During the same period, the total number of passengers at the Orlando Sanford International Airport increased by **3.2**%. (page 65)
- From FY 2004/05 to 2007/08, the number of passengers using the Amtrak rail service in the Orlando Metropolitan Area increased by **11.9%**. (page 70)
- Between the 1990-1999 time period and the 2000-2008 time period, the rate of bicyclist injuries per 100,000 population decreased by **46.8**%, while the rate of bicyclist fatalities per 100,000 population was unchanged. (page 74)
- During the same period, the rate of pedestrian injuries per 100,000 population decreased by **27.4**%, while the rate of pedestrian fatalities per 100,000 population was unchanged. (page 75)

#### Percentage Changes for Last Two Years of Data

The following tables contain the percentage changes for the last two years of the data included in this report.

#### **Socioeconomic Statistics**

Population	2008	2009	% Change
Orange County	1,114,979	1,108,882	-0.50%
Osceola County	273,709	272,788	-0.30%
Seminole County	426,413	423,759	-0.60%
Total	1,815,101	1,805,429	-1.40%

Employment	2008	2009	% Change
Orange County	573,838	540,062	-5.89%
Osceola County	124,351	122,993	-0.24%
Seminole County	234,172	216,466	-7.56%
Total	932,361	879,521	-5.67%

<b>Hotel/Motel Rooms</b>	2007/08	2008/09	% Change
Orange County	79,297	78,472	-1.04%
Osceola County	26,317	26,159	-0.60%
Seminole County	4,642	4,697	1.18%
Total	110,256	109,328	-0.84%

Visitors to Orlando	2007*	2008*	% Change
Domestic	45,907,000	45,515,000	-0.85%
International	2,838,000	3,373,000	18.85%
Total	48,745,000	48,888,000	0.29%

<sup>\*</sup> Latest data available at time of publication.

### **Highway Statistics**

(The following traffic counts reflect the averages of the location counts for each roadway shown in the tables on pages 4-7 and 13-14.)

Traffic Counts	2007*	2008*	% Change
I-4	154,030	146,800	-4.69%
SR 50	42,200	40,500	-4.0%
SR 436	55,330	52,993	-4.2%
Orange Ave.	31,520	31,540	0.06%
SR 434	39,860	37,541	-5.82%
US 441	43,200	43,200	0.00%
US 17/92	38,460	36,321	-5.56%
John Young Pkwy.	40,830	40,743	-0.21%
Kirkman Rd.	43,430	48,143	10.85%
SR 426	33,980	31,760	-6.53%
US 192	49,450	46,850	-5.26%
SR 408	85,100	81,993	-3.7%
SR 417	49,060	46,115	-6.0%
SR 429	21,930	22,190	1.2%
SR 528	73,180	69,636	-4.8%
Fla.'s Turnpike	62,300	60,433	-3.00%
Osceola Pkwy.	29,710	35,200	18.48%

<sup>\*</sup> Latest data available at time of publication.

Toll Transactions	2007/08	2008/09	% Change
SR 408	138,932,000	131,280,000	-5.51%
SR 417	149,948,000	136,298,000	-9.10%
SR 429	31,537,000	30,028,000	-4.78%
SR 528	70,266,000	64,043,000	-8.86%
SR 414	-	632,000	-
Fla.'s Turnpike	44,205,000	41,126,000	-6.97%
Osceola Pkwy.	7,682,000	6,813,048	-11.31%
Total	442,570,000	410,220,048	-7.31%

Toll Revenues	2007/08	2008/09	% Change
SR 408	\$86,093,000	\$88,304,000	2.57%
SR 417	\$109,759,000	\$103,790,000	-5.44%
SR 429	\$23,920,000	\$23,691,000	-0.96%
SR 528	\$56,209,000	\$52,566,000	-6.48%
SR 414	-	\$554,000	-
Fla.'s Turnpike	\$32,508,000	\$29,956,000	-7.85%
Osceola Pkwy.	\$11,021,000	\$10,445,716	-5.22%
Total	\$319,510,000	\$309,306,716	-3.19%

Vehicle Miles Traveled	2007	2008*	% Change
Orange County	36,029,040	35,436,426	-1.64%
Osceola County	9,139,112	8,836,800	-3.31%
Seminole County	10,325,317	9,866,475	-4.44%
Total	55,493,469	54,139,701	-2.44%

<sup>\*</sup> Latest data available at time of publication.

<b>Registered Vehicles</b>	2007/08	2008/09	% Change
Orange County	920,965	843,429	-8.4%
Osceola County	212,696	205,145	-3.6%
Seminole County	386,946	376,163	-2.8%
Total	1,520,607	1,424,737	-6.3%

<b>Commercial Trucks</b>	2007/08	2008/09	% Change
Orange County	45,403	44,315	-2.4%
Osceola County	9,993	10,350	3.6%
Seminole County	22,142	22,325	0.8%
Total	77,538	76,990	-0.7%

Motorcycles	2007/08	2008/09	% Change
Orange County	30,898	31,501	2.0%
Osceola County	10,284	9,637	-6.3%
Seminole County	16,459	16 <i>,</i> 757	1.8%
Total	57,641	57,895	0.4%

<b>Motorcycle Injuries</b>	2007/08	2008/09	% Change
Orange County	531	538	1.3%
Osceola County	125	125	0.0%
Seminole County	135	137	1.5%
Total	791	800	1.1%

<b>Motorcycle Fatalities</b>	2007/08	2008/09	% Change
Orange County	31	28	-9.7%
Osceola County	9	11	22.2%
Seminole County	9	4	-55.6%
Total	49	43	-12.2%

<b>Licensed Drivers</b>	2008	2009	% Change
Orange County	875,462	876,077	0.1%
Osceola County	221,244	233,721	5.6%
Seminole County	346,343	344,358	-0.6%
Total	1,443,049	1,454,156	0.8%

<b>Traffic Crashes</b>	2007	2008*	% Change
Orange County	18,089	16,712	-7.6%
Osceola County	3,004	2,810	-6.5%
Seminole County	2,895	2,717	-6.1%
Total	23,988	22,239	-7.3%

<sup>\*</sup> Latest data available at time of publication.

Traffic Injuries	2007	2008*	% Change
Orange County	15,163	14,395	-5%
Osceola County	3,144	2,664	-15.3%
Seminole County	2,417	2,407	-0.41%
Total	20,724	19,466	-6.1%

<sup>\*</sup> Latest data available at time of publication.

Traffic Fatalities	2007	2008*	% Change
Orange County	186	170	-8.6%
Osceola County	52	55	5.8%
Seminole County	48	42	-12.5%
Total	286	267	-6.6%

<sup>\*</sup> Latest data available at time of publication.

<b>Rental Car Surcharge Revenues</b>	2007/08	2008/09	% Change
Orange County	\$34,974,782	\$31,719,186	-9.3%
Osceola County	\$767,516	\$601,478	-21.6%
Seminole County	\$4,447,598	\$3,462,100	-22.2%
Total	\$40,189,896	\$35,782,764	-11.0%

<b>Gasoline Consumption</b>	2007/08	2008/09	% Change
Orange County Gallons	589,719,332	566,155,079	-4.0%
Osceola County Gallons	156,528,720	156,882,557	0.2%
Seminole County Gallons	199,043,686	192,591,837	-3.2%
Total	945,291,738	915,629,473	-3.1%

<b>Diesel Fuel Consumption</b>	2007/08	2008/09	% Change
Orange County Gallons	113,229,050	100,812,447	-11.0%
Osceola County Gallons	22,819,295	18,424,719	-19.3%
Seminole County Gallons	23,703,673	19,687,696	-16.9%
Total	159,752,018	138,924,862	-13.0%

State Road Lane Miles - Orange County	2008	2009	% Change
Interstate (I-4)	184.2	184.2	0.0%
Toll Roads	642.0	644.7	0.4%
Other State Roads	970.4	996.3	2.7%
Total	1,796.6	1,825.2	1.6%

<b>State Road Lane Miles - Osceola County</b>	2008	2009	% Change
Interstate (I-4)	47.3	47.3	0.0%
Toll Roads	264.5	264.5	0.0%
Other State Roads	396.2	431.0	8.8%
Total	708.0	742.8	4.9%

<b>State Road Lane Miles - Seminole County</b>	2008	2009	% Change
Interstate (I-4)	95.2	95.2	0.0%
Toll Roads	70.3	70.3	0.0%
Other State Roads	343.3	346.6	1.0%
Total	508.8	512.1	0.6%
Total State Road Lane Miles	3,013.3	3,080.1	2.2%

<b>Local Road Paved Center Line Miles</b>	2007	2008*	% Change
Orange County	4,073.9	4,100.4	0.7%
Osceola County	1,133.0	1,157.1	2.1%
Seminole County	1,473.0	1,473.0	0.0%
Total	6,679.9	6,730.5	0.8%

<sup>\*</sup> Latest data available at time of publication.

	2005	2007*	% Change
Travel Time Index	1.30	1.30	0.0%

<sup>\*</sup> Latest data available at time of publication.

4th Highest Ozone Readings	2008	2009	% Change
Orlando Metropolitan Area	76 ppb	<i>7</i> 1 ppb	-6.5%

<sup>\*</sup> ppb = parts per billion

### **Management and Operations Statistics**

Total Traffic Signals	2008	2009	% Change
Orange County	1,022	1,107	8.3%
Osceola County	150	164	9.3%
Seminole County	366	374	2.2%
Total	1,538	1,645	7.0%

Computer-Coordinated Traffic Signals	2008	2009	% Change
Orange County	765*	862	12.7%
Osceola County	40*	50	25.0%
Seminole County	193	220	14.0%
Total	998	1,132	13.4%

<sup>\*</sup> See notes on page 48.

	2005	2007*	% Change
Effect of Traffic	189,000	194,000	
Signal Coordination	person hours	person hours	2.65%
on Travel Delay	saved	saved	

<sup>\*</sup> Latest data available at time of publication.

	2005	2007*	% Change
Traffic Signal Report	68	74	8.8%
Card Score	00	/4	0.0 /0

<sup>\*</sup> Latest data available at time of publication.

	2008	2009	% Change
Road Ranger Service	55,910*	85,588	53.1%
Assists	33,310	05,500	33.1 /0

<sup>\*</sup> See note on page 50.

	2008	2009	% Change
E-PASS/SunPASS	724 080	892,307	22 20/
Transponders	724,080	092,307	23.2%

### **Transit Statistics**

LYNX Ridership	2007/08	2008/09	% Change
Fixed Route Bus	25,209,815	23,697,244	-6.0%
LYMMO	1,170,237	1,257,154	7.4%
Special Shuttles	30,208	44,960	48.8%
ACCESS LYNX	609,005	686,514	12.7%
VanPlan	180,065	182,295	1.2%
Total	27,199,330	25,868,167	-4.9%

	2007/08	2008/09	% Change
LYNX Fixed Route	16 728 183	16,211,142	-3.1%
Vehicle Miles Traveled	10,720,103	10,211,142	-3.1 /0

	2007/08	2008/09	% Change
Average Mileage of LYNX Bus Fleet	244,495	244,612	0.1%

	2007/08	2008/09	% Change
LYNX Carpool	3,868	4,166	7.7%
Matching Participants	3,000	4,100	7.7 /0

	2007/08	2008/09	% Change
I-RIDE Ridership	2,108,225	1,951,730	-7.4%

School Bus Ridership	2007/08	2008/09	% Change
Orange County	24,117,480	25,920,000	7.5%
Osceola County	8,607,960	8,343,360	-3.1%
Seminole County	11,172,240	11,217,960	0.4%
Total	43,897,680	45,481,320	3.6%

### **Aviation Statistics**

Orlando International Airport	2008	2009	% Change
Domestic Passengers	32,973,829	33,693,649	2.2%
International Passengers	2,686,913	2,977,920	10.8%
Total Passengers	35,660,742	36,671,569	2.8%
Tons of Cargo	178,489	155,544	-12.9%
Aircraft Operations	334,780	300,431	-10.3%

Orlando Sanford Int'l Airport	2008	2009	% Change
Domestic Passengers	1,071,666	1,246,699	16.3%
International Passengers	765,581	455,713	-40.5%
Total Passengers	1,837,247	1,702,412	-7.3%
Tons of Cargo	5,370	2,215	-58.8%
Aircraft Operations	225,011	219,745	-2.3%

Orlando Executive Airport	2008	2009	% Change
Aircraft Operations	133,373	115,204	-13.6%

<b>Kissimmee Gateway Airport</b>	2008	2009	% Change
Aircraft Operations	151,838	120,779	-20.5%

### **Rail Statistics**

Amtrak Passengers	2007/08	2008/09	% Change
Orlando	147,491	145,775	-1.2%
Winter Park	29,514	30,998	5.0%
Kissimmee	38,495	41,054	6.6%
Sanford Autotrain	234,839	232,955	-0.8%
Total	450,339	450,782	0.1%

### **Bicycle and Pedestrian Statistics**

	2008	2009	% Change
Miles of On-Road Bicycling Facilities	441	449	1.8%

	2008	2009	% Change
Miles of Shared-Use Pathways	74	86	16.2%

	2008	2009	% Change
Miles of Sidewalk Bikeways	41	47	14.6%

	2008	2009	% Change
# of Grade-Separated Bike and Ped Facilities	20	21	5.0%

Bicycle Injury Rates/100,000 Population	1990-1999	2000-2007*	% Change
Orange County	54.0	29.0	-46.3%
Osceola County	44.0	19.0	-56.8%
Seminole County	33.0	16.0	-51.5%
Orlando Urban Area	47.0	25.0	-46.8%

Bicycle Fatality Rates/100,000 Population	1990-1999	2000-2007*	% Change
Orange County	0.7	0.8	14.3%
Osceola County	1.1	0.9	-18.2%
Seminole County	0.3	0.4	33.3%
Orlando Urban Area	0.7	0.7	0.0%

Pedestrian Injury Rates/100,000 Population	1990-1999	2000-2007*	% Change
Orange County	75.0	54.0	-28.0%
Osceola County	55.0	40.0	-37.5%
Seminole County	35.0	26.0	-25.7%
Orlando Urban Area	62.0	45.0	-27.4%

Pedestrian Fatality Rates/100,000 Pop.	1990-1999	2000-2007*	% Change
Orange County	4.6	3.8	-17.4%
Osceola County	4.2	2.9	-31.0%
Seminole County	2.6	1.6	-38.5%
Orlando Urban Area	4.0	3.2	-20.0%

<sup>\*</sup> Latest data available at time of publication.

### **Port Canaveral Statistics**

	2007/08	2008/09	% Change
Number of Passengers	3,573,960	3,250,775	-9.0%
Tons of Freight	2,395,779	2,626,795	9.6%

### **Transportation Capital Improvement Funding Statistics**

**Note:** The amount of funding programmed for transportation improvements does not necessarily increase every year, but fluctuates from year to year depending on when the funding allocations for various improvements are scheduled.

Highway Capital Funding	2007/08	2008/09	% Change
Orange County	\$816,711,000	\$786,557,987	-3.7%
Osceola County	\$190,731,000	\$121,360,487	-36.4%
Seminole County	\$203,148,000	\$153,133,456	-24.6%
Total	\$1,210,590,000	\$1,061,051,930	-12.4%

	2007/08	2008/09	% Change
Transit Capital Funding	\$55,505,000	\$49,117,000	-11.5%

<sup>\*</sup> The 2007/08 transit funding figure includes \$16.3 million for commuter rail.

Airport Capital Funding	2007/08	2008/09	% Change
Orlando Int'l Airport	\$34,939,000	\$38,000,000	8.8%
Orlando Sanford Airport	\$12,151,000	\$15,094,751	24.2%
Orlando Exec. Airport	\$2,633,000	\$1,222,000	-53.6%
Kissimmee Gateway Airport	\$1,765,000	\$2,808,668	59.1%
Total	\$51,488,000	\$57,125,419	10.9%

Bicycle & Pedestrian Capital Funding	2007/08	2008/09	% Change
Orange County	\$4,201,000	\$5,739,389	36.6%
Osceola County	\$571,000	\$580,324	1.6%
Seminole County	\$11,126,000	\$6,327,675	-43.1%
Total	\$15,898,000	\$12,647,388	-20.4%

	2007/08	2008/09	% Change
Grand Total Transportation	¢1 222 491 000	\$1,179,941,737	-11.5%
Capital Funding	\$1,333, <del>4</del> 01,000	\$1,179,941,737	-11.5 /6

### **Tracking the Trends 2009**

#### Introduction

The transportation system of an urban area is comparable to the circulatory system of a human body. Just as the circulatory system transports blood to organs, muscles, etc., an area's transportation system transports people and goods to and from work, school, shopping, entertainment, places of worship, health facilities, and other locations. Thus, the condition of an urban area's transportation system has a very direct impact on the "health" of the area as a whole. If an area's highways are overly congested or there is not adequate transit, rail or air service, this will have an adverse effect on the area's economy and the overall quality of life of its citizens.

The purpose of this report is to provide an overview of the condition of the Orlando Metropolitan Area's transportation system by evaluating the trends that have occurred over the past several years on the area's highway, transit, aviation, rail, and bicycle and pedestrian systems. In addition, information on freight movement by air and ship is included. This data is presented using various indicators of activity for these transportation modes.

This information was provided by such state agencies as the Florida Department of Transportation, Florida's Turnpike Enterprise, and the Florida Department of Highway Safety and Motor Vehicles. Additional information was provided by the Florida Energy Office, the Florida Department of Environmental Protection, the Florida Department of Business and Professional Regulation, and the Florida Department of Revenue.

Local agencies that provided information include the Orlando-Orange County Expressway Authority, LYNX, the International Drive Master Transit and Improvement District, the Greater Orlando Aviation Authority, the Sanford Airport Authority, the Kissimmee Gateway Airport, the University of Central Florida, and the Orange, Osceola and Seminole County School Districts. The Federal Aviation Administration, Amtrak, the US Census Bureau, the University of Florida's Bureau of Economic and Business Research, the Florida Agency for Workforce Innovation, the Texas Transportation Institute, and the Canaveral Port Authority provided additional information, as did Orange, Osceola and Seminole Counties, and the City of Orlando.

METROPLAN ORLANDO would like to express its appreciation to all of these agencies for their assistance in compiling this report.

**Note:** This report is prepared on an annual basis by METROPLAN ORLANDO staff using information provided by many different sources, as described in the previous paragraphs. This is the latest information that was available at the time of the publication of this report for the various indicators used to measure transportation system activity over a five year period. The beginning and ending years vary for different indicators, depending on what year the latest data is available. For example, some indicators have data available through 2009, while for other indicators, the latest available data is for 2008 or perhaps earlier. In addition, the data for some indicators is based on calendar years, and the data for others is based on fiscal years.

#### **Orlando Metropolitan Area Profile**

The Orlando Metropolitan Area, which consists of Orange, Osceola and Seminole Counties, has been one of the fastest growing metropolitan areas in the country. In recent years, the economy of this area has largely been based on tourism due to the location in the area of such major tourist attractions as Walt Disney World, Universal Studios, and Sea World, as well as many other smaller attractions. In addition, the high tech industry has a substantial presence in the Orlando Metropolitan Area, and includes such major employers as Lockheed Martin and AT&T. Other major employers in the area include the University of Central Florida and the Orlando International Airport, as well as Florida Hospital and the Orlando Regional Medical Center.

#### **Population**

The following table shows the population for the counties and municipalities in the Orlando Metropolitan Area from 2005 through 2009:

Orange County	2005	2006	2007	2008	2009
Apopka	34,801	37,253	39,508	40,280	40,406
Bay Lake	28	28	20	20	20
Belle Isle	5,974	5,891	5,881	5,886	5,899
Eatonville	2,474	2,547	2,539	2,493	2,400
Edgewood	2,160	2,160	2,236	2,278	2,333
Lake Buena Vista	19	19	23	23	23
Maitland	15,850	16,055	16,100	16,209	16,150
Oakland	1,861	1,933	1,958	1,938	1,931
Ocoee	30,597	32,175	33,533	33,658	33,871
Orlando	217,567	224,055	228,765	234,130	233,115
Windermere	2,443	2,682	2,638	2,678	2,708
Winter Garden	24,610	28,440	30,065	30,838	30,987
Winter Park	27,868	28,620	28,486	28,921	28,581
Unincorporated	677,185	697,666	<i>7</i> 13,851	715,627	710,458
Total	1,043,437	1,079,524	1,105,603	1,114,979	1,108,882

Osceola County	2005	2006	2007	2008	2009
Kissimmee	58,223	60,241	61,036	61,458	61,250
St. Cloud	24,700	30,035	30,634	32,827	32,630
Unincorporated	152,233	165,627	174,453	179,424	1 <i>7</i> 8,908
Total	235,156	255,903	266,123	273,709	272,788

<b>Seminole County</b>	2005	2006	2007	2008	2009
Altamonte Springs	42,616	43,054	43,529	43,243	42,630
Casselberry	24,899	24,930	25,013	25,182	24,672
Lake Mary	13,922	14,020	14,288	14,944	14,615
Longwood	13,913	13,925	14,062	14,018	13,849
Oviedo	30,800	31,946	32,855	33,431	33,529
Sanford	49,252	51,227	53,099	54,306	53,816
Winter Springs	33,321	33,971	34,433	34,390	34,340
Unincorporated	203,021	207,594	208,419	206,899	206,308
Total	411,744	420,667	425,698	426,413	423,759

Grand Total 1,690,337 1,756,094 1,797,424 1,815,101 1,805,429

Source: University of Florida, Bureau of Economic and Business Research

#### **Employment**

The following table shows the number of employed persons living in the Orlando Metropolitan Area from 2005 through 2009:

Employment	2005	2006	2007	2008	2009
Orange County	533,519	568,257	5 <i>7</i> 8,008	5 <i>7</i> 3,838	540,062
Osceola County	109,636	116,774	121,236	124,351	122,993
Seminole County	220,801	235,117	237,487	234,172	216,466
Total	863,956	920,148	936,731	932,361	879,521

**Source:** Florida Research and Economic Database

#### Hotel/Motel Rooms

As mentioned earlier, tourism and business/convention travel are important components of the economy of the Orlando Metropolitan Area. As a result, there are a large number of hotel and motel rooms in the region. The following table shows the number of hotel/motel rooms in the Orlando Metropolitan Area from FY 2004/05 through 2008/09:

Hotel/Motel Rooms	2004/05	2005/06	2006/07	2007/08	2008/09
Orange County	79,017	<i>77,</i> 521	78,698	79,297	78,472
Osceola County	26,927	26,325	26,595	26,317	26,159
Seminole County	4,658	4,655	4,653	4,642	4,697
Total	110,602	108,501	109,946	110,256	109,328

Source: Florida Department of Business and Professional Regulation

**Note:** The numbers of hotel/motel rooms were lower in 2004/05 and 2005/06 than in previous years due to rooms being out of commission as a result of hurricane damage, as well as units being converted to condominiums.

#### **Visitors**

The importance of Orlando as a travel destination is further illustrated in the following table, which shows the number of domestic and international visitors traveling to the Orlando Metropolitan Area from 2004 through 2008, the latest year this data is available.

Visitors to Orlando	2004	2005	2006	2007	2008
Domestic	45,166,000	46,649,000	45,114,000	45,907,000	45,515,000
International	2,582,000	2,673,000	2,686,000	2,838,000	3,373,000
Total	47,748,000	49,322,000	47,800,000	48,745,000	48,888,000

**Source:** Orlando/Orange County Convention & Visitors Bureau

#### **Highway Statistics**

As mentioned earlier, the Orlando Metropolitan Area has one of the fastest growing populations in the country, and, as a result, the number of new motor vehicles coming into the area is growing rapidly. Due to this growth, and the fact that the private automobile is the predominant mode of transportation, the area's highway system is becoming increasingly congested. The indicators used to measure the growth in congestion include traffic counts, vehicle miles traveled, vehicle registrations, traffic crashes, rental car activity, gasoline consumption, and air pollution.

#### Traffic Counts – Major Roadways

One of the main methods for measuring the level of activity on an area's highway system is the collection of traffic counts on major roadways. More than 300 traffic counts for various locations in Orange, Seminole, and Osceola Counties are obtained each year by the METROPLAN ORLANDO staff from the Florida Department of Transportation (FDOT), as well as from the three counties and the City of Orlando. This information is published in a Traffic Count Report, which is shown in **Appendix A**.

The tables shown below contain FDOT daily (24-hour) traffic counts averaged annually on major roadways in the area from 2004 through 2008:

1-4	2004	2005	2006	2007	2008
SW of SR 417 (Osc. Co.)	68,000	93,000	95,500	79,000	78,000
NW of Osceola Co. Line	128,000	139,500	143,500	121,500	117,000
at Florida's Turnpike	153,500	159,000	157,500	160,000	146,500
N of Kaley Ave.	186,000	165,500	171,000	177,500	175,000
S of SR 50	165,500	193,500	199,500	207,000	200,000
N of Princeton St.	208,000	210,000	210,000	209,000	182,500
N of Lee Rd.	196,500	194,500	200,500	208,000	205,000
S of Seminole Co. Line	161,500	162,500	163,500	162,000	149,000
N of SR 436	137,500	137,000	138,000	142,000	139,500
N of SR 434	126,300	133,700	137,100	137,300	131,600
S of CR 46A	120,000	124,000	127,500	132,000	126,500
N of SR 46	103,000	112,500	112,000	113,000	111,000

SR 50	2004	2005	2006	2007	2008
E of CR 545	36,200	37,200	35,600	35,200	33,300
E of Old Winter Garden Rd.	40,000	42,000	41,500	44,000	39,500
E of Powers Dr.	42,000	41,000	41,500	39,500	39,500
E of John Young Pkwy.	38,000	36,000	36,000	40,500	34,500
E of Edgewater Dr.	41,000	40,000	42,500	38,500	39,000
W of US 17/92	47,500	45,000	45,000	43,500	43,000
E of Bennet Rd.	5 <i>7,</i> 500	56,000	58,500	54,500	53,000
E of SR 436	43,000	42,500	41,000	41,000	40,000
E of Goldenrod Rd.	47,000	46,000	46,000	46,000	45,000
E of Dean Rd.	51,500	49,500	46,500	49,000	45,500
E of Alafaya Tr.	47,500	48,500	44,000	47,500	46,500
W of SR 520	26,700	27,100	27,000	27,200	27,200

SR 436	2004	2005	2006	2007	2008
E of US 441	30,500	36,000	36,500	35,500	33,500
W of SR 434	57,500	56,000	54,000	56,500	55,000
W of Montgomery Rd.	57,500	56,000	54,000	56,000	52,500
W of Palm Springs Dr.	76,500	70,500	68,500	66,500	62,500
E of CR 427	60,000	57,000	53,500	54,500	52,000
E of US 17/92	70,500	78,500	73,000	79,000	72,500
S of Red Bug Lake Rd.	71,000	66,500	60,000	65,000	61,000
N of SR 50	46,500	49,500	46,000	48,000	47,000
N of East-West Expy.	57,500	57,500	58,500	54,000	51,500
N of Curry Ford Rd.	54,500	49,500	54,500	52,000	51,000
S of Hoffner Ave.	49,000	42,900	46,000	48,500	45,701
N of Beachline Expy.	45,000	46,500	48,500	48,500	51,000

Orange Ave.	2004	2005	2006	2007	2008
N of Sand Lake Rd.	40,500	44,000	38,000	39,500	39,500
N of Hansel Ave.	45,000	47,500	45,500	44,000	41,500
S of Michigan Ave.	36,800	37,500	38,000	37,700	36,638
S of Kaley Ave.	33,500	34,500	36,000	35,500	36,500
S of Clay St.	19,200	21,400	21,000	18,900	20,000
SW of US 17/92	15,300	14,200	15,200	13,500	15,100

SR 434	2004	2005	2006	2007	2008
N of Edgewater Dr.	22,000	23,500	22,500	23,000	20,000
N of Orange Co. Line	47,000	44,500	38,000	40,500	38,000
N of SR 436	36,500	37,500	32,000	36,000	35,000
W of I-4	50,000	59,500	46,000	54,500	52,000
E of Palm Springs Dr.	43,400	43,100	42,500	40,800	38,992
W of CR 427	45,500	44,500	41,500	40,500	40,000
W of US 17/92	35,500	34,000	31,500	32,500	29,500
E of SR 419	37,500	39,000	34,500	38,500	35,000
E of Tuskawilla Rd.	26,500	27,000	23,000	25,500	25,500
N of Chapman Rd.	24,000	27,500	28,500	28,000	33,000
S of Seminole Co. Line	44,500	43,000	42,000	50,500	39,000
N of SR 50	66,000	67,000	66,000	68,000	64,500

US 441	2004	2005	2006	2007	2008
NW of Plymouth-Sorrento Rd.	32,500	32,000	33,000	34,500	34,500
SW of SR 436	28,500	28,000	27,000	35,500	50,500
N of Clarcona-Ocoee Rd.	30,000	35,000	34,500	31,000	32,500
N of SR 50	28,500	29,500	30,000	28,500	26,500
S of SR 50	27,500	28,500	26,500	26,000	21,500
S of Old Winter Garden Rd.	36,000	36,500	35,000	35,500	33,000
N of Holden Ave.	64,000	68,000	66,500	65,500	60,500
N of Sand Lake Rd.	59,000	60,500	59,000	58,500	53,000
N of Beachline Expy.	71,000	66,000	74,000	<i>7</i> 1,500	<i>7</i> 5,000
S of Taft-Vineland Rd.	48,500	47,000	46,000	45,500	45,000

US 17/92	2004	2005	2006	2007	2008
W of Pleasant Hill Rd.	27,000	28,500	28,500	26,500	25,500
S of Emmett St.	53,500	53,500	50,500	58,500	52,500
N of SR 50	28,000	26,500	29,000	28,000	27,500
S of Orange Ave.	28,000	27,500	29,500	27,500	26,000
S of Lee Rd.	35,000	35,000	35,500	35,000	35,500
N of Lake Ave.	53,500	53,500	54,500	56,000	50,500
S of Maitland Blvd.	31,500	33,000	33,000	33,000	30,000
N of Orange Co. Line	62,000	58,500	55,500	53,500	52,000
N of SR 436	61,500	5 <i>7,</i> 500	56,500	52,000	51,500
N of SR 434	45,000	43,000	39,500	41,000	39,500
S of CR 427	3 <i>7,</i> 500	36,000	33,000	35,500	32,000
S of Lake Mary Blvd.	41,000	42,000	3 <i>7,</i> 500	40,500	37,000
S of CR 46A	2 <i>7,</i> 500	25,000	26,500	26,000	24,000
S of SR 46	26,500	25,500	25,500	25,500	25,000

John Young Pkwy.	2004	2005	2006	2007	2008
S of US 192	30,000	32,600	40,000	39,500	35,500
S of Osceola Pkwy.	39,000	37,700	40,600	38,300	39,700
N of SR 408	44,000	40,500	43,000	46,000	48,500
S of SR 50	47,000	50,000	49,500	47,500	48,500
N of SR 50	46,500	47,000	47,500	46,000	44,500
S of Silver Star Rd.	28,000	33,000	32,500	28,500	30,500
S of US 441	39,000	47,500	39,500	40,000	38,000

Kirkman Rd.	2004	2005	2006	2007	2008
N of Sand Lake Rd.	27,000	29,500	29,500	30,000	26,000
N of International Dr.	47,500	59,500	52,000	9,000	47,000
S of Vineland Rd.	61,000	63,500	61,500	60,000	56,500
S of Conroy Rd.	59,000	59,500	58,000	59,500	58,500
S of Raleigh St.	51,000	61,000	58,500	51,000	57,500
S of Old Winter Garden Rd.	47,500	56,500	49,000	54,000	53,000
S of East-West Expy.	34,000	40,000	38,000	40,500	38,500

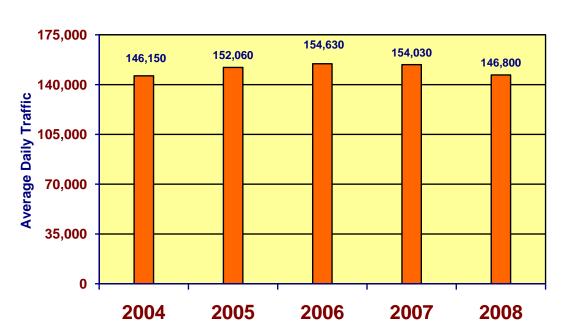
SR 426	2004	2005	2006	2007	2008
E of I-4	26,500	41,500	41,000	38,000	36,000
E of US 17/92	26,500	28,500	28,000	26,000	25,500
E of Park Ave.	30,000	35,500	39,500	40,000	42,500
W of Lakemont Ave.	40,500	36,500	37,000	38,500	37,000
W of SR 436	42,500	40,500	43,500	44,500	39,500
E of Goldenrod Rd.	32,500	32,500	34,000	36,000	34,500
W of SR 417	44,000	44,500	42,500	44,500	41,500
E of SR 417	30,000	30,000	27,500	27,500	27,500
N of Mitchell Hammock Rd.	22,000	23,000	19,900	30,500	19,700
W of SR 434	13,200	14,200	11,500	14,300	13,900

US 192	2004	2005	2006	2007	2008
E of Formosa Gardens Blvd.	59,000	65,500	59,500	58,000	55,500
W of I-4	67,500	85,500	73,500	70,000	64,500
E of I-4	53,500	54,500	55,000	59,500	60,000
E of SR 535	53,500	54,500	5 <i>7,</i> 500	54,000	58,000
W of John Young Pkwy.	48,500	45,000	45,500	43,000	41,500
E of US 441	44,000	43,000	43,000	47,000	45,500
SE of Boggy Creek Rd.	38,500	39,000	36,500	44,000	39,000
NW of Kissimmee Park Rd.	44,000	45,000	39,000	47,500	42,000
E of Canoe Creek Rd.	47,500	47,000	47,500	47,500	41,500
W of CR 532	21,000	22,000	24,000	24,000	21,000

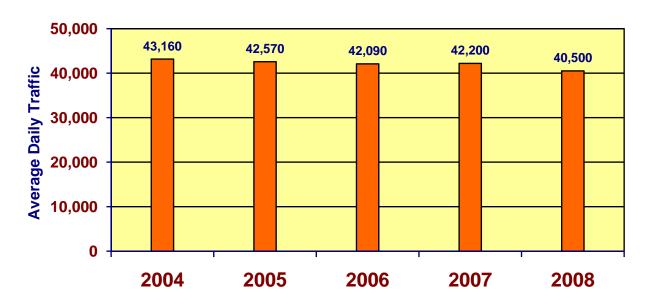
**Source:** Florida Department of Transportation

In order to illustrate the overall changes in the traffic volumes on these roadways over the past five years, the traffic counts for the locations listed above for each roadway were totaled and averaged for each year. These average counts are shown on the following bar charts: (A set of charts showing the average weekday traffic volumes on an hourly basis at three locations on I-4 is shown in **Appendix A** beginning on page A-12.)

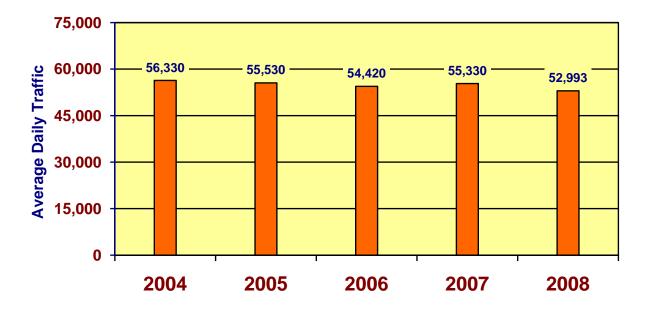




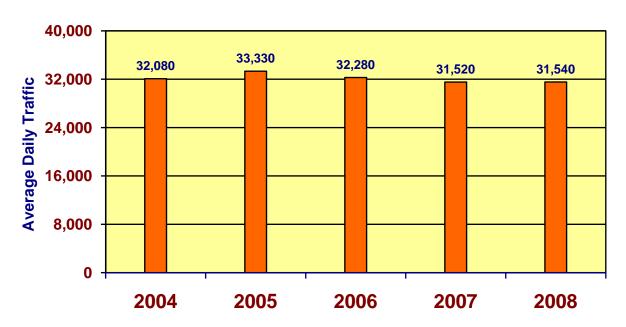
**SR 50** 



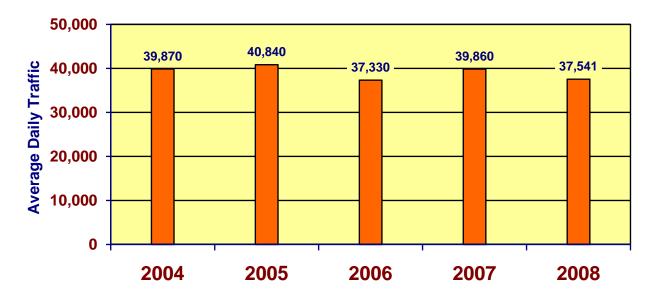
**SR 436** 



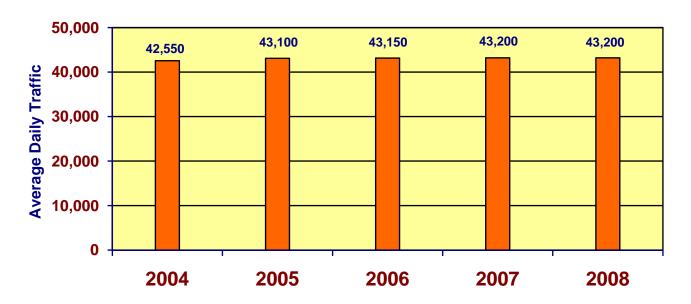
### **Orange Avenue**



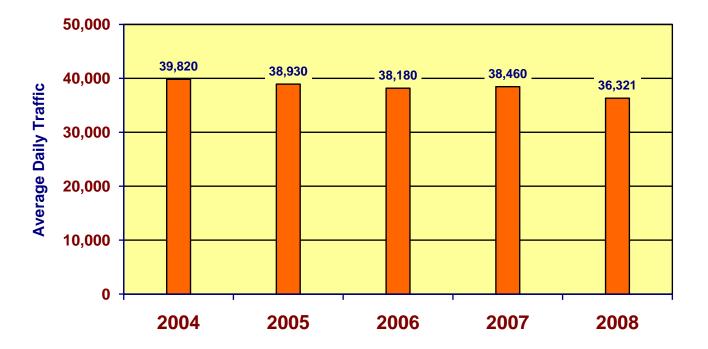
**SR 434** 



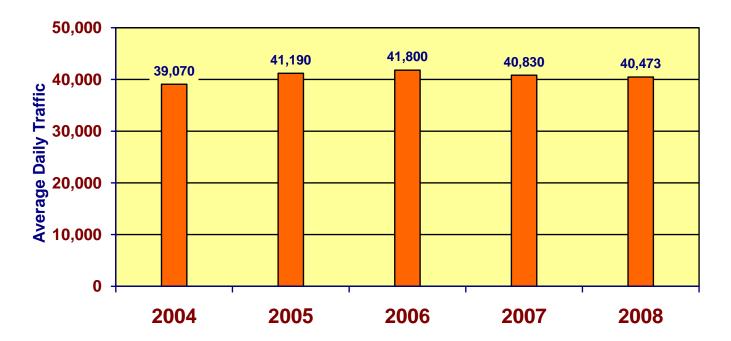
**US 441** 



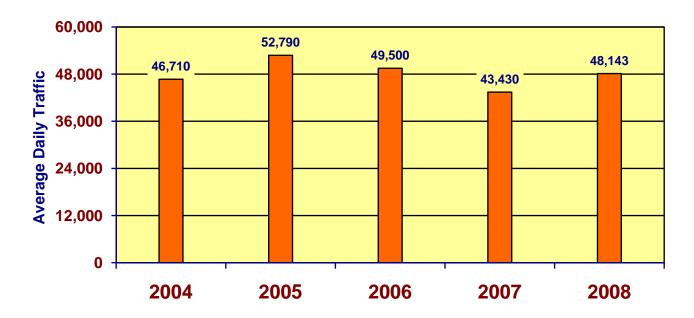
**US 17/92** 



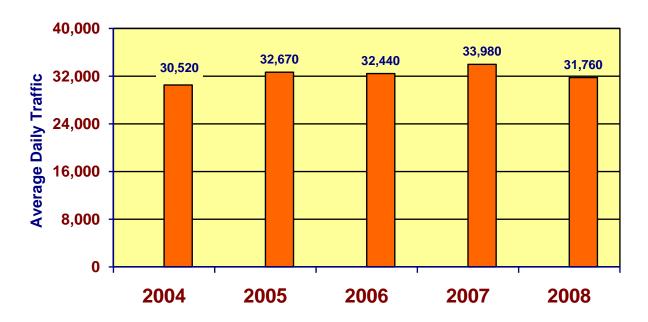
### **John Young Parkway**



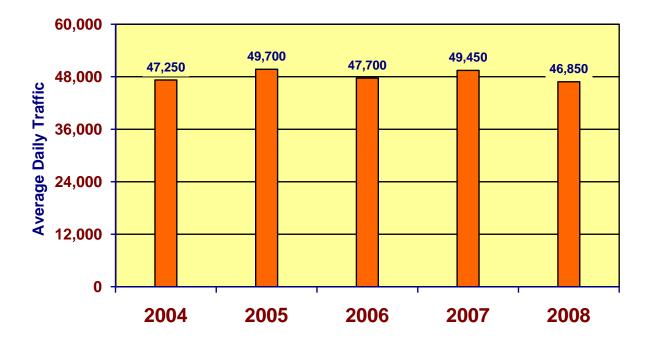
### **Kirkman Road**



**SR 426** 



**US 192** 



#### Traffic Counts - Toll Roads

In addition to the major roadways shown above, the Orlando Metropolitan Area has several toll roads that are carrying increasing amounts of traffic. These toll roads are operated by the Orlando-Orange County Expressway Authority (OOCEA), the Florida's Turnpike Enterprise, and Osceola County. They include SR 408 (East-West Expressway), SR 417 (the Greeneway), SR 429 (Western Expressway), SR 528 (Beachline Expressway), a segment of SR 414, Florida's Turnpike, and the Osceola Parkway. The following tables show average daily traffic counts on these toll roads from 2004 through 2008: (The 2005 OOCEA traffic counts for SR 408, SR 417, SR 429 and SR 528 were revised based on updated adjustment factors due to Hurricane Wilma.)

SR 408	2004	2005	2006	2007	2008			
W of SR 50 Spur	38,620	39,710	44,100	49,570	46,980			
E of Kirkman Rd.	69,820	68,560	71,970	75,980	71,650			
W of US 441	82,900	81,000	82,700	86,440	83,380			
E of Rosalind Ave.	130,660	127,270	127,170	127,590	119,820			
W of Conway Rd.	139,760	137,710	138,090	138,170	132,850			
E of Goldenrod Rd.	105,430	108,100	109,610	103,300	104,150			
E of Dean Rd.	63,930	65,900	69,900	70,100	65,990			
S of E SR 50	31,860	30,870	33,360	29,670	31,120			
CD 447	2004	200=	2006	2007	2000			
SR 417	2004	2005	2006	2007	2008			
N of US 192	17,000	18,900	20,500	21,000	21,000			
W of John Young Pkwy.	40,000	40,500	42,700	45,800				
E of Florida's Turnpike	36,800	37,540	41,890	43,260	40,610			
W of Boggy Creek Rd.	36,920	37,900	42,400	44,800	40,390			
W of Narcoossee Rd.	29,330	29,720	35,410	34,570	30,370			
S of Curry Ford Rd.	67,010	69,900	74,300	76,100	68,900			
S of University Blvd.	77,940	79,700	81,600	82,800	<i>7</i> 5,550			
N of Aloma Ave.	46,500	49,200	50 <i>,7</i> 00	51,400	50,800			
S of SR 434	39,300	43,000	45,500	47,400				
S of CR 427	34,300	38,300	41,100	43,500	43,300			
CD 400	2224	200=	2226	222	2000			
SR 429	2004	2005		2007	2008			
S of US 192	0	0		6,200	7,800			
N of Western Way	0	0		9,600	10,100			
N of Seidel Rd.	0	0	,	13,180	12,820			
S of CR 535	0	0	,	14,000	13,540			
N of CR 535	17,800	20,760		34,090	34,010			
S of SR 438	32,160	36,190		41,650	37,350			
NE of Ocoee-Apopka Rd.	28,130	31,990		36,400	32,660			
At Forest Lake Main Plaza	23,820	26,700		30,410	26,990			
S of US 441	22,210	24,920	26,740	27,610	24,440			
SR 528	2004	2005	2006	2007	2008			
E of I-4	72,400	72,900	77,400		78,300			
W of John Young Pkwy.	71,300	77,800	80,000	78,600				
E of US 441	59,500	68,000	70,700	70,000				
E of Boggy Creek Rd.	94,190	87,710	92,670	93,290				
Airport Main Toll Plaza	75,700	75,800	80,700	82,400				
W of Narcoossee Rd.	61,500	64,840	67,130	75,590				
E of Narcoossee Rd.	54,140	54,690	55,160	61,760				
Beachline Main Toll Plaza	45,930	46,000	46,300	47,700	42,450			

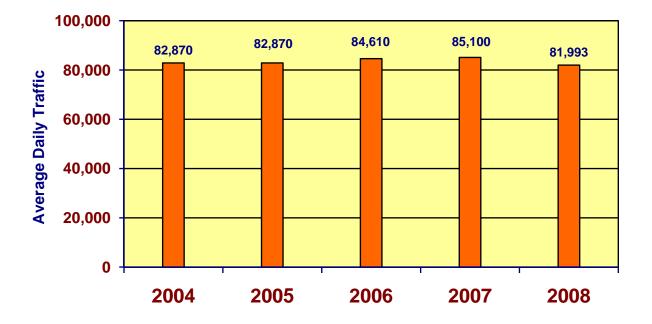
Florida's Turnpike	2004	2005	2006	2007	2008
S of SR 50	63,300	68 <i>,</i> 700	71,900	73,900	74,000
At CR 535	58,900	63,800	66,000	66,900	64,500
N of SR 408	86,200	97,700	102,300	104,600	104,200
N of SR 528	58,000	67,600	69,600	74,500	70,500
N of of Osceola Co. Line	48,500	54,600	56,400	62,300	57,100
S of US 441	38,600	42,800	44,400	50,200	47,900
N of Partin Settlement Rd.	24,300	26,600	25,200	31,800	31,400
S of Neptune Rd.	25,200	26,600	26,900	32,970	33,860

Osceola Parkway	2004	2005	2006	2007	2008
W of SR 417	19,480	18,380	19,800	20,780	21,000
W of Lake Wilson Rd.	14,960	16,700	18,880	20,000	21,000
E of John Young Pkwy.	28,100	26,200	27,120	28,660	29,800
W of Florida's Turnpike	47,920	50,400	51,800	54,560	58,000
W of Florida Pkwy.	41,600	42,600	45,020	45,320	45,300

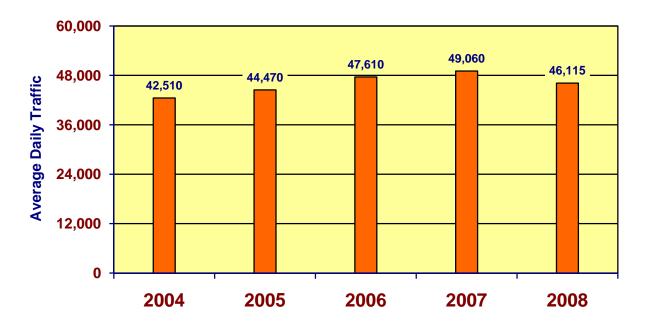
**Sources:** Orlando-Orange County Expressway Authority, Florida's Turnpike Enterprise, and Osceola County Engineering Department

In order to illustrate the overall changes in the traffic volumes on these toll roads over the past five years, the traffic counts listed above for each roadway have been averaged for each year. These average counts are shown on the following bar charts. Additional information is included in **Appendix A**.

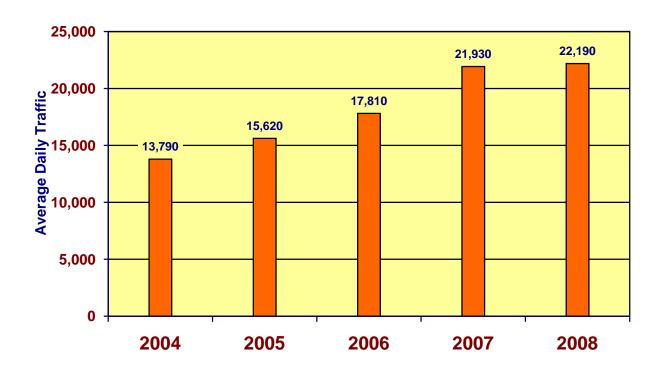
### **SR 408/East-West Expressway**



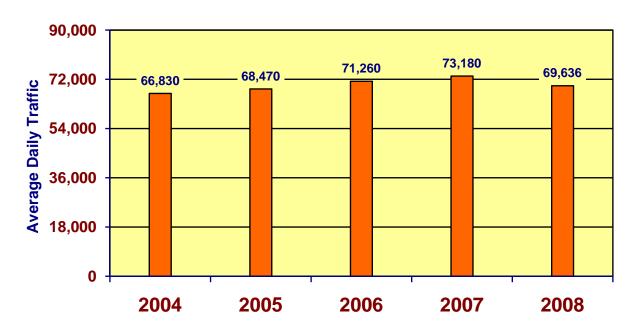
### SR 417/The Greeneway



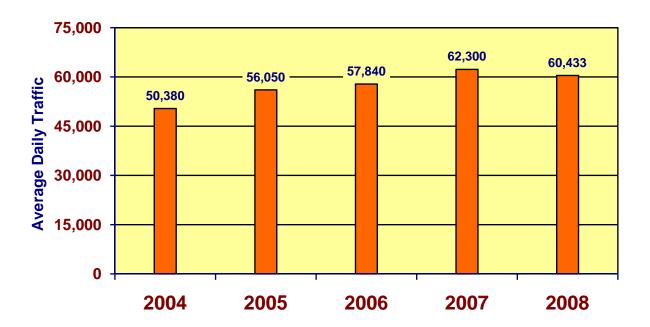
### **SR 429/Western Expressway**



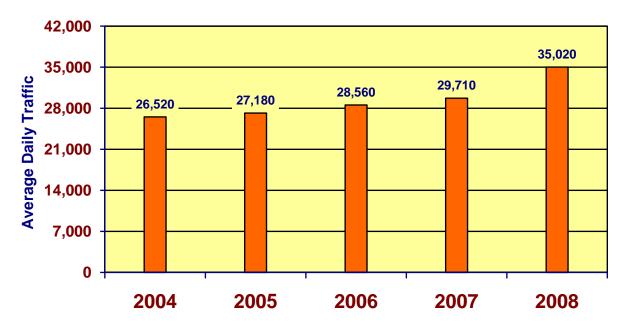
### **SR 528/Beachline Expressway**



### Florida's Turnpike



### **Osceola Parkway**



#### **Toll Transactions and Revenues**

Up until 2008, there has been a steady increase in the amount of annual toll transactions and revenues collected on the toll roads in the Orlando Metropolitan Area in recent years. This increase and recent decline in FY 2008/09 is illustrated in the following tables, and in maps in **Appendix E**.

<b>Transactions</b>	2004/05	2005/06	2006/07	2007/08	2008/09
SR 408	127,700,000	135,479,000	138,327,000	138,932,000	131,280,000
SR 417	127,800,000	139,688,000	148,011,000	149,948,000	136,298,000
SR 429	16,500,000	21,123,000	27,539,000	31,537,000	30,028,000
SR 528	63,500,000	67,441,000	69,991,000	70,266,000	64,043,000
SR 414*	-	-	-	-	632,000
Fla.'s Turnpike	40,200,000	43,681,000	45,287,000	44,205,000	41,126,000
Osceola Pkwy.	7,900,000	8,016,000	7,908,000	7,682,000	6,813,048
Total	383,600,000	415,428,000	437,063,000	442,570,000	410,220,048

<sup>\*</sup>Partial year of operational revenue transactions

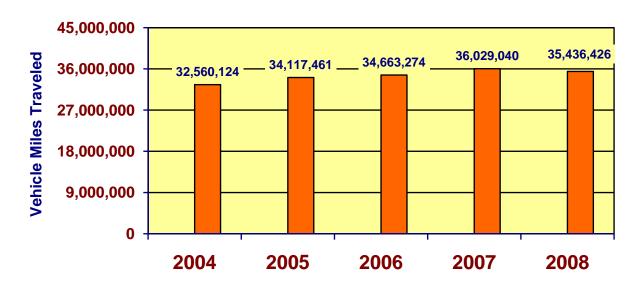
Revenues	2004/05	2005/06	2006/07	2007/08	2008/09
SR 408	\$80,400,000	\$85,112,000	\$86,503,000	\$86,093,000	\$88,304,000
SR 417	\$92,400,000	\$101,994,000	\$108,523,000	\$109,759,000	\$103,790,000
SR 429	\$10,500,000	\$14,523,000	\$20,741,000	\$23,920,000	\$23,691,000
SR 528	\$51,500,000	\$54,678,000	\$56,403,000	\$56,209,000	\$52,566,000
SR 414*	-	-	-	-	\$554,000
Fla.'s Turnpike	\$29,300,000	\$32,314,000	\$33,511,000	\$32,508,000	\$29,956,000
Osceola Pkwy.	\$11,400,000	\$11,628,000	\$11,440,000	\$11,021,000	\$10,445,716
Total	\$275,500,000	\$300,249,000	\$317,121,000	\$319,510,000	\$309,306,716

**Source:** Orlando-Orange County Expressway Authority, Florida's Turnpike Enterprise, Osceola County Public Works Division

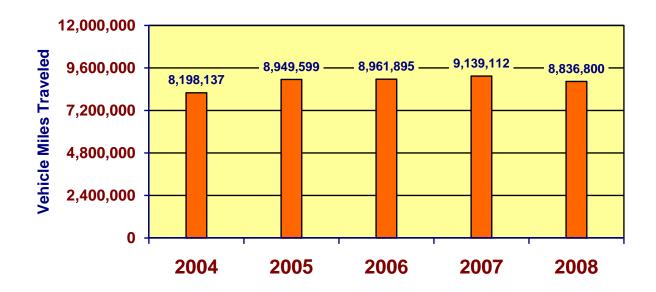
#### Vehicle Miles Traveled

The number of vehicle miles traveled (VMTs) on the highway network is an indicator that measures the growth in both the number of vehicles and the distances driven in the Orlando Metropolitan Area. The Florida Department of Transportation annually estimates the VMTs for all the counties in the state by multiplying the lengths of the state and local roads in the counties by the average daily trips on those roads. The following bar charts illustrate the increase in average daily VMTs in Orange, Seminole and Osceola Counties from 2004 through 2008:

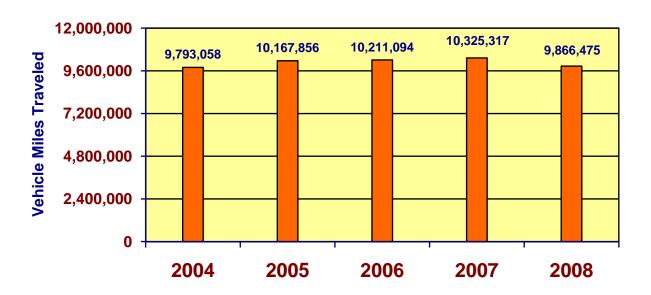
## Orange County Average Daily Vehicle Miles Traveled



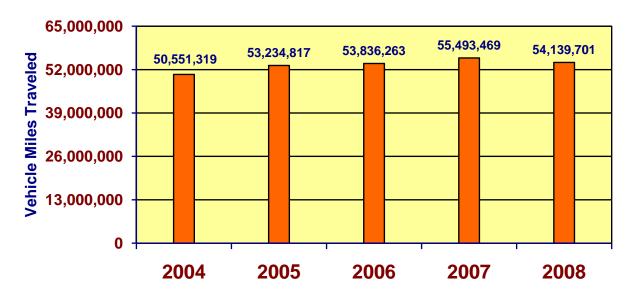
# Osceola County Average Daily Vehicle Miles Traveled



# Seminole County Average Daily Vehicle Miles Traveled



# **Total Average Daily Vehicle Miles Traveled**

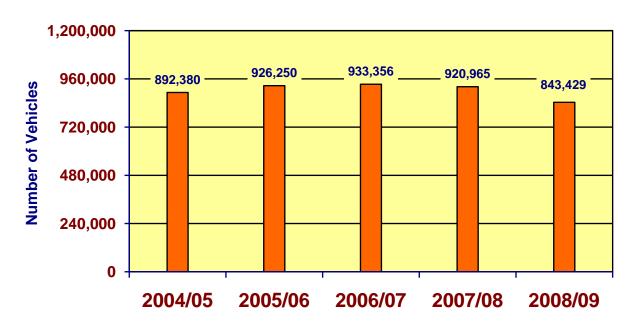


Source: Florida Department of Transportation

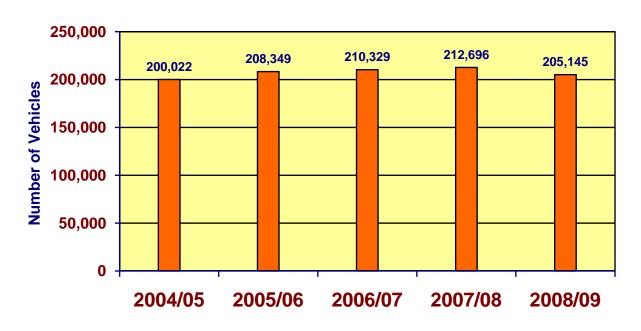
#### **Registered Vehicles**

Another indicator that can be used to measure traffic congestion in the Orlando Metropolitan Area is the change in the number of vehicles on the highway system. The following bar charts illustrate the number of registered motor vehicles in Orange, Seminole and Osceola Counties from FY 2004/05 through FY 2008/09:

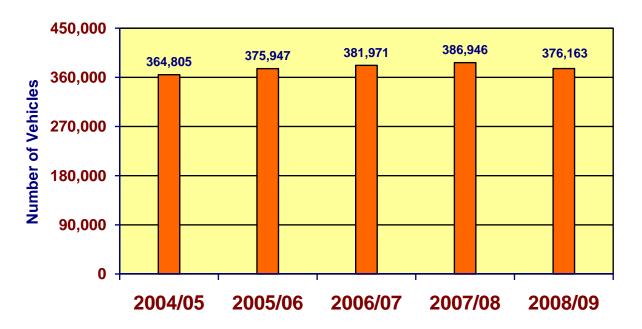
### **Orange County Registered Vehicles**



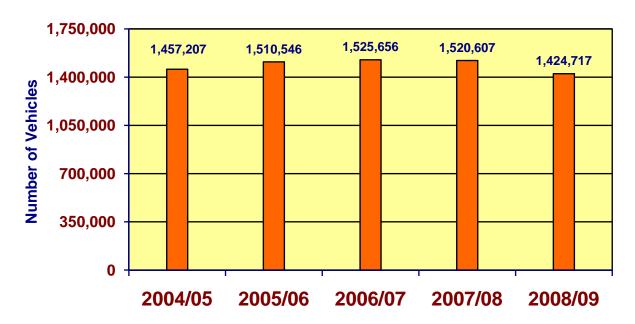
### **Osceola County Registered Vehicles**



### **Seminole County Registered Vehicles**



### **Total Registered Vehicles**

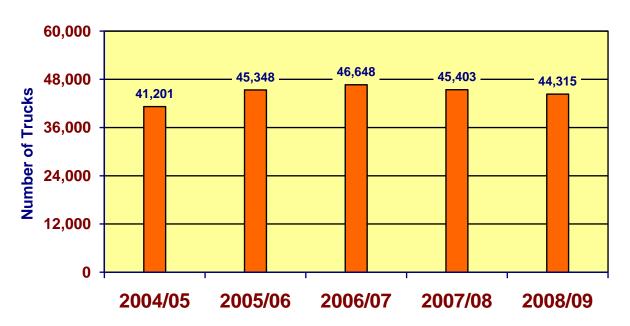


Source: Florida Department of Highway Safety and Motor Vehicles

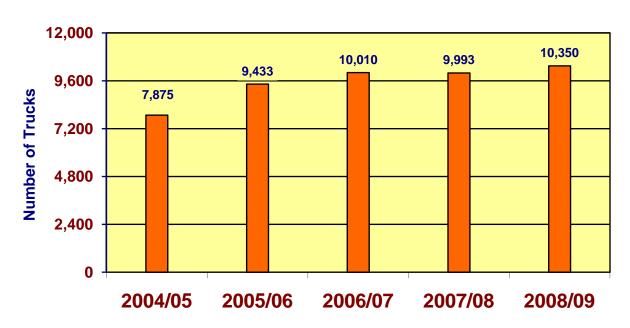
#### **Commercial Trucks**

Most of the freight moved within and through the Orlando Metropolitan Area is carried by commercial trucks (trucks weighing more than 5,000 lbs.). The increase in the amount of freight carried by truck in the area has required an increase in the number of commercial trucks. This increase from FY 2004/05 through FY 2008/09 is illustrated in the following charts: (*The number of commercial trucks shown in this section is also included in the total number of registered vehicles shown in the previous section.*)

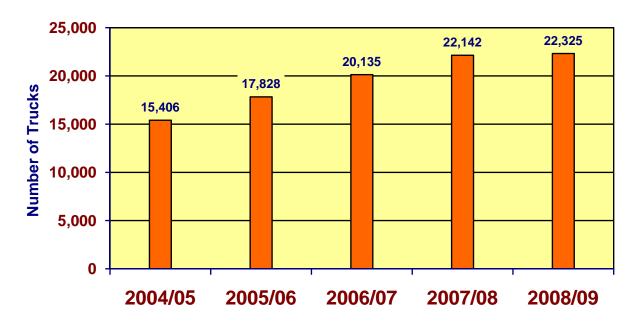
### **Orange County Commercial Trucks**



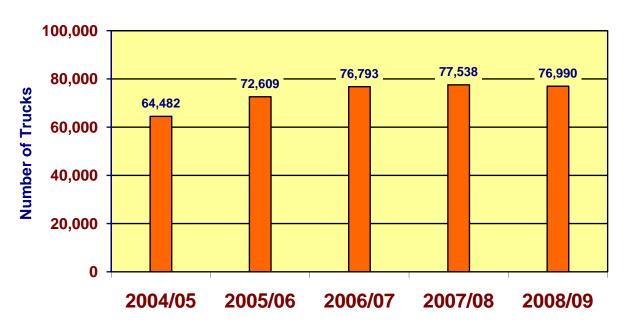
## **Osceola County Commercial Trucks**



# **Seminole County Commercial Trucks**



## **Total Commercial Trucks**

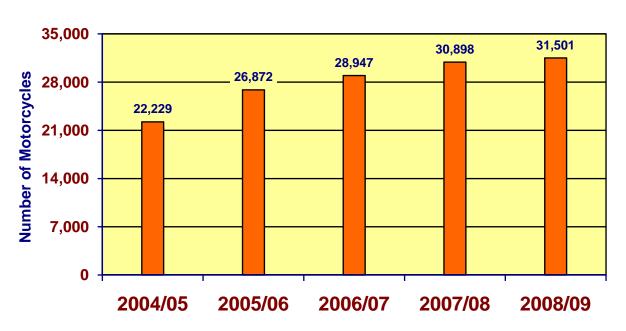


Source: Florida Department of Highway Safety and Motor Vehicles

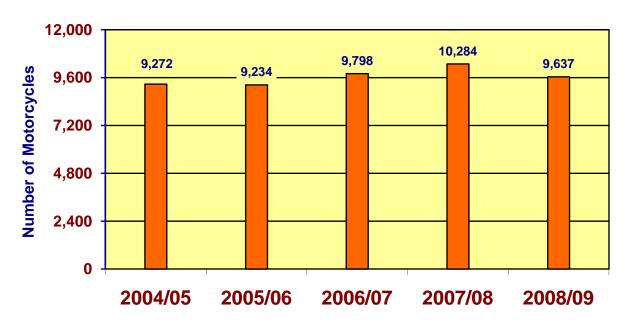
#### Motorcycles

The number of motorcycles in the Orlando Metropolitan Area has also increased over the past several years. This increase from FY 2004/05 through FY 2008/09 is illustrated in the following charts: (The number of motorcycles shown in this section is also included in the total number of registered vehicles shown in the Registered Vehicles section.)

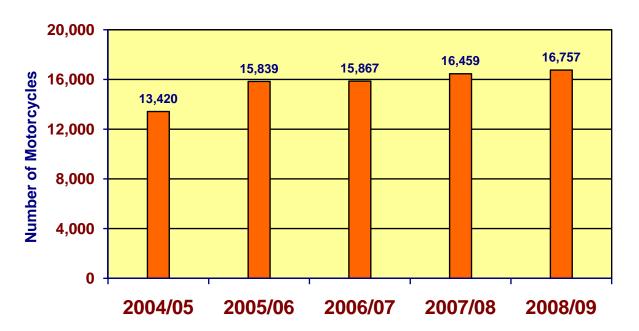
### **Orange County Motorcycles**



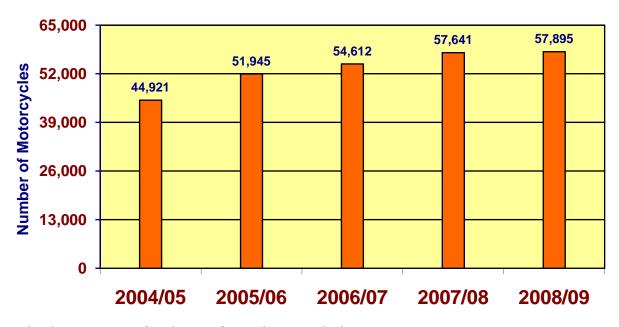
# **Osceola County Motorcycles**



# **Seminole County Motorcycles**



# **Total Motorcycles**



Source: Florida Department of Highway Safety and Motor Vehicles

#### **Motorcycle Safety**

The increase in the number of motorcycles in the area has had an impact on the number of injuries and fatalities in crashes involving motorcycles. This has led to the implementation of helmet laws in the state. However, Florida's motorcycle helmet law allows a person over 21 years of age to operate a motorcycle without wearing a helmet as long as he or she is covered by an insurance policy that provide at least \$10,000 in medical benefits for injuries incurred as a result of a crash while operating or riding on a motorcycle. As the number of motorcycle-related fatalities and serious injuries increase, the state should consider implementing stricter motorcycle helmet laws.

The number of motorcycle-related injuries and fatalities that occurred in the Orlando Metropolitan Area from 2004 through 2008 is shown in the following tables: (*The information is also included in the total number of crashes shown in the Traffic Crashes section beginning on page 29.*)

Motorcyclist Injuries	2004	2005	2006	2007	2008
Orange County	422	472	507	531	538
Osceola County	84	84	113	125	125
Seminole County	121	131	148	135	137
Total	627	687	768	791	800

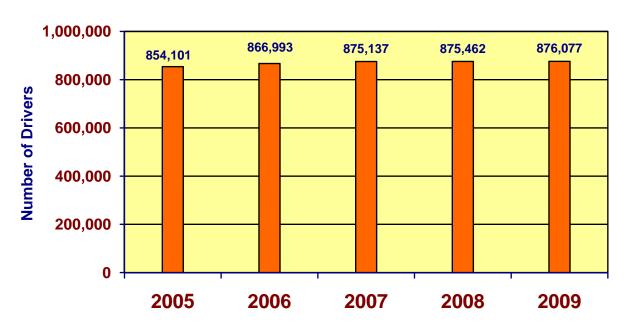
Motorcyclist Fatalities	2004	2005	2006	2007	2008
Orange County	27	21	32	31	28
Osceola County	5	5	11	9	11
Seminole County	8	6	8	9	4
Total	40	32	51	49	43

Source: Florida Department of Highway Safety and Motor Vehicles

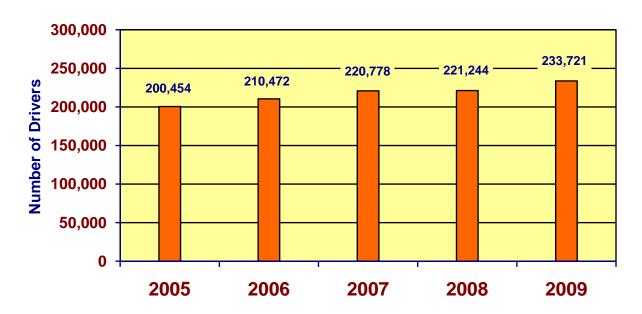
#### **Licensed Drivers**

Along with the number of registered vehicles, the number of licensed drivers in the area is another indicator of traffic congestion levels. The following bar charts illustrate the number of licensed drivers in Orange, Seminole and Osceola Counties from 2005 through 2009:

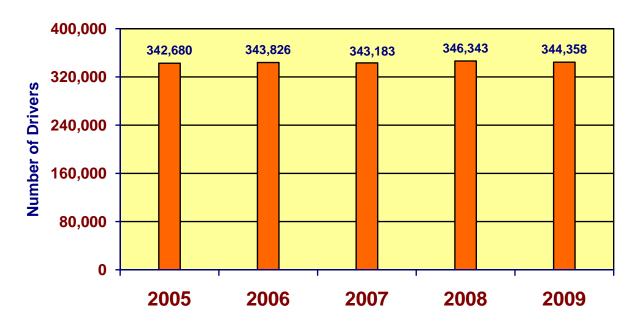
## **Orange County Licensed Drivers**



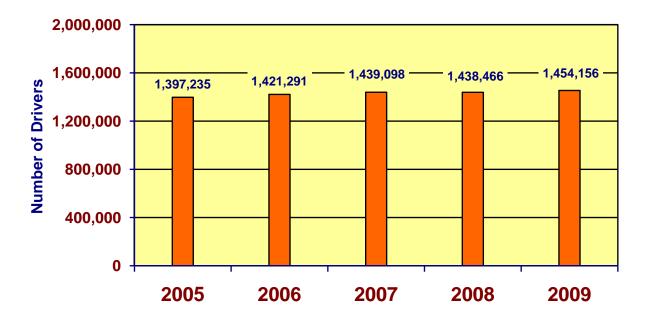
## **Osceola County Licensed Drivers**



# **Seminole County Licensed Drivers**



### **Total Licensed Drivers**



**Source:** Florida Department of Highway Safety and Motor Vehicles

#### **Traffic Crashes**

The number of traffic crashes occurring at particular locations in the area may indicate where transportation system improvements are needed. Statistics for locations in Orange, Seminole, and Osceola Counties where 25 or more crashes occurred are obtained each year by the METROPLAN ORLANDO staff. These statistics are provided by the Florida Department of Transportation (FDOT), as well as the three counties, and the City of Orlando. This information is published in an annual Crash Surveillance Report, which is shown in **Appendix B**.

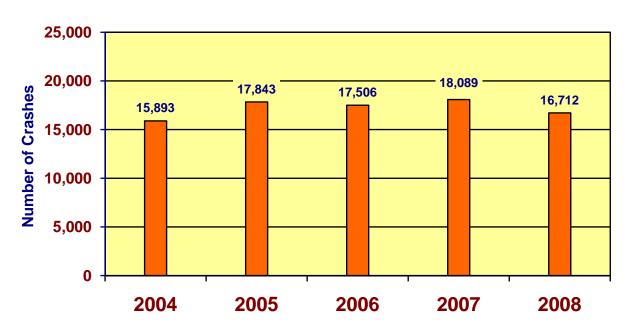
The following table shows the top twenty locations in the Orlando Metropolitan Area that had the highest number of crashes during 2008.

#### 2008 High Crash Locations

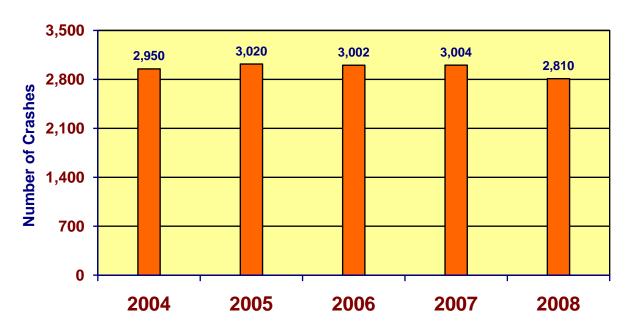
Location	# of Crashes	# of Injuries	# of Fatalities
I-4 THRU LANES & SR 434	125	41	1
US 192 & HOAGLAND BLVD.	122	0	NA
CONROY RD. & KIRKMAN RD.	117	27	0
SR 436 & HOWELL BRANCH RD.	115	14	0
SR 436 & I-4 THRU LANES	106	25	0
US 192 & MICHIGAN / OAK ST.	102	2	NA
I-4 & LAKE MARY BLVD.	102	37	1
SR 436 & SR 434	96	3	0
US 192 & JOHN YOUNG PKWY.	93	5	NA
international dr. & kirkman rd.	86	25	0
SR 436 & WYMORE RD. / DOUGLAS AVE.	83	3	0
SR 91 & SR 50	81	NA	NA
OSCEOLA PKWY. & MICHIGAN AVE.	80	1	NA
CURRY FORD RD. & SEMORAN BLVD.	78	28	0
HIAWASSEE RD & SILVER STAR RD.	78	NA	NA
I-4 & SR 535	76	NA	NA
US 17-92 & SR 436	73	13	0
SR 91 & SR 429	73	NA	NA
LAKE MARY BLVD & LAKE EMMA DR.	72	8	0
SR 91 & I-4	69	NA	NA

The following charts illustrate the changes in the total number of crashes, injuries and fatalities from 2004 through 2008 as compiled by the Florida Department of Highway Safety and Motor Vehicles for each of the three counties:

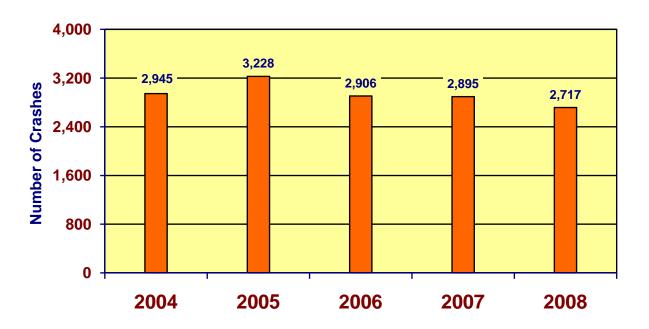
# **Orange County Crashes**



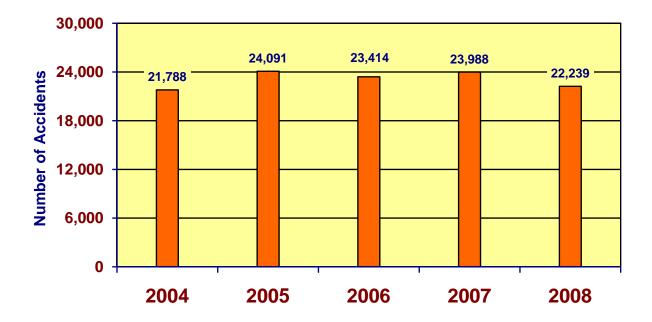
# **Osceola County Crashes**



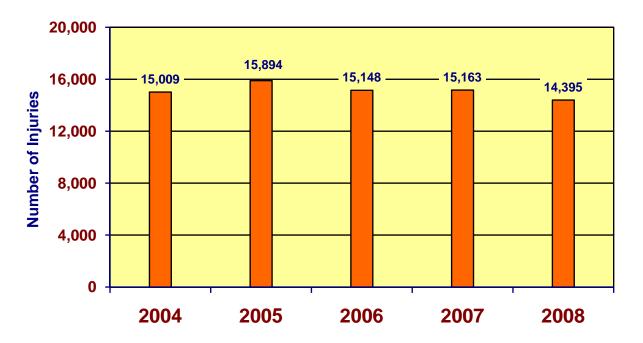
# **Seminole County Crashes**



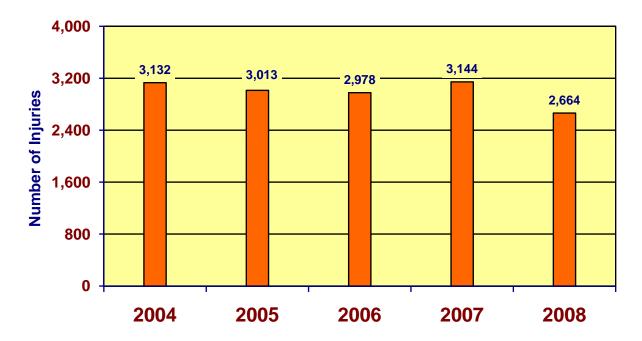
## **Total Crashes**



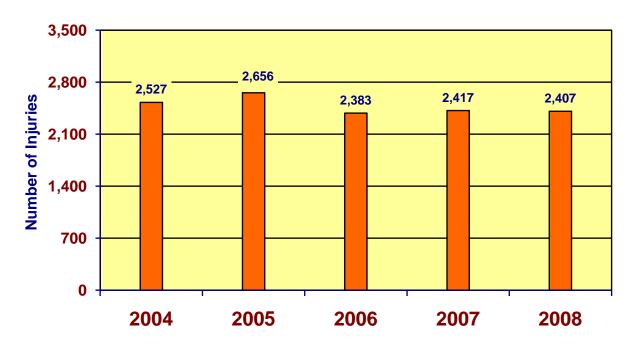
# **Orange County Injuries**



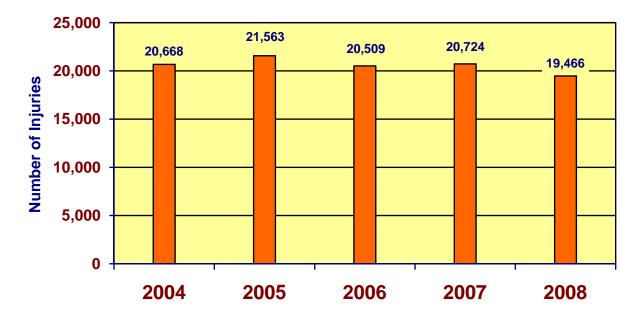
# **Osceola County Injuries**



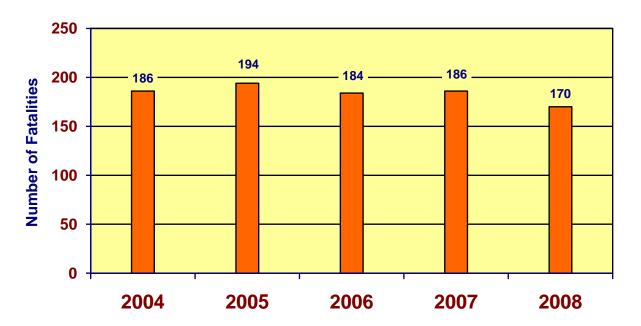
# **Seminole County Injuries**



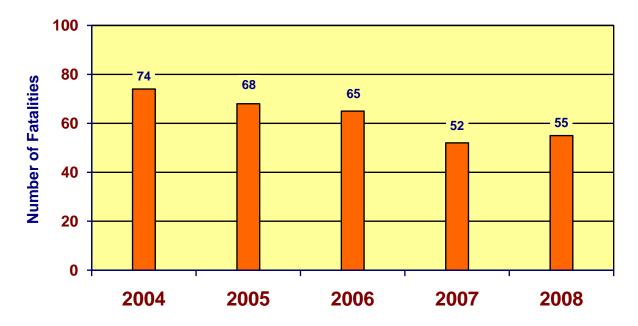
# **Total Injuries**



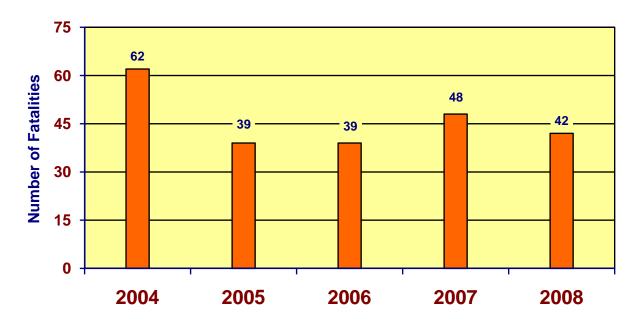
# **Orange County Fatalities**



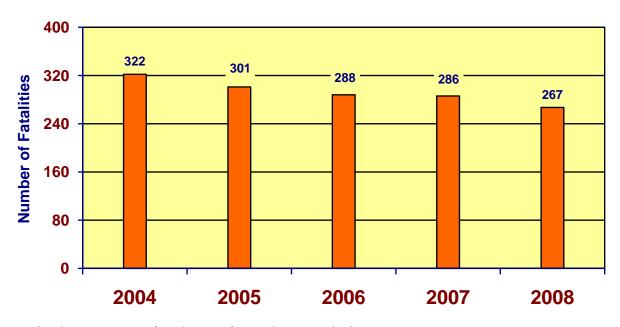
# **Osceola County Fatalities**



# **Seminole County Fatalities**



**Total Fatalities** 

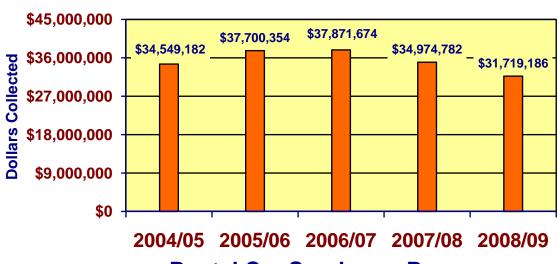


Source: Florida Department of Highway Safety and Motor Vehicles

#### Rental Car Surcharge Revenues

Florida has a substantial rental car market, primarily due to its tourism industry, and the Orlando Metropolitan Area has the largest rental car market in the country. As a result, rental vehicles have a major impact on the levels of traffic congestion in the area, particularly on those roadways in the vicinity of the Orlando International Airport and the tourist attractions. The rental car industry in the Orlando area declined as a result of the September 11, 2001 terrorist attacks and an economic recession, but has generally rebounded since that time. This is illustrated in the charts below, which show the amount of Florida's \$2-per day rental car surcharge revenues collected in the area from FY 2004/05 through FY 2008/09.

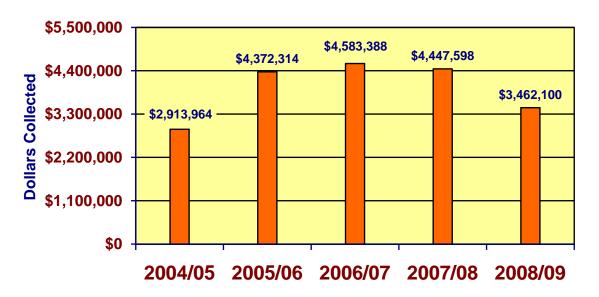
# Rental Car Surcharge Revenues Collected in Orange County



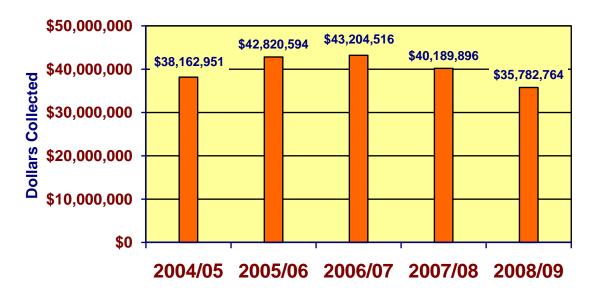
# Rental Car Surcharge Revenues Collected in Osceola County



# Rental Car Surcharge Revenues Collected in Seminole County



# **Total Rental Car Surcharge Revenues Collected in Orlando Metropolitan Area**

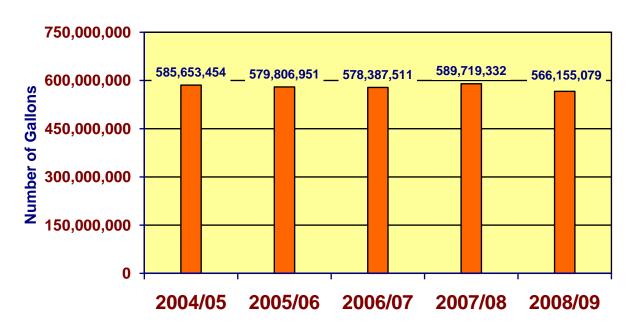


**Source:** Florida Department of Revenue

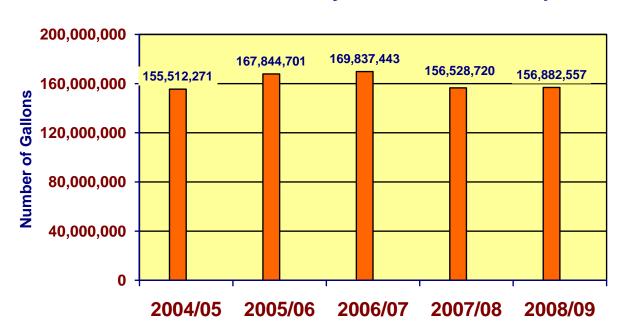
#### **Gasoline Consumption**

The consumption of gasoline over a period of several years is another indicator of the change in the number of vehicles and amount of travel in the Orlando Metropolitan Area. The following charts illustrate the number of gallons of gasoline sold in Orange, Osceola and Seminole Counties, as well as the total for all three counties, from FY 2004/05 through FY 2008/09:

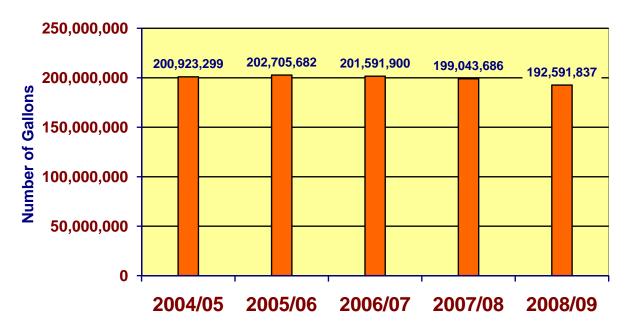
### **Orange County Gasoline Consumption**



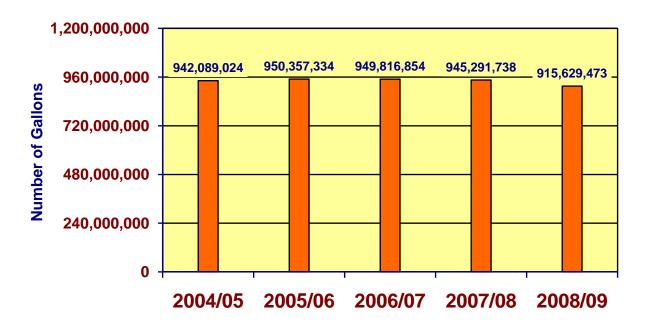
## **Osceola County Gasoline Consumption**



# **Seminole County Gasoline Consumption**



**Total Gasoline Consumption** 

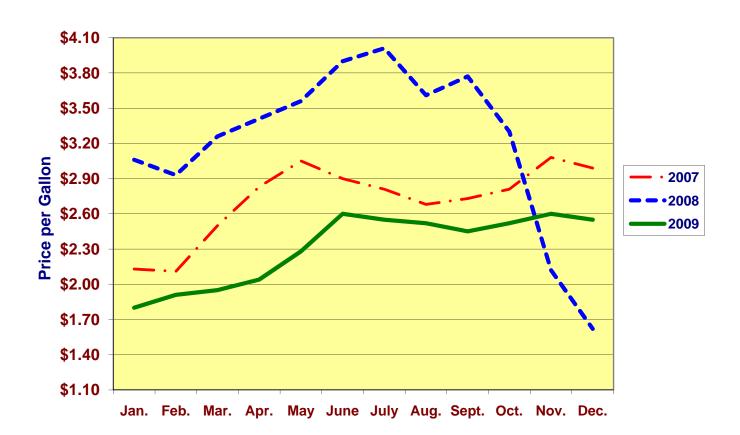


**Source:** Florida Department of Revenue

#### Average Monthly Gasoline Price per Gallon

One factor that influences the amount of gasoline that is consumed is the price per gallon for gasoline. The average monthly price per gallon for regular gasoline in the Orlando Metropolitan Area from 2007 through 2009 is shown in the following chart.

# Average Monthly Price for Regular Gasoline in Orlando Metro Area

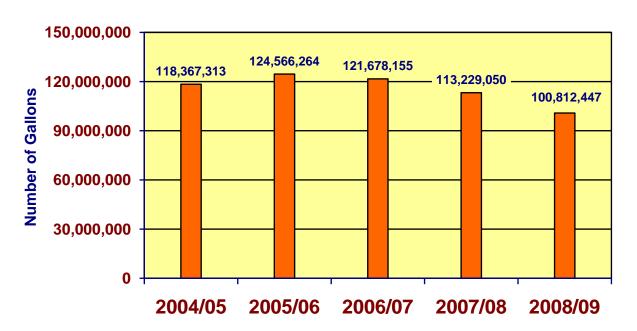


**Source:** OrlandoGasPrices.com

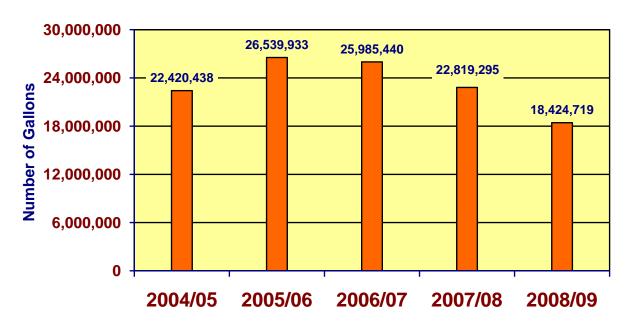
#### **Diesel Fuel Consumption**

The consumption of diesel fuel over a period of several years is another indicator of the change in the number of vehicles, particularly commercial trucks, in the Orlando Metropolitan Area. The following charts illustrate the number of gallons of diesel fuel sold in the area's three counties, from FY 2004/05 through FY 2008/09.

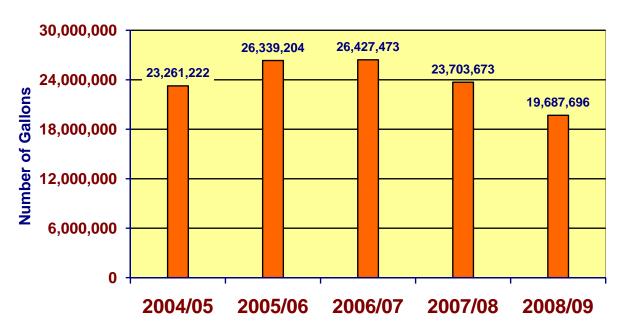
### **Orange County Diesel Fuel Consumption**



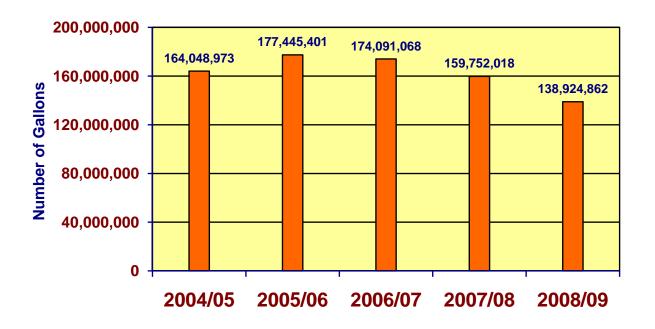
# **Osceola County Diesel Fuel Consumption**



# **Seminole County Diesel Fuel Consumption**



**Total Diesel Fuel Consumption** 

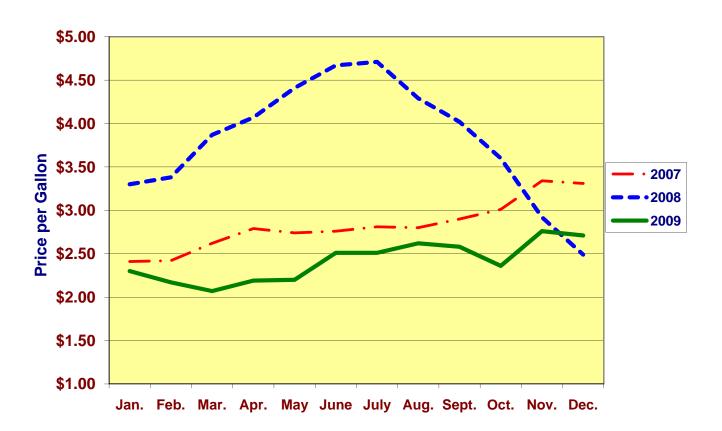


**Source:** Florida Department of Revenue

#### Average Monthly Diesel Fuel Price per Gallon

The average monthly price per gallon for diesel fuel from 2007 through 2009 is shown in the following chart. (These figures are for the southeast United States, since diesel price information for the Orlando area or for Florida was not available.)

# **Average Monthly Price for Diesel Fuel in SE United States**



**Source:** Energy Information Administration

#### State Road Mileage (Lane Miles)

Another indicator of the growth in the number of vehicles and amount of travel in the Orlando Metropolitan Area is the increase in the road mileage in the area. The number of lane miles of state roads in Orange, Osceola and Seminole Counties from 2005 through 2009 is shown in the tables below. These have been divided into interstate facilities (I-4), toll roads such as SR 408, SR 417 and SR 528, and other state roads, such as SR 50, SR 436, SR 434, US 441, US 17/92, etc.

Orange County	2005	2006	2007	2008	2009
Interstate (I-4)	175.9	175.9	185.2	184.2	184.2
Toll Roads	556.6	592.4	623.4	642.0	644.7
Other State Roads	928.3	940.4	966.3	970.4	996.3
Total	1,660.8	1,708.7	1,774.9	1,796.6	1825.2

Osceola County	2005	2006	2007	2008	2009
Interstate (I-4)	35.4	35.4	48.2	47.3	47.3
Toll Roads	246.8	246.8	264.8	264.5	264.5
Other State Roads	378.3	384.4	395.0	396.2	431
Total	660.5	666.6	708.0	708.0	742.8

Seminole County	2005	2006	2007	2008	2009
Interstate (I-4)	95.2	95.2	95.2	95.2	95.2
Toll Roads	70.4	70.4	70.4	70.3	70.3
Other State Roads	342.9	342.9	342.9	343.3	346.6
Total	508.5	508.5	508.5	508.8	512.1

<b>Grand Total</b>	2,829.8	2,883.8	2,991.4	3,013.3	3,080.1

**Source:** Florida Department of Transportation

#### Local Road Mileage (Paved Centerline Miles)

The number of miles of local (city and county) roads in the Orlando Metropolitan Area has also increased in recent years. The table below shows the change in the number of miles of paved local roads in Orange, Osceola and Seminole Counties over the 2004-2008 timeframe, since the latest information available is for 2008. (The numbers in the table reflect the centerline miles of paved roads, information that is collected annually from local governments by FDOT. Lane mileage figures by facility-type classifications for local roads were not available.)

Local Road Mileage	2004	2005	2006	2007	2008
Orange County	3,780.8	3,800.8	3,954.8	4,073.9	4,100.4
Osceola County	957.7	978.8	1,022.7	1,133.0	1,15 <i>7</i> .1
Seminole County	1,399.1*	1,412.9	1,493.1	1,473.0	1,473.0
Total	6,137.6	6,192.5	6,470.6	6,679.9	6,730.5

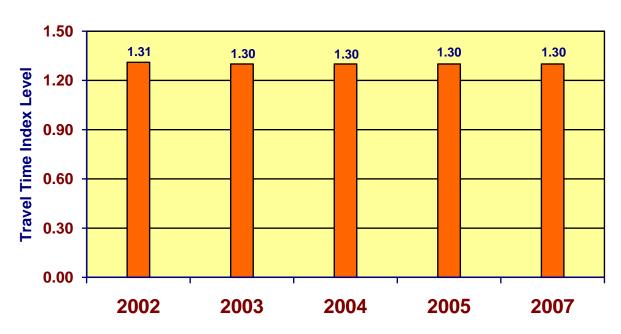
<sup>\*</sup> The 2004 roadway mileage figure for Seminole County was adjusted downward based on use of a more accurate inventory system by Seminole County.

**Source:** Florida Department of Transportation

#### Travel Time Index

The Texas Transportation Institute (TTI) at Texas A & M University annually produces a study comparing the traffic congestion levels of many urban areas around the country, including the Orlando Metropolitan Area. The TTI report includes a comparison of the travel time indexes of the urban areas. This index is based on the free-flow travel speeds of 60 mph on freeways and 35 mph on major arterials. An index of greater than 1.0 indicates that the travel speeds on an area's roadway system are lower than the free-flow speeds, thus increasing the travel times on the system. Conversely, an index of less than 1.0 indicates that the speeds are higher than the free-flow speeds, thus reducing the travel times on the system. Using the areas, Los Angeles and Buffalo as examples of the highest and lowest indexes, the travel time index for Los Angeles, CA in 2007 was 1.49, while the same index for Buffalo, NY was 1.07. The travel time indexes for the Orlando Metropolitan Area for 2002 through 2007 are shown on the following chart: (*The 2005 data is the latest information available. The TTI report containing updated data was not available at the time this document was published.*)

## **Orlando Metropolitan Area Travel Time Index**



\*2006 Travel Time Index information unavailable due to a transition in TTI data collection systems

**Source:** Texas Transportation Institute – 2009 Urban Mobility Report

This chart shows that the travel time index for the Orlando Metropolitan Area's highway system has held steady at the 1.30 index level from 2002 to 2007. This indicates that the mobility improvements that have been implemented in the area, such as computerized signals, electronic toll collection, etc. may have had some impact on keeping the travel time index from worsening. However, the index also shows that the travel speeds in the area are lower than the free-flow speeds, and more improvements are needed.

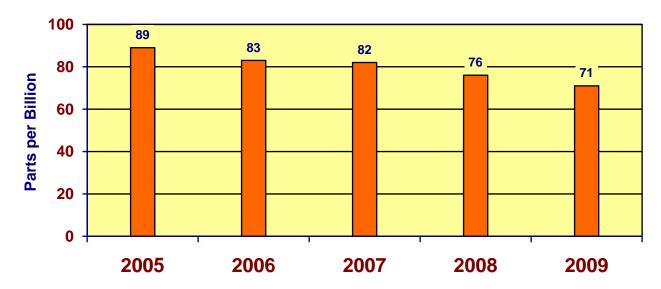
#### Air Quality

Traffic congestion can have a major impact on the air pollution levels in an urban area. The pollutant that has been a cause for concern in the Orlando Metropolitan Area in recent years is ground-level ozone, for which motor vehicle emissions are a primary source. The Federal Environmental Protection Agency (EPA) standard for ozone was recently changed from 85 parts per billion to 75 parts per billion averaged over any eight-hour period. An area will be considered as nonattainment (not meeting the standard) if the average of the annual fourth highest ozone readings at any monitoring site for any three-year period equals or exceeds the 75 parts per billion standard.

In 2009, EPA averaged the fourth-highest eight-hour average ozone readings in urban areas around the country from 2006 through 2008 to determine which areas would be declared to be in attainment with the EPA standard and which would be designated as nonattainment. Several ozone readings in the Orlando Metropolitan Area exceeded the EPA standard during that three-year period, and if additional violations occur during 2009 or 2010, the Orlando Metropolitan Area could eventually be designated as a nonattainment area. In addition, EPA is considering further tightening its ozone standards in the future. Therefore, in order to help prevent a nonattainment designation, such measures as the expansion of flex time and telecommuting, vehicle maintenance, and the use of alternate forms of transportation, are being promoted as part of a public awareness campaign.

The line charts in **Appendix C** show the highest monthly eight-hour average ozone readings for 2009 at each of the four monitoring stations operated by the Florida Department of Environmental Protection in the Orlando Metropolitan Area. The following bar chart shows the fourth highest eight-hour average readings for the area from 2005 through 2009:

# 4th Highest 8-Hour Average Ozone Readings for Orlando Metropolitan Area



Source: Florida Department of Environmental Protection

#### **Management and Operations Statistics**

#### **Overview**

Management and Operations (M&O) involves the implementation of various strategies and technologies to improve traffic flow on existing roadways without adding lanes or building new roadways. METROPLAN ORLANDO has been placing a greater emphasis on the planning and implementation of M&O strategies in recent years as a cost-effective method to relieve traffic congestion in the area.

The Texas Transportation Institute's 2007 *Urban Mobility Report* provides several inventory and performance measures on congestion in the Orlando area for the years from 1982 to 2005. The report includes an estimate on the total effect of M&O treatments on traffic congestion. Additionally, the National Transportation Operations Coalition conducted a survey entitled *The Traffic Signal Report Card* in 2005 to measure how well traffic signals operate on the nation's roadways. The survey was conducted again in 2007. Information from the 2007 *Urban Mobility Report* and the 2005 and 2007 *Traffic Signal Report Cards* are reported in this section. These reports provide information for assessing the affect of these strategies on reducing traffic congestion.

M&O strategies include the use of Intelligent Transportation Systems (ITS). A number of ITS technologies are currently being applied in the Orlando area, including the use of 38 surveillance cameras and 37 variable message signs along I-4 from the St. Johns River bridge to west of US 192. Additionally, the Orlando-Orange County Expressway Authority has installed 149 cameras along SR 408 from Kirkman Road to SR 417, SR 417 from SR 408 to the Seminole County line, as well as at mainline toll plazas throughout the expressway system. These cameras and signs enable the Florida Highway Patrol to determine the location and severity of traffic incidents and inform motorists of delay times, alternate routes, etc. Several toll plazas on the 100–mile expressway system have been converted to "open road tolling" express lanes, which provide another application of technology. It allows drivers to bypass the cash lane because electronic monitors over the roadway collect the tolls as the E-PASS (electronic tolling) vehicles travel at posted highway speed.

An Automated Traveler Information Service (511) service, which was initially operated by FDOT along 50 miles of the I-4 corridor in the Orlando area, enables callers to get up-to-the-minute information simply by saying aloud the area of the Interstate about which they are seeking information. This service, which has since been expanded statewide, enables commuters to determine the best route to take to their respective destinations by providing information on traffic congestion due to accidents, etc., as well as suggested alternate routes. Information on transit service is also available. The service started in Central Florida in 2002, and more than 670,000 people used the service during 2009 in the Orlando urban area.

In addition to considering the benefits from M&O strategies, and based on responses to the METROPLAN ORLANDO Survey of Public Opinion on Transportation Issues, more resources will be invested in traffic signal timing and computer coordination in some corridors. Within the METROPLAN ORLANDO area, there are approximately 1,645 traffic signals. Control of these traffic signals is split between various jurisdictions. Studies have shown that retiming traffic signals may improve the operations of a corridor (reduce delays and stops, improve safety, reduce fuel consumption and emission) from 5 to 25 percent. The use of computer-coordinated traffic signal systems in the area is discussed further in the next section.

#### **Computer-Coordinated Traffic Signals**

As mentioned on the previous page, computer-coordinated traffic signal systems, which improve traffic flow and help traffic signals become more efficient, are being deployed in Orange, Osceola and Seminole Counties. This technology is being deployed for traffic signals on International Drive in Orange County. Seminole County is complementing this technology by installing more than twenty Variable Message Signs at the interchange areas with Interstate 4 and at the intersections of US 17/92 with both SR 436 and SR 434. These signs will convey real-time traffic information to motorists and can provide detour routing for incidents on I-4. In addition, during 2005, Orange County deployed several similar message signs in the vicinity of I-4 on SR 535, Central Florida Parkway, Sand Lake Road, John Young Parkway, and Lee Road.

The growth in the number of computer-coordinated signals in the area from 2005 through 2009, as compared to the total number of signals, is illustrated in the following tables:

Orange County	2005	2006	2007	2008	2009
Total Traffic Signals	950	969	999	1,022	1107
Computer Coordinated Signals	693	700	773	765*	862
% Total Traffic Signals	72.9%	72.2%	77.4%	74.9%	77.9%

Osceola County	2005	2006	2007	2008	2009
Total Traffic Signals	139	148	150	150	164
Computer Coordinated Signals	41	41	41	40*	50
% Total Traffic Signals	29.5%	27.7%	27.3%	26.7%	30.5%

Seminole County	2005	2006	2007	2008	2009
Total Traffic Signals	356	366	370	366*	374
Computer Coordinated Signals	202	206	190**	193	220
% Total Traffic Signals	56.7%	56.3%	51.4%	52.7%	58.8%

<sup>\*</sup> The 2008 traffic signal numbers for Orange, Osceola and Seminole Counties that are lower than for 2007 is due to the removal of several signals that were causing traffic to back up and were not needed.

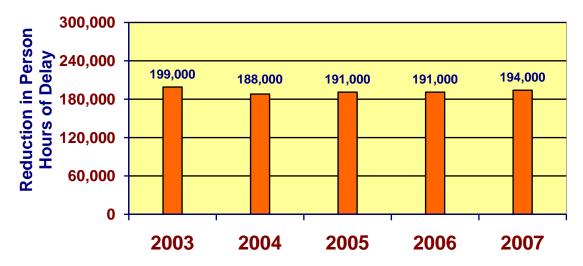
<sup>\*\*</sup> The number of Seminole County's coordinated signals for 2007 is lower than for previous years due to the use of a more accurate counting methodology. Revised figures for previous years are not available.

Total	2005	2006	2007	2008	2009
Total Traffic Signals	1,445	1,483	1,533	1,538	1645
Computer Coordinated Signals	945	968	1,028	998	1132
% Total Traffic Signals	64.8%	63.9%	66.1%	64.9%	68.8%

**Source:** Local Government Engineering Departments

The 2009 *Urban Mobility Report* estimates the annual reduction in traffic congestion that is attributed to traffic signal coordination on arterial roadways. The estimated reduction in person hours of travel delay due to traffic signal coordination from 2003 to 2007 in the METROPLAN ORLANDO area is provided in the chart on the following page. (*The 2007 data is the latest information available.*)

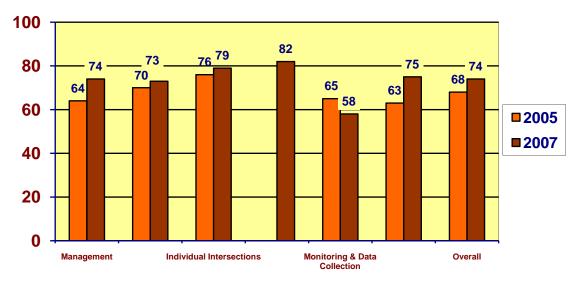
# **Effect of Traffic Signal Coordination on Travel Delay in Orlando Metro Area**



Source: Texas Transportation Institute - 2009 Urban Mobility Report

As stated in the beginning of this section, the results from the 2007 *Traffic Signal Report Card* is being used to show how well traffic signals operate on roadways in the region. The scores for Orange, Osceola and Seminole Counties, and the City of Orlando are averaged to represent the region. These jurisdictions represent over 85 percent of the traffic signals in the METROPLAN ORLANDO area. The National scores in 2005 and 2007 were 62 and 65, respectively. The average scores for the each of the criterion in the report card survey are show in the chart below.

# Orlando Metro Area Traffic Signal Report Card Score



**Source:** Orange, Osceola and Seminole County and City of Orlando Engineering Departments \*Latest data available

#### **Road Rangers**

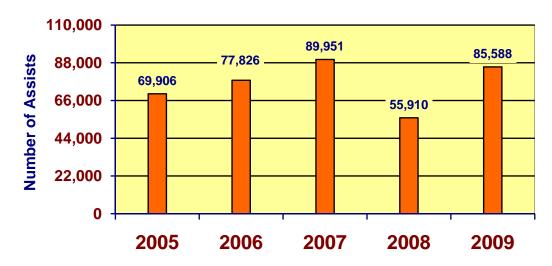
Road Rangers is a service operating on I-4 and the toll roads in the area that involves the use of specially-equipped trucks to help stranded motorists and minimize traffic congestion caused by minor accidents and vehicle breakdowns. The trucks are equipped to make minor car repairs, such as tire changes, fuel/fluid replacement, belt and hose replacement, etc. Other Road Ranger services include removing vehicles and debris from travel lanes, assisting with non-injury accidents, and providing communication with law enforcement and emergency services.

LYNX, the local transit provider, is operating the Road Rangers service in partnership with FDOT and METROPLAN ORLANDO on I-4 from I-95 in Volusia County to the Polk/Osceola County line. This service utilizes twelve trucks that operate 24-hours-a-day, seven-days-a-week. The Orlando-Orange County Expressway Authority (OOCEA) also operates a Road Ranger service jointly with Florida's Turnpike Enterprise on the toll roads in the Orlando area, including SR 408, SR 417, SR 429, and SR 528. This service utilizes six vehicles, and has been in operation since 2001. In addition, Florida's Turnpike Enterprise operates its own Road Ranger vehicles on the Florida's Turnpike mainline facility.

The number of Road Ranger service assists that occurred on I-4 and the toll roads in the area between 2005 and 2009 is shown in the following chart:

**Note:** The large decrease in the number of Road Ranger service assists that occurred between 2007 and 2008 was primarily due to a major reduction in the funding for the Road Ranger program by the Florida Legislature as a result of budget cuts.

## **Road Ranger Service Assists**

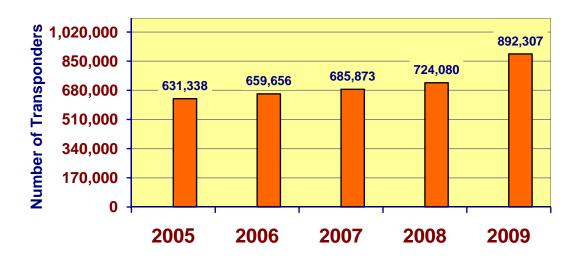


**Source:** Florida Department of Transportation, LYNX, Orlando-Orange County Expressway Authority, Florida's Turnpike Enterprise

#### E-PASS/SunPASS Transponders

Another ITS technology that is being successfully implemented in the area is the use of an electronic toll collection system on the area's toll roads. OOCEA's system, called E-PASS, began operating in 1994, and, since 2001, has been integrated with the SunPASS system operated by Florida's Turnpike Enterprise on toll roads throughout the state of Florida. E-PASS/SunPASS users have transponders in their vehicles which enable them to have their tolls collected automatically as they pass through the tollgates. The following chart illustrates the substantial increase in the number of E-PASS/SunPASS transponders in use in the area from 2005 through 2009:

### E-PASS/SunPASS Transponders in Use



**Source:** Orlando-Orange County Expressway Authority, Florida's Turnpike Enterprise

#### Red Light Camera Implementation and Enforcement

Red light cameras are used for traffic enforcement the United States. The cameras, which operate 24 hours a day and 7 days a week, automatically capture the image of violators who disobey posted traffic control devices. Depending on the particular technology, a series of photographs and/or video images show the red light violator prior to entering the intersection on a red signal, as well as the vehicle's progression through the intersection. Cameras record the date, time of day, time elapsed since the beginning of the red signal, vehicle speed, and license plate. Tickets are typically mailed to owners of violating vehicles, based on review of photographic evidence.

Prior to the development and passage of state legislation concerning this issue, several local municipalities have adopted ordinances to enforce red light violations (on county and city roadways) under the code enforcement process. The code enforcement process does not assess points against the vehicle owner's drivers' record, but does levy a civil fine for the violation. Actual fines vary among jurisdictions per the adopted ordinances.

On May 18, 2010, Governor Charlie Crist signed the Mark Wandell Traffic Safety Act (HB 325) into law. This law creates statewide consistent standards for the use of cameras as traffic enforcement devices. Major changes include: the authorization to use red light cameras on state roads and the distribution of funds collected from violations.

The following table illustrates the growing trend and utilization of red light cameras by local municipalities as of December 2009:

Municipality	Intersection	# of Citations Issued	
City of Orlando (Orange County)	EB Conroy & Vineland Rd (T1 & T2)	350	
	EB Conroy & Vineland Rd (L1, L2, & L3)	8651	
	SB Vineland & Conroy Rd (T1 &T2)	5954	
	SB Vineland & Conroy Rd (L1, L2, & T3)	554	
	WB Vineland & Conroy (T1 & T2)	2363	
	WB Vineland & Conroy Rd (L1, L2, & T3)	3337	
	NB Turkey Lake Rd & Wallace Rd (T1)	821	
	NB Turkey Lake Rd & Wallace Rd (L1, L2,& L3)	2276	
	Turkey Lake Rd & EB Wallace Rd	522	
	NB South Division Ave & West Kaley St	603	
	EB Lee Vista Blvd & South Goldenrod Rd (T1 & L1)	1967	
	NB Magnolia Ave & East Concord St	1610	
	SB Westmoreland Dr & West South St	498	
	WB East Michigan St & Dixie Belle Dr	1336	
City of Apopka	Park Ave & Main St (Southbound)	713*	
(Orange County)	Sheeler Ave & Orange Blossom Trail (Northbound)	/13"	
City of Ocoee (Orange County)	NB Maguire Ave & SR 50	1177	
	SB Maguire Ave & SR 50	1568	
	Blackwood Ave. & SR 50	NA**	
	NB Clarke Rd & AD Mims Rd	119	
	SB Clarke Rd & White Rd	21	
City of Winter Springs (Seminole County)	EB SR 434 & Winding Hollow Blvd	1128	

<sup>\*</sup> Combined citation total through November 2008

<sup>\*\*</sup> No violations issued due to vender relocation of system's electrical box

#### **Transit Statistics**

#### LYNX Service

As the highway system in the Orlando area becomes more congested, alternative modes of transportation are becoming an increasingly important means of transportation. LYNX is the area's local transit provider, and the majority of LYNX's passengers are dependent on transit service to get to work, shopping, etc. As a result, this service is essential to the area's economy and the quality of life of many of its citizens. The transit services provided by LYNX include:

- fixed-route bus service
- the LYMMO downtown circulator service (on an exclusive busway route)
- shuttle services
- an express bus service between Volusia County and Orlando in cooperation with VOTRAN
- a transportation disadvantaged service called ACCESS LYNX
- a van pooling service called VanPlan
- a ridesharing matching service called AutoMates

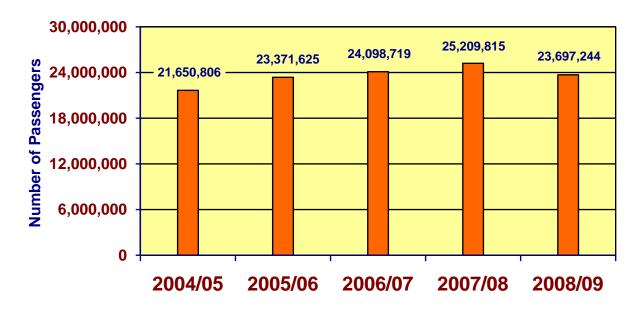
The number of vehicles used by LYNX to provide these services from FY 2004/05 through 2008/09 is shown in the following table:

LYNX Vehicles	2004/05	2005/06	2006/07	2007/08	2008/09
Fixed Route Buses*	237	247	290	288	288
ACCESS LYNX Vehicles	139	137	146	176	197
VanPlan Vehicles	54	50	59	71	87

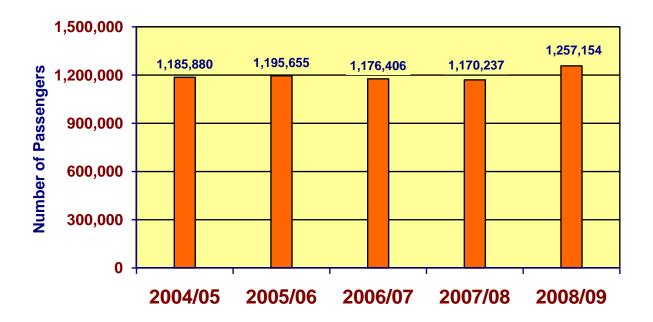
<sup>\*</sup>Includes LYMMO and shuttle vehicles.

The number of passenger boardings on the LYNX services from FY 2004/05 through 2008/09, as well as the vehicle miles traveled, is illustrated in the following charts:

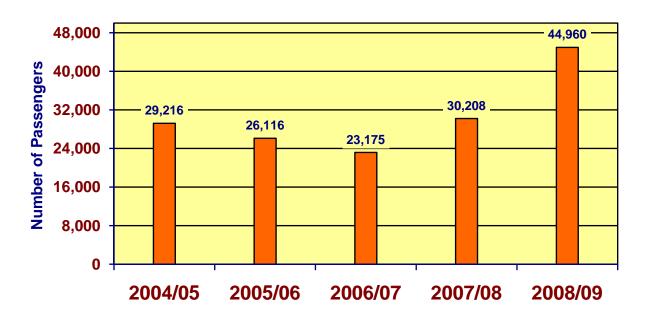
### LYNX Fixed-Route Bus Ridership



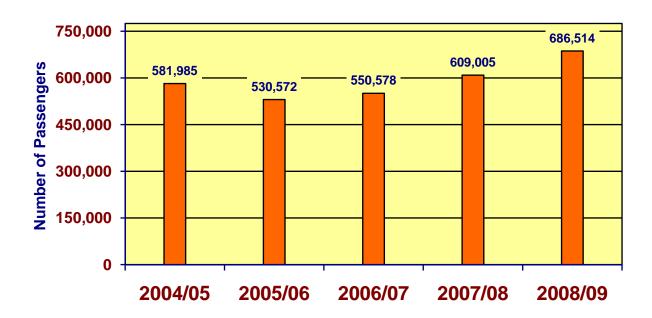
# **LYNX LYMMO Ridership**



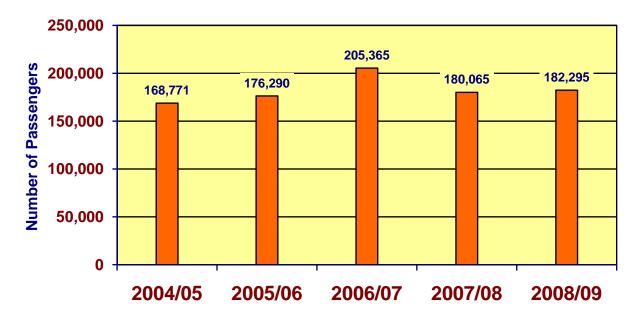
# **LYNX Special Shuttle Ridership**



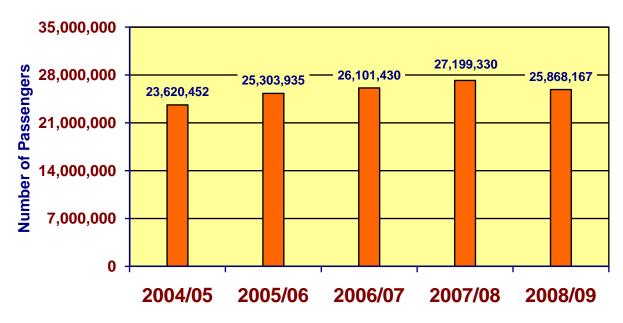
# **ACCESS LYNX Ridership**



# LYNX VanPlan Ridership

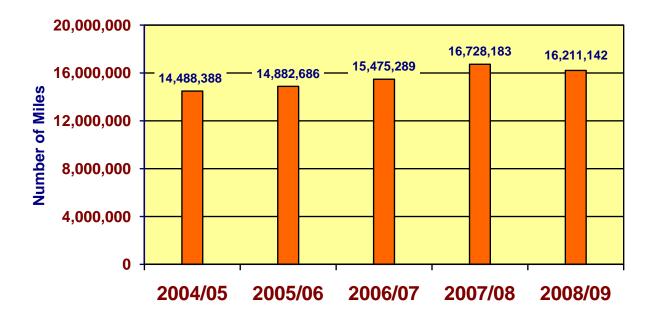


## **LYNX Total Ridership**



**Note:** The total ridership figures also include the number of VOTRAN Express passengers traveling from Volusia County to downtown Orlando. Separate VOTRAN Express ridership figures from LYNX are not available.

### LYNX Fixed-Route Vehicle Miles Traveled

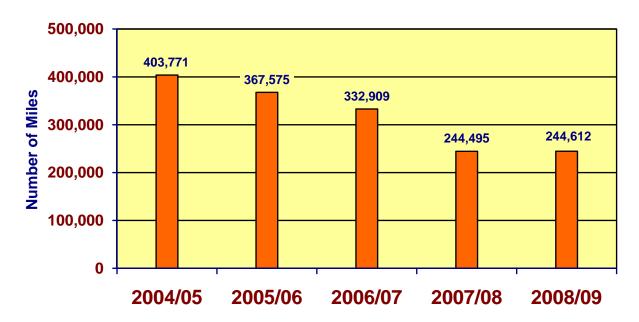


**Source:** LYNX

#### Average Mileage of LYNX Bus Fleet

In order to maintain the highest service standards possible, LYNX regularly purchases new buses to replace older buses that have exceeded the mileage criteria used by LYNX for replacement. This helps alleviate interruptions in service caused by mechanical problems, etc. Typically, LYNX retires a bus from service after it has reached about 600,000 miles. However, the Federal Transit Authority's minimum service life for large transit buses is 500,000 miles, although LYNX would prefer to retire its buses with mileages in the 550,000-mile range if funding becomes available. As the bus fleet ages over time, the need for replacement buses will become increasingly important, in addition to the need for new buses to expand the fleet. The average mileage of LYNX's bus fleet from FY 2004/05 through 2008/09 is illustrated in the following chart:

### Average Mileage of LYNX Bus Fleet

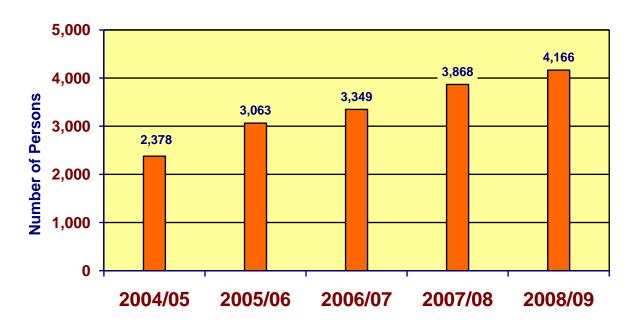


**Source:** LYNX

#### **Carpool Matching Program**

In order to help alleviate traffic congestion, LYNX has operated a carpool matching program in the area for many years. This is a free service that involves matching commuters that are interested in carpooling with other like-minded commuters that live within three miles and work within one mile of one another. Commuters are also matched according to personal preferences, such as smoking, gender match, work flexibility, and driving or riding preferences. The number of persons participating in the carpool matching program from FY 2004/05 through 2008/09 is shown in the following chart:

## **LYNX Carpool Matching Participants**

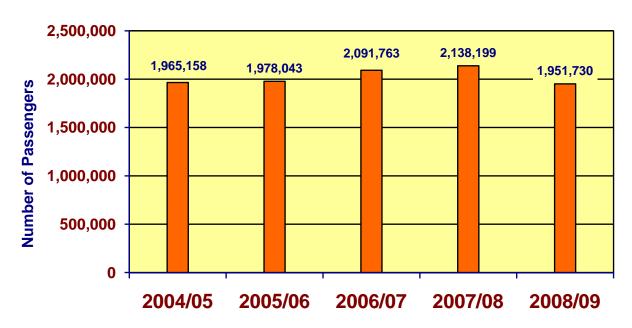


**Source:** LYNX

#### **I-RIDE Service**

I-RIDE, a trolley service that runs in the International Drive corridor, is operated by the International Drive Master Transit and Improvement District, and currently utilizes 11 trolleys. The total number of passenger boardings on the I-RIDE system from FY 2004/05 through 2008/09 is illustrated in the following chart:

### **I-RIDE Ridership**



**Source:** International Drive Master Transit and Improvement District

#### Park-and-Ride Lots

For the past several years, there have been three designated park-and-ride lots in the Orlando Metropolitan Area, all operated by the Florida Department of Transportation. The following table shows the locations of these lots, the number of parking spaces, and the average number of occupied spaces during 2008 and 2009. (FDOT conducts weekday occupancy surveys of the park-and-ride lots on a quarterly basis.)

Location	# Parking Spaces	Average # Spaces Occupied - 2008	Average # Spaces Occupied - 2009	% Change
SR 50 & Dean Rd.	41	12/39 (30.8%)	10 (24.4%)	- 20.7%
SR 50 & SR 419	87	52/85 (61.2%)	32 (36.8%)	- 39.8%
US 192 & Shady Ln.	111	13/111 (11.7%)	19 (17.1%)	+ 46.2%
Lake Lotus Park & Magnolia Homes Rd.	33	Opened May 2008	1 (3.03%)	N/A

**Source:** Florida Department of Transportation

Additional lots in west Volusia County are located at I-4 and Saxon Blvd. (119 spaces) and I-4 and Dirksen Blvd. (50 spaces).

#### School Bus Ridership

In addition to the public transit systems in the area, the public school districts in Orange, Osceola and Seminole Counties all operate major transportation systems in order to transport children to and from school each day by bus. The total number of public school students in each county school district from 2004/05 through 2008/09, the number and percentage of students transported by bus, and the number of school buses on daily routes, are shown in the following tables:

Orange County	2004/05	2005/06	2006/07	2007/08	2008/09
# Public School Students	1 <i>77,77</i> 1	176,804	175,308	175,302	175,363
# Students Riding Buses	69,810	71,087	72,000	66,993	72,000
% Total Students Riding Buses	39.3%	40.2%	41.1%	38.2%	41.05%
# Buses on Daily Routes	1,017	1,067	1,012	1,036	980

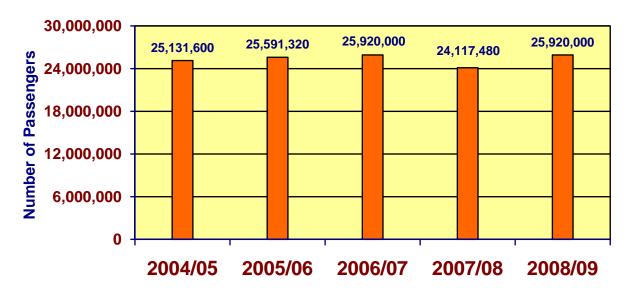
Osceola County	2004/05	2005/06	2006/07	2007/08	2008/09
# Public School Students	50,000	49,194	52,725	51 <i>,7</i> 98	53,189
# Students Riding Buses	22,167	23,388	22,273	23,911	23,176
% Total Students Riding Buses	44.3%	47.5%	42.2%	46.2%	43.6%
# Buses on Daily Routes	292	308	288	306	300

Seminole County	2004/05	2005/06	2006/07	2007/08	2008/09
# Public School Students	67,083	67,698	65,775	65,446	64,102
# Students Riding Buses	32,218	31,881	30,812	31,034	31,161
% Total Students Riding Buses	48.0%	47.1%	46.8%	47.4%	48.60%
# Buses on Daily Routes	386	385	398	403	386

Total	2004/05	2005/06	2006/07	2007/08	2008/09
# Public School Students	294,854	293,696	293,808	292,546	292,694
# Students Riding Buses	124,195	126,356	125,085	121,938	126337
% Total Students Riding Buses	42.1%	43.0%	42.6%	41.7%	43.2%
# Buses on Daily Routes	1,695	1,760	1,698	1,745	1,666

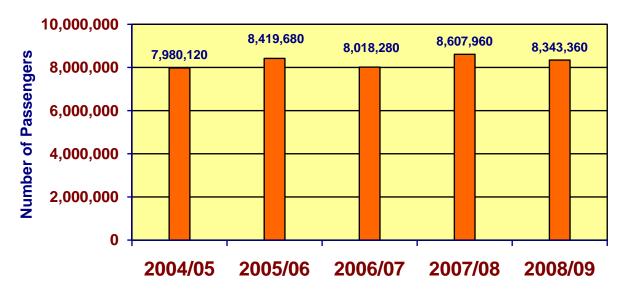
The total numbers of school bus passenger boardings per year for each county for the 2004/05 to 2008/09 school years are shown on the following charts:

# Orange County Annual Public School Bus Ridership



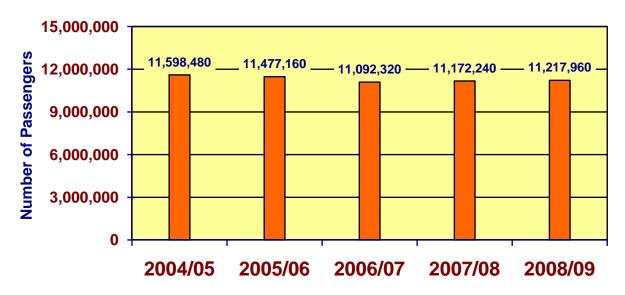
Source: Orange County Public Schools

## Osceola County Annual Public School Bus Ridership



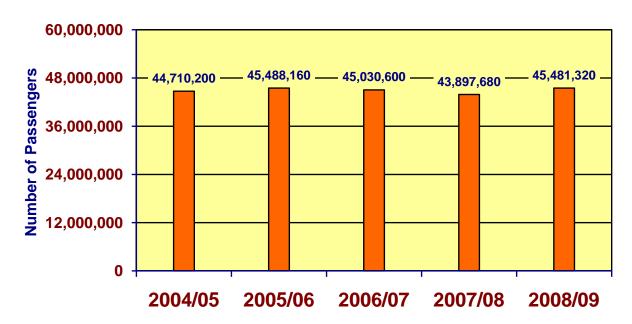
Source: Osceola County Public Schools

## Seminole County Annual Public School Bus Ridership



Source: Seminole County Public Schools

## **Total Annual Public School Bus Ridership**



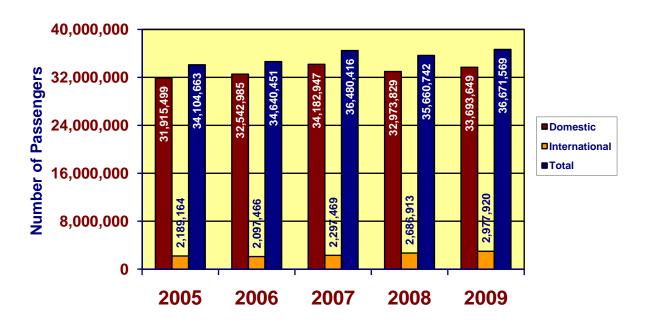
#### **Aviation Statistics**

#### Scheduled/Charter Service

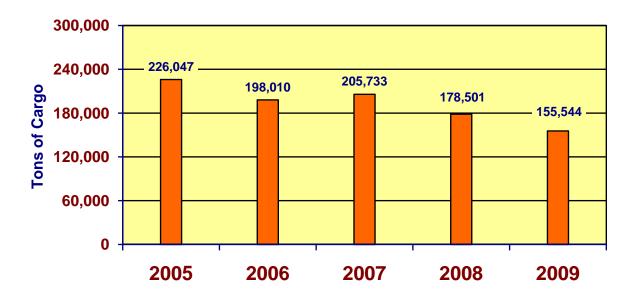
Aviation is another important mode of transportation in the Orlando Metropolitan Area. Due to the large number of tourists, business travelers, and residents flying to and from Orlando, the Orlando International Airport has been one of the fastest growing airports in the world for several years. A reduction in tourism resulting from the declining economy in 2008 and 2009 has led to a reduction in the number of passengers at the airport. The number of passengers is expected to increase as the economy improves.

The following charts show the number of passengers, tons of cargo, and operations at the Orlando International Airport from 2005 to 2009. The passenger information is also shown on maps in **Appendix E**.

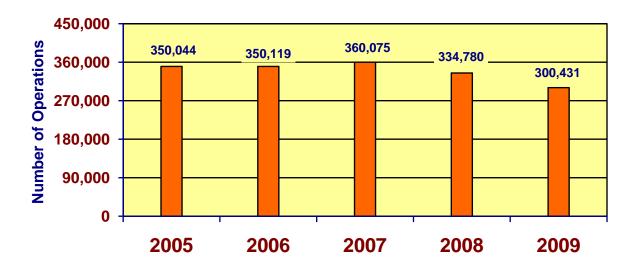
### **Orlando International Airport Passengers**



## **Orlando International Airport Cargo**



# Orlando International Airport Aircraft Operations



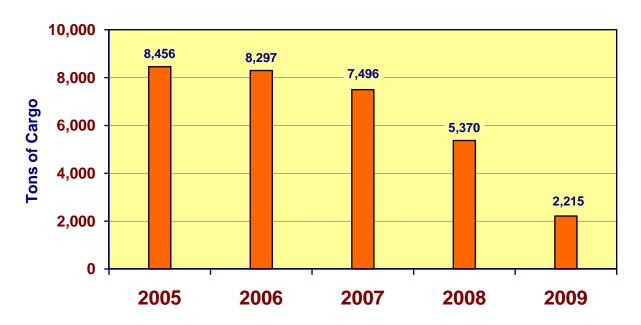
**Source:** Greater Orlando Aviation Authority

The Orlando Sanford International Airport has also grown rapidly in recent years. This airport handles international service (charter and regular scheduled) to and from Europe, as well as domestic flights to a growing number of U.S. cities. The airport also serves general aviation traffic and a large flight training facility. The following charts show the number of passengers, tons of cargo, and operations at the Orlando Sanford International Airport from 2005 to 2009. The passenger information is also shown on maps in **Appendix E**.

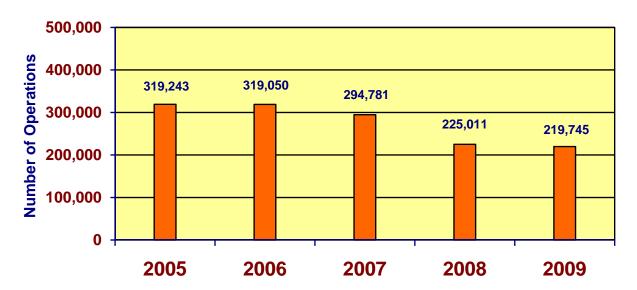




### **Orlando Sanford International Airport Cargo**



## Orlando Sanford International Airport Aircraft Operations



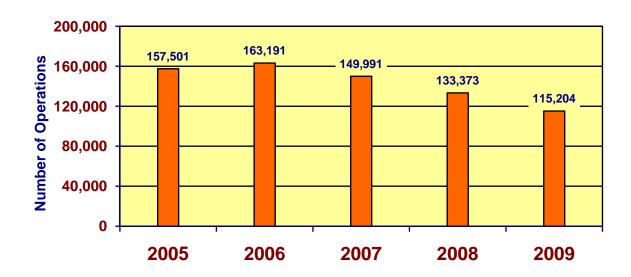
**Source:** Sanford Airport Authority

#### **General Aviation**

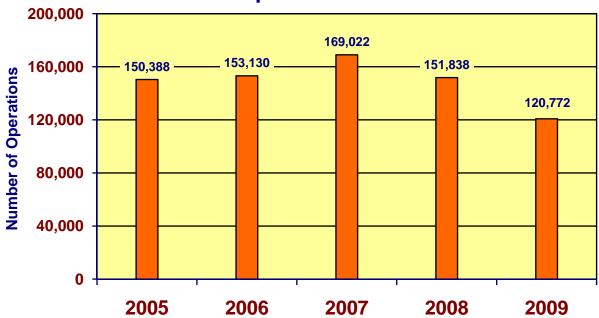
The general aviation airports, which handle private and business air traffic, are also an important part of the area's aviation system. These include the Orlando Executive and Kissimmee Gateway Airports. The following charts show the number of operations that have occurred at these airports from 2005 through 2009:

**Source:** Greater Orlando Aviation Authority

### **Orlando Executive Airport Aircraft Operations**



# Kissimmee Gateway Airport Aircraft Operations



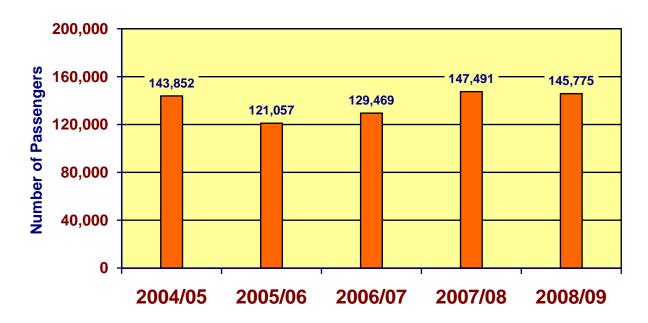
**Source:** Kissimmee Gateway Airport

#### **Rail Statistics**

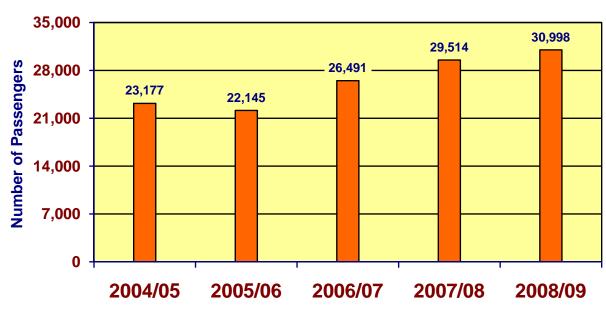
#### Passenger Service

At the present time, passenger rail service in the Orlando Metropolitan Area is provided by Amtrak, which has stations in Orlando, Winter Park, and Kissimmee, and the Auto Train service, which runs between Sanford and the Washington D.C. area. The following charts show the number of rail passengers that utilized these stations from FY 2004/05 through FY 2008/09. This information is also shown on a map in **Appendix E**.

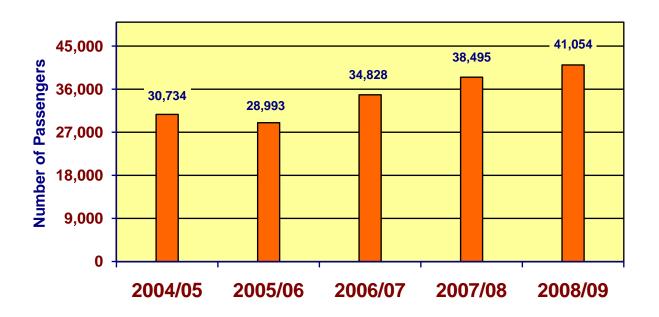
## **Amtrak Ridership - Orlando**



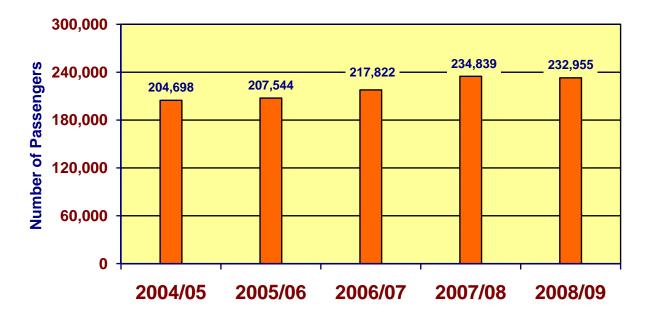
### **Amtrak Ridership - Winter Park**



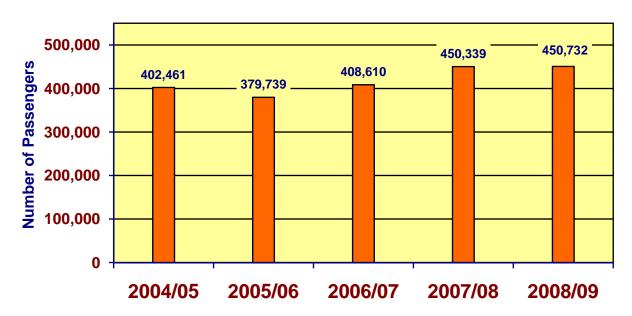
## **Amtrak Ridership - Kissimmee**



## **Auto Train Ridership - Sanford**



## **Total Rail Ridership**



Source: Amtrak

#### **Bicycle and Pedestrian Statistics**

Bicycling and walking are popular in the Orlando Metropolitan Area due to the mild climate and level terrain, and are excellent transportation modes for short trips to school, work and shopping. They are also popular as fitness and recreational activities. Unfortunately, much of the area is an intimidating and inconvenient environment for those who wish to walk or bike.

Bike lanes and wide curb lanes can make cycling more comfortable on arterial and collector roadways. Paved shoulders improve safety and comfort on rural highways. Shared use paths (trails) provide alternative routes with reduced motor vehicle conflicts. Sidewalks are critical for safe, comfortable pedestrian travel on arterial and collector roads. The majority of pedestrian injuries and fatalities occur to walkers attempting to cross high-speed arterials, often at night. Medians, street lighting, special emphasis crosswalks, and signalized mid-block crossings can facilitate safer roadway crossings.

METROPLAN ORLANDO's Bicycle and Pedestrian Advisory Committee has been working for several years to ensure that bicycle and pedestrian facilities are included in road projects wherever feasible. This committee has prioritized a number of shared-use paths and other pedestrian and bicycle projects for funding and construction.

#### Bicycle and Pedestrian Facilities and Levels of Service

As part of the 2025 Long Range Transportation Plan (LRTP) process, METROPLAN ORLANDO collected data for over 1,300 miles of arterial and collector roads and applied this data to the Bicycle Level of Service and Pedestrian Level of Service models developed and adopted by the Florida Department of Transportation. These models measure the level of comfort and perceived safety experienced by the average bicyclist while traveling on the roadway and the average pedestrian while traveling along a road edge or sidewalk. The data for this model has been translated into an "A" through "F" scale, with "A" being the best score and "F" being the worst. For the 2030 LRTP, the network was expanded to 1,637 miles (including a number of rural roads).

The Level of Service measures for bicycle and pedestrian modes are not comparable to those for highways; a poorer Level of Service score will mean an average person will be less likely to travel on foot or by bike. For example, a Level of Service "D" for a highway will not deter a person from making an auto trip, but a score of "D" for pedestrians or bicyclists will deter many of those users.

#### Sidewalks and Pedestrian Level of Service

Sidewalk coverage is the key measure of convenience and access for pedestrians. The table below shows a comparison of the percentage of sidewalk coverage on the pedestrian plan study network for each county and the entire metropolitan area.

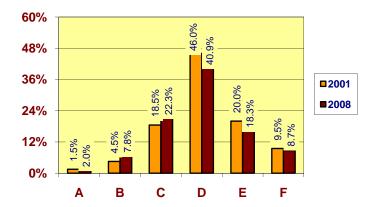
Percentage of Network Segments with Complete Sidewalks \*Latest data available at time of publication

	Network with Con	ts of Pedestrian Plan aplete Sidewalks On es of Street	Percent of Segments of Pedestrian Plan Network with Complete Sidewalks On At Least One Side of Street		
County	2001	2008	2001	2008	
Orange	41%	52%	60%	75%	
Seminole	35%	49%	49%	67%	
Osceola	36%	44%	45%	55%	
OSO	39%	51%	56%	71%	

The primary factors in the Pedestrian Level of Service model are traffic volume, curb lane width, buffer width between the roadway edge and sidewalk, the presence, coverage and width of sidewalks, and the presence of parked cars and/or trees between the roadway and sidewalk. Through extensive sidewalk construction through both road widening projects and sidewalk retrofit projects, Pedestrian Level of Service (PLOS) has improved significantly in the urbanized area. The chart below shows increases in the percentages of streets with PLOS of A, B, C and D, and reductions in percentages with PLOS of E and F from 2001 to 2008. The average PLOS score for 2008 for segments in the urbanized area is 3.8, improved from 4.3 in 2001; both of which fall under PLOS grade D. The threshold for PLOS C is 3.5.

#### Pedestrian Level of Service on METROPLAN ORLANDO Study Network (Percentage of Miles by Level of Service)

\*Latest data available at time of publication

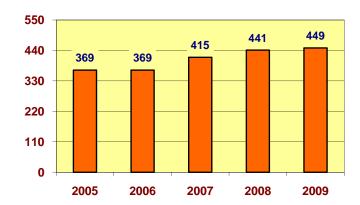


#### Bikeways and Bicycle Level of Service

Most local bicycle facility construction programs in the Orlando Metropolitan Area have only been in place since 1994, and few miles of bikeways were built during the early years of these programs. More recently there has been a sharp increase in the miles of bike lanes, paved shoulders and shared use paths built by local governments and the FDOT. The tables below show the numbers of miles of existing on-roadway and off-roadway bikeway facilities.

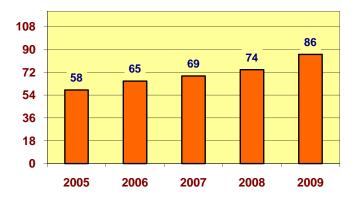
## Miles of On-Roadway Bicycling Facilities

(Designated Bike Lanes, Paved Shoulders and Undesignated Bike Lanes)

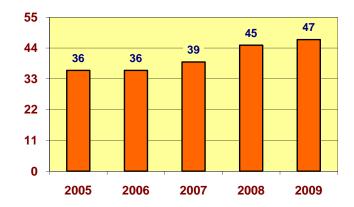


#### Miles of Shared-Use Pathways

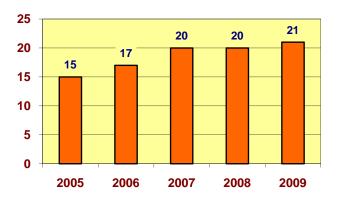
(Rails-to-Trails facilities and other bicycle and pedestrian pathways)



Miles of Sidewalk Bikeways (Shared Use Paths adjacent to roadways in the same general configuration as a sidewalk)



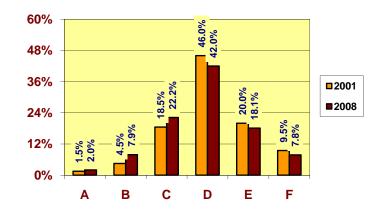
Number of Grade-Separated Pedestrian & Bicycle Facilities (Overpasses and underpasses)



The existence of bike lanes, undesignated bike lanes and paved shoulders does not fully address the level of comfort that bicyclists feel while traveling on roadways. The Bicycle Level of Service (BLOS) model calculates the most important factors bicyclists assess when judging their level of comfort on a roadway. These factors are traffic volume, motor vehicle speeds, the percentage of heavy truck traffic, curb lane width, paved shoulder or bike lane width, pavement quality, and the presence of parallel on-street parking. The results from the model are illustrated below. As illustrated in the chart below, improvements in BLOS between 2001 and 2008 were modest compared to pedestrian improvements. The average BLOS score for 2008 for segments in the urbanized area is 3.9, improved from 4.1 in 2001; both of which fall under BLOS grade D. The threshold for BLOS C is 3.5.

Bicycle Level of Service on METROPLAN ORLANDO Study Network (Percentage of Miles by Level of Service)

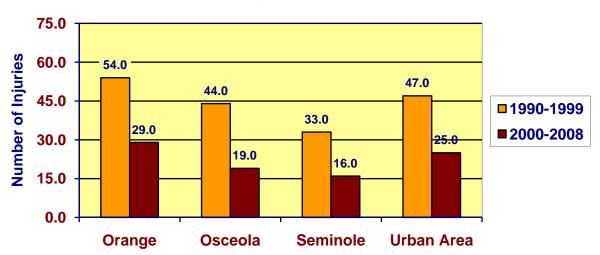
\*Latest data available at time of publication



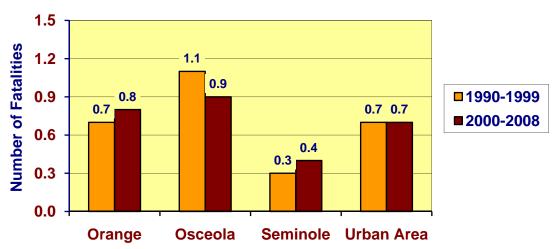
#### **Bicyclist and Pedestrian Injuries and Fatalities**

The charts below illustrate the changes in bicyclist and pedestrian injury and fatality rates (crashes per 100,000 population per year), comparing the combined years of 1990 through 1999 and 2000 through 2008. Factors which contribute to these rates include changing cyclist, pedestrian and motorist behaviors, the presence of bicycling and walking accommodations, the numbers of lanes and speeds on roadways, and the amount of bicycling and walking people perform. This last factor is unknown, so it is premature to say that bicycling or walking has become more or less safe during these eight years. The very significant drops in child bicycling (81 percent from 1991 to 2007) and walking crashes (61 percent) are responsible for most of the declines in these rates.

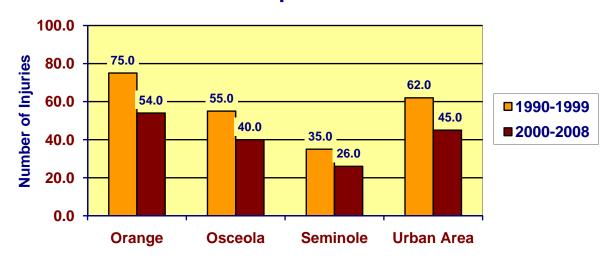
## Bicyclist Injury Rates per 100,000 Population



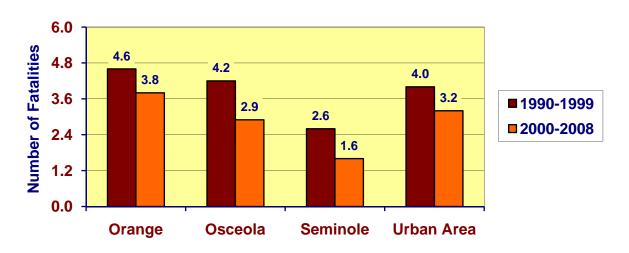
# Bicyclist Fatality Rates per 100,000 Population



# Pedestrian Injury Rates per 100,000 Population



## Pedestrian Fatality Rates per 100,000 Population

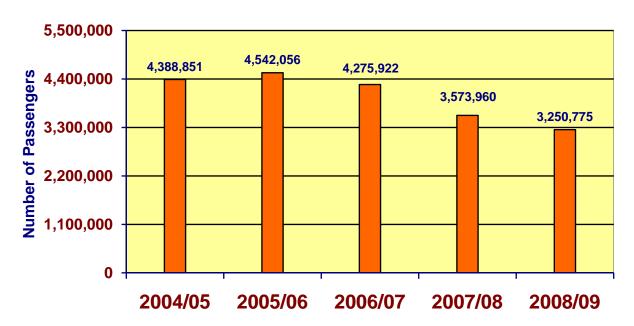


Source: METROPLAN ORLANDO Bicycle and Pedestrian Program

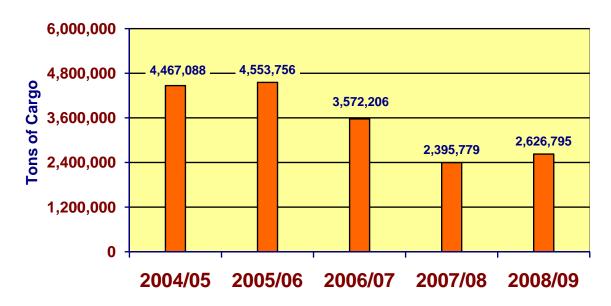
#### **Port Canaveral Statistics**

Although Port Canaveral is in Brevard County and is thus outside of the Orlando Metropolitan Area, much of the cargo that is handled at the port, and many of the port's cruise ship passengers, are destined for this area. As a result, Port Canaveral is considered to be an important regional asset. This port's freight and passenger statistics from FY 2004/05 through FY 2008/09 are shown in the following charts:

## **Port Canaveral Passengers**



## **Port Canaveral Cargo**

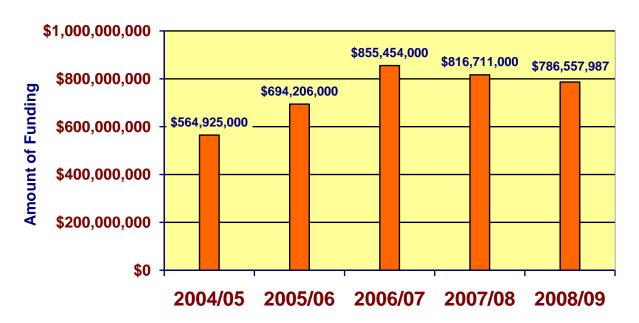


**Source:** Canaveral Port Authority

#### **Transportation Capital Improvement Funding Statistics**

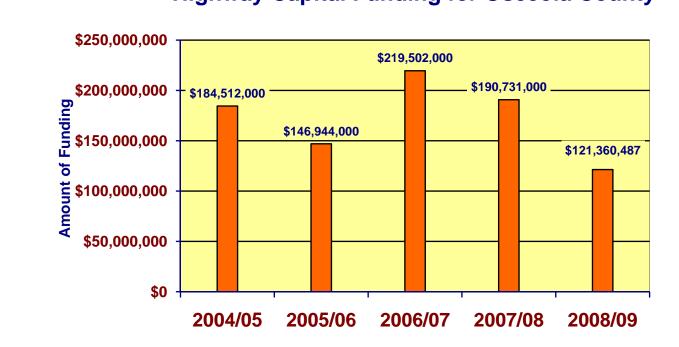
In order to provide the Orlando Metropolitan Area's citizens with a transportation system that continues to enable them to get where they want to go, many millions of dollars from federal, state and local funding sources have been programmed for transportation infrastructure improvements in recent years. These improvements include the construction of new highways and the widening of existing highways, as well as transit system improvements such as purchasing new transit vehicles and installing bus shelters and transit centers. Numerous improvements have also been made to the airports in the area, such as terminal expansions and runway improvements. In addition, bicycle and pedestrian facilities such as trails and sidewalks have been built in the area. The total amounts of federal, state and local funds that have been programmed for highway, transit, aviation and bicycle and pedestrian capital improvements from FY 2004/05 through FY 2008/09 are shown in the following charts:

### **Highway Capital Funding for Orange County**

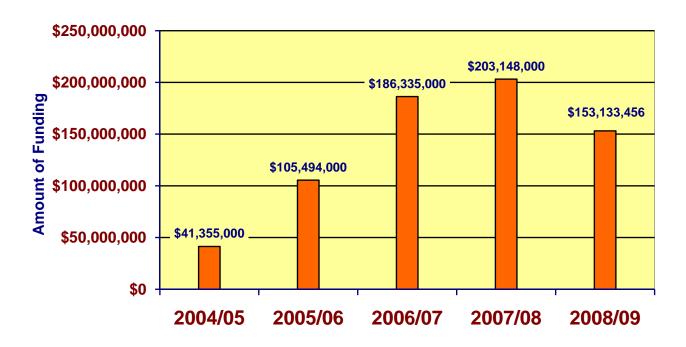


**Note:** The amount of funding programmed for transportation improvements does not necessarily increase every year, but fluctuates from year to year depending on when the funding allocations for various improvements are scheduled.

## **Highway Capital Funding for Osceola County**



## **Highway Capital Funding for Seminole County**

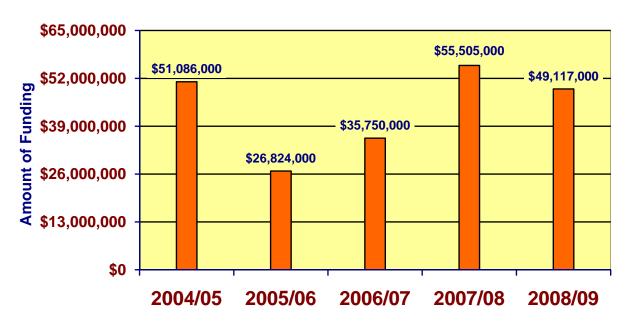


## **Total Highway Capital Funding**



**Source:** Florida Department of Transportation/Local Governments

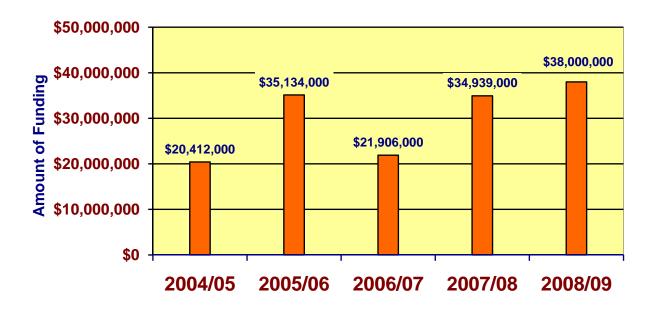
### **Transit Capital Funding**



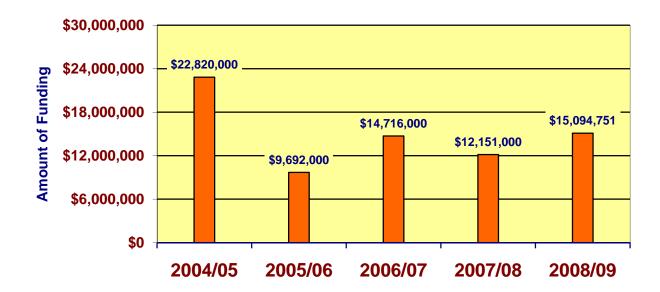
**Source:** Florida Department of Transportation

Note: The \$55.5 million for transit capital funding in FY 2007/08 includes \$16.3 million for commuter rail, in addition to funding for the LYNX transit system.

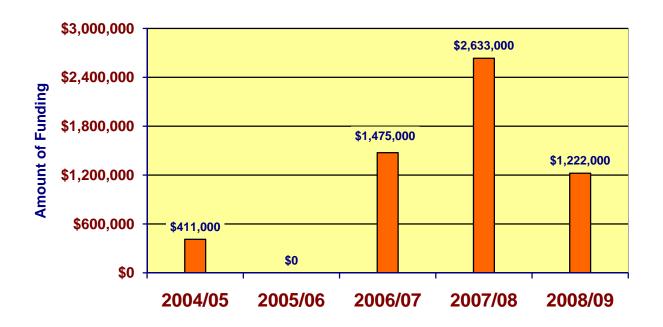
## **Orlando International Airport Capital Funding**



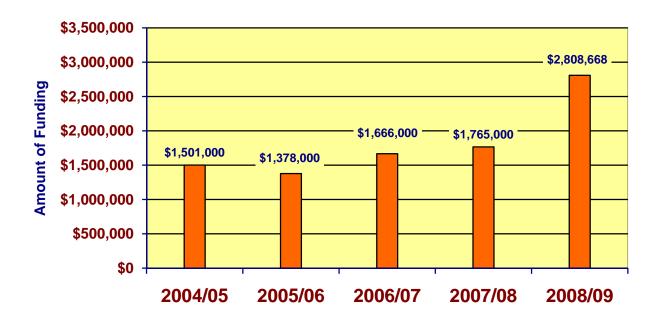
## Orlando Sanford International Airport Capital Funding



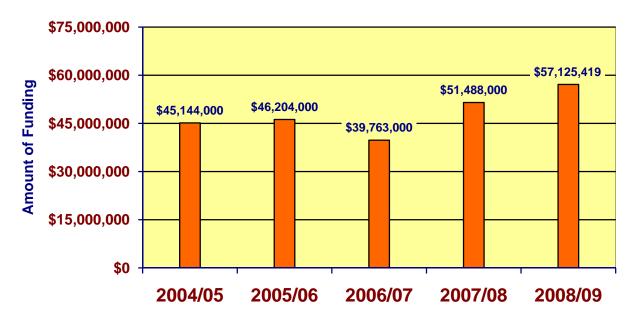
## **Orlando Executive Airport Capital Funding**



## **Kissimmee Gateway Airport Capital Funding**

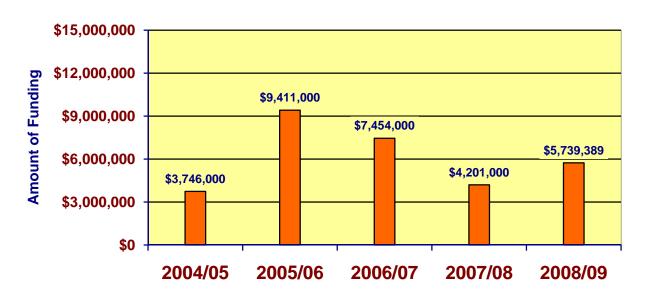


### **Total Airport Capital Funding**



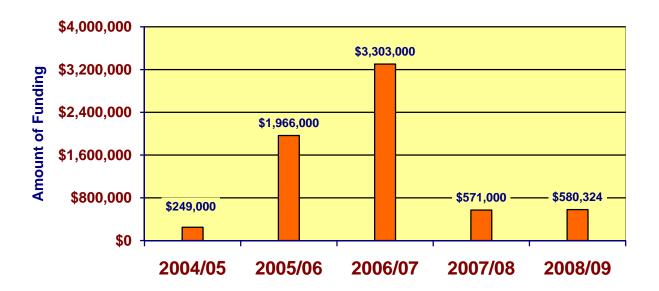
**Source:** Florida Department of Transportation

Bicycle & Pedestrian Capital Funding for Orange County\*

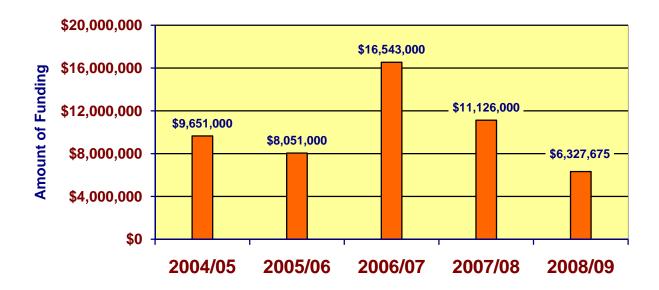


<sup>\*</sup> It should be noted that bicycle lanes and sidewalks are often included as components of highway projects. Such facilities are not reflected in the bicycle and pedestrian funding figures shown for Orange, Osceola and Seminole Counties, which only represent stand-alone bikeway or pedestrian projects.

## Bicycle & Pedestrian Capital Funding for Osceola County\*

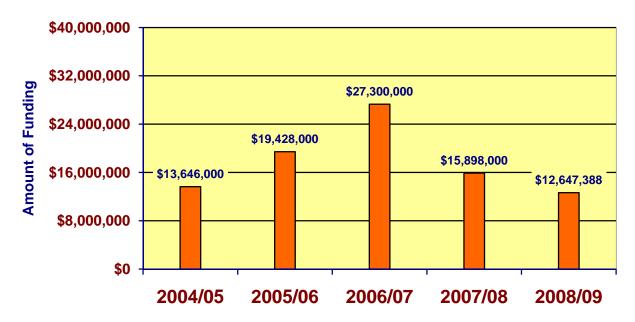


Bicycle & Pedestrian Capital Funding for Seminole County\*



<sup>\*</sup> See footnote on page 84.

**Total Bicycle & Pedestrian Capital Funding** 



**Source:** Florida Department of Transportation/Local Governments

## **Grand Total Transportation Capital Funding**

