

# FLORIDA 2008\* TRAFFIC SAFETY FACTS

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## *BICYCLISTS*

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December 2009



Report Compiled by the  
Florida Department of  
Highway Safety & Motor Vehicles  
\* 2008 the most current data available.

## 2008 FLORIDA QUICK FACTS:

### Fatalities

• All	2,983
• 2008 Bicyclists	118
Percent of All	4.0 %
• 2007 Bicyclists	121
Percent Change	(4.1) %

### Injuries

• All	199,658
• 2008 Bicyclists & Passengers	4,748
Percent of All	2.4 %
• 2007 Bicyclists & Passengers	4,690
Percent Change	(2.3) %

### Rate (per 100,000 Population)

• Bicyclist and Passengers <i>Fatality</i> Rate	0.63
• Bicyclists and Passengers <i>Injury</i> Rate	25.2

### Alcohol-related Fatalities

• Drinking <i>Drivers</i> in Fatal Bicycle Crashes	8.4 %
• Drinking <i>Bicyclists</i> in Fatal Bicycle Crashes	28.7 %

### Safety Equipment

Bicyclist Fatalities (there are no passenger fatalities)

• With Safety Helmet	31
• Without Safety Helmet	85
• Percent with Helmets	36 %

### Injuries

• With Safety Helmet	645
• Passengers With Safety Helmet	2
• Without Safety Helmet	3,688
• Passengers Without Safety Helmet	31
• Percent with Helmets	17 %
• Passengers percent with Helmets	1 %

### Definitions:

*Bicycle* – A vehicle propelled solely by human power or a motorized bicycle propelled by a combination of human power and an electric helper motor rated at 200 watts or less (this term does not include a vehicle with a seat height less than 26 inches from the ground when the seat is adjusted to its highest position, or a scooter or similar device).

*Bicyclist* – A driver of a bicycle. A passenger on a bicycle is considered a vehicle passenger.

## ***EXECUTIVE SUMMARY***

The first automobile accident in the United States involving a bicyclist occurred in New York City in 1896. Since 1932, (statistics first compiled on bicycle fatalities) more than 53,000 bicyclists have died in traffic crashes. In 2008, 716 bicyclists were killed in the U.S. and an additional 52,000 were injured in traffic crashes, which is approximately two percent of all traffic fatalities and two percent of all injuries during the year. In 2008, Florida experienced 118 deaths and 4,380 injuries of bicyclists in traffic crashes. With a growing population, (900 new residents per day) 85 million visitors, Florida's temperature and year-round climate along with beautiful beaches and bike paths, bicyclists exposure to crashes is ever increasing.

According to the National Highway Traffic Safety Administration's National Center for Statistics and Analysis, in 2005, Florida had the highest number of fatal bicycle crashes of any state - one out of every seven fatal bicycle crashes in the country occurred in Florida. While California's population is approximately twice that of Florida's, Florida had more fatal bicycle crashes.

During the last nine years, 994 bicyclist and their passengers have died on Florida highways and an additional 41,267 have been injured. Bicycle fatalities have increased 42.2 percent over the last several years as the state's population has increased 17.7 percent. In addition, bicycle related injuries have decreased 4.5 percent over the same nine-year period.

During this nine-year period, the bicycle fatality rate ranged from 0.52 to 0.77 fatalities per 100,000 population. During this same time, the bicycle injury rate has decreased from 28.7 injuries per 100,000 population in 2000 to 23.3 injuries per 100,000 population in 2008.

### **Operator Characteristics:**

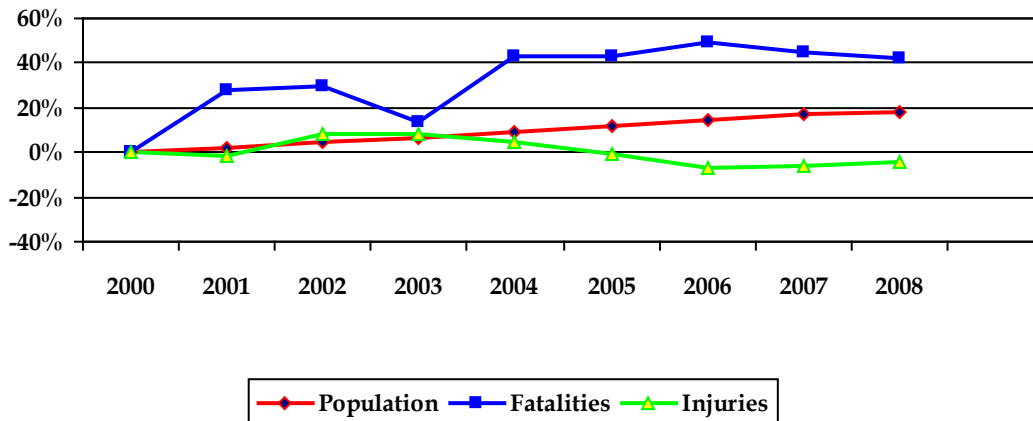
- In 2008, 29.6% of all bicyclist fatalities had been drinking prior to fatal crash.
- Same year, 86% of bicyclists killed were males.
- Same year, 26% of bicyclists were using helmets at the time of the fatal crash.
- Same year, less than 1% of the bicyclists under 16 were using helmets.  
Florida law requires bicycle riders less than 16 years of age to wear a bicycle helmet.
- During 2004 through 2008, over one-third of all bicycle fatalities were 41 to 55 years old.

### NINE-YEAR HISTORY (2000 through 2008)

During the last nine years, 994 bicyclists have died on Florida highways and an additional 51,045 have been injured. Bicycle fatalities have increased 42.2 percent over the last nine years as the state's population has increased 17.7 percent. In addition, bicycle related injuries have decreased 4 percent over the same nine-year period.

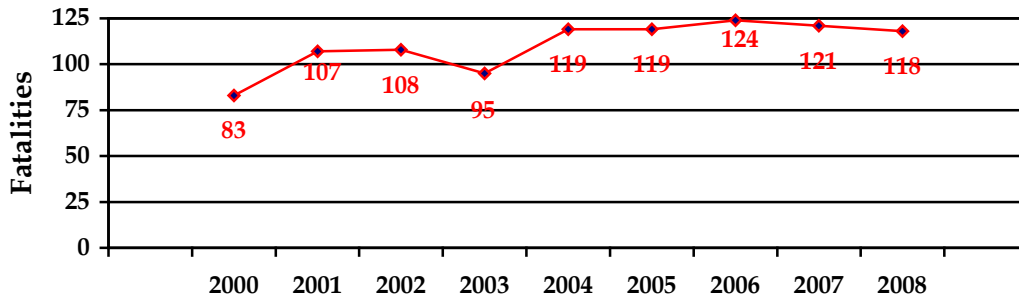
Year	Florida Population		Fatalities		Injuries	
	#	% Change	#	% Change	#	% Change
2000	15,982,824		83		4,585	
2001	16,330,224	2.17	107	28.9	4,476	-2.4
2002	16,674,608	4.3	108	30.1	4,970	8.4
2003	17,071,508	6.8	95	14.5	4,991	8.9
2004	17,516,732	9.6	119	43.4	4,820	5.1
2005	17,872,296	11.8	119	43.4	4,515	-1.5
2006	18,349,132	14.8	124	49.4	4,227	-7.8
2007	18,680,367	16.9	121	45.8	4,303	-6.2
2008	18,807,219	17.7	118	42.2	4,380	-4.5

Cumulative Percentage Change Since 2000

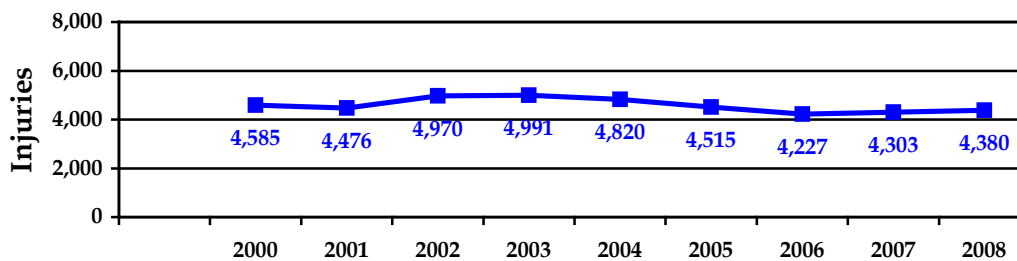


*Bicycle Fatalities and Injuries:* During this nine-year period, bicycle fatalities have increased slightly. Year 2000 had the lowest number of fatalities (83) and 2006 had the highest with 124 fatalities. During this same time-period, the injuries have decreased with 2003 having the highest number of injuries and 2006 having the lowest.

**Bicycle Fatalities (2000 - 2008)**



**Bicycle Injuries (2000 - 2008)**

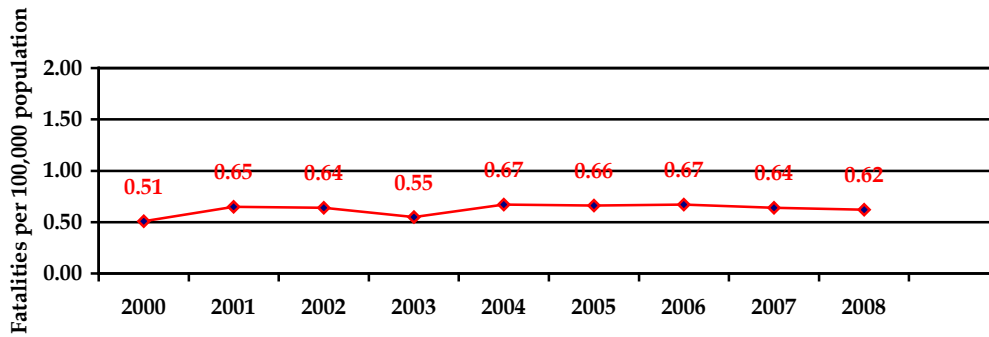


*Bicycle Fatality and Injury Rates:*

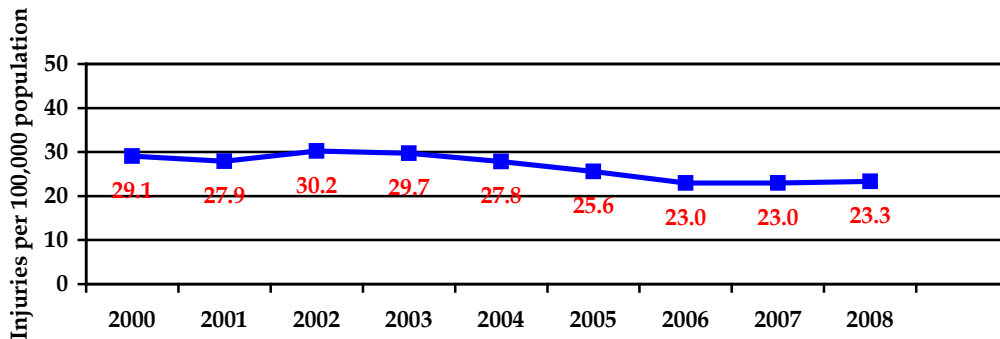
During this nine-year period, bicycle fatality rate ranged from 0.51 to 0.67 fatalities per 100,000 population. During this same time, the bicycle injury rate has decreased 28.7 injuries per 100,000 population in 2000 to 23.3 injuries per 100,000 population in 2008.

Year	Population	Fatalities		Injuries	
		#	Rate	#	Rate
2000	15,982,824	83	0.51	4,585	28.7
2001	16,330,224	107	0.65	4,476	27.4
2002	16,674,608	108	0.64	4,970	29.8
2003	17,071,508	95	0.55	4,991	29.7
2004	17,516,732	119	0.67	4,820	27.8
2005	17,872,296	119	0.66	4,515	25.6
2006	18,349,132	124	0.67	4,227	23.0
2007	18,680,367	121	0.64	4,303	23.0
2008	18,807,219	118	0.62	4,380	23.3

**Bicycle Fatality Rate (per 100,000 Population)**



**Bicycle Injury Rate (per 100,000 Population)**



**OPERATOR CHARACTERISTICS:**

**Alcohol-Under Influence Involvement**

Of the 118 bicycle operator fatalities in 2008, 35 (29.6%) had been drinking prior to fatal crash.

Fatalities	2008
Drinking Bicycle Operators	35
Bicycle Operators	118
% Drinking Bicycle Operators	29.6%

**Operator's Age**

During the time-period of 2004 through 2008:

Five percent of bicyclists' fatalities were under the age of 16.

Twelve percent of bicyclists' fatalities were ages 16 to 25 years old.

Twenty percent of bicyclists' fatalities were ages 26 to 40 years old

Thirty-five percent of bicyclists' fatalities were ages 41 to 55 years old.

Twenty-seven percent of bicyclists' fatalities were over 55 years old.

**Bicyclists (Operator Only) Fatalities by Age Group**

Age Group	Year					% of 5 Yr. Total
	2004	2005	2006	2007	2008	
0-5	0	0	1	0	0	0%
6-10	0	0	4	4	1	2%
11-15	5	6	4	2	3	3%
16-20	10	9	4	8	11	7%
21-25	4	5	7	8	6	5%
26-30	3	6	5	6	11	5%
31-35	5	9	10	8	8	7%
36-40	7	8	14	9	5	7%
41-45	15	14	13	13	9	11%
46-50	15	16	15	17	24	15%
51-55	10	12	13	9	9	9%
56-60	8	7	9	17	8	8%
61-65	6	5	7	5	11	6%
66+	24	11	15	14	11	13%
Unknown	7	7	3	1	1	*

\* Unknowns are not included in % of 5 Yr. Total.

**Bicyclist Fatalities by Gender**

During 2008, of the 118 bicyclists killed in fatal crashes, 101 (86%) were males and 16 (14%) were females.

### Safety Equipment - Helmets

In 2008, of the 118 bicycle fatalities, 31 (26%) were using helmets, 85 (72%) were *not* using helmets and two (2%) were not stated.

### Comparative Safety Equipment Use by Bicyclists and Their Passengers - Fatalities

Year	Using Helmets			Not Using Helmets			% Using Helmet
	Operators	Passengers	Total	Operators	Passengers	Total	
2000	8	0	8	75	1	75	11%
2001	4	0	4	103	3	106	1%
2002	5	0	5	103	1	104	5%
2003	6	0	6	88	0	88	7%
2004	12	0	12	107	0	107	11%
2005	12	0	11	107	0	104	11%
2006	14	1	14	110	1	111	13%
2007	23	0	23	96	0	96	24%
2008	31	0	31	85	0	85	36%

In 2008, of the 4,380 bicycle injuries, 647 (14.7%) were using helmets, 3,719 (85%) were *not* using helmets and 14 (.03%) were not stated.

### Comparative Safety Equipment Use by Bicyclists and Their Passengers - Injuries

Year	Using Helmets			Not Using Helmets			% Using Helmet
	Operators	Passengers	Total	Operators	Passengers	Total	
2000	559	4	563	4,414	149	4,563	12%
2001	519	7	526	4,292	102	4,394	11%
2002	526	8	534	4,792	101	4,893	10%
2003	676	13	689	4,880	124	5,004	13%
2004	628	9	637	4,493	100	4,593	12%
2005	637	13	650	4,274	118	3,949	13%
2006	531	2	533	3,975	71	4,046	13%
2007	674	4	678	3,952	60	4,012	17%
2008	645	2	647	3,688	31	3,719	17%

In 2008, of the 4,380 bicycle injuries to passengers, two passengers (.4%) were using safety helmets, and 31 passengers (.7%) were *not* using safety helmets.



## CRASH CHARACTERISTICS:

### Lighting Condition

Thirty-six percent of fatal bicycle crashes occurred while lighting conditions (dawn, dusk and dark) required bicycles to have proper lighting.

	Light Condition						Total
	Dawn	Daylight	Dusk	Dark (Street Light)	Dark (No Light)	Unknown	
Fatal Crashes	1	43	9	32	32	1	118
% of Total	1%	36%	8%	27%	27%	1%	

### Day of Fatalities

Sixty percent of fatal bicycle crashes occurred on Wednesdays, Fridays and Saturdays.

	Days of Week							Total
	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.	
Fatal Crashes	11	12	22	16	20	29	8	118
% of Total	9%	10%	19%	13%	17%	24%	7%	

### Month of Fatalities

Forty-nine percent of fatal bicycle crashes occurred in January, April, May September and October.

	Months of Year												Total
	J	F	M	A	M	J	J	A	S	O	N	D	
Fatal Crashes	11	10	6	15	11	8	5	10	11	11	10	10	118
% of Total	9%	8%	5%	13%	9%	7%	4%	8%	9%	9%	8%	8%	

### Number of Roadway Lanes

Thirty-three percent of fatal bicycle crashes occurred on two-lane roadways and thirty-seven percent occurred on four-lane roadways.

	# of Roadway Lane								Total
	1	2	3	4	5	6	7	8	
Fatalities	3	39	2	43	1	26	1	1	116*
% of Total	1%	33%	2%	37%	1%	22%	1%	1%	

\* Two unknown

## Bicycle Fatalities by County

Seven counties accounted for over half of the bicycle fatalities in 2008. The following counties accounted for 66 of the state's 118 bicycle (no passengers) fatalities.

Broward	12	Palm Beach	8	Lee	6
Pinellas	10	Martin	6	Miami/Dade	5
Orange	9	Marion	6	Hillsborough	4

\* Only operators no passengers.

### FIVE-YEAR BICYCLE FATALITY HISTORY BY COUNTY\* (Florida, 2004-2008)

COUNTY	2004	2005	2006	2007	2008	COUNTY	2004	2005	2006	2007	2008
ALACHUA	3	0	2	5	4	LEE	6	9	7	4	6
BAKER	0	0	0	0	0	LEON	0	2	0	0	0
BAY	0	1	3	1	0	LEVY	0	0	0	0	0
BRADFORD	0	0	0	0	1	LIBERTY	0	0	0	0	0
BREVARD	2	3	5	7	1	MADISON	0	0	0	0	0
BROWARD	6	7	12	6	12	MANATEE	1	4	6	1	1
CALHOUN	0	0	0	0	0	MARION	3	0	2	4	6
CHARLOTTE	1	0	0	2	0	MARTIN	2	2	2	0	6
CITRUS	0	1	0	0	0	MIAMI-DADE	6	8	8	12	5
CLAY	0	0	0	0	1	MONROE	5	1	2	2	1
COLLIER	1	5	3	3	4	NASSAU	1	0	0	0	0
COLUMBIA	1	1	1	0	0	OKALOOSA	0	0	3	3	1
DE SOTO	0	1	1	0	1	OKEECHOBEE	1	0	1	0	1
DIXIE	0	0	0	0	0	ORANGE	8	10	10	14	9
DUVAL	6	3	7	10	4	OSCEOLA	1	2	2	1	1
ESCAMBIA	2	2	1	2	2	PALM BEACH	8	8	9	10	8
FLAGLER	1	1	1	0	1	PASCO	6	1	2	4	2
FRANKLIN	0	0	0	0	0	PINELLAS	13	7	5	4	10
GADSDEN	0	0	0	0	0	POLK	3	6	3	3	3
GILCHRIST	0	0	0	0	0	PUTNAM	1	0	0	0	2
GLADES	0	0	0	0	0	ST. JOHNS	3	3	0	1	2
GULF	0	0	0	0	0	ST. LUCIE	2	2	2	1	2
HAMILTON	0	0	0	0	0	SANTA ROSA	1	0	0	1	0
HARDEE	0	0	0	0	0	SARASOTA	5	3	5	5	3
HENDRY	0	1	1	1	2	SEMINOLE	2	3	2	0	2
HERNANDO	1	1	0	1	2	SUMTER	0	1	0	1	0
HIGHLANDS	0	0	2	0	0	SUWANNEE	0	0	0	0	0
HILLSBOROUGH	10	10	7	6	4	TAYLOR	1	1	0	1	0
HOLMES	0	0	0	0	0	UNION	0	0	0	0	0
INDIAN RIVER	1	0	2	0	0	VOLUSIA	1	1	2	3	3
JACKSON	0	0	0	0	0	WAKULLA	0	0	0	0	0
JEFFERSON	0	0	1	0	0	WALTON	1	1	0	0	1
LAFAYETTE	0	0	0	0	0	WASHINGTON	0	0	0	0	0
LAKE	3	3	1	2	0	<b>STATEWIDE</b>	<b>119</b>	<b>119</b>	<b>124</b>	<b>121</b>	<b>118</b>

## FLORIDA FIVE-YEAR TREND DATA

	2004	2005	2006	2007	2008	% 5-Yr Change
<i>Fatalities:</i>						
Motor Vehicle	3,257	3,533	3,365	3,221	2,983	8%
Bicyclists	119	119	124	121	118	1%
<i>Injuries:</i>						
Motor Vehicle	227,192	233,930	214,914	212,149	199,658	-0.12%
Bicyclists	4,820	4,515	4,227	4,303	4,380	-0.9%
<i>Crashes:</i>						
Motor Vehicle	252,902	268,605	256,200	256,206	243,342	-0.4%
Bicyclists	5,203	4,895	4,611	4,847	4,775	-0.8%
<i>Roadway Miles:</i>						
All Public (Centerline)	119,529	120,556	121,995	121,526	121,386	2%
State System (Centerline)	12,046	12,040	12,067	12,062	12,084	0.3%
State System (Lane)	41,138	41,473	41,916	42,082	42,432	3%
<i>Licensed Drivers:</i>						
	15,007,005	15,272,680	15,491,878	15,579,603	15,556,658	4%
Vehicles Registrations	14,512,264	15,062,993	15,612,161	14,858,332	15,966,287	10%
Vehicle Miles Traveled (millions)	196,722	200,974	203,783	205,421	198,494	9%
<i>Population</i>	17,516,732	17,872,296	18,349,132	18,680,367	18,807,219	7%
<i>Tourists</i>	79,700,000	83,600,000	83,900,000	84,500,000	84,200,000	6%