

## Motor Vehicle Traffic Crash Fatality Counts And Estimates of People Injured for 2007

#### Based on

The Fatality Analysis Reporting System (FARS)
and
The National Automotive Sampling System
General Estimates System (NASS GES)

**DOT HS 811 034** 

September 2008

#### 2007 Annual Assessment

This report compares fatality counts and estimates of people injured resulting from motor vehicle traffic crashes occurring in 2007, with counts and estimates from final 2006 files. As usual, the final numbers reported are updated from the previously released annual file data; the 2006 final file shows an increase of 66 more fatalities.

Counts and estimates are based on Fatality Analysis Reporting System and NASS General Estimates System files, as indicated in the sources listed on page 4.

The fatality counts for 2007 will be finalized next year. Data from 2006 and prior years are final and will not be updated again.

#### 2007 Annual Assessment

Since the fatality counts from FARS data are based on a census of fatal traffic crashes, the fatality data contained in the following tables is not subject to sampling variation.

However, the estimates of people injured from NASS GES data are based on a nationally representative sample of policereported crashes and hence are subject to sampling errors.

The changes in people-injured data between 2006 and 2007 that are statistically significant (where applicable) are indicated in the respective tables with footnotes.

#### **Data Sources**

#### Crash Data

- ◆ Fatality Analysis Reporting System
  - 2006 (and prior years) Final File
  - 2007 Annual Report File
- NASS General Estimates System
  - 2007 (and prior years) Annual File
- Exposure Data
  - ♦ Vehicle Miles of Travel (VMT)
    - 2006 and Prior Years FHWA's Annual Highway Statistics
    - 2007 FHWA's Traffic Volume Trends (June 2008)
  - Registered Vehicles
    - Based on NHTSA's Projections, R.L.Polk and FHWA
  - ◆ Population Estimates (based on 2000 Census)
    - Census Bureau

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*In 2007 ...* 

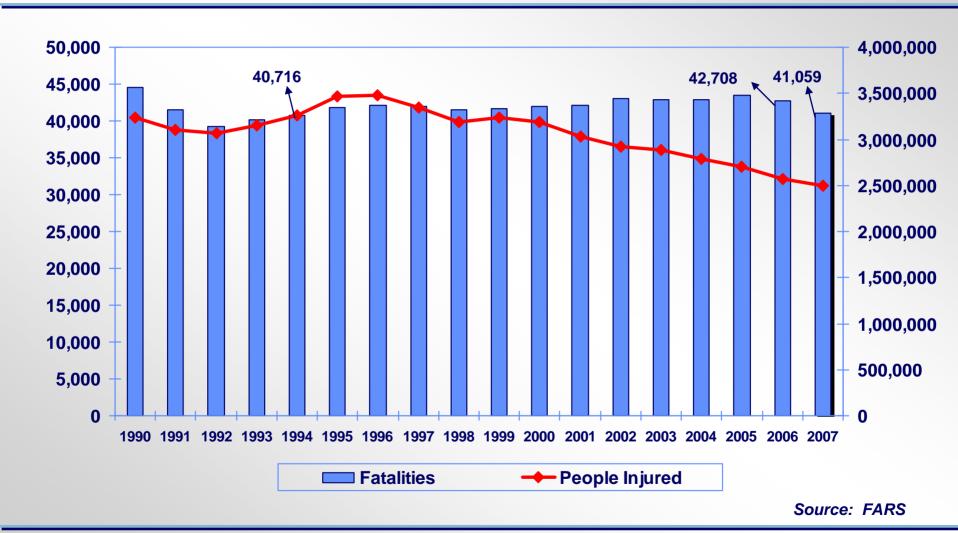
### 41,059 people were killed in motor vehicle crashes

- > a 3.9% decline from 2006
- > lowest level since 1994
- > largest decline since 1992 in terms of number and percentage

#### 2,491,000 people were injured

- > a 3.3% decline from 2006
- below 2.5 million for the first time
- > decline for the eighth year in a row

### People Killed and Injured In Traffic Crashes, by Year



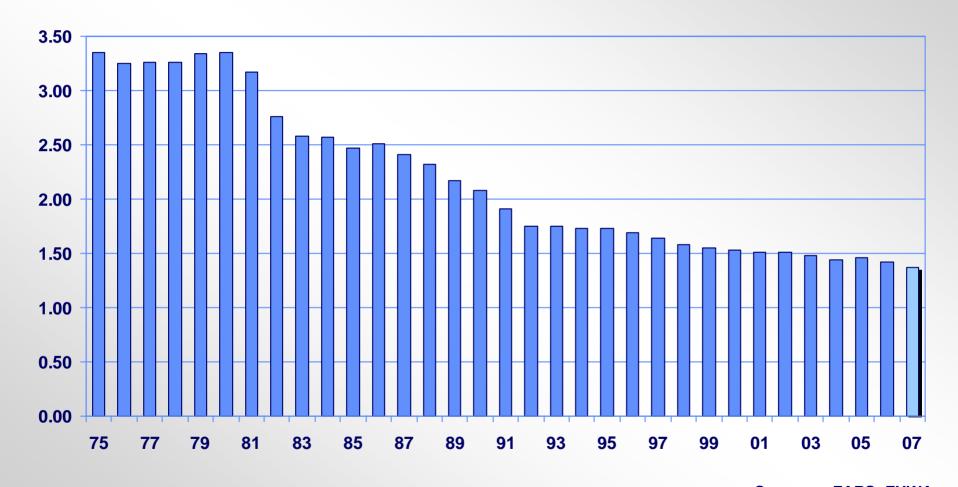
#### Exposure (VMT) decreased by 0.6%

Motor vehicle crash fatality rate declined to 1.37 per 100 million VMT

### Motor vehicle crash injury rate declined to 83 per 100 million VMT

Evnouro Mosouro	Year		% Change	
Exposure Measure	2006	2007	% Change	
Vehicle Miles Traveled*	3,014,116*	2,996,409**	-0.6%	
Fatality Rate/100M VMT	1.42	1.37	-3.5%	
Injury Rate/100M VMT	85	83	-2.4%	
* FHWA Annual Highway Statistics **FF	VA Annual Highway Statistics **FHWA Traffic Volume Trends (June 2008)			

## Fatality Rate Per 100 Million VMT, by Year



Sources: FARS, FHWA

- Passenger vehicle occupant fatalities declined
  - Passenger car occupant fatalities dropped fifth year in a row
  - Light-truck occupant fatalities dropped for the second consecutive year
- Nonoccupant fatalities declined
- Motorcyclist fatalities increased
  - > The 10<sup>th</sup> year in a row
  - > Highest number since 1975

### Fatalities by Person Type

#### **Total**

2006: 42,708 2007: 41,059

Difference: -1,649

#### **Passenger Vehicle**

Occupants 2006: 30,686

2007: 28,933

Difference: -1,753

#### Nonoccupants\*

2006: 5,752

2007: 5,504

Difference: -248

#### Large-Truck, Bus,

Other Vehicle Occupants\*\*

2006: 1,433

2007: 1,468

Difference: +35

#### **Motorcyclists**

2006: 4,837

2007: 5,154

Difference: +317

#### **Pedestrians**

2006: 4,795

2007: 4,654

Difference: -141

#### **Pedalcyclists**

2006: 772

2007: 698

Difference: -74

\*Includes Other and Unknown nonoccupants

\*\*Includes occupants of unknown body types.

Many of the unknown body types in 2007 will be resolved in the final file.

- Occupants killed and injured in passenger vehicles declined for all vehicle types
  - Among occupants killed, largest decline was for passenger cars – 7.8%
  - ◆ Among occupants injured, largest decline was for passenger cars – 6.5% (statistically significant)

#### Passenger Vehicle Occupants Killed and Injured in Motor Vehicle Crashes, by Type of Vehicle

Type of Vehicle	Year		0/ Change
	2006	2007	% Change
Occupants Killed*	30,686	28,933	-5.7%
Passenger Cars	17,925	16,520	-7.8%
LTVs**	12,761	12,413	-2.7%
Vans	1,815	1,760	-3.0%
SUVs	4,928	4,809	-2.4%
Pickup Trucks	5,993	5,830	-2.7%
Occupants Injured*	2,331,000	2,221,000	-4.7%***
Passenger Cars	1,475,000	1,379,000	-6.5%***
LTVs**	857,000	841,000	-1.9%
Vans	179,000	175,000	-2.2%
SUVs	387,000	380,000	-1.8%
Pickup Trucks	276,000	271,000	-1.8%

<sup>\*</sup>Includes occupants of other/unknown LTVs

Sources: FARS, GES \*\*LTV (Light Trucks & Vans) = Pickup Truck, Van, Sport Utility Vehicle, and other/unknown LTVs

<sup>\*\*\*</sup>Changes are statistically significant at the 0.05 level (95% confidence intervals)

## Passenger vehicle occupants killed in rollover crashes declined by 5.1%

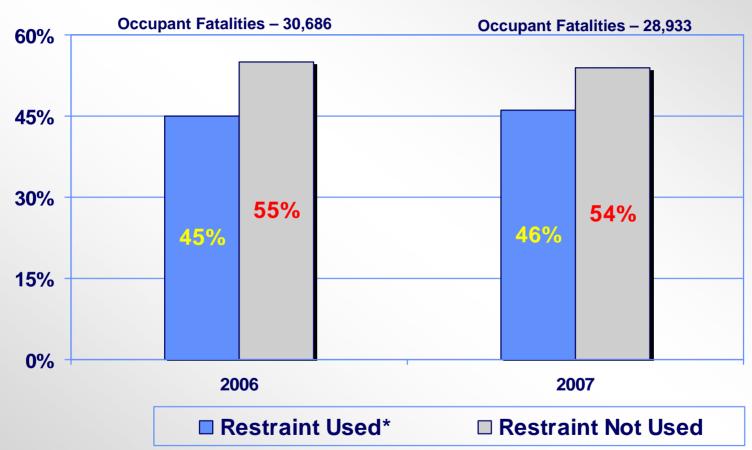
largest decline for passenger cars by 7.7%

## Passenger Vehicle Occupants Killed in Rollover Crashes, by Type of Vehicle

Type of Vehicle	Year		%
	2006	2007	Change
Occupants Killed*	10,742	10,194	-5.1%
Passenger Cars	4,376	4,041	-7.7%
Vans	609	571	-6.2%
SUVs	2,899	2,842	-2.0%
Pickup Trucks	2,844	2,736	-3.8%
*Total Killed includes Occupants of Other Light Trucks			Source: FARS

More than half (54%) of passenger vehicle occupants killed were unrestrained

## Passenger Vehicle Occupant Fatalities (All Ages), by Restraint Use



Occupant Fatalities whose restraint use was unknown were distributed proportionally to the known use categories.

Restraint use was unknown for 8% of passenger vehicle occupant fatalities in 2006 and 8% in 2007.

\*Restraint Used = Use of any type of restraint, e.g., lap belt, lap/shoulder belt, child safety seat, etc.

Source: FARS

September 5th, 2008

## Alcohol-impaired driving fatalities in crashes declined by 3.7%

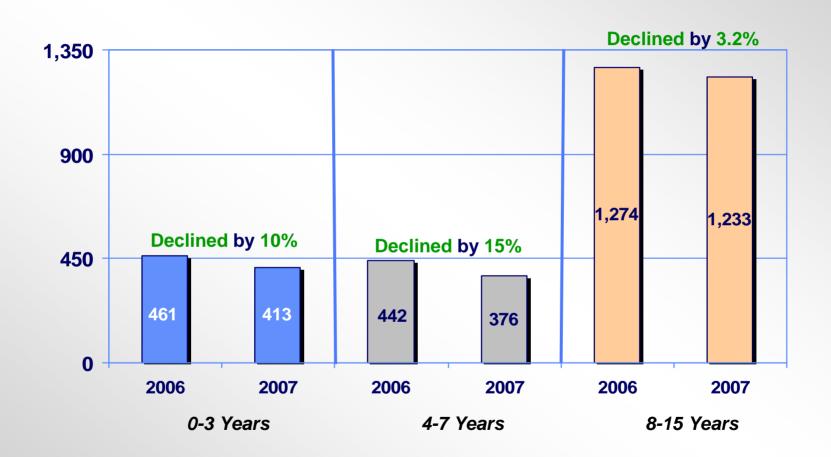
Alachal Impaired Driving	Year		% Change	
Alcohol-Impaired Driving	2006	2007	% Change	
Fatalities	13,491	12,998	-3.7%	
			Source: FARS	

Alcohol-impaired driving fatalities: Fatalities in crashes involving a driver or motorcycle rider (operator) with a blood alcohol concentration (BAC) of .08 grams per deciliter (g/dL) or greater

## The number of fatalities declined for children of all ages

Largest decline was for 4- to 7-year-olds by 15%

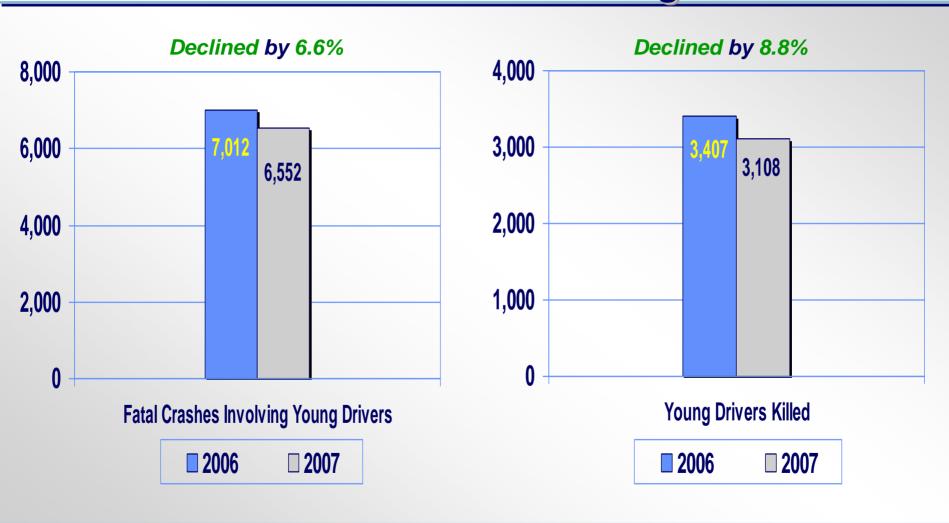
#### Children, Age 0–15, Killed in Motor Vehicle Crashes, by Age Group



Source: FARS

- > Fatal young driver crashes declined by 6.6%
- ➤ The number of young drivers (age 16 to 20) killed declined by 8.8%

#### Number of Crashes Involving Young Drivers (Age 16 to 20) and Young Drivers Killed





#### Where are the declines?

## A Macro Level Look At the Declines

- Person type (by role)
- > Month
- Weekend/Weekday
- Crash type (single/multi)
- > Age group

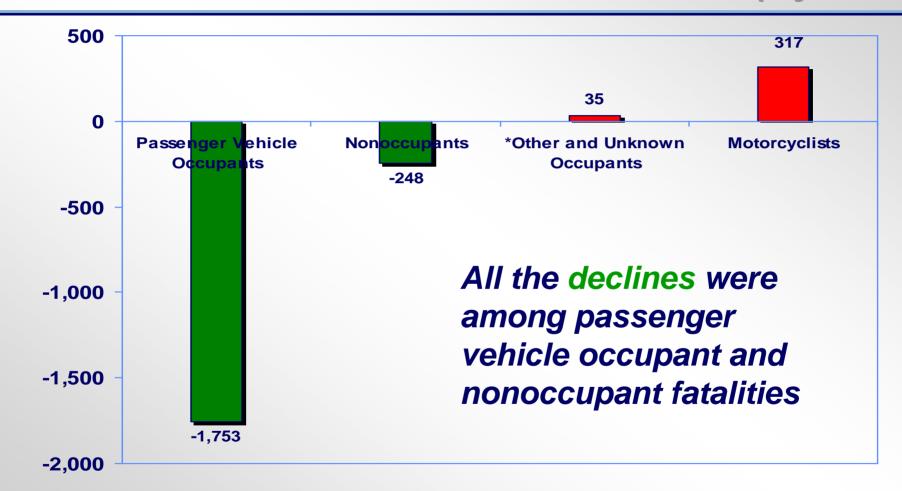
### Summary of Decrease In Fatalities

• 1,649 overall decrease

#### Contributing to this decrease were:

- > 1,753 decline in passenger vehicle occupant fatalities
  - ◆ 1,405 decline in passenger cars
  - ◆ 348 in light trucks
- > 248 decline in nonoccupant fatalities, including
  - ♦ 141 pedestrians
  - ◆ 74 pedalcyclists

## Changes by Person type (by role)



<sup>\*</sup> Include occupants of buses, large trucks, and other vehicles

Source: FARS

### Changes by Month

More than 40% of the decline in fatalities occurred in the last quarter of the year

	Ye			Change
Month	2006	2007	by Month	by Quarter
January	3,216	3,028	-188	
February	2,966	2,876	-90	-230
March	3,376	3,424	+48	
April	3,498	3,351	-147	
May	3,718	3,631	-87	-352
June	3,726	3,608	-118	
July	3,870	3,800	-70	
August	3,835	3,653	-182	-380
September	3,690	3,562	-128	
October	3,836	3,569	-267	
November	3,507	3,322	-185	-687
December	3,470	3,235	-235	
TOTAL	42,708	41,059	-1,649	-1,649

Source: FARS

### Changes by Weekend/Weekday

Nearly two-thirds (65%) of the decline in fatalities occurred during weekdays

Total\*

2006: 42,708

2007: 41,059

Difference: -1,649

**Weekday** 

2006: 24,294

2007: 23,237

Difference: -1,057

**Weekend** 

2006: 18,319

2007: 17,725

Difference: -594

Weekday = 6 a.m. Monday thru 5:59 p.m. Friday Weekend = 6 p.m. Friday thru 5:59 a.m. Monday

\* Includes Fatalities when Time of Day was Unknown

### Changes by Crash Type

#### **Total**

2006: 42,708

2007: 41,059

Difference: -1,649

61 percent of the decline in fatalities was from multivehicle crashes

#### **Single-Vehicle Crashes**

2006: 24,126

2007: 23,482

Difference: -644

#### **Multivehicle Crashes**

2006: 18,582

2007: 17,577

Difference: -1,005

### Changes by Age Group

Largest declines in fatality numbers were seen in the 25-34, 16-20, and 35-44 age groups

Age	Ye	ar	Change	%
Group	2006	2007		Change
<5	579	508	-71	-12%
5-9	519	470	-49	-9.4%
10-15	1,079	1,044	-35	-3.2%
16-20	5,661	5,338	-323	-5.7%
21-24	4,708	4,530	-178	-3.8%
25-34	7,185	6,796	-389	-5.4%
35-44	6,395	6,082	-313	-4.9%
45-54	6,236	6,130	-106	-1.7%
55-64	4,193	4,101	-92	-2.2%
65+	6,045	5,932	-113	-1.9%
Unknown	108	128	+20	+19%
Total	42,708	41,059	-1,649	-3.9%

Source: FARS



# Comparison of 2007 Data to 2006 Data and Long-Term Trends

#### 2007 Data Shows ....

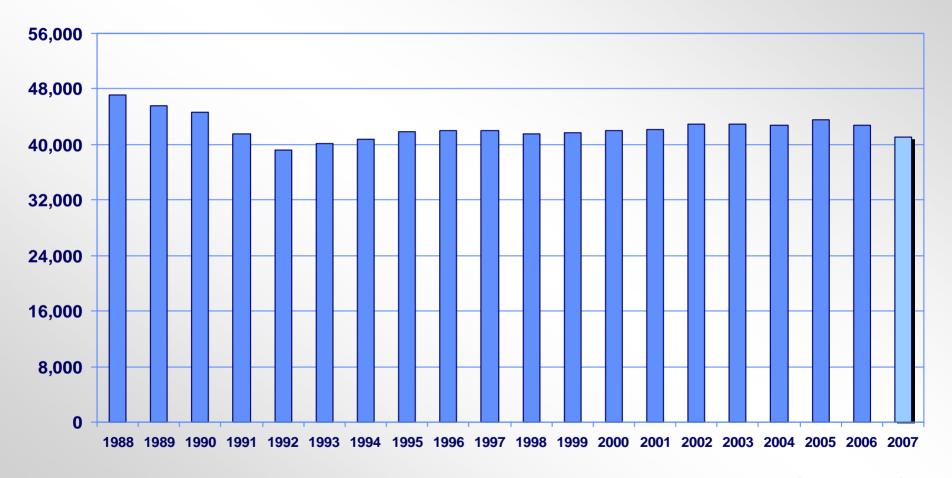
- The number of fatal crashes and the number of people killed declined
- The number of injury crashes and the number of people injured dropped
- However, the number of nonfatal crashes increased slightly
  - Property-damage-only crashes also increased

## People Killed and Injured and Number of Crashes

	Year		%
	2006	2007	Change
People Killed	42,708	41,059	-3.9%
People Injured	2,575,000	2,491,000	-3.3%
Fatal Crashes	38,648	37,248	-3.6%
Nonfatal Crashes	5,935,000	5,987,000	+0.9%
Injury Crashes	1,746,000	1,711,000	-2.0%
Property-Damage-Only	4,189,000	4,275,000	+2.1%

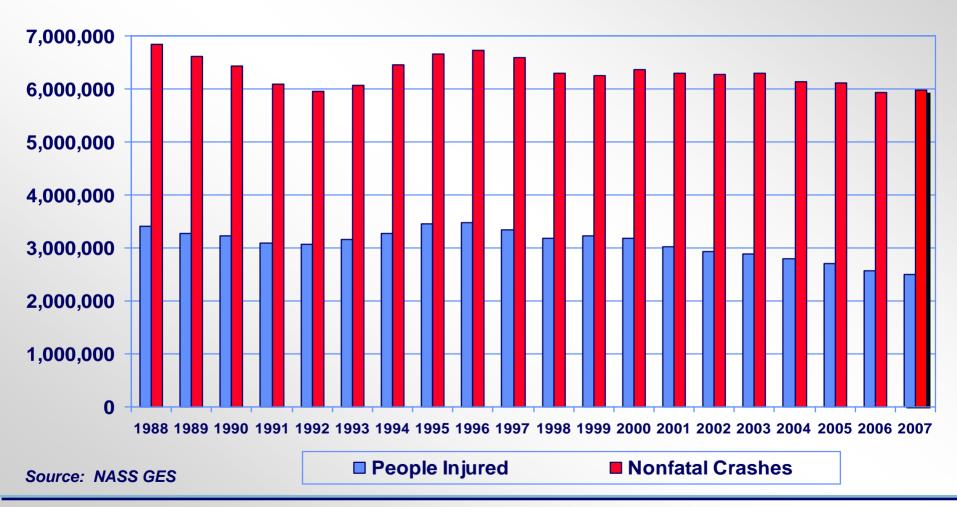
Sources: FARS, NASS GES

## People Killed in Traffic Crashes, by Year



Source: FARS

### Nonfatal Crashes and People Injured, by Year

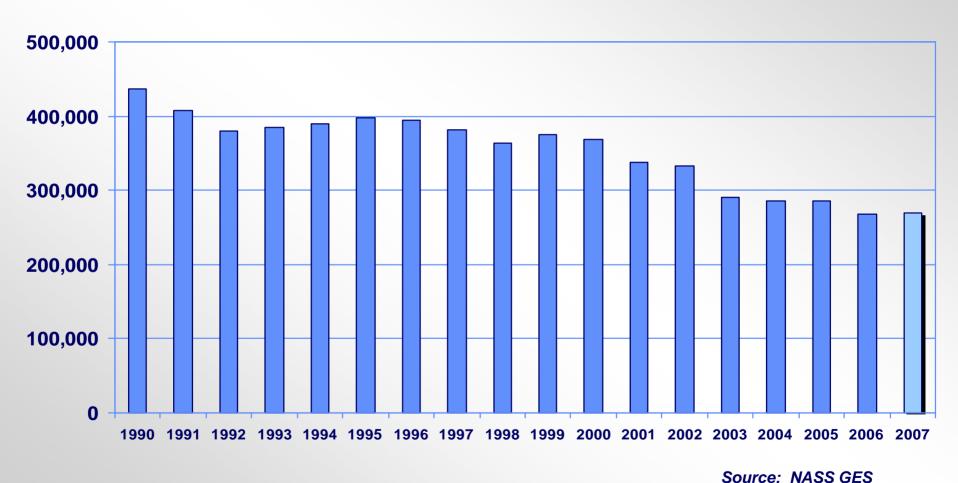


#### 2007 Data Shows ....

- > The estimate of occupants injured (incapacitated) in crashes increased by 0.7%
  - > 38 percent decline from 1990 to 2007 among occupants injured (incapacitated) in crashes

Occupanta Injurad	Yea	0/ Changa	
Occupants Injured	2006	2007	% Change
Incapacitated	268,000	270,000	+0.7%
			Source: NASS, GES

# Occupants Injured (Incapacitated) In Crashes, by Year



#### 2007 Data Shows ....

Measures of Exposure

Vehicle Miles Traveled Declined by 0.6 %

Registered Vehicles and Total U.S. Population Increased

#### **Exposure Data**

Evnocuro Moocuro	Yea	%	
Exposure Measure	2006	2007	Change
Vehicle Miles Traveled	3,014,116*	2,996,409**	-0.6%
Registered Vehicles	251,422,509 <sup>1</sup>	257,708,000 <sup>2</sup>	+2.5%
Population***	298,754,819	301,621,157	+1.0%

<sup>\*</sup> FHWA Annual Highway Statistics

Vehicle Miles Traveled in Millions

<sup>&</sup>lt;sup>1</sup> FHWA Revised by NHTSA

<sup>\*\*</sup>FHWA Traffic Volume Trends (June 2008)

<sup>&</sup>lt;sup>2</sup> Based on NHTSA's Projections

<sup>\*\*\*</sup>July 1 Census Bureau estimates, release date December 27, 2007

#### 2007 Data Shows ....

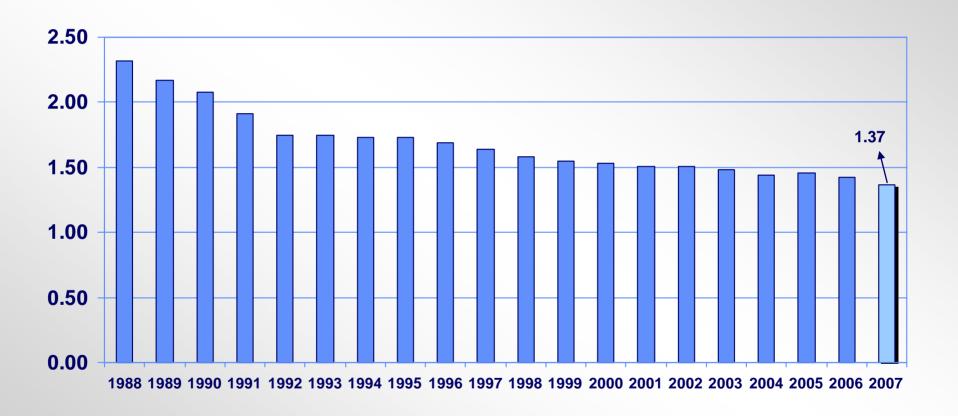
- > Fatality and Injury rates declined
  - > Fatalities per 100 million VMT declined by 3.5%
  - Dropped below 1.40 for the first time

### Motor Vehicle Crash Fatality and Injury Rates

Doto	Yea	Year			
Rate	2006	2007	Change		
People Killed					
/100M VMT	1.42	1.37	-3.5%		
/100K Registered Vehicles	16.99	15.93	-6.2%		
/100K Population	14.30	13.61	-4.8%		
People Injured					
/100M VMT	85	83	-2.4%		
/100K Registered Vehicles	1,024	966	-5.7%		
/100K Population	862	826	-4.2%		

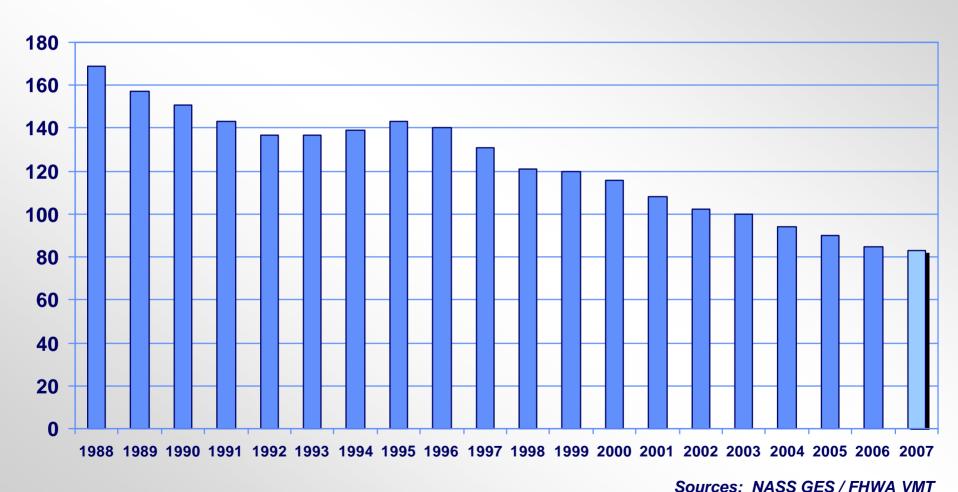
Sources: FARS, NASS GES, FHWA, and Census Bureau

# Fatality Rate Per 100 Million VMT, by Year



Sources: FARS / FHWA VMT

### Injury Rate Per 100 Million VMT, by Year





#### Fatalities by State

### 35 States and Puerto Rico had decreases in total number of fatalities

Largest absolute decreases:

California: -266

Arizona: -227

Texas: -168

Highest percentage decreases:

South Dakota, Vermont: -24%

**Wyoming: -23%** 

Delaware: -21%

#### Fatalities by State

### 14 States and the District of Columbia had increases in total number of fatalities

Largest absolute increases:

North Carolina: +121

Virginia: +65

Wisconsin: +32

Highest percentage increases:

District of Columbia: +19%

Alaska: +14%

North Carolina: +7.8%

#### Number of People Killed in Motor Vehicle Traffic Crashes, by State

State	2006	2007	% Change	State	2006	2007	% Change
Alabama	1,207	1,110	-8.0%	Florida	3,357	3,214	-4.3%
Alaska	74	84	+14%	Georgia	1,693	1,641	-3.1%
Arizona	1,293	1,066	-18%	Hawaii	161	138	-14%
Arkansas	665	650	-2.3%	Idaho	267	252	-5.6%
California	4,240	3,974	-6.3%	Illinois	1,254	1,249	-0.4%
Colorado	535	554	+3.6%	Indiana	902	898	-0.4%
Connecticut	311	277	-11%	Iowa	439	445	+1.4%
Delaware	148	117	-21%	Kansas	468	416	-11%
Dist of Columbia	37	44	+19%	Kentucky	913	864	-5.4%

#### Number of People Killed in Motor Vehicle Traffic Crashes, by State

State	2006	2007	% Change	State	2006	2007	% Change
Louisiana	987	985	-0.2%	Nebraska	269	256	-4.8%
Maine	188	183	-2.7%	Nevada	431	373	-13%
Maryland	652	614	-5.8%	New Hampshire	127	129	+1.6%
Massachusetts	429	417	-2.8%	New Jersey	771	724	-6.1%
Michigan	1,086	1,088	+0.2%	New Mexico	484	413	-15%
Minnesota	494	504	+2.0%	New York	1,454	1,333	-8.3%
Mississippi	911	884	-3.0%	North Carolina	1,554	1,675	+7.8%
Missouri	1,096	992	-9.5%	North Dakota	111	111	0.0%
Montana	264	277	+4.9%	Ohio	1,238	1,257	+1.5%

#### Number of People Killed in Motor Vehicle Traffic Crashes, by State

State	2006	2007	% Change	State	2006	2007	% Change
Oklahoma	765	754	-1.4%	Utah	287	299	+4.2%
Oregon	478	455	-4.8%	Vermont	87	66	-24%
Pennsylvania	1,525	1,491	-2.2%	Virginia	962	1,027	+6.8%
Rhode Island	81	69	-15%	Washington	633	568	-10%
South Carolina	1,045	1,066	+2.0%	West Virginia	410	431	+5.1%
South Dakota	191	146	-24%	Wisconsin	724	756	+4.4%
Tennessee	1,284	1,210	-5.8%	Wyoming	195	150	-23%
Texas	3,531	3,363	-4.8%	National	42,708	41,059	-3.9%
Source: FARS				Puerto Rico	509	452	-11%



# Fatalities and People Injured by Person Role and Vehicle Characteristics

#### 2007 Annual Assessment

### Motor vehicle occupant fatalities declined by 5.3%

Nonoccupant fatalities declined by 4.3%

Motorcyclist fatalities increased by 6.6%

#### People Killed in Motor Vehicle Crashes, by Role

Dolo	Ye	ar	Change	0/ Characa
Role	2006	2007	Change	% Change
Occupants*	32,119	30,401	-1,718	-5.3%
Drivers	22,831	21,647	-1,184	-5.2%
Passengers	9,187	8,657	-530	-5.8%
Motorcyclists	4,837	5,154	+317	+6.6%
Nonoccupants	5,752	5,504	-248	-4.3%
Pedestrians	4,795	4,654	-141	-2.9%
Pedalcyclists	772	698	-74	-9.6%
Other**	185	152	-33	-18%
TOTAL	42,708	41,059	-1,649	-3.9%

<sup>\*</sup>Includes unknown occupants of motor vehicles in transport.

<sup>\*\*</sup>Includes occupants of motor vehicles not in transport and of nonmotor vehicle transport devices and unknown nonoccupants

#### People Injured in Motor Vehicle Crashes, by Role

Polo	Ye	% Change	
Role	2006	2007	% Change
Occupants*	2,375,000	2,264,000	-4.7%**
Drivers	1,666,000	1,571,000	-5.7%**
Passengers	709,000	692,000	-2.4%
Motorcyclists	88,000	103,000	+17%**
Nonoccupants	112,000	124,000	+11%
Pedestrians	61,000	70,000	+15%**
Pedalcyclists	44,000	43,000	-2.3%
Other***	7,000	10,000	+43%
TOTAL	2,575,000	2,491,000	-3.3%

<sup>\*</sup> Includes unknown occupants of motor vehicles in transport.

Totals may not add due to rounding. Percentages computed after rounding.

Source: NASS GES

<sup>\*\*</sup> Changes are statistically significant at the 0.05 level (95% confidence intervals).

<sup>\*\*\*</sup> Includes occupants of motor vehicles not in transport and of nonmotor vehicle transport devices and unknown nonoccupants

#### 2007 Data Shows ....

- Occupant fatalities in passenger cars declined by 7.8%
- > Occupant fatalities in LTVs declined by 2.7%
  - decreased for all LTV types
- Occupant fatalities in large trucks declined slightly
- > Occupants injured declined for all vehicle types

#### Occupants Killed in Motor Vehicle Crashes, by Type of Vehicle

Type of Vobiale	Yea	ar	Change	0/ <b>O</b> leanna	
Type of Vehicle	2006	2007	Change	% Change	
Passenger Vehicles	30,686	28,933	-1,753	-5.7%	
Passenger Cars	17,925	16,520	-1,405	-7.8%	
LTVs*	12,761	12,413	-348	-2.7%	
Vans	1,815	1,760	-55	-3.0%	
SUVs	4,928	4,809	-119	-2.4%	
Pickup Trucks	5,993	5,830	-163	-2.7%	
Large Trucks	805	802	-3	-0.4%	
Medium Trucks	114	139	+25	+22%	
Heavy Trucks	691	663	-28	-4.1%	
Other Vehicles**	527	576	+49	+9.3%	
Unknown Vehicle Type	101	90	-11	-11%	

<sup>\*</sup>LTV (Light Trucks & Vans) = Pickup Truck, Van, Sport Utility Vehicle, and other/unknown LTVs

<sup>\*\*</sup>Includes vehicle occupant fatalities in buses and other, e.g., farm equipment, construction equipment, etc., vehicle types. Excludes motorcyclists . Source: FARS

### Occupants Injured in Motor Vehicle Crashes, by Type of Vehicle

Type of Vehicle	Ye	0/ Change	
Type of Vehicle	2006	2007	% Change
Passenger Vehicles	2,331,000	2,221,000	-4.7%*
Passenger Cars	1,475,000	1,379,000	-6.5%*
LTVs**	857,000	841,000	-1.9%
Vans	179,000	175,000	-2.2%
SUVs	387,000	380,000	-1.8%
Pickup Trucks	276,000	271,000	-1.8%
Large Trucks	23,000	23,000	0.0%
Other Vehicles***	21,000	20,000	-4.8%

Totals may not add due to rounding. Percentages computed after rounding.

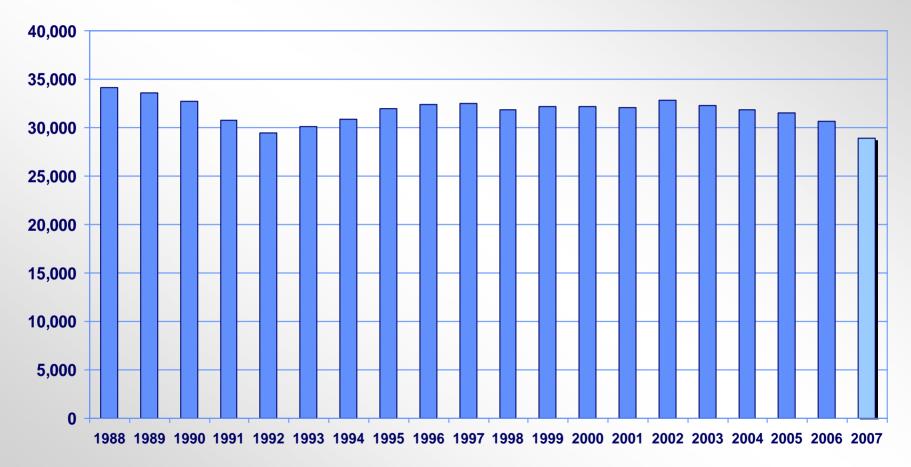
Source: NASS GES

<sup>\*</sup> Changes are statistically significant at the 0.05 level (95% confidence intervals)

<sup>\*\*</sup> LTV = Pickup Truck, Van, Sport Utility Vehicle, and other/unknown LTVs

<sup>\*\*\*</sup> Includes vehicle occupants injured in buses and other vehicle types. Excludes motorcyclists.

#### Passenger Vehicle Occupant Fatalities, by Year



### 2007 Annual Assessment Shows

- In 2006, the number of registered vehicles increased for all types of passenger vehicles
- ➤ In 2006, among all types of passenger vehicles, SUVs had the largest increase (7.1%) in registrations

Passenger vehicle registration data for 2007 not yet available. The statements in this slide will be updated when data is available.

### Registered Passenger Vehicles, by Vehicle Type

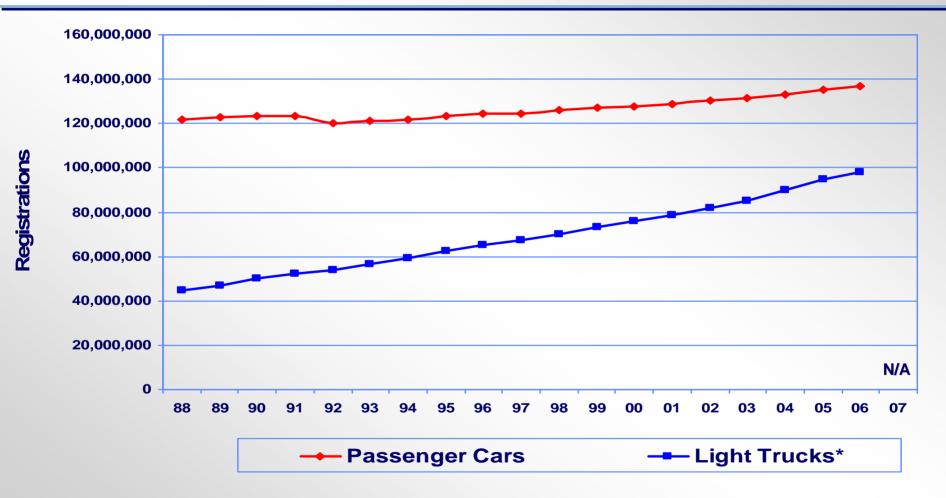
Type of Vehicle	2006	2007	% Change
Passenger Vehicles*	235,095,396		
Passenger Cars	136,866,137		
Light Trucks and Vans*	98,229,259		
Vans	19,491,830		
SUVs	37,168,577		
Pickup Trucks	40,678,320		

\*Includes Other Light Trucks

Passenger Vehicle Registration data for 2007 not yet available

Source: R.L.Polk

### Passenger Vehicle Registrations by Year



\*Light Trucks include SUVs, Vans, Pickup Trucks, and Other/Unknown Light Trucks

Source: R.L. Polk

### Passenger Vehicle Occupant Fatality Rate,\* by Type of Vehicle

Type of Vehicle	2006	2007	% Change
All Passenger Vehicles**	13.05		
Passenger Cars	13.10		
Light Trucks and Vans	12.99		
Vans	9.31		
SUVs	13.26		
Pickup Trucks	14.73		

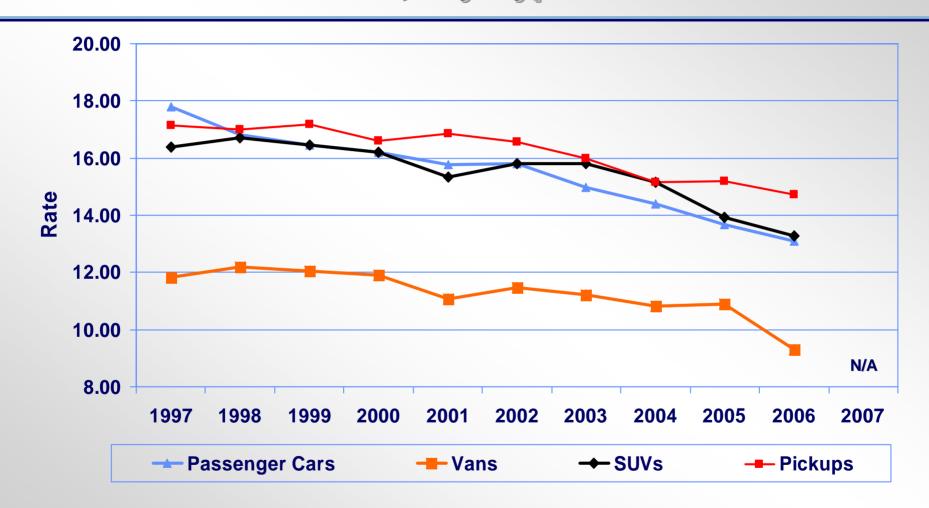
Passenger Vehicle Registration data for 2007 not yet available

\*Rate per 100,000 Registered Vehicles

\*\*Includes Other Light Trucks

Sources: FARS, R.L Polk

#### Passenger Vehicle Occupant Fatality Rate,\* by Type of Vehicle and Year



\*Rate per 100,000 Registered Vehicles

Sources: FARS, R.L. Polk



#### Program Areas

Alcohol-Impaired Driving Seat Belts Rollovers **Motorcycles** Large Trucks Speeding **Vehicle Compatibility Nonoccupants** Children and Youth **Young Drivers** Intersection-Related and Roadway Departure



#### Alcohol-Impaired Driving

### Fatalities in alcohol-impaired driving crashes declined by 3.7%

Alcohol-Impaired Driving Fatalities (BAC .08+)									
	2006		20	007					
	Number	Percent of Total	Number	Percent of Total	Change	% Change			
Fatalities	13,491	32%	12,998	32%	-493	-3.7%			

Source: FARS

<u>Definition:</u> Drivers are considered to be alcohol-impaired when their blood alcohol concentrations (BACs) are .08 grams per deciliter (g/dL) or higher. Thus, any fatality occurring in a crash involving a driver with a BAC of .08 or higher is considered to be an alcohol-impaired driving fatality. The term "driver" refers to the operator of any motor vehicle, including a motorcycle.

- 32 States had decreases in the number of fatalities in impaired-driving crashes where the driver BAC was .08 g/dL or higher
- 31 States and the District of Columbia had decreases in the number of fatalities in impaired-driving crashes where the driver BAC was .15 g/dL or higher

State	2006 by BAC Level		2007 by BAC Level		% Change from 2006-2007 by BAC Level	
	.08+	.15+	.08+	.15+	.08+	.15+
Alabama	377	251	389	243	+3.2%	-3.2%
Alaska	19	15	30	21	+58%	+40%
Arizona	399	270	336	218	-16%	-19%
Arkansas	200	133	182	130	-9.0%	-2.3%
California	1,272	788	1,155	751	-9.2%	-4.7%
Colorado	179	134	170	121	-5.0%	-9.7%
Connecticut	113	84	101	67	-11%	-20%
Delaware	43	33	50	29	+16%	-12%
District of Columbia	13	7	15	5	+15%	-29%
Florida	926	602	890	611	-3.9%	+1.5%
Georgia	454	300	441	300	-2.9%	0.0%

State	2006 by BAC Level		2007 by BAC Level		% Change from 2006-2007 by BAC Level	
	.08+	.15+	.08+	.15+	.08+	.15+
Hawaii	60	42	45	33	-25%	-21%
Idaho	86	59	70	52	-19%	-12%
Illinois	446	302	434	278	-2.7%	-7.9%
Indiana	245	167	230	161	-6.1%	-3.6%
Iowa	119	73	106	74	-11%	+1.4%
Kansas	125	88	114	77	-8.8%	-13%
Kentucky	216	131	210	136	-2.8%	+3.8%
Louisiana	371	232	368	235	-0.8%	+1.3%
Maine	52	28	66	47	+27%	+68%
Maryland	189	113	179	105	-5.3%	-7.1%
Massachusetts	144	94	146	86	+1.4%	-8.5%

State	2006 by BAC Level		2007 by BAC Level		% Change from 2006-2007 by BAC Level	
	.08+	.15+	.08+	.15+	.08+	.15+
Michigan	335	227	305	210	-9.0%	-7.5%
Minnesota	149	104	158	117	+6.0%	+13%
Mississippi	335	212	302	192	-9.9%	-9.4%
Missouri	386	243	338	220	-12%	-9.5%
Montana	104	70	106	84	+1.9%	+20%
Nebraska	71	57	77	55	+8.5%	-3.5%
Nevada	144	102	118	79	-18%	-23%
New Hampshire	46	30	34	22	-26%	-27%
New Jersey	218	128	199	122	-8.7%	-4.7%
New Mexico	136	98	133	102	-2.2%	+4.1%
New York	433	273	384	232	-11%	-15%

State	2006 by BAC Level		2007 by BAC Level		% Change from 2006-2007 by BAC Level	
	.08+	.15+	.08+	.15+	.08+	.15+
North Carolina	421	293	487	325	+16%	+11%
North Dakota	42	31	53	40	+26%	+29%
Ohio	386	258	391	275	+1.3%	+6.6%
Oklahoma	199	148	219	153	+10%	+3.4%
Oregon	148	106	150	107	+1.4%	+0.9%
Pennsylvania	492	359	500	356	+1.6%	-0.8%
Rhode Island	30	18	25	13	-17%	-28%
South Carolina	419	294	463	327	+11%	+11%
South Dakota	67	52	45	34	-33%	-35%
Tennessee	414	273	390	253	-5.8%	-7.3%
Texas	1,400	913	1,292	849	-7.7%	-7.0%

State	2006 by BAC Level		2007 by BAC Level		% Change from 2006-2007 by BAC Level	
	.08+	.15+	.08+	.15+	.08+	.15+
Utah	53	34	51	30	-3.8%	-12%
Vermont	26	20	22	10	-15%	-50%
Virginia	298	196	332	225	+11%	+15%
Washington	221	150	195	129	-12%	-14%
West Virginia	105	69	142	90	+35%	+30%
Wisconsin	307	225	313	230	+2.0%	+2.2%
Wyoming	63	48	49	36	-22%	-25%
National	13,491	8,977	12,998	8,698	-3.7%	-3.1%
Puerto Rico	143	85	148	86	+3.5%	+1.2%

#### Alcohol-Impaired Driving

www.nhtsa.gov



DOT HS 811 016 August 2008

### 2007 Traffic Safety Annual Assessment – Alcohol-Impaired Driving Fatalities

#### Summary

- In 2007, an estimated 12,998 people were killed in alcohol-impaired driving crashes<sup>1</sup> – a decline of 3.7 percent from the 13,491 fatalities in 2006.
- The fatality rate, per 100 million vehicle miles of travel (VMT),<sup>2</sup> decreased to 0.43 – the lowest on record.
- Thirty-two States had decreases in the number of

#### Alcohol-Impaired Driving Fatalities and Fatality Rates

Table 1 depicts the estimated number, percentage of total fatalities, and percentage change in alcohol-impaired driving fatalities between 2006 and 2007. Also shown in Table 1 is the alcohol-impaired driving fatality rate, per 100 million VMT, which decreased to 0.43 in 2007 from 0.45 in 2006.

For additional analysis, data, and information on alcohol-impaired driving crashes and fatalities see the research note "2007 Traffic Safety Annual Assessment – Alcohol-Impaired Driving Fatalities" (DOT HS 811 016) at:

www-nrd.nhtsa.dot.gov/Pubs/811016.PDF





- More than half (54%) of the passenger vehicle occupants killed were unrestrained
- Almost two-thirds (63%) of the passenger vehicle occupants killed during the night were unrestrained, compared to 45% during the day

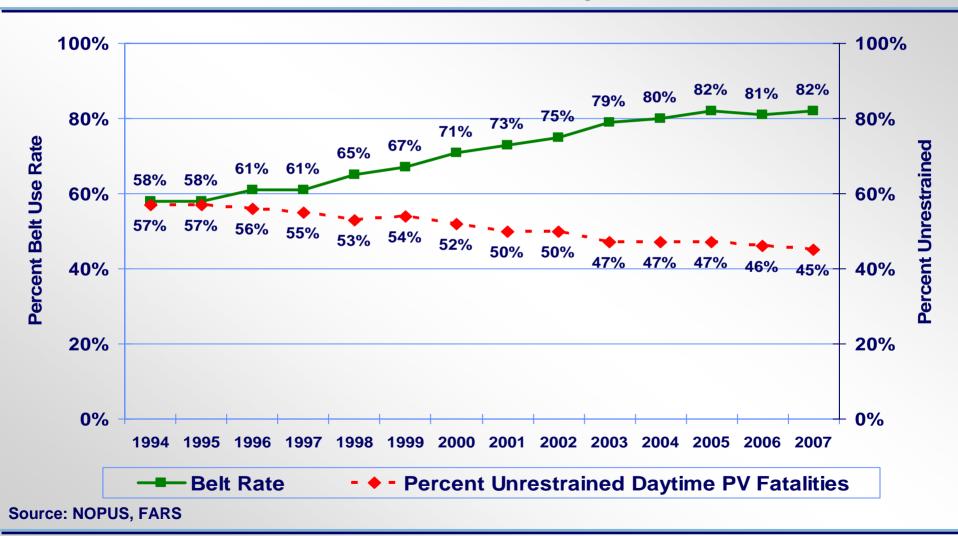
### Passenger Vehicle Occupant Fatalities (All Ages), by Restraint Use\*

Poetroint Use	Year				
Restraint Use	2006	2006		7	
People Killed	30,680	6	28,93	3	
Restraint Used**	13,760	45%	13,306	46%	
Restraint Not Used	16,926	55%	15,627	54%	
Day (6 a.m. – 5:59 p.m.)					
Restraint Used**	8,194	54%	7,874	55%	
Restraint Not Used	7,094	46%	6,344	45%	
Night (6 p.m. – 5:59 a.m.)					
Restraint Used**	5,472	36%	5,322	37%	
Restraint Not Used	9,674	64%	9,142	63%	

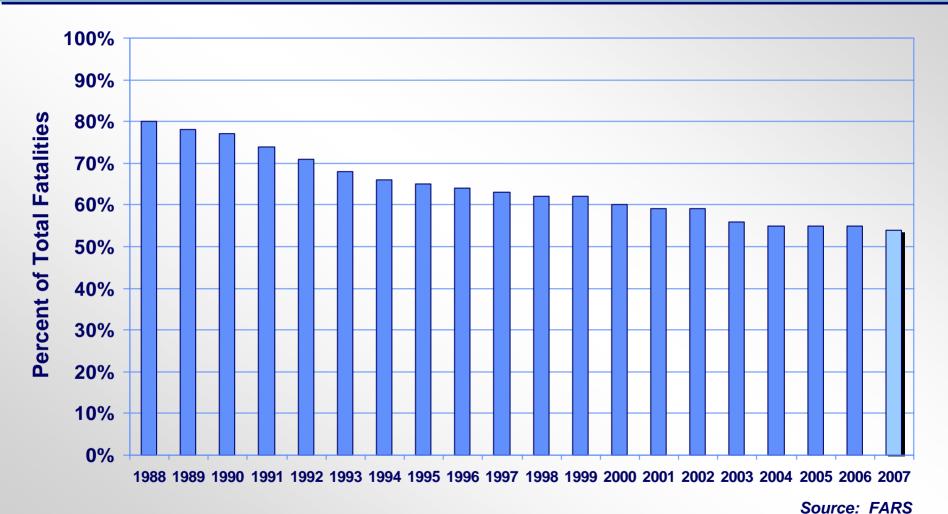
<sup>\*</sup>Occupant Fatalities whose restraint use was unknown were distributed proportionally to the known use categories. Restraint use was unknown for 8% of passenger vehicle occupant fatalities in 2006 and 2007.

<sup>\*\*</sup> Restraint Used = Use of any type of restraint, e.g., lap belt, lap/shoulder belt, child safety seat, etc. Source: FARS

#### Comparison of Percent Unrestrained Passenger Vehicle (PV) Occupant Fatalities During Daytime And Daytime Seat Belt Use Rate



# Percent of Total Passenger Vehicle Occupant Fatalities Who Were Unrestrained, by Year







- The number of passenger vehicle occupants killed in rollover crashes declined
  - declined for all passenger vehicle types
- The number of passenger vehicle occupants injured in rollover crashes increased
  - Increased for all passenger vehicle types except vans
  - declined for vans by 6.7%

### Passenger Vehicle Occupants Killed and Injured in Rollover Crashes, By Type of Vehicle

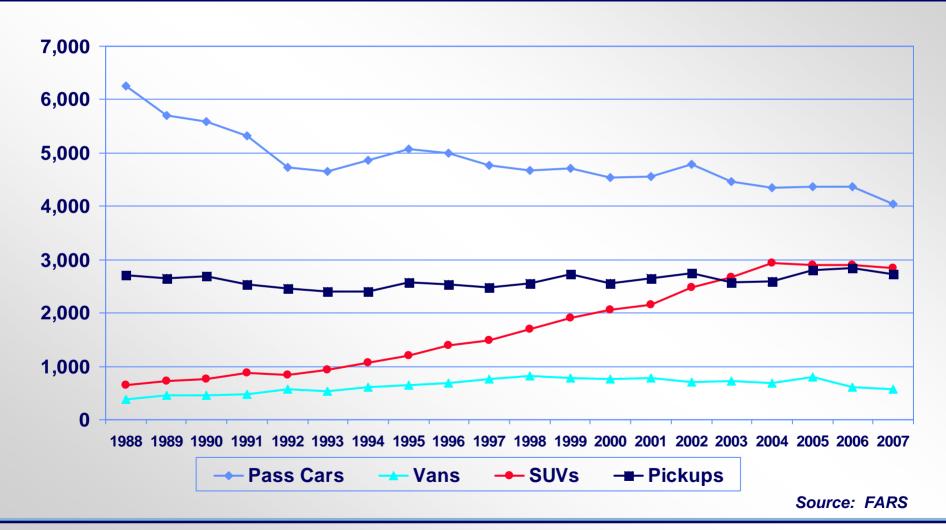
Type of Vehicle	Ye	%	
Type of Vehicle	2006	2007	Change
Occupants Killed*	10,742	10,194	-5.1%
Passenger Cars	4,376	4,041	-7.7%
Vans	609	571	-6.2%
SUVs	2,899	2,842	-2.0%
Pickup Trucks	2,844	2,736	-3.8%
Occupants Injured*	207,000	224,000	+8.2%
Passenger Cars	81,000	88,000	+8.6%
Vans	15,000	14,000	-6.7%
SUVs	70,000	73,000	+4.3%
Pickup Trucks	40,000	47,000	+18%

Totals for injured may not add due to rounding. Percentages computed after rounding.

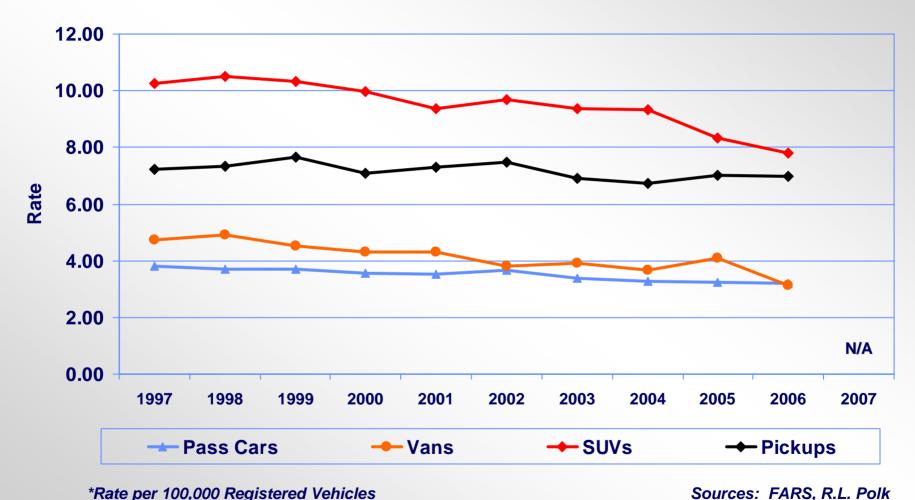
Sources: FARS, NASS GES

<sup>\*</sup>Total Killed and Injured includes Occupants of Other Light Trucks

### Passenger Vehicle Occupants Killed In Rollover Crashes, by Type of Vehicle and Year



### Passenger Vehicle Occupant Fatality Rate\* in Rollover Crashes, By Type of Vehicle and Year



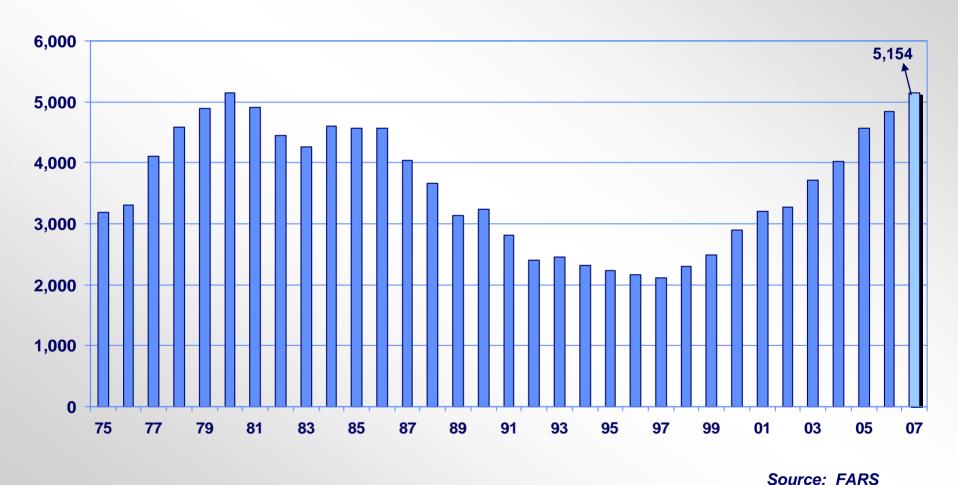
\*Rate per 100,000 Registered Vehicles





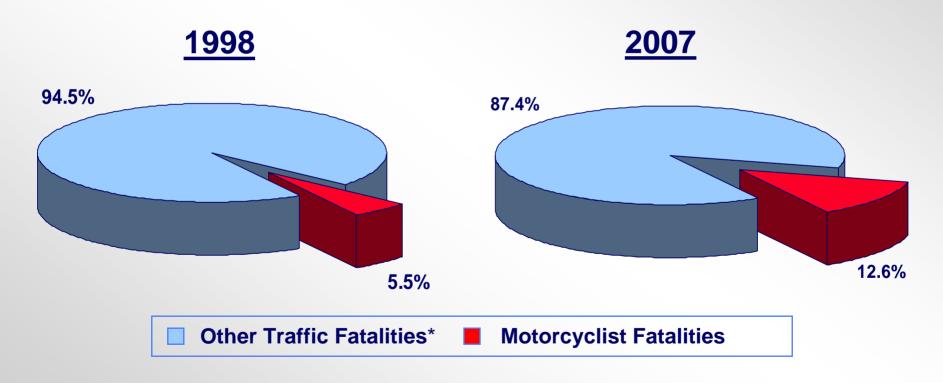
- Motorcyclist fatalities increased for the 10<sup>th</sup> year in a row
  - Account for 13% of total fatalities
  - Highest number since 1975
    - Previous highest in 1980 5,144

### Motorcyclists Killed, by Year



### Proportion of Total Fatalities, By Role and Year

Motorcyclist fatalities increased to 12.6% of all motor vehicle traffic crash fatalities compared to 5.5% in 1998



\* Passenger Vehicle Occupants, Other occupants, and Nonoccupants

## Total vs. Motorcyclist Fatalities by Year, 1998-2007

	Overall I	- - - - - - - - - - - - - - - - - - -	Motorcyclist Fatalities			
Year	Total	Change in Total	Fatalities	Change in Fatalities	Percent Change	Percent of Total Fatalities
1998	41,501		2,294			5.5%
1999	41,717	+216	2,483	+189	+8.2%	6.0%
2000	41,945	+228	2,897	+414	+17%	6.9%
2001	42,196	+251	3,197	+300	+10%	7.6%
2002	43,005	+809	3,270	+73	+2.3%	7.6%
2003	42,884	-121	3,714	+444	+14%	8.7%
2004	42,836	-48	4,028	+314	+8.5%	9.4%
2005	43,510	+674	4,576	+548	+14%	10.5%
2006	42,708	-802	4,837	+261	+5.1%	11.3%
2007	41,059	-1,649	5,154	+317	+6.6%	12.6%

#### 2007 Data Shows ....

- Motorcyclist fatalities and motorcycle registrations have both been on the rise since 1997
- However, in most of these years the rate of increase in motorcyclist fatalities has been higher than the rate of increase in motorcycle registrations (as reflected in the rate increase)

2007 rate not yet available since VMT and registration are not yet released.

## Motorcyclist Fatality Rates, by Year

Dete	Calendar Year									
Rate	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007*
Motorcyclists Killed	2,294	2,483	2,897	3,197	3,270	3,714	4,028	4,576	4,837	5,154
/100M Motorcycle Miles Traveled	22.31	23.46	27.67	33.17	34.23	38.78	39.79	43.77	39.00	N/A
/100K Registered Motorcycles	59.13	59.80	66.66	65.20	65.35	69.16	69.83	73.48	72.34	N/A
Source: FARS, FH	WA			1	* VMT an	d Registr	ration da	ta not av	ailable fo	or 2007

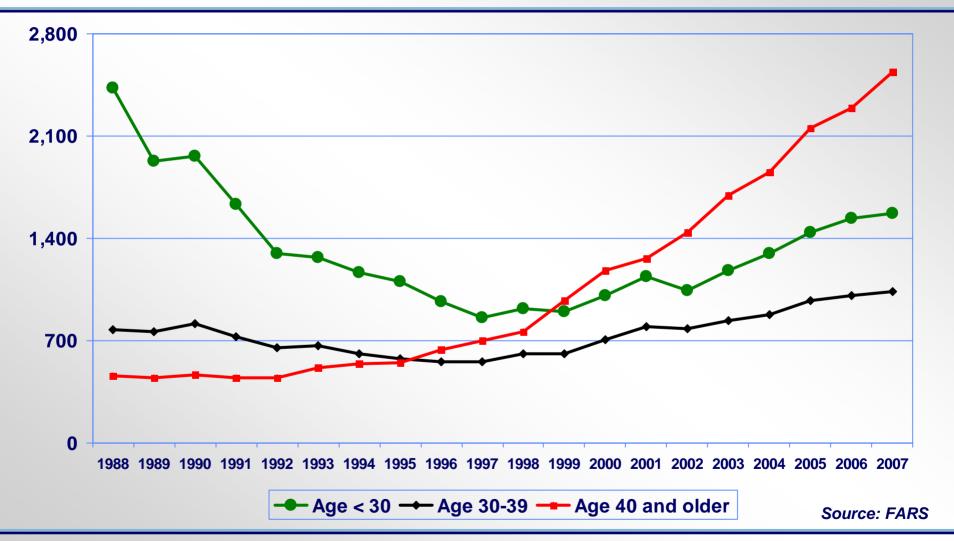
#### 2007 Data Shows ...

- Motorcyclist fatalities increased for every age group
- > Larger increase in the 50-and-above age group
  - Largest percentage increase in the 60-69 age group, followed by the 70-and-older and 50-59 age groups

### Motorcyclists Killed, by Age Group

Ago Croup	Ye	Year		0/ Change	
Age Group	2006	2007	Change	% Change	
Under 20	238	248	+10	+4.2%	
20-29	1,300	1,325	+25	+1.9%	
30-39	1,008	1,039	+31	+3.1%	
40-49	1,109	1,165	+56	+5.0%	
50+	1,181	1,372	+191	+16%	
50-59	846	931	+85	+10%	
60-69	258	352	+94	+36%	
70 and Older	77	89	+12	+16%	
Unknown	1	5	+4		
Total	4,837	5,154	+317	+6.6%	

### Motorcyclists Killed, by Age Group and Year



#### 2007 Data Shows ....

➤ About two-thirds (63%) of the fatally injured motorcyclists were not wearing helmets in States without universal helmet laws compared to 14% in States with universal helmet laws.

# Fatally Injured Motorcyclists in States With Universal Helmet Laws vs. Without Universal Helmet Laws

	Year			
	200	2006		07
Total in States With Universal Helmet Laws	2,151	100%	2,242	100%
Helmeted	1,869	87%	1,939	86%
Not Helmeted	282	13%	303	14%
Total in States Without Universal Helmet Laws	2,686	100%	2,912	100%
Helmeted	939	35%	1,064	37%
Not Helmeted	1,747	65%	1,848	63%

Total fatalities may not add due to rounding.

Source: FARS

Motorcyclist fatalities whose helmet use was unknown were distributed proportionally to the known use categories. Helmet use was unknown for 3% of motorcyclist fatalities in 2006 and 2% in 2007.



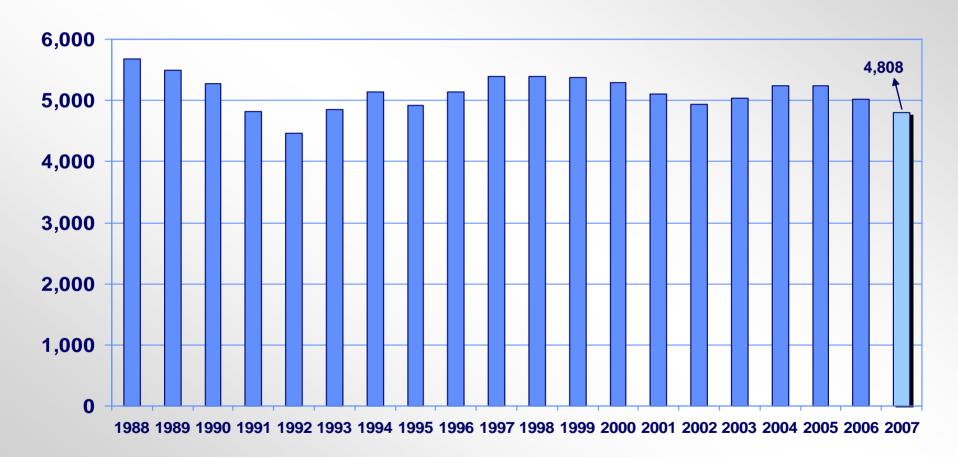
### Large Trucks

- The number of people killed in crashes involving large trucks declined by 4.4%
  - Truck occupant fatalities declined slightly
- Fatalities in large-truck crashes declined for the second consecutive year
- > Large-truck occupants injured remained the same
  - Large-truck occupants injured in single-vehicle crashes declined
  - Large-truck occupants injured in multivehicle crashes increased

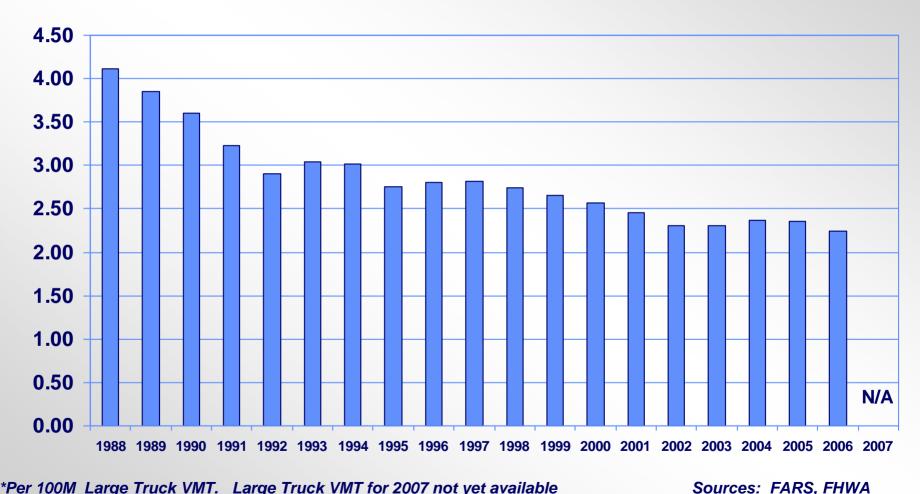
## Persons Killed in Large-Truck Crashes, by Type

<b>T</b>	Ye	0/ 0/	
Type	2006	2007	% Change
Truck Occupants	805	802	-0.4%
Single-Vehicle	500	502	+0.4%
Multivehicle	305	300	-1.6%
Other Vehicle Occupants	3,797	3,601	-5.2%
Nonoccupants	425	405	-4.7%
Total	5,027	4,808	-4.4%

## Persons Killed in Large-Truck Crashes, by Year



### Fatality Rate\* in Large-Truck Crashes, by Year



\*Per 100M Large Truck VMT. Large Truck VMT for 2007 not yet available

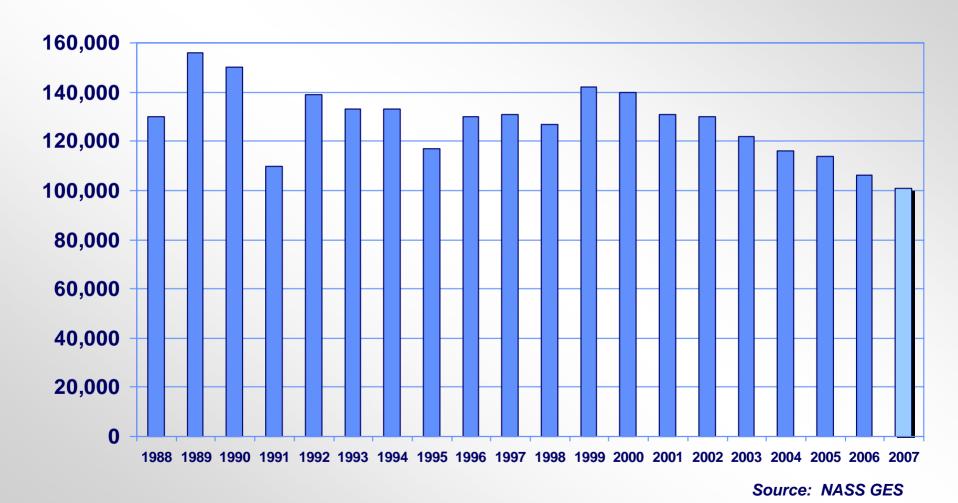
## People Injured in Large-Truck Crashes, by Type

Tupo	Ye	%	
<i>Type</i>	2006	2007	Change
Truck Occupants	23,000	23,000	0.0%
Single-Vehicle	11,000	10,000	-9.1%
Multivehicle	12,000	13,000	+8.3%
Other Vehicle Occupants	81,000	75,000	-7.4%
Nonoccupants	2,000	2,000	0.0%
Total*	106,000	101,000	-4.7%

<sup>\*</sup>Totals may not add due to rounding. Percentages computed after rounding.

Source: NASS GES

### People Injured in Large-Truck Crashes, by Year





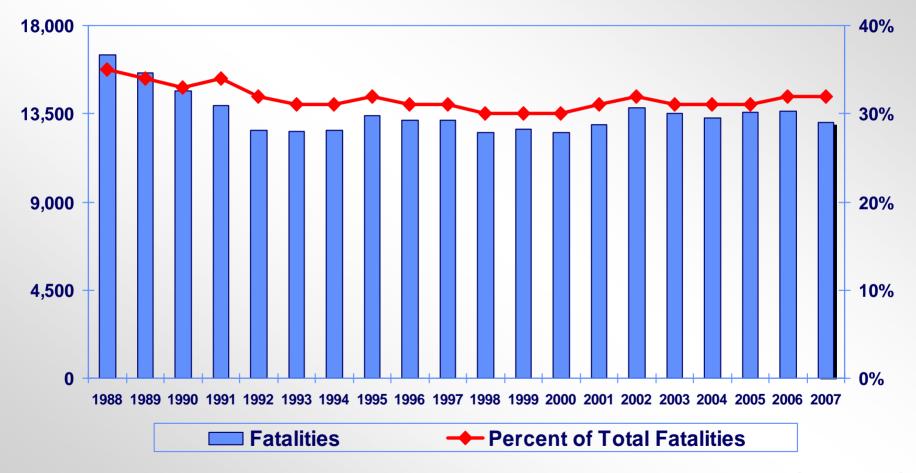


- Fatalities in speeding-related crashes declined by 4.2%
- However, the percentage of speedingrelated fatalities among overall fatalities remained unchanged from 2006

## Speeding-Related Fatal Crashes And Fatalities, by Year

	Year		Change	0/ Obarosa
	2006	2007	Change	% Change
Fatal Crashes				
Speeding	12,082	11,659	-423	-3.5%
Not Speeding	26,566	25,589	-977	-3.7%
Percent Speeding	31%	31%		
Fatalities				
Speeding	13,609	13,040	-569	-4.2%
Not Speeding	29,099	28,019	-1,080	-3.7%
Percent Speeding	32%	32%		

# Fatalities in Speeding-Related Crashes and Percent of Total Fatalities, by Year





### Vehicle Compatibility

# Two-Vehicle Crashes Between Passenger Cars and LTVs

#### 2007 Data Shows ...

The number of occupants killed and injured in two-vehicle crashes between a passenger car and an LTV (pickup truck, van, or SUV) declined

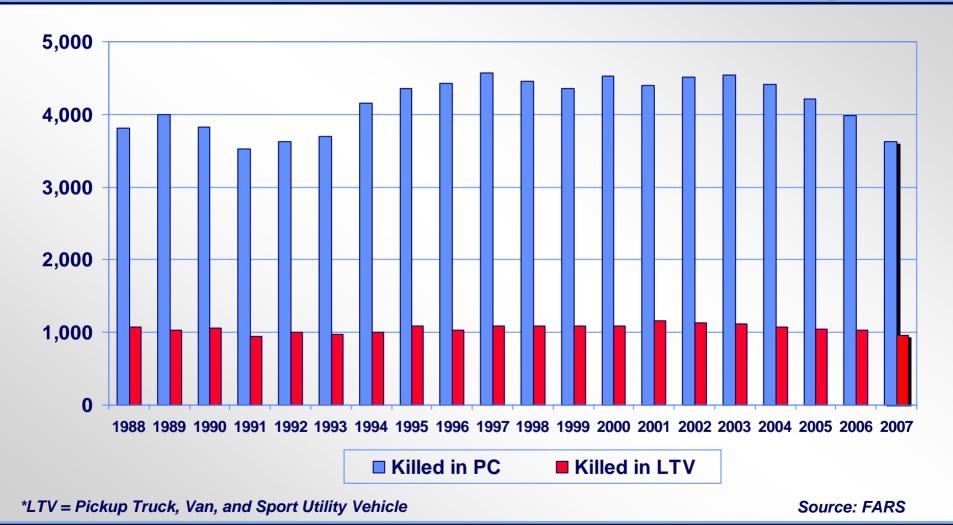
### Occupants Killed and Injured in Two-Vehicle Crashes Involving a Passenger Car and an LTV\*

	Yea	%	
	2006	2007	Change
Fatal Crashes			
Killed in PC	3,980	3,623	-9.0%
Killed in LTV*	1,025	954	-6.9%
Injury Crashes			
Injured in PC	397,000	376,000	-5.3%
Injured in LTV*	275,000	258,000	-6.2%

PC = Passenger Car

Sources: FARS, NASS GES

<sup>\*</sup>LTV = Pickup Truck, Van, and Sport Utility Vehicle



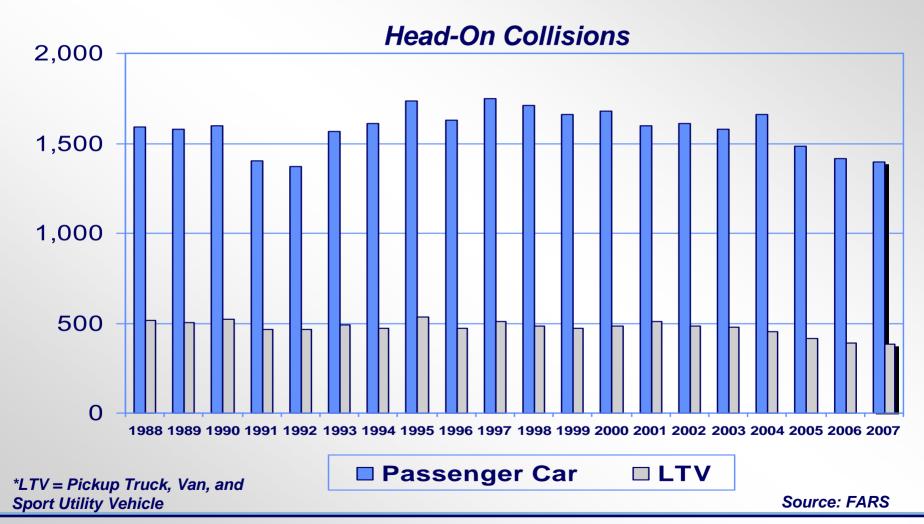
# Two-Vehicle Crashes Involving a Passenger Car and an LTV\* continued...

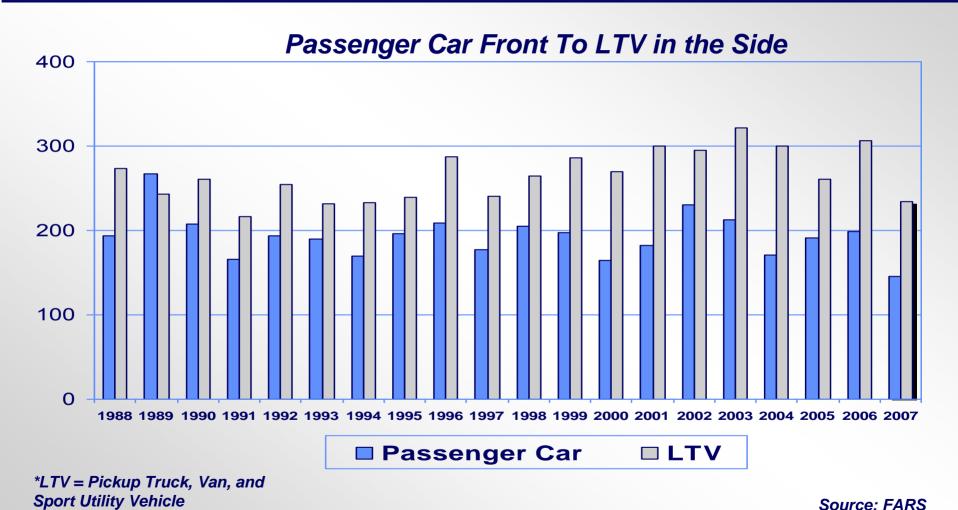
- In head-on collisions, 3.6 times as many passenger car occupants were killed as LTV occupants.
- When LTVs were struck in the side by a passenger cars, 1.6 times as many LTV occupants were killed as passenger car occupants.
- When passenger cars was struck in the side by LTVs,
   18 times as many passenger car occupants were killed as LTV occupants.

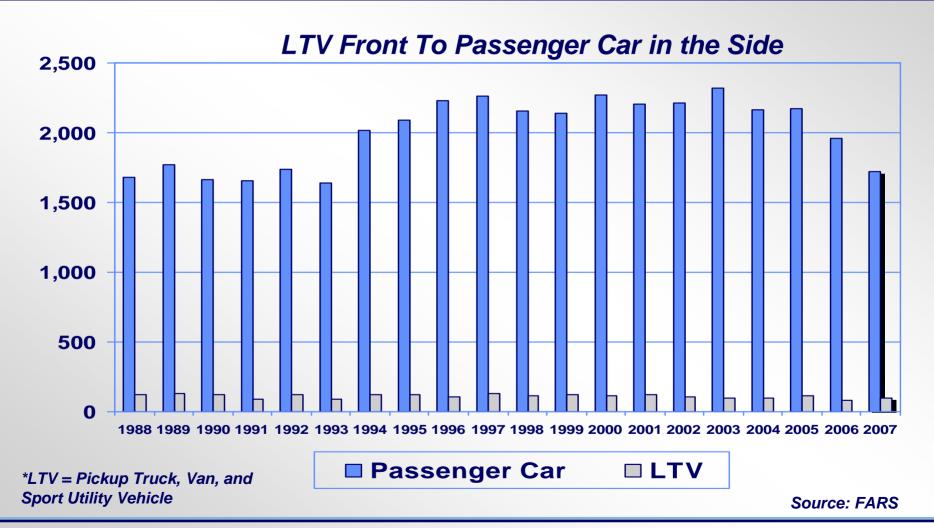
	ear	% Change				
	2006 2007		% Change			
	Head-On Collis	sions				
Killed in PC	1,414	1,396	-1.3%			
Killed in LTV	392	384	-2.0%			
Pass	enger Car Front <sup>-</sup>	To LTV Side				
Killed in PC	199	146	-27%			
Killed in LTV	306	234	-24%			
LTV Front To Passenger Car Side						
Killed in PC	1,956	1,721	-12%			
Killed in LTV	79	98	+24%			

PC = Passenger Car

<sup>\*</sup>LTV = Light Trucks include Pickup Trucks, Vans, and Sport Utility Vehicles









#### Nonoccupants

- > Fatalities declined for all nonoccupants
  - > Largest decline among pedalcyclists 9.6%
- Nonoccupants injured increased by 11%

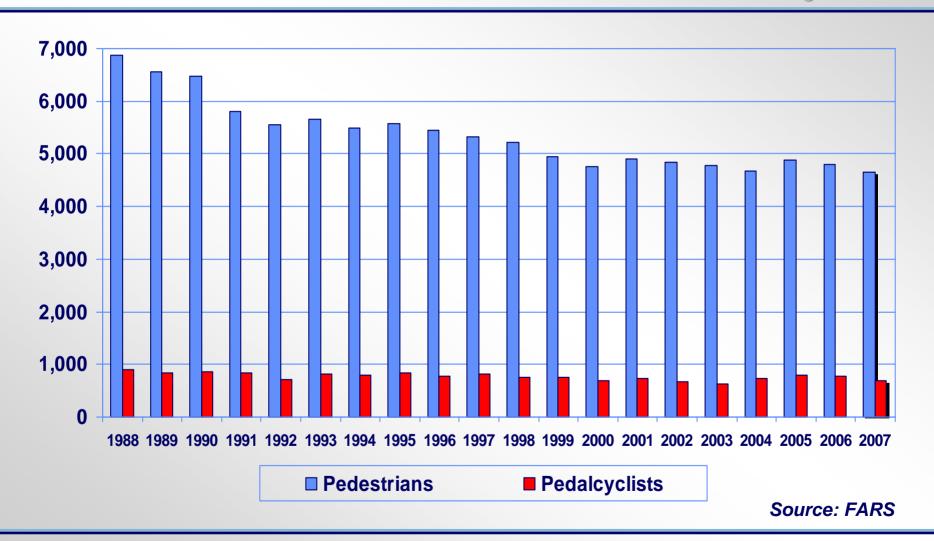
### Nonoccupants Killed or Injured, by Type

Туре	Ye	0/ Change	
	2006	2007	% Change
Nonoccupants Killed	5,752	5,504	-4.3%
Pedestrians	4,795	4,654	-2.9%
Pedalcyclists	772	698	-9.6%
Others **	185	152	-18%
Nonoccupants Injured*	112,000	124,000	+11%
Pedestrians	61,000	70,000	+15%
Pedalcyclists	44,000	43,000	-2.3%
Others **	7,000	10,000	+43%

<sup>\*</sup>Totals may not add due to rounding. Percentages computed after rounding.

<sup>\*\*</sup>Includes occupants of motor vehicles not in transport and of non-motor-vehicle transport devices and unknown nonoccupants

# Pedestrians and Pedalcyclists Killed, by Year





#### Children and Youth

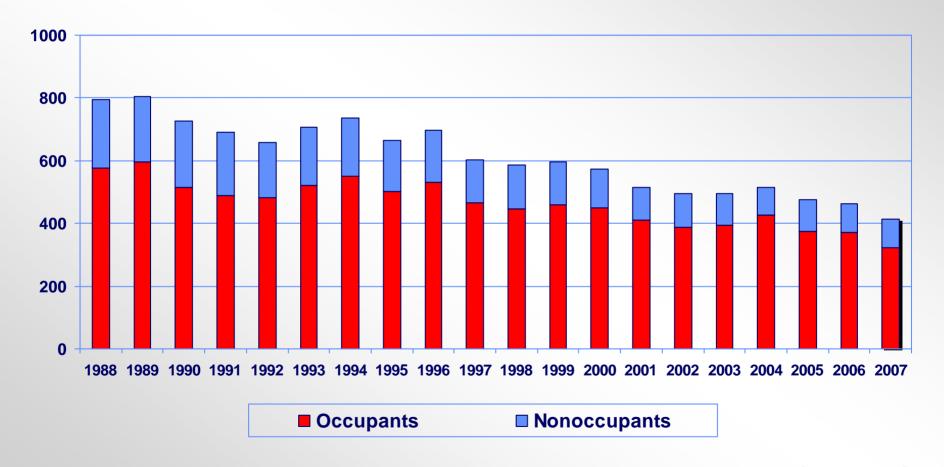
- > Fatalities for children age 0-3 declined
  - Occupant fatalities declined by 12%
- > Children age 0-3 injured increased by 2.3%

## Children Age 0-3 Killed or Injured, by Role

Role	Year		0/ Characa	
	2006	2007	% Change	
Killed	461	413	-10%	
Occupants	370	324	-12%	
Nonoccupants	91	89	-2.2%	
Injured*	43,000	44,000	+2.3%	
Occupants	42,000	42,000	0.0%	
Nonoccupants	1,000	2,000	+100%	

<sup>\*</sup>Totals may not add due to rounding. Percentages computed after rounding.

## Children Age 0-3 Killed, by Year and Role



Source: FARS

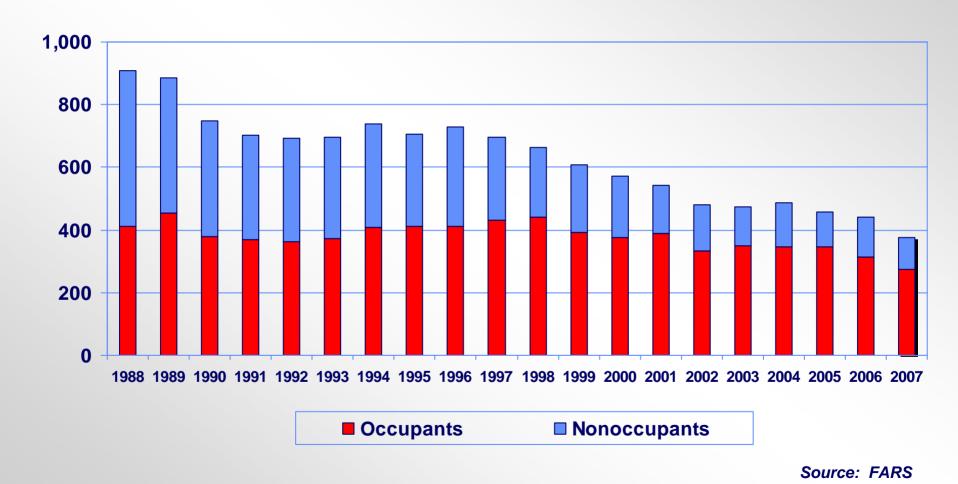
#### Children and Youth

- Fatalities for children age 4–7 declined by 15%
  - Declined for both occupants and nonoccupants
- ➤ Fatalities for children age 4–7 dropped below 400 for the first time
- Children age 4–7 injured increased by 2.0%

## Children Age 4-7 Killed or Injured, by Role

Role	Υe	Year		
	2006 2007		% Change	
Killed	442	376	-15%	
Occupants	314	275	-12%	
Nonoccupants	128	101	-21%	
Injured	49,000	50,000	+2.0%	
Occupants	44,000	45,000	+2.3%	
Nonoccupants	5,000	5,000	0.0%	

#### Children Age 4-7 Killed, by Year and Role



#### Children and Youth

- ➤ Fatalities in children and youth age 8–15 declined by 3.2%
- Children and youth, age 8–15 injured in crashes declined by 8.1%

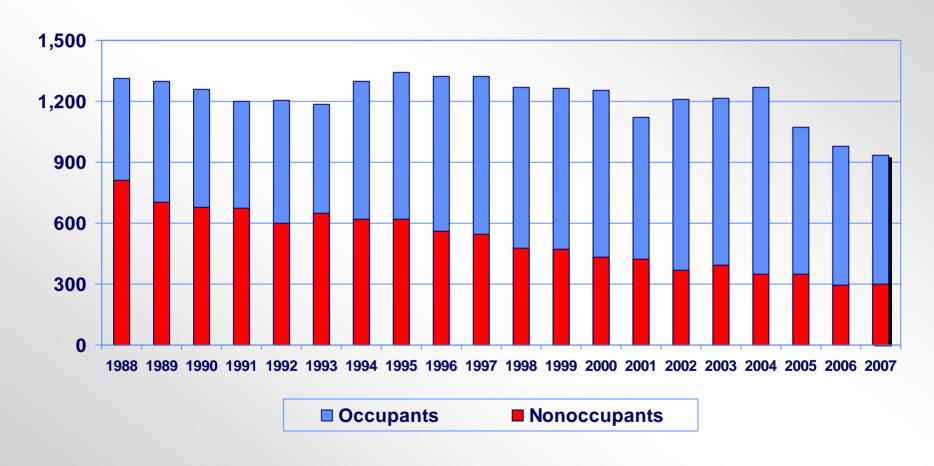
## Children and Youth Age 8-15 Killed or Injured, by Role

Role	Yea	Year	
	2006	2007	% Change
Killed	1,274	1,233	-3.2%
Occupants	981	935	-4.7%
Nonoccupants	293	298	+1.7%
Injured*	148,000	136,000	-8.1%
Occupants	126,000	113,000	-10%**
Nonoccupants	22,000	23,000	+4.5%

<sup>\*</sup>Totals may not add due to rounding. Percentages computed after rounding.

<sup>\*\*</sup>Change in occupants injured is statistically significant at the 0.05 level (95% confidence intervals)

### Children and Youth Age 8-15 Killed, by Year and Role



Source: FARS



#### **Young Drivers**

- > Fatal young-driver crashes declined by 6.6%
- > Injury crashes also declined by 6.7%
- > Property damage only crashes increased
- ➤ The number of young drivers (age 16–20) killed declined by 8.8%
- Passengers and others killed in young-driver (16-20) crashes declined

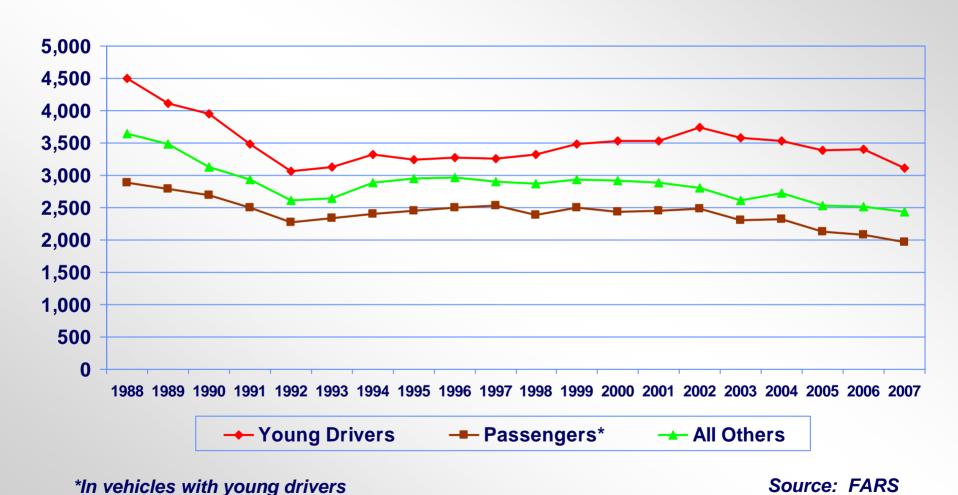
#### Number of Crashes and People Killed in Crashes Involving Young Drivers (Age 16-20)

Crashes and	Year		% Change
Persons Killed	2006	2007	% Change
Crashes			
Fatal	7,012	6,552	-6.6%
Injury	461,000	430,000	-6.7%*
PDO	993,000	1,037,000	+4.4%*
People Killed			
Young Drivers	3,407	3,108	-8.8%
Male	2,513	2,284	-9.1%
Female	894	824	-7.8%
Passengers**	2,086	1,967	-5.7%
All Others	2,516	2,437	-3.1%

<sup>\*</sup>Change is statistically significant at the 0.05 level (95% confidence intervals)

<sup>\*\*</sup>In vehicles with young drivers

#### People Killed in Crashes Involving Young Drivers (Age 16-20), By Year and Role



September 5th, 2008

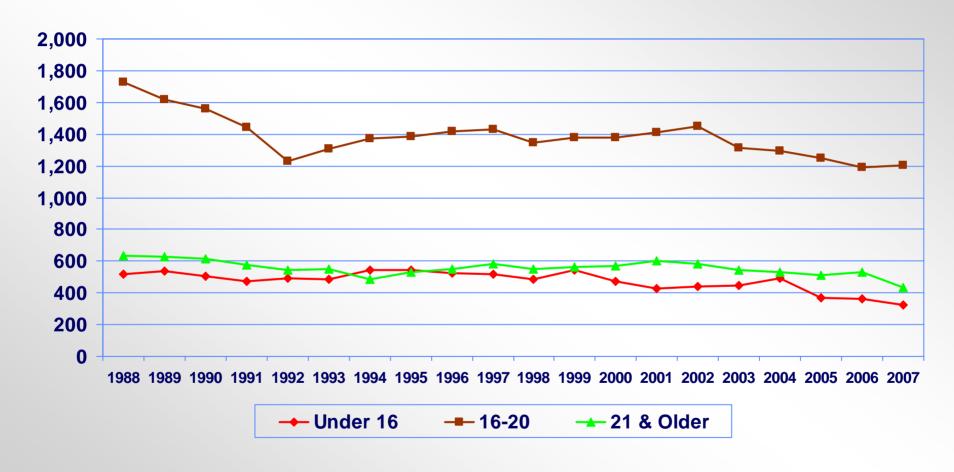
#### 2007 Data Shows...

After declining for four years in a row, fatalities increased among 16- to 20-year-old passengers of young drivers by 1.3%

# Passenger Fatalities in Vehicles with Young Drivers (Age 16-20)

Passenger Age	Yea	0/ Change	
	2006	2007	% Change
Under 16	363	323	-11%
16-20	1,189	1,204	+1.3%
21 & Older	529	433	-18%
Unknown	5	7	+40%
Total	2,086	1,967	-5.7%
Source: FARS			

# Passenger Fatalities in Vehicles Driven by 16- to 20-Year-Olds, By Year and Age of Passenger



Source: FARS



# Intersection-Related and Roadway Departure

Intersection and intersection-related\* fatalities declined by 2.2%

Roadway departure\*\* fatalities declined by 3.3%

<sup>\*</sup>A crash is intersection-related if the first harmful event occurs within the limits of an intersection or at an approach to or exit from an intersection only within a noninterchange area.

<sup>\*\*</sup> A crash is considered a roadway departure crash if it is:

<sup>·</sup> a single-vehicle crash occurring off the roadway OR

<sup>•</sup> a multiple-vehicle crash where the manner of collision was head-on or a sideswipe in opposite direction.

#### Intersection, Intersection-Related, and Roadway Departure Fatalities, by Year

	Year		Changa	0/ Changa
	2006	2007	Change	% Change
Intersection and Intersection-Related*	8,850	8,657	-193	-2.2%
Roadway Departure**	24,960	24,147	-813	-3.3%

\*FHWA Definition Source: FARS

<sup>\*</sup>A crash is intersection-related if the first harmful event occurs within the limits of an intersection or at an approach to or exit from an intersection only within a noninterchange area.

<sup>\*\*</sup> A crash is considered a roadway departure crash if it is:

a single-vehicle crash occurring off the roadway OR

<sup>•</sup> a multiple-vehicle crash where the manner of collision was head-on or a sideswipe in opposite direction.



# Questions about the data in this report may be e-mailed to:

ncsaweb@nhtsa.dot.gov

or made by phone to:

800-934-8517