

## *Motor Vehicle Traffic Crash Fatalities and Injuries*

**Based on**

*The Fatality Analysis Reporting System (FARS)  
and*

*The National Automotive Sampling System (NASS)  
General Estimates System (GES)*

**DOT HS 809 862**

**April 2005**

The 2004 **“PROJECTIONS”**  
contained in this report are  
based on statistical procedures  
which use **“PARTIAL”** year FARS  
and NASS GES files.

# *The 2004 Projections*

The numbers from these 2004 Projections are subject to change when the data from the full year 2004 Annual Assessment are released this summer.

2004 Projections are compared to fatalities and injuries from the 2003 Annual Report. Sources of the data are indicated in the listing on page 42.

- The Number of Persons Killed in Motor Vehicle Traffic Crashes is Projected to **Increase** slightly.
- The Number of Persons Injured in Motor Vehicle Traffic Crashes is Projected to **Decline** by 5 percent.
- The Fatality and Injury Rates (per 100 Million Vehicle Miles Traveled (VMT)) are Projected to **Decline** slightly.

- Fatalities in Alcohol-Related Crashes are Projected to **Decline** for the Second Year in a Row
- Motorcyclist Fatalities are Projected to **Increase** for the Seventh Year in a Row
  - More than **85%** increase since 1997

- Passenger Vehicle Occupant Fatalities are Projected to **Decline slightly**
  - **Decline** for Passenger Cars
  - **Increase** in Light Trucks
    - Majority of the increases in light trucks came from SUVs
- Percentage of Unrestrained Fatally Injured Passenger Vehicle Occupants is Projected to Remain Unchanged from 2003
- Fatalities Among Children Under Age 8 are Projected to **Increase** slightly
- Non-Occupant Fatalities are Projected to **Decline**
  - Almost all Declines will come from Pedestrians
  - Increase will come from Pedalcyclists

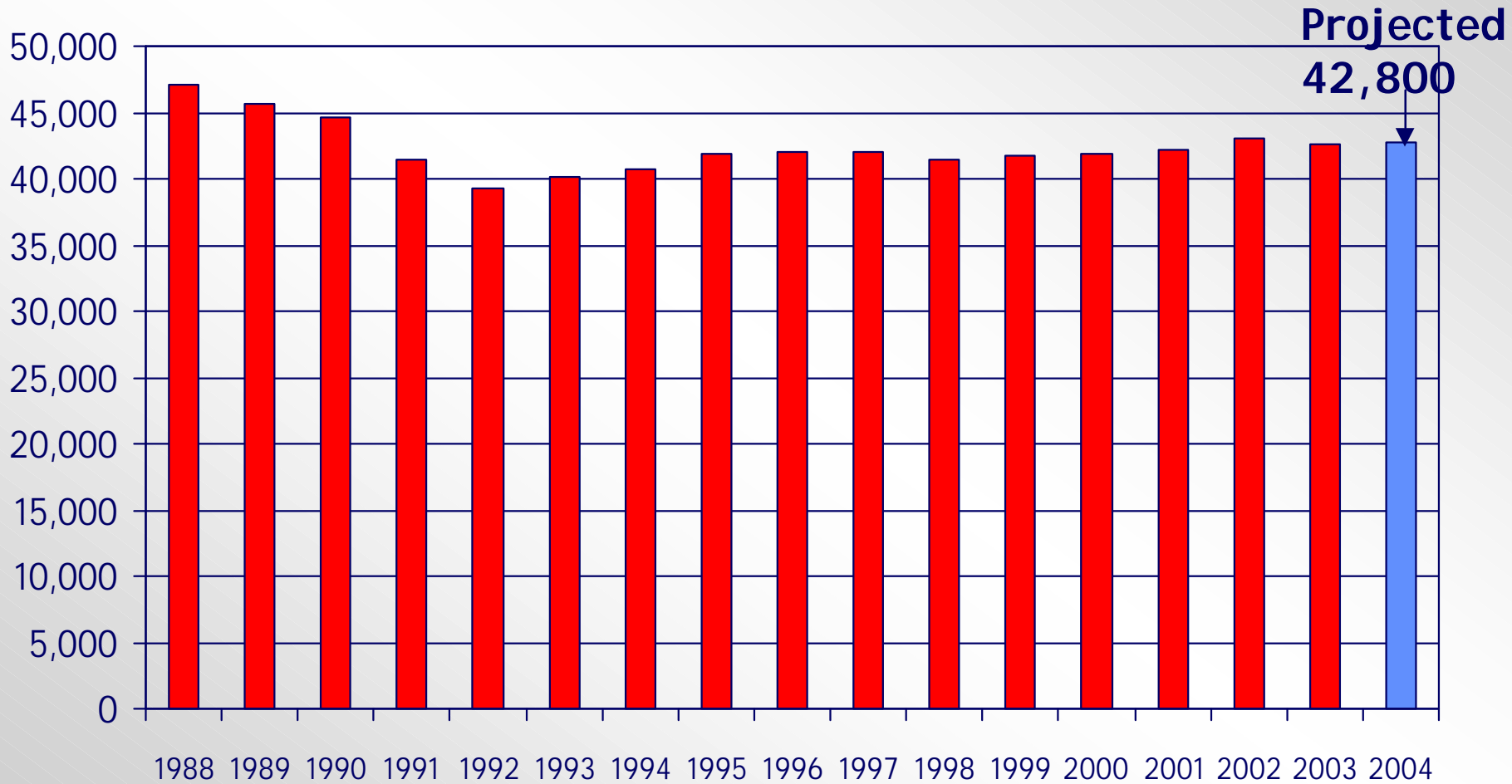
# Overall Statistics

	Year		% Change
	2003	2004 Projected	
Persons Killed	42,643	42,800	+0.4%
Persons Injured	2,889,000	2,757,000	-4.6%
Fatal Crashes	38,252	38,300	+0.1%
Nonfatal Crashes	6,289,000	6,089,000	-3.2%
Injury Crashes	1,925,000	1,844,000	-4.2%
Property-Damage-Only	4,365,000	4,245,000	-2.7%

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

Sources: FARS, NASS GES

# Number of Persons Killed in Motor Vehicle Crashes, by Year



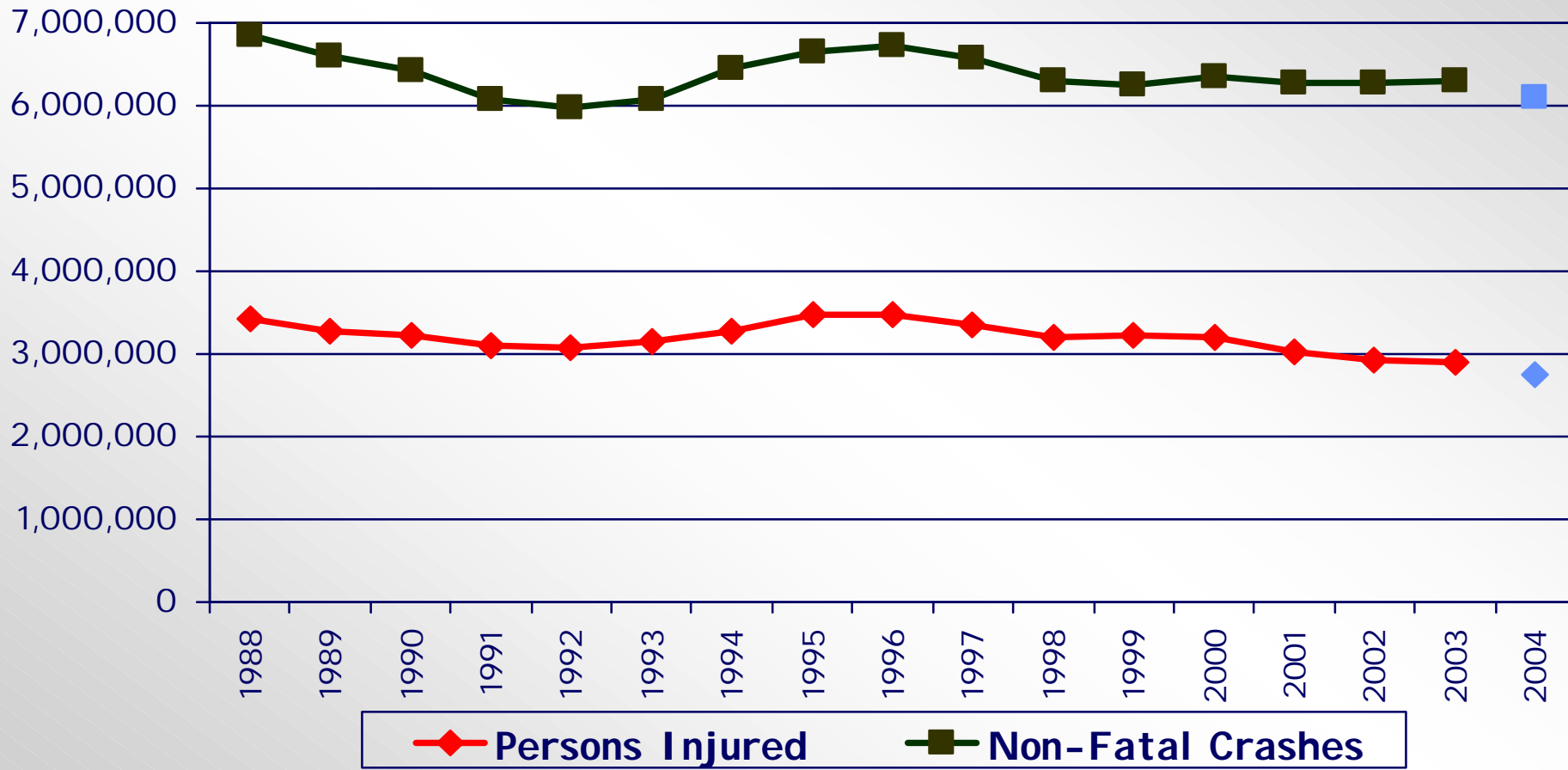
Source: FARS

2004 Projections

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# Non-Fatal Crashes and Persons Injured, by Year



Sources: NASS GES

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- **Motor Vehicle Crash  
Fatality and Injury Rates  
are Projected to Decline**

Exposure Measure	Year		% Change
	2003	2004	
Vehicle Miles Traveled	2,890,893M	2,923,903M*	+1.1%
Registered Vehicles	230,788,209	235,404,000**	+2.0%
Population***	290,788,976	293,655,404	+1.0%

\*FHWA December 2004 TVT estimates.

\*\*Based on NHTSA projections.

\*\*\*July 1 Census Bureau estimates, release date December 22, 2004.

# Motor Vehicle Crash Fatality and Injury Rates

Rate	Year		% Change
	2003	2004 Projected	
<b>Persons Killed</b>			
/100M VMT	1.48	1.46*	-1.4%
/100K Reg. Vehicles	18.48	18.18**	-1.6%
/100K Population***	14.66	14.57	-0.6%
<b>Persons Injured</b>			
/100M VMT	100	94*	-6.0%
/100K Reg. Vehicles	1,252	1,171**	-6.5%
/100K Population***	993	939	-5.4%

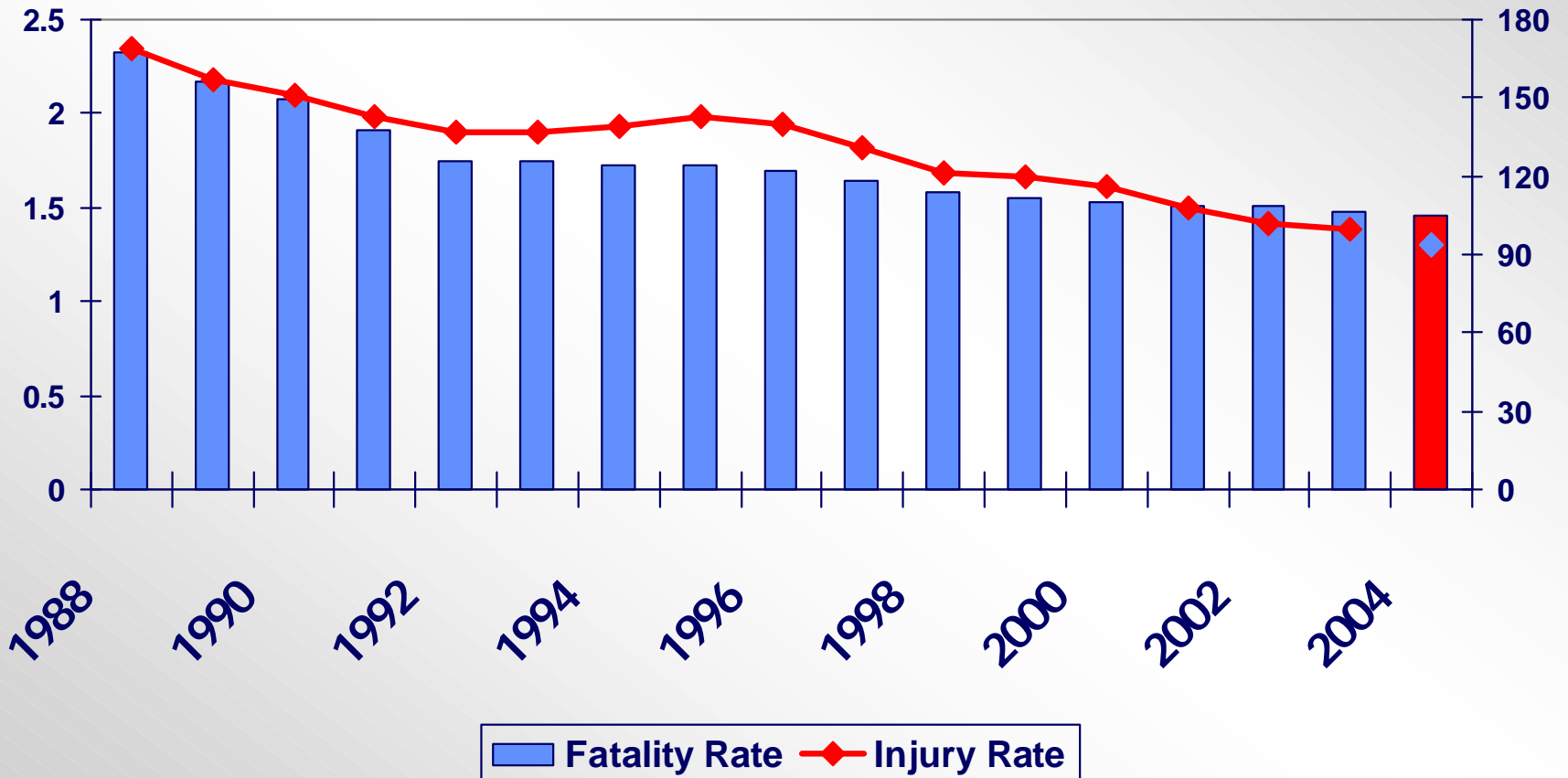
\*Based on December 2004 FHWA TVT estimates.

\*\*Based on NHTSA's Projections

\*\*\*July, 1 estimates - Dec 22, 2004 release

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

# Fatality and Injury Rates per 100 Million VMT, by Year



Source: FARS, NASS GES / FHWA

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# Persons Killed in Motor Vehicle Crashes, by Role

Role	2003	2004 Projected	Change	% Change
Occupants	33,471	33,434	-37	-0.1%
Drivers	23,258	23,273	+15	+0.1%
Passengers	10,108	10,072	-36	-0.4%
Unknown Occupant	105	89	-16	-15%
Motorcyclists	3,661	3,927	+266	+7.3%
Non-Occupants	5,511	5,439	-72	-1.3%
Pedestrians	4,749	4,598	-151	-3.2%
Pedalcyclists	622	706	+84	+14%
Other*	140	135	-5	-3.6%
<b>TOTAL</b>	<b>42,643</b>	<b>42,800</b>	<b>+157</b>	<b>+0.4%</b>

\*Includes occupants of motor vehicles not in transport and of non-motor vehicle transport devices.

Source: FARS

# Persons Injured in Motor Vehicle Crashes, by Role

Role	Year		% Change
	2003	2004 Projected	
Occupants	2,697,000	2,563,000	-5.0%
Drivers	1,840,000	1,752,000	-4.8%
Passengers	857,000	810,000	-5.5%
Motorcyclists	67,000	76,000	+13%
Non-Occupants	124,000	118,000	-4.8%
Pedestrians	70,000	68,000	-2.9%
Pedalcyclists	46,000	42,000	-8.7%
Other/Unknown Occupants	8,000	9,000	+13%
<b>TOTAL*</b>	<b>2,889,000</b>	<b>2,757,000</b>	<b>-4.6%</b>

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

Source: NASS GES



# Occupants Killed in Motor Vehicle Crashes, by Vehicle Type

Vehicle Type	2003	2004 Projected	Change	% Change
Total Passenger Vehicles	31,904	31,506	-398	-1.2%
Passenger Cars	19,460	18,987	-473	-2.4%
Light Trucks	12,444	12,519	+75	+0.6%
Vans	2,066	2,032	-34	-1.6%
SUVs	4,446	4,666	+220	+4.9%
Pickups	5,904	5,787	-117	-2.0%
Other	28	33	+5	+18%
Large Trucks	723	768	+45	+6.2%
Other/Unknown*	844	1,160	+316	---
<b>TOTAL</b>	<b>33,471</b>	<b>33,434</b>	<b>-37</b>	<b>-0.1%</b>

\*Many of the unknown vehicle types in the 2004 Early Assessment file will be resolved in the 2004 Annual Report file, thus effecting percent changes that are shown throughout this presentation. Source: FARS



# Occupants Injured in Motor Vehicle Crashes, by Vehicle Type

Vehicle Type	Year		% Change
	2003	2004 Projected	
Passenger Cars	1,756,000	1,634,000	-6.9%
LTVs*	889,000	882,000	-0.8%
Large Trucks	27,000	25,000	-7.4%
Other Vehicles**	25,000	22,000	-12%
<b>TOTAL***</b>	<b>2,697,000</b>	<b>2,563,000</b>	<b>-5.0%</b>

\*LTV = Pickup Truck, Van, and Sport Utility Vehicle

\*\*Includes vehicle occupants injured in buses and other vehicle types.

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

Source: NASS GES

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

Type of Vehicle	2003	2004 Projected	% Change
Persons Killed	10,376	10,296	-0.8%
Passenger Car	4,433	4,295	-3.1%
Van	724	666	-8.0%
SUV	2,639	2,821	+6.9%
Pickup Truck	2,569	2,501	-2.6%
Persons Injured*	229,000	218,000	-4.8%
Passenger Car	99,000	89,000	-10%
Van	17,000	19,000	+12%
SUV	67,000	65,000	-3.0%
Pickup Truck	44,000	43,000	-2.3%

Totals for Killed and Injured include Occupants of Other Light Trucks

Source: FARS, NASS GES

\*Note: Totals may not add due to rounding. Percentages computed after rounding.

- **The Proportion of Passenger Vehicle Occupants Killed in Motor Vehicle Crashes who were Unrestrained is Projected to**

**Remain unchanged**



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

Restraint Use	Year			
	2003		2004 Projected	
Passenger Vehicle Occupants Killed*	31,904		31,506	
Restraint Used**	13,885	44%	13,862	44%
Restraint Not Used	18,019	56%	17,644	56%

\*Occupant Fatalities whose restraint use was unknown were distributed proportionally to the known use categories. Unknown restraint use for passenger vehicle occupants was 8% in 2003 and 7% in 2004.

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

Note. Many of the unknown vehicle types in the 2004 Early Assessment file will be resolved in the 2004 Annual Report file, thus contributing some additional occupant fatalities to passenger vehicles than is currently being reported.

Source: FARS

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- **The Estimate of People Killed in Alcohol-Related Crashes is Projected to**

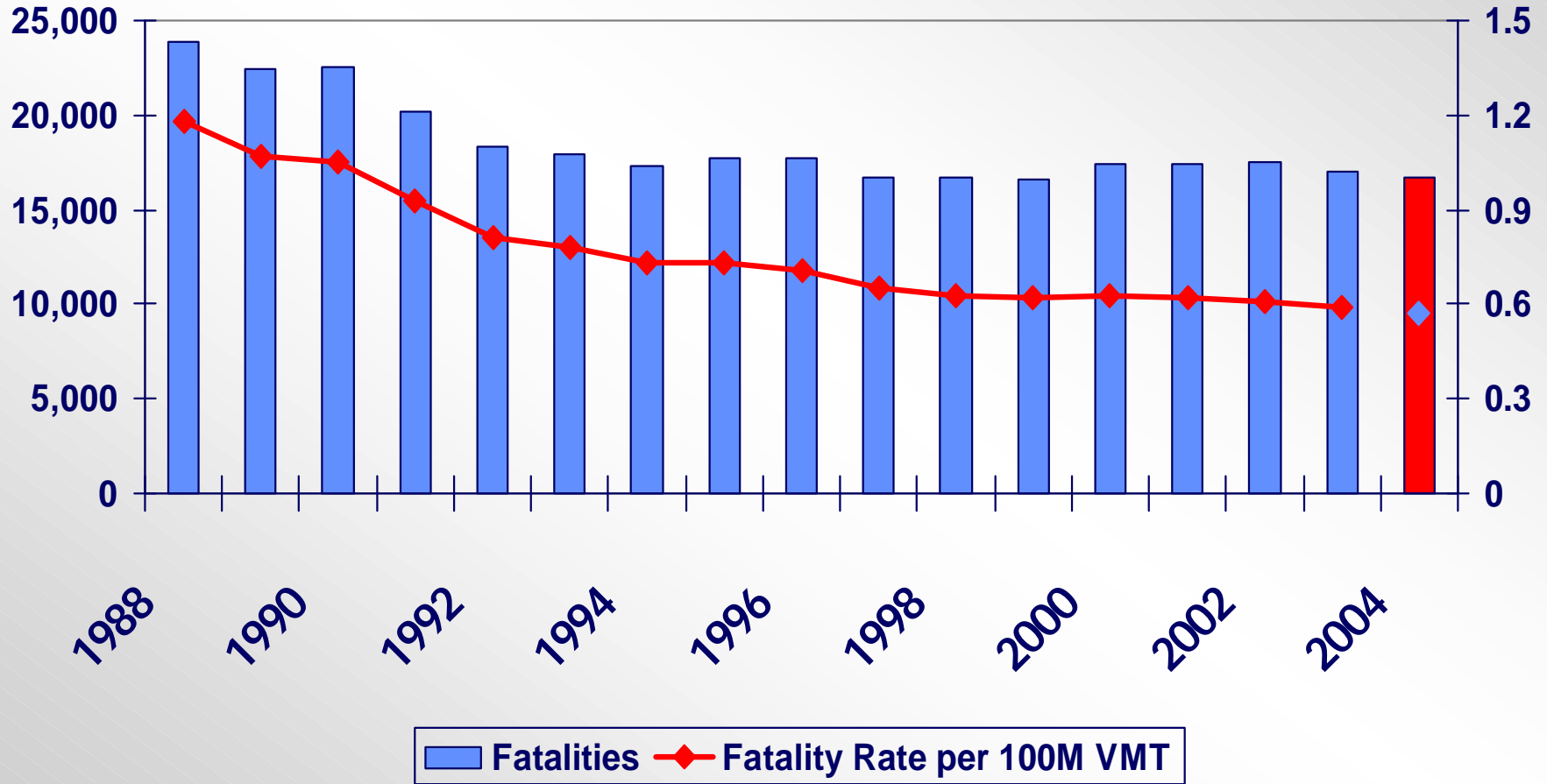
**Decline** for the second year in a row

# Persons Killed, by Highest BAC in Crash

Highest BAC in Crash	Year		% Change
	2003	2004 Projected	
Alcohol-Related Fatalities	17,013	16,654	-2.1%
Fatality Rate / 100 M VMT	0.59	0.57	
% All Fatalities	40%	39%	
BAC = 0.01-0.07	2,383	2,150	-9.8%
BAC = 0.08 or higher	14,630	14,504	-0.9%

Source: FARS, FHWA

# Alcohol-Related Fatalities and Fatality Rate, by Year



Source: FARS, FHWA

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# Persons Killed in Alcohol-Related Crashes, by Role

Role	2003	2004 Projected	Change	% Change
Occupants*	12,972	12,678	-294	-2.3%
Drivers	9,442	9,201	-241	-2.6%
Passengers	3,485	3,442	-43	-1.2%
Motorcyclists	1,505	1,520	+15	+1.0%
Non-Occupants	2,537	2,457	-80	-3.2%
Pedestrians	2,253	2,170	-83	-3.7%
Pedalcyclists	238	244	+6	+2.5%
Other**	46	43	-3	-6.5%
<b>TOTAL</b>	<b>17,013</b>	<b>16,654</b>	<b>-359</b>	<b>-2.1%</b>

\* Totals include occupants whose seating position was unknown.

\*\* Includes occupants of motor vehicles not in transport and of non-motor vehicle transport devices.

Source: FARS



# Persons Injured in Alcohol-Related Crashes, by Role

Role	Year		% Change
	2003	2004 Projected	
Occupants	254,000	228,000	-10%
Drivers	171,000	157,000	-8.2%
Passengers	83,000	71,000	-14%
Motorcyclists	6,000	8,000	+33%
Non-Occupants	15,000	14,000	-6.7%
Pedestrians	10,000	10,000	0.0%
Pedalcyclists	4,000	3,000	-25%
Other/Unknown Occupants	1,000	1,000	0.0%
<b>TOTAL*</b>	<b>275,000</b>	<b>249,000</b>	<b>-9.5%</b>

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

Source: NASS GES

# Occupants and Motorcyclists Killed in Alcohol-Related Crashes, by Vehicle Type

Vehicle Type	Year		% Change
	2003	2004 Projected	
Passenger Cars	7,455	7,176	-3.7%
Vans	595	525	-12%
SUVs	1,729	1,815	+5.0%
Pickup Trucks	2,779	2,673	-3.8%
Large Trucks	78	78	0.0%
<b>Total Occupants Killed*</b>	<b>12,972</b>	<b>12,678</b>	<b>-2.3%</b>
Motorcyclists	1,505	1,520	1.0%

\*Includes Buses, Other Vehicles and Vehicles with Unknown Body Type.

Source: FARS

## *Alcohol-Involved Drivers and Motorcycle Operators in Fatal Crashes, by Vehicle Type*

Vehicle Type	Year		% Change
	2003	2004 Projected	
Passenger Car	6,817	6,521	-4.3%
Van	595	530	-11%
SUV	1,814	1,969	+8.5%
Pickup Truck	3,164	2,951	-6.7%
Other/Unknown*	520	629	+21%
<b>Total</b>	<b>12,909</b>	<b>12,601</b>	<b>-2.4%</b>
Motorcycle	1,351	1,351	0.0%

\*Includes Large Trucks, Buses, Other Vehicles and Vehicles with Unknown Body Type

Source: FARS

# 2004 Projections Show

- The Motorcyclist Proportion of Overall Fatalities is Projected to increase to over 9% in 2004. This compares to 5% in 1997.
- Most of the Increase in Motorcyclist Fatalities are Projected to be in the 40 and Over Age Groups, continuing the Trend seen in Previous Years.
  - About **60%** of the Projected Increase in Motorcyclist Fatalities is expected to be in the 40 and Over Age Groups

# Motorcyclists Killed and Injured, by Year, 1997-2004

	Year							
	1997	1998	1999	2000	2001	2002	2003	2004 Projected
<b>Total Killed</b>	42,013	41,501	41,717	41,945	42,196	43,005	42,643	42,800
<b>Change</b>	---	-512	+216	+228	+251	+809	-362	+157
<b>Motorcyclists Killed</b>	2,116	2,294	2,483	2,897	3,197	3,270	3,661	3,927
<b>Increase</b>	---	+178	+189	+414	+300	+73	+391	+266
<b>% Increase</b>	---	8.4%	8.2%	16.7%	10.4%	2.3%	12%	7.3%
<b>Percent of all Fatalities</b>	5.0%	5.5%	6.0%	6.9%	7.6%	7.6%	8.6%	9.2%
<b>Motorcyclists Injured</b>	53,000	49,000	50,000	58,000	60,000	65,000	67,000	76,000

Source: FARS, NASS GES

# Number of Motorcyclists Killed, by Age Group

Age Group	Year		Change	% Change
	2003	2004 Projected		
Under 20	224	244	+20	+8.9%
20 - 29	937	991	+54	+5.8%
30 - 39	824	853	+29	+3.5%
40 & Over	1,674	1,835	+161	+9.6%
40 - 49	894	953	+59	+6.6%
50 & Over	780	882	<b>+102</b>	<b>+13%</b>
Unknown	2	3	+1	---
<b>Total</b>	<b>3,661</b>	<b>3,927</b>	<b>+266</b>	<b>+7.3%</b>

Source: FARS

# Motorcyclist Fatalities and Fatality Rates, by Year, 1997-2003

Rate	Year							
	1997	1998	1999	2000	2001	2002	2003	2004* Projected
Motorcyclist Fatalities	2,116	2,294	2,483	2,897	3,197	3,270	3,661	3,927
/100M MC VMT	20.99	22.31	23.46	27.67	33.17	34.23	38.38	---
/100K Reg. Vehicles	55.30	59.13	59.80	66.66	65.20	65.35	68.17	---

\*2004 VMT and registered vehicle data not yet available. Source: FARS, FHWA

- 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).



# *Other Statistics*



# Persons Killed in Large Truck Crashes, by Type

Type	Year		% Change
	2003	2004 Projected	
Truck Occupants	723	768	+6.2%
Single Vehicle	456	465	+2.0%
Multiple Vehicle	267	303	+13%
Other Vehicle Occupants	3,879	3,988	+2.8%
Non-Occupants	384	413	+7.6%
<b>Total</b>	<b>4,986</b>	<b>5,169</b>	<b>+3.7%</b>

Source: FARS

# Persons Injured in Large Truck Crashes, by Type

Type	Year		% Change
	2003	2004 Projected	
Truck Occupants	27,000	25,000	-7.4%
Single Vehicle	11,000	11,000	0.0%
Multiple Vehicle	16,000	14,000	-13%
Other Vehicle Occupants	92,000	89,000	-3.3%
Non-Occupants	3,000	3,000	0.0%
<b>Total*</b>	<b>122,000</b>	<b>118,000</b>	<b>-3.3%</b>

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

Source: NASS GES

# Children, Under Age 4, Killed or Injured, by Role

Role	Year		% Change
	2003	2004 Projected	
<b>Killed</b>	<b>494</b>	<b>503</b>	<b>+1.8%</b>
Occupants	391	409	+4.6%
Non-Occupants	103	93	-9.7%
<b>Injured*</b>	<b>49,000</b>	<b>45,000</b>	<b>-8.2%</b>
Occupants	47,000	43,000	-8.5%
Non-Occupants	2,000	2,000	0.0%

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

Source: FARS, NASS GES

# Children, Ages 4 thru 7 Killed or Injured, by Role

Role	Year		% Change
	2003	2004 Projected	
<b>Killed</b>	<b>472</b>	<b>479</b>	<b>+1.5%</b>
Occupants	350	357	+2.0%
Non-Occupants	122	122	0.0%
<b>Injured*</b>	<b>60,000</b>	<b>60,000</b>	<b>0.0%</b>
Occupants	53,000	53,000	0.0%
Non-Occupants	7,000	7,000	0.0%

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

Source: FARS, NASS GES

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

Role	Year		% Change
	2003	2004 Projected	
<b>Killed</b>	<b>1,604</b>	<b>1,604</b>	0.0%
Occupants	1,212	1,251	+3.2%
Non-Occupants	392	354	-9.7%
<b>Injured*</b>	<b>182,000</b>	<b>173,000</b>	-4.9%
Occupants	153,000	148,000	-3.3%
Non-Occupants	29,000	25,000	-14%

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

Source: FARS, NASS GES

## Number of Crashes and Persons Killed in Crashes Involving Young Drivers (Ages 16-20)

<b>Crashes &amp; Persons Killed</b>	<b>Year</b>		<b>% Change</b>
	<b>2003</b>	<b>2004 Projected</b>	
<b>Crashes</b>	1,758,000	1,622,000	-7.7%
Fatal	7,353	7,405	+0.7%
Injury	538,000	506,000	-5.9%
PDO	1,212,000	1,109,000	-8.5%
<b>Persons Killed</b>	<b>8,455</b>	<b>8,566</b>	<b>+1.3%</b>
Young Drivers	3,571	3,585	+0.4%
Passengers*	2,292	2,279	-0.6%
Others	2,592	2,702	+4.2%

\*In vehicles with young drivers

Source: FARS, NASS GES

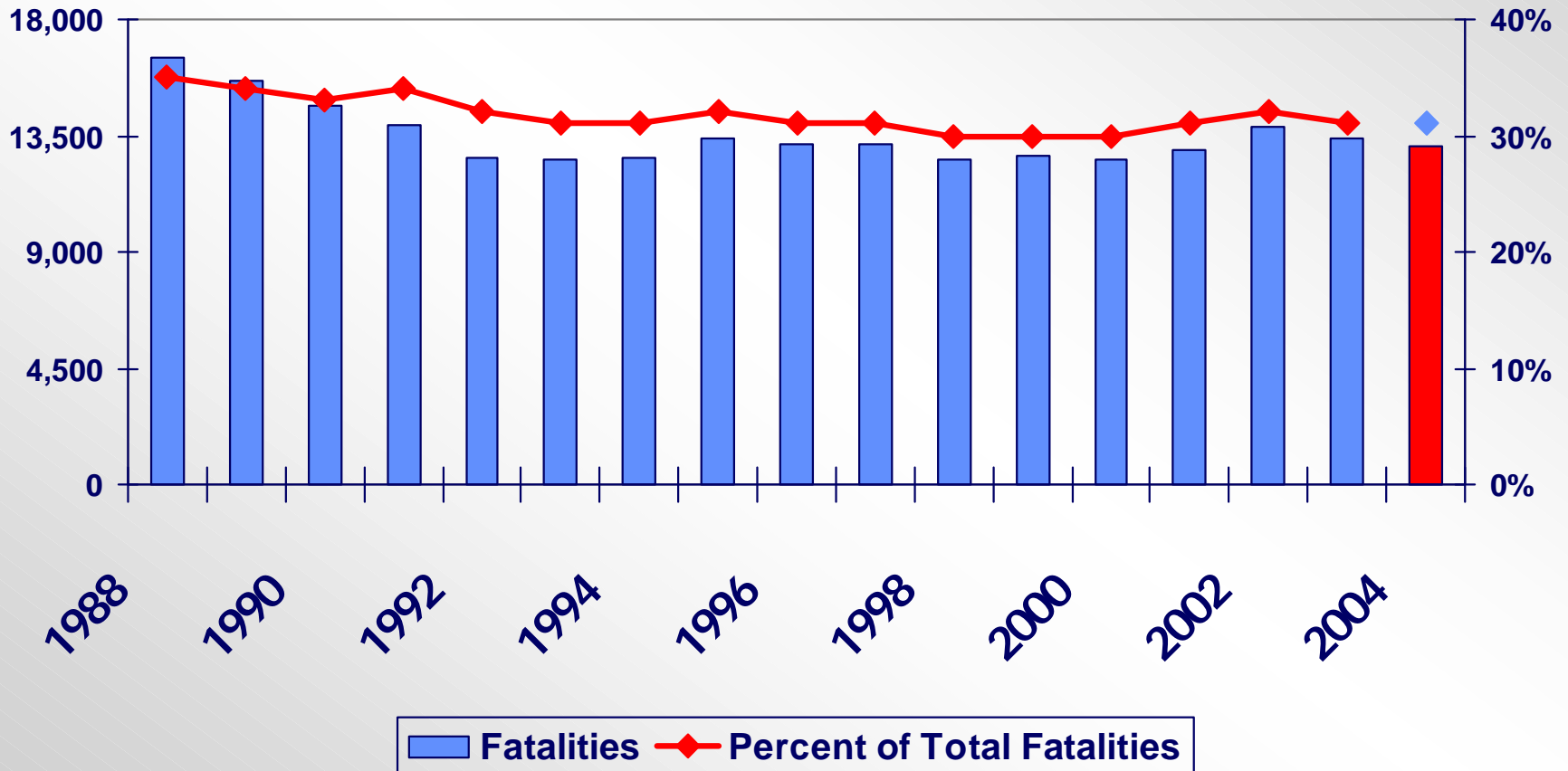
# Speeding Related Crashes and Fatalities, by Year

	Year		Change	% Change
	2003	2004 Projected		
<b>Crashes</b>				
Speeding	11,761	11,457	-304	-2.6%
Not Speeding	26,491	26,844	+353	+1.3%
Percent Speeding	31%	30%		
<b>Fatalities</b>				
Speeding	13,380	13,087	-293	-2.2%
Not Speeding	29,263	29,713	+450	+1.5%
Percent Speeding	31%	31%		

Source: FARS



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



Source: FARS

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

	Year		Change	% Change
	2003	2004 Projected		
Intersection and Intersection Related*	9,213	8,887	-326	-3.5%
Roadway Departure*	25,321	24,848	-473	-1.9%

\*FHWA Definition

Source: FARS

- **Crash Data**
  - ◆ **Fatality Analysis Reporting System (FARS)**
    - 2003 Annual Report File (Final File in 2002 and prior years)
    - 2004 Early Assessment File
  - ◆ **NASS General Estimates System (GES )**
    - 2003 (and prior years) Annual File
    - 2004 Three Quarters Year File
- **Exposure Data**
  - ◆ **Vehicle Miles of Travel (VMT)**
    - Federal Highway Administration (FHWA), December 2004 Traffic Volume Trends Report
  - ◆ **Population Estimates (based on 2000 Census)**
    - Census Bureau, July 1 estimates released on Dec. 22, 2004
  - ◆ **Registered Vehicles**
    - R.L. Polk & Company and FHWA
    - NHTSA's Projection for 2004

***Questions about the data in this  
report may be sent  
by E-Mail to:  
[ncsaweb@nhtsa.dot.gov](mailto:ncsaweb@nhtsa.dot.gov)  
or  
made by phone to:  
1.800.934.8517***