



# NCSA

National Center for Statistics & Analysis  
of the National Highway Traffic Safety Administration

## AAMVA Region I Conference

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Presenter: Umesh Shankar

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# Fatality Analysis Reporting System (FARS)

National Center for Statistics & Analysis



- **Purpose** – Provide an objective basis to evaluate the effectiveness of motor vehicle safety standards and highway safety programs
- **All fatal crashes**
  - ◆ Fatality w/in 30 Days of Crash
    - ~ 37,000/year
  - ◆ Covers All 50 States, DC, and Puerto Rico
- **Began Operation in 1975**
- **Operated Cooperatively with States**





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# *FARS Data Sources*

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- Police Crash Reports
- State Vehicle Registration Files
- State Driver Licensing Files
- State Highway Department Data
- Vital Statistics
- Death Certificates
- Coroner/Medical Examiner Reports
- Hospital Medical Records
- Emergency Medical Services Reports



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# FARS Data Elements

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- **Crash Characteristics**
  - ◆ Describes Crash Environment
- **Vehicle Information**
  - ◆ Characteristics of Vehicles Involved
- **Driver Level**
  - ◆ Driver licensing
  - ◆ Previous violations
  - ◆ Driver zip code
- **Person Level**
  - ◆ Age and sex of driver
  - ◆ Alcohol test results



The image displays a stack of four FARS (Fatality Analysis Reporting System) forms, each representing a different level of data collection:

- ACCIDENT LEVEL:** Includes fields for date, time, location, and severity of the crash.
- VEHICLE LEVEL:** Details information about the vehicles involved, such as make, model, year, and vehicle type.
- DRIVER LEVEL:** Focuses on the driver's characteristics, including license status, age, sex, and any previous violations.
- PERSON LEVEL:** Provides personal details about the driver, such as height, weight, and alcohol test results.



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# Availability of FARS Data

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- Latest year data normally available during early summer for public use
  - ◆ For example, 2003 data released in early summer of 2004
    - "Final" File for Previous Year also released
  - ◆ Data from 1975 to 2002 available now
- Files placed on FTP site for downloading
  - ◆ <ftp://ftp.nhtsa.dot.gov/FARS/>
- Zip files available in three formats
  - ◆ DBF, SAS and SEQL



# *Uses of FARS Data*

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- Fatal crash rates for state and local jurisdictions
- Ascertaining crash and person level alcohol
- Repeat offenders
- Analysis of pedestrian fatalities
- Motorcycle helmet effectiveness
- Relationship between occupant compartment deformation and occupant injury



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# *Uses of FARS Data*

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- Restraint use patterns
- The 65 MPH speed limit
- Safety design of cars and light trucks
- Safety of large trucks on the highway
- Airbag effectiveness research
- Evaluation of differences between urban and rural crashes



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# Older Driver (65+) Fatality Rates by State, 2002

Analysis: Keith Poindexter

202.366.0018

[keith.poindexter@nhtsa.dot.gov](mailto:keith.poindexter@nhtsa.dot.gov)



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# Population Estimates

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- **Census Bureau reported 36 million people 65 years and older lived in 2002**
  - ◆ Estimated 12.5 percent of the population
    - North Dakota and the District of Columbia were the only two states that didn't experience an increase in the 65 and older population in 2002
- **In 1993, 65+ population was 33 million accounting for 12.8 for the US population**
  - ◆ Between 1993 and 2002, proportion of 65+ population declined by 2.3%



# States with Lowest and Highest Residents 65+, 2002

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Lowest		Highest	
Alaska	6.1%	Iowa	14.7%
Utah	8.6%	North Dakota	14.8%
Georgia	9.5%	West Virginia	15.3%
Colorado	9.6%	Pennsylvania	15.5%
Texas	9.9%	Florida	17.1%



# Lowest and Highest Older Driver Fatality Rates\*, 2002

National Center for Statistics & Analysis



Lowest		Highest	
Hawaii	2.4	Georgia	18.8
District of Columbia	2.9	Iowa	19.2
New York	4.8	Alaska	20.5
Massachusetts	5.0	Montana	25.2
Connecticut	8.0	Mississippi	27.7
*Rate per 100,000 population		National Rate: 11.1	



# *Licensed Drivers and Involvement Rates, 2002*

National Center for Statistics & Analysis



- **Older drivers represented 14.6% of all licensed drivers**
  - ◆ In 1993, the proportion of 65+ drivers was 13.9%
- **In 2002, for every 100,000 licensed older drivers**
  - ◆ 22.1 were involved in fatal crashes
  - ◆ 13.9 were killed in fatal crashes



# Lowest and Highest Older Driver Fatality Rates\*, 2002

National Center for Statistics & Analysis



Lowest		Highest	
Hawaii	3.7	Alaska	22.9
District of Columbia	5.7	Georgia	22.9
Connecticut	5.7	Montana	29.5
Massachusetts	6.3	Kentucky	34.0
New York	7.3	Mississippi	36.1
*Rate per 100,000 licensed drivers		National Rate: 13.9	



# *Older Drivers Involved in Fatal Crashes, 2002*

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- 57,803 drivers were involved in fatal crashes (1993 - 53,401)
  - ◆ 6,271 were older drivers (1993 - 5,848)
- 10.8 of every 100 drivers involved in fatal crashes were older drivers (1993 - 11.0)



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# *Lowest and Highest Older Driver Involvement Rate\* in Fatal Crashes, 2002*

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Lowest		Highest	
District of Columbia	4.2	New Jersey	14.0
New Mexico	6.7	Vermont	14.8
Nevada	7.0	Oregon	15.5
Wyoming	8.0	Maine	15.9
Alaska	8.1	North Dakota	17.6

\*Rate per 100 drivers involved



# *Older Driver Fatalities in Crashes, 2002*

National Center for Statistics & Analysis



- **26,549 drivers killed in crashes**
  - ◆ 3,951 were older drivers
- **14.9 of every 100 drivers killed in crashes were older drivers.**



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# Lowest and Highest Older Driver Fatality Rate\* in Crashes, 2002

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Lowest		Highest	
District of Columbia	7.1	Iowa	18.7
Hawaii	7.4	Oregon	20.2
Wyoming	8.8	Maine	21.2
Nevada	9.3	New Jersey	23.2
New Mexico	9.7	North Dakota	23.5
Delaware	9.7		

\*Rate per 100 drivers killed



# Passenger Vehicle Driver Restraint Use\* in Fatal Crashes, 2002

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- **58% of fatally injured passenger vehicle drivers in crashes were unrestrained**
  - ◆ Older drivers - 60%
  - ◆ Under 65 - 39%

\*Based on known use.



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# *Lowest and Highest Older Driver Restraint Use in Fatal Crashes, 2002*

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Lowest		Highest	
<b>North Dakota</b>	<b>21%</b>	<b>California</b>	<b>72%</b>
<b>South Dakota</b>	<b>33%</b>	<b>North Carolina</b>	<b>73%</b>
<b>Nevada</b>	<b>37%</b>	<b>Maryland</b>	<b>73%</b>
<b>Mississippi</b>	<b>43%</b>	<b>Michigan</b>	<b>74%</b>
<b>Kansas</b>	<b>45%</b>	<b>District of Columbia</b>	<b>100%</b>



# *Alcohol Use Among Older Drivers Killed in Crashes, 2002*

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- **37% of fatally injured drivers in crashes has a BAC of 0.01+**
  - ◆ Only 9% of older drivers had a BAC of 0.01+



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# *Lowest and Highest Older Driver Alcohol Use in Fatal Crashes, 2002*

National Center for Statistics & Analysis



Lowest		Highest	
<b>Delaware</b>	<b>1%</b>	<b>Montana</b>	<b>18%</b>
<b>Maine</b>	<b>1%</b>	<b>South Carolina</b>	<b>18%</b>
<b>Nebraska</b>	<b>1%</b>	<b>Hawaii</b>	<b>20%</b>
<b>Arkansas</b>	<b>4%</b>	<b>Vermont</b>	<b>23%</b>
<b>North Carolina</b>	<b>4%</b>	<b>Alaska</b>	<b>25%</b>
<b>Wisconsin</b>	<b>4%</b>		



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# State Data Fact Sheet

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## ALABAMA

State Population Estimate	4,487,000
65+ Population Estimate	589,000
65+ as % of Total State Population	13.1 %
State Driver Fatality Rate per 100,000 Population	15.5
65+ Driver Fatality Rate per 100,000 Older Population	15.3
State Licensed Drivers Estimate	3,578,000
65+ Licensed Drivers Estimate	567,000
65+ as % of Total State Licensed Drivers	15.9 %
State Driver Fatality Rate per 100,000 Licensed Drivers	19.5
65+ Driver Fatality Rate per 100,000 Older Licensed Drivers	15.9
Restraint Usage - Passenger Vehicle Drivers Killed	41%
Restraint Usage - 65+ Passenger Vehicle Drivers Killed	57%
Alcohol Involvement - Drivers Killed	36%
Alcohol Involvement - 65+ Drivers Killed	7%
Drivers Involved in Fatal Crashes	1,349
65+ Driver Involved in Fatal Crashes	133
65+ Involvement Rate per 100 Drivers Involved	9.9
Drivers Killed in Fatal Crashes	696
65+ Drivers Killed in Fatal Crashes	90
65+ Fatality Rate per 100 Drivers Killed	12.9



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# Questions?

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