



UNIVERSITY *of* MARYLAND
SCHOOL OF MEDICINE

Maryland Older Driver Crashes, 2007-2011

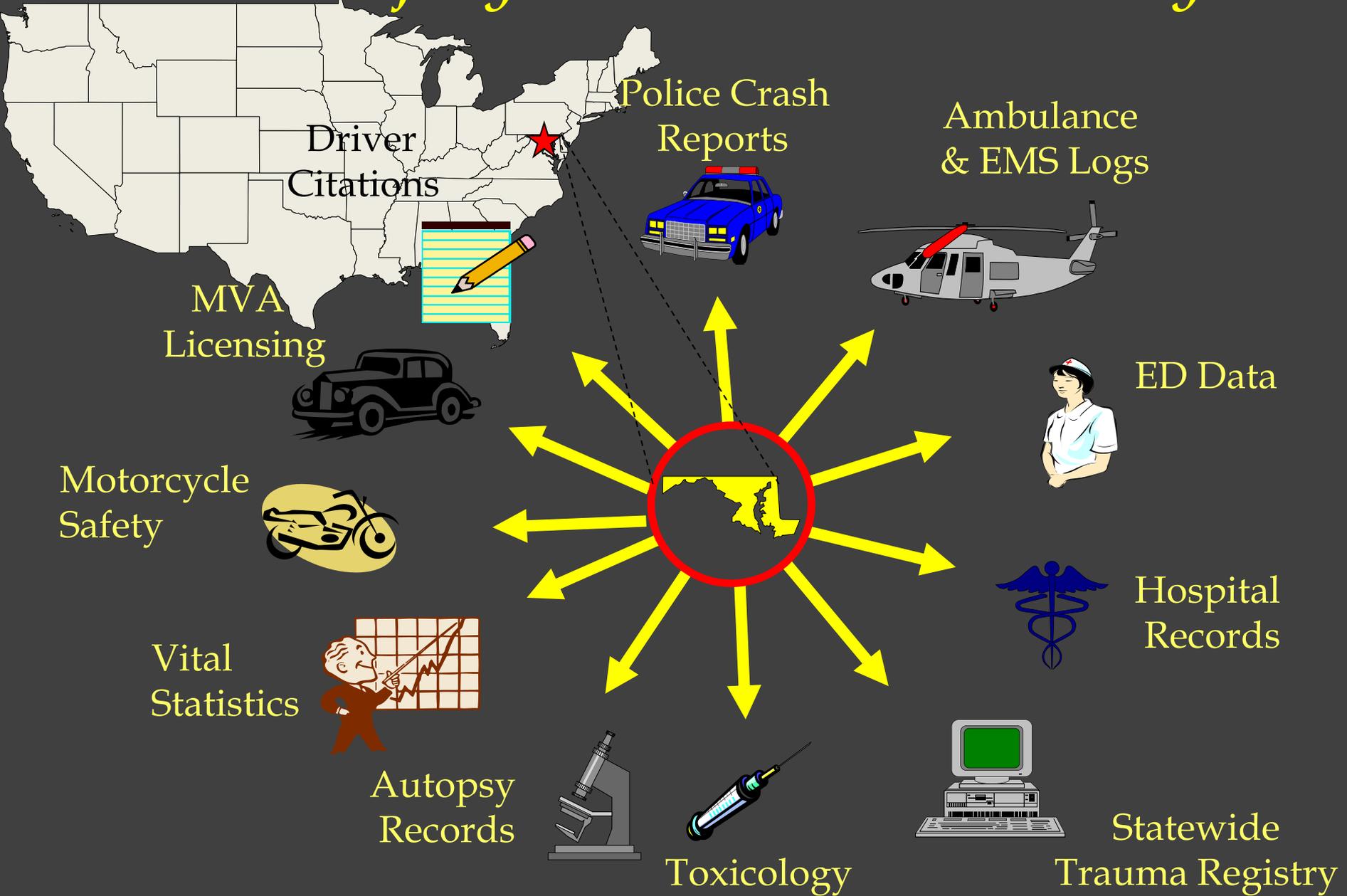
Cindy Burch, MPH
Epidemiologist
cburch@som.umaryland.edu

Timothy Kerns, MS
Epidemiologist
tkerns@som.umaryland.edu



*Charles "McC." Mathias, Jr., National Study Center
for Trauma and Emergency Medical Systems*

Available Injury Data Sources in Maryland



Maryland Crash Data 2007 – 2011

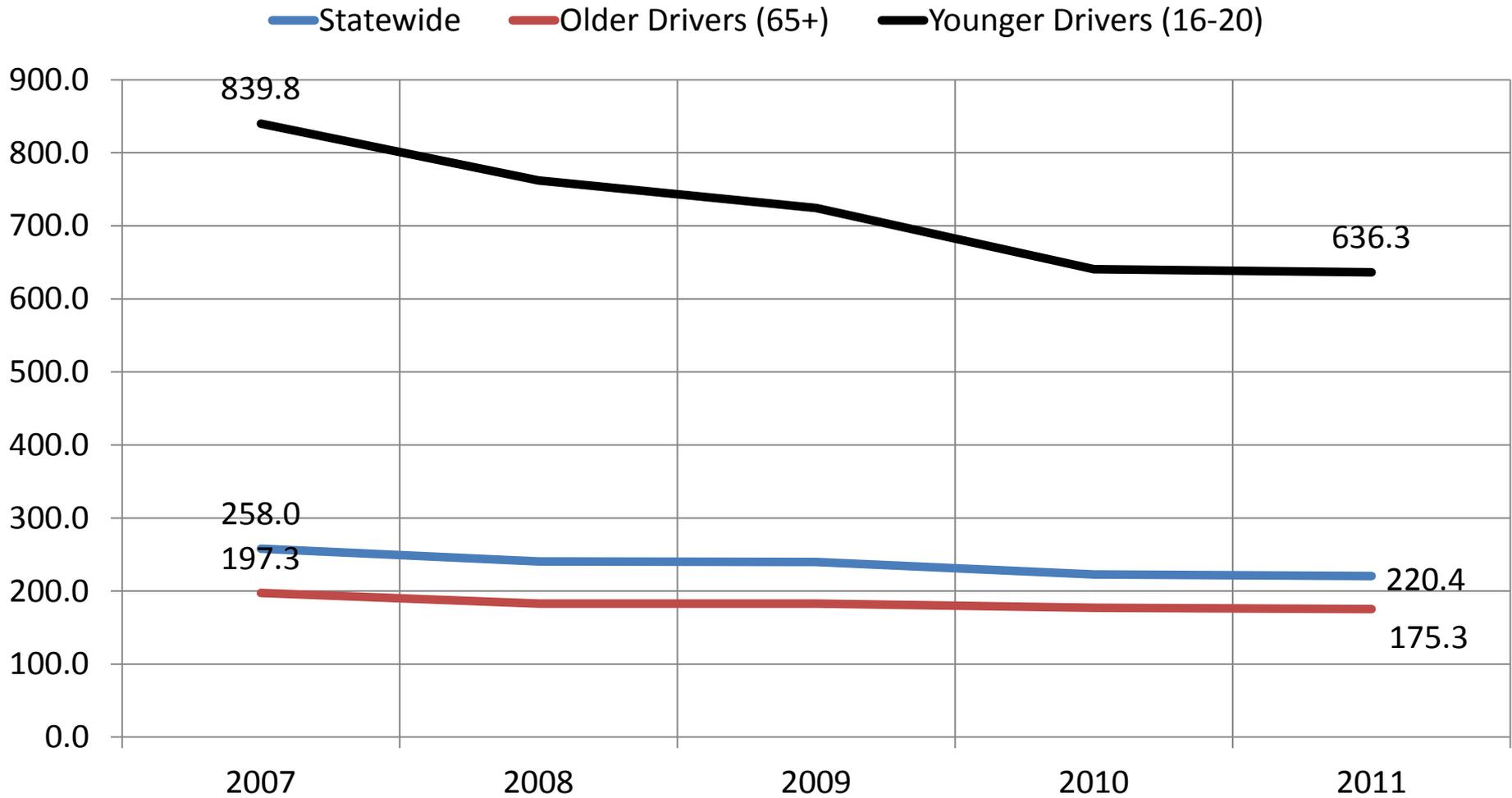
Objectives

- Statewide *Older Driver* Crash Summary
- *Older Driver* crash & injury characteristics
- CIREN Case Review

Statewide *Older Driver* Crash Summary, 2007-2011



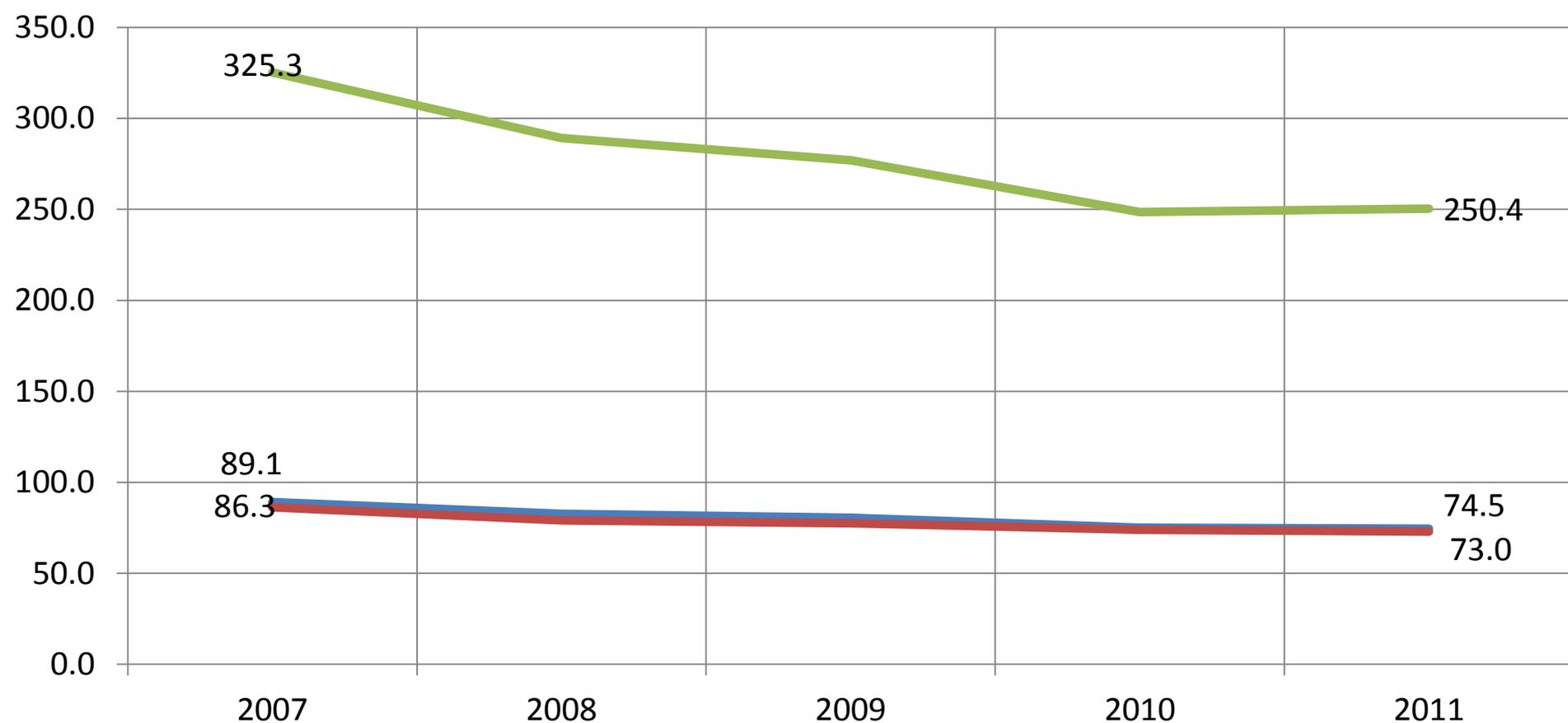
Crash Involvement Rate per 10,000 Licensed Drivers by Driver Age and Year, 2007-2011



Older Drivers have the lowest crash involvement rate per 10,000 licensed drivers.

Injury Crash Involvement Rate per 10,000 Licensed Drivers by Driver Age and Year, 2007-2011

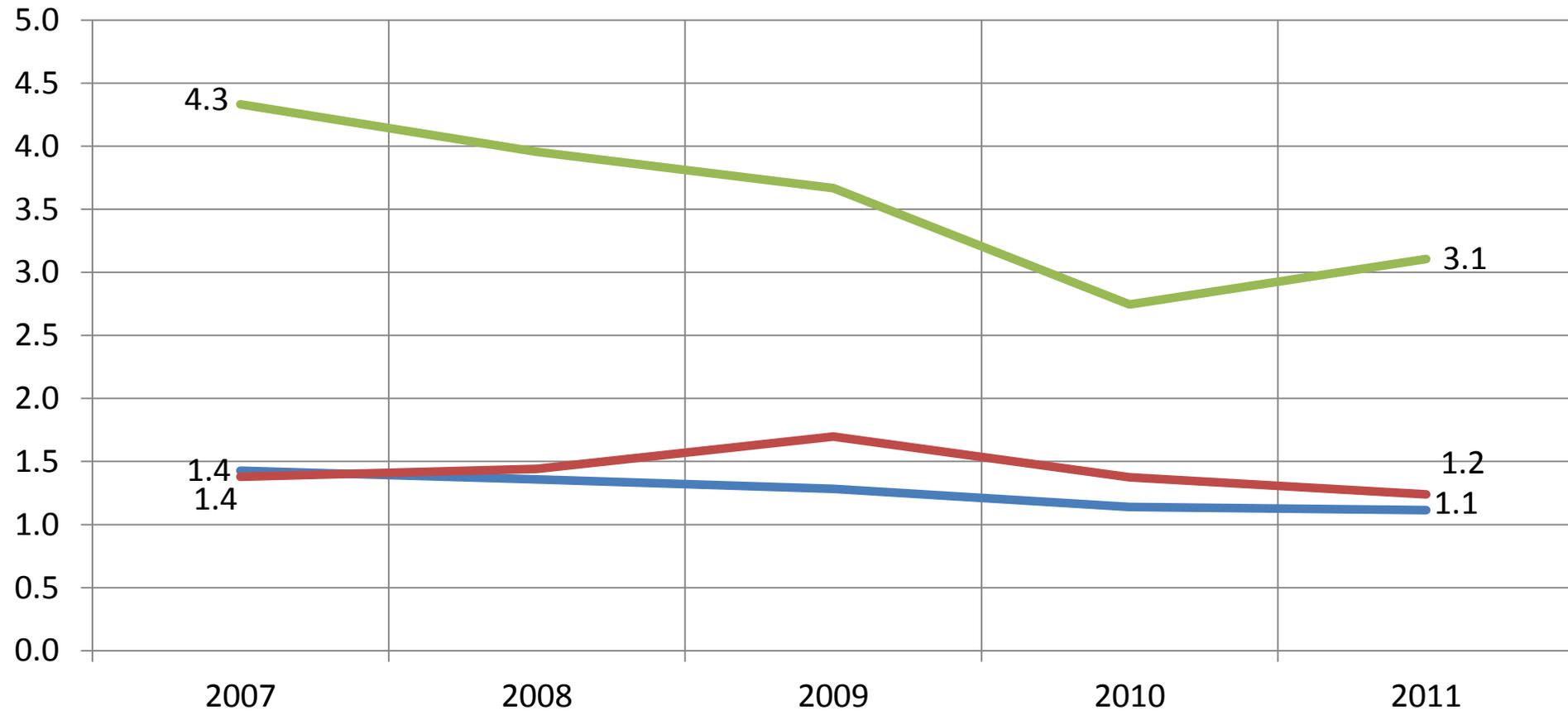
Statewide Older Drivers (65+) Younger Drivers (16-20)



The Older Driver injury crash involvement rate is almost the same as the statewide rate.

Fatal Crash Involvement Rate per 10,000 Licensed Drivers by Driver Age and Year, 2007-2011

Statewide Older Drivers (65+) Younger Drivers (16-20)



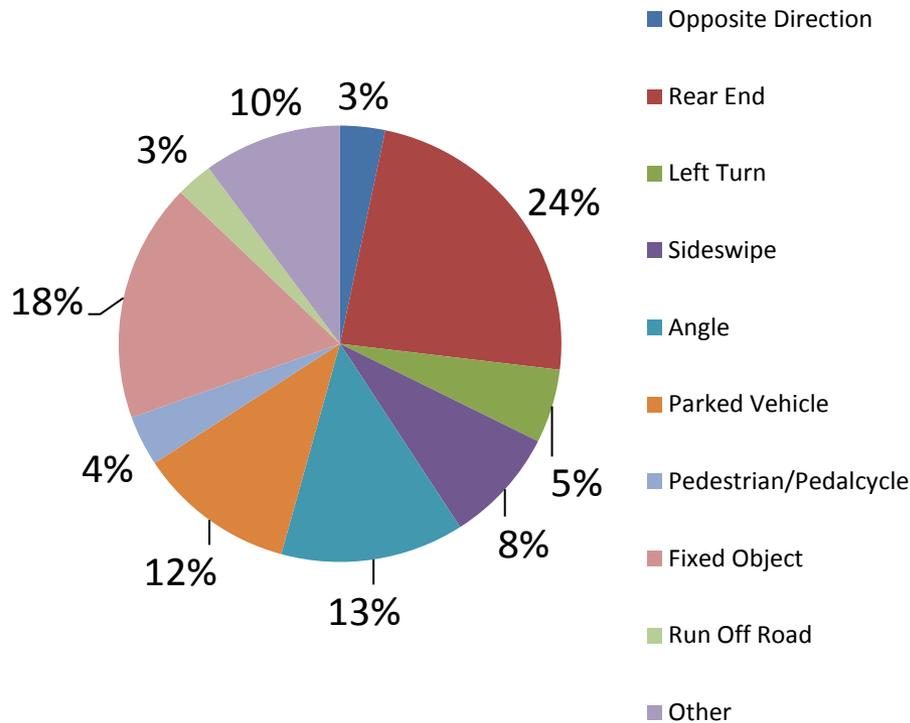
The Younger Driver fatal crash involvement rate has declined over the past 5 years.

2007 & 2011 Comparison of Older Driver Crashes

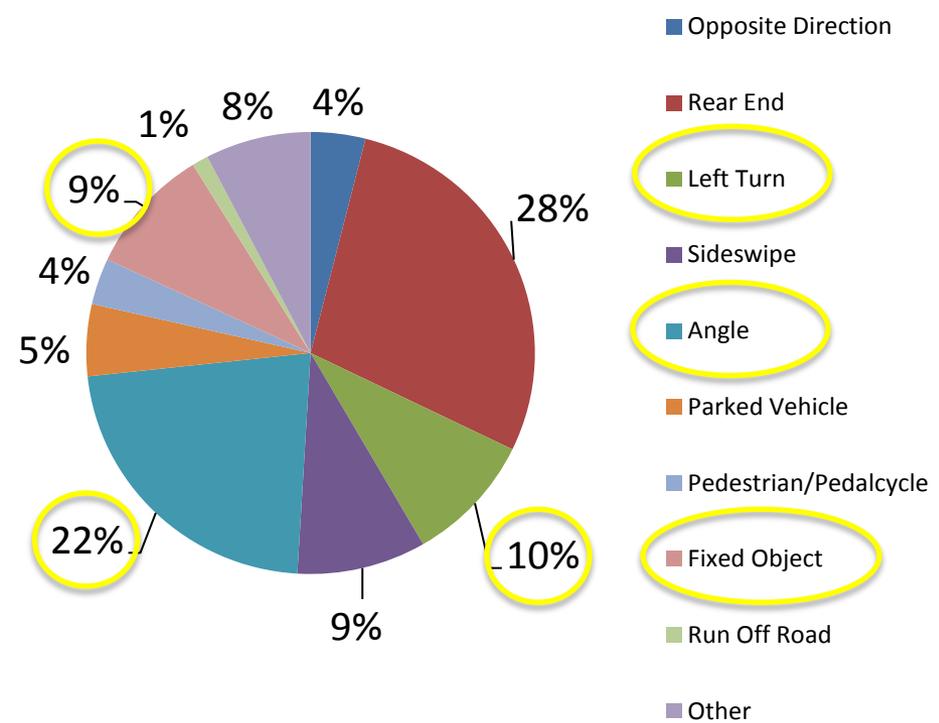
	Total Crashes	Total Injury Crashes	Total Fatal Crashes
2007	7,357	4,448	71
2011	4,917	4,244	72
% Change (Approx.)	- 33.2%	- 4.6%	+ 1.4%

Average Crash Type Percentages by Age, 2007-2011

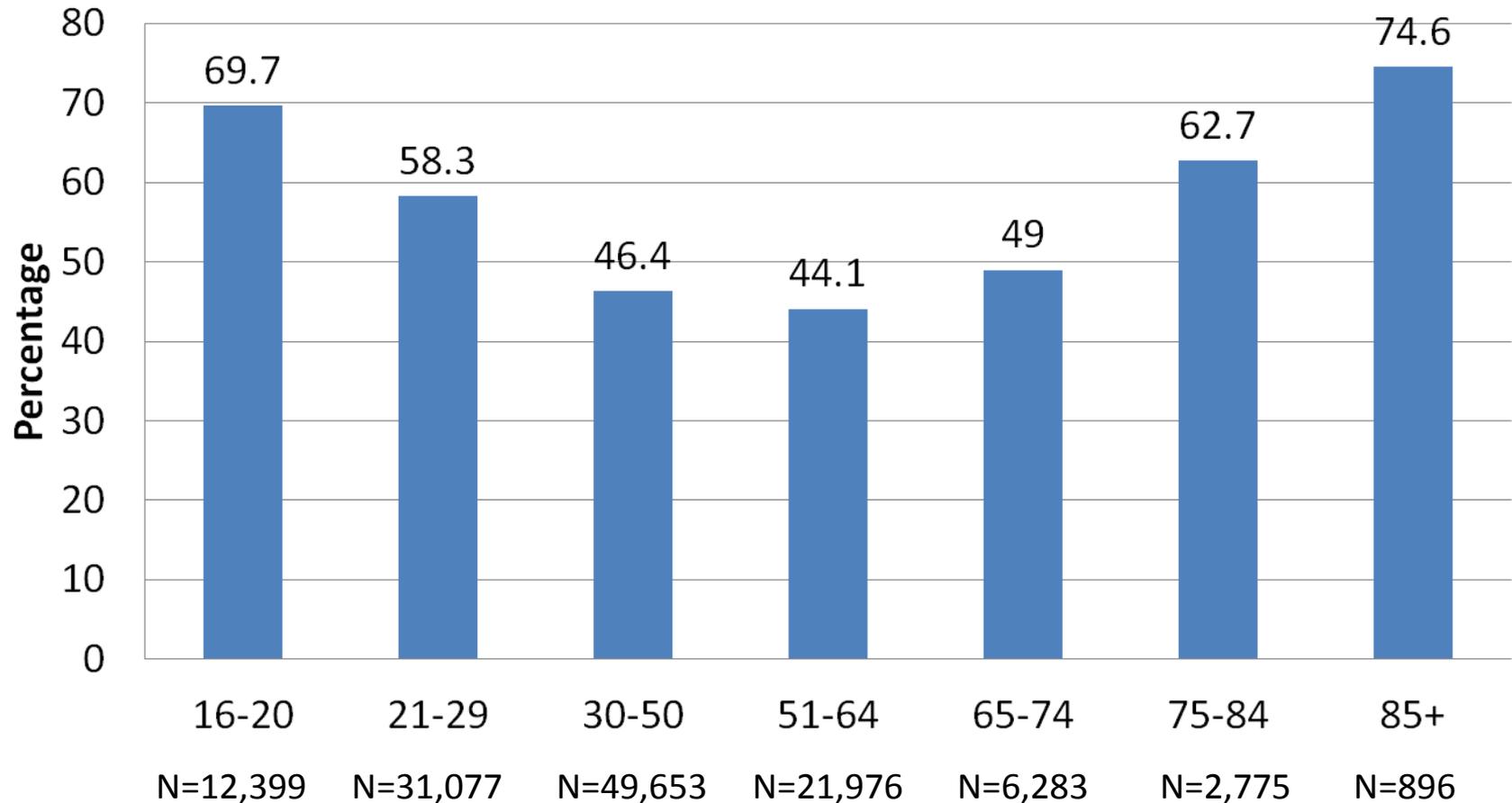
All Crash Types
(N=78,016)



Older Driver Crash Types
(N=8,483)

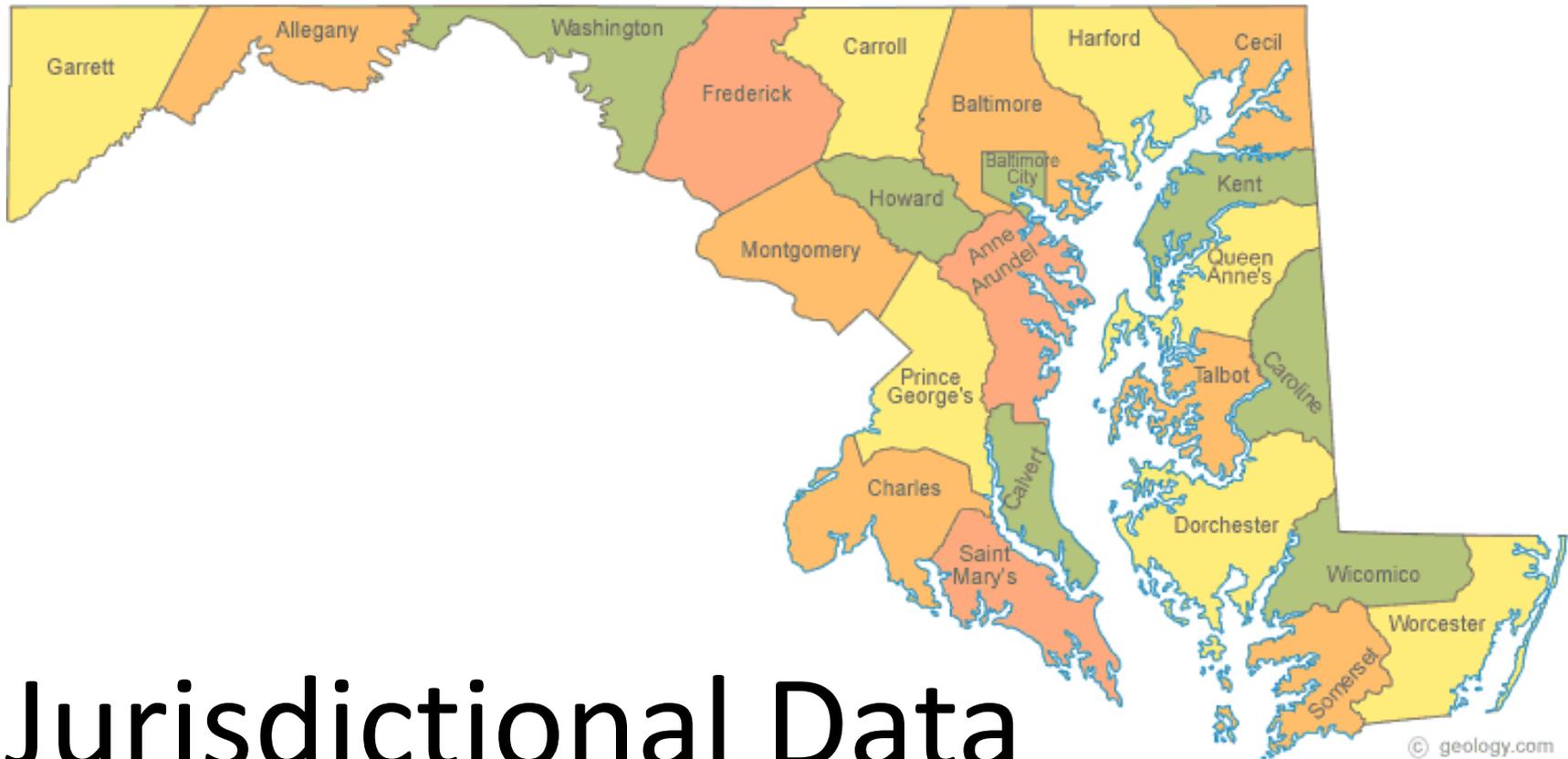


Percentage of Drivers Reported At-Fault by Age Group, 2011

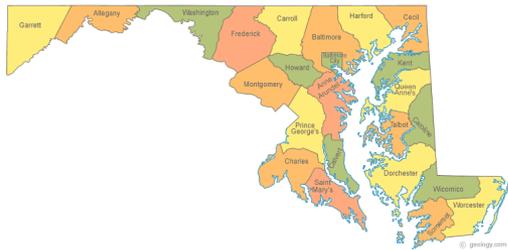


Older Driver Fatal Crash & Injury Data

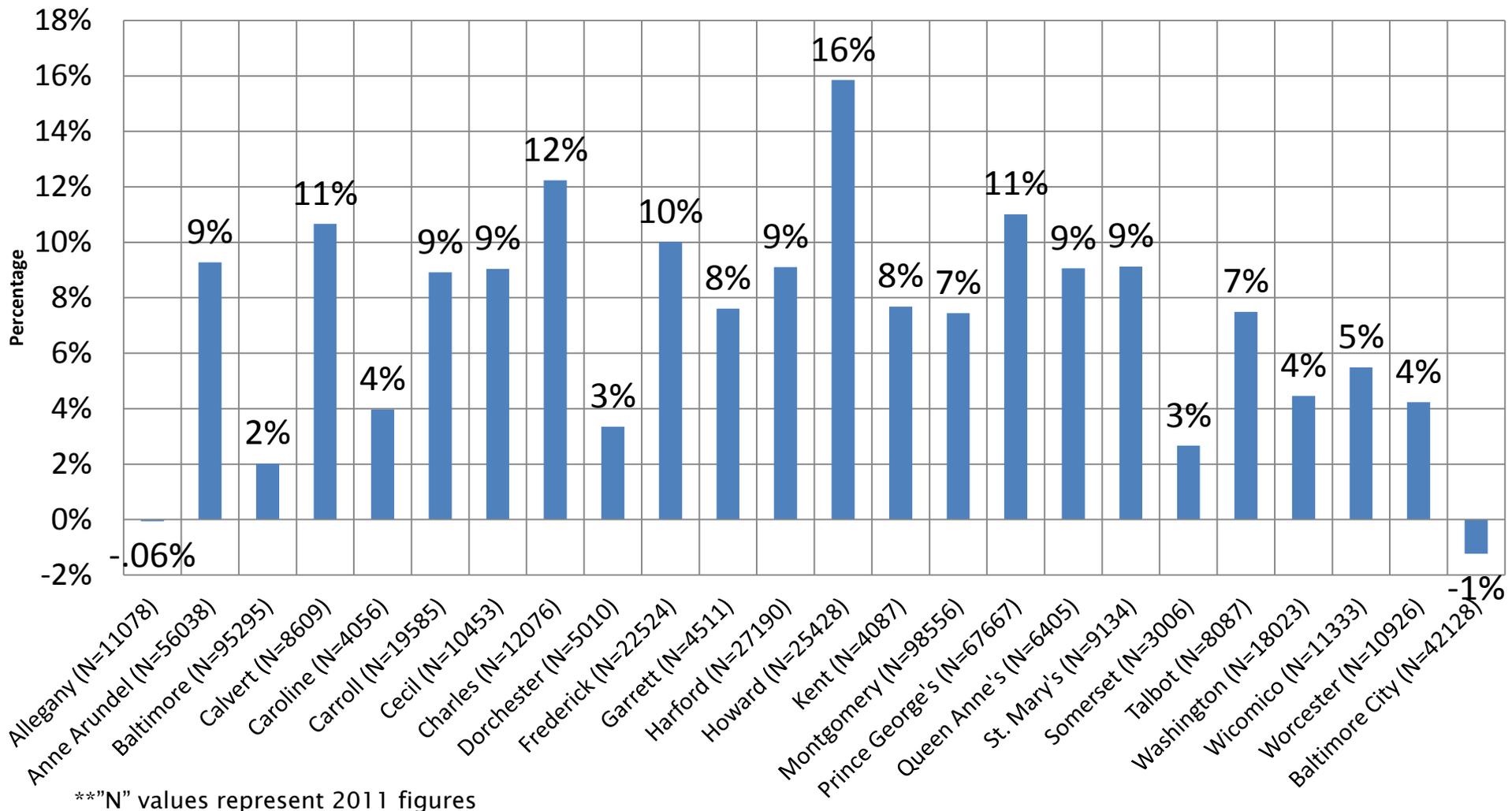




Jurisdictional Data



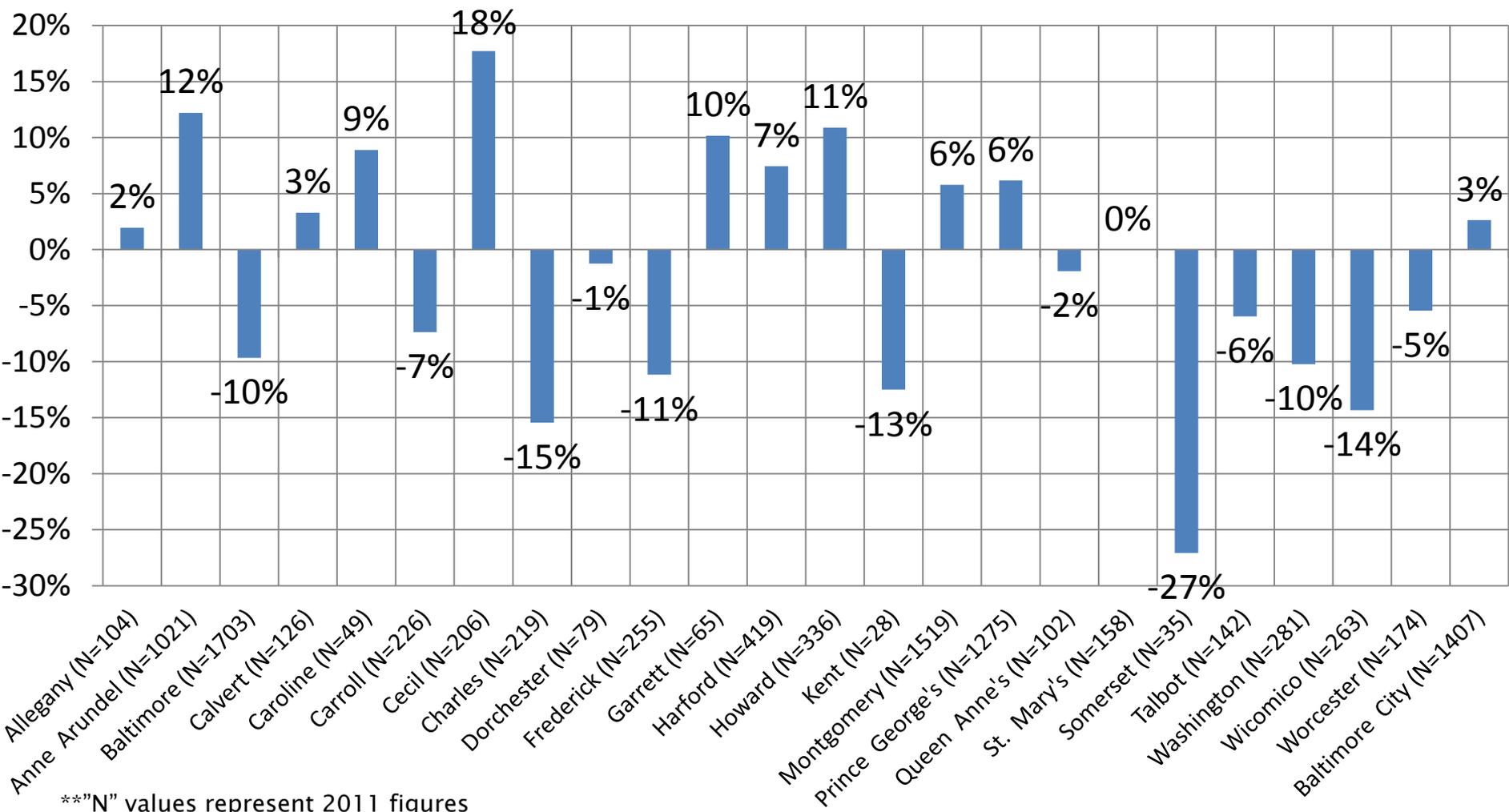
Percent Change in Older (65+) Licensed Drivers by Jurisdiction, 2007 - 2011



**"N" values represent 2011 figures



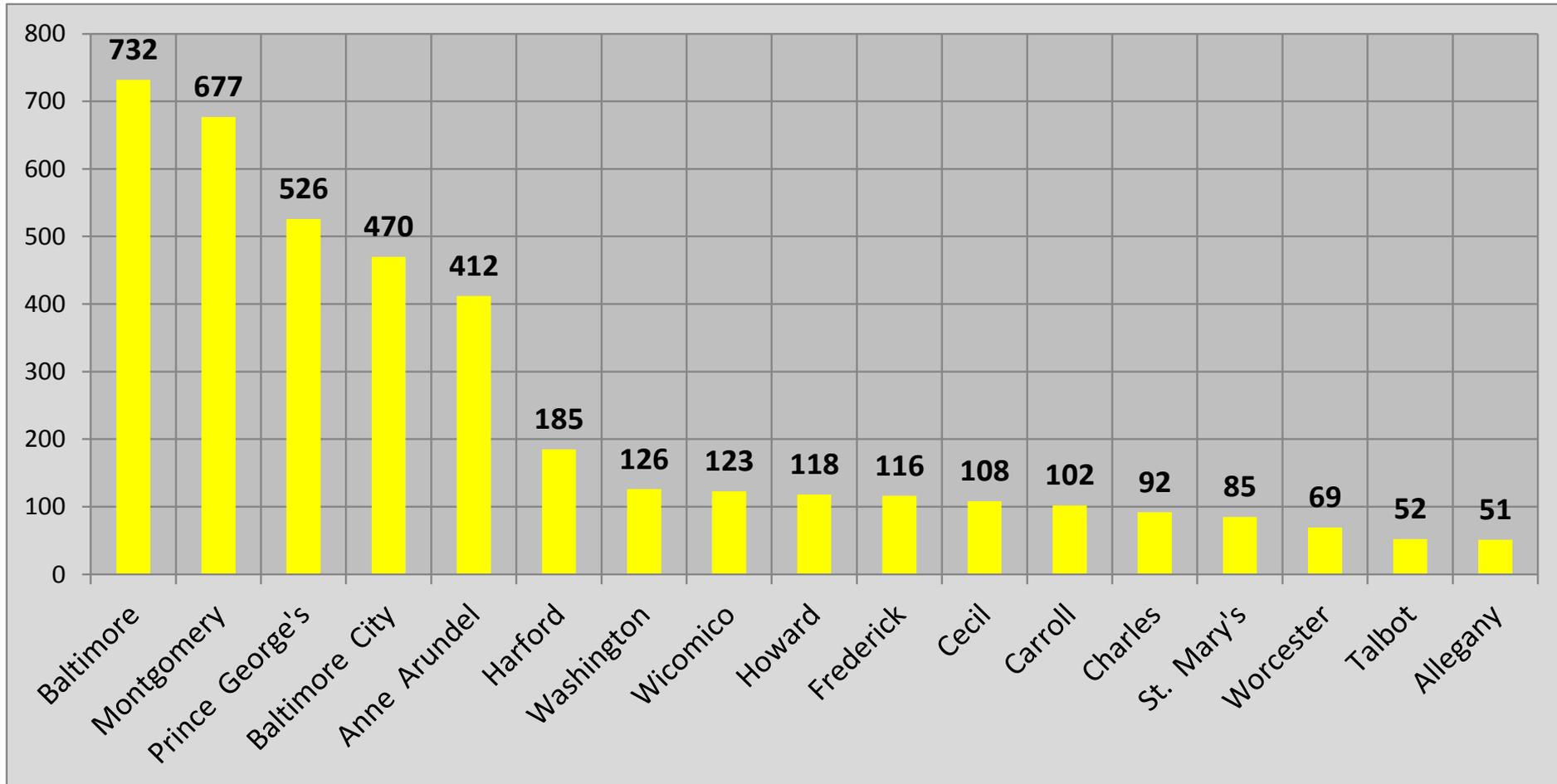
Percent Change in Older (65+) Driver Crashes by Jurisdiction, 2007 - 2011



**"N" values represent 2011 figures



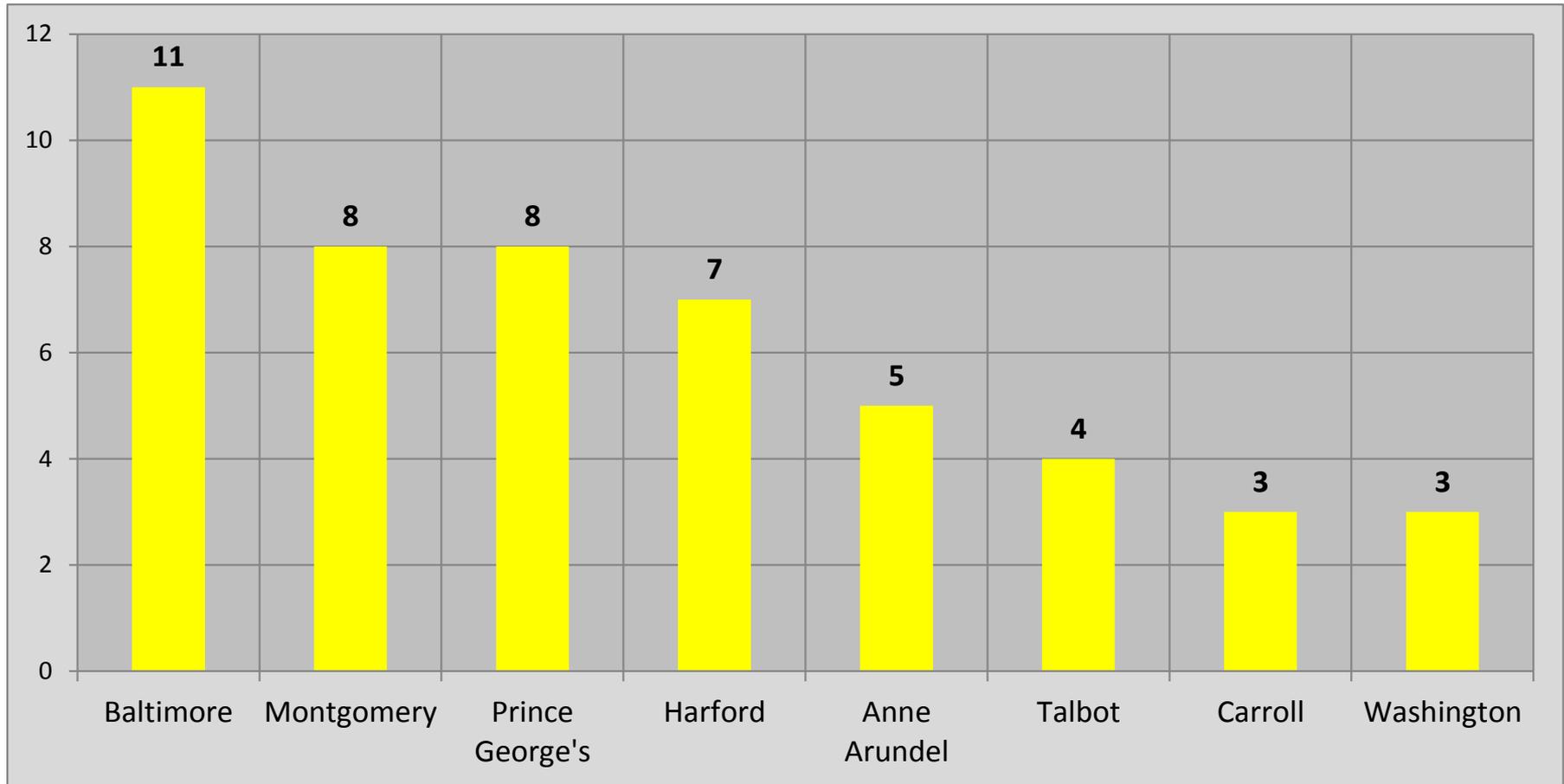
Number of Older Driver Injury Crashes by Jurisdiction, 2011 (N=4,244)



**Jurisdictions not listed had less than 50 injury crashes



Total Number of Older Driver Fatal Crashes by Jurisdiction, 2011 (N=72)



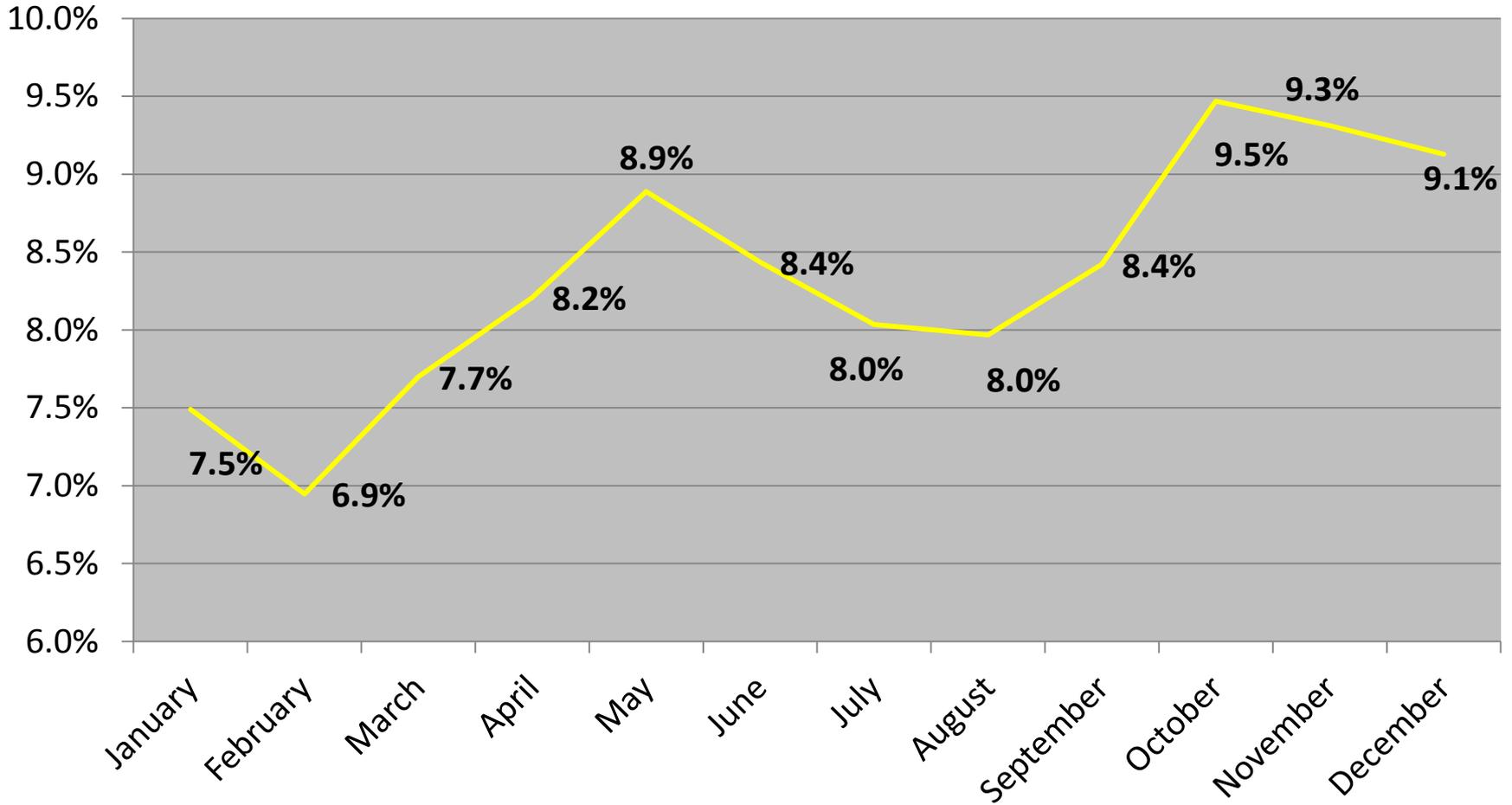
**Jurisdictions not listed had less than 3 fatal crashes



Monthly Data

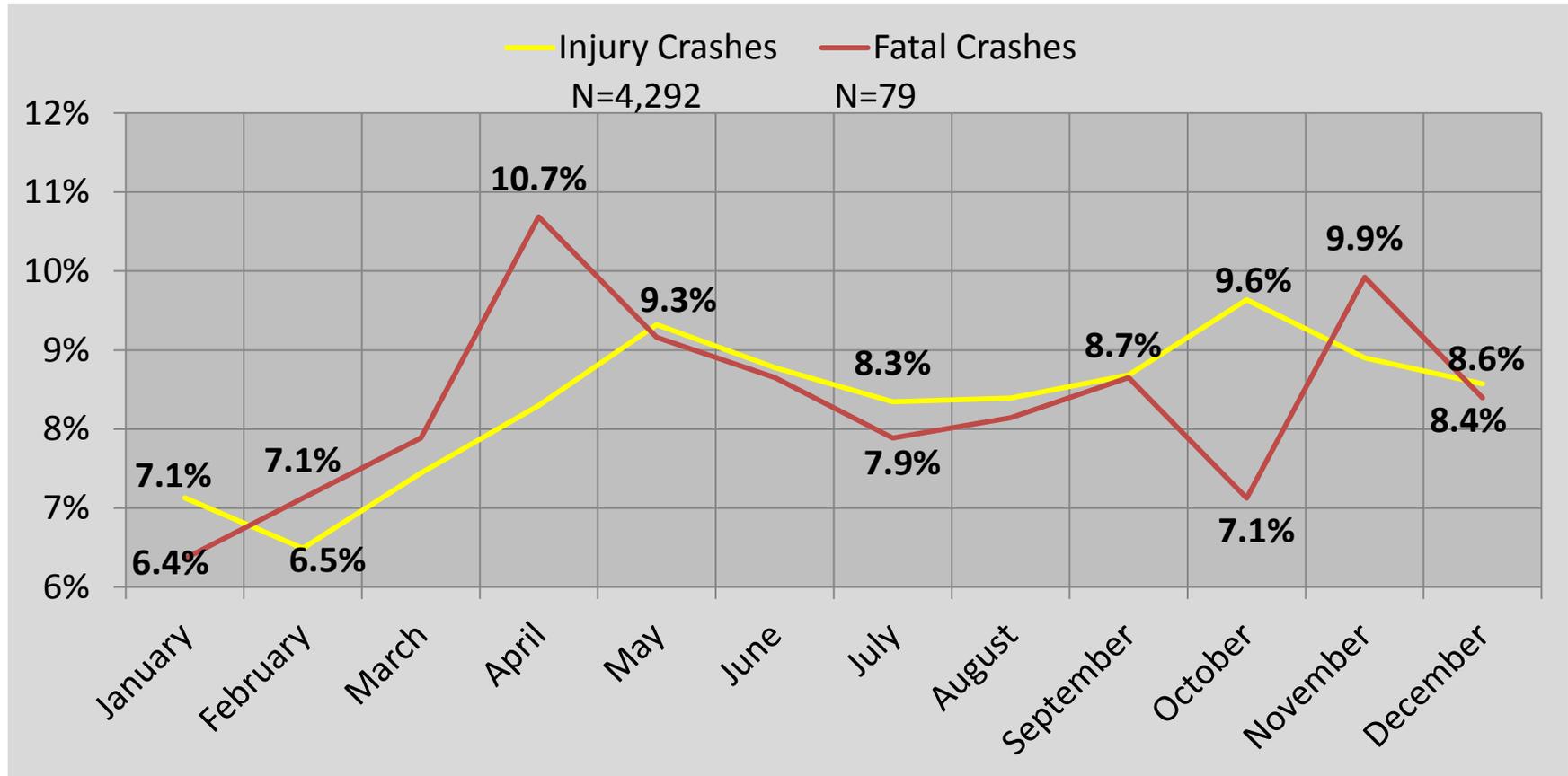


Average Older Driver Crash Percentages by Month 2007-2011 (N=10,083)





Average Older Driver Injury Crash & Fatal Crash Percentages by Month 2007 – 2011



Older Driver fatal crashes occur more frequently in April and November, while injury crashes are consistent from May through December.

Fatal v. Injury Crash Percentage - Comparison by Month & Age, 2007 - 2011

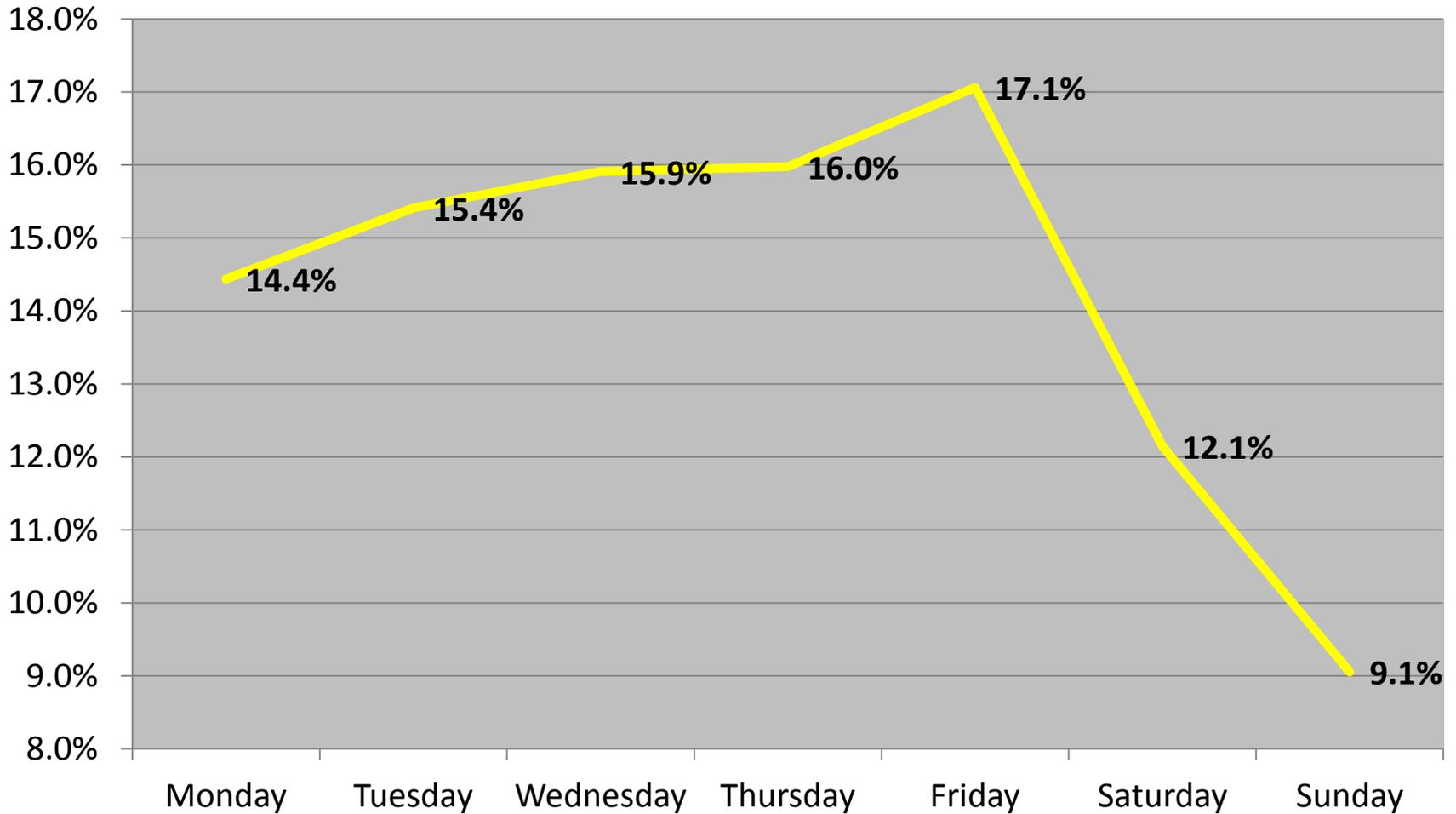
	Fatal Crashes ALL Drivers	Fatal Crashes OLDER Drivers	Injury Crashes ALL Drivers	Injury Crashes OLDER Drivers
1.	August	April	October	October
2.	July	November	May	May
3.	May	May	June	November
4.	September	June	July	June
5.	November	September	September	September
6.	October	December	August	December
7.	April	August	April	August
8.	June	March	November	July
9.	December	July	December	April
10.	January	February	January	March
11.	March	October	March	January
12.	February	January	February	February



Day of Week Data

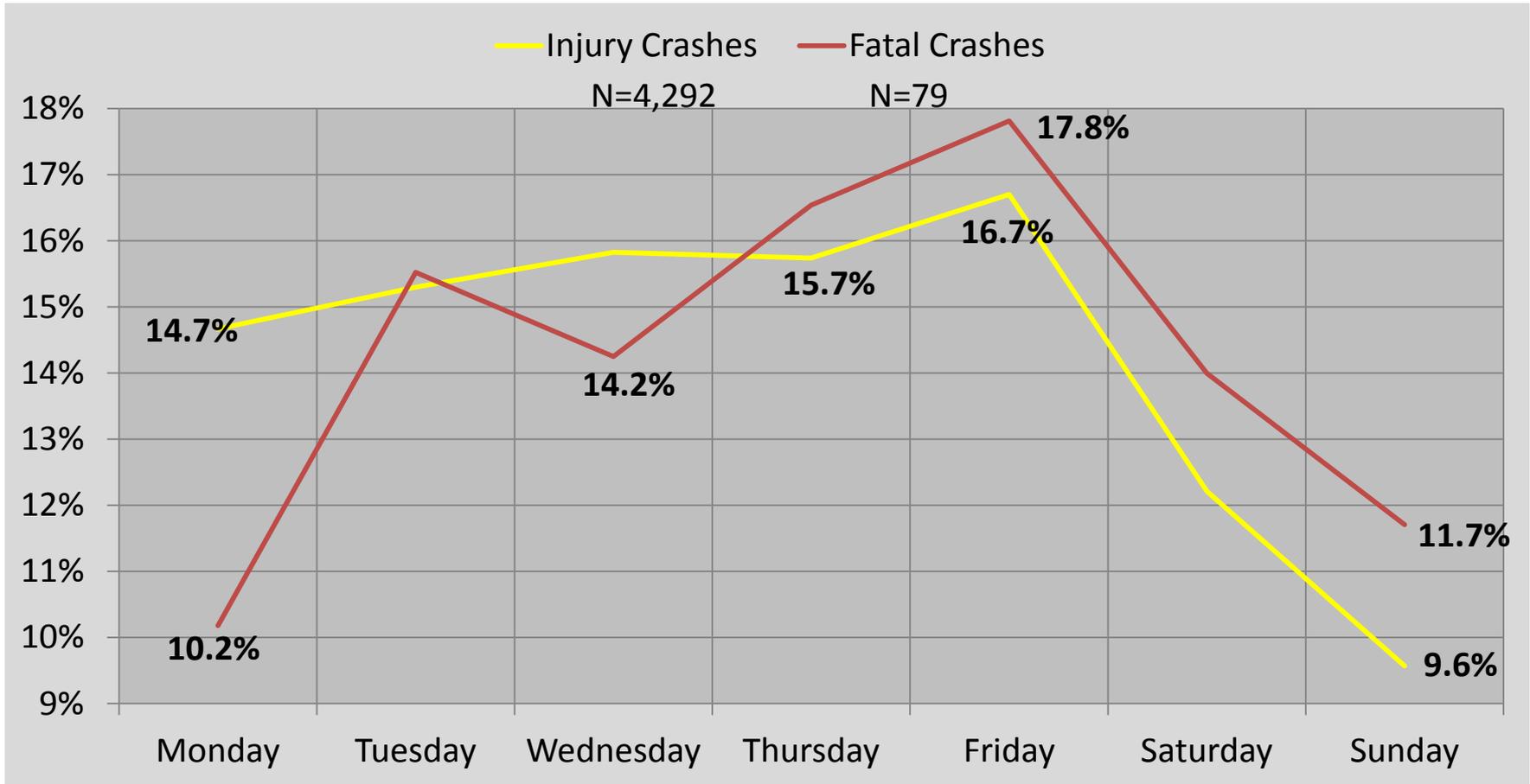


Average Older Driver Crash Percentages by Day of Week 2007-2011 (N=10,083)





Older Driver Injury Crash & Fatal Crash Percentages by Day of Week, 2007 – 2011



All Older Driver crashes, injury and fatal, are less frequent on the weekends.

Fatal v. Injury Crash Percentage - Comparison by Day & Age, 2007 - 2011

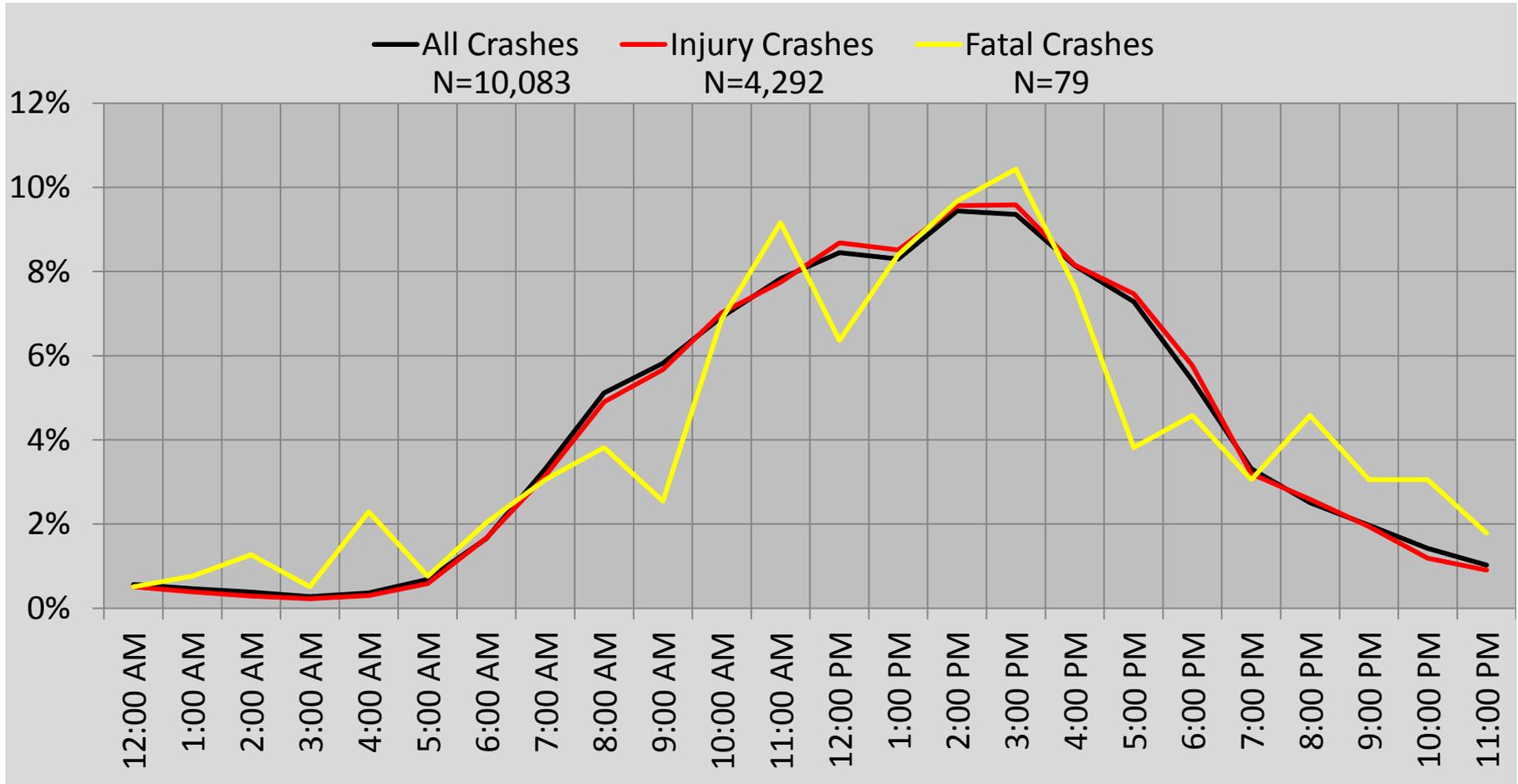
	Fatal Crashes ALL Drivers	Fatal Crashes OLDER Drivers	Injury Crashes ALL Drivers	Injury Crashes OLDER Drivers
1.	Saturday	Friday	Friday	Friday
2.	Sunday	Thursday	Saturday	Wednesday
3.	Friday	Tuesday	Thursday	Thursday
4.	Thursday	Wednesday	Tuesday	Tuesday
5.	Wednesday	Saturday	Wednesday	Monday
6.	Monday	Sunday	Monday	Saturday
7.	Tuesday	Monday	Sunday	Sunday



Time of Day Data



Older Driver Injury Crash & Fatal Crash Percentages by Time of Day, 2007 - 2011





Fatal v. Injury Crash Percentage - Comparison by Time of Day & Age, 2007 - 2011

	Fatal Crashes ALL Drivers	Fatal Crashes OLDER Drivers	Injury Crashes ALL Drivers	Injury Crashes OLDER Drivers
1.	4-8pm	Noon-4PM	4-8pm	Noon-4PM
2.	8-Midnight	8-Noon	Noon-4pm	8-Noon
3.	Midnight-4am	4-8PM	8-Noon	4-8PM
4.	Noon-4pm	8-Midnight	8-Midnight	8-Midnight
5.	8-Noon	4-8AM	4-8am	4-8AM
6.	4-8am	Midnight-4AM	Midnight-4am	Midnight-4AM

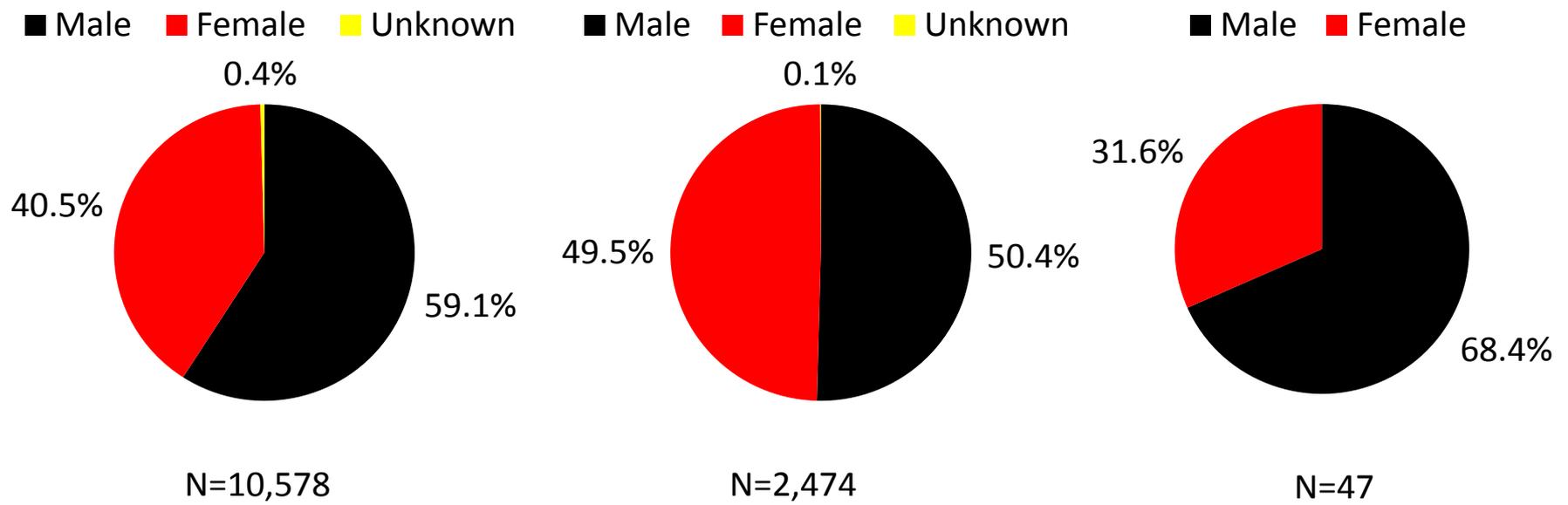


Gender

Data



Crash Totals, Injury Crashes & Fatal Crashes by Driver Gender, 2007-2011

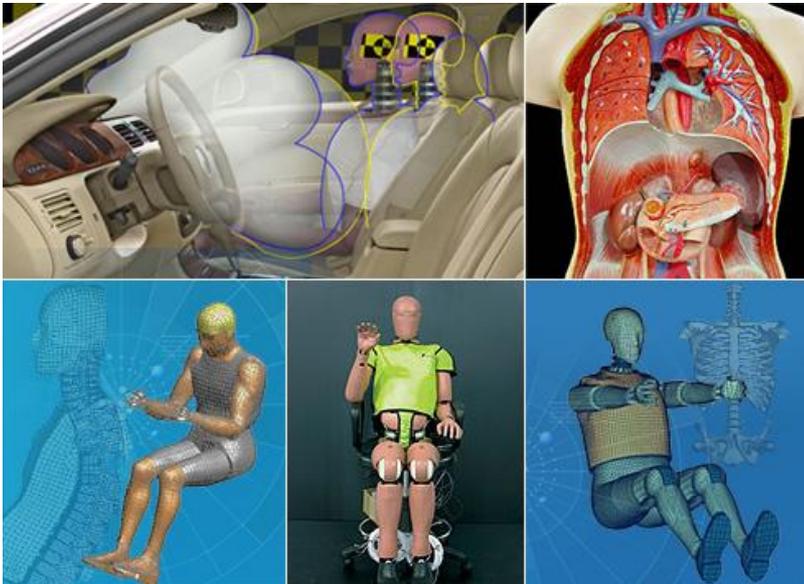


Total Crashes: More male Older Drivers are involved in crashes than females.

Injury Crashes: Gender of Older Drivers involved in injury crashes is equally distributed.

Fatal Crashes: More male Older Drivers are involved in fatal crashes than females.

Older Driver Injury Characteristics



% Injury of Body Region and Age Group

N=100,303

	<u>30-50</u>	<u>65-74</u>	<u>75-84</u>	<u>85+</u>
Head	5.2	7.1	8.5	8.3
Face	10.0	12.1	12.7	17.9
Thorax	10.0	20.4	26.0	30.0
Abdomen	3.0	4.3	3.9	3.6
Spine	57.0	39.5	26.7	20.9
Upper Extremities	19.8	20.3	21.7	24.5
Lower Extremities	16.0	17.5	18.7	22.1

*Includes occupants within a passenger vehicle who were treated in the ER

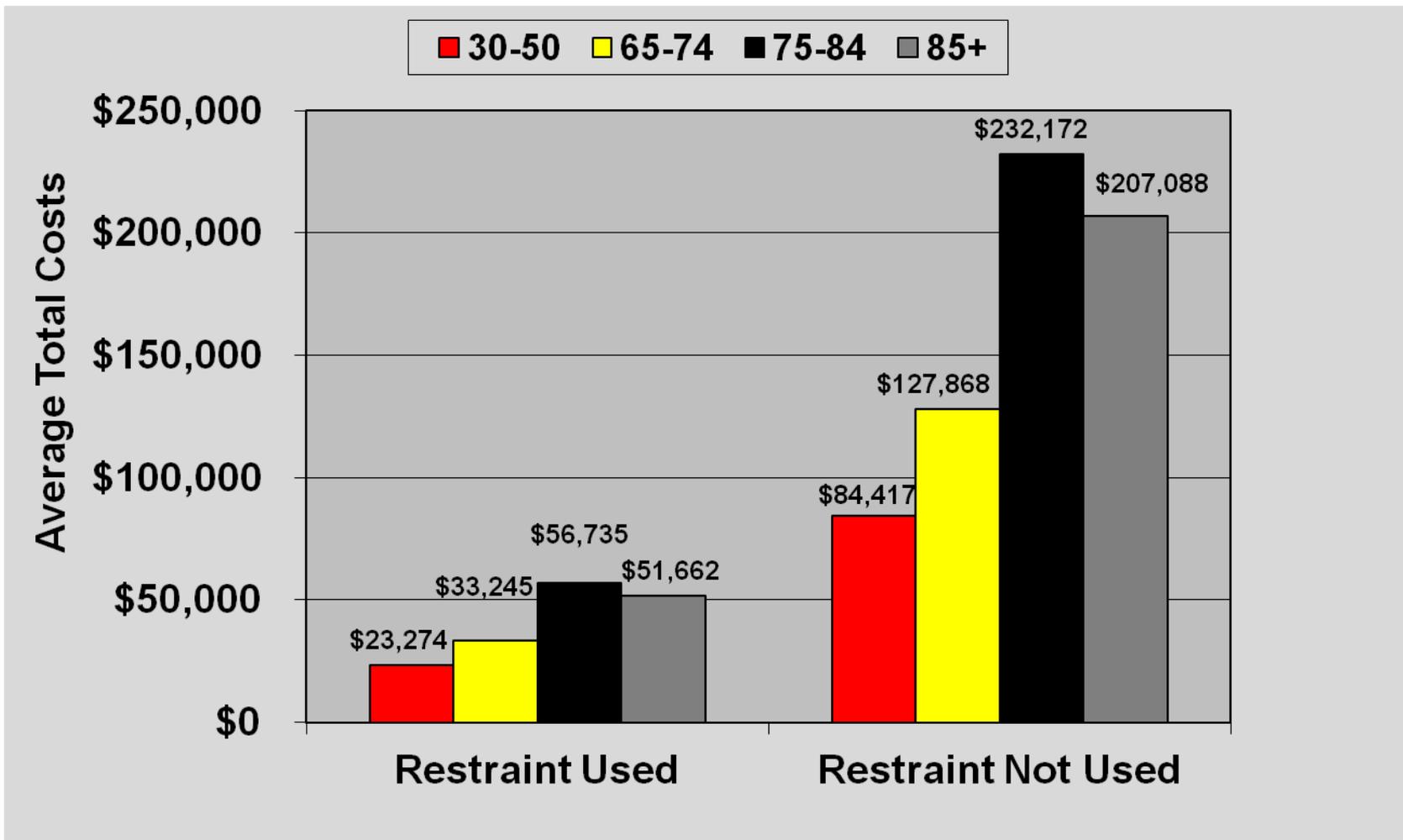
THINK
BIG



The bigger picture...



Average Total Crash Cost by Age Group & Restraint Use





Average Total Crash Cost by Age Group & Crash Location

