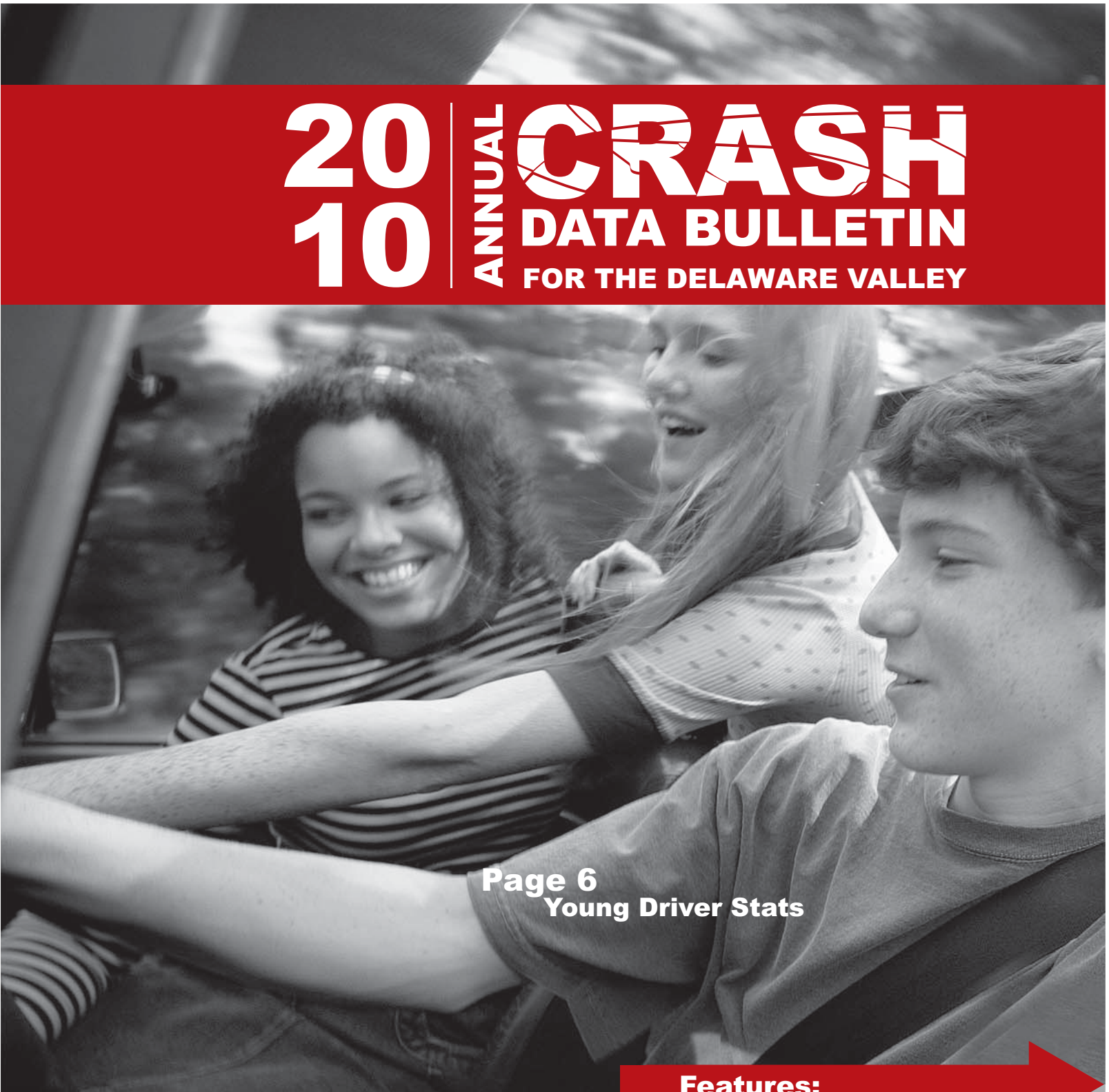
2010 ANNUAL CRASH DATA BULLETIN FOR THE DELAWARE VALLEY



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Young Driver Stats

The DVRPC Region's decline in crash fatalities and injuries continued during 2010 with an eight percent drop in fatalities, and a marginal decline in injuries. Still, 351 people lost their lives and 44,838 more suffered injuries.

This bulletin provides a snapshot of road safety in the Delaware Valley by highlighting and comparing trends at the national, state, regional, and county levels, while promoting crash safety awareness and best practices.

Features:

2010 in the Delaware Valley

Deaths and Injuries Occurred Daily

- 1 traffic death occurred on average every 25 hours
- 123 persons were injured in crashes per day (about 5 injuries every hour)
- 1 out of every 125 people in the region was injured in a crash
- 232 traffic crashes occurred per day (about 10 crashes every hour)

Pedestrian Crash Facts

Regionally, pedestrian-related crashes represented 3.5 percent of the total reported traffic crashes; however, they accounted for nearly 21 percent of all traffic crash deaths.

Statewide Comparison

- PA: 46 out of the 148 (31 percent) pedestrian fatalities occurred in the DVRPC five-county subregion[1]
- NJ: 26 out of the 141 (18 percent) pedestrian fatalities occurred in the DVRPC four-county subregion[2]

Bicyclist Crash Facts

Last year there were 1,146 bicyclist-related crashes reported in the DVRPC region, representing 1.3 percent of all traffic crashes and 3.4 percent of all traffic crash deaths.

Statewide Comparison

- PA: 8 out of the 21 (38 percent) bicyclist fatalities occurred in the DVRPC five-county subregion[1]
- NJ: 4 out of the 13 (31 percent) bicyclist fatalities occurred in the DVRPC four-county subregion[2]

[1] *2010 Pennsylvania Crash Facts & Statistics*

[2] *Fatal Motor Vehicle Crash Comparative Data Report for New Jersey*

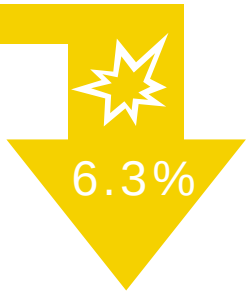
FATALITIES FALL NATIONALLY AND LOCALLY

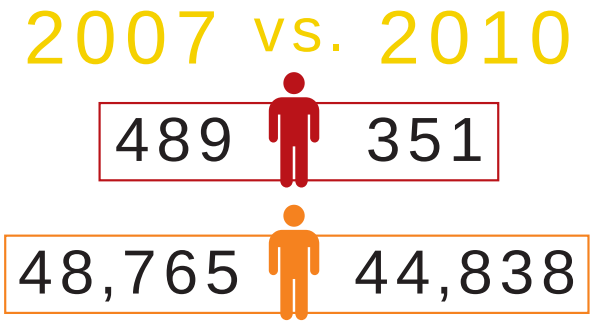
Each year since 2007, the number of people killed in traffic fatalities in the Delaware Valley has fallen, and is trending consistently with national statistics. According to the National Highway Traffic Safety Administration (NHTSA), traffic fatalities fell nearly three percent between 2009 and 2010, from 33,808 to 32,885, its lowest level since 1949. The record-breaking decline in traffic fatalities occurred even as American drivers traveled nearly 46 billion more miles during the year, an increase of 1.6 percent over the 2009 level. In addition, 2010 saw the lowest fatality rate ever recorded: 1.10 fatalities per 100 million vehicles miles traveled (VMT)[1] in 2010, compared to 1.15 fatalities for 2009.

How Far Have We Come?

Crashes:

Crashes in the Delaware Valley declined by 6.3 percent between 2007 and 2010, from 90,393 crashes to 84,681 crashes. Injuries [ ] have also declined as have fatalities [ ], which dropped by 28 percent.

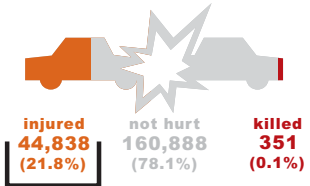


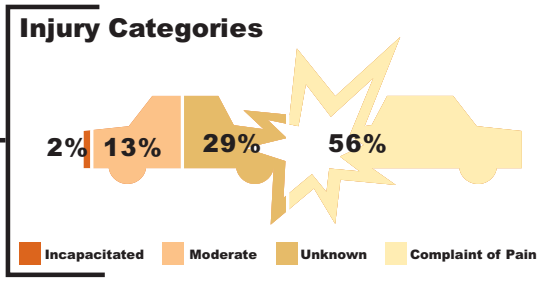


Regional Crash Severity at a Glance

As a result of the 84,681 crashes in the region, 351 people died, 44,838 people were injured, and 160,888 people involved in crashes were not hurt. Among those injured [ ], complaint of pain was the most common injury type accounting for 56 percent of all injuries.

2010 Crashes by Severity





[1] *Vehicle Miles Traveled (VMT): Total number of miles driven by all vehicles within a given time period and geographic area.*

TECHNOLOGY: CRASH AVOIDANCE

Crash avoidance projects and programs are an area of vehicle safety research supported by car manufacturers, safety experts, and policymakers worldwide. Earlier this year, David Strickland, head of NHTSA, identified crash avoidance projects and programs as a priority because they provide the opportunity to "save lives and reduce injuries by preventing crashes in the first place." Although crash avoidance technologies are not new, their availability in the market place has grown significantly.

New and Emerging Technologies

Several crash safety-focused organizations including NHTSA, The eSafety Challenge Project[1] (funded by the European Commission), and the Insurance Institute for Highway Safety (IIHS)[2] have been evaluating and promoting the following crash avoidance technologies, some of which are already being implemented by car manufacturers worldwide:

- Electronic Stability Control (ESC), marketed by a variety of brand names (Vehicle Stability Assist, Vehicle Dynamics Control, StabiliTrak), helps drivers avoid a crash by reducing the risk of skidding during a sudden emergency maneuver like avoiding an obstacle, and stabilizes the car by braking individual wheels. ESC has become standard equipment on many vehicles, and a U.S. federal rule requires ESC in all cars, SUVs, pickups, and minivans by the 2012 model year[3].

- Forward Collision Warning and Mitigation Systems/Warning and Emergency Braking Systems use various types of sensors, cameras, or radar systems to detect when the vehicle is getting too close to a vehicle ahead and warn the driver; some systems even activate the brakes to help avoid or mitigate a crash.

- Adaptive Headlights help a driver see around a curve in darkness. The headlights are adjusted based mainly on the speed of the vehicle and direction of the steering wheel, so that they are directed where the vehicle is heading. Here are some of the car makers that offer adaptive headlights: Acura, BMW, Buick, Cadillac, Infiniti, Jaguar, Lexus, Lincoln, Mercedes-Benz, Porsche, and Volkswagen, among others.

- Lane Support Systems/Lane Departure Warning Systems monitor the position of the vehicle in the road lane and warn the driver of unintentionally leaving the road lane, or changing lanes without indication. Lane Keeping Support helps drivers correct the course of the car should it leave the lane.

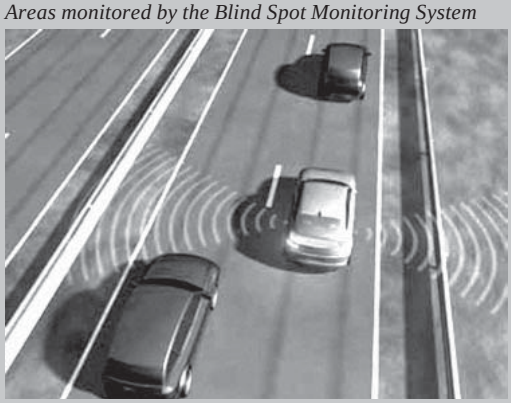
- Fatigue Warning Systems often monitor the driver's eye blink rate and blink duration. Some use sophisticated algorithms that monitor driver steering and other behaviors. A system will alert the driver if it detects inattention or drowsiness.

- Curve Speed Warning Systems use a combination of GPS and digital maps to monitor vehicles as they approach bends in the road. The driver is alerted when the vehicle is approaching a curve at an unsafe speed that may result in a loss of control.

Tech Highlight...

Blind Spot Monitoring/Side View Assist helps a driver avoid a crash with a vehicle in the next lane by continuously screening the blind spots to the side of the vehicle using radar, camera, or ultrasonic technologies; then warning the driver via a visual, audio, or haptic (touch sensor) signal.

Areas monitored by the Blind Spot Monitoring System



Source: eSafety

BMW, Chrysler, Ford, and Mazda are among auto manufacturers currently offering blind spot monitoring as an option on select models. In the Chrysler and Mazda models, when a vehicle enters the driver's blind spot, a warning light illuminates on the outside rearview mirror. Also, if the driver activates a turn signal while a vehicle is in the detection area, a chime sounds to alert the driver.

Source:www.jdpower.com/autos/articles/IIHS-Reports-on-Emerging-Safety-Technologies/.

[1] *www.esafetychallenge.eu/download/challenge/esafety_background_paper.pdf*

[2] *www.iihs.org/research/qanda/crash_avoidance.html*

[3] *www.iihs.org/research/qanda/esc.html#cite3*

COUNTY STATISTICS: SPOTLIGHT ON IMPAIRED DRIVING

2010

Below are 2010 statistics for crashes, injuries, and fatalities for each county and subregion of the Delaware Valley. Compared to 2009, the region as a whole experienced a decline in fatalities, though not in every county. Chester and Delaware counties in Pennsylvania, and Camden and Gloucester counties in New Jersey saw slight increases. Bucks County saw the largest decrease in fatalities at 29 percent.

According to NHTSA, alcohol impairment is a factor in over 30 percent of crash fatalities nationally. Featured here is the percent of fatalities where impaired driving was a contributing factor (in 2010 and 2009, for comparison.) A driver with a blood alcohol concentration (BAC) of 0.08 percent or higher is considered legally drunk.

Bucks

5,987 — 2,964 — 2,980 — 43

4,176 — 45

2009 33% → 2010 31%

Mercer

13,817 — 2,832 — 10,966 — 19

3,841 — 21

2009 17% → 2010 33%

Montgomery

8,100 — 4,125 — 3,945 — 30

5,734 — 33

2009 41% → 2010 30%

Burlington

13,322 — 3,193 — 10,093 — 36

4,536 — 37

2009 10% → 2010 16%

Philadelphia

10,515 — 8,319 — 2,112 — 84

12,042 — 93

2009 36% → 2010 27%

Chester

4,172 — 1,782 — 2,361 — 29

2,390 — 32

2009 26% → 2010 38%

Camden

15,786 — 4,288 — 11,459 — 39

6,033 — 43

2009 26% → 2010 28%

Delaware

4,259 — 2,346 — 1,891 — 22

3,350 — 23

2009 35% → 2010 35%

Gloucester

8,089 — 1,939 — 6,126 — 24

2,736 — 24

2009 5% → 2010 21%

IMPAIRED DRIVING was a contributing factor in

2009: 28% — 2010: 28%

of the DVRPC Region's fatalities, which claimed the lives of 99 people in 2010

2010 TOTALS* PA

[DVRPC 5 counties]

33,667[1] CRASHES — 19,536 — 13,289 — 208

27,692 INJURED

2009 251 → 226 KILLED

2009 35% → 2010 31%

IMPAIRED DRIVING IN PA:

In 2010, the 459 alcohol-related deaths in Pennsylvania statewide were 35 percent of total traffic deaths (nearly the same as in 2007, 2008 and 2009). Alcohol-related crashes were 4.5 times more likely to result in death than those not related to alcohol during 2010. In the DVRPC's Pennsylvania subregion, alcohol-related crashes killed 69 people in 2010.

For information regarding Pennsylvania's impaired driving law, please visit: www.dmv.state.pa.us/legislation/dui.shtml.

More statistics can be found in the 2010 Pennsylvania Crash Facts and Statistics publication: www.dot.state.pa.us/Internet/Bureaus/pdBHSTE.nsf/InfoFb10?OpenForm

IMPAIRED DRIVING IN NJ:

In 2010, there were 137 alcohol-related fatal crashes in New Jersey statewide which claimed the lives of 149 people (27 percent of all traffic deaths). Compared to 2009, 2010 showed a four percent increase in alcohol-related fatalities. In the DVRPC's New Jersey subregion, alcohol-related crashes killed 30 people in 2010.

More statistics can be found in the 2010 Fatal Motor Vehicle Crash Comparative Data Report for the State of New Jersey publication: www.nj.gov/njsp/info/fatalacc/2010_fatal_crash_101711.pdf

2010 TOTALS* NJ

[DVRPC 4 counties]

51,014 CRASHES — 12,252 — 38,644 — 118

17,146 INJURED

2009 132 → 125 KILLED

2009 15% → 2010 24%

people: total PEOPLE INJURED | total PEOPLE KILLED | PERCENT of PEOPLE KILLED where IMPAIRED DRIVING was a contributing factor

types: injury crash | PDO[2] crash | fatal crash

* New Jersey's total crash numbers are disproportionately higher than Pennsylvania's totals due to New Jersey's reportable crash definition: property damage of $500 or more. Pennsylvania's minimum threshold for a reportable crash is if a vehicle requires towing from the scene. All injury and fatal crashes are reportable in both states.

1. *Pennsylvania's crash coding uses severity level category "unknown." This represents up to two percent of the crash total and is not reflected in the county totals.*
2. *Property Damage Only (PDO): A crash where no one was killed or injured, but damage occurred to a vehicle or other property.*

YOUNGER DRIVERS

According to the Centers for Disease Control and Prevention, motor vehicle crashes are the leading cause of death for U.S. teens. Per mile driven, drivers aged 16 to 19 are four times more likely than all other age groups to crash, and young males are twice as likely as young females to die in those crashes.

This analysis of younger drivers considers 16-20 year olds and conforms to the AASHTO emphasis area definition. During 2010, the DVRPC region recorded 54 fatalities resulting from younger driver involved crashes, accounting for 15 percent of all crash fatalities. On the Pennsylvania side, the 2010 total of 33 is down from 41 in 2009, and up in New Jersey (21) from 14 in 2009. This analysis does not suggest that teens were necessarily the responsible parties, or the only crash victims.

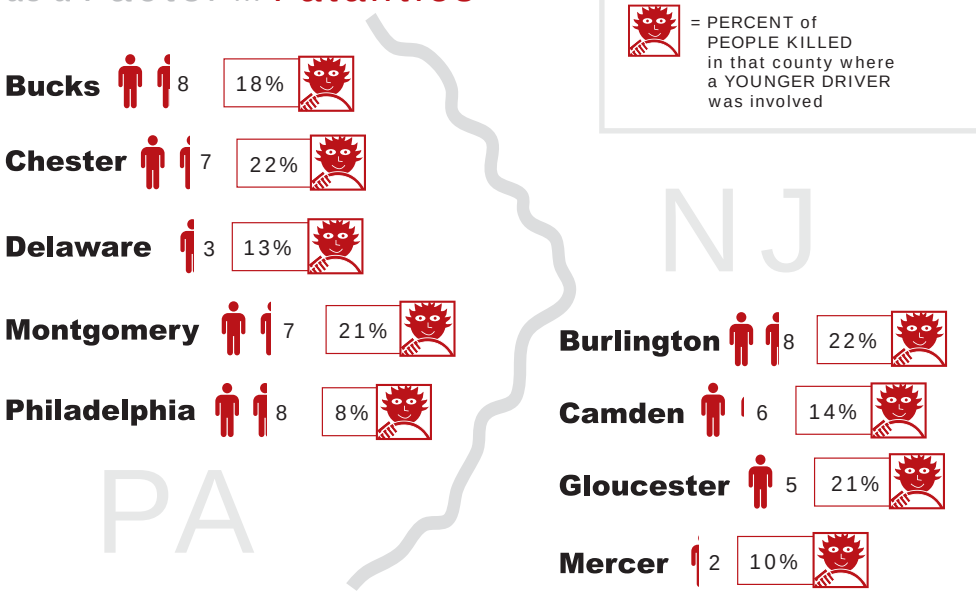
Teen Driver = Higher Risks

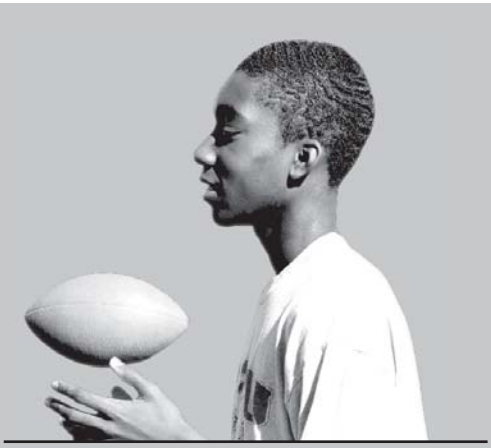
- Teen drivers are more likely to be involved in a crash during their first 12-24 months of driving.
- Drivers below age 25 pay more for car insurance due to lack of experience behind the wheel, and young males pay more than young females.

Fatalities Where a Younger Driver Was Involved Have Decreased.

The highest percentages of younger driver involved fatalities—21 and 22 percent—were found in the region's most suburban counties (Chester, Montgomery, Burlington, and Gloucester). Philadelphia was the lowest of the more urbanized counties with eight percent. Urban areas typically offer transit, are more walkable and bikeable, and have the highest percentage of zero-car households, all of which contribute to fewer younger driver deaths.

Younger Drivers as a Factor in Fatalities





Parents Hold the Keys!

Industry experts agree, parents are the number one influence when it comes to younger driver safety. Starting the conversation well before children arrive at the driving age makes it easier to discuss driving rules. NHTSA recommends these components to include in a parent-teen driver safety contract:

- Set house rules and consequences
- Always buckle up
- No talking on a cell phone or texting while driving
- Have the car in the driveway by 10 p.m.
- No more than one passenger at all times
- Obey the GDL law

Graduated Driver License (GDL)

State rules governing teen drivers and licensing vary widely across the nation, including Pennsylvania and New Jersey. Please visit the links below to learn more. Without an informed parent, young drivers are at even greater risk.

Pennsylvania
www.dmv.state.pa.us/young_drivers/young_driver_faq.shtml

New Jersey
www.nj.gov/oag/hts/downloads/gdl-bro-eng.pdf

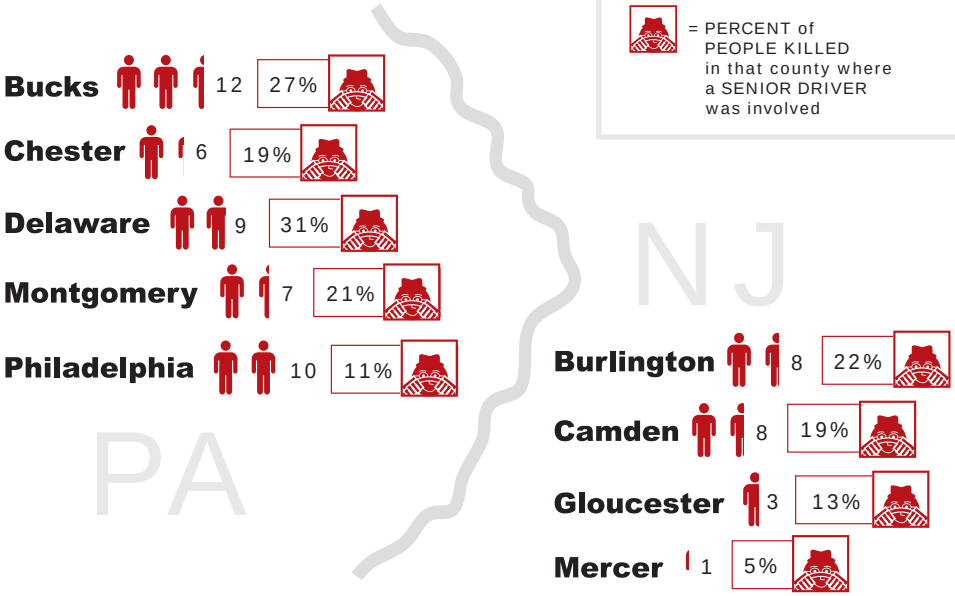
SENIOR DRIVERS

In 2009, there were 33 million licensed drivers ages 65 and older in the United States. Driving helps senior adults stay mobile and independent, but the risk of being injured or killed in a motor vehicle crash increases with age. It is important to note that senior drivers were not necessarily the responsible parties, or the only crash victims, in this analysis.

Fatalities Where a Senior Driver Was Involved Have Decreased.

In this analysis, a senior driver is defined as an adult aged 65 years or older. In 2010, the highest number of traffic fatalities where a senior driver was involved occurred in Bucks County (12). Delaware County had the highest overall percentage with one-third of traffic fatalities involving senior drivers. Mercer County had the lowest number and lowest overall percentage of fatalities involving a senior driver. In the Delaware Valley, fatalities as a result of a crash that involved a senior driver represent 18 percent of the 2010 fatality total.

Senior Drivers as a Factor in Fatalities



Senior Driver Laws

The Governor's Highway Safety Association (GHSA) reports that more and more Americans are outliving their ability to drive safely. As a result of impairments in three functions that are important for driving – vision, cognition, and motor function – senior drivers are at higher risk than middle-aged adults.

To address this issue, 33 states and the District of Columbia have enacted laws that contain specific licensing requirements for senior drivers, which may include one or more of the following: periodic license renewal, vision testing, and road testing. Currently, license renewal and mandatory testing are not required of senior drivers in Pennsylvania or New Jersey.

Tips for Senior Drivers[1]:

Drivers aged 65 or older may wish to consider these tips for safer driving:

- Have doctors or pharmacists review medicines for possible side effects and drug interactions
- Have vision checked once a year
- Plan the route before driving it
- Leave adequate following distance
- Avoid distractions like loud music, cell phones, and food
- Know your options: ride with a friend or use public transit

[1]*Centers for Disease Control and Prevention*

Follow these links for additional senior driver resources:

American Automobile Association (AAA)
www.seniordrivers.org

American Association of Retired Persons (AARP)
www.aarp.org

Drive Safe PA
www.drivesafepa.org/

New Jersey Department of Health and Senior Services
www.state.nj.us/health/senior/benefits/transportation.shtml

REGIONAL SAFETY PROGRAMS

Safety Planning at DVRPC

Safety matters to everyone, so DVRPC pursues an active, wide-ranging approach to improve safety in the Delaware Valley. Safety is incorporated in many of DVRPC's work program efforts in addition to the projects managed by the Office of Safety and Congestion Management. For more information, visit www.dvrpc.org/Transportation/Safety.

Abstract:

DVRPC's annual safety bulletin provides a snapshot of road safety and crash trends in the nine counties of the Delaware Valley region and the nation, and highlights select emphasis areas from DVRPC's *Safety Action Plan*. The goal of the bulletin is to raise awareness of traffic crashes, discuss causal factors, and promote programs and agencies working toward improving safety.

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DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

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The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.

Analysis in this document was derived from the NJDOT and PennDOT crash databases, unless otherwise noted.

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