

The DVRPC Region has experienced a steady decline in traffic crash fatalities and injuries since 2006. Despite this encouraging trend, the 86,219 traffic crashes that occurred in 2009 claimed the lives of 383 people and injured another 45,159. Add to that the hidden costs of lost productivity, emergency medical care, and the impacts to quality of life, and the magnitude of the problem further escalates.

This bulletin provides an annual snapshot of road safety in the Delaware Valley by highlighting and comparing trends at the national, regional, state, and county levels. This document is a supplement to DVRPC's *Safety Action Plan* and will be updated on an annual basis.

Deaths and Injuries Occurred Daily In 2009

- 1 traffic death occurred on average every 23 hours
- 124 persons were injured in crashes per day (about five injuries every hour)
- 236 traffic crashes occurred per day (about ten crashes every hour)

What is a Reportable Crash?

Pennsylvania: a crash is considered reportable when a person is injured or killed, or if a vehicle needs to be towed from the scene.

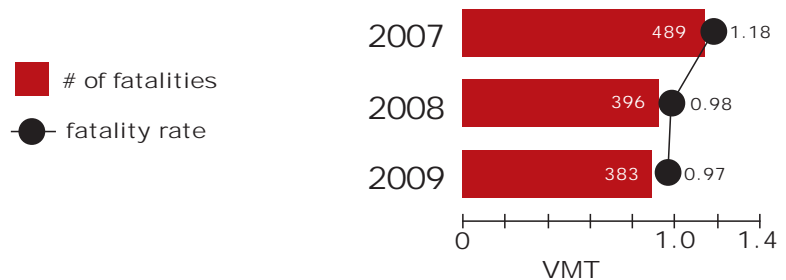
New Jersey: a crash is considered reportable if it results in injury, fatality, or property damage of \$500 or more as determined by the responding officer.

All data in this bulletin refers to reportable crashes.

FATALITY RATE FALLS NATIONALLY AND LOCALLY

The number of people killed in crashes in the Delaware Valley continues to fall. The fatality rate (the number of fatalities per 100 million vehicle miles traveled) also fell in 2009 to 0.97. This rate is lower than the national fatality rate of 1.13. In 2009, motor vehicle crashes in the U.S. claimed the lives of 33,808 people, down from 37,423 in 2008, even though Vehicle Miles Traveled (VMT)* increased slightly (0.2 percent).

Three Year Regional Fatalities and Fatality Rate Per 100 Million Vehicle Miles Traveled (VMT)





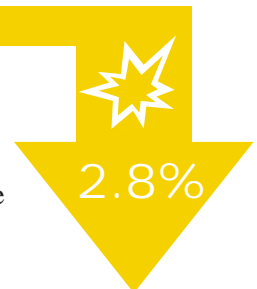
Many speculate as to the reasons why the fatality rate has fallen. According to the National Highway Traffic Safety Administration's (NHTSA) *Traffic Safety Facts Research Note – Highlights of 2009 Motor Vehicle Crashes*, "the reduction in total fatalities could be attributed to many factors such as the economy, unemployment, improvements in vehicle design, and highway safety programs."

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

How Far Have We Come?

Crashes:

Crashes in the Delaware Valley declined by 2.8 percent between 2006 and 2009, which is a drop from 88,726 crashes to 86,219 crashes. There was also a decline in how many people were killed [] and how many were injured [].



2006 vs. 2009

477  383

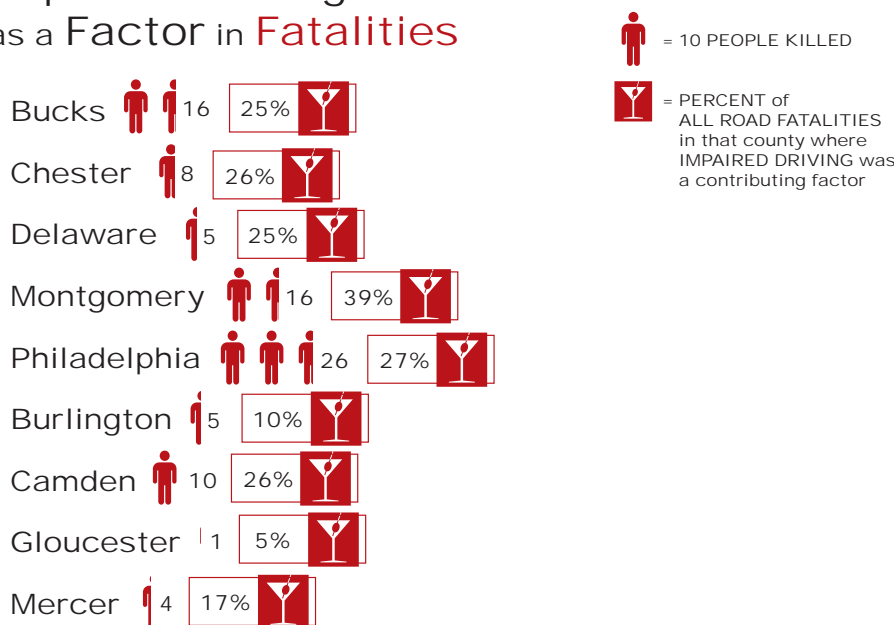
50,720  45,159

WHAT IS IMPAIRED DRIVING?

Impaired driving is one of the leading contributors to fatal crashes in the Delaware Valley. While it contributes to fewer fatalities than aggressive driving or not wearing a seat belt, it is highlighted here due to extensive recent news coverage of impaired and distracted driving. In this analysis impaired driving refers to driving under the influence of alcohol. A blood alcohol content (BAC) of 0.08 is considered legally intoxicated in the U.S.



Impaired Driving as a Factor in Fatalities



Is Texting While Driving More Dangerous than Drunk Driving?

In 2009, Car and Driver magazine conducted a study and presented its findings in the article "Texting While Driving: How Dangerous is it?" On a closed course, they measured reaction times at 35 and 70 mph for two drivers, one younger and one older, under the following conditions: 1) sober, 2) texting, and 3) with a BAC of 0.08. Their results showed that texting slowed reaction time more than driving under the influence. Concerning phone use alone, in 2003, researchers at the University of Utah used a driving simulator to compare performance of cell-phone drivers with legally intoxicated drivers (0.08 BAC). Using a hand-held or hands free phone, "cell-phone drivers exhibited greater impairment than intoxicated drivers". In both studies, the corresponding distance traveled before drivers reacted while distracted is alarming. At 35 mph, a vehicle travels 50 feet per second. At that speed, even a one second distraction means traveling 50 feet further before noticing a pedestrian in a crosswalk, a red traffic signal, or a stopped driver.

National Perspective: Combating Distracted Driving

Driver distraction presents a serious and potentially deadly danger. In 2009, 5,474 people were killed on U.S. roadways and an estimated additional 448,000 were injured in motor vehicle crashes that were reported to have involved distracted driving. Distracted driving comes in various forms, such as cell phone use, texting, eating, drinking, talking with passengers, as well as using in-vehicle technologies and other portable electronic devices. President Obama and Secretary of Transportation Ray LaHood, along with Oprah Winfrey and other celebrities, have joined forces to combat the dangers of distracted driving.

Fact: A federal government policy is in place banning all federal employees from texting while driving on official government business.

For additional information about Distracted Driving, check out the following websites:

Official U.S. Government Website for Distracted Driving:
www.distraction.gov

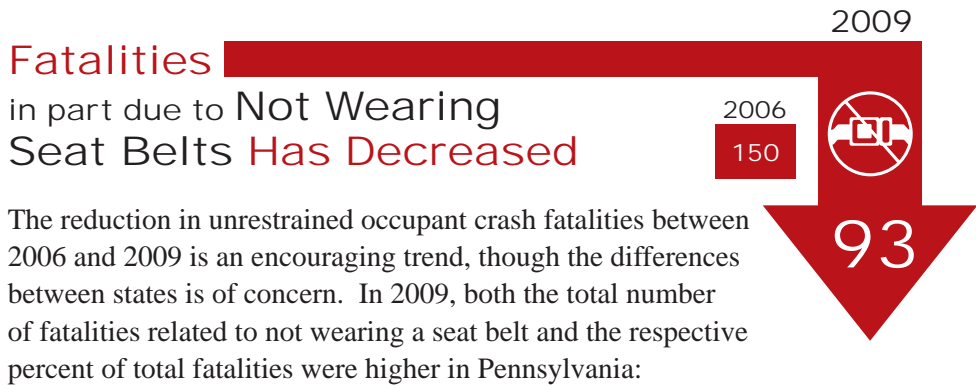
Oprah Winfrey's "No Phone Zone" Campaign:
www.oprah.com/packages/no-phone-zone.html

National Safety Council:
www.nsc.org/safety_road/Distracted_Driving/Pages/distracted_driving.aspx

Governors' Highway Safety Association:
www.ghsa.org/html/issues/cellphone.html

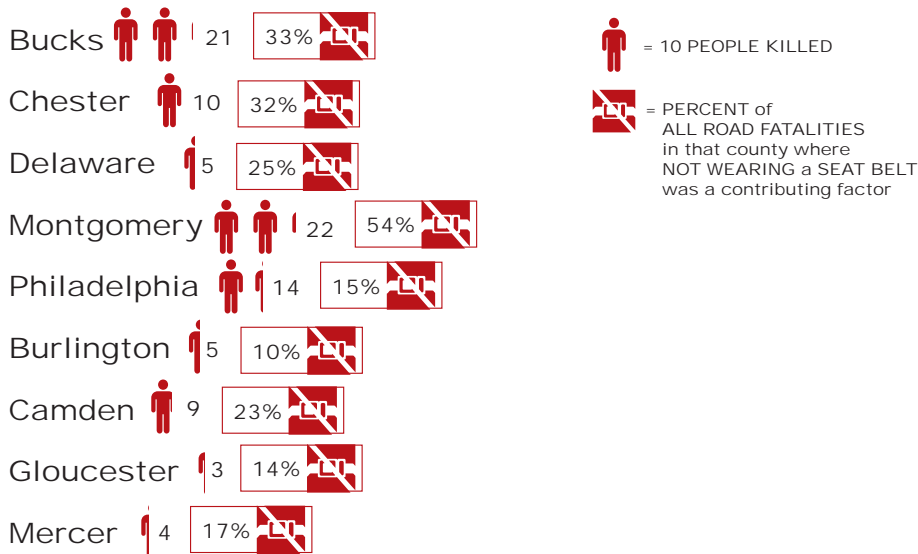
WHY DOES SEAT BELT USE MATTER?

According to NHTSA's *Traffic Safety Facts Research Note – Highlights of 2009 Motor Vehicle Crashes*, “among fatally injured passenger vehicle occupants, more than half (53%) of those killed in 2009 were unrestrained.” In the Delaware Valley, unbelted fatalities represented 24 percent of the 2009 fatality total.



- PA counties: 29 percent of fatalities due to not wearing a seat belt (72 people)
- NJ counties: 16 percent of fatalities due to not wearing a seat belt (21 people)

Unbelted Fatalities by County



Seat Belt Use is Increasing!

The number of crashes in which a seat belt was not worn decreased by 26 percent between 2006 and 2009 in the DVRPC region. But the numbers are not evenly divided between the states. The New Jersey counties continue to outperform the Pennsylvania counties in seat belt usage rates, which is attributable to the difference between their laws: New Jersey has a primary seat belt law¹ and Pennsylvania has a secondary seat belt law.²

Primary vs. Secondary: What's the Difference?³

A primary law means that police may stop drivers solely for seat belt law violations. A secondary law means that police must have some other reason to stop a vehicle before citing an occupant for failing to buckle up.

What Does the Law Say About Seat Belts?

¹New Jersey: Primary Seat Belt Law (May 2000) Motorists, front-seat passengers, and children under 18 years old seated anywhere in the vehicle must be belted. A police officer can stop a motorist solely for violation of this seat belt law. In January 2010, a secondary law became effective requiring rear seat passengers age 18 and older to buckle up—these passengers can be issued a summons if unbelted when the vehicle is stopped for another violation. Children under eight must be in an approved child passenger restraint seat.

²Pennsylvania: Secondary Seat Belt Law (November 1987) All drivers and front-seat passengers in vehicles, light trucks, and motor homes must wear seat belts. If you are transporting passengers, age eight or older but less than age 18, they must wear seat belts, no matter where they are riding in the vehicle. Officers must have some other reason to stop a vehicle before citing an occupant for failing to buckle up.

³Safety Advocates cite a **15%** increase in seat belt usage (on average) in states with primary seat belt laws, which translates into fewer deaths and injuries from traffic crashes.

www.saferoads.org/issues/fs-stand.htm



CRASH SEVERITY & AGGRESSIVE DRIVING

Crash events are characterized by the highest severity resulting from an incident despite number of people involved. A single crash could involve multiple people hurt and killed, but would be considered one fatal crash event (see legend at bottom of page). This 2009 regional safety breakdown by county and state compares crashes to resulting injuries and fatalities, and shows the influence of aggressive driving on fatalities.

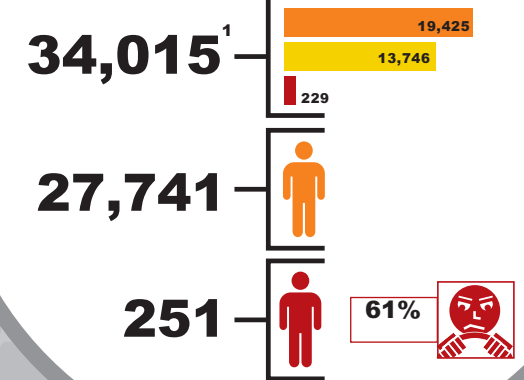
AGGRESSIVE DRIVING*



was a contributing factor in 52% OF THE REGION'S FATALITIES

TOTALS PA

[DVRPC 5 counties]



2009 PENNSYLVANIA QUICK STATS

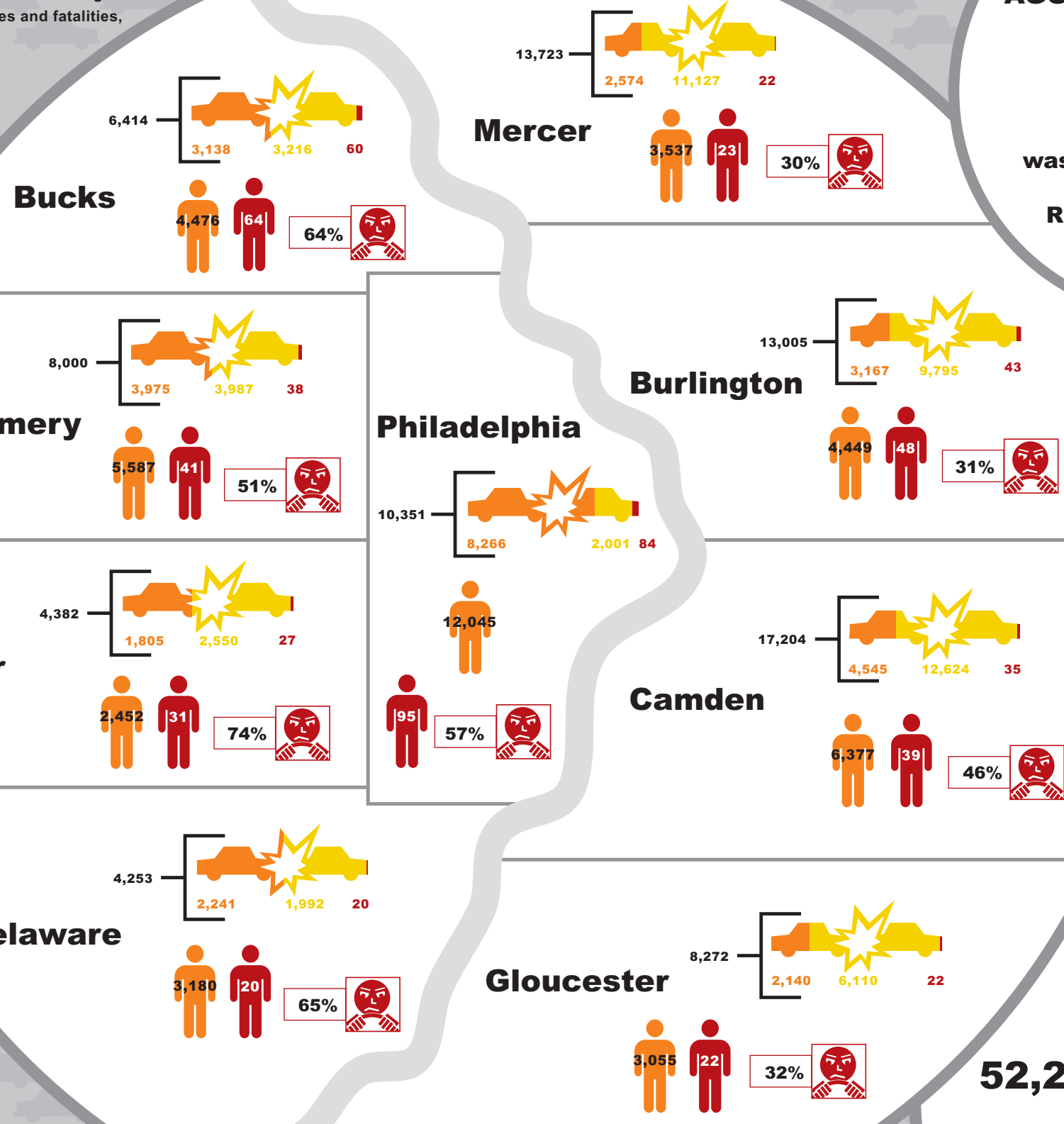
As a result of the 34,015 crashes, 251 people died and 27,741 were injured.

Although the Pennsylvania five-county region has 71 percent of the Delaware Valley's population, it accounted for only 39 percent of the region's total crashes. This is partially because of the difference in how crashes are defined in the two states.

Fifty-seven percent of all crashes involved aggressive driving. *AGGRESSIVE DRIVING in Pennsylvania includes speeding, driving too closely to the next vehicle, making unnecessary lane changes, or driving too fast for conditions.

Compared to the rest of Pennsylvania, DVRPC's five Pennsylvania counties represent 32 percent of the state's population, 28 percent of its reportable crashes, and 20 percent of the fatal crashes.

Source: 2009 Pennsylvania Crash Facts & Statistics



2009 NEW JERSEY QUICK STATS

As a result of the 52,204 crashes, 132 people died and 17,418 people were injured.

Seventy-four percent of all PDO² crashes in the DVRPC region occurred in the four New Jersey counties.

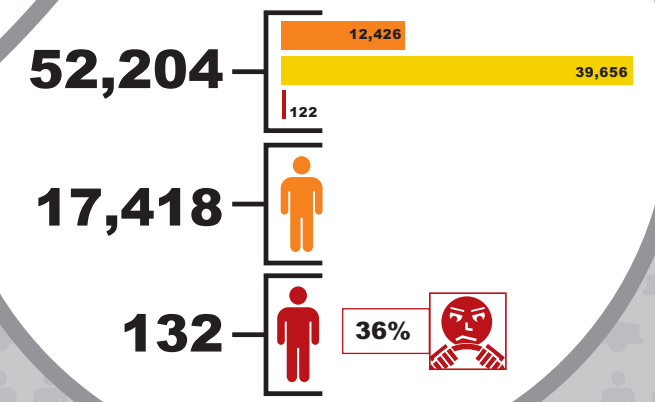
This is a result of how reportable crashes are defined in New Jersey: \$500 damage to property qualifies as a reportable crash.

Thirty-one percent of all crashes involved aggressive driving. *AGGRESSIVE DRIVING in New Jersey is defined as speeding, excessive lane changing, tailgating, or gesturing at other drivers.

Compared to the rest of New Jersey, DVRPC's four New Jersey counties represent 19 percent of the state's population, 17 percent of its reportable crashes, and 22 percent of its fatal crashes.

TOTALS NJ

[DVRPC 4 counties]



Sources: Fatal Motor Vehicle Crash Comparative Data Report for New Jersey, and DVRPC Municipal, County, and Regional Population Estimates, 2000-2009 Data Bulletin

2. Property Damage Only (PDO): A crash where no one was killed or injured, but damage occurred to a vehicle or other property.

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

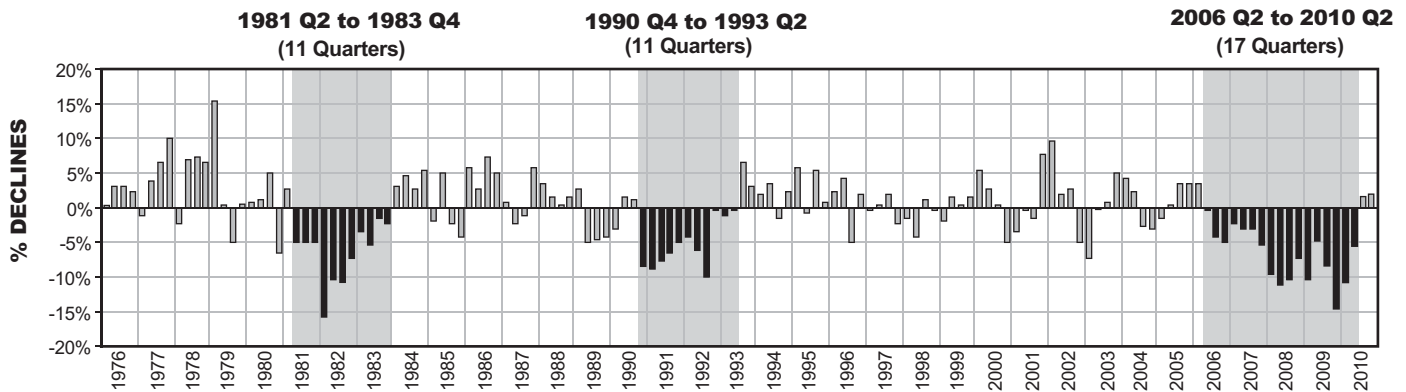
types: Injury crash PDO² crash fatal crash

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.

U.S. FATALITY DATA BY QUARTER SINCE 1975

Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year

This historical crash chart shows crash trends by quarter between 1976 and early 2010. Consecutive quarters of decline are indicated in solid black. The most recent period of decline was the longest, with 17 quarters between the second quarter of 2006 to the second quarter of 2010.



Source: Traffic Safety Facts April 2011, National Highway Traffic Safety Administration

Additional Safety Resources

National Level

Federal Highway Administration:
<http://safety.fhwa.dot.gov>

National Highway Traffic Safety Administration:
www.nhtsa.gov
www.safercar.gov

Insurance Institute for Highway Safety:
www.iihs.org

U. S. Department of Transportation:
www.dot.gov/safety.html

State Level

New Jersey Division of Highway Traffic Safety:
www.nj.gov/oag/hts/index.html

Drive Safe PA:
www.drivesafepa.org

Rutgers University Transportation Safety Resource Center:
<http://cait.rutgers.edu/tsrc/plan4safety>

2009 Regional Crash Facts

- 1 out of every 125 people in the region was injured in a crash.
- 3,000 pedestrians were involved in crashes, of which 100 were killed.
- 1,100 bicyclists were involved in crashes, of which 5 were killed.
- 11,737 senior drivers (age 65+) were involved in crashes, of which 89 were killed. When senior drivers are in crashes, they are more likely to die than people in other age groups.
- 4,534 young drivers (ages 16 and 17) were involved in crashes, of which 13 were killed. Motor vehicle crashes are the leading cause of death for this age group.



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, including the following program areas within the Office Transportation Safety and Congestion Management. For more information, visit www.dvrpc.org/Transportation/Safety.



Regional Safety Action Plan: DVRPC's *2009 Safety Action Plan: Improving Transportation Safety in the Delaware Valley* (DVRPC Publication Number 09032) is a comprehensive plan to reduce traffic fatalities by addressing the seven key safety emphasis areas. The *Safety Action Plan* is closely coordinated with the Pennsylvania and New Jersey strategic highway safety plans. It is updated regularly.

Regional Safety Task Force (RSTF): The RSTF brings together a multi-disciplinary group of professionals to identify safety goals and resources. It builds and maintains effective partnerships to reduce the number of crashes and resultant casualties in the region.

Road Safety Audits (RSAs): Utilizing an interdisciplinary audit team, RSAs generate safety improvement recommendations for roadway segments with a demonstrated history of, or a potential for, crashes. Emphasis is placed on identifying low-cost, quick-turnaround recommendations. RSA reports can be found at www.dvrpc.org/Transportation/Safety/ProjectsPrograms.htm.

Congestion and Crash Site Analysis Program (CCSAP): The CCSAP identifies low-cost, quick-turnaround safety improvements at congested intersections with especially high crash rates throughout the region. The solutions are identified through technical analysis and working with partners. CCSAP reports can be found at www.dvrpc.org/Transportation/Safety/ProjectsPrograms.htm.

Crash Data Management System: DVRPC analyzes crash data from New Jersey and Pennsylvania for planning efforts. The analysis is used within DVRPC for *Safety Action Plan* updates and to help select locations of projects. It is also used by other agencies and organizations. For a guide to using crash analysis, see *Using Crash Data to Improve Safety in the Delaware Valley* (DVRPC Publication Number 09020).

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 the *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.

Let Us Know What You Think!

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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.

DVRPC fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. DVRPC's website (www.dvrpc.org) may be translated into multiple languages. Publications and other public documents can be made available in alternative languages and formats, if requested. For more information, please call (215) 238-2871.

Analysis in this document was derived from the NJDOT and PennDOT crash databases, unless otherwise noted. The 2010 DVRPC Annual Crash Data Bulletin will be available by December 2011.

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