

# 2010

# PENNSYLVANIA<br/>CRASH FACTS<br/>& STATISTICS



GOVERNOR

Tom Corbett

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#### Introduction

The 2010 Pennsylvania Crash Facts and Statistics booklet is a report published by the Bureau of Highway Safety and Traffic Engineering, Pennsylvania Department of Transportation. Permission is given to freely copy and distribute this booklet and the information within it. This booklet can now be found on the web at http://www.dot.state.pa.us. Click on the following set of links to get to the booklet: PennDOT Organizations, Bureaus & Offices, Bureau of Highway Safety and Traffic Engineering, Crash Information Systems and Analysis, Crash Facts and Statistics Books, and finally click on the year in which you are interested.

This publication is a statistical review of reportable motor vehicle crashes in the Commonwealth of Pennsylvania for calendar year 2010. The figures are compiled from the traffic crash reports that are submitted to the Pennsylvania Department of Transportation by state, county, municipal, and other law enforcement agencies, as specified in the Pennsylvania Vehicle Code (75 Pa. C.S., Chapter 37, Subchapter C).

Specific questions regarding data presented in this report should be addressed to:

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#### Special Thanks

Quality information is important for creating a highly accurate publication. Our analysts and the police officers that report the crashes that make it to this publication have dedicated many of their days to providing good data. Many police departments have taken the plunge to report electronically which has improved the quality and timeliness of the data we receive. We appreciate everyone's hard work because without this effort, a book like this would not be possible.

#### How to Use This Booklet

This booklet is divided into sections by topic. In most cases, the topics are presented at a general level and become more specific. This year's booklet is similar to last year's format with only a few minor changes related to the data. Please read the narrative and notes associated with the tables/graphs to make sure the data presented are understood.

Look over the *Table of Contents* on the next page to see the list of topics and sections. If you are trying to find a particular piece of information, you might be able to locate it more quickly by looking at the *Index* on page 70.

Skim through the Definitions beginning on page 4. Some terms can be misleading or confusing, even to experienced readers. For example, an "alcohol-related" crash does not necessarily mean the driver of the vehicle causing the crash was drunk. The driver of the vehicle not at fault might have been drinking, or even a pedestrian involved with the crash might have been drinking.

Black squares containing the section title are located near the outer margins to make it easier for you to thumb through this booklet to find the section you are looking for.

After you have used this booklet, please complete and return the feedback survey form on the last page. We read every survey returned and consider every response important. We are planning many changes with this publication in the upcoming year or two and your opinions are vital to determining what is important to include.

#### About the Cover

The picture on the front cover shows the result of a crash involving a van striking an embankment and rolling over. In 2010 rollover crashes, the percentage of light truck / SUV / van occupant deaths was nearly 43.6% of all light truck / SUV / van occupant deaths. The popularity of light trucks, vans, and sport utility vehicles over the last ten years has made this type of collision a special concern to the Pennsylvania Department of Transportation. Additional information on crashes involving rollovers can be found on page 53.

#### **Definitions**

*Crash:* A reportable crash is one in which an injury or a fatality occurs or at least one of the vehicles involved requires towing from the scene.

#### General Terms

**Alcohol-Related Crash:** Any reportable crash in which one or more of the drivers was reported to have been drinking, or a drinking pedestrian was involved.

**DUI:** Driving Under the Influence – specifically a driver was drinking.

**Child Passenger Restraint System:** A combination of an approved child safety seat and existing vehicle safety belt restraints. Mandatory in Pennsylvania for all passengers under age four.

**Harmful Event:** An action which occurs within a crash (e.g., hitting a tree, hitting a deer, hitting a pedestrian, hitting another vehicle, etc.) and often results in personal injury or property damage.

**Holidays:** The holiday weekend begins at 6:00 PM of the last working day before the holiday and ends at midnight on the last day of the holiday. Pre-holiday weekends and post holiday weekends are time periods equivalent to that of the weekend before or the weekend after the holiday, respectively. The same applies to holidays during the middle of the workweek where no weekend is involved. It is significant to look at pre- and post-holiday statistics because, in many instances, the number of crashes and/or deaths/injuries are equal to, or greater than, those occurring on the actual holiday weekend.

**Passive Restraint:** A safety restraint, i.e., air bag, automatic lap/shoulder harness, that is not actively engaged by a vehicle occupant.

**Reportable Crash:** A crash resulting in a death within 30 days of the crash; or injury in any degree, to any person involved; or crashes resulting in damage to any vehicle serious enough to require towing. **Speed-Related Crash:** Any reportable crash in which speed was listed as a contributing factor, whether or not the driver was noted as going over the posted speed limit.

**TCD:** Traffic Control Device. Includes traffic signals, stop signs, yield signs, and railroad crossing controls.

**Vehicle Defect:** A fault in the vehicle, due to improper maintenance or other reasons, that can cause the driver to lose control, possibly resulting in a crash.

**Vehicle-Miles of Travel:** A measure that indicates the number of miles traveled by vehicles on PA roadways.

**Work Zone:** An area, usually marked by signs, barricades, or other devices indicating that highway construction or maintenance activities are going on.

#### Crash Types

A description which characterizes the first harmful event of the crash and is described as one of the following:



**Non-Collision:** A harmful event that does not involve a collision with a fixed object or a non-fixed object. These events include explosion, fire, overturn, immersion and vehicle struck by flying object.



**Angle:** A crash in which two vehicles on opposite roadways collide at a point of junction, such as a road intersection, driveway, or entrance ramp.



**Rear-End:** A crash in which vehicles traveling in the same direction, on the same road, collide (vehicle front into vehicle rear).



**Head-On:** A crash in which vehicles traveling in opposite directions, on the same road, collide (vehicle front into vehicle front).



**Sideswipe:** A crash between two vehicles (traveling in same direction or opposite direction) in which the sides of both vehicles engage.



**Hit Fixed Object:** A collision in which a vehicle collides with stationary object(s) along and adjacent to the roadway, (i.e. bridge piers, trees, utility poles, embankment, guiderail, etc.).



**Hit Pedestrian:** A collision between a motor vehicle and any person(s) not in or upon the vehicle.

#### Crash Severity

**Fatal Crash:** A crash in which one or more of the involved persons died within 30 days of the crash and the death(s) are attributable to the crash.

**Injury Crash:** A crash in which none of the involved persons were killed, but at least one was injured. **Property Damage Only (PDO):** A reportable crash where no one was killed or injured, but damage occurred to a vehicle requiring towing.

#### **Injury Severity**

**Death:** As used in this booklet, any injury which causes death within 30 days of a crash and that death is attributable to the crash.

**Major Injury:** Any injury, other than fatal, which by its severity requires immediate emergency transport, such as an ambulance, to a hospital or clinic for medical treatment and /or hospitalization. Major injuries would include amputation of limb(s), severe burns, etc.

**Moderate Injury:** Any injury which may require some form of medical treatment, but is not life-threatening or incapacitating. These injuries should be visible. Moderate injuries would include a cut which requires several stitches, or a broken finger or toe.

**Minor Injury:** Any injury which can be treated by first aid application, whether at the scene of the crash or in a medical facility. Complaints of injuries which are not visible, and do not appear to be of any major or moderate nature, should be considered as minor injuries.

#### Person Type

**Driver:** The occupant of a vehicle who is in actual physical control of a vehicle in transport or, for an out-of-control vehicle, the occupant who was in control before control was lost.

**Occupant:** Any person who is in or upon a vehicle, including the driver, passenger, and person riding on the outside of the vehicle.

**Passenger:** Any occupant of a vehicle who is not the driver.

**Pedestrian:** Any person not in or upon a vehicle.

#### Road Types

**Local Roads:** Any roadway that is maintained by an entity other than the state. Includes county, township, town, borough, and private.

**State Highway (Interstate):** Any state-maintained roadway that carries the interstate designation and is marked with red, white, and blue shield-shaped sign.

**State Highway (Other):** Any state-maintained roadway that is not designated as an interstate. Many (but not all) such roads are marked with a black and white keystone-shaped sign.

**Turnpike:** The Pennsylvania Turnpike system, which includes the main Turnpike and other toll facilities maintained by the Pennsylvania Turnpike Commission.

#### Vehicle Types

**Passenger Car:** Vehicle designed to transport eight people or less. Includes: convertible, hardtop, sedan, station wagon, limousine, etc.

**Light Truck / SUV / Van:** Single vehicle designed for carrying a load of property on or in the vehicle. Includes: pickup truck, sport utility vehicle, van, jeep, tow truck, etc.

**Heavy Truck:** Single vehicle or tractor-trailer combination designed for carrying a heavy load of property on or in the vehicle. Includes: single unit trucks (e.g., coal truck), tractor-trailers, motor homes, etc.

**Bus:** Vehicle designed to transport more than fifteen people. Includes school bus, cross-country bus, urban transit, trackless trolley.

**Motorcycle:** Includes: motorcycle, mo-ped, mini-bike, motor scooter, trike (motorized tricycle), go-cart, vendor cycle.

**Bicycle:** As used in this booklet, any non-motorized vehicle propelled by pedaling. Includes: unicycle, bicycle, tricycle, "Big Wheel".

**Track/Non-Motorized Vehicle:** Includes: train, trolley, horse and buggy, horse and rider.

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### **Overview**

The Commonwealth of Pennsylvania is comprised of 67 counties. Each county is made up of local municipalities, a combination of cities, boroughs, first class townships, and/or second class townships. In total, there are approximately 2,500 municipalities throughout the 67 counties. One of these municipalities, the Town of Bloomsburg in Columbia County, is the only official "town" in Pennsylvania.

Pennsylvania has over 121,000 miles\* of roads and highways; 33% (39,839 miles\*) are state highways maintained by the Pennsylvania Department of Transportation (PennDOT), and the remaining 67% (82,154 miles\*) are maintained by local municipalities and other entities.

Motor-vehicle traffic crashes which occur on Pennsylvania roads and highways are investigated and reported on by both the Pennsylvania State Police and the approximately 1,300 local municipal police departments. The valuable information originating from these police crash reports is the basis for the statistics that are presented throughout this booklet.

In 2010, there were 121,312 reportable traffic crashes in Pennsylvania. These crashes claimed the lives of 1,324 people and injured another 87,949 people. To add some perspective, the 2010 total of reportable traffic crashes is the second lowest total since 1951 when 123,088 crashes were reported.

Last year, there were approximately 103.3 billion vehicle-miles\* of travel on Pennsylvania's roads and highways. The 2010 fatality rate of 1.28 deaths per hundred million vehicle-miles of travel\* was the second lowest ever recorded in Pennsylvania since the department started keeping records of this in 1935.

#### 2010 Briefs

#### On Average in Pennsylvania:

- Each day 332 reportable traffic crashes occurred (about 14 crashes every hour).
- Each day 4 persons were killed in reportable traffic crashes (one death every 7 hours).
- Each day 241 persons were injured in reportable crashes (about 10 injuries every hour).

#### Based on Pennsylvania's 2010 population (12,632,780 people):

- 1 out of every 44 people was involved in a reportable traffic crash.
- 1 out of every 9,541 people was killed in a reportable traffic crash.
- 1 out of every 144 people was injured in a reportable traffic crash.

<sup>\*</sup> For consistency purposes, the prior year's data is used at the time of publication because of timing issues. For this Crash Facts & Statistics book, 2009 information was used.

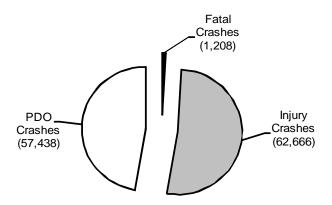
# VII Crashes

# All Crashes and Deaths —WHO WAS INVOLVED—

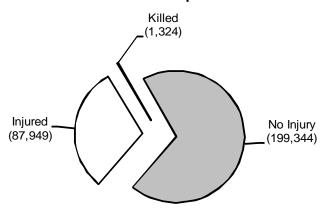
# Crashes by Injury Severity

Crashes involving deaths and major injuries are always devastating to the family and friends of the victims. Thankfully, the vast majority of crashes are not fatal. Most crashes, however, do cause varying types of injuries. Of the total people involved in crashes in Pennsylvania in 2010, most were not injured, and those who were injured suffered mostly minor injuries. The 1,324 deaths in 2010 represent the second lowest number of fatalities in Pennsylvania motor vehicle crashes over the last sixty-four years.

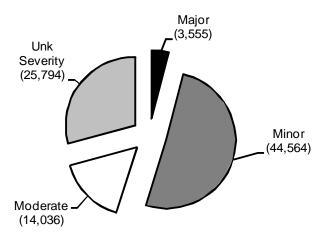
#### **Total Crashes**



#### **Total People**



#### **Total People--Injured**



## Deaths and Injuries—Five-Year Trends

Total reported crashes in 2010 increased 0.1% compared to 2009; deaths increased by 5.4% while total injuries increased by 0.9%.

	2006	2007	2008	2009	2010
Reported Crashes	128,342	130,675	125,327	121,242	121,312
Total Deaths	1,525	1,491	1,468	1,256	1,324
Total Injuries	96,597	94,633	88,709	87,126	87,949
Major Injury	4,200	4,087	3,831	3,483	3,555
Moderate Injury	16,514	16,004	14,306	13,783	14,036
Minor Injury	52,740	50,535	46,704	45,306	44,564
Unknown Injury Severity	23,143	24,007	23,868	24,554	25,794
Pedestrian Deaths	170	155	142	136	148
Pedestrian Injuries	4,569	4,618	4,389	4,249	4,474
Motorcyclist Deaths	187	225	237	204	223
Motorcyclist Injuries	3,751	4,067	4,077	3,677	3,930
Bicyclist Deaths	13	20	8	16	21
Bicyclist Injuries	1,310	1,426	1,419	1,380	1,474
Heavy-Truck-Related Deaths	192	194	184	136	157
Alcohol-Related Deaths	545	535	534	449	459
Speed-Related Deaths	474	497	474	355	404
Billions of Vehicle-Miles*	107.9	108.1	108.4	107.0	103.3
Deaths per 100 Million Vehicle-Miles*	1.41	1.38	1.35	1.17	1.28

Note: Speed-Related Deaths only count those crashes where speed was considered the prime contributing factor in the crash.

# Economic Loss Due to Reportable Traffic Crashes

			<b>Estimated Total</b>
Severity	Number	<b>Average Cost</b>	Costs
Deaths (persons)	1,324	\$6,000,000	\$7,944,000,000
Major Injuries (persons)	3,555	\$1,314,665	\$4,673,634,075
Moderate Injuries (persons)	14,036	\$87,849	\$1,233,048,564
Minor Injuries (persons)	44,564	\$6,960	\$310,165,440
Property Damage Only (crashes)	57,439	\$2,784	\$159,910,176
Unknown Injuries (persons)	25,794	\$6,960	\$179,526,240
		TOTAL	\$14,500,284,495

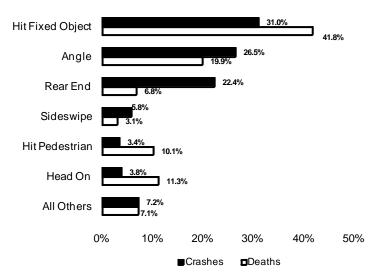
In 2010, the economic loss due to traffic crashes was \$1,148 to every man, woman, and child in Pennsylvania.

Figures are based on the latest PennDOT estimates (in 2008 dollars). The economic loss per Pennsylvania citizen is based on the ratio of estimated total cost to the estimated total population of Pennsylvania. Also note that the Federal guidelines changed for determining the average cost of a fatality in 2009.

<sup>\*</sup> Vehicle mileage uses the prior years' vehicle mileage information (because at the time of publication, the current year's vehicle mileage is not available).

# Crashes by Crash Type

Many different types of crashes occur on Pennsylvania roads, but certain types of crashes are more prevalent. More crashes involved a single vehicle hitting a fixed object (tree, guide rail, etc.) than any other type. Head-on collisions, though they occur much less frequently, cause the third highest number of deaths.

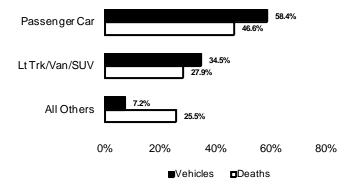


Crash Type	Crashes	Deaths
Angle	32,090	263
Backing Up	175	0
Head On	4,571	149
Hit Fixed Object	37,553	553
Hit Pedestrian	4,141	134
Non-Collision	4,671	81
Rear End	27,127	90
Sideswipe	7,037	41
Other	3,947	13
TOTAL	121,312	1,324

\*Note that, by definition, a Hit Pedestrian Crash only involves those crashes where the pedestrian being struck was the first harmful event. Therefore the pedestrian crashes and deaths shown in this section are slightly different than those shown elsewhere in this book, which include all pedestrian harmful events.

#### Vehicles Involved in Crashes

Passenger cars were involved in more crashes than all other vehicle types combined. Coupled with light trucks, vans, and SUVs they accounted for the vast majority of crashes and occupant deaths. Compared with previous years, light truck, van, and SUV vehicles in 2010 were involved in a higher percent of crashes. Occupant fatalities of motorcycles increased from 204 in 2009 to 223 in 2010.

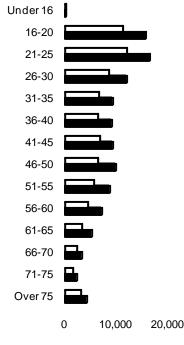


		Occupant
	<b>Vehicles</b>	<b>Deaths</b>
Passenger Car	117,060	547
Lt Trk/Van/SUV	69,171	328
Heavy Truck	6,269	27
Motorcycle	4,108	223
Bicycle	1,487	21
Commercial Bus	599	2
School Bus	379	0
Other	1,486	27

# Driver Involvement in Crashes by Age and Sex

In every age group, male drivers are involved in more crashes than female drivers. Male drivers ages 21-25 were involved in more crashes than drivers in any other age group (male or female).

			Total
Driver	Male	Female	<b>Drivers</b>
Under 16	154 (0.1%)	48 (0.1%)	202
16-20	15,797 (13.7%)	11,352 (14.2%)	27,149
21-25	16,463 (14.3%)	12,061 (15.1%)	28,524
26-30	12,020 (10.4%)	8,668 (10.8%)	20,688
31-35	9,344 (8.1%)	6,670 (8.3%)	16,014
36-40	9,277 (8.1%)	6,558 (8.2%)	15,835
41-45	9,335 (8.1%)	6,801 (8.5%)	16,136
46-50	9,891 (8.6%)	6,577 (8.2%)	16,468
51-55	8,888 (7.7%)	5,777 (7.2%)	14,665
56-60	7,268 (6.3%)	4,555 (5.7%)	11,823
61-65	5,374 (4.7%)	3,422 (4.3%)	8,796
66-70	3,463 (3.0%)	2,389 (3.0%)	5,852
71-75	2,467 (2.1%)	1,699 (2.1%)	4,166
Over 75	4,292 (3.7%)	3,105 (3.9%)	7,397
Unknown	1,051 (0.9%)	334 (0.4%)	1,385
<b>DRIVERS</b>	115,084 (100.0%)	80,016 (100.0%)	195,100



30,000

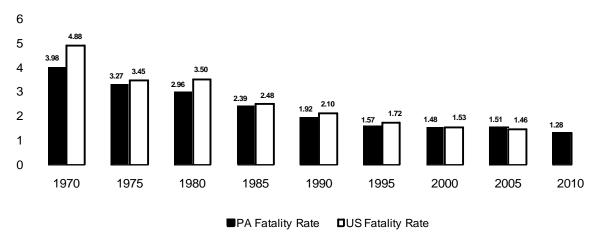
□Female ■Male

*Note:* Does not include 2,727 drivers of unknown sex or drivers of non-motorized vehicles.

# Highway Crash Historical Data

Fatality rates have fallen dramatically over the past 60 years as vehicles, roadways, and other factors have improved. Pennsylvania's fatality rate has also been lower than the US average for most years since 1937. Please note that the 2010 US average fatality rate was not finalized by the time of this publication. The chart below shows the periodic fatality rates since 1970.

# Fatality Rates Per 100 Million Vehicle-Miles\*



<sup>\*</sup> Beginning in 1999, vehicle mileage uses the prior years' vehicle mileage information (because at the time of publication, the current years' vehicle mileage is not available).

V	Tatal Greeker	T-(-1	Total Indianal	Registered	Motor Vehicle	PA Fatality	US Fatality
Year	Total Crashes	Total Killed	Total Injured	Vehicles	Mileage*	Rate**	Rate**
1943 1944	37,419 42,699	1,374 1,328	27,312 29.928	2,084,332 2,010,163	13.9 14.4	9.90 9.20	11.50 11.50
1945	53,304	1,453	35,686	2,145,452	16.0	9.10	11.30
1946	70,065	1,794	45,889	2,387,542	22.1	8.10	9.80
1947	89,190	1,678	49,938	2,604,741	22.4	7.50	8.80
1948	103,478	1,671	52,709	2,804,056	23.9	7.00	8.10
1949	102,098	1,624	54,290	2,993,903	25.8	6.30	7.50
1950	113,748	1,624	62,103	3,262,243	27.1	6.00	7.60
1951	123,088	1,642	65,643	3,413,836	28.8	5.70	7.10
1952	126,820	1,680	67,143	3,510,064	30.5	5.50	7.10
1953	129,791	1,643	70,531	3,684,468	31.6	5.20	6.70
1954	130,326	1,538	68,571	3,903,917	32.0	4.80	6.10
1955	147,837	1,737	76,836	4,045,995	34.5	5.00	6.10
1956	160,371	1,790	84,813	4,175,217	36.5	4.90	6.10
1957 1958	161,080 156,825	1,698 1,654	84,755 86,733	4,250,576 4,355,813	37.7 38.5	4.50 4.30	5.80 5.40
1956	157,191	1,685	90,807	4,507,262	39.2	4.30	5.40
1960	159,051	1,609	92,792	4,707,055	40.2	4.00	5.30
1961	156,559	1,486	73,997	4,842,400	40.2	3.70	5.20
1962	161,557	1,625	81,936	4,849,400	41.7	3.90	5.30
1963	174,527	1,830	86,892	5,117,229	44.6	4.10	5.50
1964	183,910	1,889	93,564	5,351,350	46.1	4.10	5.70
1965	213,769	2,079	111,123	5,436,349	48.3	4.30	5.60
1966	254,450	2,180	116,537	5,497,000	55.1	4.27	5.70
1967	243,798	2,331	126,417	5,673,000	53.4	4.37	5.50
1968	279,663	2,410	138,389	5,791,000	56.1	4.29	5.40
1969	292,192	2,401	141,728	5,879,000	58.6	4.10	5.21
1970	311,981	2,255	136,518	5,947,000	56.7	3.98	4.88
1971 1972†	301,374 277,556	2,299 2,352	127,318 135,938	6,079,000 6,244,000	60.9 67.0	3.78 3.51	4.57 4.43
1972	307,648	2,332	145,452	7,007,192	66.5	3.67	4.43
1973	277,271	2,444	132,689	8,354,063	63.9	3.37	3.59
1975	288,245	2,082	134,969	8,654,333	63.7	3.27	3.45
1976	303,771	2,025	135,308	9,124,915	69.4	2.92	3.33
1977	234,702	2,071	148,725	8,833,745	72.3	2.87	3.35
1978‡	158,361	2,137	146,403	7,254,893	72.7	2.94	3.39
1979	156,622	2,204	144,300	7,451,021	70.3	3.14	3.50
1980	142,489	2,114	133,716	7,307,974	71.3	2.96	3.50
1981	138,764	2,049	131,301	7,252,836	71.5	2.87	3.30
1982	131,579	1,848	126,026	7,417,311	71.3	2.59	2.88
1983	131,081	1,752	126,707	7,562,726	72.3	2.42	2.69
1984 1985	139,914 143,244	1,752 1,809	134,714 140,067	7,724,686 7,860,497	74.1 75.6	2.36 2.39	2.68 2.48
1986	150,683	1,928	148,044	7,793,921	77.2	2.59	2.48
1987	152,631	2,006	151,457	8,313,799	78.9	2.54	2.40
1988	152,906	1,932	154,018	8,452,365	81.3	2.38	2.32
1989	151,461	1,878	152,589	8,605,747	84.5	2.22	2.20
1990	141,340	1,646	142,945	8,675,835	85.7	1.92	2.10
1991	130,404	1,661	130,446	8,757,129	87.3	1.90	1.90
1992	133,913	1,545	133,113	8,915,621	89.0	1.74	1.80
1993	134,315	1,530	131,503	9,044,901	90.8	1.68	1.80
1994	134,171	1,440	130,678	9,255,714	92.3	1.56	1.83
1995	136,804	1,480	133,177	9,271,517	94.5	1.57	1.72
1996 1997	142,867 143,981	1,470	136,949	9,411,261	96.4 98.3	1.53	1.69 1.64
1997	143,981	1,562	138,820 134,092	9,692,499 9,842,427	100.4	1.59 1.48	1.58
1998	140,972 144,171	1,486 1,549	134,092	9,842,427	100.4	1.48	1.55
2000	147,253	1,520	131,471	10,085,392	100.4	1.48	1.53
2001	131,358	1,532	117,915	10,629,896	103.5	1.48	1.51
2002	138,115	1,618	109,900	10,519,757	103.5	1.56	1.51
2003	140,197	1,577	112,615	10,768,222	104.8	1.50	1.48
2004	137,410	1,490	108,146	10,921,683	106.1	1.40	1.46
2005	132,840	1,616	102,223	11,058,567	107.2	1.51	1.46
2006	128,342	1,525	97,971	11,086,810	107.9	1.41	1.41
2007	130,675	1,491	95,585	11,220,816	108.1	1.38	1.36
2008	125,327	1,468	88,711	11,301,853	108.4	1.35	1.27
2009	121,242	1,256	87,126	11,324,357	107.0	1.17	1.13
2010	121,312	1,324	87,948	11,373,291	103.3	1.28	

<sup>\*</sup> In billions

<sup>\*\*</sup> Per 100 million vehicle-miles

 $<sup>\</sup>dagger$  From 1972 to 1978, reportable crashes defined as over \$200 in damage

<sup>‡</sup> From 1978 to present, reportable crashes defined as involving any type of injury and/or vehicle(s) requiring towing from the scene

<sup>+</sup> Beginning in 1999, motor vehicle mileage and PA Fatality Rate uses the prior years' motor vehicle mileage information (because at the time of publication, the current years' roadway mileage is not available)

#### —WHAT CONDITIONS WERE—

## Crashes by Weather and Road Surface Conditions

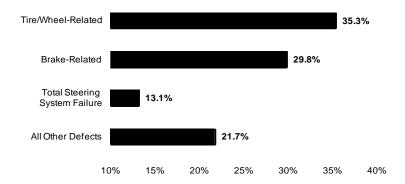
Adverse weather and road surface conditions negatively affected vehicle handling and driver sight. Interestingly, the vast majority of crashes occurred under no adverse conditions. This can be attributed to: 1) weather and roads being clear and dry most of the time and 2) drivers failing to use caution under optimal road conditions. The figures shown in both tables are for all highway types.

Weather Condition	Crashes	Deaths
No Adverse Conditions	98,315 (81.0%)	1,138 (86.0%)
Rain/Rain & Fog	13,377 (11.0%)	109 (8.2%)
Snow/Sleet/Freezing Rain	8,221 (6.8%)	52 (3.9%)
Fog/Smoke, Etc.	391 (0.3%)	11 (0.8%)
Other	1,008 (0.8%)	14 (1.1%)
TOTAL	121,312 (100.0%)	1,324 (100.0%)

Road Surface Condition	Crashes	Deaths
Dry	91,666 (75.6%)	1,072 (81.0%)
Wet	18,671 (15.4%)	181 (13.7%)
Snow/Slush	6,772 (5.6%)	36 (2.7%)
Ice/Ice Patches	3,385 (2.8%)	23 (1.7%)
Other	818 (0.7%)	12 (0.9%)
TOTAL	121,312 (100.0%)	1,324 (100.0%)

# Crashes Involving Vehicle Defects

Improperly-maintained vehicles can lead to crashes. In 2010, tire/wheel and brake-related failures again contributed to the majority of vehicle defect related crashes. The percentages in the graph below refer to the number of crashes involving vehicle defects.

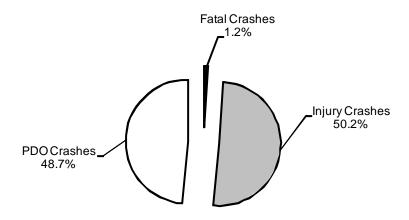


Vehicle Defect	Crashes
Tire/Wheel-Related	915
Brake-Related	771
Total Steering System Failure	340
Power Train Failure	288
Suspension	73
Unsecure/Shifted Trailer Load	60
Body/Doors/Hood, Etc.	28
Vehicle Lighting-Related	26
Other Known Defects	88

**Note:** The above list only counts crashes where a vehicle defect was the primary contributing factor in the crash.

#### Work Zone Crashes

Work zones are potentially dangerous areas because conditions are constantly changing. Drivers do not always anticipate these changes nor exercise the appropriate level of caution. Fifty-one percent of work zone crashes in 2010 contained fatalities or injuries.



Total Crashes: 1,886

Total Killed: 23 (Workers Killed: 4)

Total Injured: 1,425

### Work Zone Crashes—Vehicles Involved

Vehicle Type	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road
Passenger Car	457 (47.2%)	1,161 (54.6%)	97 (39.8%)	104 (56.2%)
Light Truck/SUV	312 (32.2%)	755 (35.5%)	86 (35.3%)	58 (31.4%)
Heavy Truck/Bus	178 (18.4%)	147 (6.9%)	53 (21.7%)	10 (5.4%)
Motorcycle	13 (1.3%)	42 (2.0%)	7 (2.9%)	4 (2.2%)
Other	8 (0.8%)	21 (1.0%)	1 (0.4%)	9 (4.9%)
TOTAL	968 (100.0%)	2,126 (100.0%)	244 (100.0%)	185 (100.0%)

*Note:* "State Highway (Other)" includes state-maintained roads that are not designated as interstates. Legally parked vehicles are not included in the above table.

# Work Zone Crashes by Road Type—Five-Year Trends

		Crasi	nes	Dea	ths
Year	Road Type	Number	% Total	Number	% Total
	State Hwy (Interstate)	313	17.6%	6	30.0%
	State Hwy (Other)	1,105	62.0%	9	45.0%
2006	Turnpike	195	11.0%	2	10.0%
	Local Road	166	9.3%	3	15.0%
	Other/Unknown Road	2	0.1%	0	0.0%
	TOTAL	1,781	100.0%	20	100.0%
	State Hwy (Interstate)	342	20.4%	10	38.5%
	State Hwy (Other)	970	57.8%	12	46.2%
2007	Turnpike	208	12.4%	2	7.7%
	Local Road	156	9.3%	2	7.7%
	Other/Unknown Road	1	0.1%	0	0.0%
	TOTAL	1,677	100.0%	26	100.0%
	State Hwy (Interstate)	307	21.7%	8	34.8%
	State Hwy (Other)	843	59.5%	14	60.9%
2008	Turnpike	173	12.2%	1	4.4%
	Local Road	94	6.6%	0	0.0%
	Other/Unknown Road	0	0.0%	0	0.0%
	TOTAL	1,417	100.0%	23	100.0%
	State Hwy (Interstate)	366	24.2%	3	13.0%
	State Hwy (Other)	900	59.5%	16	69.6%
2009	Turnpike	155	10.2%	2	8.7%
	Local Road	91	6.0%	2	8.7%
	Other/Unknown Road	1	0.1%	0	0.0%
	TOTAL	1,513	100.0%	23	100.0%
	State Hwy (Interstate)	518	27.5%	6	26.1%
	State Hwy (Other)	1,106	58.6%	14	60.9%
2010	Turnpike	151	8.0%	3	13.0%
	Local Road	110	5.8%	0	0.0%
	Other/Unknown Road	1	0.1%	0	0.0%
	TOTAL	1,886	100.0%	23	100.0%

*Note:* "State Highway (Other)" includes state-maintained roads that are not designated as interstates.

# Crashes with Roadside Objects and Animals

Unfortunately, roadside objects were hit often in Pennsylvania crashes. While there are many different roadside objects, a few are more predominant in crashes than others. The table below lists crashes with various types of roadside objects no matter the sequence of harmful events.

Roadside Object	Crashes	% Total	Deaths	% Total
Hit Bridge	652	0.5%	14	1.1%
Hit Building	1,307	1.1%	33	2.5%
Hit Culvert	805	0.7%	24	1.8%
Hit Curb	4,128	3.4%	79	6.0%
Hit Ditch	3,038	2.5%	69	5.2%
Hit Embankment	7,304	6.0%	171	12.9%
Hit Fence or Wall	2,672	2.2%	52	3.9%
Hit Fire Hydrant	442	0.4%	13	1.0%
Hit Guiderail	6,516	5.4%	134	10.1%
Hit Impact Attenuator	149	0.1%	0	0.0%
Hit Mailbox(es)	1,292	1.1%	26	2.0%
Hit Median Barrier	4,232	3.5%	31	2.3%
Hit Other Fixed Object	3,855	3.2%	64	4.8%
Hit Parked Vehicle	6,373	5.3%	37	2.8%
Hit Rock(s) or Obstacle on Roadway	494	0.4%	5	0.4%
Hit Signal/Sign Support	2,199	1.8%	42	3.2%
Hit Snow Bank	599	0.5%	15	1.1%
Hit Temporary Construction Barrier	92	0.1%	1	0.1%
Hit Traffic Island or Channelization	218	0.2%	0	0.0%
Hit Tree(s) or Shrubs/Hedges	9,113	7.5%	297	22.4%
Hit Utility Pole(s)	8,401	6.9%	129	9.7%
Luc B	0.400	0.00/		0.00/
Hit Deer	3,163	2.6%	8	0.6%
Hit Other Animal	202	0.2%	1	0.1%

*Note:* "% Total" lists the percentage compared to *all* crashes or deaths, not only the ones listed in this table. Also note that a single crash can involve a collision with multiple objects.

## —WHERE THEY HAPPENED—

# Crashes by Road Type

	State Hwy (Interstate)	State Hwy (Other)	Turnpike	Local Road	Other
Crashes	9,080	76,539	2,525	33,001	167
Persons Killed	102	988	16	218	0
Persons Injured	5,766	58,161	1,297	22,616	108
Miles of Maintained Road	1,352	39,392	556	81,585	
100 MVM* Traveled	184.5	608.5	57.0	182.9	
Crashes/MVM*	0.49	1.26	0.44	1.80	
Persons Killed/100 MVM*	0.55	1.62	0.28	1.19	
Persons Injured/MVM*	0.31	0.96	0.23	1.24	

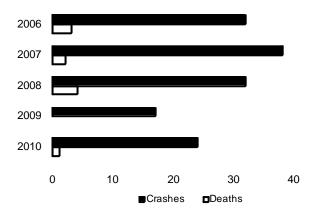
<sup>\*</sup> MVM = million vehicle-miles

*Note:* "State Highway (Other)" includes state-maintained roads that are not designated as interstates. The road mileage and MVM data are from the 2009 Highway Performance Monitoring System (HPMS) package and reflects 2009 length and travel activity data. Ramps are included as part of the roadway to which it is connected.

# All Crashe

### Crashes Between Trains and Other Vehicles—Five-Year Trends

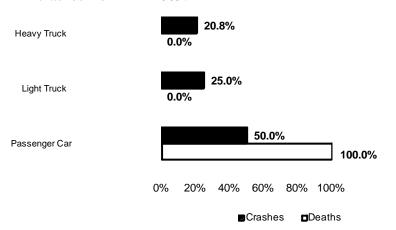
Motor vehicle/train crashes make up a very small percentage of total crashes. In the last five years, only 10 deaths have occurred in this type of crash. In 2010, one death occurred.



Year	Crashes	Deaths
2006	32	3
2007	38	2
2008	32	4
2009	17	0
2010	24	1

# Train/Vehicle Crashes by Vehicle Type

Passenger cars, light trucks, vans, and SUVs were the predominant vehicle types involved in crashes with trains in 2010. In 2010, heavy truck involvement with trains increased to 5 crashes from 2 in 2009.

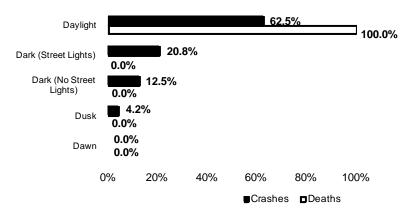


Vehicle Type	Crashes	Deaths
Passenger Car	12	1
Light Truck	6	0
Heavy Truck	5	0
Bicycle	0	0
Commercial Bus	0	0
Motorcycle	0	0
School Bus	0	0
Unknown	1	0
TOTAL	24	1

# Train/Vehicle Crashes by Road Type

Road Type	Crashes	Deaths
Local Road	17	1
State Hwy (Other)	7	0
TOTAL	24	1

# Train/Vehicle Crashes by Light Level



Light Level	Crashes	Deaths
Daylight	15	1
Dark (Street Lights)	5	0
Dark (No Street Lights)	3	0
Dusk	1	0
Dawn	0	0
TOTAL	24	1

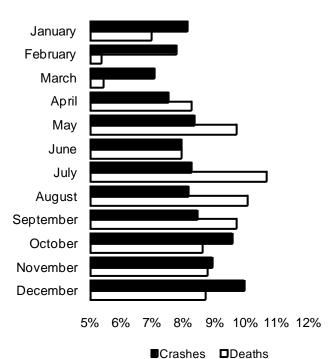
# Train/Vehicle Crashes by County

County	Crashes	Deaths
Allegheny	5	0
Berks	1	0
Erie	3	1
Fayette	1	0
Lehigh	2	0
Mercer	1	0
Montour	1	0
Northampton	2	0
Philadelphia	2	0

County	Crashes	Deaths
Somerset	1	0
Warren	1	0
Washington	2	0
Westmoreland	1	0
York	1	0
Butler	0	0
Cambria	0	0
Cameron	0	0
Carbon	0	0
TOTAL	24	1

#### —WHEN THEY HAPPENED—

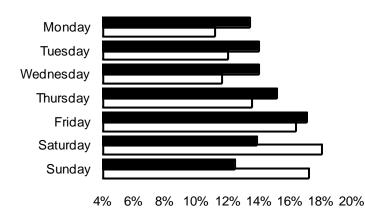
# Crashes by Month



Month	Crashes	Deaths
January	9,848 (8.1%)	92 (7.0%)
February	9,413 (7.8%)	71 (5.4%)
March	8,564 (7.1%)	72 (5.4%)
April	9,101 (7.5%)	109 (8.2%)
Мау	10,135 (8.4%)	128 (9.7%)
June	9,637 (7.9%)	105 (7.9%)
July	9,996 (8.2%)	141 (10.7%)
August	9,890 (8.2%)	133 (10.1%)
September	10,247 (8.5%)	128 (9.7%)
October	11,604 (9.6%)	114 (8.6%)
November	10,806 (8.9%)	116 (8.8%)
December	12,071 (10.0%)	115 (8.7%)
TOTAL	121,312 (100.0%)	1,324 (100.0%)

# Crashes by Day of Week

More crashes occurred on Thursday and Friday. The number of deaths on weekends (Saturday and Sunday) is proportionally greater than the number of crashes. This could be attributed to alcohol use. (See *Victims of Fatal Crashes by Day of Week*, page 29).

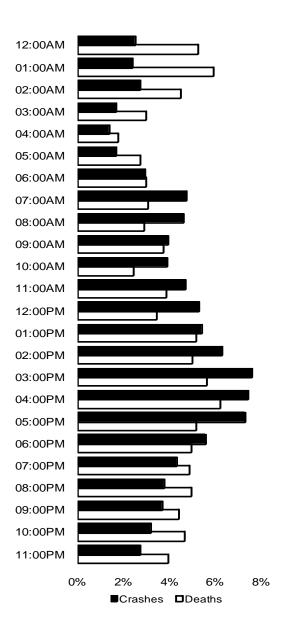


Day	Crashes	Deaths
Monday	16,266 (13.4%)	148 (11.2%)
Tuesday	17,005 (14.0%)	159 (12.0%)
Wednesday	16,993 (14.0%)	154 (11.6%)
Thursday	18,379 (15.2%)	179 (13.5%)
Friday	20,739 (17.1%)	217 (16.4%)
Saturday	16,854 (13.9%)	239 (18.1%)
Sunday	15,076 (12.4%)	228 (17.2%)
TOTAL	121,312 (100.0%)	1,324 (100.0%)

■Crashes ■Deaths

# Crashes by Hour of Day

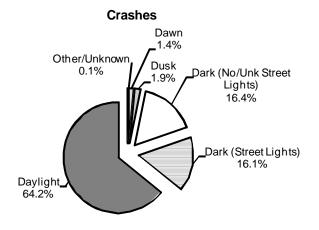
Some hours of the day are more dangerous than others with regard to crashes and deaths. Not surprisingly, crashes and deaths were higher during peak traffic times. Some hours of the day experience a low percentage of crashes, but they are much more deadly. For example, only 2.4% of all crashes in 2010 occurred in the 1:00 AM hour, but 5.9% of all deaths—the second highest percentage—occurred then. The higher volume of traffic itself is a factor during peak traffic hours, particularly the rush-hours.

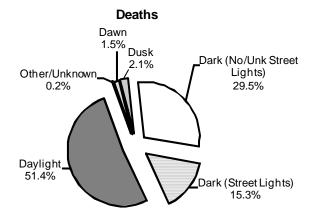


Hour	Crashes	Deaths
12:00AM	3,018	69
01:00AM	2,846	78
02:00AM	3,266	59
03:00AM	2,023	39
04:00AM	1,650	23
05:00AM	1,992	36
06:00AM	3,512	39
07:00AM	5,737	40
08:00AM	5,569	38
09:00AM	4,744	49
10:00AM	4,687	32
11:00AM	5,637	51
12:00PM	6,378	45
01:00PM	6,523	68
02:00PM	7,599	66
03:00PM	9,155	74
04:00PM	8,968	82
05:00PM	8,813	68
06:00PM	6,728	65
07:00PM	5,188	64
08:00PM	4,526	65
09:00PM	4,424	58
10:00PM	3,857	61
11:00PM	3,289	52

# Crashes by Light Level

In 2010, more crashes occurred in daylight than all other light levels combined. This is not surprising, since more vehicles are on the road during daylight. However, deaths in 2010 occurred slightly less often during non-daylight hours (dark and dusk/dawn conditions). If 2010 deaths per 1000 crashes are compared (Daylight—8.7 deaths per 1000 crashes versus Non-Daylight—14.8 deaths per 1000 crashes), it is apparent that non-daylight crashes resulted in deaths more often than daylight crashes.

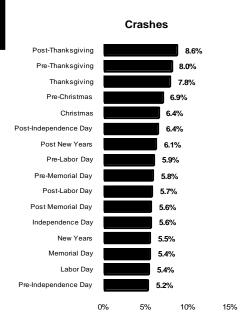




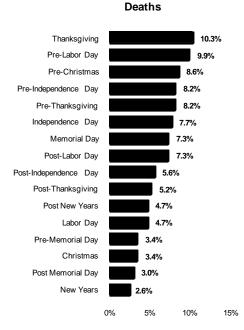
Light Level	Crashes	Deaths
Daylight	77,862	681
Dark (Street Lights)	19,469	202
Dark (No/Unk Street Lights)	19,857	390
Dusk	2,249	28
Dawn	1,712	20
Other/Unknown	163	3
TOTAL	121,312	1,324

# Crashes by Holiday

Crashes increased during holiday periods due to the volume of traffic on the roadway. Many times the weekend before and the weekend after the holiday have nearly as many crashes and fatalities, and sometimes more. The graphs below illustrate the ranking in descending order, of total crashes and deaths, respectively, for each holiday period. The table shows a breakdown of crashes and deaths for each holiday period in 2010.



Period*	Crashes	Deaths
New Years	974	6
Post New Years	1,096	11
Pre-Memorial Day	1,027	8
Memorial Day	962	17
Post Memorial Day	997	7
Pre-Independence Day	919	19
Independence Day	995	18
Post-Independence Day	1,137	13
Pre-Labor Day	1,046	23
Labor Day	955	11
Post-Labor Day	1,012	17
Pre-Thanksgiving	1,425	19
Thanksgiving	1,389	24
Post-Thanksgiving	1,538	12
Pre-Christmas	1,235	20
Christmas	1,149	8
TOTAL	17,856	233



- \* See Holidays under **Definitions** for explanation of pre- and post-holiday weekends.
- \*\* Not part of a holiday weekend in 2010.

#### **Drivers**

#### **Drivers Overview**

Every traffic crash involves 3 elements: the driver, roadway, and vehicle. It has been stated nationally that 85-90% of all traffic crashes involve some sort of driver error that contributes to the crash. Therefore, as drivers, we can greatly impact traffic safety by driving smart and driving defensively.

Of all drivers represented in crashes, the young driver and the mature driver are two groups that stand out. Young drivers (ages 16-21) are the least experienced drivers and they are also prone to over zealous driving performance, perhaps due to their youth and peer pressure. Mature drivers (ages 65 & over) on the other hand experience driving difficulties related to deteriorating physical abilities (eyesight, hearing, head movement, etc.).

# Crashes Involving Driver Error

Some form of poor/degraded driver performance is present in the majority of crashes. Alcohol use and speeding continue to be big contributors to fatal crashes.

Contributing Factor	Crashes	Fatal Crashes
Speed-Related	30,520	597
Drinking Driver	10,501	237
Improper Turning-Related	12,085	81
Distracted Driver	13,806	65
Careless/Illegal Passing	4,069	58
Proceeded Without Clearance	8,135	52
Tailgating	5,414	45
Drowsy Drivers	2,398	17

*Note:* Drinking driver and drowsy driver factors determined from the driver's condition field.

# Single and Multiple Vehicle Crashes of Young and Mature Drivers

As the table below shows, mature drivers are over-represented in multiple vehicle crashes, due in part to the loss of physical and cognitive abilities. Younger drivers are also over-represented in multi-vehicle crashes as younger drivers are more easily distracted while driving.

Number of Vehicles	All Drivers	Young Drivers (16-21)	Mature Drivers (65-74)	Mature Drivers (75+)
Single	45.3%	39.5%	20.3%	20.3%
Vehicle Crash	54,819 crashes	12,436 crashes	2,085 crashes	1,599 crashes
Multiple	54.7%	60.6%	79.7%	79.7%
Vehicle Crash	66,307 crashes	19,087 crashes	8,197 crashes	6,286 crashes

## Drivers in Crashes by Age Group

Looking at the 2010 Pennsylvania driver data, as driver age groups increased in age, the percentage of Pennsylvania total drivers involved in crashes within each age group decreased considerably. Note the percentage of 16-year old drivers involved in crashes. This number is significantly lower than other young driver age groups due to a law enacted in December 1999 that required a mandatory six month waiting period between obtaining a Learner's Permit and testing for licensure. It also reflected the limited time 16-year old drivers used the roads and the more controlled situations in which they are permitted to drive during the permit process. Driver inexperience and less cautious driving often are attributed characteristics given to the reason all young driver ages have higher rates.

Age Group	PA Drivers Involved in Crashes	*PA Total Drivers	% Involved in Crashes
16	1,809	72,331	2.5%
17	5,396	111,134	4.9%
18	6,285	128,894	4.9%
19	6,153	141,042	4.4%
20	5,946	145,819	4.1%
21	5,922	146,139	4.1%
22-24	15,344	431,865	3.6%
25-29	19,827	700,945	2.8%
30-39	29,137	1,349,273	2.2%
40-54	43,459	2,552,266	1.7%
55-59	11,323	827,941	1.4%
60-64	8,730	709,427	1.2%
65-69	5,715	507,674	1.1%
70-74	4,084	380,987	1.1%
75 and Over	7,736	711,580	1.1%
Unknown	155	N/A	N/A

<sup>\*</sup> PA Total Drivers includes total PA Licensed Drivers and PA Drivers who have their Learner's Permit (no driver's license).

# Comparison of Young and Mature Drivers by Crash Type

Young drivers are slightly over-represented in hit fixed object crashes (single vehicle run-off-the-road type crashes), while mature drivers are heavily over-represented in angle and rear-end crashes (multiple vehicle interaction type crashes).

		Young Drivers	Mature Drivers	Mature Drivers
Crash Type	All Drivers	(16-21)	(65-74)	(75+)
Non-Collision	3.9%	2.7%	1.9%	1.0%
	4,666 crashes	862 crashes	197 crashes	81 crashes
Rear-End	22.4%	24.2%	29.2%	24.6%
	27,104 crashes	7,634 crashes	2,998 crashes	1,936 crashes
Head-On	3.8%	4.4%	4.7%	5.2%
	4,562 crashes	1,376 crashes	486 crashes	409 crashes
Backing Up	0.1%	0.1%	0.2%	0.2%
	175 crashes	33 crashes	19 crashes	13 crashes
Angle	26.5%	28.9%	40.2%	46.3%
	32,075 crashes	9,103 crashes	4,133 crashes	3,649 crashes
Sideswipe	5.8%	4.9%	6.5%	5.9%
	7,013 crashes	1,532 crashes	665 crashes	465 crashes
Hit Fixed Object	31.0%	32.2%	12.8%	13.7%
	37,487 crashes	10,135 crashes	1,319 crashes	1,081 crashes
Hit Pedestrian	3.4%	1.1%	2.6%	2.2%
	4,100 crashes	347 crashes	265 crashes	173 crashes
Other	3.3%	1.6%	2.0%	1.0%
	3,944 crashes	501 crashes	200 crashes	78 crashes

<sup>\*</sup> Crash Type refers to the first event of the crash which may or may not be an event of the drivers above.

# Intersection vs. Non-Intersection Crashes of Young and Mature Drivers

In keeping with the data presented previously on single vehicle versus multiple vehicle crashes, mature drivers are more likely to be involved in crashes at intersections compared to other age groups. Intersections can be confusing and problematic for the mature driver, as numerous and complex movements are present.

	All Drivers	Young Drivers (16-21)	Mature Drivers (65-74)	Mature Drivers (75+)
Intersection	38.2%	39.1%	50.4%	53.5%
	46,263 crashes	12,322 crashes	5,182 crashes	4,222 crashes
Non-Intersection	61.8%	60.9%	49.6%	46.5%
	74,863 crashes	19,201 crashes	5,100 crashes	3,663 crashes

### Alcohol-Related Crashes

#### **Alcohol Overview**

- ▶ In Pennsylvania, drinking and driving remains a top safety issue. In 2010, alcohol-related crashes decreased to 12,426 from 12,712 alcohol-related crashes in 2009. Alcohol-related deaths increased to 459 from 449 in 2009.
- ▶ Of particular concern is the involvement of drinking drivers under the age of 21. 31% of the driver deaths in the 16-20 age group were drinking drivers, up from 27% in 2009. Improvement in this age group is a very important need.
- ▶ Of equal focus is the 21 to 25 age group, in which 50% of the driver deaths were drinking drivers. This age group had the second worst percentage of all groups, and was up from 44% in 2009. The 26 to 30 age group decreased to 45% from 51% in 2009.
- ▶ In 2010, alcohol-related deaths were 35% of the total traffic deaths, nearly the same as in 2007, 2008 and 2009.
- ▶ Pennsylvania continues to take an aggressive posture to prevent and deter drinking and driving (particularly through the widespread use of sobriety checkpoints and saturation patrols).

#### 2010 Briefs

- ▶ 459 people died in alcohol-related crashes.
- ▶ 91% of the alcohol-related occupant deaths (drivers and passengers) were in the vehicle driven by the drinking driver; 75% were the drinking drivers themselves.
- ▶ 72% of the drinking drivers in traffic crashes were male.
- ➤ 72% of the alcohol-related crashes were during the hours of darkness, usually on weekends.
- ▶ On average each day, 34 alcohol-related traffic crashes occurred.
- ▶ On average each day, 1.3 persons were killed in alcohol-related traffic crashes.
- ▶ On average each day, 26 persons were injured in alcohol-related traffic crashes.

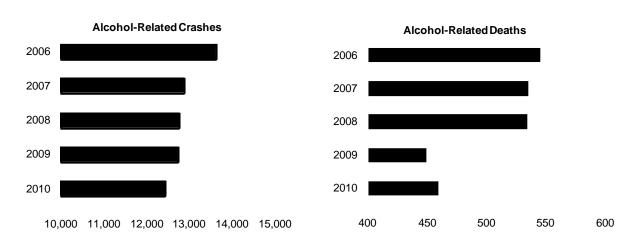
#### Alcohol Involvement in Crashes

Although alcohol-related crashes accounted for approximately 10% of the total crashes in 2010, they resulted in 35% of all persons killed in crashes. Alcohol-related crashes were 4.5 times more likely to result in death than those not related to alcohol (3.3% of the alcohol-related crashes resulted in death, compared to 0.7% of crashes which were not alcohol-related). "PDO Crashes" in the table below refers to property damage only crashes.

	Fatal Crashes	Deaths	Injury Crashes	Injuries	<b>PDO Crashes</b>
Alcohol-Related	408 (33.8%)	459 (34.7%)	6,773 (10.8%)	9,321 (10.6%)	5,245 (9.1%)
Non-Alcohol-Related	800 (66.2%)	865 (65.3%)	55,891 (89.2%)	78,625 (89.4%)	52,191 (90.9%)
TOTAL	1,208 (100.0%)	1,324 (100.0%)	62,664 (100.0%)	87,946 (100.0%)	57,436 (100.0%)

#### Alcohol-Related Crashes—Five-Year Trends

Alcohol-related crashes decreased in 2010, and were the lowest total in the last five years. Alcohol-related crashes are trending in a good direction. Alcohol-related fatalities increased in 2010, and were the second lowest total in the last five years.



	2006	2007	2008	2009	2010
Crashes	13,616	12,867	12,752	12,712	12,426
Fatal Crashes	510	497	498	397	408
Injury Crashes	7,580	7,015	6,911	6,887	6,773
PDO Crashes	5,526	5,355	5,343	5,428	5,245
Deaths	545	535	534	449	459
Injuries	10,529	9,825	9,565	9,536	9,321
Fatal Crashes per 100,000					
Licensed Drivers	6.0	5.8	5.8	4.6	4.7
Deaths per 100,000					
Licensed Drivers	6.4	6.2	6.2	5.2	5.2

#### Victims of Alcohol-Related Fatal Crashes

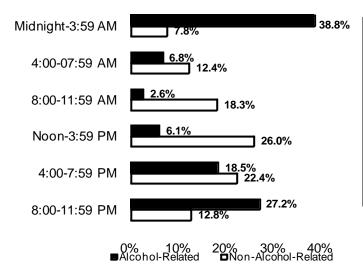
There were 415 driver and passenger deaths in alcohol-related crashes in 2010, while 378 (91%) were the drinking drivers or their passengers.

Persons Involved	Deaths
Drivers	335
Drinking Drivers	313 (93.4%)
Non-Drinking Drivers	22 (6.6%)
Passengers	80
Passengers with Drinking Driver	65 (81.3%)
Passengers with Non-Drinking Driver	15 (18.8%)
Pedestrians	41
Drinking Pedestrian	30 (73.2%)
Non-Drinking Pedestrian	11 (26.8%)
TOTAL DEATHS*	459

<sup>\*</sup>Includes 3 victims, status unknown

# Victims of Fatal Crashes by Time of Day

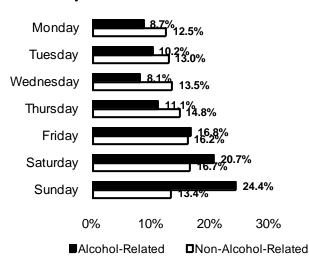
Alcohol-related crashes occurring between 8:00 PM and 4:00 AM produced the vast majority of deaths (66% of alcohol-related deaths). In contrast, just under half of the deaths (48%) from non-alcohol-related crashes resulted from crashes occurring between noon and 8:00 PM.



	Non-	
	Alcohol-	Alcohol-
Time of Occurrence	Related	Related
Midnight-3:59 AM	67	178
4:00-07:59 AM	107	31
8:00-11:59 AM	158	12
Noon-3:59 PM	225	28
4:00-7:59 PM	194	85
8:00-11:59 PM	111	125
Time Unknown	3	0
TOTAL DEATHS	865	459

## Victims of Fatal Crashes by Day of Week

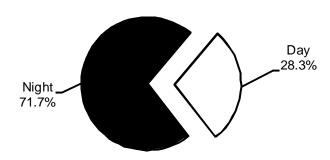
Just under half (45%) of alcohol-related fatal crash victims were the result of crashes occurring on Saturday and Sunday, while fatal crash victims of non-alcohol-related crashes tended to be distributed more evenly throughout the work week with the fewest occurring on Monday.



Day of Occurrence	Non- Alcohol- Related	Alcohol- Related
Monday	108	40
Tuesday	112	47
Wednesday	117	37
Thursday	128	51
Friday	140	77
Saturday	144	95
Sunday	116	112
TOTAL DEATHS	865	459

# Alcohol-Related Crashes—Day vs. Night

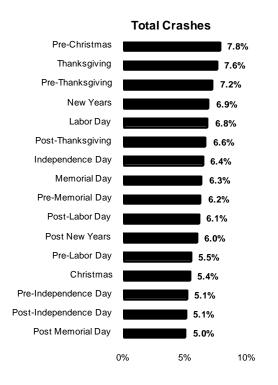
72% of alcohol-related crashes occurred at night. The graph below shows the breakdown of alcohol-related crashes by day and night.



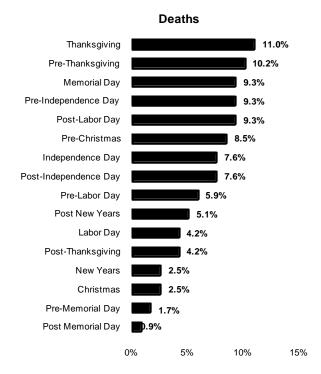
# Alcohol-Related Holiday Crashes

In 2010, 14% of all holiday crashes involved alcohol use; however, 51% of deaths which occurred during holiday weekends were related to alcohol use. (See *Crashes by Holiday*, page 22.)

15%



Period*	Crashes	Deaths
New Years	172	3
Post New Years	149	6
Pre-Memorial Day	156	2
Memorial Day	158	11
Post Memorial Day	125	1
Pre-Independence Day	128	11
Independence Day	161	9
Post-Independence Day	127	9
Pre-Labor Day	137	7
Labor Day	170	5
Post-Labor Day	153	11
Pre-Thanksgiving	180	12
Thanksgiving	189	13
Post-Thanksgiving	166	5
Pre-Christmas	195	10
Christmas	134	3
TOTAL	2,500	118



- \* See Holidays under **Definitions** for explanation of pre- and post-holiday weekends.
- \*\* Not part of a holiday weekend in 2010.

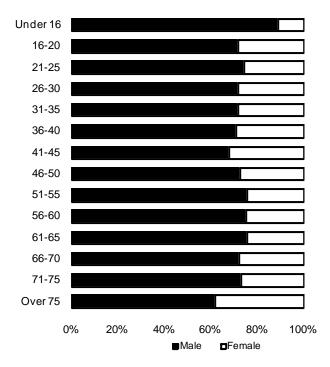
# Driver Involvement in Alcohol-Related Crashes by Vehicle Type

Motorcyclists had the largest percentage of drinking drivers to total drivers compared to the drivers of other types of vehicles. Drinking drivers of passenger cars, light trucks, vans, and sport utility vehicles were also above the average for drivers of all vehicle types. Bus and heavy truck drivers accounted for very few of the drinking drivers in crashes.

	Passenger Car		116,477
	Lt Trk/SUV/Van		68,807
Total Drivers in Crashes	Heavy Truck		6,200
197,827	Motorcycle		4,099
	Bus		976
	Other		1,268
	Passenger Car	7,751	(6.7% of total)
	Lt Trk/SUV/Van	4,701	(6.8% of total)
Drinking Drivers in Crashes	Heavy Truck	62	(1.0% of total)
13,029 (6.6% of total)	Motorcycle	442	(10.8% of total)
	Bus	10	(1.0% of total)
	Other	63	(5.0% of total)

# Drinking Drivers in Crashes by Age and Sex

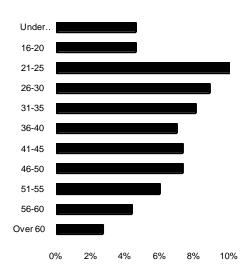
In 2010, roughly three out of four drinking drivers in crashes were male (across most age groups), with only slight variations among the age groups. The table below does not include an additional 134 drivers for whom age and/or sex were not known.



Age Group	Male	Female	Total
Under 16	8	1	9
16-20	901	353	1,254
21-25	2,170	752	2,922
26-30	1,322	519	1,841
31-35	925	364	1,289
36-40	777	322	1,099
41-45	799	380	1,179
46-50	870	330	1,200
51-55	661	215	876
56-60	388	127	515
61-65	243	78	321
66-70	125	48	173
71-75	76	28	104
Over 75	70	43	113
Total	9,335	3,560	12,895

# Drinking Drivers vs. Non-Drinking Drivers Involved in Crashes by Age Group

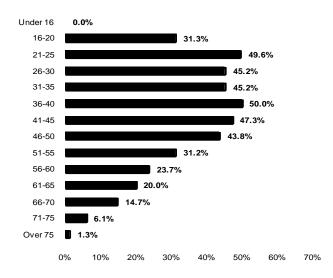
In 2010, as the table and graph below show, the two age groups from 21 to 30 had the highest percentage of drinking drivers within their respective age groups. After age 40, the percentage of drinking drivers within the succeeding age groups steadily declined. The Under 16 age group continues to be of particular concern, as it included 10 drinking drivers.



Age Group	Drinking Driver	Non-Drinking Driver
Under 16	10 (4.6%)	208 (95.4%)
16-20	1,255 (4.6%)	25,921 (95.4%)
21-25	2,926 (10.2%)	25,649 (89.8%)
26-30	1,841 (8.9%)	18,874 (91.1%)
31-35	1,289 (8.0%)	14,750 (92.0%)
36-40	1,100 (6.9%)	14,759 (93.1%)
41-45	1,180 (7.3%)	14,971 (92.7%)
46-50	1,202 (7.3%)	15,280 (92.7%)
51-55	876 (6.0%)	13,795 (94.0%)
56-60	516 (4.4%)	11,323 (95.6%)
Over 60	711 (2.7%)	25,527 (97.3%)

# Drinking Driver Deaths as a Percentage of Total Driver Deaths, by Age Group

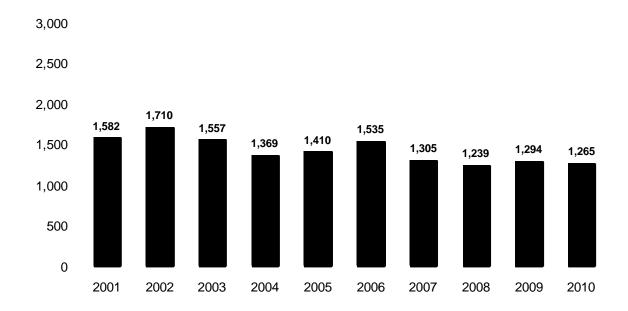
The graph below shows drinking driver deaths as a percentage of total driver deaths within each respective age group for 2010 crashes. The age group from 36 to 40 had the highest percentage, with 50% of the driver deaths in this age group being a drinking driver. The 16-20 age group increased from 27.4% in 2009. In 2010, there were no drivers under the age of 16 who chose to combine alcohol usage and driving without a license.



# Alcohol-Related

# Underage Drinking Drivers in Pennsylvania Crashes—Historical Data

Act 31, commonly known as the "Underage Drinking Law," went into effect on May 24, 1988. From that year, and until 1994, the number of underage drinking drivers involved in Pennsylvania crashes declined each year. From 1997 until 2002, the amount of underage drinking drivers remained consistently high. From that point until 2008 there has been a downward trend with 2005 and 2006 disrupting the steady decrease.



*Note:* Beginning with 2003 data, alcohol involvement criteria changed to account for both BAC levels and suspected involvement when BAC is unknown. The effect can mostly be seen in the alcohol related fatalities for years 2003 and after.

# Seat Belts, Child Safety Seats, and Air Bags

#### Restraints Overview

#### Safety Belts

- Pennsylvania's seat belt law requires drivers and front seat passengers to be properly buckled up when riding in a passenger car, Class 1 and Class 2 truck, or motor home. Children age 8 and older, but under age 18, are required to be secured in a seat belt system anywhere in the vehicle due to law that became effective on February 21, 2003.
- A driver who is under 18 years of age may not operate a motor vehicle in which the number of passengers exceeds
  the number of available seat belts in the vehicle.
- The combination of lap/shoulder seat belts, when used, reduces the risk of fatal injury to front seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%. For light truck occupants, seat belts reduce the risk of fatal injury by 60% and moderate-to-critical injury by 65%.
- All passengers should wear a seat belt whenever riding in a motor vehicle—even for short distances. Three out of four crashes occur within 25 miles of home.
- If everyone would wear seat belts when riding in a motor vehicle, hundreds of lives in Pennsylvania alone would be saved (see page 36). Research shows that children are likely to be buckled 92% of the time when adults are buckled and only 72% of the time when adults are *not* buckled. Everyone should buckle up, every time!

#### Child Safety Seats

- Pennsylvania law requires children under the age of four to be properly restrained in a child passenger restraint
  system whenever riding anywhere in the vehicle. Children age four and older, but under age eight, are required to
  be in an appropriately fitting child booster seat whenever riding anywhere in the vehicle due to law that became
  effective on February 21, 2003.
- Research shows that child safety seats, when properly installed, reduce the risk of death by 71% for infants and 54% for toddlers.
- When placing a child safety seat in a vehicle, follow the manufacturer's instructions for the vehicle and the child safety seat instructions exactly. There are different types of child safety seats—infant, convertible, and booster. Children under 1 year of age and 20 pounds should ride in a rear-facing position. Toddlers should ride forward-facing and upright from age 1 to about 40 pounds. Small children should use a belt positioning booster seat from 40 pounds to about 80 pounds and 4 feet 9 inches tall. The belt positioning booster seat must be used with a lap/shoulder belt.
- Children should ride in the rear seat whenever possible, and should always be properly buckled.

#### Air Bag Safety

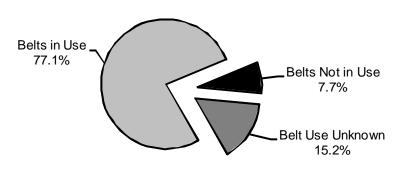
- Driver and front seat passenger air bags have been a requirement in new passenger cars since 1998 and light trucks since 1999. However, air bags are supplemental protection devices. Everyone should still buckle up with both lap and shoulder belts on every trip.
- Child Safety
  - Children age 12 and under should ride buckled up in the back seat.
  - Infants in rear-facing child safety seats should NEVER ride in the front seat of a vehicle equipped with a
    passenger-side air bag.
  - o If an older child must ride in a front seat equipped with a passenger-side air bag, put the child in a front-facing seat or belt-positioning booster seat for the proper weight of the child, or use a correctly fitting lap/shoulder belt, **and** move the vehicle seat as far back as possible.
- Adult Safety
  - Everyone should buckle up with both lap and shoulder belts on every trip.
  - The lap belt should be worn under the abdomen and low across the hips. The shoulder portion should come over the collarbone away from the neck and cross over the breastbone.
  - O Driver and front passenger seats should be moved as far back as practical, particularly for shorter people.

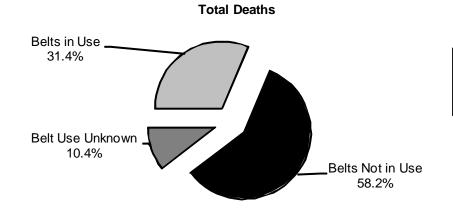
# Seat Belts, Etc.

#### Seat Belt Use in Crashes—Total People Involved

Seat belts have proven to be effective in reducing the severity of injuries sustained in a crash. In 2010, as shown in the two pie graphs below, 77.1% of all people involved in crashes were wearing seat belts. Many more people not wearing seat belts died in crashes than those who did. The table at the bottom shows the total number of people involved in crashes in 2010 by severity of injury and belt use.

#### **Total People Involved in Crashes**





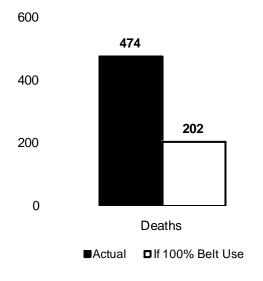
	Belts in Use	Belts Not in Use	Belt Use Unknown
Killed	283	525	94
Major Injury	1,180	899	385
Moderate Injury	7,456	2,462	1,428
Minor Injury	30,637	4,560	4,810
Unk Injury Sev	15,178	2,464	5,087
No Injury	152,279	9,755	28,895
TOTAL	207,013	20,665	40,699

*Note:* Vehicles involved include passenger cars, light trucks, SUVs, vans, and heavy trucks. "Belts Not Available" is included in "Belts Not In Use".

#### Seat Belt Use in Crashes—Impact on Deaths and Injuries

The table and graph below give estimates of the impact that 100% seat belt use would have on traffic deaths and injuries. The numbers in parentheses, in the last row of the table below, are the estimated decreases in 2010 deaths and injuries if 100% seat belt use was achieved. (Note: The data below is for passenger cars only.) The estimated economic savings of 100% belt use for occupants of just passenger cars in 2010 would have been \$2,273,179,328 or approximately \$180 for every man, woman, and child in Pennsylvania. More importantly, 272 people would have survived if they had worn their belts.

		Injuries			
	Deaths	Major	Moderate	Minor	None
Belts Used	184	711	4,597	28,363	79,138
Belts Not Used	290	498	1,512	4,415	5,298
TOTAL	474	1,209	6,109	32,778	84,436
If 100% Belt Use	202	794	5,132	31,375	87,503
Net Increase/(Decrease)	(272)	(415)	(977)	(1,403)	3,067



*Note:* PENNDOT's cost estimating procedures were revised in 2008 dollars. "No Belts" is included in "Belts Not Used".

#### Seat Belt Use in Crashes—Historical Data

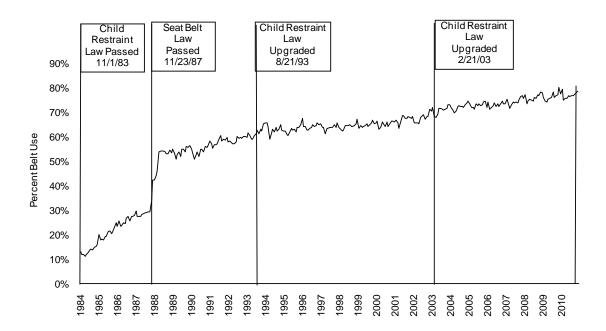
On November 1, 1983, Pennsylvania passed a primary law requiring drivers to secure children under age four in an approved child passenger restraint system when riding in a passenger car, Class I truck, Class II truck, classic motor vehicle, antique motor vehicle, or motor home registered in Pennsylvania. Children ages one to four could be in the back seat in a child safety belt in lieu of a child passenger restraint system. Fines took effect January 1, 1985.

On November 23, 1987, Pennsylvania passed a safety belt law. The law requires the driver and front seat passengers of a passenger car, Class I and Class II trucks, or motor home to wear a properly-adjusted and fastened safety belt. The driver is responsible for securing children ages four to eighteen in a safety belt when riding in the front seat. This is a secondary violation. Fines took effect March 23, 1988.

Effective August 21, 1993, the child passenger restraint law was upgraded to require all drivers (not just those with vehicles registered in Pennsylvania) to secure a child up to age four in a child passenger restraint system when sitting anywhere in the vehicle.

Effective February 21, 2003, the child passenger restraint law was upgraded to require children ages 4 through 7 to be in an appropriately fitting child booster seat and those children ages 8 through 17 to be secured in a seat belt system whenever riding anywhere in a vehicle.

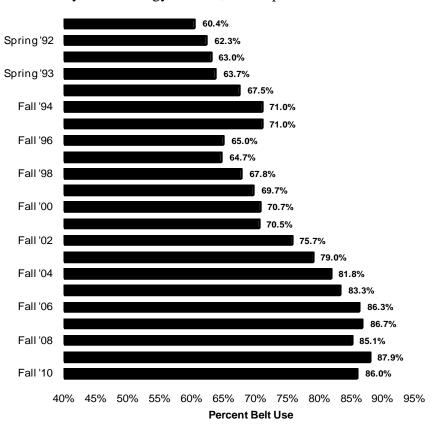
The graph below shows the percentage of seat belt users in Pennsylvania since 1983. A sharp upward trend was experienced in the year following the passage of the seat belt law. The recent trend shows that the usage rate is still on the rise in crashes.



*Note:* Data shown for passenger cars only.

#### Seat Belt Observational Surveys—Historical Data

Observed seat belt use (the percent of front seat vehicle occupants wearing seat belts) is based upon a statewide statistical sampling of front seat occupants in passenger cars and light trucks. The observed seat belt use in 2008 is slightly lower than the previous two years, most likely due to the redesign of the study methodology in 2008, which provided more detailed accounts.



#### Child Passenger Restraints in Crashes—Five Year Data

Since August 21, 1993, all drivers traveling in Pennsylvania have been required to secure children up to age four in a child passenger restraint system while sitting anywhere in the vehicle. As shown in the table below (for 2006-2010 crashes involving children under age four), the percentages of deaths and injuries (within restraint type by row) were lower when restraints were used. From 2006-2010, 82% of the children under age four who were involved in crashes and restrained in a child seat sustained no injury.

			Injuries				
Child Restraint	Deaths	Major	Moderate	Minor	Unknown	No Injury	Persons
Child Seat In Use	15 (0.1%)	62 (0.2%)	230 (0.9%)	2,155 (8.0%)	2,510 (9.4%)	21,844 (81.5%)	26,816
No Restraint In Use	5 (0.3%)	21 (1.1%)	41 (2.1%)	238 (12.2%)	479 (24.6%)	1,161 (59.7%)	1,945
Other Restraint In Use	1 (0.1%)	7 (0.5%)	29 (1.9%)	183 (12.0%)	146 (9.6%)	1,154 (75.9%)	1,520

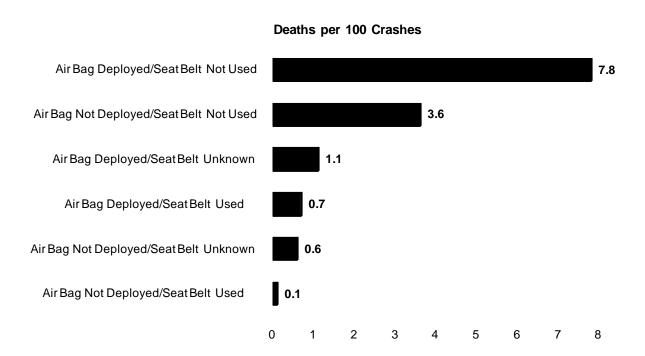
*Note*: "Child Seat Not In Use" and "Other Restraint Not In Use" have been combined into "No Restraint in Use".

#### Air Bag Deployment in Crashes—Injuries and Deaths

Air bags are becoming more prevalent for vehicles in crashes due to the manufacturing laws of the late 1990s, but many vehicles in crashes still do not have airbags as there are still many older vehicles in use. Additionally, not all seats in a vehicle have an air bag. The table and graph below show the safety benefits of wearing a seat belt, both with and without air bag deployment. (Table percentages are listed within restraint type by row.)

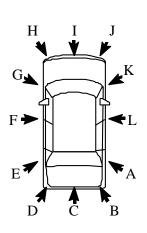
Passive Restaint	Seat Belt			lnji	uries			Total
Status	Status	Deaths	Major	Moderate	Minor	Unknown	No Injury	Persons
None	n/a	265 (0.2%)	776 (0.7%)	3,818 (3.4%)	13,952 (12.4%)	11,912 (10.6%)	82,091 (72.8%)	112,814
Air Bag Deployed	Used	173 (0.4%)	636 (1.5%)	3,341 (8.1%)	10,347 (25.0%)	5,000 (12.1%)	21,857 (52.9%)	41,354
Air Bag Deployed	Not Used	262 (5.3%)	380 (7.7%)	892 (18.1%)	1,339 (27.1%)	771 (15.6%)	1,299 (26.3%)	4,943
Air Bag Deployed	Unknown	39 (0.7%)	148 (2.8%)	450 (8.5%)	1,060 (20.0%)	1,396 (26.3%)	2,221 (41.8%)	5,314
Air Bag Not Deployed	Used	46 (0.1%)	258 (0.3%)	1,931 (2.4%)	10,346 (13.1%)	5,071 (6.4%)	61,557 (77.7%)	79,209
Air Bag Not Deployed	Not Used	82 (2.1%)	136 (3.5%)	436 (11.1%)	1,028 (26.2%)	495 (12.6%)	1,742 (44.5%)	3,919
Air Bag Not Deployed	Unknown	14 (0.3%)	42 (1.0%)	150 (3.7%)	548 (13.4%)	645 (15.8%)	2,689 (65.8%)	4,088
Unknown If Deployed	n/a	19 (1.1%)	44 (2.6%)	114 (6.6%)	268 (15.6%)	248 (14.4%)	1,028 (59.7%)	1,721

In crashes that are severe enough to deploy an airbag (for vehicles and seats so equipped), the data below shows that you are over 10 times more likely to die if you are not wearing a seat belt (7.8 deaths vs. 0.7 deaths per 100 crashes).



#### Air Bag Deployment by Initial Vehicle Impact Point

Most air bags are designed to deploy in frontal impacts, but side impact air bags are also common for newer model year vehicles. The table below shows the initial vehicle impact points for all 2010 crashes. It is probable that a vehicle which is initially impacted in the rear may be pushed into the vehicle in front (secondary impact), thus deploying the air bag (such as the 1047 occasions in which air bags deployed in center rear impacts).



		Air Bag	Air Bag	Air Bag	
		Not	Present	Present, Not	Unknown/
Impact Point	Vehicles	Present	Deployed	Deployed	Other
Right Side Rear (A)	2,464	816	371 (27.3%)	986 (72.7%)	291
Right Rear (B)	4,852	1,750	433 (16.8%)	2,143 (83.2%)	526
Center Rear (C)	28,986	10,378	1,047 (6.7%)	14,488 (93.3%)	3,073
Left Rear (D)	4,673	1,713	387 (15.6%)	2,093 (84.4%)	480
Left Side Rear (E)	2,389	814	343 (26.2%)	968 (73.8%)	264
Left Side Center (F)	6,298	2,114	1,127 (33.7%)	2,220 (66.3%)	837
Left Side Forward (G)	6,321	1,917	1,297 (35.2%)	2,383 (64.8%)	724
Left Front (H)	25,067	7,248	6,466 (42.6%)	8,729 (57.5%)	2,624
Center Front (I)	61,422	15,607	20,616 (53.1%)	18,230 (46.9%)	6,969
Right Front (J)	23,874	6,829	6,574 (46.3%)	7,635 (53.7%)	2,836
Right Side Forward (K)	9,402	2,997	2,033 (39.0%)	3,176 (61.0%)	1,196
Right Side Center (L)	7,464	2,415	1,485 (36.9%)	2,535 (63.1%)	1,029
Other	5,199	1,400	800 (32.5%)	1,662 (67.5%)	1,337
None	3,509	1,344	235 (13.1%)	1,565 (86.9%)	365
TOTAL	191,920	57,342	43,214 (38.6%)	68,813 (61.4%)	22,551

#### Air Bag Deployment by Age Group

While air bags are an important safety feature, they must be used with a seat belt for maximum effectiveness. Air bag deployment without seat belts can be dangerous. As the table below shows (from a percentage perspective), people using seat belts were less likely to suffer moderate and major injuries, and even death, during crashes involving air bag deployment. (Percentages listed in the table are by age group.)

Seat Belts	Used						
				Injuries			Total
Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	Persons
0-4	0 (0.0%)	1 (2.6%)	1 (2.6%)	13 (34.2%)	4 (10.5%)	19 (50.0%)	38
5-8	0 (0.0%)	0 (0.0%)	6 (6.3%)	31 (32.3%)	10 (10.4%)	49 (51.0%)	96
9-12	1 (0.3%)	1 (0.3%)	14 (4.6%)	96 (31.2%)	45 (14.6%)	151 (49.0%)	308
13-64	107 (0.3%)	536 (1.5%)	2,804 (7.7%)	9,003 (24.6%)	4,165 (11.4%)	19,975 (54.6%)	36,590
65-74	20 (0.9%)	38 (1.8%)	246 (11.5%)	584 (27.2%)	390 (18.2%)	868 (40.5%)	2,146
75+	45 (2.1%)	60 (2.8%)	270 (12.4%)	620 (28.5%)	386 (17.7%)	795 (36.5%)	2,176
Total	173 (0.4%)	636 (1.5%)	3,341 (8.1%)	10,347 (25.0%)	5,000 (12.1%)	21,857 (52.9%)	41,354

Seat Belts	Not Used						
				Injuries			Total
Age Group	Deaths	Major	Moderate	Minor	Unknown	No Injury	Persons
0-4	0 (0.0%)	0 (0.0%)	1 (10.0%)	1 (10.0%)	4 (40.0%)	4 (40.0%)	10
5-8	0 (0.0%)	0 (0.0%)	1 (14.3%)	2 (28.6%)	2 (28.6%)	2 (28.6%)	7
9-12	0 (0.0%)	2 (8.7%)	1 (4.4%)	7 (30.4%)	6 (26.1%)	7 (30.4%)	23
13-64	215 (4.6%)	357 (7.7%)	840 (18.1%)	1,270 (27.4%)	715 (15.4%)	1,233 (26.6%)	4,630
65-74	19 (14.4%)	11 (8.3%)	24 (18.2%)	24 (18.2%)	23 (17.4%)	31 (23.5%)	132
75+	28 (19.9%)	10 (7.1%)	25 (17.7%)	35 (24.8%)	21 (14.9%)	22 (15.6%)	141
Total	262 (5.3%)	380 (7.7%)	892 (18.1%)	1,339 (27.1%)	771 (15.6%)	1,299 (26.3%)	4,943

#### Peds & Bikes

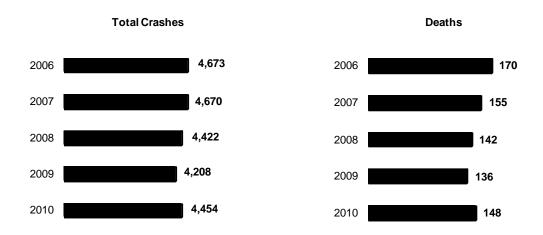
#### Pedestrian and Bicycle Crashes

#### Pedestrian and Bicycles Overview

- ▶ Pedestrian-related crashes represent 3.7% of the total reported traffic crashes; however, they account for 11.2% of all traffic crash deaths. (See also *Pennsylvania County Crashes*, pages 62, 63, and 68.)
- ▶ Bicycle crashes represent 1.2% of the total reported crashes and 1.6% of all traffic deaths. Although these percentages are small, they still represent 21 bicyclist deaths and 1,474 injuries in 2010.

#### Pedestrian Crashes—Five-Year Trends

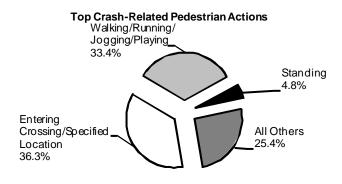
Reported crashes involving pedestrians has slightly decreased in four of the last five years. Pedestrian deaths have fluctuated over the same period, and have gone up in the last year.



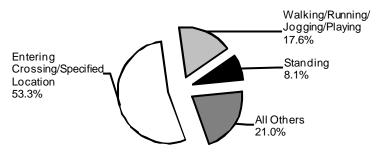
Year	<b>Total Crashes</b>	Deaths
2006	4,673	170
2007	4,670	155
2008	4,422	142
2009	4,208	136
2010	4,454	148

#### Pedestrian-Related Crashes

Referring to the table and pie charts below, most pedestrian crashes and deaths occur while pedestrians are "entering crossing/specified location." This means that a pedestrian was most likely crossing the street at an intersection, mid-block crossing, or driveway entrance.



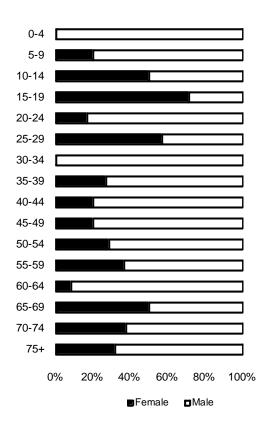
#### **Top Fatal Pedestrian Actions**



Pedestrian Action	Deaths	Pedestrians Involved
Entering Crossing/Specified Location	79	1,698
Walking/Running/Jogging/Playing	26	1,560
Working	5	72
Pushing a Vehicle	0	8
Working on Vehicle	1	27
Standing	12	226
Approaching/Leaving a Vehicle	6	173
Other/Unknown	19	909
Total	148	4,673

#### Pedestrian Deaths by Age and Sex

Pedestrians aged 75 and over represent a sizable portion of pedestrian deaths as seen in the chart below. Overall, male pedestrian deaths were 70% of all pedestrian deaths, up from 64% in 2009. *Note:* Pedestrians of unknown sex are not included in the numbers below.



Age Group	Female	Male	Total
0-4	0	4	4
5-9	1	4	5
10-14	2	2	4
15-19	5	2	7
20-24	1	5	6
25-29	4	3	7
30-34	0	1	1
35-39	3	8	11
40-44	1	4	5
45-49	3	12	15
50-54	4	10	14
55-59	7	12	19
60-64	1	11	12
65-69	2	2	4
70-74	3	5	8
75 and over	8	17	25
Unknown	0	1	1
TOTAL	45	103	148

#### Pedestrian Injury Severity by Municipality Type

The majority of pedestrians are injured in cities; however, the percentage of pedestrian deaths in townships is higher, perhaps due to higher vehicle speeds on rural roads.

<b>Municipality Type</b>	Deaths	Injuries	Non-Injury	Total
City	51 (34.5%)	2,901 (64.8%)	27 (52.9%)	2,979 (63.8%)
Borough/Town	16 (10.8%)	707 (15.8%)	8 (15.7%)	731 (15.6%)
Township	81 (54.7%)	857 (19.2%)	16 (31.4%)	954 (20.4%)
Other	0 (0.0%)	9 (0.2%)	0 (0.0%)	9 (0.2%)
TOTAL	148 (100.0%)	4,474 (100.0%)	51 (100.0%)	4,673 (100.0%)

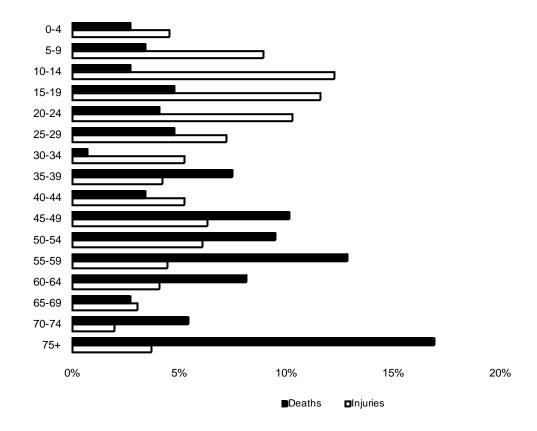
*Note:* "Other" includes colleges/universities, parks, etc.

#### Pedestrian Deaths and Injuries by Age

Elderly pedestrians, although involved in fewer pedestrian crashes, are more likely to be killed if struck by a moving vehicle. Younger pedestrians (age 19 and under) account for 37% of the pedestrian injuries.

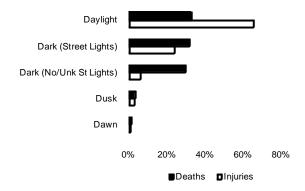
Pedestrian Age	Deaths	Injuries
0-4	4 (2.7%)	202 (4.5%)
5-9	5 (3.4%)	398 (8.9%)
10-14	4 (2.7%)	547 (12.2%)
15-19	7 (4.7%)	517 (11.6%)
20-24	6 (4.1%)	460 (10.3%)
25-29	7 (4.7%)	321 (7.2%)
30-34	1 (0.7%)	234 (5.2%)
35-39	11 (7.4%)	187 (4.2%)
40-44	5 (3.4%)	232 (5.2%)
45-49	15 (10.1%)	282 (6.3%)
50-54	14 (9.5%)	271 (6.1%)
55-59	19 (12.8%)	197 (4.4%)
60-64	12 (8.1%)	181 (4.1%)
65-69	4 (2.7%)	134 (3.0%)
70-74	8 (5.4%)	87 (1.9%)
75 and over	25 (16.9%)	164 (3.7%)
Unknown	1 (0.7%)	60 (1.3%)
TOTAL	148 (100.0%)	4,474 (100.0%)

*Note:* The totals in the table do not include an additional 51 pedestrians who were not killed or injured or where their injury severity was unknown.



#### Pedestrian Deaths and Injuries by Light Level

The majority of pedestrians were injured in the daytime (65.5%), but more pedestrian deaths occurred during non-daylight hours (66.9%). As shown in the bar chart, pedestrians were more likely to be killed if struck in a non-daylight crash as compared to a day crash.

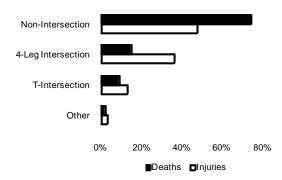


Light Level	Deaths	Injuries
Dawn	2 (1.4%)	33 (0.7%)
Daylight	49 (33.1%)	2,931 (65.5%)
Dark (Street Lights)	47 (31.8%)	1,074 (24.0%)
Dark (No/Unk St Lights)	44 (29.7%)	279 (6.2%)
Dusk	5 (3.4%)	141 (3.2%)
Other/Unknown	1 (0.7%)	16 (0.4%)
TOTAL	148 (100.0%)	4,474 (100.0%)

**Note:** The totals in the table do not include an additional 51 pedestrians who were not killed or injured or where their injury severity was unknown.

#### Pedestrian Deaths and Injuries by Intersection Type

Over 74% of pedestrian deaths and 47% of pedestrian injuries occurred in areas other than intersections. "Non-intersections" as used below includes mid-block crossings, driveway crossings, etc.

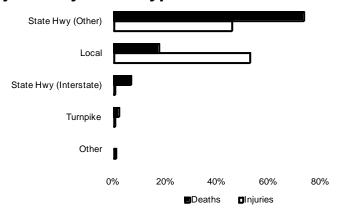


Intersection	Deaths	Injuries
Non-Intersection	110 (74.3%)	2,123 (47.5%)
4-Leg Intersection	22 (14.9%)	1,617 (36.1%)
T-Intersection	13 (8.8%)	589 (13.2%)
Other	3 (2.0%)	145 (3.2%)
TOTAL	148 (100.0%)	4,474 (100.0%)

*Note:* The totals in the table do not include an additional 51 pedestrians who were not killed or injured or where their injury severity was unknown.

#### Pedestrian Deaths and Injuries by Road Type

As the graph shows, over half of pedestrians were injured on local roads, whereas the majority of pedestrian deaths occurred on non-interstate state roadways.

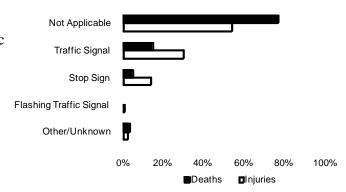


*Note:* The totals in the table do not include an additional 51 pedestrians who were not killed or injured or where their injury severity was unknown.

Road Type	Deaths Injuries		
State Hwy (Other)	109 (73.7%)	2,053 (45.9%)	
Local	26 (17.6%)	2,368 (52.9%)	
State Hwy (Interstate)	10 (6.8%)	15 (0.3%)	
Turnpike	3 (2.0%)	5 (0.1%)	
Other	0 (0.0%)	33 (0.7%)	
TOTAL	148 (100.0%)	4,474 (100.0%)	

#### Pedestrian Deaths and Injuries

As the graph shows, most pedestrian deaths and injuries occurred in areas without traffic control devices (TCDs). These areas accounted for 114 pedestrian deaths and 2,406 injuries.



*Note:* The totals in the table do not include an additional 51 pedestrians who were not killed or injured or where their injury severity was unknown.

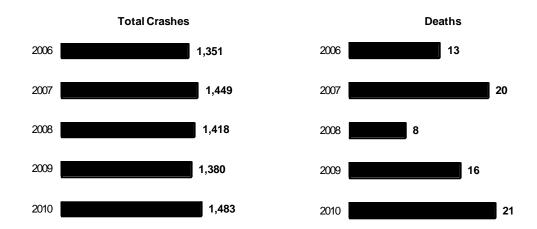
<b>Traffic Control Device</b>	Deaths	Injuries	
Not Applicable	114 (77.0%)	2,406 (53.8%)	
Traffic Signal	22 (14.9%)	1,332 (29.8%)	
Stop Sign	7 (4.7%)	619 (13.8%)	
Flashing Traffic Signal	0 (0.0%)	16 (0.4%)	
Other/Unknown	5 (3.4%)	101 (2.3%)	
TOTAL	148 (100.0%)	4,474 (100.0%)	

#### Peds & Bikes

#### Bicycle Crashes—Five-Year Trends

The total number of bicycle crashes increased in 2010, but remained very consistent over the last five years; bicycle deaths have fluctuated over the same time period, but in 2008 were the lowest.

Year	<b>Total Crashes</b>	Deaths
2006	1,351	13
2007	1,449	20
2008	1,418	8
2009	1,380	16
2010	1,483	21



#### Bicycle Deaths and Injuries by Age

Children ages 5 to 14 were the most vulnerable to death and injury while riding a bicycle. Almost a fourth of the injuries involving bicycles were suffered by this age group. Sadly, 3 of the 21 bicyclist deaths were in this age group. Another vulnerable group, persons ages 15 to 19, suffered 3 deaths and accounted for 18% of the total injuries.

Victim's Age	Deaths	Injuries
0-4	0 (0.0%)	8 (0.5%)
5-9	0 (0.0%)	114 (7.7%)
10-14	3 (14.3%)	246 (16.7%)
15-19	3 (14.3%)	263 (17.8%)
20-34	4 (19.1%)	430 (29.2%)
35-44	1 (4.8%)	142 (9.6%)
45-54	5 (23.8%)	160 (10.9%)
55-64	5 (23.8%)	71 (4.8%)
65-74	0 (0.0%)	14 (1.0%)
75+	0 (0.0%)	8 (0.5%)
Unknown	0 (0.0%)	18 (1.2%)
TOTAL	21 (100.0%)	1,474 (100.0%)

The totals in the table do not include an additional 18 bicyclists who were not killed or injured or where their injury severity was unknown.

#### Bicycle Deaths and Injuries by Light Level

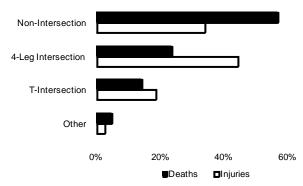
The majority of bicyclists were injured during the day. However, several of the deaths occurred during non-daylight conditions. These deaths totaled 29% of total bicyclist deaths in 2010 compared to 63% in 2009.

Light Level	Deaths	Injuries
Dawn	0 (0.0%)	6 (0.4%)
Daylight	15 (71.4%)	1,122 (76.1%)
Dark (Street Lights)	3 (14.3%)	237 (16.1%)
Dark (No/Unk St Lights)	2 (9.5%)	54 (3.7%)
Dusk	1 (4.8%)	52 (3.5%)
Other/Unknown	0 (0.0%)	3 (0.2%)
TOTAL	21 (100.0%)	1,474 (100.0%)

*Note:* The totals in the table do not include an additional 18 bicyclists who were not killed or injured or where their injury severity was unknown.

#### Bicycle Deaths and Injuries by Intersection

The majority of bicyclists are injured at intersections; but in 2010, as in many of the past few years, most deaths occurred at non-intersections.



Intersection	Deaths	Injuries
Non-Intersection	12 (57.1%)	503 (34.1%)
4-Leg Intersection	5 (23.8%)	656 (44.5%)
T-Intersection	3 (14.3%)	276 (18.7%)
Other	1 (4.8%)	39 (2.7%)
TOTAL	21 (100.0%)	1,474 (100.0%)

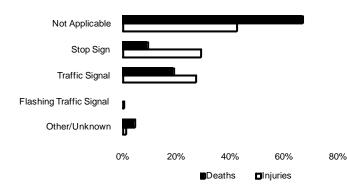
*Note:* The totals in the table do not include an additional 18 bicyclists who were not killed or injured or where their injury severity was unknown.

#### Peds & Bikes

#### Bicycle Deaths and Injuries by Traffic Control Device

In 2010, injuries occurred pretty evenly at traffic control devices (TCD) and where there were no controls, but 67% of deaths occurred where there were no controls.

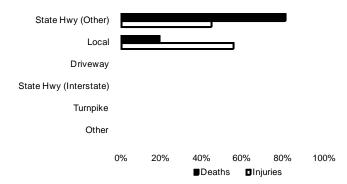
<b>Traffic Control Device</b>	Deaths	Injuries
Not Applicable	14 (66.7%)	627 (42.5%)
Stop Sign	2 (9.5%)	426 (28.9%)
Traffic Signal	4 (19.1%)	399 (27.1%)
Flashing Traffic Signal	0 (0.0%)	2 (0.1%)
Other/Unknown	1 (4.8%)	20 (1.4%)
TOTAL	21 (100.0%)	1,474 (100.0%)



*Note:* The totals in the table do not include an additional 18 bicyclists who were not killed or injured or where their injury severity was unknown.

#### Bicycle Deaths and Injuries by Road Type

81% of the deaths of bicyclists occurred on state roads in 2010, while 55% of the injuries occurred on non-state roads.



*Note:* The totals in the table do not include an additional 18 bicyclists who were not killed or injured or where their injury severity was unknown.

Road Type	Deaths	Injuries
State Hwy (Other)	17 (81.0%)	660 (44.8%)
Local	4 (19.1%)	814 (55.2%)
Driveway	0 (0.0%)	0 (0.0%)
State Hwy (Interstate)	0 (0.0%)	0 (0.0%)
Turnpike	0 (0.0%)	0 (0.0%)
Other	0 (0.0%)	0 (0.0%)
TOTAL	21 (100.0%)	1,474 (100.0%)

# Crashes by Vehicle

#### Crashes by Motor Vehicle Type

#### Vehicle Crashes by Vehicle Types

	Fatal Crashes	Injury Crashes	<b>PDO Crashes</b>	<b>Total Crashes</b>
Passenger Car	52.7%	72.6%	73.2%	72.7%
	637 crashes	45,473 crashes	42,036 crashes	88,146 crashes
Lt Trk/Van/SUV	44.6%	47.4%	47.6%	47.5%
	539 crashes	29,721 crashes	27,325 crashes	57,585 crashes
Heavy Truck	12.0%	4.5%	5.0%	4.8%
	145 crashes	2,807 crashes	2,894 crashes	5,846 crashes
Bicycle	1.7%	2.3%	0.0%	1.2%
	21 crashes	1,460 crashes	2 crashes	1,483 crashes
Motorcycle	17.7%	5.8%	0.3%	3.3%
	214 crashes	3,608 crashes	196 crashes	4,018 crashes
School Bus	0.5%	0.3%	0.3%	0.3%
	6 crashes	215 crashes	147 crashes	368 crashes
Commercial Bus	0.7%	0.7%	0.3%	0.5%
	8 crashes	426 crashes	163 crashes	597 crashes
Other	2.7%	1.5%	0.9%	1.2%
	32 crashes	920 crashes	486 crashes	1,438 crashes

Percentages compare the number of crashes with the total number of crashes in the crash severity category (for example, passenger cars were involved in 52.7% of all fatal crashes). Percentage totals exceed 100% due to multiple vehicle crashes.

#### Vehicle Crashes—Single Vehicle Hitting Fixed Objects

		Passenger Car	22,705	61.9%
		Lt Trk/Van/SUV	12,384	33.7%
Crashes in Which a Single		Heavy Truck	761	2.1%
Vehicle Hit a Fixed Object:	36,709	Motorcycle	713	1.9%
		School Bus	22	0.1%
		Commercial Bus	18	0.1%
		Other	106	0.3%

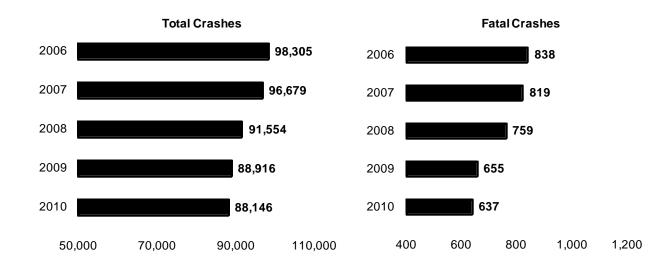
#### Vehicle Crashes—Two-Vehicle Collisions

		Vehicle Struck							
Striking Vehicle	Passenger Car		Lt Trk/ Vn/Sv			School Bus			
Passenger Car	19,742	1,173	12,658	377	576	98	168	193	34,985
Lt Trk/Van/SUV	10,007	696	7,161	203	312	69	69	81	18,598
Heavy Truck	993	223	478	12	14	4	10	16	1,750
Motorcycle	647	21	419	55	8	3	2	15	1,170
Bicycle	314	5	160	1	0	0	8	5	493
School Bus	63	1	26	0	0	4	0	1	95
Commercial Bus	100	2	53	3	7	0	2	0	167
Other/Unknown	298	10	115	10	33	1	2	21	490

# Crashes by Vehicle

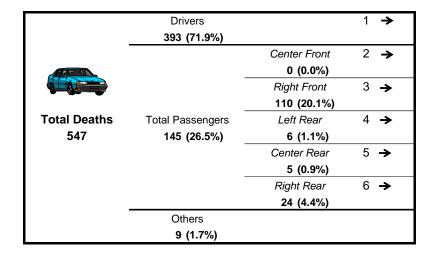
#### Passenger Car Crashes—Five-Year Trends

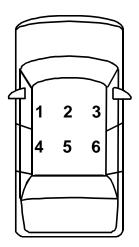
Total passenger car crashes and fatal crashes in 2010 were the lowest in the last five years.



#### Passenger Car Deaths by Seating Position

In 2010, 41% of crash deaths involved passenger car occupants. The table below depicts the passenger car deaths in 2010 by seating position.

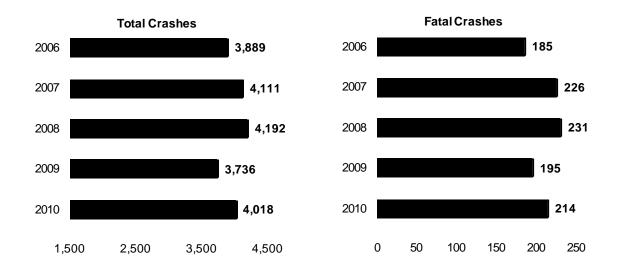




"Others" might be passengers in the rearmost seat of a station wagon; persons in a towed unit; or any person on or attached to the outside of the car.

#### Motorcycle Crashes—Five-Year Trends

In 2010, total motorcycle crashes increased 7.5% from 2009 while motorcycle fatal crashes increased 9.7% from 2009.



# Year Deaths 2006 187 2007 225 2008 237 2009 204 2010 223 TOTAL 1,076

#### Motorcycle Deaths—Five-Year Trends

Of the 223 deaths in 2010 involving motorcycle drivers or passengers:

- ► 202 (90.6%) were drivers
- $\triangleright$  21 (9.4%) were passengers



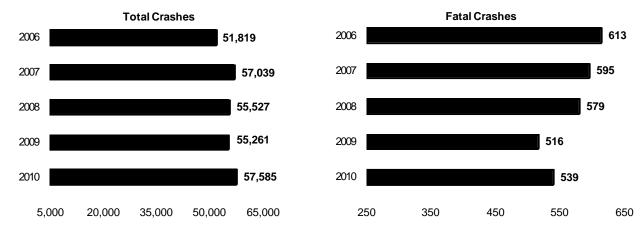
#### Motorcycle Helmet Use in Crashes

The table below shows injury severities of motorcycle riders (driver or passenger) by helmet usage.

	Deaths	Injuries	Not Injured	<b>Total Motorcyclists</b>
Helmets	95 (42.6%)	2,321 (59.1%)	222 (55.4%)	2,638 (57.9%)
No Helmets	124 (55.6%)	1,466 (37.3%)	122 (30.4%)	1,712 (37.6%)
Unknown	4 (1.8%)	143 (3.6%)	57 (14.2%)	204 (4.5%)
TOTAL	223 (100.0%)	3,930 (100.0%)	401 (100.0%)	4,554 (100.0%)

#### Light Truck / SUV / Van Crashes—Five-Year Trends

Pickups, minivans, and sport utility vehicles have become more popular over the last 10 years. Crashes involving these vehicles in 2010 increased 4.2% from 2009 and remain high in comparison to other years.



#### Light Truck / SUV / Van Rollovers Compared to Passenger Cars

► The percentage of 2010 light truck / SUV / van crashes were higher than passenger cars in crashes involving rollovers (7.2% of all light

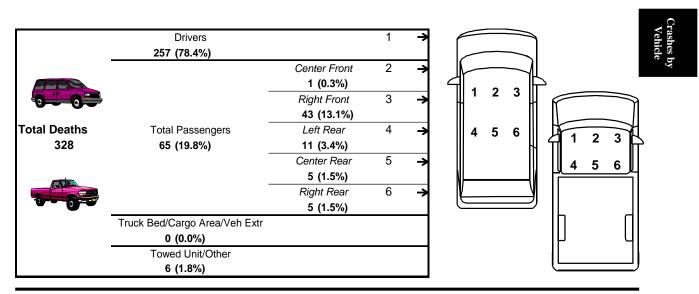
truck / SUV / van crashes compared to 4.4% of all passenger car crashes).

	Rollover	Rollover
	Crashes	Deaths
Lt Trk/Van/SUV	4,155 (7.2%)	143 (43.6%)
Passenger Cars	3,918 (4.4%)	132 (24.1%)

► In 2010 rollover crashes, the percentage of light truck / SUV / van occupant deaths were nearly 81% higher than passenger car occupant deaths (43.6% of deaths compared to 24.1%).

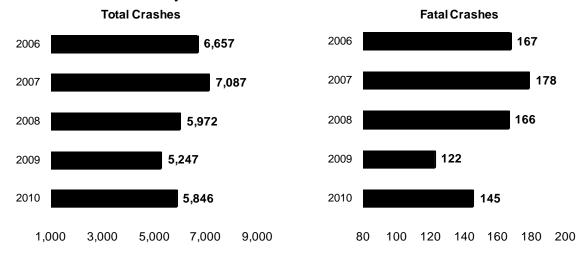
#### Light Truck / SUV / Van Deaths by Seating Position

In 2010, 24.8% of crash deaths involved occupants in light trucks, vans, and sport utility vehicles. The table below depicts these deaths in 2010 by seating position.



#### Heavy Truck Crashes—Five Year Trends

Total crashes involving heavy trucks in 2010 were the second lowest since 2005. Fatal crashes in 2010 were the second lowest over the last five years. The totals for fatal crashes have stayed fairly consistent over a number of years.



#### Heavy Truck Crashes Involving Vehicle Failures

The vast majority of heavy truck crashes involving vehicle failures as primary contributing factors in the crash were related to tires and wheels, brakes, and unsecured or overloaded trailers.

Vehicle Defect	Crashes
Tire/Wheel-Related	119
Brake-Related	74
Unsecure Trailer/Overloaded	43
Power Train Failure	30
Total Steering System Failure	24
Trailer Hitch/Improper Towing	7
Suspension	5
Exhaust System Failure	4
Other Failure	4
Vehicle Lighting Related	4

#### Heavy Truck Crashes by Road Type

Road Type	Crashes	Occupant Deaths
State Hwy (Interstate)	1,340 (22.9%)	4 (14.8%)
State Hwy (Other)	3,413 (58.4%)	17 (63.0%)
Turnpike	416 (7.1%)	3 (11.1%)
Local Road	671 (11.5%)	3 (11.1%)
Other	6 (0.1%)	0 (0.0%)
TOTAL	5,846 (100.0%)	27 (100.0%)

**Note:** "State Highway (Other)" includes state-maintained roads that are not designated as interstates.

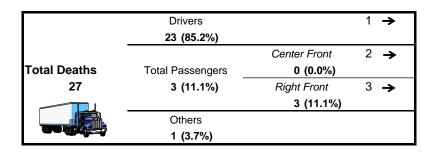
#### Hazardous Material Crashes by Road Type

Road Type	Crashes	HazMat Released
State Hwy (Interstate)	22 (13.7%)	2 (8.3%)
State Hwy (Other)	112 (69.6%)	19 (79.2%)
Turnpike	12 (7.5%)	0 (0.0%)
Local Road	15 (9.3%)	3 (12.5%)
Other	0 (0.0%)	0 (0.0%)
TOTAL	161 (100.0%)	24 (100.0%)

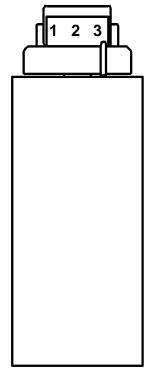
**Note:** "State Highway (Other)" includes state-maintained roads that are not designated as interstates.

#### Heavy Truck Deaths by Seating Position

In 2010, only 2.0% of crash deaths involved heavy truck occupants. The table below depicts the heavy truck deaths in 2010 by seating position.



"Others" might be persons in the sleeping compartment; persons in the cargo trailer; or someone on, or attached to, the outside of the truck.



Crashes by Vehicle

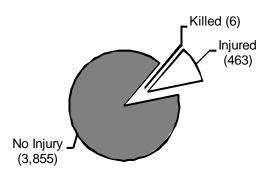
#### School Bus Crashes

Of the more than 4300 persons involved in school bus crashes in 2010, only 6 were killed. 89% suffered no injury at all. See the tables at the bottom of page 57 for a breakdown of the persons involved. As shown, most fatalities were not school bus passengers.

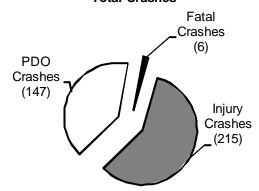
Total persons involved: 4,324

The majority (58%) of school bus crashes in 2010 were injury crashes. However, as the pie chart above shows, most persons involved in school bus crashes suffer no injuries at all.

#### **Persons Involved**



#### **Total Crashes**



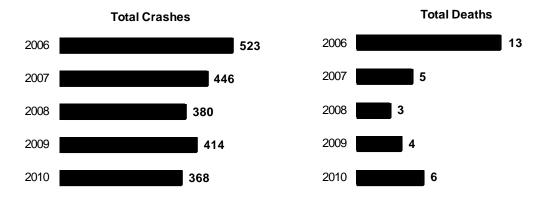
#### School Bus Crashes by Road Type

Road Type	Cras	hes
State Hwy (Interstate)	10	2.7%
State Hwy (Other)	252	68.5%
Turnpike	1	0.3%
Local Road	105	28.5%
Other	0	0.0%
TOTAL	368	100.0%

*Note:* "State Highway (Other)" includes state-maintained roads that are not designated as interstates.

#### School Bus Crashes—Five-Year Trends

The total number of school bus crashes decreased and involved deaths increased in 2010. School bus related deaths are 0.5% of total fatalities in 2010. None of the persons killed were school bus passengers at the time of the crash, but two were school bus drivers.



		Crash S	Severity			
Year	Fatal	Injury	PDO	Total	Deaths	Injuries
2006	12	312	199	523	13	798
2007	4	268	174	446	5	604
2008	3	218	159	380	3	471
2009	4	233	177	414	4	484
2010	6	215	147	368	6	463
TOTAL	29	1,246	856	2,131	31	2,820

#### School Bus Deaths/Injuries by Persons Involved—Five-Year Trends

The tables below show the breakdown of persons killed and injured in school bus crashes. None of the persons who were killed in these crashes were school bus passengers.

DEATHS					Driver/		
Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Passenger of Other Vehicle	Other/ Unknown	Total Deaths
2006	1	0	1	2	9	0	13
2007	0	0	0	0	4	1	5
2008	1	0	0	1	1	0	3
2009	0	0	0	0	4	0	4
2010	0	0	1	0	5	0	6
TOTAL	2	0	2	3	23	1	31

INJURIES					Driver/		
Year	School Bus Drivers	School Bus Passengers	School-Age Pedestrians	Other Pedestrians	Passenger of Other Vehicle	Other/ Unknown	Total Injuries
2006	74	436	6	12	257	13	798
2007	53	324	7	8	207	5	604
2008	34	217	7	8	199	6	471
2009	44	227	2	9	186	16	484
2010	49	231	8	8	166	1	463
TOTAL	254	1,435	30	45	1,015	41	2,820

#### Pennsylvania County Crashes

#### **County Overview**

The Commonwealth of Pennsylvania is comprised of 67 counties. Each county is made up of local municipalities, a combination of cities, boroughs, first class townships, and/or second class townships. In total, there are approximately 2,500 municipalities throughout the 67 counties. In 2010, Pennsylvania's total population was 12,632,780 people.

The ten most populated counties were:

 Philadelphia (12.3%)
 Allegheny (9.7%)
 Montgomery (6.3%)

 Bucks (5.0%)
 Delaware (4.4%)
 Lancaster (4.0%)

 Chester (4.0%)
 York (3.4%)
 Berks (3.2%)

Westmoreland (2.9%) See page 59.

The ten least populated counties were:

 Cameron (0.04%)
 Sullivan (0.05%)
 Forest (0.05%)

 Fulton (0.12%)
 Potter (0.13%)
 Montour (0.14%)

 Juniata (0.18%)
 Wyoming (0.22%)
 Elk (0.25%)

Clinton (0.29%) *See page 59.* 

The ten counties with the most miles of state highways (maintained by PENNDOT) were:\*

 Westmoreland (3.01%)
 Allegheny (2.95%)
 York (2.85%)

 Washington (2.74%)
 Lancaster (2.62%)
 Chester (2.57%)

 Bucks (2.41%)
 Crawford (2.29%)
 Bradford (2.25%)

Somerset (2.21%)

The ten counties with the most miles of local roads and streets (maintained by local municipalities) were:\*

 Allegheny (5.93%)
 Montgomery (3.62%)
 Lancaster (3.62%)

 York (3.39%)
 Chester (3.22%)
 Bucks (3.19%)

 Westmoreland (3.08%)
 Berks (3.06%)
 Philadelphia (2.86%)

Luzerne (2.30%)

The ten counties with the most reported traffic crashes were:

Allegheny (9.3%) Philadelphia (9.0%) Montgomery (6.8%)

Bucks (5.0%) Lancaster (4.2%) York (3.7%)
Berks (3.8%) Lehigh (3.7%) Delaware (3.6%)

Chester (3.5%) *See page 59.* 

The ten counties with the most traffic-related deaths were:

 Philadelphia (7.0%)
 Allegheny (5.3%)
 Lancaster (4.9%)

 Bucks (3.4%)
 Westmoreland (3.3%)
 Dauphin (3.0%)

 Berks (3.0%)
 Erie (3.0%)
 York (2.8%)

Monroe (2.6%) *See page 61.* 

<sup>\*</sup>Information provided by PENNDOT's Bureau of Planning and Research, Performance Monitoring Division. For consistency purposes, the prior year's data is used at the time of publication because of timing issues. For this Crash Facts & Statistics book, 2009 information was used.

## Pennsylvania Crashes by County

Percentages compare the number to the statewide total at the bottom of the columns.

County	Population	<b>Fatal Crashes</b>	Injury Crashes	PDO Crashes	<b>Total Crashes</b>
Adams	102,560 (0.8%)	14 (1.2%)	473 (0.8%)	520 (0.9%)	1,007 (0.8%)
Allegheny	1,220,510 (9.7%)	64 (5.3%)	5,345 (8.5%)	5,825 (10.1%)	11,234 (9.3%)
Armstrong	67,443 (0.5%)	13 (1.1%)	283 (0.5%)	281 (0.5%)	577 (0.5%)
Beaver	171,797 (1.4%)	10 (0.8%)	712 (1.1%)	802 (1.4%)	1,524 (1.3%)
Bedford	49,390 (0.4%)	11 (0.9%)	290 (0.5%)	352 (0.6%)	653 (0.5%)
Berks	407,843 (3.2%)	38 (3.2%)	2,117 (3.4%)	2,311 (4.0%)	4,466 (3.7%)
Blair	125,770 (1.0%)	17 (1.4%)	634 (1.0%)	668 (1.2%)	1,319 (1.1%)
Bradford	61,276 (0.5%)	19 (1.6%)	378 (0.6%)	373 (0.7%)	770 (0.6%)
Bucks	626,280 (5.0%)	43 (3.6%)	2,979 (4.8%)	3,072 (5.4%)	6,094 (5.0%)
Butler	185,178 (1.5%)	23 (1.9%)	768 (1.2%)	922 (1.6%)	1,713 (1.4%)
Cambria	143,292 (1.1%)	13 (1.1%)	644 (1.0%)	731 (1.3%)	1,388 (1.1%)
Cameron	5,156 (0.0%)	2 (0.2%)	37 (0.1%)	29 (0.1%)	68 (0.1%)
Carbon	63,640 (0.5%)	12 (1.0%)	328 (0.5%)	404 (0.7%)	744 (0.6%)
Centre	146,656 (1.2%)	11 (0.9%)	621 (1.0%)	576 (1.0%)	1,208 (1.0%)
Chester	501,789 (4.0%)	29 (2.4%)	1,787 (2.9%)	2,440 (4.3%)	4,256 (3.5%)
Clarion Clearfield	39,203 (0.3%)	9 (0.8%)	252 (0.4%)	218 (0.4%)	479 (0.4%)
Clinton	82,320 (0.7%) 36,859 (0.3%)	23 (1.9%) 6 (0.5%)	490 (0.8%) 197 (0.3%)	443 (0.8%)	956 (0.8%) 417 (0.3%)
Columbia			` '	214 (0.4%)	
Crawford	65,165 (0.5%) 88,080 (0.7%)	15 (1.2%) 14 (1.2%)	345 (0.6%) 427 (0.7%)	395 (0.7%) 433 (0.8%)	755 (0.6%) 874 (0.7%)
Cumberland	233,881 (1.9%)	23 (1.9%)	1,085 (1.7%)	1,389 (2.4%)	2,497 (2.1%)
Dauphin	259,354 (2.1%)	36 (3.0%)	1,397 (2.2%)	1,434 (2.5%)	2,867 (2.4%)
Delaware	559,776 (4.4%)	22 (1.8%)	2,371 (3.8%)	1,986 (3.5%)	4,379 (3.6%)
Elk	31,658 (0.3%)	6 (0.5%)	140 (0.2%)	144 (0.3%)	290 (0.2%)
Erie	280,149 (2.2%)	35 (2.9%)	1,470 (2.4%)	1,163 (2.0%)	2,668 (2.2%)
Fayette	141,510 (1.1%)	18 (1.5%)	629 (1.0%)	538 (0.9%)	1,185 (1.0%)
Forest	6,929 (0.1%)	3 (0.3%)	48 (0.1%)	34 (0.1%)	85 (0.1%)
Franklin	146,251 (1.2%)	16 (1.3%)	707 (1.1%)	674 (1.2%)	1,397 (1.2%)
Fulton	14,926 (0.1%)	7 (0.6%)	114 (0.2%)	146 (0.3%)	267 (0.2%)
Greene	39,051 (0.3%)	6 (0.5%)	199 (0.3%)	182 (0.3%)	387 (0.3%)
Huntingdon	45,666 (0.4%)	10 (0.8%)	186 (0.3%)	177 (0.3%)	373 (0.3%)
Indiana	87,227 (0.7%)	22 (1.8%)	439 (0.7%)	384 (0.7%)	845 (0.7%)
Jefferson	44,848 (0.4%)	7 (0.6%)	211 (0.3%)	225 (0.4%)	443 (0.4%)
Juniata	22,967 (0.2%)	8 (0.7%)	112 (0.2%)	121 (0.2%)	241 (0.2%)
Lackawanna	208,127 (1.7%)	19 (1.6%)	1,321 (2.1%)	1,218 (2.1%)	2,558 (2.1%)
Lancaster	510,692 (4.0%)	57 (4.7%)	2,643 (4.2%)	2,357 (4.1%)	5,057 (4.2%)
Lawrence	89,464 (0.7%)	11 (0.9%)	372 (0.6%)	390 (0.7%)	773 (0.6%)
Lebanon	130,704 (1.0%)	15 (1.2%)	685 (1.1%)	596 (1.0%)	1,296 (1.1%)
Lehigh	344,571 (2.7%)	21 (1.7%)	2,164 (3.5%)	2,239 (3.9%)	4,424 (3.7%)
Luzerne	311,691 (2.5%)	30 (2.5%)	1,703 (2.7%)	1,662 (2.9%)	3,395 (2.8%)
Lycoming	116,906 (0.9%)	20 (1.7%)	574 (0.9%)	632 (1.1%)	1,226 (1.0%)
McKean	42,938 (0.3%)	5 (0.4%)	136 (0.2%)	177 (0.3%)	318 (0.3%)
Mercer	115,905 (0.9%)	13 (1.1%)	640 (1.0%)	606 (1.1%)	1,259 (1.0%)
Mifflin	45,974 (0.4%)	7 (0.6%)	182 (0.3%)	196 (0.3%)	385 (0.3%)
Monroe Montgomery	166,209 (1.3%) 789,862 (6.3%)	33 (2.7%) 30 (2.5%)	1,152 (1.8%)	1,254 (2.2%) 4,099 (7.1%)	2,439 (2.0%)
Montgomery Montour	789,862 (6.3%) 17,830 (0.1%)	30 (2.5%) 1 (0.1%)	4,155 (6.6%) 108 (0.2%)	4,099 (7.1%) 93 (0.2%)	8,284 (6.8%) 202 (0.2%)
Northampton	299,646 (2.4%)	24 (2.0%)	1,465 (2.3%)	1,271 (2.2%)	2,760 (2.3%)
Northumberland	91,356 (0.7%)	10 (0.8%)	330 (0.5%)	290 (0.5%)	630 (0.5%)
Perry	45,671 (0.4%)	13 (1.1%)	209 (0.3%)	248 (0.4%)	470 (0.4%)
Philadelphia	1,558,613 (12.3%)	84 (7.0%)	8,535 (13.6%)	2,346 (4.1%)	10,965 (9.0%)
Pike	59,859 (0.5%)	7 (0.6%)	316 (0.5%)	344 (0.6%)	667 (0.6%)
Potter	16,739 (0.1%)	1 (0.1%)	81 (0.1%)	66 (0.1%)	148 (0.1%)
Schuylkill	146,778 (1.2%)	20 (1.7%)	648 (1.0%)	688 (1.2%)	1,356 (1.1%)
Snyder	38,586 (0.3%)	8 (0.7%)	203 (0.3%)	175 (0.3%)	386 (0.3%)
Somerset	76,826 (0.6%)	17 (1.4%)	398 (0.6%)	429 (0.8%)	844 (0.7%)
Sullivan	6,059 (0.1%)	5 (0.4%)	42 (0.1%)	58 (0.1%)	105 (0.1%)
Susquehanna	40,231 (0.3%)	11 (0.9%)	223 (0.4%)	237 (0.4%)	471 (0.4%)
Tioga	41,057 (0.3%)	13 (1.1%)	250 (0.4%)	289 (0.5%)	552 (0.5%)
Union	43,309 (0.3%)	7 (0.6%)	192 (0.3%)	146 (0.3%)	345 (0.3%)
Venango	53,953 (0.4%)	8 (0.7%)	287 (0.5%)	276 (0.5%)	571 (0.5%)
Warren	40,417 (0.3%)	7 (0.6%)	201 (0.3%)	164 (0.3%)	372 (0.3%)
Washington	207,056 (1.6%)	19 (1.6%)	945 (1.5%)	970 (1.7%)	1,934 (1.6%)
Wayne	52,198 (0.4%)	8 (0.7%)	320 (0.5%)	260 (0.5%)	588 (0.5%)
Westmoreland	360,703 (2.9%)	39 (3.2%)	1,540 (2.5%)	1,549 (2.7%)	3,128 (2.6%)
Wyoming	27,803 (0.2%)	7 (0.6%)	171 (0.3%)	168 (0.3%)	346 (0.3%)
York	430,647 (3.4%)	33 (2.7%)	2,260 (3.6%)	2,213 (3.9%)	4,506 (3.7%)
TOTAL	12,632,780 (100.0%)	1,208 (100.0%)	62,666 (100.0%)	57,438 (99.8%)	121,312 (99.9%)

## Crashes by County—Five-Year Trends

Percentages compare the number to the statewide total at the bottom of the columns.

County	2006 Crashes	2007 Crashes	2008 Crashes	2009 Crashes	2010 Crashes
Adams	974 (0.8%)	1,061 (0.8%)	1,034 (0.8%)	1,158 (1.0%)	1,007 (0.8%)
Allegheny	11,609 (9.1%)	12,086 (9.3%)	11,754 (9.4%)	11,616 (9.6%)	11,234 (9.3%)
Armstrong	582 (0.5%)	595 (0.5%)	547 (0.4%)	556 (0.5%)	577 (0.5%)
Beaver	1,479 (1.2%)	1,513 (1.2%)	1,584 (1.3%)	1,461 (1.2%)	1,524 (1.3%)
Bedford	785 (0.6%)	770 (0.6%)	770 (0.6%)	680 (0.6%)	653 (0.5%)
Berks	4,972 (3.9%)	5,130 (3.9%)	4,807 (3.8%)	4,563 (3.8%)	4,466 (3.7%)
Blair Bradford	1,325 (1.0%)	1,444 (1.1%)	1,488 (1.2%)	1,339 (1.1%)	1,319 (1.1%)
Bucks	563 (0.4%) 6,467 (5.0%)	597 (0.5%) 6,751 (5.2%)	631 (0.5%) 6,246 (5.0%)	586 (0.5%) 6,512 (5.4%)	770 (0.6%) 6,094 (5.0%)
Butler	1,858 (1.5%)	1,936 (1.5%)	1,937 (1.6%)	1,742 (1.4%)	1,713 (1.4%)
Cambria	1,308 (1.0%)	1,435 (1.1%)	1,419 (1.1%)	1,370 (1.1%)	1,388 (1.1%)
Cameron	60 (0.1%)	60 (0.1%)	51 (0.0%)	44 (0.0%)	68 (0.1%)
Carbon	763 (0.6%)	731 (0.6%)	704 (0.6%)	660 (0.5%)	744 (0.6%)
Centre	1,301 (1.0%)	1,357 (1.0%)	1,360 (1.1%)	1,262 (1.0%)	1,208 (1.0%)
Chester	4,585 (3.6%)	4,611 (3.5%)	4,700 (3.8%)	4,484 (3.7%)	4,256 (3.5%)
Clarion	504 (0.4%)	540 (0.4%)	564 (0.5%)	484 (0.4%)	479 (0.4%)
Clearfield	1,066 (0.8%)	985 (0.8%)	1,032 (0.8%)	966 (0.8%)	956 (0.8%)
Clinton	485 (0.4%)	480 (0.4%)	464 (0.4%)	375 (0.3%)	417 (0.3%)
Columbia	723 (0.6%)	770 (0.6%)	721 (0.6%)	729 (0.6%)	755 (0.6%)
Crawford	1,049 (0.8%)	1,101 (0.8%)	1,085 (0.9%)	898 (0.7%)	874 (0.7%)
Cumberland	2,574 (2.0%)	2,604 (2.0%)	2,340 (1.9%)	2,310 (1.9%)	2,497 (2.1%)
Dauphin	2,872 (2.2%)	3,110 (2.4%)	2,926 (2.3%)	2,931 (2.4%)	2,867 (2.4%)
Delaware	4,920 (3.8%)	4,613 (3.5%)	4,532 (3.6%)	4,360 (3.6%)	4,379 (3.6%)
Elk	349 (0.3%)	359 (0.3%)	342 (0.3%)	286 (0.2%)	290 (0.2%)
Erie	2,554 (2.0%)	2,731 (2.1%)	2,817 (2.3%)	2,572 (2.1%)	2,668 (2.2%)
Fayette	1,174 (0.9%)	1,250 (1.0%)	1,302 (1.0%)	1,183 (1.0%)	1,185 (1.0%)
Forest	88 (0.1%)	74 (0.1%)	88 (0.1%)	65 (0.1%)	85 (0.1%)
Franklin	1,613 (1.3%)	1,608 (1.2%)	1,490 (1.2%)	1,415 (1.2%)	1,397 (1.2%)
Fulton	314 (0.2%)	337 (0.3%)	320 (0.3%)	329 (0.3%)	267 (0.2%)
Greene	375 (0.3%)	381 (0.3%)	435 (0.4%)	358 (0.3%)	387 (0.3%)
Huntingdon	530 (0.4%)	482 (0.4%)	507 (0.4%)	433 (0.4%)	373 (0.3%)
Indiana	830 (0.7%)	920 (0.7%)	893 (0.7%)	872 (0.7%)	845 (0.7%)
Jefferson	530 (0.4%)	471 (0.4%)	537 (0.4%)	408 (0.3%)	443 (0.4%)
Juniata	243 (0.2%)	242 (0.2%)	297 (0.2%)	249 (0.2%)	241 (0.2%)
Lackawanna	2,356 (1.8%)	2,408 (1.8%)	2,518 (2.0%)	2,443 (2.0%)	2,558 (2.1%)
Lancaster Lawrence	5,663 (4.4%) 841 (0.7%)	5,875 (4.5%) 829 (0.6%)	5,727 (4.6%) 838 (0.7%)	5,308 (4.4%) 777 (0.6%)	5,057 (4.2%)
Lebanon	1,579 (1.2%)	1,578 (1.2%)	1,440 (1.2%)	1,394 (1.2%)	773 (0.6%) 1,296 (1.1%)
Lehigh	5,040 (3.9%)	4,964 (3.8%)	4,516 (3.6%)	4,439 (3.7%)	4,424 (3.7%)
Luzerne	3,089 (2.4%)	2,926 (2.2%)	2,668 (2.1%)	3,125 (2.6%)	3,395 (2.8%)
Lycoming	1,085 (0.9%)	1,313 (1.0%)	1,244 (1.0%)	1,162 (1.0%)	1,226 (1.0%)
McKean	328 (0.3%)	376 (0.3%)	399 (0.3%)	339 (0.3%)	318 (0.3%)
Mercer	1,393 (1.1%)	1,391 (1.1%)	1,298 (1.0%)	1,227 (1.0%)	1,259 (1.0%)
Mifflin	350 (0.3%)	429 (0.3%)	420 (0.3%)	394 (0.3%)	385 (0.3%)
Monroe	2,572 (2.0%)	2,241 (1.7%)	2,093 (1.7%)	2,113 (1.7%)	2,439 (2.0%)
Montgomery	9,788 (7.6%)	9,443 (7.2%)	8,373 (6.7%)	8,182 (6.8%)	8,284 (6.8%)
Montour	208 (0.2%)	202 (0.2%)	206 (0.2%)	202 (0.2%)	202 (0.2%)
Northampton	3,003 (2.3%)	3,042 (2.3%)	2,799 (2.2%)	2,883 (2.4%)	2,760 (2.3%)
Northumberland	655 (0.5%)	678 (0.5%)	722 (0.6%)	604 (0.5%)	630 (0.5%)
Perry	566 (0.4%)	587 (0.5%)	593 (0.5%)	474 (0.4%)	470 (0.4%)
Philadelphia	11,682 (9.1%)	11,436 (8.8%)	10,605 (8.5%)	10,688 (8.8%)	10,965 (9.0%)
Pike	641 (0.5%)	684 (0.5%)	735 (0.6%)	595 (0.5%)	667 (0.6%)
Potter	135 (0.1%)	160 (0.1%)	162 (0.1%)	127 (0.1%)	148 (0.1%)
Schuylkill	1,541 (1.2%)	1,563 (1.2%)	1,291 (1.0%)	1,352 (1.1%)	1,356 (1.1%)
Snyder	430 (0.3%)	412 (0.3%)	433 (0.4%)	387 (0.3%)	386 (0.3%)
Somerset	794 (0.6%)	931 (0.7%)	867 (0.7%)	834 (0.7%)	844 (0.7%)
Sullivan	87 (0.1%)	89 (0.1%)	80 (0.1%)	82 (0.1%)	105 (0.1%)
Susquehanna	527 (0.4%)	507 (0.4%)	515 (0.4%)	503 (0.4%)	471 (0.4%)
Tioga	424 (0.3%)	463 (0.4%)	487 (0.4%)	427 (0.4%)	552 (0.5%)
Union	325 (0.3%)	379 (0.3%)	367 (0.3%)	370 (0.3%)	345 (0.3%)
Venango	637 (0.5%)	642 (0.5%)	598 (0.5%)	560 (0.5%)	571 (0.5%)
Warren Washington	375 (0.3%)	483 (0.4%)	449 (0.4%)	411 (0.3%)	372 (0.3%)
Washington Wayne	1,781 (1.4%)	1,962 (1.5%)	2,013 (1.6%)	1,898 (1.6%)	1,934 (1.6%)
wayne Westmoreland	629 (0.5%) 3.407 (2.7%)	592 (0.5%) 3 623 (2.8%)	561 (0.5%) 3.513 (2.8%)	480 (0.4%)	588 (0.5%) 3 128 (2.6%)
Wyoming	3,407 (2.7%) 309 (0.2%)	3,623 (2.8%)	3,513 (2.8%) 325 (0.3%)	3,104 (2.6%) 325 (0.3%)	3,128 (2.6%) 346 (0.3%)
	. , ,	307 (0.2%)			346 (0.3%)
York	4,580 (3.6%)	4,916 (3.8%)	4,659 (3.7%)	4,661 (3.8%)	4,506 (3.7%)
TOTAL	128,342 (99.9%)	130,675 (99.9%)	125,327 (99.9%)	121,242 (99.9%)	121,312 (99.9%)

## Traffic Deaths by County—Five-Year Trends

Percentages compare the number to the statewide totals at the bottom of the columns.

County	2006 Deaths	2007 Deaths	2008 Deaths	2009 Deaths	2010 Deaths
Adams	19 (1.3%)	17 (1.1%)	22 (1.5%)	22 (1.8%)	16 (1.2%)
Allegheny	79 (5.2%)	76 (5.1%)	75 (5.1%)	58 (4.6%)	70 (5.3%)
Armstrong	16 (1.1%)	7 (0.5%)	9 (0.6%)	11 (0.9%)	13 (1.0%)
Beaver	25 (1.6%)	15 (1.0%)	19 (1.3%)	13 (1.0%)	10 (0.8%)
Bedford	20 (1.3%)	12 (0.8%)	15 (1.0%)	15 (1.2%)	13 (1.0%)
Berks	50 (3.3%)	49 (3.3%)	63 (4.3%)	50 (4.0%)	39 (3.0%)
Blair	25 (1.6%)	10 (0.7%)	15 (1.0%)	9 (0.7%)	20 (1.5%)
Bradford	9 (0.6%)	7 (0.5%)	8 (0.5%)	10 (0.8%)	20 (1.5%)
Bucks	72 (4.7%)	60 (4.0%)	54 (3.7%)	64 (5.1%)	45 (3.4%)
Butler	26 (1.7%)	28 (1.9%)	23 (1.6%)	21 (1.7%)	29 (2.2%)
Cambria	24 (1.6%)	14 (0.9%)	20 (1.4%)	11 (0.9%)	14 (1.1%)
Cameron	0 (0.0%)	1 (0.1%)	2 (0.1%)	0 (0.0%)	2 (0.2%)
Carbon	17 (1.1%)	13 (0.9%)	16 (1.1%)	11 (0.9%)	13 (1.0%)
Centre	23 (1.5%)	19 (1.3%)	20 (1.4%)	13 (1.0%)	11 (0.8%)
Chester	54 (3.5%)	55 (3.7%)	40 (2.7%)	31 (2.5%)	32 (2.4%)
Clarion	13 (0.9%)	11 (0.7%)	10 (0.7%)	7 (0.6%)	11 (0.8%)
Clearfield	21 (1.4%)	22 (1.5%)	25 (1.7%)	23 (1.8%)	24 (1.8%)
Clinton	13 (0.9%)	11 (0.7%)	8 (0.5%)	4 (0.3%)	7 (0.5%)
Columbia	18 (1.2%)	14 (0.9%)	15 (1.0%)	9 (0.7%)	17 (1.3%)
Crawford	19 (1.3%)	22 (1.5%)	15 (1.0%)	10 (0.8%)	14 (1.1%)
Cumberland	29 (1.9%)	30 (2.0%)	23 (1.6%)	19 (1.5%)	24 (1.8%)
Dauphin	24 (1.6%)	37 (2.5%)	35 (2.4%)	27 (2.2%)	40 (3.0%)
Delaware 	29 (1.9%)	22 (1.5%)	21 (1.4%)	20 (1.6%)	23 (1.7%)
Elk	3 (0.2%)	6 (0.4%)	9 (0.6%)	7 (0.6%)	7 (0.5%)
Erie	36 (2.4%)	27 (1.8%)	39 (2.7%)	30 (2.4%)	39 (3.0%)
Fayette	19 (1.3%)	38 (2.6%)	27 (1.8%)	33 (2.6%)	19 (1.4%)
Forest	5 (0.3%)	2 (0.1%)	4 (0.3%)	3 (0.2%)	4 (0.3%)
Franklin	23 (1.5%)	37 (2.5%)	21 (1.4%)	19 (1.5%)	22 (1.7%)
Fulton	5 (0.3%)	1 (0.1%)	6 (0.4%)	1 (0.1%)	8 (0.6%)
Greene	6 (0.4%)	12 (0.8%)	9 (0.6%)	5 (0.4%)	7 (0.5%)
Huntingdon	12 (0.8%)	5 (0.3%)	12 (0.8%)	10 (0.8%)	11 (0.8%)
Indiana	9 (0.6%)	16 (1.1%)	12 (0.8%)	18 (1.4%)	23 (1.7%)
Jefferson Juniata	4 (0.3%)	10 (0.7%)	6 (0.4%)	6 (0.5%)	7 (0.5%)
	10 (0.7%)	3 (0.2%)	6 (0.4%)	6 (0.5%)	10 (0.8%)
Lackawanna	23 (1.5%)	24 (1.6%)	22 (1.5%)	19 (1.5%)	19 (1.4%)
Lancaster	63 (4.1%)	64 (4.3%)	66 (4.5%)	49 (3.9%)	65 (4.9%)
Lawrence Lebanon	12 (0.8%)	8 (0.5%)	12 (0.8%)	8 (0.6%)	11 (0.8%)
Lehigh	20 (1.3%) 40 (2.6%)	19 (1.3%) 38 (2.6%)	22 (1.5%) 41 (2.8%)	18 (1.4%) 35 (2.8%)	15 (1.1%) 22 (1.7%)
Luzerne	51 (3.3%)	53 (3.6%)	32 (2.2%)	40 (3.2%)	30 (2.3%)
Lycoming	22 (1.4%)	20 (1.3%)	13 (0.9%)	17 (1.4%)	22 (1.7%)
McKean	3 (0.2%)	9 (0.6%)	12 (0.8%)	5 (0.4%)	6 (0.5%)
Mercer	26 (1.7%)	22 (1.5%)	25 (1.7%)	18 (1.4%)	13 (1.0%)
Mifflin	5 (0.3%)	4 (0.3%)	6 (0.4%)	11 (0.9%)	8 (0.6%)
Monroe	36 (2.4%)	33 (2.2%)	37 (2.5%)	30 (2.4%)	35 (2.6%)
Montgomery	54 (3.5%)	57 (3.8%)	45 (3.1%)	41 (3.3%)	33 (2.5%)
Montour	4 (0.3%)	2 (0.1%)	5 (0.3%)	0 (0.0%)	1 (0.1%)
Northampton	31 (2.0%)	21 (1.4%)	23 (1.6%)	24 (1.9%)	29 (2.2%)
Northumberland	14 (0.9%)	9 (0.6%)	13 (0.9%)	8 (0.6%)	10 (0.8%)
Perry	18 (1.2%)	9 (0.6%)	17 (1.2%)	10 (0.8%)	15 (1.1%)
Philadelphia	104 (6.8%)	125 (8.4%)	92 (6.3%)	95 (7.6%)	93 (7.0%)
Pike	9 (0.6%)	9 (0.6%)	13 (0.9%)	5 (0.4%)	7 (0.5%)
Potter	3 (0.2%)	4 (0.3%)	5 (0.3%)	0 (0.0%)	1 (0.1%)
Schuylkill	32 (2.1%)	30 (2.0%)	33 (2.3%)	30 (2.4%)	20 (1.5%)
Snyder	10 (0.7%)	6 (0.4%)	9 (0.6%)	5 (0.4%)	9 (0.7%)
Somerset	13 (0.9%)	23 (1.5%)	12 (0.8%)	12 (1.0%)	20 (1.5%)
Sullivan	0 (0.0%)	0 (0.0%)	1 (0.1%)	3 (0.2%)	6 (0.5%)
Susquehanna	8 (0.5%)	11 (0.7%)	11 (0.8%)	8 (0.6%)	12 (0.9%)
Tioga	11 (0.7%)	9 (0.6%)	13 (0.9%)	7 (0.6%)	13 (1.0%)
Union	10 (0.7%)	3 (0.2%)	7 (0.5%)	7 (0.6%)	7 (0.5%)
Venango	9 (0.6%)	11 (0.7%)	7 (0.5%)	6 (0.5%)	10 (0.8%)
Warren	7 (0.5%)	11 (0.7%)	10 (0.7%)	11 (0.9%)	7 (0.5%)
Washington	21 (1.4%)	32 (2.2%)	31 (2.1%)	33 (2.6%)	24 (1.8%)
Wayne	11 (0.7%)	12 (0.8%)	9 (0.6%)	6 (0.5%)	8 (0.6%)
Westmoreland	35 (2.3%)	50 (3.4%)	58 (4.0%)	47 (3.7%)	44 (3.3%)
	, ,	0 (0.0%)	10 (0.7%)	9 (0.7%)	8 (0.6%)
Wyoming	7 (0.5%)			0 (0.1 /0)	0 (0.070)
Wyoming York	7 (0.5%) 56 (3.7%)	54 (3.6%)	52 (3.5%)	43 (3.4%)	37 (2.8%)

# Pedestrian Deaths by County—Five-Year Trends

County	2006	2007	2008	2009	2010
Adams	0	2	1	3	0
Allegheny	14	10	14	6	13
Armstrong	0	0	1	2	2
Beaver	0	0	2	0	0
Bedford	1	0	0	1	0
Berks	3	4	7	4	6
Blair	3	0	4	1	5
Bradford	0	0	0	0	0
Bucks	13	9	9	15	8
Butler	3	2	2	1	3
Cambria	3	0	1	0	1
Cameron Carbon	2	0	0	0 1	0
Centre	3	1	0	3	1
Chester	4	7	2	2	1
Clarion	0	1	0	0	0
Clearfield	1	6	0	1	3
Clinton	1	1	0	0	1
Columbia	1	1	2	0	0
Crawford	3	0	0	0	0
Cumberland	5	2	3	4	2
Dauphin	3	4	6	2	6
Delaware	7	2	3	6	4
Elk	0	0	0	1	1
Erie	3	2	0	1	2
Fayette	1	4	0	0	0
Forest	0	0	0	0	0
Franklin	2	3	1	0	0
Fulton	0	0	0	0	0
Greene	0	0	2	0	1
Huntingdon	2	0	0	1	0
Indiana	0 0	1 0	0	2 0	3
Jefferson Juniata	1	0	0	0	0
Lackawanna	6	4	3	0	2
Lancaster	4	6	6	0	7
Lawrence	0	0	0	0	0
Lebanon	1	2	1	0	2
Lehigh	3	7	4	4	5
Luzerne	9	4	5	4	6
Lycoming	1	2	0	1	1
McKean	0	1	0	0	1
Mercer	2	3	2	1	1
Mifflin	0	0	0	0	0
Monroe	2	3	4	4	5
Montgomery	5	9	5	8	3
Montour	1	1	1	0	0
Northampton	3	1	0	4	4
Northumberland	0 1	1 0	0 1	1 2	2
Perry Philadelphia	37	35	32	32	30
Pike	0	0	1	1	0
Potter	0	0	0	0	0
Schuylkill	1	2	2	3	2
Snyder	1	0		0	0
Somerset	1	0	2	1	0
Sullivan	0	0	0	0	0
Susquehanna	0	0	0	0	0
Tioga	1	0	0	0	0
Union	1	0	1	0	0
Venango	2	0	0	0	1
Warren	0	1	2	1	2
Washington	1	1	3	5	1
Wayne	0	0	0	0	0
Westmoreland	2	8	2	4	4
Wyoming	0	0 2	0 4	3	0
York TOTAL	6 <b>170</b>	155	142	136	6 <b>148</b>
TOTAL	170	199	142	130	148

# Countie

## Pedestrian Deaths and Injuries by Age Group by County

	Age	0-4	An	e 5-9	Age	10-14	Age	15-59	Age	60+	To	tal
County	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury	Death	Injury
Adams	0	1	0	0	0	1	0	8	0	2	0	12
Allegheny	0	19	1	24	0	36	8	304	4	70	13	453
Armstrong	0	0	0	0	0	0	2	5	0	1	2	6
Beaver	0	1	0	0	0	2	0	14	0	5	0	22
Bedford	0	0	0	0	0	1	0	3	0	0	0	4
Berks Blair	<u>0</u>	13 0	0	20 4	0	19 5	3	91 17	3	10 0	6 5	153 26
Bradford	0	2	0	2	0	2	0	4	0	0	0	10
Bucks	0	2	1	5	0	9	6	83	1	15	8	114
Butler	0	0	0	1	0	4	2	12	1	5	3	22
Cambria	0	0	0	1	0	5	1	16	0	4	1	26
Cameron	0	0	0	0	0	0	0	2	0	0	0	2
Carbon	0 0	0 0	0	0 1	0	0 1	0	3 40	0	2 1	0	5 43
Centre Chester	0	0	1	1	0	3	0	40 55	0	8	1 1	43 67
Clarion	0	0	0	0	0	1	0	2	0	1	0	4
Clearfield	0	1	0	2	0	4	2	10	1	2	3	19
Clinton	0	0	0	0	0	0	0	3	1	1	1	4
Columbia	0	1	0	3	0	1	0	9	0	2	0	16
Crawford	0	1	0	1	0	3	0	11	0	4	0	20
Cumberland	0	<u>1</u>	0	2 13	0	6 8	3	21 48	3	10 13	6	40 88
Dauphin Delaware	0	6 7	0	13 22	1	8 26	1	48 104	2	13 25	4	88 184
Elk	0	1	0	0	0	0	0	1	1	1	1	3
Erie	0	3	0	10	0	8	2	62	0	5	2	88
Fayette	0	0	0	2	0	2	0	11	0	2	0	17
Forest	0	0	0	0	0	0	0	1	0	0	0	1
Franklin	0	0	0	4	0	3	0	12	0	6	0	25
Fulton	0	0	0	0	0	0	0	0	0	1	0	1
Greene Huntingdon	0	0	0	0 1	0	2	0	3	0	0	0	6
Indiana	0	0	1	1	0	2	2	7	0	2	3	12
Jefferson	0	0	0	0	0	0	0	2	0	1	0	3
Juniata	0	0	0	0	0	2	0	1	0	0	0	3
Lackawanna	0	4	0	8	0	12	1	45	1	10	2	79
Lancaster	1	10	1	14	0	16	4	79	1	17	7	136
Lawrence Lebanon	0 0	0 2	0	2 8	0	1 8	0 2	13 13	0	1 5	0 2	17 36
Lehigh	0	8	0	20	1	35	3	74	1	15	5	152
Luzerne	0	0	0	4	0	12	3	43	2	17	5	76
Lycoming	0	2	0	5	0	6	1	15	0	2	1	30
McKean	0	0	0	0	0	1	1	7	0	0	1	8
Mercer	0	0	0	0	0	3	0	13	1	1	1	17
Mifflin	0	1	0	0	0	1	0	6	0	1	0	9
Monroe Montgomery	0	6	0	7	0	21	3	25 139	1	4 35	5	32 208
Montour	0	0	0	0	0	0	0	0	0	0	0	0
Northampton	0	2	0	2	0	14	3	52	1	18	4	88
Northumberland	0	0	0	1	0	0	0	8	2	5	2	14
Perry	0	0	0	0	0	0	0	6	0	0	0	6
Philadelphia	2	101	0	183	0	221	21	1,042	7	192	30	1,739
Pike Potter	0 0	0 0	0	0 0	0	3 0	0	3 0	0	2 1	0	8 1
Potter Schuylkill	0	0	0	3	0	6	2	0 12	0	1 5	2	1 26
Snyder	0	0	0	0	0	0	0	4	0	1	0	5
Somerset	0	0	0	0	0	2	0	10	0	2	0	14
Sullivan	0	0	0	0	0	0	0	1	0	1	0	2
Susquehanna	0	0	0	0	0	0	0	4	0	2	0	6
Tioga	0	1	0	0	0	0	0	3	0	1	0	5
Union Venango	0	0	0	0 1	0	0	0	4	0	2	0	8 7
venango Warren	0	0	0	0	0	1	0	4 7	2	1	2	9
Washington	0	0	0	1	0	0	0	18	1	5	1	24
Wayne	0	0	0	0	0	0	0	7	0	0	0	7
Westmoreland	0	0	0	3	0	3	3	26	1	5	4	37
Wyoming	0	0	0	0	0	0	0	0	0	1	0	1
York	0 <b>4</b>	6	0 <b>5</b>	15 209	0	21 547	3	53 2 704	3	13 566	6	108
TOTAL	4	202	5	398	4	547	85	2,701	49	566	147	4,414

Note: The above totals do not include any additional pedestrians of unknown age.

## Percent Seat Belt Use in Crashes by County—Five-Year Trends

County	2006 Belt Use	2007 Belt Use	2008 Belt Use	2009 Belt Use	2010 Belt Use
Adams	83	85	83	87	86
Allegheny	73	74	76	77	77
Armstrong	76	78	82	81	80
Beaver	66	64	68	69	66
Bedford	82	88	87	87	89
Berks	74	76	76	78	76
Blair	83	84	86	87	87
Bradford	79	86	85	87	85
Bucks	76	76	76	78	79
Butler	85	85	86	86	87
Cambria	70	72	75	76	75
Cameron	75	81	85	85	86
Carbon	72	74	77	76	76
Centre	81	84	83	86	86
Chester	80	82	82	83	84
Clarion	84	86	88	84	87
Clearfield	76	81	81	80	80
Clinton	82	83	84	89	86
Columbia	79	81	83	84	85
Crawford	81	84	85	87	86
Cumberland	84	86	87	88	88
Dauphin	81	80	84	83	85
Delaware	72	75	76	75	76
Elk	80	84	79	78	82
Erie	77	77	79	80	79
Fayette	76	76	77	77	78
Forest	77	71	85	84	85
Franklin	77	80	82	84	83
Fulton	83	85	83	92	87
Greene	77	76	77	75	73
Huntingdon	74	81	77	83	83
Indiana	83	85	86	84	85
Jefferson	76	78	77	81	79
Juniata	81	84	85	83	83
Lackawanna	62	65	66	67	72
Lancaster	83	84	84	85	84
Lawrence	71	74	71	71	73
Lebanon	82	84	83	84	85
Lehigh	76 77	75 77	73 77	74 79	78
Luzerne					78 70
Lycoming	72	75 74	80	82	79
McKean	73 77	74 78	71 78	75 79	73
Mercer					80
Mifflin	77 83	77 87	79 90	79 89	78 88
Monroe Montgomon/	83		84	85	
Montgomery Montour	83 87	83 87	84 88	85 92	85 88
Northampton	80	80	84	92 83	84
Northumberland	75	77	77	77	76
Perry	80	84	85	82	82
Philadelphia	29	32	38	39	41
Pike	85	88	89	89	88
Potter	80	74	75	79	84
Schuylkill	76	74 79	78	79 82	83
Snyder	83	86	84	87	88
Somerset	75	80	82	83	82
Sullivan	82	79	80	86	84
Susquehanna	76	78	81	82	78
Tioga	80	82	85	84	87
Union	81	79	82	85	88
Venango	76	78	85	84	79
Warren	83	88	85	87	79 87
Washington	79	78	81	78	79
Wayne	83	84	85	87	88
Westmoreland	80	80	81	82	83
Wyoming	83	75	76	82	85
York	83	83	84	85	85
STATEWIDE	73	75	76	77	77
				.,	

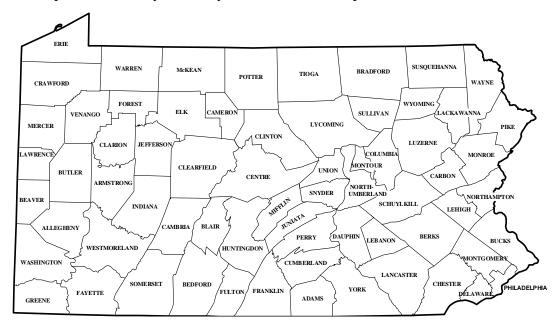
# Counties

# Alcohol-Related Deaths by County—Five-Year Trends

County	2006 Deaths	2007 Deaths	2008 Deaths	2009 Deaths	2010 Deaths
Adams	9	3	8	11	7
Allegheny	21	37	25	15	15
Armstrong	6	1	2	2	5
Beaver	8	3	6	7	2
Bedford	9	3	2	3	6
Berks	19	15	26	20	18
Blair	4	6	6	1	5
Bradford	5	5	4	0	7
Bucks	22	24	18	21	14
Butler	12	12	5	10	9
Cambria	5	5	9	7	5
Cameron	0	1	1	0	1
Carbon	3	3	6	5	5
Centre	9	8	6	5	3
Chester	20	25	20	8	12
Clarion	5	3	3	5	2
Clearfield	2	5	10	6	5
Clinton	3	4	6	1	2
Columbia	8	5	3	2	7
Crawford	11	6	5	4	8
Cumberland	11	9	7	5	7
Dauphin	11	13	10	12	12
Delaware	9	8	7	7	8
Elk	1	2	3	1	3
Erie	17	9	10	9	17
Ene Fayette	7	22	15	9 16	6
Fayelle Forest	4	2	15	3	2
Forest Franklin	7	11	8	8	13
-ranкiin Fulton					
	2	1	3	0	1
Greene	1	5	3	1	2
Huntingdon	6	1	6	4	2
ndiana	4	2	7	6	8
Jefferson	11	1	4	4	5
Juniata	2	0	3	3	2
Lackawanna	9	9	8	4	4
Lancaster	26	18	19	14	26
Lawrence	2	2	5	3	2
Lebanon	7	6	9	5	4
_ehigh	11	8	16	17	7
Luzerne	24	25	8	16	7
Lycoming	6	6	6	4	8
McKean	3	3	5	0	4
Mercer	8	5	6	7	5
Mifflin	2	0	1	5	2
Monroe	9	6	15	8	12
Montgomery	23	23	14	17	11
Montour	2	1	2	0	0
Northampton	7	7	8	11	11
Northumberland	8	2	3	2	3
Perry	5	6	8	4	5
Philadelphia	23	40	27	34	25
Pike	5	3	4	2	23
Potter	0	3	3	0	0
Schuylkill	8	9	5	11	8
Snyder	0	2	3	2	3
Somerset	4	8	3 4	6	3 14
Sullivan	0	0	1	1	0
Susquehanna	6	4	4	1	7
Гioga	1	3	4	3	7
Jnion	7	11	2	3	3
/enango	5	5	1	1	0
Varren	6	4	5	2	2
Washington	9	16	12	14	6
Vayne	5	4	6	4	4
Vestmoreland	22	23	33	15	15
Vyoming	5	0	5	6	6
⁄ork	23	23	24	15	20
TOTAL	545	535	534	449	459

#### Pennsylvania Counties

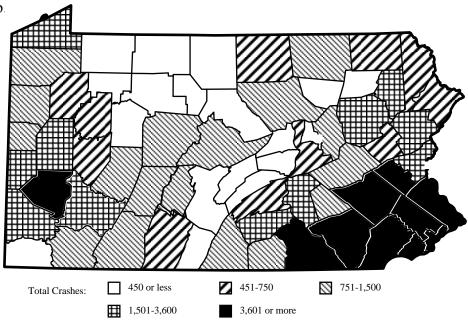
Use the map below as a key to county names for other maps.



The following county-by-county maps have their data broken into five groups, with roughly the same number of counties in each group.

#### Total Crashes by County

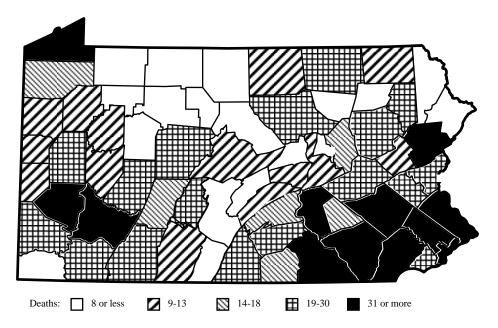
Urban counties, with their higher populations, number of vehicles, and vehicle-miles of travel, lend themselves to a higher number of crashes. Referring to the map below, 53% of the total traffic crashes occurred in only 10 of Pennsylvania's 67 counties. These 10 counties appear in black on the map.



# Countie

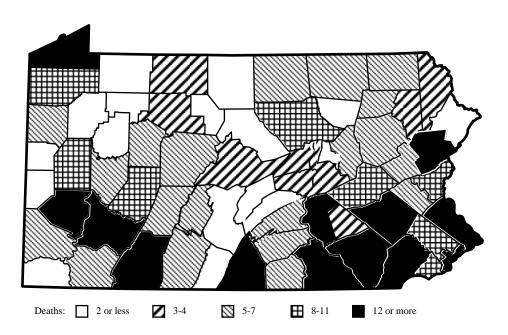
#### Traffic Deaths by County

Referring to the map below, 43% of the total traffic deaths occurred in only 12 of Pennsylvania's 67 counties. These 12 counties appear in black on the map.



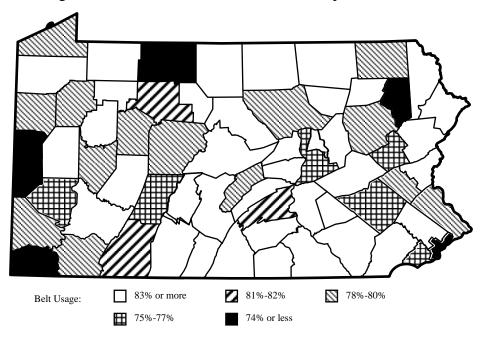
#### Alcohol-Related Deaths by County

Referring to the map below, 46% of the total alcohol-related deaths occurred in only 13 of Pennsylvania's 67 counties. These 13 counties appear in black on the map.



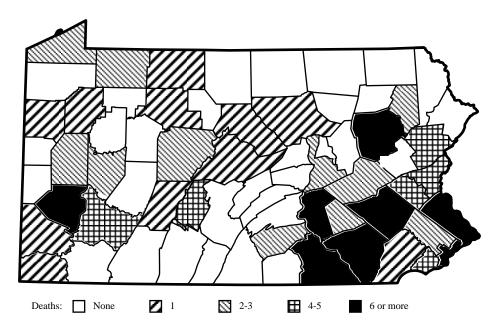
#### Percent Seat Belt Use in Crashes by County

While the percent seat belt use in crashes tended to be lower in counties with major urban areas, some rural areas also had lower seat belt use in crashes. Below the worst 6 counties having 74% or less seat belt usage in crashes are shown in black on the map.



#### Pedestrian Deaths by County

Referring to the map below, 55% of the total pedestrian deaths occurred in only 8 of Pennsylvania's 67 counties. These 8 counties appear in black on the map.

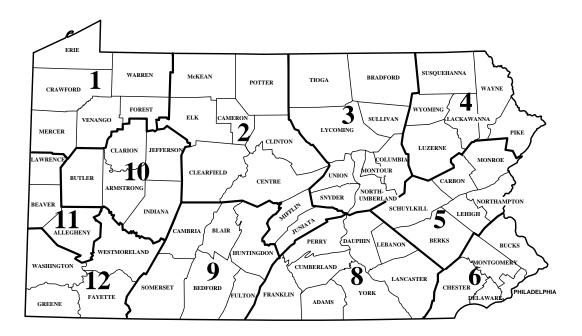


# Counties

# Crashes by Engineering District

The map below illustrates the eleven PENNDOT engineering districts in Pennsylvania. The table below lists a breakdown of the number of crashes, deaths, and injuries in 2010 by engineering district.

District	Crashes	Deaths	Injuries
01	5,829	87	4,398
02	4,031	76	2,831
03	4,971	105	3,397
04	8,025	84	5,586
05	16,189	158	11,202
06	33,978	226	28,112
80	19,097	234	13,158
09	4,844	86	3,184
10	4,057	83	2,751
11	13,531	91	8,730
12	6,634	94	4,600
Total	121,312	1,324	87,949



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#### NEW 2010 Pennsylvania Crash Facts & Statistics Feedback Survey

The 2010 edition of the *Pennsylvania Crash Facts and Statistics* booklet continues to use the format that began with the 1996 edition. In our continuing effort to make this booklet as useful as possible, we would appreciate your taking the time to fill out this survey. Your opinions will help shape future editions including a planned major revision in the next few years.

Does this booklet provide information would you like		• ,	
——————————————————————————————————————		in a new version:	
Is the format easy to follow? (chec may be electronic and possibly int better and easier for you?		1 0	
Please rate the following sections Useful, or Not Useful.		·	
	Useful	Somewhat	Not Useful
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Definitions			
Overview			
All Crashes and Deaths			
Drivers			
Alcohol-Related Crashes			
Seat Belt, Child Safety Seats, etc.			
Pedestrians and Bicycle Crashes			
Crashes by Motor Vehicle Type		0	
Pennsylvania County Crashes			
Index		0	
If you had only one wish for a new	v electronic ver	rsion what would that sug	gestion be?
j			

Thank you for your involvement and response.

1.	Cut this	page	out of	the	booklet.

- 2. Fold along the dotted lines and tape shut.
- 3. Place a stamp where indicated.
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2010 Pennsylvania Crash Facts & Statistics Survey Form

# Dedication

The Commonwealth of Pennsylvania would like to extend its deepest sympathy to the families and friends of the victims of fatal motor vehicle crashes here in Pennsylvania.

We look to the day when publications such as this will no longer be necessary. Until that time, however, the Commonwealth of Pennsylvania will continue to strive to make our roads safer.

Pennsylvania Department of Transportation Bureau of Highway Safety and Traffic Engineering P.O. Box 2047 Harrisburg, PA 17105-2047

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